

Comment by:

Byrd, William

Membership Status: MemberDate: 2010-07-09Comment # 001Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type General      Part of Dis  Satisfied       Page 46      Line 50      Fig/Table#      Subclause 13.2

In Section 13.2 of the main Standard 802.16-2009 there are multiple pages of computer printouts being used to define various parameters.

1. In section 13.2 the computer output format is unacceptable font and style for IEEE standards.
2. The names and corporations of the individual authors are spelled out in the standard. This is again unacceptable! You can't advertise your corporate affiliations in an international IEEE standard.

Suggested Remedy

Remove all names of section 13.2 authors and their corporate representations!

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

per RFC 2578, sections 5.3 & 5.7, the IEEE Std 802.16-2009 is required to contain this information for MIB SMIv2 modules. The formatting and presentation of the MIB ASN.1 coding is consistent and approved by the IEEE publication staff.

See RFC 2578, 5.3:

5.3. Mapping of the CONTACT-INFO clause

The CONTACT-INFO clause, which must be present, contains the name, postal address, telephone number, and electronic mail address of the person to whom technical queries concerning this information module should be sent.

See RFC 2578, 5.7

5.7. Usage Example

Consider how a skeletal MIB module might be constructed: e.g.,

```
FIZBIN-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
MODULE-IDENTITY, OBJECT-TYPE, experimental
```

```
FROM SNMPv2-SMI;
```

fizbin MODULE-IDENTITY

LAST-UPDATED "199505241811Z"

ORGANIZATION "IETF SNMPv2 Working Group"

CONTACT-INFO

" Marshall T. Rose

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420 Whisman Court  
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Tel: +1 415 968 1052 begin\_of\_the\_skype\_highlighting

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E mail: mrose@dbc.mtview.ca.us"

**Group's Notes**

Clause 13: WirelessMAN OFDMA MIB modules

**Editor's Notes**

**Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsu, Chun-Yen

Membership Status: Member

Date: 2010-07-09

Comment # 002

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 793      Line 60      Fig/Table#      Subclause 16.4.7.5

Replace "AAI Femto ABS" with "Femto ABS"

Suggested Remedy

Replace "AAI Femto ABS" with "Femto ABS"

GroupResolution

Decision of Group: Agree

Replace "AAI Femto ABS" with "Femto ABS"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsu, Chun-Yen

Membership Status: Member

Date: 2010-07-09

Comment # 003

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 793      Line 65      Fig/Table#      Subclause 16.4.7.5  
replace "open femto" with "OSG femto"

Suggested Remedy

in page 793, line 65: replace "open femto" with "OSG femto"  
in page 794, line 1: replace "open femto" with "OSG femto"  
in page 794, line 22: replace "open femto" with "OSG femto"

GroupResolution

Decision of Group: Agree

in page 793, line 65: replace "open femto" with "OSG femto"  
in page 794, line 1: replace "open femto" with "OSG femto"  
in page 794, line 22: replace "open femto" with "OSG femto"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsu, Chun-Yen

Membership Status: Member

Date: 2010-07-09

Comment # 004

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 800

Line 32

Fig/Table#

Subclause 16.4.13

replace "form" with "from"

Suggested Remedy

replace "form" with "from"

GroupResolution

Decision of Group: Agree

replace "form" with "from"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Benveniste, Mathilde

Membership Status: Member

Date: 2010-07-09

Comment # 005

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 808      Line 1      Fig/Table#      Subclause 16.6

End-to-end multi-hop latency is too long (aprox #of hops x frame duration).

Suggested Remedy

Facilitate reduction of end-to-end latency.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

D6 supports only 2 hops. Latency in this case is equal to 10ms

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Riegel, Maximilian

Membership Status: Member

Date: 2010-07-09

Comment # 006

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 22      Fig/Table#      Subclause 5.2

"GPCS shall not be supported by AMS or ABS.": Excluding GPCS for ABS/AMS breaks backward compatibility. There is no need to exclude support of GPCS for a particular PHY/MAC.

Suggested Remedy

Remove sentence.

GroupResolution

Decision of Group: Agree

Remove sentence.

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Riegel, Maximilian

Membership Status: Member

Date: 2010-07-09

Comment # 007

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 14      Line 38      Fig/Table#      Subclause 5.2.6

Section 5.2.6 is incomplete and redundant; proposed ??? (CS?, mode?) is not aligned to the rest of section 5.2 and misses essential specification text, if the intention is to define a further specific part of the packet CS. In particular, nothing is stated, how classification is applied in combination with multiprotocol flow.

Suggested Remedy

Remove section 5.2.6

Remove page 11, line 37 -53

GroupResolution

Decision of Group: Disagree

Vote: 4-5-0

Reason for Group's Decision/Resolution

General agreement that the functionality is missing, group prefers to keep the existing, incomplete text, and provide the missing functions.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Riegel, Maximilian

Membership Status: Member

Date: 2010-07-09

Comment # 008

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 20      Fig/Table#      Subclause 5.2

Erroneous statement: "ABS and AMS shall use IP CS for all packet-based protocols."  
How should IP CS carry Ethernet, MPLS or PPP; all of them are packet based protocols

Suggested Remedy

Remove statement in line 20

GroupResolution

Decision of Group: Agree

Remove statement in line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Riegel, Maximilian

Membership Status: Member

Date: 2010-07-09

Comment # 009

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 15      Fig/Table#      Subclause 5.2

The reference to 11.13.18.3 does not provide a senseful list of protocols. It only provides a list of protocol elements and the encoding of the protocol elements.

Suggested Remedy

I would propose to remove the sentence, as it does not really contribute to the specification. The statement is obvious and therefore superfluous.

GroupResolution

Decision of Group: Principle

edit P11 L17:

The packet CS is used for transport for all packet-based protocols <del>as defined in 11.13.18.3</del>.

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiu, Yu-Min

Membership Status: Member

Date: 2010-07-09

Comment # 010

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 798      Line 56      Fig/Table#      Subclause 16.4.11

It is said that "Femto ABS may disable some of its subframes and announce the disabled subframes via AAI\_SON-ADV." However, the details are missing; there is no such parameter in the AAI\_SON-ADV enabling this function.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0707 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposal increases complexity and is not needed.

Vote:

In favor: 14

Opposed: 10

Abstain:

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Xiangying

Membership Status: Member

Date: 2010-07-09

Comment # 011

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 32      Fig/Table#      Subclause 16.2.1.2.4

CRID may need to be updated by network in unsolicited fashion. IEEE spec should define hook for such update.

Suggested Remedy

adopt text proposal of C80216m-10/0728 or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

there is existing method to update CRID using AAI\_RNG\_RSP.

Group's Notes

16.2.1 Addressing

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Xiangying

Membership Status: Member

Date: 2010-07-09

Comment # 012

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 748      Line 39      Fig/Table#      Subclause 16.3.9.4.10

Uplink power control operation is not clearly defined for multicarrier support

Suggested Remedy

adopt text proposal of C80216m-10/0729 or its latest version

GroupResolution

Decision of Group: Agree

adopt text proposal of C80216m-10/0729

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY (Multicarrier)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Juang, Rong-Terng

Membership Status: Member

Date: 2010-07-09

Comment # 013

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 798      Line 56      Fig/Table#      Subclause 16.4.11

It is said that "Femto ABS may disable some of its subframes and announce the disabled subframes via AAI\_SON-ADV." However, the details are missing; there is no such parameter in the AAI\_SON-ADV enabling this function.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0707 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposal increases complexity and is not needed.

Vote:

In favor: 14

Opposed: 10

Abstain:

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiu, Yu-Min

Membership Status: Member

Date: 2010-07-09

Comment # 014

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 140      Line 49      Fig/Table#      Subclause 16.2.3.21

In current D6, DCR mode can be only initiated by the AMS, there is no way for the ABS to trigger the DCR Mode. The ABS-initiated DCR Mode is useful for some cases. For example, When an AMS is almost running out its battery, the ABS may request the AMS to enter DCR mode. By applying this use case, the AMS can return to the network within a very short time after renewing its battery.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0709 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The objective of the proposal is to keep the context in the network. This goal can be achieved without necessarily sending the proposed message on the air.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiu, Yu-Min

Membership Status: Member

Date: 2010-07-09

Comment # 015

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 56      Line 18      Fig/Table#      Subclause 16.2.2.1.3.5

The AMS battery level report mechanism is missing in the current D6. It is required for the ABS and AMS to negotiate the battery report capacity. Then the AMS transmits the battery level report header according to the negotiated behavior.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0708 or its latest version.

GroupResolution

Decision of Group: Disagree

Vote: 9-8-0

Reason for Group's Decision/Resolution

The suggested improvements add redundant signaling, increasing the overhead with no additional functionality.

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ting, Pangan

Membership Status: Member

Date: 2010-07-09

Comment # 016

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 806      Line 42      Fig/Table#      Subclause 16.5.2.1

The current version of multi-BS uplink scheme can only support the interference mitigation for one neighboring ABS. However, it is possible that multiple neighboring ABSs are simultaneously suffered from severe uplink interferences. Therefore, the scheme should be modified to solve the problem.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0748 or its latest version

GroupResolution

Decision of Group: Principle

Resolved by comment #88.

Resolution:

Adopt the proposed text in C802.16m-10/0748r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 017

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 49      Line 11      Fig/Table#      Subclause 16.2.2.1.1

For E-MBS data, FID in AGMH shall not be ignored.

Suggested Remedy

Replace the 2nd sentence on line as follows. For E-MBS services, the FID along with an E-MBS ID shall be used to identify an E-MBS flow by the receiver.

GroupResolution

Decision of Group: Disagree

Vote: 7-6-1

Reason for Group's Decision/Resolution

E-MBS MAP not AGMH identifies the E-MBS burst with E-MBS ID & FID in E-MBS MAP IE.  
FID with E-MBS ID is used to decode E-MBS burst in E-MBS MAP. Thus, FID in AGMH does not has any significance.  
E-MBS A-MAP IE carries the necessary information including E-MBS ID and FID. Including FID in AGMH is useless.

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 018

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 33      Fig/Table#      Subclause 16.2.18.4.2

A term extended system parameters and system configuration information still remains in 16m draft. It should be replaced with AAI\_SCD message.

Suggested Remedy

Replace extended system parameters and system configuration information with AAI\_SCD message

GroupResolution

Decision of Group: Agree

Adopt the following changes from P 403, L33:

the AMS needs to get the S-SFH or ~~extended system parameters and system configuration information~~ AAI\_SCD message from the preferred ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 019

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 47      Fig/Table#      Subclause 16.2.18.4.2

Location Update Response in AAI\_RNG-RSP for redirection to another ABS is 0x01 not 0x06.

Suggested Remedy

Delete 0x06

GroupResolution

Decision of Group: Agree

Adopt the following changes from P 403, L47:

The ABS may elect to redirect the AMS to conduct secure location update at another ABS by including Location Update Response with a value of 0x01 ~~0x06~~ in the AAI\_RNG-RSP.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    a) done

Comment by:

Kang, Hyunjeong

Membership Status: MemberDate: 2010-07-09Comment # 020Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 112      Line 26      Fig/Table#      Subclause 16.2.3.11

If there is an S-SFH mismatch between an AMS and a target ABS after comparing CCC stored in the AMS and CCC known by a serving ABS, the serving ABS may provide SFH delta information through an AAI\_HO-CMD message. But there is no mention about timing information when the AMS uses the SFH delta information at the target ABS. Therefore the applying time for the SFH delta information should be provided through the AAI\_HO-CMD message.

Suggested Remedy

Add a new field for SFH delta applying time after line 44 of page 112 as follows: O | S-SFH applying time | 8 | Indicate the absolute frame number to apply SFH delta information at the target ABS. If the value is 0, then it represents the SFH delta information is being used at the target ABS. | Shall be included for each target ABS when SFH delta information is included

GroupResolutionDecision of Group: Principle

Add a new field for SFH delta applying time after line 44 of page 112 as follows: O | S-SFH application time | 1 | Indicate if the SFH delta information at the target ABS is applied at the time of AMS network reentry. | Shall be included for each target ABS when SFH delta information is included

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

fang, huiying

Membership Status: Member

Date: 2010-07-09

Comment # 021

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 537      Line 58      Fig/Table#      Subclause 16.3.6.3.2.4

The burst indicated by Broadcast Assignment A-MAP is for all AMSs. Non-robust broadcast burst transmission will degrade the system performance. So it is necessary to make the probability of decoding broadcast assignment A-MAP correctly higher than that of decoding multicast or unicast assignment A-MAP correctly. We propose to use a fixed or predefined transmission method for Broadcast Assignment A-MAP.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0724 or its latest revision.

Group Resolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposal forces blind detection of the broadcast A-MAP and can result in decoding failure of all subsequent A-MAPs.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

fang, huiying

Membership Status: Member

Date: 2010-07-09

Comment # 022

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 549      Line 63      Fig/Table#      Subclause 16.3.6.5.2.1

A-MAP IE here is Non-user-specific A-MAP IE.

Suggested Remedy

Non-user-specific A-MAP IE also includes HF-A-MAP Index Parameter and HF BCH Index Parameter,

GroupResolution

Decision of Group: Agree

Non-user-specific A-MAP IE also includes HF-A-MAP Index Parameter and HF BCH Index Parameter,

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AA PHY

Editor's Notes

Editor's Actions b) none needed

Duplicate of Comment 10233, completed.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Whai-En

Membership Status: Member

Date: 2010-07-09

Comment # 023

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 378      Line 32      Fig/Table#      Subclause 16.2.15.2

The Cell Bar bit shall be clarified.  
[see C80216m-10\_0763.pptx]

Suggested Remedy

If the AMS reads cell\_bar =1 in SFH, this which means this cell does not allow access of new AMS and the AMS shall select a different cell to restart network entry procedure.

Replace "does" with "shall"

GroupResolution

Decision of Group: Agree

accept the proposed text C80216m-10\_0763.pptx

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Whai-En

Membership Status: Member

Date: 2010-07-09

Comment # 024

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 31      Fig/Table#      Subclause 16.2.6.3.2

The Cell Bar bit shall be clarified.  
[see C80216m-10\_0764.pptx]

Suggested Remedy

During HO preparation phase, the serving ABS communicates with target ABS(s) selected for HO. The AAI\_HO-CMD message should not include an ABS with cell bar bit =1.

Replace "should" with "shall"

GroupResolution

Decision of Group: Agree

change the text in P.282 line 31 as follows:

"During HO preparation phase, the serving ABS communicates with target ABS(s) selected for HO. The AAI\_HO-CMD message <del>should</del> <ins>shall</ins> not include an ABS with cell bar bit =1."

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 025

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 24      Fig/Table#      Subclause 16.2.6.3.2

The Cell Bar Bit shall be clarified.  
[see C80216m-10\_0765.pptx]

Suggested Remedy

The AMS shall not perform HO to a cell with Cell Bar bit=1 in its S-SFH. The "Cell Bar" bit, when set, indicates that an AMS should not perform network entry or re-entry to this cell.

Delete "The "Cell Bar" bit, when set, indicates that an AMS should not perform network entry or re-entry to this cell."

GroupResolution

Decision of Group: Agree

Revise the sentence in P.282, line 24 as follows,

"The AMS shall not perform HO to a cell with Cell Bar bit=1 in its S-SFH. The "Cell Bar" bit, when set, indicates that an AMS  
<del>should</del> <ins>shall</ins> not perform network entry or re-entry to this cell."

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 026

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 277      Line 18

Fig/Table#

Subclause 16.2.6.1.1

Correct the typo "cell bar".

Suggested Remedy

Replace "cell bar" with "Cell Bar".

GroupResolution

Decision of Group: Agree

Replace "cell bar" with "Cell Bar".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 027

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 282      Line 31

Fig/Table#

Subclause 16.2.6.3.3

Correct the typo "cell bar".

Suggested Remedy

Replace "cell bar" with "Cell Bar".

GroupResolution

Decision of Group: Agree

Replace "cell bar" with "Cell Bar".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 028

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 387

Line 32

Fig/Table#

Subclause 16.2.15.2

Correct the typo "cell bar".

Suggested Remedy

Replace "cell bar" with "Cell Bar".

GroupResolution

Decision of Group: Agree

Replace "cell bar" with "Cell Bar".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 029

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 793

Line 45

Fig/Table#

Subclause 16.4.7.3

Correct the typo "cell bar".

Suggested Remedy

Replace "cell bar" with "Cell Bar".

GroupResolution

Decision of Group: Agree

Replace "cell bar" with "Cell Bar".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cheng, Shih-Yuan

Membership Status: Member

Date: 2010-07-09

Comment # 030

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 799

Line 62

Fig/Table#

Subclause 16.4.13

Correct the typo "cell bar".

Suggested Remedy

Replace "cell bar" with "Cell Bar".

GroupResolution

Decision of Group: Agree

Replace "cell bar" with "Cell Bar".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Shekalim, Peretz

Membership Status: Member

Date: 2010-07-09

Comment # 031

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis



Satisfied



Page 999

Line

Fig/Table#

Subclause

Lack of smooth and efficient backward compatibility or interoperating with 802.16 2009 standard.

Suggested Remedy

Coexistence and backward compatibility with 802.16e should be provided with efficient MAC overhead.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No remedy available for the group to consider.

Group's Notes

General Comment

Editor's Notes

Editor's Actions

b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hadad, Zion

Membership Status: Member

Date: 2010-07-09

Comment # 032

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 999      Line      Fig/Table#      Subclause  
in general, backward compatibility or coexistence with 802.16e is not defined efficiently, and the MAC overhead is too high.

Suggested Remedy

Coexistence and backward compatibility with 802.16e should be defined in an optimize way with efficient MAC overhead.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No remedy available for the group to consider.

Group's Notes

General Comment

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 033

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 24      Fig/Table#      Subclause 16.2.1.2.3

This section introduces a non-backward compatible new mobile device identifier (DID). It is not needed for an AMS operation in Idle Mode. A Psuedo-MSID can be used instead which would work better.

Suggested Remedy

Delete this section 16.2.1.2.3 and all references to this section (in this draft).

GroupResolution

Decision of Group: Disagree

Vote: 3-25-4

Reason for Group's Decision/Resolution

The usage of DID significantly reduces MAC overhead of paging messages.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 034

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 81      Line 42      Fig/Table#      Subclause 16.2.3.2

The table entry "Deregistration Identifier (DID)" refers to section 16.2.1.2.3 that another SB comment recommends deleting. Here is the rationale:

Adding - in this 16m amendment - a 12bit DID, makes the current WiMAX network implementations (consistent with IEEE 802.16-2009) of Paging Controller and ASN-GW (that use a 48bit MSID), incompatible with this new DID identifier. The complexity of implementation and the adverse impact on inter-working of "16m" mobiles with current systems based on IEEE-Std-802.16-2009 (and prior versions) must be avoided. Therefore, we propose that the DID identifier be substituted with a 24bit MSID.

Suggested Remedy

1. change "Deregistration Identifier (DID)" to "AMS/MSID"
2. change "12" to "24"
3. change "The new DID which the AMS shall maintain in idle mode" to "The identifier that MS/AMS shall maintain in idle mode."

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 035

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 75      Line 22      Fig/Table#      Subclause Table 679  
Eliminate DID, replace with MSID

Suggested Remedy

change "STID/DID" to: "STID/MSID/AMSID"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 036

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical

Part of Dis  Satisfied

Page 78

Line 14

Fig/Table#

Subclause Table 679

replcae DID with MSID

Suggested Remedy

change "DID" to "AMSID"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 037

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 78      Line 12      Fig/Table#      Subclause Table 679  
Replace DID with MSID/AMSID

Suggested Remedy

change "Deregistration Identifier (DID)" to: "Deregistration Identifier (MSID/AMSID)"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 038

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 80

Line 21

Fig/Table#

Subclause

Replace DID with MSID/AMSID

Suggested Remedy

change "DID" to: "MSID/AMSID"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Nikolich, Paul

Membership Status: Member

Date: 2010-07-09

Comment # 039

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 47      Line 10      Fig/Table#      Subclause 16.1

Modify "Clause 16 specifies an Advanced Air Interface, defining a new MAC & PHY for AMS, ABS and ARS operation. AMS, ABS and ARS shall conform to all requirements as specified in Clause 16 and shall not be required to conform to features and functions not defined in Clause 16 except as may be explicitly identified in Clause 16."  
In this instance, it is not necessary to specify what shall not be required for conformance.

Suggested Remedy

Proposed new text:

"Clause 16 specifies an Advanced Air Interface, defining a new MAC & PHY for AMS, ABS and ARS operation. AMS, ABS and ARS shall conform to all requirements as specified in Clause 16.

GroupResolution

Decision of Group: Agree

Proposed new text:

"Clause 16 specifies an Advanced Air Interface, defining a new MAC & PHY for AMS, ABS and ARS operation. AMS, ABS and ARS shall conform to all requirements as specified in Clause 16.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Nikolich, Paul

Membership Status: Member

Date: 2010-07-09

Comment # 040

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 56      Line 18      Fig/Table#      Subclause 16.2.2.1.3.5

I could not find a definition for "battery level". In order for this parameter to be consistently reported across implementation, this should be defined.

Suggested Remedy

If there is no definition for "battery level" please add one.

GroupResolution

Decision of Group: Principle

P56, L21-22. Replace paragraph with the following:

16.2.2.1.3.5 AMS Battery Level Report Header

The AMS Battery Level Report Header should be used to convey AMS battery level information from AMS to ABS. Battery level is defined as the amount of energy remaining in the battery as a percentage of the rated capacity of the battery. The units and algorithm used by the AMS to determine the battery level are implementation specific. The format of the AMS Battery Level Report Header is given in Table 661.

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Nikolich, Paul

Membership Status: Member

Date: 2010-07-09

Comment # 041

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 70      Line 3      Fig/Table#      Subclause ?

"Encryption may be enabled for unicast MAC control messages."

Suggested Remedy

Consider making encryption of MAC control messages mandatory to improve secure operation.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The standard selectively applies encryption to the MAC control messages.

The comment has been considered. The group has decided to apply encryption on a per message basis selectively. Which messages are encrypted can be seen in Table 678.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Nikolich, Paul

Membership Status: Member

Date: 2010-07-09

Comment # 042

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 4      Line      Fig/Table#      Subclause 3 Definitions

I could not find a definition for a "macro ABS", yet the term is used in numerous places.

Suggested Remedy

Add a definition for "macro ABS"

GroupResolution

Decision of Group: Principle

Insert in Chapter 3:

3.xxx Macro ABS: an ABS with high transmit power. A Macro ABS is directly connected to the service providers network.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 043

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 4      Line 1      Fig/Table#      Subclause Introduction

The first sentence fails to include "mobile" in the description of the air interface scope

Suggested Remedy

Change sentence by inserting "and mobile" after "fixed". It should read:

This standard specifies the air interface of combined fixed and mobile broadband wireless access (BWA) systems supporting multimedia services.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Unable to locate the offending sentence in the standard and therefore unable to propose relevant solution.

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 044

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 4      Line 29      Fig/Table#      Subclause 3

The ABS must support both AMS and MS. Thus the definition of Primary Carrier should include both mobile station types.

Suggested Remedy

change "AMS" in first TWO places in the definition to "AMS/MS".

GroupResolution

Decision of Group: Principle

P4 L29 edit the definition of primary carrier:

3.103 primary carrier: An OFDMA carrier [in a multicarrier deployment](#) on which an ABS and an AMS exchange traffic and full PHY/MAC control information defined in the Advanced Air Interface specification. Further, the primary carrier is used for control functions for proper AMS operation, such as network entry. Each AMS shall have only one carrier it considers to be its primary carrier in a cell.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 045

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 33      Line 57      Fig/Table#      Subclause 8.4.8.3.1.2.1

An instruction to the editor - on line 57 - remained orphan here, and, Figure 274a is missing.

Suggested Remedy

Fix the figure and remove line 57

GroupResolution

Decision of Group: Agree

Fix the figure and remove line 57

Reason for Group's Decision/Resolution

Group's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's Notes

Editor's Actions e) instructions unclear

Figure provided in C802.16m-09/3011 is unclear and needs to be re-drawn, re-submitted.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 046

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 35      Line 26      Fig/Table#      Subclause 10.1

Several AMS timers and parameters in Table 554 have no values at all. Why?

Suggested Remedy

add the missing values of 18 parameters

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No supplied values for the table or explanation of what the dash (-) entries in the table means. No text supplied to include in the standard..

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 047

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 41      Line 47      Fig/Table#      Subclause 11.1.4

The term "Emergency service" has been changed in this draft to "Public Alert". The heading of table 578 appears to have been forgotten (not updated)

Suggested Remedy

Change Table 578 heading to "Public Alert Description"; on pages 47 and 48

GroupResolution

Decision of Group: Agree

Change Table 578 heading to "Public Alert Description"; on pages 47 and 48

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 048

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 45      Line 46      Fig/Table#      Subclause 11.13.18.1

Apparent typo in "Etherneta" (three places)

Suggested Remedy

change to "Ethernet"

GroupResolution

Decision of Group: Agree

change to "Ethernet"

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Shao-Cheng

Membership Status: Member

Date: 2010-07-09

Comment # 049

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 96      Line      Fig/Table#      Subclause 16.2.3.7

There are a few parameters in current D6 NE procedures that lack technical justifications to be included in capability negotiation.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10\_701 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Shao-Cheng

Membership Status: Member

Date: 2010-07-09

Comment # 050

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line      Fig/Table#      Subclause 16.2.3

This comment is intended to clean up AAI\_SBC-REQ/RSP attributes formatting ONLY

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10\_750 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10\_750r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 051

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 62      Fig/Table#      Subclause 16.2.18.2.3

There is no definition how to calculate a predetermined frame to monitor an AAI\_PAG-ADV when an ABS is connected to legacy network elements. A Deregistration Identifier(DID) cannot be used under a legacy network element such as ASN GW/paging controller. So a formula  $\langle \text{AMS deregistration identifier modulo } m \rangle$  is not applicable in the legacy network element to determine a frame to monitor an AAI\_PAG-ADV message. With legacy network elements, MS MAC address is used instead of DID. Therefore AMS deregistration identifier in the formula shall be replaced with MS MAC Address.

Suggested Remedy

Add a sentence at line 1 of page 402 as follows: When the ABS is connected to the legacy network elements, AMS MAC address replaces AMS deregistration identifier in the formula above.

GroupResolution

Decision of Group: Agree

[straw vote in the Idle Mode Ad-hoc: 10 votes in favor, 1 vote in against]

[Insert the following sentence after P 402, L2 ]

<ins>When the ABS is connected to the legacy network elements, AMS MAC address replaces AMS deregistration identifier in the formula above.</ins>

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 052

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 223      Line 33      Fig/Table#      Subclause 16.2.3.57

The Frequency Assignment Index (i.e., FA Index) of a carrier in 802.16m/D6 is supposed to adopt the usage of FA Index in legacy IEEE 802.16 standard. But the FA Index in legacy IEEE 802.16 standard is defined as operator specific information and outside the scope of the standard. It is proposed to specify how to apply FA Index in 802.16m by replacing the FA index with a center frequency of a carrier. And the parameter Start Frequency Assignment Index in an AAI\_Global-Config message should be modified to derive the center frequency of a carrier.

Suggested Remedy

Replace Start Frequency Assignment Index on line 33 of page 223 in table 762 as follows: Start Frequency | 17 | Center frequency (multiple of 50kHz) of the first carrier in the i-th carrier group

GroupResolution

Decision of Group: Principle

Resolved by comment #342.

Resolution: [Adopt the proposed text modification in C802.16m-10/0870].

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Liao, Pei-Kai

Membership Status: Member

Date: 2010-07-09

Comment # 053

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 544      Line 43      Fig/Table#      Subclause 16.3.6.5.1.2

In Session #67, transmission timing offset of S-RCH is added into S-SFH SP1 IE for AMS to operate ranging in a femtocell. However, there is no explanation about the reference timing point and it may cause confusion about from which timing point to advance the timing offset. The proposed remedy can clarify this confusion.

Suggested Remedy

Adopt the text proposal in C802.16m-10/0776 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in C802.16m-10/0776r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Liao, Pei-Kai

Membership Status: Member

Date: 2010-07-09

Comment # 054

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 793      Line 56      Fig/Table#      Subclause 16.4.7.4

In Session #67, transmission timing offset of S-RCH is added into S-SFH SP1 IE for AMS to operate initial/handover ranging in a femtocell. However, there is no explanation regarding to this in the section of "Support of Femto ABS" so it may cause confusion about AMS ranging operation in a femtocell. The proposed remedy can clarify the confusion.

Suggested Remedy

Adopt the text proposal in C802.16m-10/0777 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in C802.16m-10/0777r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sun, Bo

Membership Status: Member

Date: 2010-07-09

Comment # 055

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 781      Line 1      Fig/Table#      Subclause 16.3.11.4.2

The description of CRV calculation in current D6 is complex and ambiguous for understanding.

Suggested Remedy

Please adopt the proposed modification in contribution C80216m-10\_0778.doc or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #212.

Resolution:

Adopt C80216m-10\_0778r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Qiwen, Song

Membership Status: MemberDate: 2010-07-09Comment # 056Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 789      Line 55      Fig/Table#      Subclause 16.4.4.2

The usage of CSG white list is defined in the spec, but how to use the additional location information in white list is not clear.

Suggested Remedy

## 16.4.4.2 CSG white list

The CSG white list, is a list of Femto ABSs to which the AMS is subscribed and can access. These femto ABSs are identified based on the common identifier defined in 16.4.4.

AMS's local white list may contain the allowable BS IDs or common identifiers of CSGs and relevant information to help derivation of the allowable BS IDs from common identifier. Besides this the whitelist may include absolute/relative location information of CSG Femto ABS, such as GPS information and overlay<Begin Insert>/nearby<End Insert> Macro ABS BSIDs.<Begin Insert>AMS may compare its location with such location information to trigger AMS initiate scanning and handover from the Macro ABS to CSG Femto ABS that the AMS is member of.<End Insert>

An AMS subscribed to CSG(s) should be configured with a CSG White List for its accessibility check. The CSG white list may be provided to the AMS by the Femto service provider through the network using messaging that is outside the scope of this standard.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The same is mentioned in section 16.4.8.1.2

Group's Notes

Clause 16.4: AAI Femto

Editor's NotesEditor's Actions    b) none needed

Comment by:

Qiwen, Song

Membership Status: MemberDate: 2010-07-09Comment # 057Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 421      Line 31      Fig/Table#      Subclause 16.2.23

1. There is no such an operation as "cancel" in message transaction, but another report operation shall be initialized by the AMS.
  2. The battery level will not back to a certain threshold unless the AMS is plugged in a charger, so there is no such a status which indicates the AMS battery level back to a certain threshold but not plugged into a charger.
  3. The power control mechanism is used anyway when an AMS is in normal operation, but not only used in power management.
- Moreover, Why do we use the power update mechanism of legacy system?

**Suggested Remedy**

In P802.16m/D6, on page 421, line 31:

Replace the text:

An AMS may report its battery level when the battery level changes. The AMS shall cancel the previous battery report as soon as its battery level has returned to a certain threshold, or as soon as the AMS is plugged in a charger.

As:

An AMS may report its battery level using AMS Battery Report header (in Table 661) when the battery level changes and the AMS is not plugged in a charger. Once the battery level is reported, the AMS shall report its battery status (with AMS Battery Status = 0b0 in AMS Battery Report header) as soon as the AMS is plugged in a charger.

<Begin Delete>

Power update mechanism as specified in section 8.4.10.3 may be used when an ABS receives an AMS's battery level report and the ABS supports power management in Active Mode.

<End Delete>

**GroupResolution****Decision of Group: Disagree**

Vote: 0-1-0

**Reason for Group's Decision/Resolution**

Existing reporting messages allows ABS scheduler sufficient information to achieve scheduling needs.

**Group's Notes**

16.2.23 Power Management for the Active Mode

**Editor's Notes****Editor's Actions**    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 058

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 20      Fig/Table#      Subclause 5.2

I am a bit confused here. I thought we wanted to compel 16m AAI elements to use either the legacy IP CS or the new Multiprotocol CS. Multiprotocol CS is identified as distinct and independent from the legacy IP CS.

Suggested Remedy

In P802.16m/D6, on page 11, line 20:

Modify the text as:

ABS and AMS shall [Begin Insert]either [End Insert]use the IP CS[Begin Insert] or the Multiprotocol CS[End Insert] for all packet-based protocols.

GroupResolution

Decision of Group: Principle

use resolution from comment #8:  
Remove statement in line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

Comment by:

Zeng, ke

Membership Status: MemberDate: 2010-07-09Comment # 059Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 796      Line 52      Fig/Table#      Subclause 16.4.9

A manual femto ABS selection mode has been provided in the latest 16m draft D4. The white list of the MS may be updated in this mode. We want to give another white list update method when the MS in idle mode. According to the result of location update at the femto ABS, the AMS may updates its white list.

Reference(p793 in D6):

#### 16.4.7.2 Manual Femto ABS Selection

Manual femto ABS selection enables a human user to select a femto ABS and override automatic selection. In manual femto ABS selection, the AMS may scan neighbor femto ABSs accessible to the AMS and reports the list of accessible femto ABS to the user. An AMS may attempt to access a femto ABS not contained in the CSG white list based on manual selection provided the access credentials can be obtained. Based on the result of the network entry at the femto ABS, the AMS's CSG white list may be updated.

#### Suggested Remedy

##### 16.4.9 Idle Mode

Femto ABS shall support idle mode.

The Femto ABSs operate like macro ABSs in Idle mode.

An AMS with CSG white list shall not attach to an unsubscribed CSG-Closed Femto ABS in Idle mode.

A CSG-Closed Femto ABS should not broadcast paging for a non-member AMS.

<Begin Insert>An AMS with CSG white list may update the white list by manual operation in idle mode. The manual update operation enables a human user to select/input a femto ABS out of its white list to make a location update procedure. According to the result of location update at the femto ABS, the AMS may updates its white list. If the MS make a successful location update on the select/input femto ABS out of its white list, the MS may add the femto ABS into its white list.<End Insert>

#### GroupResolution

Decision of Group: Disagree

#### Reason for Group's Decision/Resolution

MS will do n/w entry at the femto BS for manual selection. In Idle mode the MS will not camp on a femto not in the whitelist.

#### Group's Notes

Clause 16.4: AAI Femto

#### Editor's Notes

Editor's Actions    b) none needed

Comment by:

Zeng, ke

Membership Status: MemberDate: 2010-07-09Comment # 060Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 793      Line 33      Fig/Table#      Subclause 16.4.7.2

An AMS may attempt to access a femto ABS not contained in the CSG white list based on manual selection provided the access credentials can be obtained. Based on the result of the network entry at the femto ABS, the AMS's CSG white list may be updated. The result of location update should trigger white list as well.

Suggested Remedy

An AMS may attempt to access a femto ABS not contained in the CSG white list based on manual selection provided the access credentials can be obtained. Based on AAI\_REG-RSP message from the femto ABS <Begin Insert> or location update at the femto ABS <End Insert>, the AMS's CSG white list may be updated.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

MS will do n/w entry at the femto BS for manual selection. In Idle mode the MS will not try camping to a femto not in whitelist.

Group's Notes

Clause 16.4: AAI Femto

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

jianfei, tong

Membership Status: Member

Date: 2010-07-09

Comment # 061

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 55      Fig/Table#      Subclause 16.2.6.3.3

- 1) Some remedies are proposed to the paragraph in D6 Page 282 Line 55.
- 2) If the ABS finds that an AMS cannot perform HO due to mismatched system information, we propose that the ABS may send another AAI\_HO-CMD which includes up-to-date SFH information for each T-ABS.
- 3) The service flow which is rejected in the target ABS shall be indicated in the AAI\_HO-CMD message. Such fields for this purpose are proposed to be added in the message.

Suggested Remedy

Adopted C80216m-10\_0753.doc or its latest version

GroupResolution

Decision of Group: Principle

Adopted the text from Remedy 1 (Editor's note 1) of C80216m-10\_0753.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

Comment by:

jianfei, tong

Membership Status: MemberDate: 2010-07-09Comment # 062Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 798      Line 34      Fig/Table#      Subclause 16.4.11

The "femto interference" is indicated by Ranging Purpose Indication Code 0b0111 but not such a bit in AAI\_RNG-REQ.

Suggested Remedy

&lt;Page 789 Line 34&gt;

&lt;Begin Delete&gt;

"Femto Interference" bit set to 1

&lt;End Delete&gt;

&lt;Begin Insert&gt;

Ranging Purpose Indication code 0b0111

&lt;End Insert&gt;

&lt;Page 789 Line 38&gt;

&lt;Begin Delete&gt;

"Femto Interference" bit set to 1

&lt;End Delete&gt;

&lt;Begin Insert&gt;

Ranging Purpose Indication code 0b0111

&lt;End Insert&gt;

&lt;Page 789 Line 50&gt;

&lt;Begin Delete&gt;

"Femto Interference" bit set to 1

&lt;End Delete&gt;

&lt;Begin Insert&gt;

Ranging Purpose Indication code 0b0111

&lt;End Insert&gt;

GroupResolutionDecision of Group: Principle

&lt;Page 798 Line 34&gt;

&lt;Begin Delete&gt;

"Femto Interference" bit set to 1

&lt;End Delete&gt;

&lt;Begin Insert&gt;

Ranging Purpose Indication code 0b0111

&lt;End Insert&gt;

&lt;Page 798 Line 38&gt;

<Begin Delete>  
"Femto Interference" bit set to 1  
<End Delete>  
<Begin Insert>  
Ranging Purpose Indication code 0b0111  
<End Insert>  
<Page 798 Line 50>  
<Begin Delete>  
"Femto Interference" bit set to 1  
<End Delete>  
<Begin Insert>  
Ranging Purpose Indication code 0b0111  
<End Insert>

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.4: AAI Femto

**Editor's Notes**

**Editor's Actions** a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wei, Zhao

Membership Status: Member

Date: 2010-07-09

Comment # 063

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 290      Line 21      Fig/Table#      Subclause 16.2.6.3.7

change HO Event Code 0b011 to 0b100. The cancel event is not due to SFH mismatch

Suggested Remedy

which may include resuming communication with the serving ABS by sending AAI\_HO-IND message with HO Event Code = <Begin Delete>0b011<End Delete><Begin Insert> 0b100<End Insert> (HO cancel) or performing network reentry at the serving ABS.

GroupResolution

Decision of Group: Agree

change the text at page 290,line 21 as follows

which may include resuming communication with the serving ABS by sending AAI\_HO-IND message with HO Event Code =<del>-0b011</del> <ins>0b100</ins> (HO cancel) or performing network reentry at the serving ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

Comment by:

Wei, Zhao

Membership Status: MemberDate: 2010-07-09Comment # 064Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 290      Line 25      Fig/Table#      Subclause 16.2.6.3.7

In such a case of coverage loss during HO reentry, the network reentry process is identical to the network reentry process at any other T-ABSs, but the ranging purpose indication in AAI-RNG-REQ shall be different as there is non serving ABS the AMS is currently connected when it encounters such a coverage loss.

**Suggested Remedy**

The network reentry process at the serving ABS is identical to the network reentry process at any other target ABS, both for the serving ABS and for the AMS.<Begin Insert> The ranging purpose indication in AAI-RNG-REQ shall be set to 0b0101.<End Insert> If the serving ABS has discarded the AMS context, the network reentry procedure shall be the same as full network reentry.

**GroupResolution****Decision of Group: Agree**

Revise the text at page 290, line 25 as follows.

The network reentry process at the serving ABS is identical to the network reentry process at any other target ABS, both for the serving ABS and for the AMS. <ins>The ranging purpose indication in AAI-RNG-REQ shall be set to 0b0101</ins>. If the serving ABS has discarded the AMS context, the network reentry procedure shall be the same as full network reentry.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.6 MAC HO procedures

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xu, Mingxia

Membership Status: Member

Date: 2010-07-09

Comment # 065

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 283      Line 57      Fig/Table#      Subclause 16.2.6.3.4  
change HO event code 0b01 to 0b010 for consistency;

Suggested Remedy

Time Offset included in the AAI\_HO-CMD message or upon receiving AAI\_HO-IND with HO Event Code <Begin Delete>0b10<End Delete><Begin Insert> 0b010<End Insert>, whichever occurs first.

GroupResolution

Decision of Group: Agree

Revise the text at page 283, line 57 as follows

Time Offset included in the AAI\_HO-CMD message or upon receiving AAI\_HO-IND with HO Event Code <del>0b10</del>  
<ins>0b010</ins>, whichever occurs first.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

Comment by:

Xu, Mingxia

Membership Status: MemberDate: 2010-07-09Comment # 066Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 542      Line 10      Fig/Table#      Subclause 16.3.6.5.1.2

In the WiMAX network deployment scenario, one ABS may be connected to more than one ASN GWs. If the legacy ASN GW is deployed in 16m network, there may be such a scenario that the ABS is connected to both legacy ASN GW and advance ASN GW. The ABS should broad such a configuration status to the AMSs and to neighbor ABSs.

The AMS may support either both legacy ASN and advanced ASN or advanced ASN only. This capability should inform the ASN network for the purpose of connection mode selection or handover decision.

Suggested Remedy

Adopted C80216m-10\_0757.doc or its latest version

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Increases complexity.

Vote:

In favor: 0

Opposed: 4

Abstain:

Group's Notes

Clause 16.3: AAI PHY (passed to MAC)

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

yang, xia

Membership Status: Member

Date: 2010-07-09

Comment # 067

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 289      Line 64      Fig/Table#      Subclause 16.2.6.3.6

change HO event code 0b11 to 0b100 for consistency;

Suggested Remedy

An AMS requests HO cancellation to the serving ABS by sending the AAI\_HO-IND with HO Event Code<Begin Delete> 0b11 <End Delete><Begin Insert>0b100<End Insert>(HO cancel) with its current CMAC KEY COUNT after Disconnect Time.

GroupResolution

Decision of Group: Agree

Revise the text at page 289, line 64 as

An AMS requests HO cancellation to the serving ABS by sending the AAI\_HO-IND with HO Event Code <del>0b11</del>  
<ins>0b100</ins>(HO cancel) with its current CMAC KEY COUNT after Disconnect Time.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

yang, xia

Membership Status: Member

Date: 2010-07-09

Comment # 068

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 392      Line 38      Fig/Table#      Subclause 16.2.18.1

In the deployment scenario that the ABS is connected to the legacy ASN elements, the idle mode entry procedure shall be different than in the total 16m advanced network. We propose an option about how the AMS entries idle mode when the ABS is in a legacy ASN network.

Suggested Remedy

Adopted C80216m-10\_0758.doc or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposed solution is not required because in legacy operation, paging can be performed in the 16m zone.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

**Comment by:**

Xia, Gongyi

**Membership Status:** Member**Date:** 2010-07-09**Comment #** 069**Document under Review:** P802.16m/D6**Ballot ID:** sb\_16m**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 284      **Line** 17      **Fig/Table#**      **Subclause** 16.2.6.3.4

The AMS may not select anyone from the listed candidates if all of them are unreachable. The requirement "SHALL select" should exclude this condition firstly.

**Suggested Remedy**

If the AAI\_HO-CMD message includes more than one target ABSs <Begin Insert>and the AMS doesn't find that all the candidates listed in the AAI\_HO-CMD message are unreachable<End Insert>, the AMS shall select one of these targets and inform the S-ABS of its selection by sending an AAI\_HO-IND message with HO Event Code 0b00 to the S-ABS before the expiration of Disconnect Time.

**GroupResolution****Decision of Group:** Principle

Change the text at page 284, line 17 as follows

If the AAI\_HO-CMD message includes more than one target ABSs , and at least one of the target ABSs in the AAI\_HO-CMD message is reachable, the AMS shall select one of these targets and inform the S-ABS of its selection by sending an AAI\_HO-IND message with HO Event Code 0b00 to the S-ABS before the expiration of Disconnect Time.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.6 MAC HO procedures

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xia, Gongyi

Membership Status: Member

Date: 2010-07-09

Comment # 070

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 386      Line 63      Fig/Table#      Subclause 16.2.17.2.3.1

If the traffic indication is position when TIMF=1, it indicates that the AMS has DL pending data. When the data will be scheduled is an implementation issue. The schedule process can be done either before or during the listening window. If the schedule process is done before the listening window, the ABS can ensure a MAC PDU to be sent during the listening window. But if the schedule process cannot be done before the listening window, the ABS cannot ensure it.

Suggested Remedy

In P802.16m/D6, on page 386, line 63:

Replace the text:

If the ABS sends a positive indication to a specific AMS, the ABS shall transmit at least one DL MAC PDU to the AMS during the AMS's Listening Window.

As:

If the AMS receives a positive traffic indication, the AMS shall stay awake during the current default or explicitly extended listening window unless the listening window is explicitly terminated.

GroupResolution

Decision of Group: Disagree

Vote: 0-3-0

Reason for Group's Decision/Resolution

Need to keep the ABS operation for the case of positive indication

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Qian, Tao

Membership Status: Member

Date: 2010-07-09

Comment # 071

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 284      Line 37      Fig/Table#      Subclause 16.2.6.3.4

According to the spec text, the second AAI\_HO-CMD may still have multiple candidates, then should the AMS send another AAI\_HO-IND to tell its final choice? The further state flow is not clear enough and may induce implemental confusion. For simplification, we propose that the second AAI\_HO-CMD is only used to confirm the choice of the AMS. If the AMS preferred T-ABS is not allowed, the ABS can choose to reject the HO, or the ABS just confirm the AMS preferred T-ABSs.

Suggested Remedy

Adopted C80216m-10\_0759.doc or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This would change the state machine at the base station.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Qian, Tao

Membership Status: MemberDate: 2010-07-09Comment # 072Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 424      Line 23      Fig/Table#      Subclause 16.2.26.1

If the AAI\_HO-CMD is sent successfully, an AAI\_HO-IND message may still be expected if AAI\_HO-CMD has multiple candidates. So the description here is not strictly. In case of a HO, some expected message, such as AAI\_HO-CMD, expected AAI\_HO-IND or HO completion message, may not received by the serving ABS in time due to coverage loss. In these cases, the UL grant based coverage loss detection should be done by the serving ABS.

Suggested Remedy

In case of a HO, <Begin Delete>if the ABS identifies the AAI\_HO\_CMD message is successfully sent to the AMS, the ABS shall stop the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS. Once the ABS receives a MAC PDU (i.e. bandwidth request) from the AMS that is assumed to handover to a neighbor ABS (i.e. T-ABS), the ABS shall initiate the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS. <End Delete><Begin Insert> the active\_ABS\_timer shall not be started when HO mode is 0b00 or 0b11(as decribed in 16.2.3.11 AAI\_HO-CMD). The initiation of coverage loss detection of the serving ABS during HO may depends on the transmission failure of AAI\_HO-CMD messages, or no expected AAI\_HO-IND message reply from the AMS, or no HO completion message reply from the target ABS within the Ranging\_Initiation\_Deadline. When any of these conditions is met, the current resource\_retain\_timer shall be stopped and the ABS shall start the unsolicited UL grant based coverage loss detection procedure as described in 16.2.27.2. The coverage loss detection procedure of AMS during HO conducts as described in 16.2.27.2. When the coverage loss is detected by the AMS, the recovery procedure is decribed in 16.2.6.3.7.<End Insert>

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Incomplete solution

Group's Notes

16.2.26 Coverage loss

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Yingming

Membership Status: Member

Date: 2010-07-09

Comment # 073

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 281      Line 52      Fig/Table#      Subclause 16.2.6.3.1

A second AAI\_HO-CMD may be sent when the event code of AAI\_HO-IND is 0b001. It is missed in figure 410 as well as in figure 412 and figure 413

Suggested Remedy

<add an optional AAI\_HO-CMD message sent from S-ABS to AMS after the optional AAI\_HO-IND message>

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Figure 410 is a normal case figure and can not include all the cases. It is okay to leave as it is in D6.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Yingming

Membership Status: Member

Date: 2010-07-09

Comment # 074

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 631      Line 16      Fig/Table#      Subclause 16.3.7.2.5.5

In close-loop MIMO feedback mechanism, the index of each selected codeword is frequently fed back to transmitter to improve the transmission performance. The SU-MIMO base codebooks for four antennas consist of four codebooks for Rank 1 to Rank 4. The Rank 2, Rank 3 and Rank 4 codebooks inherit from Rank 1 codebook. The Rank 1 codebook comprises of 64 codeword which may induce tough computation complexity when doing the codeword searching. However, the SU-MIMO base codebook has a hierarchical structure in nature which can facilitate the codeword searching process and reduce much of calculating and searching complexity (from 64 times to 19 times of calculating and comparing). This contribution proposes to add the explicit description of the hierarchical structure which can be much helpful in the implementation of codeword searching.

Suggested Remedy

Adopted C80216m-10\_0760.doc or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This is related AMS implementation issue. Do not need this kind of description.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guanghai, Fan

Membership Status: Member

Date: 2010-07-09

Comment # 075

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 294      Line 62      Fig/Table#      Subclause 16.2.6.4.1.3.1  
Propose to clarify the undefined FID numbers according to Table 652

Suggested Remedy

The FIDs for the control connections are set <Begin Insert>to 0b0000<End Insert> automatically. The FIDs for the transport connections are sequentially derived starting from<Begin Insert> 0b0010 <End Insert>for all of the transport CIDs used in LZone. The AMS autonomously updates its Flow IDs in the ascending order from the first transport Connection ID.

GroupResolution

Decision of Group: Agree

Change the text in page 294 line 62 as follows.

The FIDs for the control connections are set to <ins>0b0000</ins> automatically. The FIDs for the transport connections are sequentially derived starting from <ins>0b0010</ins> for all of the transport CIDs used in LZone. The AMS autonomously updates its Flow IDs in the ascending order from the first transport Connection ID.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guanghui, Fan

Membership Status: Member

Date: 2010-07-09

Comment # 076

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 38      Line 22      Fig/Table#      Subclause 10.1

There is no SCEH defined in current D6

Suggested Remedy

Time the AMS waits for AAI\_SLP-RSP or SCH<Begin Delete>/SCEH<End Delete>

GroupResolution

Decision of Group: Agree

Time the AMS waits for AAI\_SLP-RSP or SCH<Begin Delete>/SCEH<End Delete>

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

Comment by:

Li, Li

Membership Status: MemberDate: 2010-07-09Comment # 077Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 109      Line 18      Fig/Table#      Subclause 16.2.6.4.2.2

When the target base station is a legacy one, the Action Time could be used for the fast ranging procedure per the text in page 295 line 59 "the serving ABS may indicate the time of the fast ranging opportunity negotiated with the potential target R1 BSs in the AAI\_HO-CMD message"

Suggested Remedy

<Note: change the description of Value/Note of the Action Time field:>

Mode=0b00 Action Time included in this message is the absolute frame number at the serving ABS. When CDMA\_RNG\_FLAG is set to 1, it shall be set to the frame where either a normal or dynamic ranging channel is present.

Mode=0b01 This value is defined as the frame number that AMS starts zone switch. Action Time included in this message is indicated by frame number

<Begin Insert>If the target BS is an R1 BS, this value is the relative frame number which indicates the fast ranging opportunity for transmission of RNG-REQ at the target R1 BS. A value of zero indicates no opportunity to allocate Fast Ranging IE in the candidate target R1 BS.<End Insert>

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Relative frame number shall not be used because HARQ is applied to the AAI\_HO-CMD message.

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

xiao, xiaoling

Membership Status: Member

Date: 2010-07-09

Comment # 078

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 295      Line 21      Fig/Table#      Subclause 16.2.6.4.2.1.1

In AAI\_NBR-ADV, only the existence information of the neighboring R1 BS or LZone of neighboring is broadcasted, but not the system information.

Suggested Remedy

In P802.16m/D6, on page 295, line 21:

Replace the text:

in its MZone using AAI\_NBR-ADV message -- the system information of neighboring R1 BS and LZone of neighboring ABS

As:

in its MZone using AAI\_NBR-ADV message -- the existence information of neighboring R1 BS and LZone of neighboring ABS and the MOB\_NBR-ADV message information in the LZone.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Specification includes the system information as well as the existence information.

Vote:

In favor: 2

Opposed: 7

Abstain:

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

shaochun, YANG

Membership Status: Member

Date: 2010-07-09

Comment # 079

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 289      Line 37      Fig/Table#      Subclause 16.2.6.3.5.2

Why shall the previous serving ABSID not be included in the AAI\_RNG-REQ? Only for seamless HO? According to the message field description (Page 77 Line7, serving BSID field), this field shall be included when the AMS is attempting to perform HO reentry.

Suggested Remedy

<Note: need clarification. If it is not included only for seamless HO, the Serving BSID field condition description in Page77Line7 shall be corrected as follows>

It shall be included when the AMS is attempting to perform <Begin Insert>non-seamless <End Inset> HO reentry. In case of performing Direct HO, this is the BSID of the previous serving Legacy BS.

GroupResolution

Decision of Group: Principle

Revised the text at page 77, line 7 in table 679 as follows

It shall be included when the AMS is attempting to perform uncontrolled HO reentry. In case of performing Direct HO, this is the BSID of the previous serving Legacy BS.

Reason for Group's Decision/Resolution

"uncontrolled HO" is more specific for the sentence. Network reentry is used in the case where Serving BS can communicate with target BS. And the page number in the remedy needs correction.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

shaochun, YANG

Membership Status: Member

Date: 2010-07-09

Comment # 080

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 336      Line 29      Fig/Table#      Subclause 16.2.12.3.1

There is no "adaptation request bandwidth request signaling header" in the signaling header type, but "Service Specific Scheduling Control Header".

Suggested Remedy

the <Begin Delete>adaptation request bandwidth request signaling header <End Delete><Begin Insert>Service Specific Scheduling Control Header<End Insert>

GroupResolution

Decision of Group: Agree

the <Begin Delete>adaptation request bandwidth request signaling header <End Delete><Begin Insert>Service Specific Scheduling Control Header<End Insert>

Reason for Group's Decision/Resolution

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

shengrong, feng

Membership Status: Member

Date: 2010-07-09

Comment # 081

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 359      Line 40      Fig/Table#      Subclause 16.2.14

HARQ is also used for unicast MAC control messages.

Suggested Remedy

HARQ shall be used for unicast data traffic <Begin Insert>and unicast MAC control messages<End Insert> in both downlink and uplink.

GroupResolution

Decision of Group: Agree

HARQ shall be used for unicast data traffic <Begin Insert>and unicast MAC control messages<End Insert> in both downlink and uplink.

Reason for Group's Decision/Resolution

Group's Notes

16.2.14 HARQ Functions

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

shengrong, feng

Membership Status: Member

Date: 2010-07-09

Comment # 082

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 53      Line 4      Fig/Table#      Subclause 16.2.2.1.3.3

Remedy 1. Both the GPI and Grant size parameters of aGP service may be changed by Service Specific Scheduling Control Header, but the message field doesn't include the field used to change the Grant size.

Remedy 2. Per the sentence "ABS may adjust the start time of adaption of new QoS parameters." in page 336 line 34, the Service Specific Scheduling Control Header should include such a field for this purpose.

Remedy 3. It seems that the Service Specific Scheduling Control Header is not used for bandwidth request, but only for changing or acknowledging the scheduling parameters.

Suggested Remedy

adopted C80216m-10\_0754.doc or its latest version

GroupResolution

Decision of Group: Principle

same resolution as 10019:

Adopt the proposed text in contribution C802.16m-10/0851r7

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kim, Yongho

Membership Status: Member

Date: 2010-07-09

Comment # 083

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis



Satisfied



Page 799

Line 22

Fig/Table#

Subclause

The section of interference avoidance and interference mitigation needs to be clarified and cleaned up.  
The proposed text was accepted during the last meeting but it was not incorporated in D6 properly.

Suggested Remedy

Adopt the contribution C80216m-10\_0735.doc

GroupResolution

Decision of Group: Agree

Adopt the contribution C80216m-10\_0735.doc

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

chao, bao

Membership Status: Member

Date: 2010-07-09

Comment # 084

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 117      Line 18      Fig/Table#      Subclause 16.2.3.12

There is no field indicating the existence of neighbor R1 BS or LZone of ABS in AAI\_NBR-ADV. The MAC version is also not capable to be used to identify the LZone. We propose the existence information to be indicated by the Cell Type field.

Suggested Remedy

Cell type in this message

0b000: macro

0b001: micro

0b010: macro hotzone

0b011: femto

0b100: relay

<Begin Delete>

0b101-0b111: reserved

<End Delete>

<Begin Insert>

0b101: R1 BS or LZone of ABS

0b110-0b111: reserved

<End Insert>

GroupResolution

Decision of Group: Agree

Cell type in this message

0b000: macro

0b001: micro

0b010: macro hotzone

0b011: femto

0b100: relay

<Begin Delete>

0b101-0b111: reserved

<End Delete>

<Begin Insert>

0b101: R1 BS or LZone of ABS

0b110-0b111: reserved

<End Insert>

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

chao, bao

Membership Status: Member

Date: 2010-07-09

Comment # **085**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment    Type Editorial    Part of Dis  Satisfied     Page 289    Line 37    Fig/Table#    Subclause 16.2.6.3.5.2

We should unify the all abbreviations of the advanced base station/ mobile station(ABS/AMS), as well as their identifications AMSID and ABSID.

Suggested Remedy

<Note: clean up the corresponding text in the whole spec text>

GroupResolution

Decision of Group: **Agree**

<Note: clean up the corresponding text in the whole spec text>

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions e) instructions unclear

Clause 16.1, 16.2: AAI MAC

\*\*\* No specific remedy. Made no changes based on this comment. JRS \*\*\*

Comment by:

Bo, Wang

Membership Status: MemberDate: 2010-07-09Comment # 086Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 294      Line 54      Fig/Table#      Subclause 16.2.6.4.1.3

The context in the previous serving ABS may also be discarded when the resource\_retain\_timer expires.

**Suggested Remedy**

The ARQ context and state machine associated with serving R1 BS or LZone shall not be used in MZone and shall be discarded upon <Begin Insert>expiration of Resource\_Retain\_Timer or <End Insert>completion of network reentry completion into MZone <Begin Insert>whichever occurs first<End Insert> in both direct handover and zone switch cases.

**GroupResolution****Decision of Group: Principle**

Revise the text at page 294, line 54 as follows

The ARQ context and state machine associated with serving R1 BS or LZone shall not be used in MZone and shall be discarded upon expiration of Resource\_Retain\_Time Timer or completion of network reentry completion into MZone whichever occurs first in both direct handover and zone switch cases.

**Reason for Group's Decision/Resolution**

Resource\_Retain\_Time is defined in D6.

**Group's Notes**

16.2.6 MAC HO procedures

**Editor's Notes****Editor's Actions** a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Bo, Wang

Membership Status: Member

Date: 2010-07-09

Comment # 087

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 336      Line 29      Fig/Table#      Subclause 16.2.12.3.1  
editorial error, a redundant character

Suggested Remedy

<Begin Delete>fertPS/aGP <End Delete><Begin Insert>ertPS/aGP <End Insert>Service BR on P-FBCH

GroupResolution

Decision of Group: Agree

<Begin Delete>fertPS/aGP <End Delete><Begin Insert>ertPS/aGP <End Insert>Service BR on P-FBCH

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Juang, Rong-Terng

Membership Status: Member

Date: 2010-07-09

Comment # 088

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 806      Line 42      Fig/Table#      Subclause 16.5.2.1

The current version of multi-BS uplink scheme can only support the interference mitigation for one neighboring ABS. However, it is possible that multiple neighboring ABSs are simultaneously suffered from severe uplink interferences. Therefore, the scheme should be modified to allow joint mitigation of multiple interferences.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0748 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C802.16m-10/0748r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Jia

Membership Status: Member

Date: 2010-07-09

Comment # 089

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 309      Line 65      Fig/Table#      Subclause 16.2.8.2.9

Trigger condition definitions should be considered for Multicarrier scenario. Add trigger functions for multicarrier scenario.

Suggested Remedy

Adopted C80216m-10\_752 or latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Adding the proposed trigger makes the complex of multiple trigger ambiguous.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Jia

Membership Status: Member

Date: 2010-07-09

Comment # 090

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 143      Line 37      Fig/Table#      Subclause 16.2.3.22

LBS measurement should be added into paging message.

Suggested Remedy

Adopted C80216m-10\_751 or latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

In idle mode,for LBS measurement, AMS needs re-entry and then do LBS measurement.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Jia

Membership Status: Member

Date: 2010-07-09

Comment # 091

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 402      Line 34      Fig/Table#      Subclause 16.2.18.4.1

Paging Carrier update in Idle mode for multicarrier has been defined in IEEE P802.16m/D6, a few modifications should be added into section 16.2.18.4.1 and Table 679.

Suggested Remedy

Adopted C80216m-10\_762 or latest version.

GroupResolution

Decision of Group: Agree

Adopted the proposed text in C80216m-10\_762r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Li, Xiuyan

Membership Status: Member

Date: 2010-07-09

Comment # 092

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 310      Line 6      Fig/Table#      Subclause 16.2.8.2.9.1.1

AMS may scan neighbor ABSs' partially carriers and provide scan report for ABS to make HO decision. Since The serving ABS may communicate with the target ABS(s) to help the AMS obtain the pre-assigned secondary carriers before handover execution. Secondary carriers can be fully or partially configured carriers.

Suggested Remedy

The AAI\_NBR-ADV message shall carry neighbor ABS's multicarrier configuration information to facilitate AMS's scanning of neighbor ABSs' fully configured carriers. <Begin insert>Partially configured carriers may also be scanned by AMS.<End insert>

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Pre-assignment of secondary carrier does not affect the HO decision.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Li, Xiuyan

Membership Status: MemberDate: 2010-07-09Comment # 093Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 308      Line 16      Fig/Table#      Subclause 16.2.8.2.4

If primary and the secondary carriers are located in different spectrum blocks, and their channel correlations is very low. It needs to perform the initial ranging over the secondary carrier(s) when AMS wants to communicate with the ABS over the secondary carrier(s). Dedicated ranging resource may be allocated to AMS for making ranging quicker.

**Suggested Remedy**

In some cases, the AMS may not be able to communicate with the ABS over the secondary carrier(s) without ranging to adjust time/frequency synchronization and power for the carrier(s).<Begin insert>If the channel correlations between the primary and the secondary carriers are not high, especially primary and the secondary carriers are located in different spectrum blocks, AMS may perform the initial ranging over the secondary carrier(s).Dedicated ranging resource (Dedicated ranging code and opportunity) may be allocated to AMS for making ranging quicker.<End insert>

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

Periodic ranging is sufficient to synchronize secondary carrier.

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions**    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mo, Junxian

Membership Status: Member

Date: 2010-07-09

Comment # 094

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 121      Line 26      Fig/Table#      Subclause 16.2.3.13

AAI\_SCN-REQ, AAI\_SCN-RSP, and AAI\_SCN-REP messages identify the AAI\_NBR-ADV BS indexes using Neighbor ABS Indexes. The size of each Neighbor ABS Index is 8 bits, in most case, if we use BS index bitmap replace the BS index and a bit position in the bitmap corresponds to a BS index of the AAI\_NBR-ADV, the overhead will be reduce obviously.

Suggested Remedy

Adopted C80216m-10\_755 or latest version.

GroupResolution

Decision of Group: Principle

Adopted C80216m-10\_755r4

Reason for Group's Decision/Resolution

Disagreed by unanimous consent. Normally, SCN-RSP/REP only includes a few neighbor ABSs. Hence the current method has less overhead in usual cases.

Re-opened on Thursday. Revised contribution C802.16m-10/0755r4 was accepted without opposition

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mo, Junxian

Membership Status: Member

Date: 2010-07-09

Comment # 095

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 121      Line 26      Fig/Table#      Subclause 16.2.3.13

When an AAI\_SCN-REP message is transmitted by the AMS in response to an AAI\_SCN-RSP message sent by an ABS, the BS IDs(including 8\_bits\_BS\_Index or 48\_Bits\_Full\_BS\_ID) carried in the AAI\_SCN-REP message was mostly included in the next AAI\_SCN-RSP message, so using Rsp\_Bitmap\_Index in the AAI\_SCN\_REP message can evidently reduce the overhead. The method was adopted in 802.16-2009 specification.

Suggested Remedy

Adopted C80216m-10\_756 or latest version.

GroupResolution

Decision of Group: Principle

Adopted C80216m-10\_756r4

Reason for Group's Decision/Resolution

Disagreed with the following reason: Normally, SCN-RSP/REP only includes a few neighbor ABSs. Hence the current method has less overhead in usual cases.

Re-opened on Thursday, C80216m-10\_756r4 was accepted without opposition.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fang, Dongmei

Membership Status: Member

Date: 2010-07-09

Comment # 096

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 63      Line 40      Fig/Table#      Subclause 16.2.2.2.3

It is not clear where to include the extended headers associated with the FID included in the AGMH.

Suggested Remedy

On p. 64, insert at the end of line 40: "For each FID occurring in the AGMH and MEH, there may be at most one associated extended header within the group consisting of FEH, PEH, RFPEH, and MCEH. The presence of such a header is indicated by the EH bitmap field in the MEH. These headers shall follow the MEH in the order of their corresponding payloads. "

GroupResolution

Decision of Group: Agree

On p. 64, at the end of line 40

<insert>For each FID occurring in the AGMH and MEH, there may be at most one associated extended header within the group consisting of FEH, PEH, RFPEH, and MCEH. The presence of such a header is indicated by the EH bitmap field in the MEH. These headers shall follow the MEH in the order of their corresponding payloads.</insert>

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fang, Dongmei

Membership Status: Member

Date: 2010-07-09

Comment # 097

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 232      Line 6      Fig/Table#      Subclause 16.2.4.4.2

"Therefore there are up to two context active at a time." Why "therefore"? Also, "context" is missing plural 's'.

Suggested Remedy

Replace "Therefore there are up to two context active at a time." with "There are up to two contexts at a time."

GroupResolution

Decision of Group: Agree

Replace "Therefore there are up to two context active at a time." with "There are up to two contexts at a time."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Xiao, Libra

Membership Status: MemberDate: 2010-07-09Comment # 098Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 66      Line 60      Fig/Table#      Subclause 16.2.2.2.7

The encoding of the Length field is inefficient since there will never be a need to extend the length by 0 bytes.

Suggested Remedy

Modify lines 60 -- 65 as follows: "The MAC PDU length extended header (MLEH) is added to MAC PDU when the MAC PDU length is greater than 2047 bytes. The MLEH<insert>, </insert> if present in the MAC PDU, shall be the first extended header in the MAC PDU. The format of MLEH is defined in Table 675. The Length field in<insert>the </insert> MLEH <delete>gives</delete><insert>encodes</insert> the 3 MSBs of <delete>extended</delete> <insert>the</insert>length of <insert>the </insert>MAC PDU. The <delete>L</delete><insert>L</insert>ength field in <insert>the </insert>AGMH <delete>gives</delete><insert>contains</insert> the 11 LSBs of <delete>extended</delete><insert>the</insert> length of <insert>the </insert>MAC PDU."

In Table 674, modify the Notes entry of the Length field as follows: "<delete>The 3 bit length is to be appended as MSB to the 11 bit length field in AGMH : MAC PDU length = MLEH (length(3)) .. AGMH(Length(11)).</delete><insert>The MAC PDU length = N <times/> 2<sup>11</sup> + M, where the Length field of the AGMH contains the binary encoding of M and this field contains the binary encoding of N - 1. </insert>"

GroupResolutionDecision of Group: Principle

same resolution as 495:

Adopt contribution C80216m-10\_0766r1

Reason for Group's Decision/ResolutionGroup's Notes

16.2.2.2 Extended header formats

Editor's Notes

Same as 495

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xiao, Libra

Membership Status: Member

Date: 2010-07-09

Comment # 099

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 236      Line 62      Fig/Table#      Subclause 16.2.5.2.1

There is no such thing as "WirelessMAN-OFDMA Advance System".

Suggested Remedy

Add a 'd' to the end of "Advance"

GroupResolution

Decision of Group: Agree

Add a 'd' to the end of "Advance"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jing, Zhang

Membership Status: Member

Date: 2010-07-09

Comment # 100

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 838      Line 57      Fig/Table#      Subclause 16.8.2.2

AMS may use its multicarrier capability for LBS.  
Add scanning carriers in LBS.

Suggested Remedy

AMS capability to request ABS for scanning time <Begin insert>and carrier(s)<End insert> for LBS.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

MC capability and LBS are independent. Original sentence is clear.

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jing, Zhang

Membership Status: Member

Date: 2010-07-09

Comment # 101

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 838      Line 26      Fig/Table#      Subclause 16.8.1

CINR should be parameter for LBS measurement capability.

Suggested Remedy

All AMSs shall support basic location measurement capabilities including RSSI, <Begin insert>CINR,<End insert> RD and RTD measurements and report.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

CINR is not an LBS basic capability.

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Ruan, Wei

Membership Status: MemberDate: 2010-07-09Comment # 102Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 324      Line 29      Fig/Table#      Subclause 16.2.9.4.1

The user bitmap size in Group Resource Allocation A-MAP IE specified in 16.2.4.1 is difference from that defined in 16.3.6.5.2.4.10, so I suggest that the user bitmap size should be unified defined as :4,8,16, or 32 bits.

Suggested Remedy

## 16.2.9.4.1 Bitmaps in Group Resource Allocation

The ABS uses bitmaps to signal resource allocation information for flows within a group. These bitmaps are sent in the Group Resource Allocation A-MAP IE. The first bitmap is the User Bitmap which uses 1 bit per flow to signal which users are scheduled in the frame. The user bitmap size can be <Begin insert>4<End insert>, 8, 16 or 32 bits. Each flow belonging to the group shall be assigned a unique index in the User Bitmap of that group.

GroupResolutionDecision of Group: Agree

## 16.2.9.4.1 Bitmaps in Group Resource Allocation

The ABS uses bitmaps to signal resource allocation information for flows within a group. These bitmaps are sent in the Group Resource Allocation A-MAP IE. The first bitmap is the User Bitmap which uses 1 bit per flow to signal which users are scheduled in the frame. The user bitmap size can be <ins>4</ins>, 8, 16 or 32 bits. Each flow belonging to the group shall be assigned a unique index in the User Bitmap of that group.

Reason for Group's Decision/ResolutionGroup's Notes

## 16.2.9 Group Resource Allocation

Editor's NotesEditor's Actions a) done



Comment by:

Ruan, Wei

Membership Status: MemberDate: 2010-07-09Comment # 103Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 56      Line 7      Fig/Table#      Subclause 16.2.2.1.3.4

Logical carrier index is assigned implicitly in the order of assigned physical carrier index, and the maximum number of carriers to be assigned to the MS is 8 as defined in AAI\_MC-RSP message, so the size of Target Carrier Index Bitmap in SCH is 8 bits, not 4bits,

Suggested Remedy

Target Carrier Index Bitmap <Begin delete>4<End delete><Begin insert>8<End insert> If nth bit is set to 1, it indicates that DL data transmission on the secondary carrier of which logical carrier index is equal to (n+1) ends.

GroupResolutionDecision of Group: Principle

Resolved by comment #592.

Resolution:

Adopt the text proposed in C802.16m-10/0945r2

Reason for Group's Decision/ResolutionGroup's Notes

16.2.2.1 MAC header formats

Editor's NotesEditor's Actions b) none needed

Comment by:

heng, xu

Membership Status: MemberDate: 2010-07-09Comment # 104Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 63	<u>Line</u> 38	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.2.2.3
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	----------------	----------------	-------------------	-----------------------------

There is no way of packing two control connection SDUs or SDU fragments from two different control connection channels into one PDU. Since there is a high likelihood of having to send two control SDUs or SDU fragments within the same sub-frame when two control connection channels are in use, a solution should be provided.

Suggested Remedy

Either of the two following remedies:

- 1) Use a second dedicated FID for control messaging, e.g., let FID = 0x0 and FID = 0xF be used for MAC control SDUs. Since the purpose of signaling the FID in the MAC header is to allow the receiver to associate different state machines for different flows (re-assembly state machine, ARQ state machine, etc) or to route the payload to the correct destination (MAC CPS or MAC CS), usage of a second FID for control messaging falls well within the intended purpose of the FID. This solution requires almost no changes to the standard other than removing the CCC ID, the MCEH, and benefits of additional flexibility such as, e.g., enabling selective encryption of control messages by associating different encryption policies for each control flow. However, this solution, reduces the number of available FIDs for other flows from 13 to 12.
- 2) Allow the MEH to multiplex SDU fragments from two different control connection channels. On p. 64, insert at the end of line 40: "If data from two control connection channels is present, the control connection FID (0x0) shall occur twice (once in the AGMH and once in the MEH, or twice in the MEH) and the MCEH shall be included for each instance to identify the channel. "

GroupResolutionDecision of Group: Agree

On p64, line 36-40 amend as follows:

The format of MEH is defined in Table 671. The MEH is used when ~~data from~~ multiple connection~~s~~ ~~payloads~~ associated with the same security association is present in ~~the payload of~~ the MAC PDU. The AGMH carries the FID corresponding to the payload of the first connection ~~payload~~. MEH carries the FIDs corresponding to remaining connection ~~payload~~s.  ~~Payloads from the same or different connections may be multiplexed.~~

Reason for Group's Decision/ResolutionGroup's Notes

16.2.2.2 Extended header formats

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

heng, xu

Membership Status: Member

Date: 2010-07-09

Comment # 105

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 75      Line 4      Fig/Table#      Subclause 16.2.3.1

Reference to "Table 'Description of CRC Mask'" is impresise.

Suggested Remedy

Replace "'Description of CRC Mask'" with 849

GroupResolution

Decision of Group: Agree

Replace "'Description of CRC Mask'" with 849

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

ling, Zhang

Membership Status: Member

Date: 2010-07-09

Comment # 106

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 225      Line 22      Fig/Table#      Subclause 16.2.4

Figure 388 is at best informative as there is not guarantee that a standard conformant implementation necessarily follows the exact flow shown in the flow chart in figure 388.

Suggested Remedy

Either remove figure 388 and all references to it, or place it in an informative annex.

GroupResolution

Decision of Group: Principle

P228, change title of the figure: <insert>Example </insert> Construction of a MAC PDU for transport connections

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

ling, Zhang

Membership Status: Member

Date: 2010-07-09

Comment # 107

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Editorial

Part of Dis

Satisfied

Page 227

Line

Fig/Table#

Subclause

Page is blank.

Suggested Remedy

Remove blank page.

GroupResolution

Decision of Group: Agree

Remove blank page.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Ruqing

Membership Status: Member

Date: 2010-07-09

Comment # 108

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 229      Line 14      Fig/Table#      Subclause 16.2.4.1

There are no fields in the MAC PDU that are specified as SDUs or SDU fragments. There is, however, a field, specified as "Payload"; refer to section 16.2.2, figure 385.

Suggested Remedy

Replace item c) with: "Each SDU or SDU fragment within the payload is transmitted in the same byte order as received from upper layers."

GroupResolution

Decision of Group: Agree

p229 L14:

Replace item c) with: "Each SDU or SDU fragment within the payload is transmitted in the same byte order as received from upper layers."

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions a) done

Comment by:

Yang, Ruqing

Membership Status: MemberDate: 2010-07-09Comment # 109Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 229      Line 30      Fig/Table#      Subclause 16.2.4.2

Incorrect use of "respectively" in

"The FEH/PEH/RFPEH and MCEH carries the information about the transport and control connection payload respectively."

Suggested Remedy

Replace "transport and control connection respectively" with "transport or control connection". Delete the word "respectively"

GroupResolutionDecision of Group: Principle

Replace:

"The FEH/PEH/RFPEH and MCEH carries the information about the transport and control connection payload respectively."

with:

"The FEH, PEH, and RFPEH carry information about the transport connection payload, and the MCEH carries information about the control connection payload."

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.1, 16.2: AAI MAC

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhao, Jie

Membership Status: Member

Date: 2010-07-09

Comment # 110

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 310      Line 18      Fig/Table#      Subclause 16.2.8.2.9.1.2

AMS may also scan serving ABS's partially configured carriers and provide report for ABS perform carrier management.

Suggested Remedy

The AMS may also scan other <Begin delete>fully configured<End delete> carriers of the serving ABS which are not in use by the AMS.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No reason to report the scanning result of the partially configured carrier before HO

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhao, Jie

Membership Status: Member

Date: 2010-07-09

Comment # 111

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 309      Line 19      Fig/Table#      Subclause 16.2.8.2.8

ABS shall assign UL feedback channels to each active carrier of an AMS.

Suggested Remedy

An ABS <Begin delete>may<End delete> assign<Begin insert>s<End insert> UL feedback channels to each active carrier of an AMS as defined in 16.3.6.5.2.4.

In multicarrier aggregation with fully configured carriers, an ABS <Begin delete>may<End delete> assign<Begin insert>s<End insert> FastFeedback channels to each active carrier of an AMS.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

ABS doesn't need to always assign the UL feedback channels to each active acrier of an AMS.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Kang, Hyunjeong

Membership Status: MemberDate: 2010-07-09Comment # 112Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 309      Line 1      Fig/Table#      Subclause 16.2.8.2.6.2

The text for multi-carrier resource assignment should be clarified. 1) 'can' is not a term of a specification 2) in 16m A-MAP message is not defined

Suggested Remedy

- 1) replace 'can' with 'shall' at line 1 of page 309
- 2) replace 'messages' with 'IEs' at line 2 of page 309

GroupResolutionDecision of Group: Agree

- 1) replace 'can' with 'shall' at line 1 of page 309
- 2) replace 'messages' with 'IEs' at line 2 of page 309

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

hua, ou

Membership Status: Member

Date: 2010-07-09

Comment # 113

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 113      Line 3

Fig/Table#

Subclause 16.2.3.12

Item numbering needs to be fixed.

Suggested Remedy

Number items 1), 2) and 3).

GroupResolution

Decision of Group: Agree

Number items 1), 2) and 3).

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

hua, ou

Membership Status: Member

Date: 2010-07-09

Comment # 114

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 229      Line 12      Fig/Table#      Subclause 16.2.4.1

Saying that the MSB is allocated for the sign for signed number is not precise. The format of negative numbers is not specified.

Suggested Remedy

Replace "For signed numbers MSB is allocated for the sign." with : "Negative numbers are represented in binary using two's complement."

GroupResolution

Decision of Group: Agree

Replace "For signed numbers MSB is allocated for the sign." with : "Negative numbers are represented in binary using two's complement."

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions a) done

Comment by:

Chang, Xin

Membership Status: MemberDate: 2010-07-09Comment # 115Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 70      Line 5      Fig/Table#      Subclause 16.2.3

The encoding of the MAC control messages is not specific enough for several reasons.

- 1) ASN.1 does not define the byte sequence that is to be sent transmitted that can be decoded by the receiver unambiguously. Encoding rules that take the ASN.1 format and the values for the attributes as input and translates this input into a byte sequence is required. This is missing in the normative part of the standard (although PER is mentioned in Annex P).
- 2) No reference to the ASN.1 specification is provided in the Normative References section.
- 3) No reference to the Packet Encodig Rules (PER) is provided in the Normative References section.
- 4) The translation of the specification of the MAC control messages as defined in section 16.2.3 into ASN.1 is not clear. This translation must be sufficiently specific to generate a uniquely defined byte sequence for each message such that the byte stream can be decoded unambiguously. The translation rules must be made normative.

Suggested Remedy

- 1) Add normative reference: ITU-T Recommendation X.680 | ISO/IEC 8824-1, Information technology -- Abstract Syntax Notation One (ASN.1): Specification of basic notation.
- 2) Add normative reference: ITU-T Recommendation X.691 | ISO/IEC 8825-2, Information technology -- ASN.1 encoding rules: Specification of packet encoding rules (PER).
- 3) Make Annex P normative.
- 4) Modify the sentence on line "Table <delete>676</delete><insert>678</insert> lists the MAC control messages that <insert>pertain to theWirelessMAN Advanced Air Interface. A transfer syntax shall be derived for each of these messages from the specification of the messages in sections 16.2.3 by first deriving an abstract syntax as specified in normative Annex P and then applying the encoding rules specified ITU-T Recommendation X.691 -- ASN.1 encoding rules: Specification of packet encoding rules (PER). </insert><delete>shall be defined in the ASN.1 format, as shown in Annex P.</delete>"

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The spirit of the comment was found acceptable by most people. However it is not qiute complete yet. And none of the annexes in 802.16 are normative. We nee dto move the text in to the body of the specification. The commenter agreed to bring back a more complete and improved versin of the proposal.

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chang, Xin

Membership Status: Member

Date: 2010-07-09

Comment # 116

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 75      Line 14      Fig/Table#      Subclause 16.2.3.1

Avoid the abbreviated form "it's" in general.

Suggested Remedy

Replace the Value /Note field of the AMSID\* with : "The AMSID hash value. Refer to 16.2.5.3.1."

GroupResolution

Decision of Group: Agree

Replace the Value /Note field of the AMSID\* with : "The AMSID hash value. Refer to 16.2.5.3.1."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

QING, ZOU

Membership Status: MemberDate: 2010-07-09Comment # 117Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 70      Line 4      Fig/Table#      Subclause 16.2.3

This section fails to mention that there are two control connection channels.

**Suggested Remedy**

There is a single unicast Control connection <insert>and two control connection channels</insert>. HARQ shall be enabled for MAC control messages sent on the unicast Control connection. Encryption may be enabled for unicast MAC control messages. MAC control messages may be fragmented, but shall not be packed. <insert> MAC control messages or fragments thereof transmitted on different control connection channels may be multiplexed into the same PDU</insert>.

**GroupResolution****Decision of Group: Principle**

There is a single unicast Control connection and two control connection channels. HARQ shall be enabled for MAC control messages sent on the unicast Control connection. Encryption may be enabled for unicast MAC control messages. MAC control messages may be fragmented, but shall not be packed.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

QING, ZOU

Membership Status: Member

Date: 2010-07-09

Comment # 118

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 83      Line 5      Fig/Table#      Subclause 16.2.3.2

Correct language and spelling in:

"It shall be included if the ABS needs to update AMS's existing flows. FIDs which are not appeared in this field shall be regarded as guaranteed by the ABS."

Suggested Remedy

Replace by: "This field shall be included if the ABS needs to update the AMS's existing flows. FIDs that are not present in this field shall be regarded as guaranteed by the ABS."

GroupResolution

Decision of Group: Agree

Replace by: "This field shall be included if the ABS needs to update the AMS's existing flows. FIDs that are not present in this field shall be regarded as guaranteed by the ABS."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



Comment by:

Tang, Chunmei

Membership Status: MemberDate: 2010-07-09Comment # 119Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 229      Line 31      Fig/Table#      Subclause 16.2.4.2

The sentence:

"The EH\_indicator bitmap field in MEH indicates the presence or absence of FEH/PEH/RFPEH/MCEH in the EH group corresponding to a connection payload. The FEH/PEH/RFPEH/MCEH for the connection payloads (if present) shall be present after the MEH in the same order as that of connection payloads"

is unclear. There is no EH group corresponding to a connection payload, only a single EH selected among the group (FEH, PEH, RFPEH, and MCEH). If one were to allow more than one EH (e.g., a FEH in combination with an MCEH, which may be used a naturally occurring situation), the these groups would need to be separated by a Extended Header Group Length field.

Suggested Remedy

Replace:

"The EH\_indicator bitmap field in MEH indicates the presence or absence of FEH/PEH/RFPEH/MCEH in the EH group corresponding to a connection payload. The FEH/PEH/RFPEH/MCEH for the connection payloads (if present) shall be present after the MEH in the same order as that of connection payloads."

by

"The EH\_indicator bitmap field in MEH indicates the presence or absence of an extended header corresponding to a connection payload. These extended headers shall occur (if present) after the MEH in the same order as their corresponding connection payloads."

GroupResolutionDecision of Group: Disagree

Vote: 0-4-0

Reason for Group's Decision/Resolution

The EH indicator bit map is to indicate the presence/absence of FEH/PEH/RFPEH/MCEH in the MAC PDU as these extended headers do not carry FID and they carry information about the connection payload. There might be other extended headers other than FEH/PEH/RFPEH/MCEH in the MAC PDU. They are not indicated by EH indicator bit map as they are not relevant to connection payload.

Current text is clear. The FEH/PEH/RFPEH/MCEH cannot exist together for one connection and they are contained in an EH Group if they are transmitted in a multiplexed MAC PDU.

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Tang, Chunmei

Membership Status: Member

Date: 2010-07-09

Comment # 120

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 231      Line 30

Fig/Table#

Subclause 16.2.4.4.1

"The" has a capital H

Suggested Remedy

Replace "The" with "The"

GroupResolution

Decision of Group: Agree

Replace "The" with "The"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Kang, Hyunjeong

Membership Status: MemberDate: 2010-07-09Comment # 121Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 140      Line 52      Fig/Table#      Subclause 16.2.3.21

It is necessary to provide 4 superframes as a smallest paging cycle to support a service with a short sleep time.

Suggested Remedy

- 1) In Value/Note of Paging cycle parameter on line 52 of page 140 in Table 707, add 4 superframes as the smallest value for paging cycle
- 2) In Value/Note of Paging cycle parameter on line 23 of page 143 in Table 708, add 4 superframes as the smallest value for paging cycle

GroupResolutionDecision of Group: Agree

Adopt the following changes:

[In Value/Note of Paging cycle parameter on line 52 of page 140 in Table 707, add 4 superframes as the smallest value for paging cycle]

<ins>0x00: 4 superframes</ins>

0x0<del>0</del><ins>1</ins>: 8 superframes  
 0x0<del>1</del><ins>2</ins>: 16 superframes  
 0x0<del>2</del><ins>3</ins>: 32 superframes  
 0x0<del>3</del><ins>4</ins>: 64 superframes  
 0x0<del>4</del><ins>5</ins>: 128 superframes  
 0x0<del>5</del><ins>6</ins>: 256 superframes  
 0x0<del>6</del><ins>7</ins>: 512 superframes  
 0x0<del>7</del><ins>8</ins>-0x15: reserved

[In Value/Note of Paging cycle parameter on line 23 of page 143 in Table 708, add 4 superframes as the smallest value for paging cycle]

<ins>0x00: 4 superframes</ins>

0x0<del>0</del><ins>1</ins>: 8 superframes  
 0x0<del>1</del><ins>2</ins>: 16 superframes  
 0x0<del>2</del><ins>3</ins>: 32 superframes  
 0x0<del>3</del><ins>4</ins>: 64 superframes  
 0x0<del>4</del><ins>5</ins>: 128 superframes  
 0x0<del>5</del><ins>6</ins>: 256 superframes  
 0x0<del>6</del><ins>7</ins>: 512 superframes  
 0x0<del>7</del><ins>8</ins>-0x15: reserved

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Chaoyi, Yan

Membership Status: Member

Date: 2010-07-09

Comment # 122

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 252      Line 50      Fig/Table#      Subclause 16.2.5.2.3

It is not clear how the CCM encryption as defined in 802.16m links to NIST Special Publication 800-38C.

Suggested Remedy

Clearly show the correspondance between the variables used in 802.16m (such as PN, EKS, ICV) and the variables defined in the NIST publication (such as nonce N, MAC T, payload P, etc.). Also, add NIST Special Publication 800-38C to the Normative References section (which should have been included in 802.16-2009). Do not duplicate text in the NIST spec. Appendix A in the NIST spec needs to be referenced, making the contents of that appendix normative in the scope of 802.16m. Reference to a section in another document requires the reference to be dated (May 2004). See contribution ...

GroupResolution

Decision of Group: Principle

Adopt the text in contribution C802.16m-10/0935r1.  
Same resolution for comments 122, 127, 464.

Reason for Group's Decision/Resolution

Group's Notes

16.2.5 AAI Security

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chaoyi, Yan

Membership Status: Member

Date: 2010-07-09

Comment # 123

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 858      Line 40

Fig/Table#

Subclause Annex P

"Limiyed" is misspelled.

Suggested Remedy

Correct spelling to "limited"

GroupResolution

Decision of Group: Agree

Correct spelling to "limited"

Reason for Group's Decision/Resolution

Group's Notes

Annex P

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

ying, Jiang

Membership Status: Member

Date: 2010-07-09

Comment # 124

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 238

Line 34

Fig/Table#

Subclause 16.2521122

The 'M' in AK\_COUNTM should be subscripted.

Suggested Remedy

Subscript 'M' in AK\_COUNTM

GroupResolution

Decision of Group: Agree

Subscript 'M' in AK\_COUNTM

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

ying, Jiang

Membership Status: Member

Date: 2010-07-09

Comment # 125

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 238      Line 44      Fig/Table#      Subclause 16.2521122

Is the reference to Table 679 correct? Table 679 lists the parameters of the AAI\_RNG\_REQ message and does not define MAC control messages.

Suggested Remedy

Delete: "as defined in Table 679".

GroupResolution

Decision of Group: Principle

P238 L44, change table 679 to table 678

Reason for Group's Decision/Resolution

Group's Notes

16.2.5 AAI Security

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Jared

Membership Status: Member

Date: 2010-07-09

Comment # 126

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 237      Line 33      Fig/Table#      Subclause 16.2.5.2.1.1.1

Correct grammar in : "After successful EAP authentication was completed the MS (supplicant), AAA and authenticator holds a 512bit MSK key (that was transferred to the authenticator from AAA using EAP attributes)."

Suggested Remedy

Edit sentence as follows: "After successful EAP authentication <delete>was</delete><insert>has</insert> completed, the MS (supplicant), AAA and authenticator hold<delete>s</delete> a 512bit MSK key (<delete>that</delete><insert>which</insert> was transferred to the authenticator from the AAA using EAP attributes)."

GroupResolution

Decision of Group: Agree

Edit sentence as follows: "After successful EAP authentication <delete>was</delete><insert>has</insert> completed, the MS (supplicant), AAA and authenticator hold<delete>s</delete> a 512bit MSK key (<delete>that</delete><insert>which</insert> was transferred to the authenticator from the AAA using EAP attributes)."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Jared

Membership Status: Member

Date: 2010-07-09

Comment # 127

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 252      Line 50      Fig/Table#      Subclause 16.2.5.2.3

It is not clear how the CCM encryption as defined in 802.16m links to NIST Special Publication 800-38C.

Suggested Remedy

Clearly show the correspondance between the variables used in 802.16m (such as PN, EKS, ICV) and the variables defined in the NIST publication (such as nonce N, MAC T, payload P, etc.). Also, add NIST Special Publication 800-38C to the Normative References section (which should have been included in 802.16-2009). Do not duplicate text in the NIST spec. Appendix A in the NIST spec needs to be referenced, making the contents of that appendix normative in the scope of 802.16m. Reference to a section in another document requires the reference to be dated (May 2004). See contribution ...

GroupResolution

Decision of Group: Principle

Adopt the text in contribution C802.16m-10/0935r1.  
Same resolution for comments 122, 127, 464.

Reason for Group's Decision/Resolution

Group's Notes

16.2.5 AAI Security

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 128

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 189      Line 6      Fig/Table#      Subclause 16.2.3.46.1

The parameter Request/Transmission Policy as one of parameters for service flow/convergence sublayer in AAI\_DSA message is defined in 802.16m/D6. The value for the parameter is well specified in some parts i.e., line 28 of page 190 and in line 5 of page 341, but in other parts of 802.16m/D6 the descriptions of the parameter are presented incorrectly.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0815 or later version

GroupResolution

Decision of Group: Agree

adopt the proposed text in C80216m-10\_0815r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 129

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 327      Line 39      Fig/Table#      Subclause 16.2.10.2

Group parameter Create/Change TLV is not a parameter for 16m operation. The parameter name should be changed as defined in 16m.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0816 or later version

GroupResolution

Decision of Group: Agree

adopt the proposed text in C80216m-10\_0816.

Reason for Group's Decision/Resolution

Group's Notes

16.2.10 Connection Management

Editor's Notes

Editor's Actions    a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 130

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 141      Line 7      Fig/Table#      Subclause 16.2.3.21

Value of Paging offset is missing in P802.16m/D6.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0817 or later version

GroupResolution

Decision of Group: Principle

Discuss and adopt the proposed text in C80216m-10\_0817r2

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 131

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 115      Line 64      Fig/Table#      Subclause 16.2.3.12

PGID of carriers in serving ABS and neighboring ABS should be provided through AAI\_MC-ADV and AAI\_NBR-ADV message.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0818 or later version

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C80216m-10\_0818

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 132

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 316      Line 34      Fig/Table#      Subclause 16.2.8.2.10.2

According to current multicarrier paging procedure, if an AMS cannot access its designated paging carrier, then it requests its preferred paging carrier by performing location update. This exceptional procedure may cause overhead when different band classes coexist and paging carriers of an ABS are selected over different bands. It is required a mechanism to reduce location update overhead from unreachable paging carrier problem and keep the advantage of load distribution in current multicarrier paging procedure.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0819 or later version

GroupResolution

Decision of Group: Principle

Discuss and adopt the proposed text in C80216m-10\_0819r1

Reason for Group's Decision/Resolution

Vote:

In favor: 17

Opposed: 1

Abstain:

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 133

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 307      Line 1      Fig/Table#      Subclause 16.2.8.2.3

Carrier switching mode is used for E-MBS service. In E-MBS, secondary carrier to switch is assigned via AAI\_DSA-REQ/RSP message. Therefore AAI\_MC-REQ/RSP message procedure is not necessary for carrier switching mode.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0820 or later version

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C802.16m-10/0820r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kang, Hyunjeong

Membership Status: Member

Date: 2010-07-09

Comment # 134

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 452      Line 50      Fig/Table#      Subclause 16.3.3.6.2

Subcarrier alignment information for available carrier or assigned carrier is acquired through an AAI\_Global-Config message as well as AAI\_MC-ADV.

Suggested Remedy

Discuss and adopt the proposed text in C80216m-10\_0821 or later version

GroupResolution

Decision of Group: Agree

Adopt the proposed text in IEEE C802.16m-10/0821.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation (material in PHY, but handled by MC ad hoc)

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gundlach, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 135

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 11      Line 19      Fig/Table#      Subclause 5.2

There is no reason for the restrictions made here.

Suggested Remedy

Delete lines 19 - 23 ("ABS and AMS shall use IP CS for all packet-based protocols. GPCS shall not be supported by AMS or ABS.")

Alternatively, lines 19 - 23 may be replaced by:

"ABS and AMS may use IP CS for packet-based protocols."

GroupResolution

Decision of Group: Principle

use resolution from comment #8:

Remove statement in line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 136

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 155      Line 3      Fig/Table#      Subclause 16.2.3.29

Why does a generic MAC control message format need to be defined in a media-specific specification (i.e., 802.16m) instead of a media-independent specification such as 802.1 or 802.21?

Suggested Remedy

Please justify why a generic MAC message needs to be defined as an 802.16 frame, or remove the message.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

A generic MAC message is required for the inter-RAT procedure to be defined in WIMAX NWG (not for 802.1 or 802.21).

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 137

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General

Part of Dis  Satisfied

Page 155      Line 31

Fig/Table#

Subclause 16.2.3.29

The table number seems incorrect.

Suggested Remedy

Correct table number.

GroupResolution

Decision of Group: Principle

Modify the text on Page 155, line 26 as follows:

The format of AAI\_L2\_XFER message is shown in Table ~~708~~715

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 138

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General

Part of Dis  Satisfied

Page 155    Line 39

Fig/Table#

Subclause 16.2.3.29

L2-Xfer Type and SubType values need detailed explanation on detailed usage.

Suggested Remedy

Add detailed usage for each Type and Subtype.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

out of scope in 802.16m because the type and sub type will not be decoded at layer 1 or 2.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 139

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 156      Line 19      Fig/Table#      Subclause 16.2.3.29

Since MIH frame itself contains information about identifying the services and messages, there is no need to define Subtype for MIH.

Suggested Remedy

Remove Sub-type values from MIH

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

ABS would not decode the entire MIH Frame itself so it is not able to identify which MIH frame is being carried.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 140

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 156      Line 19      Fig/Table#      Subclause 16.2.3.29

How MIH frame is encapsulated in this message?

Suggested Remedy

Please specify how MIH frame is encapsulated in this message.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

how MIH frame is encapsulated in L2-Xfer message is out of scope of IEEE 802.16m.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 141

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 297      Line 9      Fig/Table#      Subclause 16.2.6.5.1

In Table 776, no Type is specified for each field. Also, Length is not specified for MIH Capability Supported field.

Suggested Remedy

Specify Type and Length.

GroupResolution

Decision of Group: Principle

Adopte the remedy in comment 412:

Delete the sentence in Line 65 on Page 296 and delete Table 776.

Reason for Group's Decision/Resolution

the remedy solves the issue fully.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 142

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 297      Line 15      Fig/Table#      Subclause 16.2.6.5.1

In general inter-RAT handover capability is a directional attribute. For example, a system may support single radio handover from 802.16 to 802.11 but may not support single radio handover from 802.11 to 802.16. The current Support Inter-RAT type capability does not consider this aspect. Note that MBB\_HO\_SUPP data type in 802.21 considers this aspect.

Suggested Remedy

A remedy is to have a set of two bitmaps of RATs one is to represent "from 802.16m HO" the other is to represent "to 802.16m HO".

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The capability of handover from another RAT to 802.16m is out of scope of IEEE 802.16m standard.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Ohba, Yoshihiro

Membership Status: MemberDate: 2010-07-09Comment # 143Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 297      Line 61      Fig/Table#      Subclause 16.2.6.5.2.1.1

Not all attributes listed here are defined in AAI\_L2\_XFER format in Clause 16.2.3.29, e.g., pre-registration supported and PHY profile id.

Suggested Remedy

Define all attributes listed here in Clause 16.2.3.29.

GroupResolutionDecision of Group: Principle

Change the sentence at page 297, line 61 as follows

The L2-Xfer Payload field in the AAI\_L2\_XFER message may include the following:

Reason for Group's Decision/Resolution

It is not necessary to define the attributes since the L2-Xfer payload information is out the scope of MAC layer.

Group's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 144

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 298      Line 22      Fig/Table#      Subclause 16.2652121

While it is stated that PKM messages may be used to exchange MIH frames for MIH queries, it seems that AAI\_PKM-REQ and AAI\_PKM-RSP messages in Table 728 do not contain MIH message.

Suggested Remedy

Add MIH message in AAI\_PKM-{REQ,RSP}.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no concrete remedy and the related text in 16.2.6.5.2.1.2.1 needs clean up.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 145

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 298      Line 25      Fig/Table#      Subclause 16.2652121

Cycle TLV is mentioned here, but it seems that the TLV is not defined in the document.

Suggested Remedy

Define Cycle TLV or clarify where it is defined.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no concrete remedy and the related text in 16.2.6.5.2.1.2.1 needs clean up.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 146

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 298      Line 36      Fig/Table#      Subclause 16.2652121

MIH Comeback Response is not defined either in this specification or 802.21 specification.

Suggested Remedy

Does this message mean MIH response message? If so, correct the message name.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no concrete remedy and the related text in 16.2.6.5.2.1.2.1 needs clean up.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 147

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 298      Line 26      Fig/Table#      Subclause 16.2652121

Query ID is not defined in either in this specification or 802.21 specification. Note that 802.21 specification use Transaction ID to match a query with a response.

Suggested Remedy

Define Query ID or delete it.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no concrete remedy and the related text in 16.2.6.5.2.1.2.1 needs clean up.

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 148

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 299      Line 1      Fig/Table#      Subclause 16.2652123

In Figure 416, each of steps 2, 3, 4, 6, 7 and 10 does not show which specific 802.16m message is used for the operation.

Suggested Remedy

Add a specific 802.16m message name to the arrow of each step.

GroupResolution

Decision of Group: Principle

Add the following sentences in line 65, pp. 298 in D6:

In Figure 416, the AAI\_L2-xfer message is used in steps 2, 3, 4, 6, 7 and 10 between AMS and ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ohba, Yoshihiro

Membership Status: Member

Date: 2010-07-09

Comment # 149

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General

Part of Dis  Satisfied

Page 299

Line 65

Fig/Table#

Subclause 16.2652123

Explanation on step 12 is missing.

Suggested Remedy

Add explanation on step 12.

GroupResolution

Decision of Group: Principle

Add a sentence at line 65, page 299

"12) The AMS performs handover to the target RAT"

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

Comment by:

Ohba, Yoshihiro

Membership Status: MemberDate: 2010-07-09Comment # 150Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 301      Line 22      Fig/Table#      Subclause 16.2.6.5.2.3.2

It seems that single radio handover definitions in 802.16m and 802.21c are different. In 802.21c, single radio handover is characterized as handover with single transmitter (cf 802.21c PAR), and handover with single transmitter and dual receiver is still characterized as single radio handover.

Suggested Remedy

It is suggested to have a consistent single radio handover definition between different groups in IEEE..

GroupResolutionDecision of Group: Principle

Change the text from page 301, line 22 as follows.

16.2.6.5.2.3.2 Single Transmitter/~~Single Receiver~~ Support

An AMS with a single ~~RF~~ transmitter may connect to only one RAT at a time. Once target RAT preparation is completed the AMS may switch from source ~~RF~~ RAT to target ~~RF~~ RAT and complete network entry in target RAT. Only one ~~RF~~ RAT is active at any time during the handover.

In this mode ~~a single radio device~~ an AMS can ~~receive and~~ transmit on one ~~radio~~ RAT at a time. ~~Since only one radio may be active at any given time, these types of devices use the serving radio and connection with serving network to prepare the target network for handover.~~ Control signaling messages for the target RAT are exchanged between the ~~radio device~~ AMS and the target RAT, by encapsulating the target RAT signaling messages ~~in a serving AAI MAC container~~ in an AAI\_L2-Xfer message.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done



Comment by:

Ohba, Yoshihiro

Membership Status: MemberDate: 2010-07-09Comment # 151Document under Review: P802.16m/D6Ballot ID: sb\_16mComment Type GeneralPart of Dis  Satisfied Page 301 Line 33Fig/Table#Subclause 16.2.6.5.2.3.2

Which AAI MAC container is used for encapsulating target RAT signaling messages and how?

Suggested Remedy

Specify detailed encapsulation method.

GroupResolutionDecision of Group: Principle

adopt the remedy in comment 150.

Change the text from page 301, line 22 as follows.

16.2.6.5.2.3.2 Single Transmitter/~~Single Receiver~~ Support

An AMS with a single ~~RF~~ transmitter may connect to only one RAT at a time. Once target RAT preparation is completed the AMS may switch from source ~~RF~~ RAT to target ~~RF~~ RAT and complete network entry in target RAT. Only one ~~RF~~ RAT is active at any time during the handover.

In this mode ~~a single radio device~~ an AMS can ~~receive and~~ transmit on one ~~radio~~ RAT at a time. ~~Since only one radio may be active at any given time, these types of devices use the serving radio and connection with serving network to prepare the target network for handover.~~ Control signaling messages for the target RAT are exchanged between the ~~radio device~~ AMS and the target RAT, by encapsulating the target RAT signaling messages ~~in a serving AAI MAC container~~ in an AAI\_L2-Xfer message.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions a) done

Comment by:

Goldhamer, Mariana

Membership Status: MemberDate: 2010-07-09Comment # 152Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 445      Line 43      Fig/Table#      Subclause 16.3.3.5.1

The text between lines 43-48 indicates a fixed partition in the TDD frame between the legacy frame start and the 16m frame start. However the traffic to/from the terminals, supporting legacy only, can vary in time and this fixed split, indicated in the fig. 483 and 484, is reducing the spectral efficiency of the combined system and is increasing the delay.

**Suggested Remedy**

In order to support this traffic change it is necessary to replace one or more of the AAI sub-frames by legacy traffic bursts. This replacement is supported by the legacy DL MAP and UL MAP, because the legacy bursts can be not-contiguous, however more guidance for the implementer is required.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

The balance of resources between the legacy frame and the 16m frame is not determined by the offset.

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes****Editor's Actions**    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 153

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 448      Line 40      Fig/Table#      Subclause 16.3.3.5.2

The text between lines 40-43 indicates a fixed partition in the FDD frame between the legacy frame start and the 16m frame start. However the traffic to/from the terminals supporting legacy only can vary in time, and this fixed split, indicated in the fig. 485 , is reducing the spectral efficiency of the combined system and is increasing the delay.

Suggested Remedy

In order to support this traffic change it is necessary to replace one or more of the DL AAI sub-frames by legacy traffic bursts. This replacement is supported by the legacy DL MAP, because the legacy bursts can be not-contiguous, however more guidance for the implementer is required.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The balance of resources between the legacy frame and the 16m frame is not determined by the offset and frame start. The balance of the resources is determined by the frame configuration index.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 154

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 447      Line 31      Fig/Table#      Subclause 16.3.3.5.1

Figure 483 indicated both DL TDM and UL FDM operation, however the title refers only to UL FDM operation. Note that no figure refers only to the DL TDM operation.

Suggested Remedy

Replace the title of fig. 483 with: " TDD frame configuration to support WirelessMAN-OFDMA DL TDM and UL FDM operation".

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Because there is no WirelessMAN-OFDMA DL FDM operation, there is no need to highlight that this is DL TDM. Moreover, the term "DL TDM" is not defined in the Standar.d

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 155

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 788      Line 13      Fig/Table#      Subclause 16.4

The Femto definition does not exclude the operation in LE bands; the SRD says: "Femtocell BS's typically operate in licensed spectrum". LE operation is not excluded. The limitation to the licensed bands is in contradiction with the SRD.

Suggested Remedy

Delete "Femto ABSs operate in licensed spectrum and"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There no support in the Standard for unlicensed operation in Femto cells.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Goldhamer, Mariana

Membership Status: MemberDate: 2010-07-09Comment # 156Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 790	<u>Line</u> 45	<u>Fig/Table#</u>	<u>Subclause</u> 16.4.6
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	-------------------------

The following text says: "A Femto ABS should be synchronized with the overlay ABS network, where the synchronization means the aligned frame boundary, and the aligned DL / UL split in TDD systems." This text has no much value, because what matters is the synchronization with the superframe start. Having in mind that 16m supports different deployment categories, the multiframe start for Femto and Macro deployment categories shall be separated in time domain. Failing to do this for Femto BS will jeopardize the fulfilling of the requirement from SRD "The link level performance of the air interface in terms of packet error rate shall not be significantly degraded when the MS is within 10cm-30m from the femto-cell BS, which is typical for femto cell usage.", because a MS associated with a macro-BS will be simply saturated and will not be able to receive the Macro BS preambles and control information.

**Suggested Remedy**

Specify in a consistent mode in the entire document that the multi-frame start for Femto BS and Macro BS SHALL be placed in not-overlapping frames

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

Although the femto and macro are aligned in the time domain, there exists sufficient link margin to decode the preamble and control channels. There is no need to stagger the preamble and control. In extreme cases, subclause 16.4.11 describes procedures where the MS may inform the femto BS of severe interference and thus may communicate directly with the macro bs.

**Clause 16.4.11 states:**

If an AMS is placed into outage by an inaccessible ABS (e.g. the CSG-closed Femto ABS of which it is not a member) and only if the AMS has no connection with neighbor macro ABS, it may indicate this problem to that Femto ABS by sending an AAI\_RNG-REQ with the "Femto Interference" bit set to 1 based on configured trigger conditions.

**Group's Notes**

Clause 16.4: AAI Femto

**Editor's Notes****Editor's Actions** b) none needed

Comment by:

Goldhamer, Mariana

Membership Status: MemberDate: 2010-07-09Comment # 157Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 34      Line 50      Fig/Table#      Subclause 8.4.14.3

This clause, in 802.16-2009, indicates the maximum input signal which can be decoded by an MS. The text says: "8.4.14.3 Receiver maximum input signal; 8.4.14.3.1 SS receiver maximum input signal; The SS receiver shall be capable of decoding a maximum on-channel signal of --30 dBm." At 10cm from the FBS the level for a 25dBm eirp transmission by the FBS will be 5dBm, much too high for the MS operation.

Suggested Remedy

Amend clause 8.4.14.13 such that the AMS will able to work in the Femto BS proximity

GroupResolutionDecision of Group: Principle

***Insert the following new clause:***

### **16.3.15 Receiver requirements**

The ABS and AMS receiver requirements are the same as those listed in 8.4.14

Reason for Group's Decision/ResolutionGroup's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's NotesEditor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 158

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 34      Line 50      Fig/Table#      Subclause 8.4.14.3.2

This clause, in 802.16-2009, indicates the maximum input signal which can be decoded by a BS. The text says: "8.4.14.3.2 BS receiver maximum input signal The BS receiver shall be capable of decoding a maximum on-channel signal of --45 dBm." At 10cm from the AMS the level for a 25dBm eirp transmission by the FBS will be 5dBm, much too high for the FBS operation.

Suggested Remedy

Amend clause 8.4.14.3.2 such that the AMS will able to work in the Femto BS proximity

GroupResolution

Decision of Group: Principle

***Insert the following new clause:***

**16.3.15 Receiver requirements**

The ABS and AMS receiver requirements are the same as those listed in 8.4.14

Reason for Group's Decision/Resolution

Group's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 159

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 34      Line 50      Fig/Table#      Subclause 8.4.14.4

This clause, in 802.16-2009, defines the maximum tolerable levels for MS and BS. A special case is the FBS, for which these levels are too high.

Suggested Remedy

Amend the receiver max. tolerable levels for ABS and FBS.

GroupResolution

Decision of Group: Principle

***Insert the following new clause:***

**16.3.15 Receiver requirements**

The ABS and AMS receiver requirements are the same as those listed in 8.4.14

Reason for Group's Decision/Resolution

Group's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 160

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 830      Line 38      Fig/Table#      Subclause 16.6.3.2.2

The TDD frame structure is sub-optimal, because the Relay access and the ABS access are separated in the time domain.

Suggested Remedy

Provide a solution to avoid the time separation

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

ARS and ABS Access zones are time aligned.

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 161

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 828      Line 51      Fig/Table#      Subclause 16.6.3.2.1

Appears that the FDD frame structure shall be according to 16h, contained in clause 15 ?!

Suggested Remedy

Replace with 16.3.3

GroupResolution

Decision of Group: Agree

Replace with 16.3.3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 162

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 999      Line      Fig/Table#      Subclause

Make sure that the basic standard includes 16h, to avoid numbering overlapping (clause 11 and 8.4, etc.)

Suggested Remedy

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

802.16h is already included in base standard according to IEEE bylaws. nothing for group to do.

Group's Notes

General Comment

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 163

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 828      Line 38      Fig/Table#      Subclause 16.6.3.2.1

The FDD frame structure is sub-optimal, because the Relay access and the ABS access are separated in the time domain.

Suggested Remedy

Provide a solution to avoid the time separation

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

ARS and ABS Access zones are time aligned.

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 164

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 801      Line 1      Fig/Table#      Subclause 16.5

The title of this clause is too specific

Suggested Remedy

Change to "Multi-BS cooperation"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The title is appropriate for this section. The section describes procedures and MIMO related functionality.

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Goldhamer, Mariana

Membership Status: Member

Date: 2010-07-09

Comment # 165

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 801      Line 1      Fig/Table#      Subclause 16.5

Inter BS-MIMO is consuming a frequency resource in each of the collaborating BSs, requires exchange of data and channel parameters through the back-haul, involving increased back-haul capacity, delays, low mobility support

Suggested Remedy

Use a different OFDMA partition in each of the collaborating BSs for increasing the traffic to/from AMS. This will not have the Inter-BS MIMO mentioned disadvantages.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The performance of Single BS precoding with Multi-BS coordination has been evaluated under realistic backbone latency assumptions in C802.16m-09/0023 and C802.16m-09/1675.

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 166

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 362      Line 37      Fig/Table#      Subclause 16.2.14.2.2

The values of processing time are not defined in D6 when F (D+U) is not equal to 8. We propose adopting the same values as those for F (D+U) = 8.

Suggested Remedy

[Delete the following text in line 37, page 362, section 16.2.14.2.2] "For F=8 in FDD or D+U=8 in TDD,"

GroupResolution

Decision of Group: Agree

[Delete the following text in line 37, page 362, section 16.2.14.2.2] "For F=8 in FDD or D+U=8 in TDD,"

Reason for Group's Decision/Resolution

Group's Notes

16.2.14 HARQ Functions

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 167

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 607      Line 20      Fig/Table#      Subclause 16.3652413

In order to support the case where the available resources in a subframe are not enough for transmitting a long broadcast MAC control message, time domain repetition was proposed and adopted in point of PHY transmission structure. Because, in general, MAC control messages can be fragmented, we have now two options in D6: message fragmentation and time domain repetition.

We recommend removing time domain repetition considering following aspects.

- (1) Implementation complexity in AMS side
- (2) Scheduling complexity in ABS side
- (3) Restriction on resource usage
- (4) Small gain in point of signaling overhead

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0822 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

It may be necessary to repeat AAI\_NBR-ADV message.

Vote:

In favor: 10

Opposed: 6

Abstain:

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 168

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 584      Line 46      Fig/Table#      Subclause 16.3.6.5.2.4.7

In D6, there is no description about which MIMO scheme is applied for the burst signaled via CDMA allocation A-MAP IE. Considering anonymous transmission, we recommend SFBC in DL and vertical encoding with Mt=1 in UL. Also, HARQ process needs to be specified separately for DL and UL.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0823 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0823r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Yu, Hyunkyu

Membership Status: MemberDate: 2010-07-09Comment # 169Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 421	<u>Line</u> 45	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.24
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This contribution provides the clarification on the update of S-SFH.

(1) S-SFH applying offset

- Current D6, it is not clear how S-SFH applying offset is processed.

- If S-SFH applying offset indicates which S-SFH change count should be considered in the current superframe, there exists ambiguity in FDD uplink. That is, at the first frame in uplink where applying offset is changed from 1 to 0, it is unclear which system information should be applied (previous one or current one?).

- We recommend S-SFH applying offset indicating the behavior in the next frame. S-SFH applying offset indicates AMSs which S-SFH change count needs to be considered for applying the S-SFH contents in the next superframe.

(2) Example figures

- We suggest including figures which depict the overall process of S-SFH update.

#### Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0824 or its latest revision.

#### GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

#### Reason for Group's Decision/Resolution

#### Group's Notes

16.2.24 Update of S-SFH IEs

#### Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 170

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 526      Line 48      Fig/Table#      Subclause 16.3.6.2.1.2

In D6, only the transmission periodicity is defined for S-SFH SPs. That is, the transmission location (SFN offset) of each SP is depends on ABS scheduler.

In AMS side, to receive/decode required SPx efficiently, AMS should know the exact timing (when S-SFH SPs are transmitted).

However, it is not easy for AMS to calculate this exact timing based on the previous transmission of SP1, SP2, and SP3. Moreover, additional SPx transmission makes the calculation more difficult and ambiguous.

Thus, we recommend specifying the SFNs, where S-SFH SPs are transmitted, according to the transmission periodicity.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0825 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Done by Hyunkyu (in remedy-1, cross reference is required for table 836 (16.3 PHY) based on D6)

RM: not clear where the cross-reference is required.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 171

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 542      Line 23      Fig/Table#      Subclause 16.3.6.5.1.2

- (1) Total number of PC-A-MAPs signaled in S-SFH SP1  
- Because two PC-A-MAP IEs are paired using SFBC, the number of allocable channels should be a multiple of two.
- (2) PC-A-MAP resource index  
- It needs to be clarified that resource index is calculated based on the AAI subframe/frame.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0826 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #10228.

Resolution:

Adopt the contribution IEEE C802.16m-10/0813r5

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 172

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 363      Line 20      Fig/Table#      Subclause 16.2142211

We propose some modifications in long TTI operation.

(1) Restriction in FDD case

(2) DL long TTI transmission in the frame with SFH

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0827 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0827r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.14 HARQ Functions

Editor's Notes

Editor's Actions a) done

Scott \*\*\*Remedy 5, 6 & 7 done by Hyunjeong\*\*\*

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 173

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 360      Line 4      Fig/Table#      Subclause 16.2.14.1

In MC operation, an AMS can operate over multiple carriers with the sum of FFT sizes that is larger than 2048 subcarriers. In that case, total number of HARQ channels can be larger than 16. However, ACID field in assignment A-MAP IE can only indicate maximum 16 values (4 bits). We propose a simple mapping rule between 4-bit ACID value and HARQ channel index (actual ACID).

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0828 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

For multicarrier support, ACID generation rules are already defined and can be used for this.

Vote:

In favor: 8

Opposed: 4

Abstain:

Group's Notes

16.2.14 HARQ Functions

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 174

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 373      Line 13      Fig/Table#      Subclause 16.2.14.4

In D6, there is no rule for AI\_SN in both DL and UL persistent allocation. However, AI\_SN field is included in both DL and UL basic assignment A-MAP IE, which are used to signal assignment information for HARQ retransmission in persistent allocation. This may give ambiguity to AMS, and thus clear operation for AI\_SN should be defined.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0829 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0829r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.14 HARQ Functions

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 175

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 187      Line 55      Fig/Table#      Subclause 16.2.3.46.1

In uplink transmission, some bandwidth allocations need to be restricted to a certain flow, e.g. VoIP service flow. Otherwise, other service flows may use those resources, degrading the performance of that flow (VoIP). To guarantee the performance, we suggest mapping HARQ channels to a flow in DSx message.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0830 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

solution is incomplete

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yu, Hyunkyu

Membership Status: Member

Date: 2010-07-09

Comment # 176

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 565      Line 37      Fig/Table#      Subclause 16.3.6.5.2.4.2

In D6, only persistent allocation and group resource allocation can support default TTI when the number of DL subframes is smaller than the number of UL subframes ( $D < U$ ). This is mainly for supporting delay-sensitive services such as VoIP.

When considering ranging channels and bandwidth request channels, because those control channels do not occupy the whole duration of UL subframes, the resource wastage may happen. Default TTI bursts can be allocated in those resources via PA or GRA, but it may not an efficient way.

Thus, we propose supporting default TTI using UL basic assignment A-MAP IE.

Suggested Remedy

Adopt the text proposal in IEEE C802.16m-10/0831 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0831r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 177

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 647      Line 47      Fig/Table#      Subclause 16.3.7.2.5.5

One cannot just introduce new set of variables without providing a text explaining the relations between them and other variables, even if the relation is implementation dependent. Please provide some explanation.

Suggested Remedy

Add the following text: The value of q represents  $\bar{r}$  (r overbar). The method of representation is implementation dependent.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Table 893 clearly defines the relationship between R and q.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 178

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 843      Line 40      Fig/Table#      Subclause 16.8.3.1.2

Supeframe is misspelled in the legend

Suggested Remedy

In the figure legend change "Superfram" to "Superframe" (2 occurances)

GroupResolution

Decision of Group: Agree

In the figure legend change "Superfram" to "Superframe" (2 occurances)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AA I LBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 179

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 843      Line 15      Fig/Table#      Subclause 16.8.3.1.2

Figure 606 is erroneously referred to as "Table 606"

Suggested Remedy

Change "Table 606" to "Figure 606"

GroupResolution

Decision of Group: Agree

Change "Table 606" to "Figure 606"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 180

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 844      Line 57      Fig/Table#      Subclause 16.8.3.3

all and "the" are transposed in the sentence.

Suggested Remedy

Change: "When one station has multiple segments the all segments shall transmit the same SA-Preamble sequence" to "When one station has multiple segments all the segments shall transmit the same SA-Preamble sequence."

GroupResolution

Decision of Group: Agree

Change: "When one station has multiple segments the all segments shall transmit the same SA-Preamble sequence" to "When one station has multiple segments all the segments shall transmit the same SA-Preamble sequence."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 181

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 6      Line 64      Fig/Table#      Subclause 3

It seems that defintions 3.142 and 3.143 repeat defintions 3.135 and 3.136

Suggested Remedy

Delete defintions 3.142 and 3.143

GroupResolution

Decision of Group: Agree

Delete defintions 3.142 and 3.143

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 182

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 277      Line 21

Fig/Table#

Subclause 16.2.6.1.1

Typo

Suggested Remedy

Change "need" to "needs"

GroupResolution

Decision of Group: Agree

Change "need" to "needs"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 183

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 279      Line 6      Fig/Table#      Subclause 16.2.6.2

The equation referred to in table 774 is probabaly equation (4) and not (1)

Suggested Remedy

Change "(1)" to "(4)" in Table 774.

GroupResolution

Decision of Group: Agree

Change the text in page 279, line 6, "(1)" to "(4)" in Table 774.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    a) done



Comment by:

Freedman, Avraham

Membership Status: MemberDate: 2010-07-09Comment # 184Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 278      Line 42      Fig/Table#      Subclause 16.2.6.2

What is the "action=0x03" referred to in Table 774? Is it the action "0x3: Respond on trigger with AAI\_SCN-REQ" as defined in Table 775? If so, the reason for that is not clear (at least not to me).

Suggested Remedy

Delete "This field is not relevant for triggers with action = 0x03." or clarify the meaning e.g.: "This field is not relevant for triggers with action = 0x03 as defined in Table 775"

GroupResolutionDecision of Group: Principle

Change the text in line 42, page 278, as

~~This field is not relevant for triggers with action = 0x03.~~

This value of ABS type field shall be ignored for triggers with Type= 0x3 or the Function=0x5 or 0x6 in table 775.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 185

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 280      Line 40      Fig/Table#      Subclause 16.2.6.2

The sentence: "Action 0x3 applies to only Function 0x5 and 0x6." is not a proper English

Suggested Remedy

Change "Action 0x3 applies to only Function 0x5 and 0x6." to "Action 0x3 applies only to Functions 0x5 and 0x6."

GroupResolution

Decision of Group: Agree

Change "Action 0x3 applies to only Function 0x5 and 0x6." to "Action 0x3 applies only to Functions 0x5 and 0x6."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 186

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 280      Line 64      Fig/Table#      Subclause 16.2.6.2

Table 764 is probably the wrong reference

Suggested Remedy

Change "Table 764" to "Table 775"

GroupResolution

Decision of Group: Agree

Change "Table 764" to "Table 775"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 187

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical

Part of Dis  Satisfied

Page 158

Line 6

Fig/Table#

Subclause 16.2.3.30

What does "sentin" mean?

Suggested Remedy

Remove the condition or provide correction

GroupResolution

Decision of Group: Principle

change "sentin" in page 158, line 6, as "sent in".

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 188

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 261      Line 16

Fig/Table#

Subclause 16.2.6.2

Typo

Suggested Remedy

Change "define" to "defined"

GroupResolution

Decision of Group: Agree

Change "define" to "defined"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions e) instructions unclear

cannot locate the edit. Not Done. Scott

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 189

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 283      Line 1      Fig/Table#      Subclause 16.2.6.3.3

The term "EBB" should be spelled out here, which is its first appearance in an explanatory text (and not in a table)

Suggested Remedy

Change "EBB" to "EBB (Established before break)"

GroupResolution

Decision of Group: Agree

Change "EBB" to "EBB (Established before break)"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 190

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 285      Line 55      Fig/Table#      Subclause 16.2.6.3.5.1

Figure 411 is not a state machine. Perhaps a flow diagram or a procedure description.

Suggested Remedy

Change "MS State Machine" to "AMS network reentry procedure flow diagram"

GroupResolution

Decision of Group: Agree

Change "MS State Machine" to "AMS network reentry procedure flow diagram" at page 285, line 55.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 191

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 501      Line 57      Fig/Table#      Subclause 16.3.6.1.2

The first sentence is not clear enough, please consider the suggested modification.

Suggested Remedy

Change" For the support of macro, public and CSG femto deployment, if. . ." to "In case of active SA scanning, the Idx parameter is used. If . . ."

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No reason for change in the current text. Proposed change is not aligned with other text in this section.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 192

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 501

Line 65

Fig/Table#

Subclause 16.3.6.1.2

"restrict" should be in the past tense

Suggested Remedy

Change "restrict" to "restricted"

GroupResolution

Decision of Group: Agree

Change "restrict" to "restricted"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AA PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 193

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 503      Line 51      Fig/Table#      Subclause 16.3.6.1.2

Is it possible to exchange Table 832-834 with tables 827-829, which are referenced later but appear before Tables 832-834?

Suggested Remedy

Move Tables 832-834 up to page 504 and renumber them Tables 827-829. Change the existng Table numbers 827-831 to 830-834.

GroupResolution

Decision of Group: Agree

Move Tables 832-834 up to page 504 and renumber them Tables 827-829. Change the existng Table numbers 827-831 to 830-834.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Freedman, Avraham

Membership Status: Member

Date: 2010-07-09

Comment # 194

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 424      Line 23      Fig/Table#      Subclause 16.2.26.1

The paragraph refers to ABS actions (The ABS shall stop coverage loss detection procedure (i.e. described in 16.2.26.2)) while 16.2.26.2 describes AMS actions.

Suggested Remedy

change "16.2.26.2" to "above" in the two occurrences

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The current text has clear and precise reference, this is preferred over the proposed ambiguous reference.

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 195

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 20      Line 33      Fig/Table#      Subclause 5.2.5.2

In the specification:

For AMS and ABS, the parameters may be used in IP classification rules.

What parameters? Not the ones in 11.13.18 as identified elsewhere in the paragraph.

We need to point to the section in Clause 16 that identifies the exact information elements (not legacy TLVs) that are used for IP classification

Suggested Remedy

point to the section in Clause 16 that identifies the exact information elements (not legacy TLVs) that are used for IP classification

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The parameters should be specified but no text available to consider.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 196

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 15      Line 1      Fig/Table#      Subclause 5.2.6

The specification indicates:

On the transmitter side, once the protocol type of an incoming packet is determined, the appropriate classification rules are applied to the packet and the correct service flow is identified.

What classification rules? 5.2.6 is a new CS type. We must identify the exact clause 16 specific information elements that are relevant to each of the protocol types in table 2a

Suggested Remedy

identify the exact clause 16 specific information elements that are relevant to each of the protocol types in table 2a

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

no text available for the remedy

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 197

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 15      Line 33      Fig/Table#      Subclause 5.2.6

what about nested classification? I thought that was one of the motivators for the introduction of this new, multiprotocol CS. IP-in-IP. Classification on IP header elements for both the inner and outer header. IPoE?

Suggested Remedy

Identify and enumerate clause 16 information elements and rules specific to identified protocol-in-protocol classification for Multiprotocol CS

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Group agrees that the problem exists, but there is no text available to accept.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Barber, Phillip

Membership Status: MemberDate: 2010-07-09Comment # 198Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 15	<u>Line</u> 20	<u>Fig/Table#</u>	<u>Subclause</u> 5.2.6
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Do not include identification of header suppression/compression identifier in the protocol identifier as in Table 2a. Use separate information element service flow identifiers--as we do in current IP CS--to identify the application and parameters for ROHC and PHS. After all, we still require classification rules to apply packets to the appropriate protocol type PRIOR TO application of header suppression/compression.

So we are not really helped by including such ROHC and PHS identification as part of the protocol identification, and such identification is not necessary to correctly divert and apply de-suppression/de-compression at the receiver. We have other required service flow encoding parameters to accomplish such identification.

Suggested Remedy

Do not include identification of header suppression/compression identifier in the protocol identifier as in Table 2a. Delete references to with/without ROHC and PHS from Table 2a. Delete table row items for 'IP with ROHC' and 'IP with PHS'.

Group ResolutionDecision of Group: Principle

P15, Table 2a, delete the following:

(without RoHC and PHS)

2 IP with RoHC

3 IP with PHS

5 Ethernet with PHS

Reason for Group's Decision/ResolutionGroup's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 199

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 35      Line 13      Fig/Table#      Subclause 10.1

Why are we inserting AMS and ABS parameters into this legacy table? We should be creating a new AAI specific table in clause 16.

Suggested Remedy

creating a new AAI specific Parameters and constants table in clause 16. Move ABS and AMS entries from table 554 to this new table.

GroupResolution

Decision of Group: Principle

creating a new AAI specific Parameters and constants table in clause 16. Move ABS and AMS entries from table 554 to this new table.  
leave BS parameters in table 554

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 200

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 45      Line 57      Fig/Table#      Subclause 11.13.18.1

What are we doing here? Why are we adding the new AAI specific Multiprotocol CS to the legacy CS table? Are we expecting SS and MS to support Multiprotocol CS? I don't think so.

We only need the Multiprotocol CS reference in the appropriate capability negotiation and service flow encoding information elements in clause 16.

Suggested Remedy

Delete the table row for '15: Multiprotocol flow' from the table in 11.13.18.1

GroupResolution

Decision of Group: Principle

Delete the modification to the table (lines 34-59) 11.13.18.1

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

Comment by:

Barber, Phillip

Membership Status: MemberDate: 2010-07-09Comment # 201Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 24      Fig/Table#      Subclause 16.2.1.2.3

The original motivation for using DID appears either no longer valid, or originally flawed.

Originally DID was introduced to reduce the size of the identifier in the paging advertisement messages, down from 24 bits to 10 bits; and to provide enhanced privacy for the MS, eliminating the presentation of a modula 2 hash of the MS MAC Address.

Now we are learning that 10 bits for DID is completely inadequate for sufficiently differentiated identification to avoid excessive 'false-positive' paging indications.

We also learn that DID number space management is extremely complex and limiting on the network, especially for distributed management of paging group management and paging traffic.

And the benefit to MS privacy is also not as pronounced. After all, identification by modula 2 hash of 48 bit MS MAC Address still yields 16million possible MS MAC Addresses, not the true exact MS MAC Address. Such obfuscation may be adequate for our privacy purposes.

In any event, we just no longer are seeing adequate benefit to justify the very considerable negative impact to network implementation complexity, and limitation.

Suggested Remedy

In P802.16m/D6, page 48, line 24, delete subclause 16.2.1.2.3 in its entirety.

In P802.16m/D6, page 75, line 22, table 679, remove '/DID' from the 'Conditions'

In P802.16m/D6, page 78, line 10, table 679, remove the table row for 'Deregistration Identifier (DID)'

In P802.16m/D6, page 78, line 24, table 679, remove ',DID' from the 'In the legacy network mode, DID shall not be included' from 'Conditions'

In P802.16m/D6, page 80, line 21, table 680, remove '/DID' from the 'Conditions'

In P802.16m/D6, page 80, line 38, table 680, remove '/DID' from the 'Conditions'

In P802.16m/D6, page 81, line 42, table 680, remove the table row for 'Deregistration Identifier (DID)'

In P802.16m/D6, page 316, line 45, change the equation to: 'Paging carrier index = AMS MAC Address modulo N'

In P802.16m/D6, page 403, line 59, modify the sentence as: 'If the Network Configuration bit in the S-SFH is set to 0b1, the AMS provides its actual MAC address in the AAI\_RNG-REQ message[Being Delete], instead of providing the DID[End Delete].'

In P802.16m/D6, page 404, line 11, modify the sentence as: 'If the Network Configuration bit in the S-SFH is set to 0b1, the AMS provides its actual MAC address in the AAI\_RNG-REQ message[Being Delete], instead of providing the DID[End Delete].'

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The usage of DID significantly reduces MAC overhead of paging messages.

Group's Notes

Editor's NotesEditor's Actions b) none needed**2010/10/29****IEEE 802.16-10/0040r3**Comment by:

Barber, Phillip

Membership Status: MemberDate: 2010-07-09Comment # **202**Document under Review: **P802.16m/D6**Ballot ID: **sb\_16m**

<u>Comment</u>	<u>Type</u> General	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 47	<u>Line</u> 5	<u>Fig/Table#</u>	<u>Subclause</u> 16
----------------	---------------------	--------------------------------------------------------	-------------------------------------------	----------------	---------------	-------------------	---------------------

While the DRAFT has improved, the document continues to lack necessary context language and feature clarity to all features. For instance, is this a Point-multi-point (PMP) solution? Where is the language similar to IEEE 802.16-2009 6.1 and 6.3.1 that would define the scope of the solution, create the solution methodology, connection oriented air interface, connection definition is clarified and context established between connection identifiers and the network reference model and protocol stack? The current document is just a jumbled set of bullet points.

Similar problems with QoS. Where is the unifying structure of 6.3.14? What is the relationship matrix between connections, service flows, etc....

Suggested Remedy

Add missing context language and feature clarity to all features.

Introduce context language, similar to that contained in subclause 6.1 but specific to PMP operation for AAI services and connection definitions in clause 16.

Introduce context language, similar to that contained in subclause 6.3 but specific to the connection definitions in clause 16.

Introduce context language and , similar to that contained in subclause 6.3.14 (including theory of operation, identification of service flows as MAC flow construct, object models, etc...), but specific to AAI definitions.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Specific text is required.

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 203

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 43      Line 5      Fig/Table#      Subclause 16

I am dissatisfied with the resolution of comment A0935.

The document continues to offer an high number of instances of TBD, FFS, and assorted other locations with missing references and required information elements in the document.

The document cannot be approved with TBD, FFS, and other missing pieces.

Either provide the appropriate and required TBD content or delete the sentences containing the TBD reference and ANY FEATURE OR FUNCTION THAT NECESSARILY DEPENDS UPON THE UNAVAILABLE DEPENDENT TBD INFORMATION.

Suggested Remedy

Either provide the appropriate and required TBD, FFS, etc...content or delete the sentences containing the TBD, FFS reference and ANY FEATURE OR FUNCTION THAT NECESSARILY DEPENDS UPON THE UNAVAILABLE DEPENDENT TBD INFORMATION.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Commenter to please provide specific locations of missing text and/or TBDs.

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Barber, Phillip

Membership Status: MemberDate: 2010-07-09Comment # 204Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 54      Line 1      Fig/Table#      Subclause 16.2.2.1.3.4

There is just no justification to have 16.2.2.1.3.4 Sleep Control Header (SCH) as a HEADER, and not as a normal control message. Same thing applies to 16.2.2.1.3.5 AMS Battery Level Report Header.

There are just these two special items identified and set aside to be control activity conducted by Header, of all of the many control messages and activities conducted in the MAC. Why are these so special? What is the special gain? Why don't we just do all of our control messaging by Header instead of bothering with MAC control messages?

Certainly it is not to save bits. The 35 reserved bits in the AMS Battery Level Report Header disprove that argument.

It cannot be to save complexity, else we would have done it for the entire Sleep Mode messaging operation, not just for one element of it.

I just cannot see the justification for the additional complexity or differentiated treatment.

Suggested Remedy

In P802.16m/D6, delete page 54, line 1 through page 57, line 13, deleting subclause 16.2.2.1.3.4 and 16.2.2.1.3.5 in their entirety.

GroupResolutionDecision of Group: Disagree

Vote: 0-7-1

Reason for Group's Decision/Resolution

Signaling head still saves overhead for small control signals.

Group's Notes

16.2.2.1 MAC header formats

Editor's NotesEditor's Actions    b) none needed

Comment by:

Barber, Phillip

Membership Status: MemberDate: 2010-07-09Comment # 205Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type General      Part of Dis  Satisfied       Page 282      Line 27      Fig/Table#      Subclause 16.2.6.3.3

The process of concurrent multicarrier communication during handover defined in this section is too complex and should be removed. The single carrier iteration of this is too complex as well and should be removed.

The process requires the AMS to communicate concurrently with both the Serving ABS and Target ABS during the re-entry process interval at the Target ABS. For both single and multicarrier this requires a degree of Scheduler coordination between the Serving ABS and Target ABS that is complex, has negative performance and latency implications, and is unnecessary to achieve robust and timely handover.

And it is not as if the network will really be able to efficiently transfer data to the AMS while it is undergoing such transition, at least in a single carrier model. The dual carrier model is slightly more plausible, but requires that all terminals essentially implement full FDD operation.

The objective should be to minimize the interruption time for data transfer. Our best way to accomplish this is to minimize the amount of time that it takes to transfer the point-of-attachment relationship from the Serving ABS to Target ABS. The complex methods proposed here don't appreciably reduce the data latency, but they certainly do add tremendous complexity and network burden.

Suggested Remedy

Remove the feature requiring concurrent transmission to both Serving ABS and Target ABS for both single and multicarrier during handover.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

This is a needed feature for inter-RAT handover. It will also improve HO performance in heterogeneous networks.

Vote:

In favor: 20

Opposed: 10

Abstain:

Group's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 206

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 797      Line 1      Fig/Table#      Subclause 16.4.10

This whole, new 'Low Duty Mode' of operation for Femto BS is complex and unwarranted. This introduces a whole new state management and synchronization problem between the AMSs and the Femto BS and network. Impact to Idle Mode state management? Location Update processing? Handover timing control and management? Detection and selection of ABS for initial network entry and re-entry? Assumptions about the ability to detect all affected AMS in Idle Mode operation is problematic. Such complex state management is completely undefined. Method of synchronization is undefined. And such feature is unnecessary since the interference mitigation techniques can be negotiated and invoked by the affected Macro and Femto BSs through backhaul communication, in the absence of some new complex state on the Femto BS.

Suggested Remedy

In P802.16m/D6, delete page 797, line 1 through page 798, line 12, deleting subclause 16.4.10 Low-duty Operation Mode in its entirety.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

LDM is an essential feature for femto deployments. The advantages still far outweigh any possible implementation/operational complexities.

Vote:

In favor: 2

Opposed: 15

Abstain:

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Barber, Phillip

Membership Status: Member

Date: 2010-07-09

Comment # 207

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 801      Line 1      Fig/Table#      Subclause 16.5

While limited application of geographically disbursed antenna areas on a single base station can accrue useful spatial diversity gain and differentiated path gain, proposed multi-Base Station PHY level or frame level coordination is fantasy and beyond reasonable implementation. Network and device latency alone doom such endeavors from practical implementation. Even disbursed antenna areas on the same Base Station can suffer from these latencies, crippling any gain, except in the most unique deployment circumstances.

Suggested Remedy

Remove the multi-BS fantasy features and retain the disbursed multi-antenna, single-BS feature

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The performance of Single BS precoding with Multi-BS coordination has been evaluated under realistic backbone latency assumptions in C802.16m-09/0023 and C802.16m-09/1675. Additionally, different multi-BS modes have different requirements on backbone information exchange, it is therefore not appropriate to object to this section in its entirety based on network latency concerns.

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Wang, Xuehuan

Membership Status: MemberDate: 2010-07-09Comment # 208Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 717      Line 58      Fig/Table#      Subclause 16.3.9.2.5

According to the spec text in page 719/line 32, only 13bits of the 16bits information in the quick access message are carried in the data portion indeed, although the 5 CRC bits are generated by the 16 bits information of it. The remaining 3bits information can be derived from the BR preamble index. So the sentence deleted by LB #31 comment #A0741 is correct and is necessary. We shall not delete it !

**Suggested Remedy**

<Begin Insert>3 bits of the 16 information bits shall be carried in the BR preamble using the preamble index. The combined resource in the data portions of the three tiles that form the BR channel shall be used to transmit the remaining 13 bits of information. <End Insert>The frame number and 16 bits of the bandwidth request message shall be used to select a sequence of length 24 from Table 903. The selected preamble sequence is transmitted in the preamble portion of all the three BW REQ tiles.

**GroupResolution****Decision of Group: Agree**

Insert sentence as indicated:

<ins>3 bits of the 16 information bits shall be carried in the BR preamble using the preamble index. The combined resource in the data portions of the three tiles that form the BR channel shall be used to transmit the remaining 13 bits of information. </ins>The frame number and 16 bits of the bandwidth request message shall be used to select a sequence of length 24 from Table 903. The selected preamble sequence is transmitted in the preamble portion of all the three BW REQ tiles.

**Reason for Group's Decision/Resolution****Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiu, Yu-Min

Membership Status: Member

Date: 2010-07-09

Comment # 209

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 216      Line 48      Fig/Table#      Subclause 16.2.3.53

Table 757 is a duplicated table; the content in Table 757 is already covered by Table 758.

Suggested Remedy

Delete Table 757.

GroupResolution

Decision of Group: Principle

Adopt contribution C80216m-10/0943.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Chih-Cheng

Membership Status: Member

Date: 2010-07-09

Comment # 210

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 825      Line 51      Fig/Table#      Subclause 16.6.2.16.2

The action times of the respective SPs shall be included in RS\_ESI message but are absent in D6.  
Suggested remedy: Adopte contribution C80216m-10/0801 or its latest version.

Suggested Remedy

GroupResolution

Decision of Group: Principle

Resolved by comment #213.

Resolution:

Adopte contribution C80216m-10/0801r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Chih-Cheng

Membership Status: Member

Date: 2010-07-09

Comment # 211

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 825      Line 51      Fig/Table#      Subclause 16.6.2.16.2

The action times of the respective SPs shall be included in RS\_ESI message but are absent in D6.

Suggested Remedy

Adopte contribution C80216m-10/0801 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #213.

Resolution:

Adopte contribution C80216m-10/0801r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xu, Jin

Membership Status: Member

Date: 2010-07-09

Comment # 212

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 781

Line

Fig/Table#

Subclause

In Sub-clause 16.3.11.4.2, the CoRe version indication method in D6 uses "j" as the index of QAM symbols based on  $N_{\text{shift},i} = 0$ . However the index of real transmitted QAM symbols has been already circular-shifted in "bit-selection and repetition" operation. These two indexes are not equal, and might cause ambiguity in calculation of CRV. We suggest using the real index of transmitted QAM symbols to define the CRV.

Suggested Remedy

Adopt C80216m-10\_0778r1 or its latest version.

Group Resolution

Decision of Group: Principle

Adopt C80216m-10\_0778r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsu, Chun-Yen

Membership Status: Member

Date: 2010-07-09

Comment # 213

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 825      Line 50      Fig/Table#      Subclause 16.6.2.16.2

When the essential system information in SFH is changed, an ABS shall send the information through a RS\_ESI management message in the 16m DL Relay Zone. On receiving of an RS\_ESI message, the ARS needs to know when these parameters will be applied. This contribution proposes modifications on the action frame number to RS\_ESI message.

Suggested Remedy

Adopte contribution C80216m-10/0801 or its latest version.

GroupResolution

Decision of Group: Principle

Adopte contribution C80216m-10/0801r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Loa, Kanchei

Membership Status: Member

Date: 2010-07-09

Comment # 214

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 809      Line 30      Fig/Table#      Subclause 16.6.2.3.1

In current IEEE 802.16m/D6 draft, there is no efficient data forwarding scheme for the relay. There are two approaches to improve the efficiency. One is specially designed header compression mechanisms for the GRE/IP header, which is out of the scope of IEEE 802.16m. The other one is to directly forward the 16m MAC PDU without GRE tunnel overheads. However, in order to identify the AMS sending or receiving the ASN data traffic, this contribution proposed advanced relay forwarding extended header (ARFEH) to complement the data forwarding scheme for the relay.

Suggested Remedy

adopt the contribution C80216m-10\_0858 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #215.

Resolution:

Adopt the contribution C80216m-10\_0858r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Yi-Ting

Membership Status: Member

Date: 2010-07-09

Comment # 215

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 809      Line 30      Fig/Table#      Subclause 16.6.2.3.1

In current IEEE 802.16m/D6 draft, there is no efficient data forwarding scheme for the relay. There are two approaches to improve the efficiency. One is specially designed header compression mechanisms for the GRE/IP header, which is out of the scope of IEEE 802.16m. The other one is to directly forward the 16m MAC PDU without GRE tunnel overheads. However, in order to identify the AMS sending or receiving the ASN data traffic, this contribution proposed advanced relay forwarding extended header (ARFEH) to complement the data forwarding scheme for the relay.

Suggested Remedy

Adopt the contribution C80216m-10\_0858 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the contribution C80216m-10\_0858r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Chiu-Wen

Membership Status: Member

Date: 2010-07-09

Comment # 216

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 74      Line 33      Fig/Table#      Subclause 16.2.3

In D6, the emergency information is broadcasted through AAI\_L2-XFER as stated in section 16.2.12.7. However, the connection type of AAI\_L2-XFER in Table 678 is only for unicast.

Suggested Remedy

Adopt the text proposal in C802.16m-10/0859 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the text proposal in C802.16m-10/0859.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Yi-Ting

Membership Status: Member

Date: 2010-07-09

Comment # 217

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 283      Line 56      Fig/Table#      Subclause 16.2.6.3.4

The HO Event Code is 3 bits long.

Suggested Remedy

Replace the HO Event Code 0b10 to 0b010.

GroupResolution

Decision of Group: Agree

Replace the HO Event Code 0b10 to 0b010.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Yi-Ting

Membership Status: Member

Date: 2010-07-09

Comment # 218

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 289

Line 64

Fig/Table#

Subclause 16.2.6.3.6

The HO Event Code is 3 bits long.

Suggested Remedy

Replace the HO Event Code 0b11 (HO cancel) to 0b011.

GroupResolution

Decision of Group: Agree

Replace the HO Event Code 0b11 (HO cancel) to 0b011.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions g) editor disagrees

\*\*\* conflicts with a tech comment that changed the value. no action \*\*\*

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Yi-Ting

Membership Status: Member

Date: 2010-07-09

Comment # 219

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 113      Line 53      Fig/Table#      Subclause 16.2.3.12

The two parameters "Number of MAC protocol versions support" and "list of supported MAC protocol versions" are not consistent with the attributes in Table 692.

Suggested Remedy

Replace the two parameters "Number of MAC protocol versions support" and "list of supported MAC protocol versions" to "MAC protocol versions (8 bits)"

GroupResolution

Decision of Group: Principle

Adopt the remedy in #10066

Update following sentences in line 53, pp. 113:

— ~~Number of~~ MAC protocol versions ~~supported~~ (~~4~~ 8bits)

— ~~list of supported MAC protocol versions~~ (4 bits per entry)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 220

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 6      Line 34      Fig/Table#      Subclause 3.135

suggest to change "WirelessMAN OFDMA" to "WirelessMAN-OFDMA"

Suggested Remedy

Find "WirelessMAN OFDMA" in the draft and change to "WirelessMAN-OFDMA"

GroupResolution

Decision of Group: Agree

Find "WirelessMAN OFDMA" in the draft and change to "WirelessMAN-OFDMA"

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    g) editor disagrees

Group defined this term, need to discuss this global change. As this comment was part of the Editorial Motion, it was not discussed.

Comment by:

Xie, Feng

Membership Status: MemberDate: 2010-07-09Comment # 221Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 6      Line 56      Fig/Table#      Subclause 3.141

For WirelessMAN-OFDMA Advanced co-existing System, mixed-mode ABS can apply TDM mode or FDM mode for deploying LZone and MZone. In TDM mode, LZONE and MZONE are located in the same carrier. In FDM mode, LZone and MZone are located in separate carriers. Which mode will be deployed in the real network is depending on the operator's policy. So it is necessary to explicitly state that the FDM mode is also supported for WirelessMAN-OFDMA Advanced co-existing System.

Suggested Remedy

accept the following modification:

"3.141 Mixed Mode ABS: An ABS with an operating Lzone and operating Mzone. Lzone and Mzone can be TDM(i.e., located in the same carrier) or FDM(i.e., located in separate carriers)."

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Existing definition does not preclude either Lzone or Mzone in different carriers.

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 222

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 6      Line 59      Fig/Table#      Subclause 3.142

3.142 and 3.143 are duplicate with 3.135 and 3.136

Suggested Remedy

remove the text from line 59 to 65 on page 6

GroupResolution

Decision of Group: Agree

remove the text from line 59 to 65 on page 6

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions b) none needed

Resolved by another comment (agreed).

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 223

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 30      Fig/Table#      Subclause 16.2.1.2.4

In Idle mode, DID instead of CRID is used as the AMS identifier. So CRID shall also be assigned to AMS during idle mode re-entry.

Suggested Remedy

Adopt the following modification:

"The network shall assign a 72bit CRID to each AMS during network entry, idle mode re-entry or zone switch to Mzone."

GroupResolution

Decision of Group: Principle

P48, L32. replace the first sentence with:

"The network shall assign a 72bit CRID to each AMS during network entry. The network may reassign a CRID to each AMS during network reentry."

Reason for Group's Decision/Resolution

Group's Notes

16.2.1 Addressing

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 224

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 57      Line 42      Fig/Table#      Subclause 16.2

"Change Configuration Change" in AAI\_SCD message should be changed to "Configuration Change Count"

Suggested Remedy

Find "Change Configuration Change" in the draft and replace with "Configuration Change Count"

GroupResolution

Decision of Group: Agree

Find "Change Configuration Change" in the draft and replace with "Configuration Change Count"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Xie, Feng

Membership Status: MemberDate: 2010-07-09Comment # 225Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 75	<u>Line</u> 10	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.1
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	----------------	----------------	-------------------	---------------------------

AAI\_RNG-REQ message needs cleanup.

1) Ranging purpose indication should be re-organized, without increasing its length, to indicate the exact ranging purpose. For example, HO reentry and idle mode reentry should better be indicated separately. And "location update due to power down" should better be moved to the "ranging purpose indication" instead of using a separate bit in AAI\_RNG-REQ.

2) The conditions of transmitting AMSID\* and MAC version shall be different. MAC version shall only be transmitted during initial network entry, regardless of legacy ASN mode or advanced ASN mode. Besides initial network entry into advanced network, AMSID\* shall also be transmitted when AMS handover from a legacy BS to ABS or zone switch to MZone from LZone.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0710

GroupResolutionDecision of Group: Principle

Resolved by comment #10037.

## Resolution:

Adopt the proposed text in C80216m-10\_0710r3

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Same as the resolution of Comment #10037

Editor's NotesEditor's Actions b) none needed

Comment by:

Xie, Feng

Membership Status: MemberDate: 2010-07-09Comment # 226Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 79      Line 59      Fig/Table#      Subclause 16.2.3.2

Random access procedure is applied during initial network entry, idle mode re-entry, location update, and DCR mode re-entry. AMS sends ranging code to ABS to initiate the procedure. During the random access procedure, Random Access Identifier (RAID), composed of ranging code attributes, is used as part of the CRC mask for CDMA Allocation A-MAP IE. There's a certain probability that more than one AMS transmits the same ranging code in the exact same ranging opportunity. That is called RAID confusion because more than one AMS may successfully decode the CDMA Allocation A-MAP IE for sending/receiving UL/DL data (i.e. AAI\_RNG-REQ or AAI\_RNG-RSP). So how AMS confirms that the AAI\_RNG-RSP is a response to AAI\_RNG-REQ message which the AMS sent needs clarification.

- 1) During initial network entry, AMSID\* is transmitted by AAI\_RNG-RSP message as a response to AAI\_RNG-REQ message. This has been presented in current D6.
- 2) During idle mode re-entry or location update, PGID, Paging Cycle, paging offset, and DID shall be carried in AAI\_RNG-RSP as a response to AAI\_RNG-REQ message. This is absent in current D6. (Note that these parameters are not the same as those if PGID/Paging Cycle/paging offset/DID are updated by the Paging controller.)
- 3) During re-entry from DCR mode, CRID shall be carried in AAI\_RNG-RSP as a response to AAI\_RNG-REQ message. This is also absent in current D6. (Note that the parameter is different from that newly assigned by the network entity).

Suggested Remedy

Adopt the proposed text in C80216m-10\_0711

GroupResolutionDecision of Group: Principle

Resolved by comment #10042.

Resolution:

Adopt the text proposed in C80216m-10\_711r3

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Same as the resolution of comment #10042

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 227

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 100      Line 22      Fig/Table#      Subclause 16.2.3.7

AAI\_REG-REQ message needs clean-up. AMS's capability of supporting omission of CDMA HO ranging and seamless HO should be notified to the ABS by AAI\_REG-REQ message.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0713

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Seamless HO is the baseline optimized HO in 16m.

Group's Notes

16.2.3 MAC Control messages  
Same as the resolution for comment #10053

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 228

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 108      Line 4      Fig/Table#      Subclause 16.2.3.11

AAI\_HO-CMD message (16.2.3.11) and operations during EBB mode and zone switch from MZone to LZone need clarification.

1) Some of the text in AAI\_HO-CMD message does not comply with the text from line 1 to 12 in page 283 (16.2.6.3.3).

=====  
cited from line 1 to 12 in page 283=====

If HO\_Reentry\_Mode is set to 1, the serving ABS shall negotiate with the target ABS the EBB HO parameters. In the single carrier handover case, the EBB HO parameters include HO\_Reentry\_Interleaving\_Interval, HO\_Reentry\_Interval and HO\_Reentry\_Iteration for the AMS to communicate with the serving ABS during network reentry, in which case HO\_Reentry\_Interleaving\_Interval and HO\_Reentry\_Interval must be no less than the minimal values defined in AMS capability. The HO\_Reentry\_Interval defines the period during which an AMS performs network re-entry at the target ABS. Whereas the HO\_Reentry\_Interleaving\_Interval defines the period during which an AMS performs normal data communication at the serving ABS after the HO\_Reentry\_Interval. In the multicarrier handover case, the EBB\_HO parameters include the carrier information in the target ABS for the AMS performing network reentry while continuing communication with the serving ABS concurrently.

=====  
end of citation=====

According to the description, EBB HO parameters include three parameters named as HO\_Reentry\_Interleaving\_Interval, HO\_Reentry\_Interval and HO\_Reentry\_Iteration. However, only two of them, namely HO\_Reentry\_Interleaving\_Interval and HO\_Reentry\_Iteration are included in AAI\_HO-CMD message. So HO\_Reentry\_Interval is missed from the message, which defines the period during which an AMS performs network re-entry at the target ABS.

2) FA index should be included in AAI\_HO-CMD message when AMS handover to neighbor R1 BS or when zone switch from MZone and LZone if MZone and target LZone are located in different carriers. This may happen in two scenarios. a) mixed-mode ABS applies FDM mode for deploying LZone and MZone. b) mixed-mode ABS applies TDM mode for deploying LZone and MZone in one carrier and the ABS support multi-carrier. Then MZone and target LZone may be located in different carriers.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0712

GroupResolution

Decision of Group: Principle

Resolved by comment #337.

Resolution:

Adopt the proposed text modification in C80216m-10/0865r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages  
same as the resolution of comment 337

Editor's Notes                      Editor's Actions    b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:                      Xie, Feng                      Membership Status:    Member                      Date: 2010-07-09

Comment # **229**                      Document under Review: **P802.16m/D6**                      Ballot ID: **sb\_16m**

Comment                      Type Technical                      Part of Dis  Satisfied                       Page 114                      Line 31                      Fig/Table#                      Subclause 16.2.3.12

The parameters in AAI\_NBR-ADV message should be consistent with the message descriptions in 16.2.3.12.

- 1) "IDcell" in the message format should be changed to "SA-preamble index" for consistency and convention. The name "Preamble index" is used in the 16e/16m MAC procedures. And the name "IDcell" or Cell\_ID is used in the 16e/16m PHY procedures.
- 2) Prefix of BSID should be included in the message format for consistency with the message descriptions.

Suggested Remedy

Adopt the text proposal in C80216m-10\_0715

GroupResolution                      Decision of Group:    Disagree

Reason for Group's Decision/Resolution

IDcell is already defined and used in the specification.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes                      Editor's Actions    b) none needed

Comment by:

Xie, Feng

Membership Status: MemberDate: 2010-07-09Comment # 230Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 167      Line 16      Fig/Table#      Subclause 16.2.3.36

How AMS requests the neighbor information with AAI\_NBR-REQ message needs clarification. In section 16.4.8.1.2, it reads:

-----  
If the AMS decides to perform HO to any Femto ABS, it may request more detailed system information of the detected neighbor Femto ABSs to the serving ABS using an AAI\_NBR-REQ message.

AMS may include the CSGID(s) of the subscribed CSG femto BSs in the AAI\_NBR-REQ message.

- 
- 1) If an AMS request more detailed system information of the detected neighbor Femto ABSs to the serving ABS using an AAI\_NBR-REQ message. The AMS shall include the information of the detected Femto ABS such as SA-preamble index or LSB of BSID. Note that LSB of BSID in S-SFH SP1 IE is 12-bits length instead of 16-bits.
  - 2) CSGID shall be present in the AAI\_NBR-REQ message when an AMS request the information of subscribed CSG femto ABSs.

Suggested Remedy

accept the proposed text in C80216m-10\_0716

GroupResolutionDecision of Group: Principle

accept the proposed text in C80216m-10\_0716r5, remedy 1 only.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

Comment by:

Xie, Feng

Membership Status: MemberDate: 2010-07-09Comment # 231Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 21      Fig/Table#      Subclause 16.2.18.2.1

AMS operation when paged by an ABS with cell bar bit =1 needs clarification. It reads in current D6:

"If an idle mode AMS is paged by an ABS whose Cell Bar bit=1, then the AMS shall not perform network re-entry to this ABS. The AMS shall perform ABS reselection and perform network re-entry if another ABS with Cell Bar bit=0 is found."

However, the procedure shall be applied only when the Action code =0b0 (network re-entry) in AAI\_PAG-ADV message.

Suggested Remedy

adopt the following modifications:

"If an idle mode AMS is paged by an ABS whose Cell Bar bit=1 with Action Code=0b0, then the AMS shall not perform network re-entry to this ABS. The AMS shall perform ABS reselection and perform network re-entry if another ABS with Cell Bar bit=0 is found."

GroupResolutionDecision of Group: Principle

Resolved by comment #392.

Resolution:

[Adopt the following changes from P 400, L20]

"If an Idle Mode AMS is paged by an ABS whose Cell Bar bit=1 with Action Code = 0b0, then the AMS shall not ~~perform attempt~~ network reentry to this ABS. Instead, the AMS shall perform ABS reselection of the preferred ABS. ~~and perform network re-entry~~ If ~~another~~ the preferred ABS with Cell Bar bit=0 is found, the AMS shall try network re-entry to the ABS."

Reason for Group's Decision/ResolutionGroup's Notes

16.2.18 Idle mode

Editor's NotesEditor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 232

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 793      Line 65      Fig/Table#      Subclause 16.4

"OSG femto" and "open femto" should be unified with a unique name

Suggested Remedy

p.793 line 65: replace "open Femto" to "OSG Femto"  
p.794, line 1: replace "open Femto" to "OSG Femto"  
p.794, line 22: replace "open Femto" to "OSG Femto"

GroupResolution

Decision of Group: Agree

p.793 line 65: replace "open Femto" to "OSG Femto"  
p.794, line 1: replace "open Femto" to "OSG Femto"  
p.794, line 22: replace "open Femto" to "OSG Femto"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Xie, Feng

Membership Status: Member

Date: 2010-07-09

Comment # 233

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 854      Line 5      Fig/Table#      Subclause 16.10.2.1

Zone Switch TLV in RNG-RSP message, Table 982 (OFDMA-specific RNG-RSP message encodings) , needs clarification and clean-up.

1) NONCE\_BS is no longer used and should be deleted from zone switch TLV.

2) FA index should be included in Zone Switch TLV if LZone and target MZone are located in different carriers. This may happen in two scenarios. a) mixed-mode ABS applies FDM mode for deploying LZone and MZone. b) mixed-mode ABS applies TDM mode for deploying LZone and MZone in one carrier and the ABS support multi-carrier. Then LZone and target MZone may be located in different carriers.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0717

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C80216m-10\_0717r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.10: AAI Support for AAI in LZone

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 234

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 7      Fig/Table#      Subclause 16.2.3.30

T\_ReTx\_Interval is 3 bits, so the value of T\_ReTx\_Interval can only be 0-7 instead of 0-8

Suggested Remedy

T\_ReTx\_Interva 3 0-8 7

GroupResolution

Decision of Group: Principle

same resolution as comment 10080

[Modify the text of line 6 on page 160 as follows:]

-----  
| T\_ReTx\_Interval    | 3    | ~~0-8~~ 1-8 if DL\_N\_MAX\_ReTx ≡ 4; 1-4 if DL\_N\_MAX\_ReTx ≡ 8 |  
-----

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 235

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 560      Line 34      Fig/Table#      Subclause 16.3.6.5.2.4.1

In 802.16m D6 the system can't assign the DLRUs or NLRUs across mutiple frequency partitions, especially for two deboosted frequency partitions. This configuration is quite useful in some cases. To fix this defects, we propose to modify "Derivation of the mapping between LRU index and physical PRU index" part in DL/UL Basic Assignment IE and DL/UL Subband Assignment IE .

Suggested Remedy

Adopt the contribution C80216m-10/0725 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no need to schedule across two deboosted partitions.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 236

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 622      Line 63      Fig/Table#      Subclause 16.3.7.2.5.1

If the OL region type 0 is enable, all the DLRUs in FP0 will be used for OL Region Type0. When the primary frequency partition also is located in FP0, the different boosted power for PC AMAP and Broadcast AMAP will lead that the power in OL Region in different ABSs is out of control.

Suggested Remedy

Adopt the contribution C80216m-10/0723 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

To support this scheme, the change of subchannelization must be followed. Also, this scheme might give the loss of frequency diversity in DLRU.

Basically location of OL Region is only important for measurement. If AMS needs to report for OL Region, then it will calculate CQI based on OL Region pilot. But in DLRU, all pilots are shared. So, even though we reduce the OL Region type 0 by proposed method, it does not have any impact on measurement.

Also note that the cited contribution has nothing to do with this issue (appears to have an incorrect contribution number).

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 237

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 43      Line 421      Fig/Table#      Subclause 16.2.24

About update of S-SFH IEs, there are some places to need to be cleaned up or explained further all the same. For example, Page 421 Line 60 "If the AMS determines that the "S-SFH change count" field in P-SFH has not changed, then the AMS determines that it has up to date information." This sentence is not accurate enough during S-SFH update, because only after finishing S-SFH update procedure, an AMS shall own up to date information.

Suggested Remedy

Page 421 Line 60 :

If the AMS determines that the "S-SFH change count" field in P-SFH has not changed at the superframes where the change of S-SFH SP IE(s) probably happens, then the AMS determines that it has up to date information.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 238

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 526      Line 32      Fig/Table#      Subclause 16.3.6.2.1.2

According to TSP1 < TSP2 < TSP3 and current S-SFH SPx transmission periods, it shall not occur that S-SFH is transmitted in every superframe.

Suggested Remedy

The Secondary Superframe Header (S-SFH) may be transmitted in every superframe.

GroupResolution

Decision of Group: Agree

~~The Secondary Superframe Header (S-SFH) may be transmitted in every superframe.~~

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Guan, Yanfeng

Membership Status: MemberDate: 2010-07-09Comment # 239Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 538      Line 39      Fig/Table#      Subclause 16.3.6.5.1

About P-SFH IE and S-SFH SPx IE, firstly, some notes are not accurate enough; secondly, some information fields can be further optimized all the same.

Suggested Remedy

Page 538, Line 61:

Indicates the value of S-SFH change count associated with the S-SFH SPx IE(s) transmitted in this superframe S-SFH change cycle.

Page 542, Line 61:

Frame configuration index

65

The mapping between value of this index and frame configuration is listed in Table 807, Table 808, and Table 809

GroupResolutionDecision of Group: Principle

Page 538, Line 61:

Indicates the value of S-SFH change count associated with the S-SFH SPx IE(s) transmitted in this ~~superframe~~-S-SFH change cycle.Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 240

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 540      Line 15      Fig/Table#      Subclause 16.3.6.5.1.2

This sentence "Each S-SFH subpacket IE is of a fixed size." is not identical with the previous expression that "SizeS-SFH varies according to the scheduled S-SFH SPx IEs, FFT size and S-SFH size extension."

Suggested Remedy

Each S-SFH subpacket IE is of a fixed size.

GroupResolution

Decision of Group: Principle

Replace:

"Each S-SFH subpacket IE is of a fixed size."

with:

"The size of the S-SFH subpacket IE is determined by the value of the S-SFH size extension field of the P-SFH IE."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Guan, Yanfeng

Membership Status: Member

Date: 2010-07-09

Comment # 241

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 606      Line 39      Fig/Table#      Subclause 16.3652413

Dynamic NS-RCHs can be allocated by Broadcast Assignment A-MAP IE. But the allocation number for dynamic NS-RCHs in one frame and the purpose for using dynamic NS-RCHs are not clarified.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0727 or its latest revision.

Group Resolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0727r4.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 242Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 57      Line 35      Fig/Table#      Subclause 16.2.2.1.3.6

ULPC Parameters Updating Indicator 0b0 also need to be used when AMS never decodes AAI\_SCD message.

Suggested Remedy

Add the following text at the end of description of 0b0 as follows:

0: No ULPC parameters changed comparing to previous reporting or AMS never decodes AAI\_SCD message successfully.

GroupResolutionDecision of Group: Principle

Add the following text at the end of description of 0b0 as follows:

0: No ULPC parameters <ins>have</ins> changed ~~comparing to previous reporting~~.Reason for Group's Decision/ResolutionGroup's Notes

16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 243

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 58

Line 28

Fig/Table#

Subclause 16.2.2.1.3.7

Wrong reference

Suggested Remedy

Modify as follows:

Line 28: As defined in section 16.3.7.2.5.6 to As defined in table 892

Line 33: As defined in section 16.3.7.2.5.6 to As defined in table 893

GroupResolution

Decision of Group: Agree

Modify as follows:

Line 28: As defined in section 16.3.7.2.5.6 to As defined in table 892

Line 33: As defined in section 16.3.7.2.5.6 to As defined in table 893

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 244

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 59

Line 10

Fig/Table#

Subclause 16.2.2.1.3.8

Wrong header name

Suggested Remedy

Modify MFEH() { to MEH () {

GroupResolution

Decision of Group: Agree

Modify MFEH() { to MEH () {

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 245Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 58      Line 52      Fig/Table#      Subclause 16.2.2.1.3.8

Currently STC rate (3bit), PMI (6 bit) are fixed size. AMS can add zero in the front if the size is smaller than the fixed size.

Suggested Remedy

In line 52 of p. 58, add the following text:

If the reporting STC rate or PMI is less than 3 or 6bits, zero MSB padding shall be applied to make the STC rate and PMI 3 or 6bits.

GroupResolutionDecision of Group: Principle

Proposed resolution:

[Add a note in 'Notes' column in Table 664 for the following fields]

- Wideband STC Rate: 'STC rate – 1' mapped to 3bit unsigned integer (i.e., STC rate=1 as 0b000 ~ STC rate=8 as 0b111)
- Wideband PMI: wideband preferred matrix index (PMI), size of which is number of PMI bits ('NB') used, mapped to NB LSB bits of this field, while the remaining MSB bit(s) set to zero(0)

Reason for Group's Decision/ResolutionGroup's Notes

16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 246

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 70

Line 5

Fig/Table#

Subclause 16.2.3

Wrong reference

Suggested Remedy

In line 5, 9, 10 of p. 70, "Table 678" shall be used instead of "Table 676."

GroupResolution

Decision of Group: Agree

In line 5, 9, 10 of p. 70, "Table 678" shall be used instead of "Table 676."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 247

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 73

Line 50

Fig/Table#

Subclause 16.2.3

Wrong message name

Suggested Remedy

AAI\_UL\_POWER\_ADJUST shall be AAI\_UL\_POWER\_ADJ

GroupResolution

Decision of Group: Agree

AAI\_UL\_POWER\_ADJUST shall be AAI\_UL\_POWER\_ADJ

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 248

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 73      Line 57      Fig/Table#      Subclause 16.2.3

AAI\_UL\_PSR is now signaling header

Suggested Remedy

Delete AAI\_UL\_PSR message row in table 678

GroupResolution

Decision of Group: Agree

Delete AAI\_UL\_PSR message row in table 678

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 249

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 74      Line 12      Fig/Table#      Subclause 16.2.3

AAI\_DL-IM message is not for collocated coexistence but for FFR and/or interference mitigation

Suggested Remedy

Change functional area for AAI\_DL-IM message "Collocated Coexistence" to "FFR/MultiBS-MIMO."

GroupResolution

Decision of Group: Principle

Change functional area for AAI\_DL-IM message "Collocated Coexistence" to "FFR/MultiBS-MIMO."

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 250

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 74      Line 6      Fig/Table#      Subclause 16.2.3

AAI\_SingleBS\_MIMO\_FBK is not for collocated coexistence.

Suggested Remedy

Change functional area for AAI\_SingleBS\_MIMO\_FBK message "Collocated Coexistence" to "MIMO."

GroupResolution

Decision of Group: Agree

Change functional area for AAI\_SingleBS\_MIMO\_FBK message "Collocated Coexistence" to "MIMO."

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 251

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 74      Line 9      Fig/Table#      Subclause 16.2.3

AAI\_MultiBS\_MIMO\_FBK, AAI\_MULTI\_BS\_MIMO\_REQ, AAI\_MULTI\_BS\_MIMO\_RSP, AAI\_UL\_MultiBS\_MIMO\_SBP are not for collocated coexistence.

Suggested Remedy

Change functional area for AAI\_MultiBS\_MIMO\_FBK, AAI\_MULTI\_BS\_MIMO\_REQ, AAI\_MULTI\_BS\_MIMO\_RSP, AAI\_UL\_MultiBS\_MIMO\_SBP messages "Collocated Coexistence" to "MultiBS-MIMO."

GroupResolution

Decision of Group: Agree

Change functional area for AAI\_MultiBS\_MIMO\_FBK, AAI\_MULTI\_BS\_MIMO\_REQ, AAI\_MULTI\_BS\_MIMO\_RSP, AAI\_UL\_MultiBS\_MIMO\_SBP messages "Collocated Coexistence" to "MultiBS-MIMO."

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 252

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 91      Line 17      Fig/Table#      Subclause 16.2.3.5

Some of field in table 683 and 685 are different.

Suggested Remedy

Modify value column in UL sounding and DL FFR row in table 685 as in same row in table 683.

GroupResolution

Decision of Group: Agree

Modify value column in UL sounding and DL FFR row in table 685 as in same row in table 683.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 253

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 119      Line 19      Fig/Table#      Subclause 16.2.3.12

FFR resource metrics is not in SFH but in SCD message.

Suggested Remedy

Delete FFR partition resource metrics (Type 47) in table 693 and add resourceMetricFP2 and resourceMetricFP3 as last types in table 693.

GroupResolution

Decision of Group: Agree

Delete FFR partition resource metrics (Type 47) in table 693 and add resourceMetricFP2 and resourceMetricFP3 as last types in table 693

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 254

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 161 Line 60

Fig/Table#

Subclause 16.2.3.30

Wrong reference

Suggested Remedy

Table number shall be 813 to 815 not 810 to 812 in Condition column of resurceMetricFP2 and resource MetricFP3

GroupResolution

Decision of Group: Agree

Table number shall be 813 to 815 not 810 to 812 in Condition column of resurceMetricFP2 and resource MetricFP3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 255Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 163      Line 31      Fig/Table#      Subclause 16.2.3.32

Short-term feedback period shall be 2<sup>p</sup> not 2p. And long-term feedback also shall be 2<sup>q</sup> not 2q. And allocation duration shall be 8x2<sup>d</sup>.

Suggested Remedy

Remedy #1. In line 31 of p. 163,  
p shall be superscript of 2.

Remedy #2. In line 36 of p. 163,  
q shall be superscript of 2.

Remedy #3. In line 52 of p. 163,

An FBCH is transmitted on the FBCH channels indexed by Channel Index for 8x2<sup>d</sup> (d shall be superscript of 2)

GroupResolutionDecision of Group: Principle

Remedy #1. In line 31 of p. 163,  
p shall be superscript

Remedy #2. In line 36 of p. 163,  
q shall be superscript

Remedy #3. In line 52 of p. 163,

An FBCH is transmitted on the FBCH channels indexed by Channel Index for 8x2<sup>d</sup> (d shall be superscript of 2)

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 256

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 164      Line 19      Fig/Table#      Subclause 16.2.3.33

txPowerReportMinimumInterval and txPowerReportPeriodcallInterval shall be 2<sup>d</sup> frames not 2d frames.

Suggested Remedy

In line 19 and 23 of p. 164,  
d shall be superscript of 2.

GroupResolution

Decision of Group: Principle

In line 19 and 23 of p. 164,  
d shall be superscript .

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 257

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 165      Line 6      Fig/Table#      Subclause 16.2.3.34

BC\_SI can be transmitted without MultiBS MIMO operation.

Suggested Remedy

Delete condition column in twoTx-BCSI row in table 720, line 6, page 165

GroupResolution

Decision of Group: Principle

Delete contents of condition column in twoTx-BCSI row in table 720, line 6, page 165

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 258

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 168      Line 11

Fig/Table#

Subclause 16.2.3.37

Wrong reference

Suggested Remedy

section number shall be 16.3.7.2.5.5.1 not 16.3.7.2.5.6 in Value/Note column of row matrix2x2, matrix4x4 and matrix 8x8.

GroupResolution

Decision of Group: Agree

section number shall be 16.3.7.2.5.5.1 not 16.3.7.2.5.6 in Value/Note column of row matrix2x2, matrix4x4 and matrix 8x8.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 259

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 414

Line 33

Fig/Table#

Subclause 16.2.21.1

Wrong reference

Suggested Remedy

Table number shall be 462 not 454 in line 33, page 414.

GroupResolution

Decision of Group: Agree

Table number shall be 462 not 454 in line 33, page 414.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 260

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 415      Line 26

Fig/Table#

Subclause 16.2.21.1

Comment B0387 was accepted but it is not implemented properly.

Suggested Remedy

In line 24 of p. 415 (in Table 800), change the equation used to set Resource\_Metric FPI when  $0.5 \leq x < 0.8$  as shown (add parentheses around  $(x-0.5)*8/0.3$ ):

$$y = \text{floor}((x-0.5)*8/0.3) + 4$$

GroupResolution

Decision of Group: Agree

In line 24 of p. 415 (in Table 800), change the equation used to set Resource\_Metric FPI when  $0.5 \leq x < 0.8$  as shown (add parentheses around  $(x-0.5)*8/0.3$ ):

$$y = \text{floor}((x-0.5)*8/0.3) + 4$$

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 261Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 416      Line 15      Fig/Table#      Subclause 16.2.21.1.2.1

Resource metric is now transmitted via AAI\_SCD message.

**Suggested Remedy**

In line 15-16 of p. 416, modify the sentence as follows:

FFR partition information is broadcast in S-SFH SP2, and the resource metric is broadcasted in AAI\_SCD message, and transmission power level is broadcast in AAI\_DL\_IM message and/or S-SFH SP3.

**GroupResolution****Decision of Group: Agree**

In line 15-16 of p. 416, modify the sentence as follows:

FFR partition information is broadcast in S-SFH SP2, and the resource metric <ins>is broadcasted in AAI\_SCD message</ins>, and transmission power level is broadcast in AAI\_DL\_IM message and/or S-SFH SP3.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.21 Interference Mitigation Mechanism

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 262

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 416      Line 20      Fig/Table#      Subclause 16.2.21.1.2

FFR partition size is not transmitted every superframe. And figure 463 does not give any information.

Suggested Remedy

Delete figure 463

GroupResolution

Decision of Group: Agree

Delete figure 463

Reason for Group's Decision/Resolution

Group's Notes

16.2.21 Interference Mitigation Mechanism

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 263

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 802      Line 65      Fig/Table#      Subclause 16.5.1.1

Sounding based Co-MIMO and CL-MD are supported by UL Sounding Command A-MAP IE.

Suggested Remedy

Remedy #1.

In line 65 of p. 801, Add "Sounding based" in front of the sentence.

Remedy #2.

In line 40 of p. 802, Add "sounding based" as follows:

Uplink sounding can be used to support sounding based Co-MIMO and CL-MD.

GroupResolution

Decision of Group: Agree

Remedy #1.

In line 65 of p. 801, Add "Sounding based" in front of the sentence.

Remedy #2.

In line 40 of p. 802, Add "sounding based" as follows:

Uplink sounding can be used to support sounding based Co-MIMO and CL-MD.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 264

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 804      Line 6

Fig/Table#

Subclause 16.5.1.2.1

CM has been changed to Codebook\_mode.

Suggested Remedy

In line 6 of p. 804, change CM to Codebook\_mode.

GroupResolution

Decision of Group: Agree

In line 6 of p. 804, change CM to Codebook\_mode.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 265

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 805      Line 31

Fig/Table#

Subclause 16.5.1.3.1

Wrong reference

Suggested Remedy

In line 31 of p. 805, equation 256 shall be equation (277)

GroupResolution

Decision of Group: Agree

In line 31 of p. 805, equation 256 shall be equation (277)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 266

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 489      Line 50      Fig/Table#      Subclause 16.3.5.4.2

MIMO midamble is used not only for PMI selection but also for CQI calculation in closed loop MIMO.

Suggested Remedy

In line 50 of p. 489, modify sentence as follows (add "and CQI calculation" between "selection" and "in"):  
MIMO midamble is used for PMI selection and CQI calculation in closed loop MIMO.

GroupResolution

Decision of Group: Principle

In line 50 of p. 489, modify sentence as follows (add "and CQI calculation" between "selection" and "in"):  
MIMO midamble is used for PMI selection and CQI calculation in closed loop MIMO.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 267

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 580

Line 23

Fig/Table#

Subclause 16.3.6.5.2.4.5

Typo

Suggested Remedy

In line 23 of p. 580 (table 856), "SCL SU MIMO" shall be "CL SU MIMO."

GroupResolution

Decision of Group: Agree

In line 23 of p. 580 (table 856), "SCL SU MIMO" shall be "CL SU MIMO."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AA PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 268

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 582      Line 6      Fig/Table#      Subclause 16.3.6.5.2.4.5

MFM = 1 only supports STC rate 1/2

Suggested Remedy

In line 6 of p. 582, delete MFM = 1 option as follows:

MaxMt: This field specifies the maximum rank to be fed back by the AMS if MFM=0,2,3,4 (which indicates a SU

GroupResolution

Decision of Group: Principle

... if MFM=0,~~1~~,2,3,4 (which... )

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 269

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 583      Line 37      Fig/Table#      Subclause 16.3.6.5.2.4.6

It is not defined where "Multiplexing type" is transmitted. It is transmitted via AAI\_SCD message with name "SoundingMultiplexingType."  
There is something wrong in sounding related information indication part in AAI\_SCD message.

Suggested Remedy

Adopt contribution C802.16m-10/0780 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt contribution C802.16m-10/0780r1.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

\*\*\* Roshni \*\*\* Remedy 2(PHY) done, Remedy 1 (MAC), (Remedy 3 (Annex P) done by Hyunjeong)

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 270

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 600      Line 43      Fig/Table#      Subclause 16.3652411

There is something wrong in Notes in table 862.

Suggested Remedy

Move "Muti-BS MIMO feedback request" from line 43 of p. 600 (table 862) to note column of "}else{." (line 34 of p. 601)

GroupResolution

Decision of Group: Agree

Move "Muti-BS MIMO feedback request" from the "Notes" column on line 43 of p. 600 (table 862) to "Notes" column of "}else{." (line 34 of p. 601)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 271

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 603      Line 51      Fig/Table#      Subclause 16.3652411

Some of description for period in Feedback Polling A-MAP IE section is wrong.  
For example, MFM = 1 only supports STC rate 1/2. MFM = 2 does not feedback Stream index but STC rate.  
Also, for some MFM, there is no description for  $p = 0$  and  $q > 0$ .

Suggested Remedy

Adopt contribution C802.16m-10/0779 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt contribution C802.16m-10/0779r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 272Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Editorial	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 622	<u>Line</u> 63	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.7.2.5.1
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"downlink broadcast message" is redundant.

**Suggested Remedy**

Remedy #1.

In line 63 of p. 622, delete "a downlink broadcast message" as follows:

The OL region type 0 is present if OL-Region-Type0-ON is indicated in AAI\_SCD message.

Remedy #2.

In line 1-2 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 1 NLRU is present if OL-Region-Type1-NLRU-Size is greater than 0 in AAI\_SCD message.

Remedy #3.

In line 10-11 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 1 SLRU is present if OL-Region-Type1-SLRU-Size is greater than 0 in AAI\_SCD message.

Remedy #4.

In line 20-21 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 2 SLRU is present if OL-Region-Type2-SLRU-Size is greater than 0 in AAI\_SCD message.

**GroupResolution****Decision of Group: Agree**

Remedy #1.

In line 63 of p. 622, delete "a downlink broadcast message" as follows:

The OL region type 0 is present if OL-Region-Type0-ON is indicated in AAI\_SCD message.

Remedy #2.

In line 1-2 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 1 NLRU is present if OL-Region-Type1-NLRU-Size is greater than 0 in AAI\_SCD message.

Remedy #3.

In line 10-11 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 1 SLRU is present if OL-Region-Type1-SLRU-Size is greater than 0 in AAI\_SCD message.

Remedy #4.

In line 20-21 of p. 623, delete "a downlink broadcast message" as follows:

The OL region type 2 SLRU is present if OL-Region-Type2-SLRU-Size is greater than 0 in AAI\_SCD message.

**Reason for Group's Decision/Resolution****Group's Notes**

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 273

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 624      Line 3      Fig/Table#      Subclause 16.3.7.2.5.3

There is no subsection of 16.3.7.2.5.3.

Suggested Remedy

In line 3-4 of p. 624, delete the following sentence:

"The detailed description of feedback and AMS processing are in the following subsections."

GroupResolution

Decision of Group: Agree

In line 3-4 of p. 624, delete the following sentence:

"The detailed description of feedback and AMS processing are in the following subsections."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 274

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 627      Line 35      Fig/Table#      Subclause 16.3.7.2.5.4

Need to include CDR as one of the value in MEF.

Suggested Remedy

In line 35 of p. 627 (table 878), add "CDR" in row MEF and column Value.

GroupResolution

Decision of Group: Principle

In line 35 of p. 627 (table 878), modify as indicated:

SFBC

Vertical encoding

~~Horizontal~~ Multilayer encoding

CDR

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 275

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 627      Line 48

Fig/Table#

Subclause 16.3.7.2.5.4

There is no HE. Need to change it to ME.

Suggested Remedy

In line 48 of p. 627 (table 878), change "HE" to "ME" (in SI row and Notes column)

GroupResolution

Decision of Group: Agree

In line 48 of p. 627 (table 878), change "HE" to "ME" (in SI row and Notes column)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 276

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 628      Line 8      Fig/Table#      Subclause 16.3.7.2.5.4

Need a space between STC and rate.

Suggested Remedy

In line 8 of p. 628 (table 878), add space between STC and rate (in MaxMt row and Notes column)

GroupResolution

Decision of Group: Agree

In line 8 of p. 628 (table 878), add space between STC and rate (in MaxMt row and Notes column)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 277

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 642      Line 25      Fig/Table#      Subclause 16.3.7.2.5.5

Need a description for operation when MS is instructed to report Codebook\_mode = 0b11 or Codebook\_coordination = 0b1 while it didn't successfully decode AAI\_DL\_IM message.

Suggested Remedy

In line 25 of p. 642, add the following sentence at the end of the paragraph.

"If codebook coordination is enabled by Codebook\_mode = 0b11 or Codebook\_coordination 0b1 while AMS didn't successfully decode AAI\_DL\_IM message, then AMS assumes all BC\_SI bit field is ones.

GroupResolution

Decision of Group: Principle

In line 25 of p. 642, add the following sentence at the end of the paragraph.

If codebook coordination is enabled by Codebook\_mode = 0b11 or Codebook\_coordination 0b1 while AMS did not receive an AAI\_DL\_IM message, then the AMS assumes that all BC\_SI bit field are ones.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 278Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 720      Line 52      Fig/Table#      Subclause 16.3.9.3

MFM 1 is only supported in frequency partition 0. So, there won't be frequency partition selection in MFM 1.

**Suggested Remedy**

## Remedy #1:

In line 52 of p. 720, delete MFM = 1 option as follows:

6) Frequency partition selection (for MFM 0, 4, and 7)

## Remedy #2:

In line 46 of p. 721 (table 929), delete MFM = 1 option as follows:

-----  
EDI type 2 | N/A | Event-driven indicator in order that AMS informs ABS about the frequency partition index (for MIMO feedback modes 0, 4, 7)

## Remedy #3:

In line 20 of p. 724 (table 930), delete MFM = 1 option as follows:

-----  
58 | Event driven indicator (EDI) ... | AMS informs ABS about the frequency partition index (for MIMO feedback modes 0, 4, 7)

**GroupResolution****Decision of Group: Agree**

## Remedy #1:

In line 52 of p. 720, delete MFM = 1 option as follows:

6) Frequency partition selection (for MFM 0, 4, and 7)

## Remedy #2:

In line 46 of p. 721 (table 929), delete MFM = 1 option as follows:

-----  
EDI type 2 | N/A | Event-driven indicator in order that AMS informs ABS about the frequency partition index (for MIMO feedback modes 0, 4, 7)

## Remedy #3:

In line 20 of p. 724 (table 930), delete MFM = 1 option as follows:

-----  
58 | Event driven indicator (EDI) ... | AMS informs ABS about the frequency partition index (for MIMO feedback modes 0, 4, 7)

-----  
**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Lee, Wookbong

**Membership Status:** Member

**Date:** 2010-07-09

**Comment #** 279

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 721      **Line** 25      **Fig/Table#**      **Subclause** 16.3.9.3.1.1

MFM = 1 only supports STC rate 1/2

**Suggested Remedy**

In line 25 of p. 721 (table 929), delete MFM = 1 option as follows:

-----  
| STC Rate Indicator | 0, 2, 3 | |

**GroupResolution**

**Decision of Group:** Principle

*In line 25 of Table 929: add "4" to the column for "Related MIMO Feedback Mode":*

STC Rate Indicator      0,~~4~~,2,3, 4

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done



Comment by:

Lee, Wookbong

Membership Status: MemberDate: 2010-07-09Comment # 280Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 721      Line 62      Fig/Table#      Subclause 16.3.9.3.1.1

Need description for PFBCH Encoding Type 0, 1 and 3.

Suggested Remedy

Remedy #1. In line 63 of p. 721, add following sentence.

Encoding Type 0 in PFBCH is used for CQI and STC rate or EDI reporting. Details can be found in table 930.

Remedy #2. In line 45 of p. 724, add following sentence.

Encoding Type 1 in PFBCH is used for best subband index or EDI reporting. Details can be found in table 931.

Remedy #3. In line 60 of p. 724, add following sentence.

Encoding Type 3 in PFBCH is used for CQI or EDI reporting. Details can be found in table 932.

GroupResolutionDecision of Group: Agree

Remedy #1. In line 63 of p. 721, add following sentence.

Encoding Type 0 in PFBCH is used for CQI and STC rate or EDI reporting. Details can be found in table 930.

Remedy #2. In line 45 of p. 724, add following sentence.

Encoding Type 1 in PFBCH is used for best subband index or EDI reporting. Details can be found in table 931.

Remedy #3. In line 60 of p. 724, add following sentence.

Encoding Type 3 in PFBCH is used for CQI or EDI reporting. Details can be found in table 932.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 281

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 728      Line 32      Fig/Table#      Subclause 16.3.9.3.1.2  
PMI is "Preferred Matrix Index"

Suggested Remedy

In line 32 of p. 728 (table 933), modify text in Subband PMI row and Description/Notes column as follows:  
Preferred Matrix Index of one subband for CL MIMO

GroupResolution

Decision of Group: Principle

In line 32 of p. 728 (table 933), modify text in Subband PMI row and Description/Notes column as follows:  
<del>Precoding Matrix Indicator of one subband for CL MIMO</del> <ins>Preferred Matrix Index of one subband for CL MIMO</ins>

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 282

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 731      Line 43      Fig/Table#      Subclause 16.3.9.3.1.5

In line 43-44 of page 731, "If MFM = 4 or 7 for feedback format = 0b1, the ABS shall set q = 0, and only the long period reports shall be sent."

But this shall be changed to only the short period reports shall be sent since there is no long period report.

Suggested Remedy

In line 43-44 of page 731, modify sentence as follows:

If MFM = 4 or 7 for feedback format = 0b1, the ABS shall set q = 0, and only the short period reports shall be sent.

GroupResolution

Decision of Group: Agree

In line 43-44 of page 731, modify sentence as follows:

If MFM = 4 or 7 for feedback format = 0b1, the ABS shall set q = 0, and only the short period reports shall be sent.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 283

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 733 Line 51

Fig/Table#

Subclause 16.3.9.3.1.5

Grammar error

Suggested Remedy

In line 51-52 of p. 733, modify sentence as follows:

For feedback format 0 with 3 reports using the PFBCH, Subband PMI shall be transmitted first followed by report of Best\_subbands\_index.

GroupResolution

Decision of Group: Agree

In line 51-52 of p. 733, modify sentence as follows:

For feedback format 0 with 3 reports using the PFBCH, Subband PMI shall be transmitted first followed by report of Best\_subbands\_index.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Wookbong

Membership Status: Member

Date: 2010-07-09

Comment # 284

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 752      Line 24      Fig/Table#      Subclause 16.3.10.1.2.2

Currently IEEE 802.16m uplink 2Tx codebook contains antenna selection codewords (index 1000 and 1001). This antenna selection codewords may have some problem. So, we propose to change these antenna selection codewords to antenna turn off codewords.

Suggested Remedy

Adopt contribution C802.16m-10/0737 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposed change violate the rule of normalization for each codeword, and degrade the AMS performance as -3 dB in general case (in no power shortage case).

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 285

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 73      Line 47      Fig/Table#      Subclause 16.2.3

AAI\_Global-Config message is a unicast message to be encrypted and ICV protected.

Suggested Remedy

In Table 678--MAC Control Messages, change 'N.A' to 'Encrypted/ICV' in Security column for AAI\_Global-Config

GroupResolution

Decision of Group: Agree

In Table 678--MAC Control Messages, change 'N.A' to 'Encrypted/ICV' in Security column for AAI\_Global-Config

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 286

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 85      Line 51      Fig/Table#      Subclause 16.2.3.3

1 bit indicator for Unicast direction in AAI\_RNG-ACK is redundant since it is already indicated by which A-MAP IE is used. DL resources for unicast AAI\_RNG-ACK transmission is always allocated by DL basic assignment A-MAP IE with unicast STID rather than by Broadcast assignment A-MAP IE.

Suggested Remedy

In Table 681--AAI\_RNG-ACK message Field Descriptions, remove the row for Unicast direction entirely.

GroupResolution

Decision of Group: Principle

Adopt the proposed text change in C80216m-10\_0881r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 334

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 287

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line 7      Fig/Table#      Subclause 16.2.3.4

There is no case of which AAI\_SBC-REQ message contains CMAC Tuple. Unnecessary text needs to be deleted.

Suggested Remedy

Replace the text

The AAI\_SBC-REQ message shall be encrypted and not contain CMAC Tuple during HO reentry if authentication has been completed.  
with

The AAI\_SBC-REQ message shall be encrypted during HO reentry if authentication has been completed.

GroupResolution

Decision of Group: Principle

Remove the following sentence (lines 7 and 8) on Page 89:

The AAI\_SBC-REQ message shall be encrypted and not contain CMAC Tuple during HO reentry if authentication has been completed

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 288

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 91      Line 24      Fig/Table#      Subclause 16.2.3.5

There is no case of which AAI\_SBC-RSP message contains CMAC Tuple. Unnecessary text needs to be deleted.

Suggested Remedy

Replace the text

The AAI\_SBC-RSP message shall be encrypted and not contain CMAC Tuple during HO reentry if authentication has been completed.  
with

The AAI\_SBC-RSP message shall be encrypted during HO reentry if authentication has been completed.

GroupResolution

Decision of Group: Principle

Remove the following sentence (lines 24 and 25) on Page 91:

The AAI\_SBC-RSP message shall be encrypted and not contain CMAC Tuple during HO reentry if authentication has been completed

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 289

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 94      Line 64      Fig/Table#      Subclause 16.2.3.7

There is no case of which AAI\_REG-REQ message contains CMAC Tuple. Unnecessary text needs to be deleted.

Suggested Remedy

Replace the text

The AAI\_REG-REQ message shall be encrypted and not contain CMAC Tuple if authentication has been completed.

with

The AAI\_REG-REQ message shall be encrypted if authentication has been completed.

GroupResolution

Decision of Group: Principle

Remove the following sentence (lines 64 and 65) on Page 94

The AAI\_REG-REQ message shall be encrypted and not contain CMAC Tuple if authentication has been completed

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 290

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 102      Line 46      Fig/Table#      Subclause 16.2.3.8

There is no case of which AAI\_REG-RSP message contains CMAC Tuple. Unnecessary text needs to be deleted.

Suggested Remedy

Replace the text

The AAI\_REG-RSP message shall be encrypted and not contain CMAC Tuple if authentication has been completed.  
with

The AAI\_REG-RSP message shall be encrypted if authentication has been completed.

GroupResolution

Decision of Group: Principle

Remove the following sentence (lines 46 and 47) on Page 102:

The AAI\_REG-RSP message shall be encrypted and not contain CMAC Tuple if authentication has been completed.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 291

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 106      Line 64      Fig/Table#      Subclause 16.2.3.10

Does S-ABS mean the serving ABS?

Suggested Remedy

Replace S-ABS with the serving ABS in 16.2.3.10 AAI\_HO-REQ.

GroupResolution

Decision of Group: Agree

Replace S-ABS with the serving ABS in 16.2.3.10 AAI\_HO-REQ.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 292Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 308      Line 44      Fig/Table#      Subclause 16.2.8.2.5.1

MAC PDU processing for multicarrier is the same as that for single carrier. We don't need to specify MAC segmentation especially for MC.

Suggested Remedy

Remove the section title '16.2.8.2.5.1 MAC segmentation' in 16.2.8.2.5 MAC PDU processing.

GroupResolutionDecision of Group: Principle

[Change the text as follows:]

~~16.2.8.2.5.1 MAC segmentation~~

MAC data shall be processed as defined for single carrier physical layer operation and can be mapped to data region in one of primary or secondary carriers. The A-MAP IE shall be sent through the carrier where the OFDMA data region is located. The A-MAP IE is the same as the one defined in 16.3.6.5.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 293

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 113      Line 50      Fig/Table#      Subclause 16.2.3.12

There is no definition of ESI in D6.

Suggested Remedy

Remove the text 'ESI information' from 16.2.3.12 AAI\_NBR-ADV.

GroupResolution

Decision of Group: Agree

Remove the text 'ESI information' from 16.2.3.12 AAI\_NBR-ADV on page 113, line 50.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 294

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 126      Line 46      Fig/Table#      Subclause 16.2.3.15

There are three report mode for scanning result, which are Periodic report, Event-triggered report, and One-time scan report. Report mode should be specified by one of them in AAI\_SCN-REP message.

Suggested Remedy

Remedy 1. Modify the size of Report mode from 1 to 2.

Remedy 2. Add the following text into the field of Value/Note for Report mode.

10: One-time scan report

GroupResolution

Decision of Group: Principle

Remedy 1. Modify the size of Report mode from 1 to 2 on page 126, line 46.

Remedy 2. Add the following text into the field of Value/Note for Report mode field on page 126, line 46.

Action code for an AMS's scan report of its measurement

00: Event-triggered report

01: Periodic report according to Scan report period of AAI\_SCN-RSP

10: One-time scan report

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 295Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 140      Line 39      Fig/Table#      Subclause 16.2.3.21

Action Code 0x07 in AAI\_DREG-RSP indicates that ABS allows AMS-initiated idle mode request.

**Suggested Remedy**

In Table 707--AAI\_DREG-RSP message, replace the text

0x07: This option is valid in response to a AAI\_DREG-REQ message with De-registration-request-code= 0x01.

with

0x07: This option is valid in response to a AAI\_DREG-REQ message with De-registration-request-code= 0x01 to allow AMS-initiated idle mode request.

**GroupResolution****Decision of Group: Agree**

Adopt the following changes from P140, L39]

~~0x07: This option is valid in response to a AAI\_DREG-REQ message with De-registration-request-code= 0x01. with~~

0x07: This option is valid in response to a AAI\_DREG-REQ message with De-registration-request-code= 0x01 to allow AMS-initiated idle mode request.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes****Editor's Actions** a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 296

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 143      Line 23      Fig/Table#      Subclause 16.2.3.22

No need to include Paging Cycle in the AAI\_PAG-ADV message for the purpose of AMS identification

Suggested Remedy

Remove the row of 'Paging Cycle' entirely from Table 708--AAI\_PAG-ADV message.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[Idle Mode ad-hoc made a straw vote on this comment: 1 vote in favor, 7 votes in against]

Paging cycle is part of idle mode identification, cannot be removed from paging message.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 297Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 153      Line 35      Fig/Table#      Subclause 16.2.3.26

SLPID is one of SC parameters, which can be updated by the unsolicited AAI\_SLP-RSP message. Even though the positive traffic indication has been received at an AMS, the AMS should keep its SLPID as long as its sleep mode is not terminated. SLPID update by the AAI\_TRF-IND message does not make sense any more.

Suggested Remedy

In 16.2.3.26 AAI\_TRF-IND, remove the following text.

The AAI\_TRF-IND may include the following parameters at end of AAI\_SLP-REQ message.

SLPID\_Update

The SLPID\_Update provides a shorthand method for changing the SLPID used by the AMS in sleep mode operation. The SLPID\_Update specifies a new SLPID that replaces an old SLPID. The SLPID\_Update may contain multiple pairs of Old and New SLPID values for the AMSs. Those SLPID update will be applied from next Listening Window.

GroupResolutionDecision of Group: Disagree

Sleep mode can be terminated by not only explicit signaling but also HO. Therefore, as time goes by, ABS needs to compress volume of SLPIDs for lower overhead. In that sense, SLPID\_Update is required.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 298

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 424      Line 25      Fig/Table#      Subclause 16.2.15.7

According to D6, when an AMS detects the mismatch of ABS restart count in the AAI\_SCD message, the AMS consider it as a coverage loss detection. So, the section of 16.2.15.7 Network reentry during the ABS restart needs to be moved under the section of Coverage loss

Suggested Remedy

Change the title '16.2.15.7 Network reentry during the ABS restart' to '16.2.26.4 Recovery from coverage loss due to the ABS restart' and move its related text under 16.2.26.4.

GroupResolution

Decision of Group: Agree

Change the title '16.2.15.7 Network reentry during the ABS restart' to '16.2.26.4 Recovery from coverage loss due to the ABS restart' and move its related text under 16.2.26.4.

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 299

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 35      Fig/Table#      Subclause 16.2.1.2.4

New CRID can be assigned to an AMS during network reentry/location update/zone-switch as specified in Table 680--AAI\_RNG-RSP message Field Descriptions

Suggested Remedy

Replace the text in 16.2.1.2.4

The network may assign the AMS a new CRID if necessary.

with

The network may assign the AMS a new CRID in the AAI\_RNG-RSP message during network reentry, location update or zone-switch if necessary.

GroupResolution

Decision of Group: Principle

same resolution as 10040:

Adopt the proposed text in contribution C802.16m-10/0894r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.1 Addressing

Editor's Notes

Editor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 300Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 277      Line 20      Fig/Table#      Subclause 16.2.6.1.1

Neighbor information of OSG femto ABS may be included in the broadcast AAI\_NBR-ADV message, which needs not to be sent in unicast manner. Moreover, it causes the huge overhead to provide the neighbor information of all the CSG femto ABSs by unicast AAI\_NBR-ADV in response to the AAI\_NBR-REQ message with the request BS type.

Suggested Remedy

Replace the text in 16.2.6.1.1.

When the AMS need to obtain the neighbor information of CSG or OSG femto ABS, it may indicate it through the request BS type in the AAI\_NBR-REQ message. Upon receiving such AAI\_NBR-REQ message, the serving ABS may send the neighboring CSG or OSG femto ABS information through the AAI\_NBR-ADV message to the AMS in unicast manner.

with

When the AMS need to obtain the neighbor information of CSG or OSG femto ABS not included in the AAI\_NBR-ADV message, it may indicate it through the request BS type in the AAI\_NBR-REQ message. Upon receiving such AAI\_NBR-REQ message, the serving ABS may send the neighboring CSG or OSG femto ABS information only including SA preamble index and physical carrier index through the AAI\_NBR-ADV message to the AMS in unicast manner.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

how AMS obtains the full system information of neighbor femto ABSs needs to be provided.

Vote:

In favor: 2

Opposed: 9

Abstain: 0

Group's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions    b) none needed

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 301Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 278      Line 28      Fig/Table#      Subclause 16.2.6.2

Current Trigger description defines the trigger conditions for single trigger definition. Number of Triggers needs to be added to accommodate multiple trigger definition.

Suggested Remedy

Add the following parameter in Table 774--Trigger Description, on top of the Number of conditions

-----  
Name Length (Bits) Value

-----  
Number of Triggers 6 Total number of Triggers that are defined

-----  
for (i=0; i <= Number of Triggers;  
i++) {

GroupResolutionDecision of Group: Agree

Add the following parameter in Table 774--Trigger Description, on top of the Number of conditions

-----  
Name Length (Bits) Value

-----  
Number of Triggers 6 Total number of Triggers that are defined

-----  
for (i=0; i <= Number of Triggers;  
i++) {

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 302Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 36      Fig/Table#      Subclause 16.2.6.3.3

Ranging opportunity assigned by AAI\_HO-CMD is valid only once not till the Ranging Initiation Deadline. And Ranging opportunity index and Subframe index not Dedicated\_Ranging\_Opportunity\_Flag is used for indicating the existence of dynamic ranging channel.

Suggested Remedy

Replace the following text in 16.2.6.3.3

During HO preparation phase, the target ABS may allocate a dedicated ranging code and dedicated ranging opportunity to the AMS via the serving ABS through the AAI\_HO-CMD message, indicated by both Dedicated\_Ranging\_Code\_Flag and Dedicated\_Ranging\_Opportunity\_Flag. The dedicated code and opportunity is assigned to the AMS until the Ranging Initiation Deadline.

with

During HO preparation phase, the target ABS may allocate a dedicated ranging code and ranging opportunity to the AMS via the serving ABS through the AAI\_HO-CMD message, indicated by Dedicated\_Ranging\_Code\_Flag, Ranging opportunity index, and Subframe index. The dedicated code is assigned to the AMS until the Ranging Initiation Deadline.

GroupResolutionDecision of Group: Principle

Change the text in 282, line 36 as follows

"During HO preparation phase, the target ABS may allocate a dedicated ranging code and dedicated ranging opportunity to the AMS via the serving ABS through the AAI\_HO-CMD message, ~~indicated by both Dedicated\_Ranging\_Code\_Flag and Dedicated\_Ranging\_Opportunity\_Flag.~~ The dedicated code ~~and opportunity is assigned to~~ shall be used by the AMS if the ABS assigns the dedicated ranging code and the Ranging Initiation Deadline has not expired. ~~until the Ranging Initiation Deadline.~~

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 303Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 157      Line 8      Fig/Table#      Subclause 16.2.3.30

ABS transmits and changes system parameters in the AAI\_SCD message as well as SFH (Super Frame Header). AMS should use system parameters which are currently applied. If AMS does not use system parameters (e.g., S-RCH allocation and Sounding) associated with the currently applied SCD Configuration Change Count, these movements can make a crippling impact on system performance. However, there is no description of when ABS applies the system parameters associated with the current SCD Configuration Change Count in the AAI\_SCD message.

Suggested Remedy

Adopt contribution C80216m-10/0731 or later version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Requires further technical analysis to choose one of the two options proposed in the contribution

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 304

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 825      Line 62      Fig/Table#      Subclause 16.6.2.16.2

Because AMS should be aware of when essential system information sent via an RS\_ESI message is applied, Super-Frame Number Action was included in the RS\_ESI message in the IEEE P802.16m/D5. However, the field has gone missing in the IEEE P802.16m/D6.

Suggested Remedy

Adopt contribution C80216m-10/0744 or later version.

GroupResolution

Decision of Group: Principle

Resolved by comment #213.

Resolution:

Adopte contribution C80216m-10/0801r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ryu, Kiseon

Membership Status: Member

Date: 2010-07-09

Comment # 305

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 204      Line 1      Fig/Table#      Subclause 16.2.6.4.1.2.1

The capability for zone switching of AMS shall be informed to the ABS. Otherwise, zone switch mode 0 shall be the default case. Indication of ZS capability in MZone is not currently supported since such information need to be understood by a legacy only BS, which is not defined in network side. It needs to allow AMS to indicate its zone switch capability in LZone via RNG-REQ message.

Suggested Remedy

Review and adopt text in proposed contribution C80216m-10\_0743.

GroupResolution

Decision of Group: Principle

Adopt text in proposed contribution C80216m-10\_0743r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Ryu, Kiseon

Membership Status: MemberDate: 2010-07-09Comment # 306Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 49      Fig/Table#      Subclause 16.2.18.2.2

In legacy mode of operation, the network entity assigns the paging cycle and paging offset that are represented in terms of frames. However, when the AMS is attached to a base station that uses IEEE 802.16m specifications, the AMS is aware about paging cycle and paging offset to be defined in terms of number of super-frames. Therefore, there is a need for mechanisms using which the AMS can determine its paging operational parameters.

Suggested Remedy

Adopt the text proposal in C80216m-10\_0732 or the latest revision of the contribution.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Suggested remedy of this contribution is incomplete because the MS does not need to calculate the paging offset in terms of superframe.

Group's Notes

16.2.18 Idle mode

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Youn-Tai

Membership Status: Member

Date: 2010-07-09

Comment # 307

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 74      Line 33      Fig/Table#      Subclause 16.2.3

In D6, the emergency information is broadcasted through AAI\_L2-XFER as stated in section 16.2.12.7. However, the connection type of AAI\_L2-XFER in Table 678 is only for unicast. We propose the modifications of AAI\_L2-XFER for consistency.

Suggested Remedy

Adopt the text proposal in C802.16m-10/0859 or its latest version.

GroupResolution

Decision of Group: Agree

Same resolution as comment #216

This comment is a duplicate of Comment #216.

Resolution is to: Adopt the text proposal in C802.16m-10/0859

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 216.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eklund, Carl

Membership Status: Member

Date: 2010-07-09

Comment # 308

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 20

Fig/Table#

Subclause

IPCS is a bad design that unfortunately I have made a significant contribution to. I should not not be perpetuated and mandating it over GPCS that is a clean design is absolute lunacy

Suggested Remedy

delete line 20

GroupResolution

Decision of Group: Agree

same resolution as comment #8  
Remove statement in line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eklund, Carl

Membership Status: Member

Date: 2010-07-09

Comment # 309

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 22

Fig/Table#

Subclause

GPCS needed for backwards compatibility

Suggested Remedy

delete line 22

GroupResolution

Decision of Group: Agree

same resolution as comment #6

delete line22

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eklund, Carl

Membership Status: Member

Date: 2010-07-09

Comment # 310

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 69

Line 61

Fig/Table#

Subclause

The ASN.1 message definition must be made normative

Suggested Remedy

add ASN.1 code definition for all MAC control messages, delete Annex P.2

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No specific remedy is proposed.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eklund, Carl

Membership Status: Member

Date: 2010-07-09

Comment # 311

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 56

Line 18

Fig/Table#

Subclause

The AMS Battery Level Report header is badly designed and no protocol is associated with it. Relative battery levels make little sense to report as battery capacity may hugely differ between terminals.

Suggested Remedy

Delete the AMS Battery Level Report header

GroupResolution

Decision of Group: Disagree

Vote: 4-11-0.

Comment is rejected.

Reason for Group's Decision/Resolution

Battery level report is beneficial for power saving

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kwak, Jin-Sam

Membership Status: Member

Date: 2010-07-09

Comment # 312

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 710      Line 60      Fig/Table#      Subclause 16.3.9.2.4.1

There is an error for obtaining the ranging frequency position  $K_{\text{offset}}$ . In order to locate it at the center of ranging bandwidth, the equation of  $K_{\text{offset}}$  should be changed.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0730 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C802.16m-10/0730

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kwak, Jin-Sam

Membership Status: Member

Date: 2010-07-09

Comment # 313

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 158

Line 6

Fig/Table#

Subclause 16.2.3.30

Wrong table numbers

Suggested Remedy

In Table 716, change table numbers 901 (periodicityOfRngChSync) and 899 (rangingPreambleCodeSync) for 926 and 924, respectively.

GroupResolution

Decision of Group: Agree

In Table 716, change table numbers 901 (periodicityOfRngChSync) and 899 (rangingPreambleCodeSync) for 926 and 924, respectively.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kwak, Jin-Sam

Membership Status: Member

Date: 2010-07-09

Comment # 314

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 158      Line 6      Fig/Table#      Subclause 16.2.3.30

Typos

Suggested Remedy

In the column of Conditions (Table 716), change "sentin" to "sent in."

GroupResolution

Decision of Group: Agree

In the column of Conditions (Table 716), change "sentin" to "sent in."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Liu, Yang

Membership Status: MemberDate: 2010-07-09Comment # 315Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 295	<u>Line</u> 16	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.6.4
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There are two scenarios for HO from 16m ABS to legacy BS defined in IEEE P802.16m/D6. One is "Handover from WirelessMAN-OFDMA Advanced System to WirelessMAN-OFDMA Reference System" in 16.2.6.4.2 (case one), the other is 16.2.6.4.2.4(case two), "Handover from WirelessMAN-OFDMA Advanced only System to WirelessMAN-OFDMA Reference System". For case one, it is expected that AMS obtains the neighbor R1 BS information from the MOB\_NBR-ADV message transmitted in its serving ABS LZone based on an indication in serving MZone. For case 2, since there is no LZone in serving ABS, AMS has to scan R1 BS(s) or neighbor ABS LZone(s) based on the same indication.

In current IEEE P802.16m/D6, the indication for case one is illustrated as follows in 16.2.3.12."The parameters NBR-ADV offset and NBR-ADV interval indicate the existence of neighbor WirelessMAN-OFDMA BS or LZone of ABS. The parameters shall be included in the AAI\_NBR-ADV message when ABS indicates the existence of neighbor WirelessMAN-OFDMA BS or LZone of ABS."

However, the indication of neighbor R1 BS or LZone of neighbor ABS existence in case 2 is not clearly defined. In addition, the text in the two cases mentioned above need clean up.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul//upload/TGm\\_db/C80216m-10\\_0877.doc](http://dot16.org/ul//upload/TGm_db/C80216m-10_0877.doc) or later revisions

GroupResolutionDecision of Group: Principle

Resolved by comment #10069.

Resolution:

16.2.6 MAC HO procedures

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Liu, Yang

Membership Status: Member

Date: 2010-07-09

Comment # 316

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 297      Line 61      Fig/Table#      Subclause 16.2.6.5.2.1.1

Passive other RAT discovery in current IEEE P802.16m/D6 needs clean up since RAN(radio access network) and RAP(radio access network point) information are not well organized.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul//upload/TGm\\_db/C80216m-10\\_0878.doc](http://dot16.org/ul//upload/TGm_db/C80216m-10_0878.doc) or later revisions

GroupResolution

Decision of Group: Agree

Adopte the remedy in C80216m-10\_0878r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Liu, Yang

Membership Status: Member

Date: 2010-07-09

Comment # 317

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 85      Line      Fig/Table#      Subclause 16.2.3.3

Since a unicast AAI\_RNG-ACK can be identified by DL basic assignment A MAP IE, the unicast indication and related text should be removed from table 681.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul//upload/TGm\\_db/C80216m-10\\_0881.doc](http://dot16.org/ul//upload/TGm_db/C80216m-10_0881.doc) or later revisions

GroupResolution

Decision of Group: Principle

Adopt the proposed text change in C80216m-10\_0881r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 334

Comment by:

Lv, kaiying

Membership Status: MemberDate: 2010-07-09Comment # 318Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 849      Line 12      Fig/Table#      Subclause 16.9.3.1

According to D6, E-MBS configuration parameters such as Zone\_Allocation\_Bit-MAP, MSI lenth etc. are transmitted in AAI\_SCD message for both unicast and E-MBS users to be informed of resource allocation. When these E-MBS configuration parameters updates, E-MBS users shall timely update the parameters to continue receiveing E-MBS service correctly. When carrier-switching capable E-MBS users receive unicast and E-MBS services alternatively between primary and secondary carriers, E-MBS users may not be able to catch updated AAI\_SCD message on the secondary carrier. Therefore an update indication shall be sent. On the other hand, the updated E-MBS related SCD information shall be applied at specific time which is related to MSI or AAI\_E-MBS\_CFG transmission period or AAI\_E-MBS\_CFG life time.

Suggested Remedy

Accept the proposed text in C80216m-10\_0898 or the latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

This proposes to add a BS specific change parameter in a zone message.

Group's Notes

Clause 16.9: AAI EMBS

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lv, kaiying

Membership Status: Member

Date: 2010-07-09

Comment # 319

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 497      Line 5      Fig/Table#      Subclause 16.3.5.6

The equation to calculate the number of PRUs for E-MBS in each frequency partition needs to be corrected.

Suggested Remedy

Accept the proposed text in C80216m-10\_0899 or the latest version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C802.16m-10/0746.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AA PHY

Editor's Notes

Editor's Actions a) done



Comment by:

Guan, Yanfeng

Membership Status: MemberDate: 2010-07-09Comment # 320Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 622      Line 63      Fig/Table#      Subclause 16.3.7.2.5.1

If the OL region type 0 is enable, all the DLRUs in FP0 will be used for OL Region Type0. When the primary frequency partition also is located in FP0, the different boosted power for PC AMAP and Broadcast AMAP will lead that the power in OL Region in different ABSs is out of control.

Suggested Remedy

Adopt the contribution C80216m-10/0875 or its latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

To support this scheme, the change of subchannelization must be followed. Also, this scheme might give the loss of frequency diversity in DLRU.

Basically location of OL Region is only important for measurement. If AMS needs to report for OL Region, then it will calculate CQI based on OL Region pilot. But in DLRU, all pilots are shared. So, even though we reduce the OL Region type 0 by proposed method, it does not have any impact on measurement.

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lin, Yi-Ting

Membership Status: Member

Date: 2010-07-09

Comment # 321

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 805      Line 29      Fig/Table#      Subclause 16.5.1.3.1

In current sounding based calibration procedure for DL multi-BS joint MIMO processing, N+1 sounding channels are needed to be transmitted by the AMS, where N is the number of ABSs involved in the DL multi-BS joint MIMO processing (includes serving ABS), which may cause too much latency and not efficient.

Suggested Remedy

Adopt the contribution C80216m-10\_0905 or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposal does not support multi-BS MIMO operation and results in a loss of functionality. The performance gain does not justify the loss in functionality.

Vote:

In favor: 17

Opposed: 10

Abstain:

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 322

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 187      Line 1      Fig/Table#      Subclause 16.2.3.46.1

Persistent scheduling is used for connections with periodic traffic pattern and with relatively fixed size. the current UL Persistent allocation method does not support per-connection allocation. If an ABS has two PAs, an AMS cannot know which PA is for which flow.

Suggested Remedy

Adopt the Text proposals in C802.16m-10/0794 or the latest revision of the contribution.

GroupResolution

Decision of Group: Disagree

Vote: 1-4-0

Reason for Group's Decision/Resolution

The proposal cannot guarantee VoIP performance using basic allocation

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 323

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 589      Line 18      Fig/Table#      Subclause 16.3.6.5.2.4.9

Allocation Relevance is not valid with D6.

Suggested Remedy

Remove "allocation relevance" field in UL PA/GRA A-MAP as proposed in C802.16m-10/0849 or the latest revision of the contribution.

GroupResolution

Decision of Group: Principle

Resolved by comment #176.

Resolution:

Adopt the text proposal in IEEE C802.16m-10/0831r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 324

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 75

Line 8

Fig/Table#

Subclause

For E-MBS Idle mode AMS, the AAI\_PAG-ADV transmits at the same carrier as the dedicated carrier for E-MBS. When E-MBS Idle mode AMS finishes the E-MBS reception, the paging carrier of the AMS is configured as the carrier index = (DID modulo N). However the ABS can not know it because there is not any interaction between AMS and ABS when the AMS starts or finishes the E-MBS reception. For synchronization of paging carrier between AMS and ABS, AMS should inform the ABS of the start or termination of E-MBS reception.

Suggested Remedy

Adopt the Text proposal in C802.16m-10/0791 or the latest revision of the contribution.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposes changes to the existing paging framework to accommodate carrier switching, which is unwarranted.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 325

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 223      Line 1      Fig/Table#      Subclause 16.2.3.57

The MCI in AAI\_Global-Config has not enough flexibility to configure various carrier deployment. We should give more flexibility to the operator on this feature.

Suggested Remedy

Adopt the Text proposal in C802.16m-10/0848 or the latest revision of the contribution.

GroupResolution

Decision of Group: Agree

Adopt the Text proposal in C802.16m-10/0848

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 326

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 847      Line 5      Fig/Table#      Subclause 16.9.2.1

Detailed method for supporting the carrier switching mode AMS should be defined for efficient unicast scheduling for the AMS. Refer to C802.16m-10/0792 or the latest revision of the contribution.

Suggested Remedy

Adopt the Text proposal in C802.16m-10/0792 or the latest revision of the contribution.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This proposal introduces a new message on top of the existing DSx messages which introduces a lot of overhead.

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuk, Young Soo

Membership Status: Member

Date: 2010-07-09

Comment # 327

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 317      Line 12      Fig/Table#      Subclause 16.2.8.2.11

In the multi-carrier operation, we can consider a scenario that the several assigned carriers have smaller coverage than primary carrier or active secondary carrier. Under this scenario, the channel quality information for the inactive secondary carrier(s) will be beneficial to the carrier management of ABS. However, current text doesn't have any scanning trigger definition for these inactive carriers. In this contribution, therefore, we propose to define the trigger condition definitions for carrier management, i.e., secondary carrier activation and primary carrier change.

Suggested Remedy

Adopt the Text proposal in C802.16m-10/0736 or the latest revision of the contribution.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposed text is incomplete.

Vote:

In favor: 4

Opposed: 8

Abstain:

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jan, Yih Guang

Membership Status: Member

Date: 2010-07-09

Comment # 328

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 648      Line 53      Fig/Table#      Subclause 16.3.7.2.5.5.2

Comments on Differential codebook-based feedback mode (16.3.7.2.5.5.2).

Suggested Remedy

Adopt contribution C80216m-10\_0909 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The original text is correct.

Vote:

In favor: 7

Opposed: 6

Abstain:

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Tseng, Hsien-Wei

Membership Status: Member

Date: 2010-07-09

Comment # 329

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 787      Line 819      Fig/Table#      Subclause 16.3.14.5

Comments on Downlink noise and interference level mean and variance (16.3.14.5)

Suggested Remedy

Adopt contribution C80216m-10\_0910 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt contribution C80216m-10\_0910r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lee, Yang Han

Membership Status: Member

Date: 2010-07-09

Comment # 330

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 832      Line 37      Fig/Table#      Subclause 16.6.3.3

Comments on Relay Downlink PHY Structure (16.6.3.3)

Suggested Remedy

Adopt contribution C80216m-10\_0908 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/908r3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done

Comment by:

Fu, I-Kang

Membership Status: MemberDate: 2010-07-09Comment # 331Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 75	<u>Line</u> 1	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3
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The 16m MAC control message parameters and ASN.1 formats thereof need serious clean up and careful design. Current ASN.1 codes in Annex P still consist of lots of errors and cannot be compiled by ASN.1 compiler. Besides, current message tables and parameters do not consistent with ASN.1 encoding philosophy. For example:

1. There are many bits or flags in current tables to indicate the presence/absence of some optional parameters, which are redundant as ASN.1 encoder will automatically generate bitmaps for the same purpose.
2. Several messages will carry different parameters under different modes. In this case, parameters for the same mode should be grouped together into a structure and ASN.1 CHOICE should be used to distinguish different modes instead of using an integer as mode indicator and marking every parameters optional.
3. There are many "element counters" in current message tables, e.g. number of physical carrier index, number of BSID, etc. These integer counters are redundant when messages are formatted into ASN.1 because the ASN.1 encoder will automatically generate a preceding integer for each list of parameters.

**Suggested Remedy**

1. Either to replace current message tables in Section 16.2.3 with corresponding ASN.1 code segments with descriptive comments, or to reformat current message tables to be consistent with ASN.1 encoding philosophy.
2. When members have comments to modify the message table, please also present text proposals on the ASN.1 code.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

Incomplete remedy.

**Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes****Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 332

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 75      Line 8      Fig/Table#      Subclause 16.2.3.1

AAI\_RNG-REQ message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0860 or its latest revision

GroupResolution

Decision of Group: Principle

Resolved by comment #10037.

Resolution:

Adopt the proposed text in C80216m-10\_0710r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages  
Same as the resolution to comment #225

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 333

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 79      Line 60      Fig/Table#      Subclause 16.2.3.2

AAI\_RNG-RSP message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0861 or its latest revision

GroupResolution

Decision of Group: Disagree

The remedy is not complete. The commenter has agreed to come back with a complete remedy.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 334

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 85      Line 46      Fig/Table#      Subclause 16.2.3.3

AAI\_RNG-ACK message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0862 or its latest revision

GroupResolution

Decision of Group: Principle

Adopt the proposed text change in C80216m-10\_0881r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

done 10/881r3 except remedy 2 (Annex P) hyunjeong, completed by Joey

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 335

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 106      Line 4      Fig/Table#      Subclause 16.2.3.9

AAI\_HO-IND message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0863 or its latest revision

GroupResolution

Decision of Group: Principle

Adopt the proposed text modification in C80216m-10/0863r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 336

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 107      Line 4      Fig/Table#      Subclause 16.2.3.10

AAI\_HO-REQ message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0864 or its latest revision

GroupResolution

Decision of Group: Agree

Adopt the proposed text modification in C80216m-10/0864

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # **337**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 108      Line 4      Fig/Table#      Subclause 16.2.3.11

AAI\_HO-CMD message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0865 or its latest revision

GroupResolution

Decision of Group: Principle

Adopt the proposed text modification in C80216m-10/0865r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 338

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 114      Line 31      Fig/Table#      Subclause 16.2.3.12

AAI\_NBR-ADV message format can be further optimized for ASN.1 PER encoding

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0866 or its latest revision

GroupResolution

Decision of Group: Principle

Resolved by comment #509.

Resolution:

Adopt the text proposed in contribution C80216m-10\_0767r1

Reason for Group's Decision/Resolution

Group's Notes

Same as the resolution proposed for comment #509.

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 339

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 214      Line 55      Fig/Table#      Subclause 16.2.3.52

Some details of AAI\_MC-REQ/RSP message and ASN.1 code need further clean up

Suggested Remedy

Adopt the proposed text modification in C802.16m-10/0867 or its latest revision

GroupResolution

Decision of Group: Principle

Adopt the proposed text modification in C802.16m-10/0867r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 340

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 218      Line 1      Fig/Table#      Subclause 16.2.3.54

Some details of AAI\_CM-CMD/IND message and ASN.1 code need further clean up

Suggested Remedy

Adopt the proposed text modification in C802.16m-10/0868 or its latest revision

GroupResolution

Decision of Group: Agree

Adopt the proposed text modification in C802.16m-10/0868

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 341

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 220      Line 18      Fig/Table#      Subclause 16.2.3.56

Some details of AAI\_MC-ADV message and ASN.1 code need further clean up

Suggested Remedy

Adopt the proposed text modification in C802.16m-10/0869 or its latest revision

GroupResolution

Decision of Group: Principle

Adopt the proposed text modification in C802.16m-10/0869r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 342

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 223      Line 1      Fig/Table#      Subclause 16.2.3.57

Some details of AAI\_Global-Config message and ASN.1 code need further clean up

Suggested Remedy

Adopt the proposed text modification in C802.16m-10/0870 or its latest revision

GroupResolution

Decision of Group: Agree

Adopt the proposed text modification in C802.16m-10/0870.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions a) done

\*\*\*First part done by Scott. Changes required to annex P.2 done by Hyunjeong

Comment by:

Fu, I-Kang

Membership Status: MemberDate: 2010-07-09Comment # 343Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 223      Line 41      Fig/Table#      Subclause 16.2.3.57

6 bits Physical Carrier Index implies there will be up to 64 carriers supported by the network. This number is too large and will result in much overhead because this parameter is used in many messages. The unnecessary overhead need to be reduced.

Suggested Remedy

Reduce the number of bits associated with Physical Carrier Index parameter to 3bits or 4bits. i.e. maximum number of carriers is 8 or 16. Apply this change through entire draft standard.

GroupResolutionDecision of Group: Principle

Resolved by comment #342.

Resolution: Adopt the proposed text modification in C802.16m-10/0870.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's NotesEditor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 344

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 305      Line 30      Fig/Table#      Subclause 16.2.8.1

When supporting multi-carrier aggregation with low-complexity transceiver architecture, some reporting rule need to be changed and some requirements need to be mandated. It is necessary for standard to clearly state how the system need to be configured in order to support low-complexity transceiver.

Suggested Remedy

Adopt the proposed text modification in C802.16m-10/0871 or its latest revision

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Through AMS capability negotiation, the issue can be resolved.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fu, I-Kang

Membership Status: Member

Date: 2010-07-09

Comment # 345

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 474      Line 18      Fig/Table#      Subclause 16.3.9.4.7.3

The current design for power status report is for single carrier operation. We think a remedy is required for multi-carrier operation.

Suggested Remedy

Adopt the proposed text modification in C80216m-10/0872 or its latest revision

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Can follow the PSR report for the single carrier case.

Vote:

In favor: 5

Opposed: 4

Abstain:

Group's Notes

Clause 16.3: AAI PHY (to be handled by MC ad hoc)

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 346

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 37

Line 43

Fig/Table#

Subclause 10.1

Inequality sign is not required

Suggested Remedy

Replace ">= Listening Window" with "Listening Window"

GroupResolution

Decision of Group: Agree

Replace ">= Listening Window" with "Listening Window"

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 347

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 37

Line 48

Fig/Table#

Subclause 10.1

Inequality sign is not required

Suggested Remedy

Replace ">= MIN Sleep Cycle" with "MIN Sleep Cycle"

GroupResolution

Decision of Group: Agree

Replace ">= MIN Sleep Cycle" with "MIN Sleep Cycle"

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 348

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 44

Line 9

Fig/Table#

Subclause 11.8.3.5.18

"SSTTG" appears 2 times

Suggested Remedy

Replace "SSTTG" with "SSRTG"

GroupResolution

Decision of Group: Agree

Replace "SSTTG" with "SSRTG"

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 349

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 61

Line 9

Fig/Table#

Subclause 16.2.2.2

Wrong section number

Suggested Remedy

Replace "16.2.2.2.7" with "16.2.2.2.6"

GroupResolution

Decision of Group: Agree

Replace "16.2.2.2.7" with "16.2.2.2.6"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 350

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 66

Line 51

Fig/Table#

Subclause 16.2.2.6

Wrong table number

Suggested Remedy

Replace "Table 674" with "Table 673"

GroupResolution

Decision of Group: Agree

Replace "Table 674" with "Table 673"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 351

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 67

Line 1

Fig/Table#

Subclause 16.2.2.2.7

Wrong position

Suggested Remedy

Move table 673 to section 16.2.2.2.6

GroupResolution

Decision of Group: Agree

Move table 673 to section 16.2.2.2.6

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 352

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 67

Line 52

Fig/Table#

Subclause 16.2.2.2.8

Wrong table number

Suggested Remedy

Replace "Table 676" with "Table 675"

GroupResolution

Decision of Group: Agree

Replace "Table 676" with "Table 675"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 353

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 68

Line 1

Fig/Table#

Subclause 16.2.2.2.9

Wrong position

Suggested Remedy

Move table 675 to section 16.2.2.2.8

GroupResolution

Decision of Group: Agree

Move table 675 to section 16.2.2.2.8

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 354

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 69

Line 42

Fig/Table#

Subclause 16.2.2.2.10

typo

Suggested Remedy

Replace "ARQ feedback extended header" with "ARQ feedback polling extended header"

GroupResolution

Decision of Group: Agree

Replace "ARQ feedback extended header" with "ARQ feedback polling extended header"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 355

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 69

Line 42

Fig/Table#

Subclause 16.2.2.2.10

Wrong table number

Suggested Remedy

Replace "Table 678" with "Table 677"

GroupResolution

Decision of Group: Agree

Replace "Table 678" with "Table 677"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 356

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 70

Line 5

Fig/Table#

Subclause 16.2.3

Wrong table number

Suggested Remedy

Replace "Table 676" with "Table 678"

GroupResolution

Decision of Group: Agree

Replace "Table 676" with "Table 678"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 357

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 70

Line 9

Fig/Table#

Subclause 16.2.3

Wrong table number

Suggested Remedy

Replace "Table 676" with "Table 678"

GroupResolution

Decision of Group: Agree

Replace "Table 676" with "Table 678"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 358

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 70

Line 10

Fig/Table#

Subclause 16.2.3

Wrong table number

Suggested Remedy

Replace "Table 676" with "Table 678"

GroupResolution

Decision of Group: Agree

Replace "Table 676" with "Table 678"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 359

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 74

Line 61

Fig/Table#

Subclause 16.2.3.1

Wrong reference

Suggested Remedy

Replace "16.2.2.2.8" with "16.2.2.2.9"

GroupResolution

Decision of Group: Agree

Replace "16.2.2.2.8" with "16.2.2.2.9"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 360

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 81

Line 15

Fig/Table#

Subclause 16.2.3.2

Value is 4 bits

Suggested Remedy

Replace "0x00" with "0x0"

Replace "0x01" with "0x1"

:

Replace "0x06" with "0x6"

GroupResolution

Decision of Group: Agree

Replace "0x00" with "0x0"

Replace "0x01" with "0x1"

:

Replace "0x06" with "0x6"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 361

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 85      Line 19      Fig/Table#      Subclause 16.2.3.3  
typo

Suggested Remedy

Replace "period" with "periodic"

GroupResolution

Decision of Group: Agree

Replace "period" with "periodic"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 362

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 102      Line 22      Fig/Table#      Subclause 16.2.3.7

"E-MBS capabilities" appears two times

Suggested Remedy

Delete a row for E-MBS capabilities

GroupResolution

Decision of Group: Agree

Delete a row for E-MBS capabilities

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 363

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 102

Line 56

Fig/Table#

Subclause 16.2.3.8

Size of STID is 12 bits

Suggested Remedy

Replace "48" with "12"

GroupResolution

Decision of Group: Agree

Replace "48" with "12"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 364

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 113      Line 1      Fig/Table#      Subclause 16.2.3.12

Referred as "cell type" in the following text

Suggested Remedy

Replace "ABS type" with "Cell type"

GroupResolution

Decision of Group: Agree

Replace "ABS type" with "Cell type"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 365

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial  
No value is defined for legacy

Part of Dis  Satisfied

Page 113

Line 1

Fig/Table#

Subclause 16.2.3.12

Suggested Remedy

Delete "legacy"

GroupResolution

Decision of Group: Agree

Delete "legacy"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 366

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 113

Line 2

Fig/Table#

Subclause 16.2.3.12

typo

Suggested Remedy

Replace "a)" with "2)"

GroupResolution

Decision of Group: Agree

Replace "a)" with "2)"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 367

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 113

Line 5

Fig/Table#

Subclause 16.2.3.12

typo

Suggested Remedy

Replace "a)" with "3)"

GroupResolution

Decision of Group: Agree

Replace "a)" with "3)"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 368

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 115

Line 33

Fig/Table#

Subclause 16.2.3.12

Wrong reference

Suggested Remedy

Replace "REV.2" with "IEEE 802.16-2009"

GroupResolution

Decision of Group: Agree

Replace "REV.2" with "IEEE 802.16-2009"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 369

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 126

Line 47

Fig/Table#

Subclause 16.2.3.15

typo

Suggested Remedy

Replace "S-BS" with "S-ABS"

GroupResolution

Decision of Group: Agree

Replace "S-BS" with "S-ABS"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 370

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 129      Line 21

Fig/Table#

Subclause 16.2.3.16

Wrong table number

Suggested Remedy

Replace "Table 701" with "Table 703"

GroupResolution

Decision of Group: Agree

Replace "Table 701" with "Table 703"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 371

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 130

Line 8

Fig/Table#

Subclause 16.2.3.17

Wrong table number

Suggested Remedy

Replace "Table 698" with "Table 701"

GroupResolution

Decision of Group: Agree

Replace "Table 698" with "Table 701"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 372

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 130

Line 14

Fig/Table#

Subclause 16.2.3.17

Wrong table number

Suggested Remedy

Replace "Table 698" with "Table 701"

GroupResolution

Decision of Group: Agree

Replace "Table 698" with "Table 701"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Fan, Linghang

Membership Status: Member

Date: 2010-07-09

Comment # 373

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 132

Line 22

Fig/Table#

Subclause 16.2.3.17

Wrong table number

Suggested Remedy

Replace "Table 699" with "Table 702"

GroupResolution

Decision of Group: Agree

Replace "Table 699" with "Table 702"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gloger, Reinhard

Membership Status: Member

Date: 2010-07-09

Comment # 374

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 20

Fig/Table#

Subclause

Don't limit scope to IP CS only

Suggested Remedy

Delete

GroupResolution

Decision of Group: Agree

same resolution as comment #8  
delete line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gloger, Reinhard

Membership Status: Member

Date: 2010-07-09

Comment # 375

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 22

Fig/Table#

Subclause

don't break backward compatibility with GPCS

Suggested Remedy

Delete

GroupResolution

Decision of Group: Agree

same resolution as comment #6  
delete line 22

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 376

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 143      Line 13      Fig/Table#      Subclause 16.2.3.22

Use of DID for indentifying the paged AMS is not justified as in fact it limits the size of paging group to  $2^{12}$ . A quasi-random number should be used instead of combination of DID and paging cycle, similarly to 24bits MAC Address hash in 802.16e

Suggested Remedy

Modify the draft to replace the combination of DID and paging cycle with a quasi-random number to identify the AMS at the time of paging, in particular, in AAI\_NBR-ADV message

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 377

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied

Page 125

Line 32

Fig/Table#

Subclause 16.2.3.12

According to the contribution IEEE C802.16m-10/0564r2

Suggested Remedy

According to the contribution IEEE C802.16m-10/0564r2

GroupResolution

Decision of Group: Disagree

Vote: 0-3-0

Reason for Group's Decision/Resolution

CINR measurement procedure is already defined

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 378

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied

Page 115

Line 32

Fig/Table#

Subclause 16.2.3.12

According to the contribution IEEE C802.16m-10/0572r4

Suggested Remedy

According to the contribution IEEE C802.16m-10/0572r4

GroupResolution

Decision of Group: Disagree

Vote: 0-3-0

Reason for Group's Decision/Resolution

Contribution proposes to override existing method. Benefits not seen.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Yanover, Vladimir

Membership Status: MemberDate: 2010-07-09Comment # 379Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 383      Line 39      Fig/Table#      Subclause 16.2.17

Section 16.2.17 (Sleep Mode) is completely messed up. It is using several concepts, unclearly defined and contradicting each other. For example, in p.383 line 39

"During a Sleep Window, the ABS shall not transmit DL unicast MAC PDU to the AMS, therefore the AMS may power down one or more physical operation components or perform other activities that do not require communication with the ABS. "

On the other hand, section 16.2.17 includes multiple expressions of the type "the AMS shall stay awake ... " probably meaning that within Sleep Window the AMS should behave as it was in a Listening Window. I can only guess as there is no definition of the "awake" state.

For example, in p.385, line 44 (note "shall")

"When TIMF=0, if AMS does not receive any traffic in the listening interval, the AMS shall stay awake for the rest of the Listening Window"

Another example: in p.383, line 44

"During Listening Window, the AMS is expected to receive all DL transmissions"

But in p.386, line 60

"If the ABS transmits a negative indication to the AMS, the ABS shall not transmit any DL data traffic to the AMS during the remaining part of the Listening Window. "

Really clean concept should include two clearly defined states ("sleep" and "awake" or "Sleep Window" and "Listening Window") so that the AMS is available to the ABS in "awake" state only. All other concepts like "staying awake until ..." should be expressed in terms of these two states.

#### Suggested Remedy

Rewrite the whole section 16.2.17 to follow the concept of clearly defined states (which might be "sleep" and "awake" or "Sleep Window" and "Listening Window") so that the AMS is available to the ABS in "awake" state only and unavailable in another state. The behavior of the ABS and AMS should be specified in terms of these two states only. All other concepts like "staying awake until ..." should be removed

#### GroupResolution

Decision of Group: Disagree

#### Reason for Group's Decision/Resolution

No remedy is available for the group to consider

#### Group's Notes

16.2.17 Sleep Mode

#### Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 380

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 391      Line 55      Fig/Table#      Subclause 16.2.18

See contribution "Problems in idle Mode specifications " IEEE C802.16m-10/0911

Suggested Remedy

See contribution "Clarifications in idle Mode section" IEEE C802.16m-10/0911

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Some remedies are incomplete. Moreover, the current text is more understandable.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 381

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 402      Line 53      Fig/Table#      Subclause 16.2.18.4.1.1

See contribution "Problems in idle Mode specifications " IEEE C802.16m-10/0912

Suggested Remedy

See contribution "Clarifications in idle Mode section" IEEE C802.16m-10/0912

GroupResolution

Decision of Group: Agree

Adopt the proposed remedy in IEEE C802.16m-10/0912.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 382

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 143      Line 23      Fig/Table#      Subclause 16.2.3.22

The function of Paging Cycle in PAG-ADV message is not clear. Why it should be present in the PAG-ADV message? Normally Paging Cycle value is constant within the paging group or even across the Access Network. Therefore this parameter does not carry any useful information.

Suggested Remedy

Remove the row with the parameter

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[Idle Mode ad-hoc made a straw vote on this comment: 1 vote in favor, 7 votes in against]

Paging cycle is part of idle mode identification, cannot be removed from paging message.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 383

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 393      Line 3      Fig/Table#      Subclause 16.2.18.1.1

There is no definiiton of "reinitializing MAC". More than that, next sentence presumes that the AMS is in position to reselect the preferred ABS, therefore the AMS must be in Idle Mode. But Idle Mode is not in any sense the initial state of MAC as the AMS enters the IM state after INE and dregistration

Suggested Remedy

Define the "initial" state of MAC or remove the sentence "Otherwise, the AMS shall reinitialize MAC, reselect its preferred ABS and perform network reentry with its preferred ABS."

GroupResolution

Decision of Group: Principle

Adopt the following changes from P393, L 3]

Otherwise, the AMS shall turn to the initialization state ~~reinitialize MAC~~, reselect its preferred ABS and perform network reentry with its preferred ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 384

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 394      Line 65      Fig/Table#      Subclause 16.2.18.1.2

Why the the ABS SHALL retransmit the AAI\_DREG-RSP message? The plans of the ABS about deregistration of the AMS may change at any moment

Suggested Remedy

Remove the whole sentence

GroupResolution

Decision of Group: Principle

[Adopt the following change from P 394, L 60]

If the ABS does not receive the AAI\_DREG-REQ message with the De-registration\_Request\_Code parameter = 0x02 or the AAI\_DREG-REQ message with the De-registration\_Request\_Code parameter = 0x03 from the AMS in response to the unsolicited AAI\_DREG-RSP message with action code 0x05 within T46 timer expiry, the ABS ~~shall~~ may retransmit the AAI\_DREG-RSP message with action code 0x05 in unsolicited manner as long as DREG command retry count has not been exhausted.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 385

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 395      Line 7      Fig/Table#      Subclause 16.2.18.1.2

"If the AMS detects the AAI\_MSG-ACK message, the AMS shall enter idle mode. Otherwise, the AMS shall etc." - what does "otherwise" mean? There must be reference to a timeout

Suggested Remedy

Change to "If the AMS detects the AAI\_MSG-ACK message, the AMS shall enter idle mode. The AMS may resend the same AAI\_DREG-REQ message"

GroupResolution

Decision of Group: Agree

[Adopt the following change from P395, L7]

"If the AMS detects the AAI\_MSG-ACK message, the AMS shall enter idle mode. ~~<del>Otherwise, the AMS shall resend the same AAI\_DREG-REQ message with the request for the AAI\_MSG-ACK message.</del>~~ <ins>The AMS may resend the same AAI\_DREG-REQ message</ins>"

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 386

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 399      Line 48      Fig/Table#      Subclause 16.2.18.2.1

Must be "may" instead of "is":

"In addition, an emergency alert indicator is included in the paging message to notify the idle AMSs about emergency situation(s)"

Suggested Remedy

Change to "In addition, an emergency alert indicator may be included in the paging message to notify the idle AMSs about emergency situation(s)"

GroupResolution

Decision of Group: Principle

[Adopt the following changes from P 399, L 48]

"In addition, an emergency alert indicator ~~is~~ shall be included in the paging message to notify the idle AMSs about emergency situation(s)"

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 387

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 8      Fig/Table#      Subclause 16.2.18.2.1

"The ABS shall transmit the paging message within a frame known to both the ABS and the AMS. Using the A-MAP IE, an idle mode AMS determines the location of paging messages in the sub-frame(s) of this predetermined frame"  
A reader of the standard will expect here a clear instruction for teh AMS how to identify the "frame known to both the ABS and the AMS".

Suggested Remedy

Change to "The ABS shall transmit the paging message within a frame specified in 16.2.18.2.3. Using the A-MAP IE, an idle mode AMS determines the location of paging messages in the sub-frame(s) of this predetermined frame"

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 400, L 8]

"The ABS shall transmit the paging message within a frame ~~known to both the ABS and the AMS~~ specified in 16.2.18.2.3. Using the A-MAP IE, an idle mode AMS determines the location of paging messages in the sub-frame(s) of this predetermined frame"

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 388

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 11      Fig/Table#      Subclause 16.2.18.2.1

"If the paging message is too big to be transmitted in one A-MAP allocation" - what does it mean? A single allocation can be as large as needed (within a frame)

Suggested Remedy

Change to  
"The paging message may be fragmented and these fragments are transmitted in different sub-frames of the predetermined frame"

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 400, L 11]

~~If the paging message is too big to be transmitted in one A-MAP allocation, then it is fragmented and these fragments are transmitted in different sub-frames of the predetermined frame.~~ The paging message may be fragmented and these fragments are transmitted in different sub-frames of the predetermined frame.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 389

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 12      Fig/Table#      Subclause 16.2.18.2.1

"If the overflow happens in the last DL AAI subframe of a frame, then the remaining message is transmitted in the next frame beyond its predetermined paging frame" - what does "overflow" mean?

Suggested Remedy

Change to  
"Fragments of the paging message, starting from the second fragment, may be transmitted in the next frame after the predetermined paging frame"

GroupResolution

Decision of Group: Principle

[Adopt the following changes from P 400, L 12]

~~If the overflow happens in the last DL AAI subframe of a frame, then the remaining message is transmitted in the next frame beyond its predetermined paging frame.~~ If the fragments of the paging message cannot be transmitted in the last DL AAI subframe of a frame, then the fragments of the paging message may be transmitted in the next frame after the predetermined paging frame.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

**Comment by:**

Yanover, Vladimir

**Membership Status:** Member**Date:** 2010-07-09**Comment #** 390**Document under Review:** P802.16m/D6**Ballot ID:** sb\_16m**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 400      **Line** 14      **Fig/Table#**      **Subclause** 16.2.18.2.1

"The extension of paging listening interval shall be indicated by the extension flag in the paging message. Thus, in this case, an idle mode AMS remains awake and monitors the subsequent AAI subframe or frames for paging message. After receiving the complete paging message, the idle mode AMSs returns to paging unavailable interval if the AMS is not paged."

This is extremely unclear:

- What does it mean "the subsequent AAI subframe or frames"?
- How many of subsequent frames must be monitored? When the AMS is supposed to give up attempts to receive remaining fragments of teh paging message?

**Suggested Remedy**

Clarify or delete the sentence

**GroupResolution****Decision of Group:** Principle

[Adopt the following changes from P 400, L 16]

Thus, in this case, an idle mode AMS remains awake and monitors the subsequent AAI subframe (i.e., next subframe of the subframe where the fragment of AAI\_PAG-ADV message is sent) or frames (i.e., next frame of the frame where the fragment of AAI\_PAG-ADV message is sent) for paging message.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.18 Idle mode

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 391

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis  Satisfied

Page 143 Line 39

Fig/Table#

Subclause

What is "the remaining part of the AAI\_PAG-ADV message"; remaining after what?

Suggested Remedy

Change to

0b0: this is the last fragment of the AAI\_PAG-ADV message

0b1: this is not the last fragment of the AAI\_PAG-ADV message; the remaining fragments of the message will be transmitted in the subsequent frames

GroupResolution

Decision of Group: Principle

[Adopt the following changes from P 143, L 39]

~~0b0: there is no remaining part of the AAI\_PAG-ADV message~~

~~0b1: the remaining part of the AAI\_PAG-ADV message will be transmitted in the subsequent subframe or frame~~

0b0: this is the last fragment of the AAI\_PAG-ADV message

0b1: this is not the last fragment of the AAI\_PAG-ADV message; the remaining fragments of the message will be transmitted in the subsequent subframes or frames.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 392

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 399      Line      Fig/Table#      Subclause 16.2.18.2.1

Messy sentence: "If an idle mode AMS is paged by an ABS whose Cell Bar bit=1" etc.

Suggested Remedy

Change to

"If an Idle Mode AMS is paged by an ABS whose Cell Bar bit=1, then the AMS shall not attempt network reentry to this ABS. Instead, the AMS should perform reselection of the preferred ABS. If a ABS with Cell Bar bit=0 is found, the AMS should try network re-entry to the ABS"

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 400, L20]

"If an Idle Mode AMS is paged by an ABS whose Cell Bar bit=1 <ins>with Action Code = 0b0</ins>, then the AMS shall not ~~perform</del> <ins>attempt</ins> network reentry to this ABS. <ins>Instead.</ins> ~~T</del> <ins>the</ins> AMS shall perform ~~ABS</del> reselection <ins>of the preferred ABS.</ins> ~~and perform network re-entry</del> If ~~another</del> <ins>the preferred</ins>~~ ABS with Cell Bar bit=0 is found, <ins>the AMS shall try network re-entry to the ABS.</ins>"~~~~~~~~

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 393

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 400      Line 29      Fig/Table#      Subclause 16.2.18.2.2

The section "16.2.18.2.2 Operation during paging unavailable interval" appears before the 1 paging unavailable interval defined

Suggested Remedy

Switch places of 16.2.18.2.1 and 16.2.18.2.2

GroupResolution

Decision of Group: Agree

Switch places of 16.2.18.2.1 and 16.2.18.2.2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 394

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 44      Fig/Table#      Subclause 16.2.18.2.2

The following sentence is unclear:

"At evaluation and selection of the preferred ABS, the AMS shall synchronize and decode the SFH (superframe header) for the preferred ABS and extract the super-frame number to determine the time that is remaining until the next regular paging listening interval for the preferred ABS. The calculated time until the next regular paging listening interval shall be the paging unavailable interval."

1. During evaluation and selection of the [new] preferred ABS the AMS normally already has a [old] preferred ABS to which there is no need to synchronize.
2. Paging unavailable interval [of the AMS] is something known to the network, so it cannot be recalculated by the AMS at the moment unknown to the network

Suggested Remedy

Clarify or delete the sentence

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

lack of remedy

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 395

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical

Part of Dis  Satisfied

Page 400

Line 61

Fig/Table#

Subclause 16.2.18.2.3

Clarification

Suggested Remedy

Change

The length of the paging listening interval is one superframe

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The current text is more clear.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 396

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 34      Fig/Table#      Subclause 16.2.18.2.3

Figure 454 shows a single A-MAP IE

Suggested Remedy

Fix the pixure

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

lack of remedy; remedy is unclear.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 397

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 5      Fig/Table#      Subclause 16.2.18.2.3

The third sentence below is redundant in view of the first sentence:

"The ABS transmits the PGID\_Info right after SFH and A-MAP of the 1st AAI subframe during AMS's paging listening interval as shown in Figure 454. The PGID\_Info shall be transmitted as described in the section <<16.3.6.5.2.1>>.

The PGID\_Info shall be present before any AAI\_PAG-ADV message in the superframe"

Suggested Remedy

Remove the sentence:

"The PGID\_Info shall be present before any AAI\_PAG-ADV message in the superframe"

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 401, L 5]

"<del>The PGID\_Info shall be present before any AAI\_PAG-ADV message in the superframe</del>"

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

Comment by:

Yanover, Vladimir

Membership Status: MemberDate: 2010-07-09Comment # 398Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 1      Fig/Table#      Subclause 16.2.18.2.3

The only possible interpretation of the following sentence is that the ABS must transmit (the same) PGID\_Info message in ANY paging listening interval ever assigned to ANY mobile in ANY paging group supported by the ABS.

"The ABS shall transmit the PGID\_Info at a predetermined location in the paging listening interval in order to advertise the paging group(s) that is supported by the ABS."

For example, if paging cycle = 64 SFs, and the ABS supports several paging groups (tens of thousands of mobiles), with high probability all offsets 0..63 will be occupied by listening intervals, therefore the ABS will be mandated to transmit the PGID\_Info in every frame. Obviously the air interface will be overloaded with PGID\_Info transmissions.

Suggested Remedy

Provide a method to allow less frequent transmissions of the PGID\_Info

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Incompleted remedy

Group's Notes

16.2.18 Idle mode

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 399

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 48      Fig/Table#      Subclause 16.2.18.2.3

Clarify or remove:

The AMS shall determine whether it [AMS?] exists in the same paging group [what does "exists" mean?] at the preferred ABS as [what does "as" mean?] it has most recently belonged [???] using the PGID\_Info [???].

Suggested Remedy

Clarify or remove

GroupResolution

Decision of Group: Principle

[Adopt the following changes from P 401, L 48]

~~The AMS shall determine whether it exists in the same paging group at the preferred ABS as it has most recently belonged using the PGID\_Info.~~ The AMS shall determine whether the preferred ABS supports any of its currently assigned paging groups through the PGID\_Info message.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 400

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 401      Line 52      Fig/Table#      Subclause 16.2.18.2.3

Broken language: the AMS may detect that at the preferred ABS none of the PGs of the AMS is supported, but it means just that. We cannot say that the set of PGs has changed [which set? the set of PGs in the ABS? the set of the PGs to which the AMS belongs?] If none of the PG ID(s), to which the AMS belongs, is detected, the AMS shall determine that the set of paging groups has changed and perform idle mode location update as described in section 16.2.18.4.

Suggested Remedy

Change to  
"If none of the PGs, to which the AMS currently belongs, is detected at the ABS, the AMS shall perform location update as described in section 16.2.18.4."

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 401, L 51]

~~If none of the PG ID(s), to which the AMS belongs, is detected, the AMS shall determine that the set of paging groups has changed and perform idle mode location update as described in section 16.2.18.4.~~ If none of the PGs, to which the AMS currently belongs, is detected at the ABS, the AMS shall perform location update as described in section 16.2.18.4.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 401

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 539

Line 19

Fig/Table#

Subclause

Definition of S-SFH SP change bitmap needs clarification in the part :

"Indicates the change of S-SFH SPx IE(s) associated with the S-SFH change count."

Suggested Remedy

Change to:

"Indicates the change in the content of S-SFH SPx IE(s) between current SFH and previous SFH"

GroupResolution

Decision of Group: Principle

"Indicates the change in the content of S-SFH SPx IE(s) between current SFH and previous SFH associated with the S-SFH change count."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 402

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 403      Line 44      Fig/Table#      Subclause 16.2.18.4.2

The condition "If paging group has changed" is not clear. This language presumes a context in which there was a single group (to which the AMS was assigned before the LU) and there is another single group (supported by the preferred ABS?) and these two are different. However there might be multiple PGs assigned to the AMS before the LU and multiple PGs supported by the ABS. So the condition is inconsistent

Suggested Remedy

Clarify

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

lack of remedy

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Yanover, Vladimir

Membership Status: MemberDate: 2010-07-09Comment # 403Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 403      Line 54      Fig/Table#      Subclause 16.2.18.5

There is no definition of Unsecure Location Update in D6. More than that, the text suggests just doing Network Reentry procedure from Idle Mode:

"If the AMS and the ABS do not share a current, valid security context, or if the ABS for any reason has elected to instruct the AMS to use Unsecure Location Update, they shall process Location Update using the Network Reentry procedure from Idle Mode."

Suggested Remedy

Change to:

"If the AMS and the ABS do not share a current, valid security context, they shall proceed using the Network Reentry procedure from Idle Mode. This decision can be also made by the ABS at will"

Make similar change in p.403, line 30

GroupResolutionDecision of Group: Principle

[Adopt the following changes from P 403, L 53]

~~If the AMS and the ABS do not share a current, valid security context, or if the ABS for any reason has elected to instruct the AMS to use Unsecure Location Update, they shall process Location Update using the Network Reentry procedure from Idle Mode.~~ If the AMS and the ABS do not share a current, valid security context, they shall proceed using the Network Reentry procedure from Idle Mode. This decision can be also made by the ABS at will.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.18 Idle mode

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 404

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 42      Fig/Table#      Subclause 16.2.18.4.2

Not clear where the ABS should supply a corresponding authenticating CMAC Tuple in the following:

" If the ABS evaluates the CMAC Tuple as a valid and supplies a corresponding authenticating CMAC Tuple, then the ABS shall reply with an encrypted AAI\_RNG-RSP message"

Suggested Remedy

change to:

"If the ABS evaluates the CMAC Tuple as a valid, then the ABS shall reply with an encrypted AAI\_RNG-RSP message"

GroupResolution

Decision of Group: Agree

[Adopt the following changes from P 403, L 42]

"If the ABS evaluates the CMAC Tuple as a valid <del>and supplies a corresponding authenticating CMAC Tuple</del>, then the ABS shall reply with an encrypted AAI\_RNG-RSP message."

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanover, Vladimir

Membership Status: Member

Date: 2010-07-09

Comment # 405

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 81      Line 33      Fig/Table#      Subclause 16.2.3.2

The role of the field "New PGID of the AMS" is unclear. Suppose that the AMS has been assigned three PGs: 17,18 and 19. In the RNG-RSP the AMS received New PGID = 22. What will be the new set of PGs assigned to the AMS?

Suggested Remedy

Clarify

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

lack of remedy

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Townsend, Richard

Membership Status: Member

Date: 2010-07-09

Comment # 406

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 420      Line 39      Fig/Table#      Subclause 16.2.21.3

Delete "The FFR partition configuration should be semi-static and not be changed frequently.". Sentence is vague (what defines 'frequently?') and the change interval is clearly defined in the rest of the paragraph.

Suggested Remedy

Deletion

GroupResolution

Decision of Group: Agree

Delete "The FFR partition configuration should be semi-static and not be changed frequently."

Reason for Group's Decision/Resolution

Group's Notes

16.2.21 Interference Mitigation Mechanism

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Townsend, Richard

Membership Status: Member

Date: 2010-07-09

Comment # 407

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 449      Line 55      Fig/Table#      Subclause 16.3.3.6

Delete redundant 'between adjacent carriers' at the end of the sentence. The entire sentence refers only to adjacent carriers.

Suggested Remedy

The multiple carriers involved in multicarrier operation may be in a contiguous or non-contiguous spectrum. When carriers are in the same spectrum and adjacent and when the separation of center frequency between two adjacent carriers is multiples of subcarrier spacing, no guard subcarriers are necessary {DELETE "between adjacent carriers"}.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Current text is clear.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kwak, Jin-Sam

Membership Status: Member

Date: 2010-07-09

Comment # 408

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 781      Line 34      Fig/Table#      Subclause 16.3.11.4.2

Based on the CRV indication method in C80216m-10/250r2, it is necessary to clean up the ambiguous text for Equation (314).

Suggested Remedy

Delete "Based on N\_shift,i=0."

GroupResolution

Decision of Group: Principle

Resolved by comment #212.

Resolution:

Adopt C80216m-10\_0778r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 409

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 27      Fig/Table#      Subclause 16.2.1.2.3

The definition of DID seems unclear, e.g. how to get DID for AMS?

**Suggested Remedy**

Modify the sentence (from line 27 on page 48) of P802.16m/D6 as follows.

"The network shall assign a 12bit DID to each AMS during Idle Mode initiation. The DID shall uniquely identify the Idle Mode AMS within the set of paging group ID, paging cycle and paging offset."

**GroupResolution**

**Decision of Group: Agree**

*Modify the sentence (from line 27 on page 48) of P802.16m/D6 as follows.*

<ins>The network shall assign a 12bit DID to each AMS during Idle Mode initiation.</ins> The DID shall uniquely identify the <ins>Idle Mode</ins> AMS within the set of paging group ID, paging cycle and paging offset.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.18 Idle mode

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 410

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 142      Line 13      Fig/Table#      Subclause 16.2.3.22

In this legacy ASN scenario, the DID is replaced by the MAC address hash which shall be used as the paging identifier. In D6, the usage of MAC address hash has been adopted. However, the related management messages do not give clear condition of when the MAC address hash shall be used and when the DID shall be used. So in this contribution, we give the clarification of these idle mode related management messages.

Suggested Remedy

Adopt the proposed text in C802.16m-10\_0721 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C802.16m-10\_0721

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Zhang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 411Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 157      Line 8      Fig/Table#      Subclause 16.2.3.30

AAI\_SCD message contains some important parameters associated with UL power control, ranging, sounding and handover etc. An AMS should ensure that AAI\_SCD parameters being used are identical with those required by ABS; otherwise, AMS may not be in normal operation, and even may impact normal operation of other AMSs. Because AAI\_SCD transmission process is very robust as that of broadcast message, an AMS in active mode usually can successfully receive and update AAI\_SCD in time. But, as an AMS in sleep mode may not be able to receive the changed AAI\_SCD during sleep interval, thus after the AMS wakes up, it shall not have up-to-date AAI\_SCD parameters, and also shall not be in normal operation; in addition, if AAI\_SCD transmission periodicity is very long, the above AMS may not return to normal operation condition within a very short time. Therefore, a scheme shall be needed to resolve the above problem.

In the other hand, ABS transmits and changes system parameters in the AAI\_SCD message as well as SFH (Super Frame Header). The changed S-SFH contents are applied in the super-frame which is indicated by S-SFH apply offset in P-SFH. However, there is no description of when ABS applies the system parameters associated with the current Configuration Change Count in the AAI\_SCD message.

Suggested Remedy

Adopted C802.16m-10\_0726 or its latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Requires further technical analysis before a decision can be made on how to update the SCD.

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 412

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 296      Line 65      Fig/Table#      Subclause 16.2.6.5.1

Redundant text and table. Parameters for Inter-RAT capabilities have already been included in AAI\_SBC-REQ/RSP messages.

Suggested Remedy

Delete the sentence in Line 65 on Page 296 and delete Table 776

GroupResolution

Decision of Group: Agree

Delete the sentence in Line 65 on Page 296 and delete Table 776.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 413

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 385      Line 44      Fig/Table#      Subclause 16.2.17

There are several editorial as well minor technical inconsistencies in the sleep mode operation text in Section 16.2.17. we proposes changes to different parts of this section to clean up the text in this section.

Suggested Remedy

Adopted contribution C802.16m-10\_0902 or its latest version.

GroupResolution

Decision of Group: Principle

Adopted contribution C802.16m-10\_0902r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 414

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 391      Line 58      Fig/Table#      Subclause 16.2.18

Some descriptions on Idle Mode operation are still very unclear. For example, what's the meaning of operation mode in Idle Mode?

Suggested Remedy

Adopted contribution C802.16m-10\_0903 or its latest version.

GroupResolution

Decision of Group: Agree

Adopted the proposed text in contribution C802.16m-10\_0903

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 415

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 402      Line 7      Fig/Table#      Subclause 16.2.18.2.3

In order to support the legacy ASN, the ABS/AMS has to bridge the gap between the legacy ASN-GW and the 16m AMS/ABS. For example, the paging listening interval relevant parameters are quite different between 16e and 16m. The mapping of paging listening interval has to be done by the AMS and ABS.

Suggested Remedy

Adopt the proposed text in C802.16m\_10\_0720 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Suggested remedy of this contribution is incomplete because the MS does not need to calculate the paging offset in terms of superframe (commenter's words).

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 416

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 797      Line 17      Fig/Table#      Subclause 16.4.10.1

The purpose of Low duty mode is to reduce interference to neighbor cells.

In order to control inter-cell interference between the overlay Macro ABS and the Femto ABS, the overlay Macro ABS may send indication to request the Femto ABS to enter into low duty mode.

Suggested Remedy

Modify the sentence (from line 17 on page 797) of P802.16m/D6 as follows.

"The Femto ABS may enter low-duty mode if there are no AMSs attached to the Femto ABS and there are no AMSs in the process of network entry, or it receives indication from the overlay Macro BS."

GroupResolution

Decision of Group: Principle

Resolved by comment #418.

Resolution:

Please adopt contribution C80216m-10\_0774r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 417

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 710      Line 1      Fig/Table#      Subclause 16.3.9.2.4.1

How to understand the term " with exception of LSBCRUFPI", it is very confused to get the variable YSB with above description. In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH.

Suggested Remedy

Delete the term "with exception of LSBCRUFPI"

GroupResolution

Decision of Group: Principle

On page 710, line 1, make the following change:

<del>with the exception of</del> <ins>except in the UL, where</ins>  $L_{\{USB - CRU, FP\}}$  is the number of allocated subband CRUs <ins>as defined</ins> in 16.3.8.3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 418

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 798      Line 25      Fig/Table#      Subclause 16.4.11

The purpose of Low duty mode is to reduce interference to neighbor cells.

In order to control inter-cell interference between the overlay Macro ABS and the Femto ABS, the overlay Macro ABS may send indication to request the Femto ABS to enter into low duty mode.

Suggested Remedy

Please adopt contribution C80216m-10\_0774 or its latest version.

GroupResolution

Decision of Group: Principle

Please adopt contribution C80216m-10\_0774r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 419

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 710      Line 10      Fig/Table#      Subclause 16.3.9.2.4.1

In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH.

Suggested Remedy

Please adopt following sentence:

"In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH.

Table 923 shows the information of the NS-RCH allocation in a regular allocation, which is indicated by the S-SFH."

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The frequency partition is defined by Equation 283. The frequency partition is explicit in the definition of I\_SB.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Limei

Membership Status: Member

Date: 2010-07-09

Comment # 420

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type General

Part of Dis  Satisfied

Page 320

Line 22

Fig/Table#

Subclause 16.2.9.1

The reference to "Table 847" is incorrect.

Suggested Remedy

Change the text "Table 847" to "Table 850"

GroupResolution

Decision of Group: Agree

Change the text "Table 847" to "Table 850"

Reason for Group's Decision/Resolution

Group's Notes

16.2.9 Group Resource Allocation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Yanhong

Membership Status: Member

Date: 2010-07-09

Comment # 421

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 211      Line 34      Fig/Table#      Subclause Table 752

In Group Resource Allocation mechanism, group management scheme need enhancement

Suggested Remedy

Adopt proposals in contribution C80216m-10\_0771 or its latest version

GroupResolution

Decision of Group: Disagree

Vote: 0-1-0

Reason for Group's Decision/Resolution

don't agree that a loop structure is required in the message

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Yanhong

Membership Status: Member

Date: 2010-07-09

Comment # 422

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 212      Line 60      Fig/Table#      Subclause Table 752

Reference to "table 751 and table 752" is incorrect

Suggested Remedy

change the text "table 751 and table 752" to "table 780 and table 781"

GroupResolution

Decision of Group: Principle

P212, L16:P

change the text "table 751 and table 752" to "table 780 and table 781"

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Limei

Membership Status: Member

Date: 2010-07-09

Comment # 423

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 323      Line 59      Fig/Table#      Subclause 16.2.9.4

the parameter "Allocation\_Period" is incorrect.

Suggested Remedy

change the text "Allocation\_Period" to "Periodicity"

GroupResolution

Decision of Group: Agree

change the text "Allocation\_Period" to "Periodicity"

Reason for Group's Decision/Resolution

Group's Notes

16.2.9 Group Resource Allocation

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cai, Sean

Membership Status: Member

Date: 2010-07-09

Comment # 424

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 427      Line 6      Fig/Table#      Subclause 16.3.2.3

The two major competing IMT-Advanced technologies are based on LTE-Advanced and IEEE 802.16m. LTE has fixed its subcarrier spacing to 15 KHz, but IEEE 802.16 has made its subcarrier spacing a variable for different sets of system bandwidths, namely 10.9375 KHz, 7.8125 KHz, 9.765625 KHz. It is critical that the design of IEEE 802.16m can satisfy the critical needs for a cost-effective and performance competitive global technology in order to enable IEEE 802.16m to be well into the future. Since TD-LTE and TD-SCDMA will be introduced to market earlier than 16m and 16m has to be able to adjacent channel co-exist with LTE. With current variable subcarrier spacing and Frame structure in D6, 16m greenfield deployment can not work with competitive performance when adjacent channel co-existence with LTE. In order to resolve problems induced by the subcarrier spacing, a physical layer design based on fixed subcarrier spacing for greenfield deployment without legacy support (or legacy support in TDM mode only) is proposed.

Suggested Remedy

to accept the proposed text in the contribution C802.16m-10/0193r3 or the latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This requirement is not covered by the current project. It could potentially be addressed by a future standard developed by this group.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zhang, Yujian

Membership Status: Member

Date: 2010-07-09

Comment # 425

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 42      Fig/Table#      Subclause 16.2.3.30

In current P802.16m/D6, some IE sizes in AAI\_SCD message is not specified. Cleanup is needed.

Suggested Remedy

Adopt the text proposal in the latest version of contribution C80216m-10/0775.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in the latest version of contribution C80216m-10/0775r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Schumacher, Joseph

Membership Status: MemberDate: 2010-07-09Comment # 426Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 283      Line 44      Fig/Table#      Subclause 16.2.6.3.3

The current text includes a mechanism which attempts to deal with the problem of DSx control transactions that are interrupted by a HO. According to this mechanism a Change Count (CC) is introduced for DSx transactions which counts the number of transactions that have been initiated per flow. After performing a HO the AMS reports the CC for each flow to the T-ABS. If the reported CC does not match the value stored by the T-ABS the flows with the mismatch are deleted. If the CCs match then no error is detected.

This mechanism is vague and incomplete.

More specifically:

1. The description of the mechanism is scattered within message field descriptions. The reader is left to combine different pieces of text scattered through the document (the description above does not exist anywhere in the text !!)
2. The mechanism fails to detect the most severe of error conditions: when the AMS and T-ABS agree on the number of DSx transactions initiated but disagree on the number of DSx transactions completed.
3. The mechanism will not work when operating in legacy ASN mode.

Suggested Remedy

Adopt contribution C802.16m-10/0838 or its latest revision.

Group ResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The AAI\_HO-CMD can be lost. Hence, to use the AAI\_HO-CMD is incomplete solution. The current text in D6 provides a clear solution by using the AAI\_RNG-RSP.

Vote:

In favor: 33

Opposed: 16

Abstain:

Group's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 427

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 741      Line 1      Fig/Table#      Subclause 16.3.9.3.2

Section 16.3.9.3.2 HARQ feedback control channel is empty.

The reader is left in the dark about where to find information on the HARQ feedback control channel.

Suggested Remedy

Delete section 16.3.9.3.2 HARQ feedback control channel or provide a pointer to the description.

GroupResolution

Decision of Group: Principle

Delete empty section "16.3.9.3.2 HARQ feedback control channel"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Schumacher, Joseph

Membership Status: MemberDate: 2010-07-09Comment # 428Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 8      Fig/Table#      Subclause 16.2.3.30

In the definition of the AAI\_SCD message the following four fields are listed as having a length of 3 bits even though they can only take values in the range of 0 to 4. These fields should have length of 2 bits, not 3.

The lengths of the following fields should be 2 bits instead of 3 bits.

- BR\_Channel Configuration MIN Access Class of the (i+0)-th frame
- BR\_Channel Configuration MIN Access Class of the (i+1)-th frame
- BR\_Channel Configuration MIN Access Class of the (i+2)-th frame
- BR\_Channel Configuration MIN Access Class of the (i+3)-th frame

Suggested Remedy

In table 716, on page 160, and only for the following rows, change the value of the "Size (bits)" column from 3 to 2.

Row 2: BR\_Channel Configuration MIN Access Class of the (i+0)-th frame

Row 3: BR\_Channel Configuration MIN Access Class of the (i+1)-th frame

Row 4: BR\_Channel Configuration MIN Access Class of the (i+2)-th frame

Row 5: BR\_Channel Configuration MIN Access Class of the (i+3)-th frame

GroupResolutionDecision of Group: Principle

Resolved by comment #10082.

Resolution:

Update the table 716 in line 8, pp. 160, D6 as follows:

O   BR_Channel Configuration MIN Access Class of the (i+0)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+1)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+2)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+3)-th frame	32	INTERGER (0..43)

Reason for Group's Decision/Resolution

**Group's Notes**

16.2.3 MAC Control messages

Resolution is the same as comment #10082.

**Editor's Notes**

**Editor's Actions** b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Schumacher, Joseph

**Membership Status:** Member

**Date:** 2010-07-09

**Comment #** 429

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 329      **Line** 19      **Fig/Table#**      **Subclause** 16.2.11.1.1

The current text in the section on contention-based bandwidth requests contains several ambiguous or conflicting definitions.

**Suggested Remedy**

Adopt contribution C802.16m-10/0841 or its latest revision.

**GroupResolution**

**Decision of Group:** Principle

Adopt contribution C802.16m-10/0841r1

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.11 Bandwidth Request and Allocation Mechanism

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 430

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 382      Line 25      Fig/Table#      Subclause 16.2.15.7

The procedure for network reentry when an ABS is restarted is poorly defined, redundant and unnecessary.

Suggested Remedy

Adopt contribution C802.16m-10/0842 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

mechanism to detect ABS restart is required

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 431

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 378      Line 30      Fig/Table#      Subclause 16.2.15.2

The network entry procedure, as currently defined, contains some ambiguous definitions that need to be either removed or clarified further.

Suggested Remedy

Adopt contribution C802.16m-10/0843 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt contribution C802.16m-10/0843r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 432

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 421      Line 65      Fig/Table#      Subclause 16.2.24

The current text defines that the ABS may update S-SFH IE only in certain intervals. It is unclear if this restriction applies to the ABS communicating that an update will happen (ie. Changing the change count) or to the ABS actually sending the updated S-SFH IEs. More specifically, section 16.2.24, p. 421, line 65 specifies that the ABS shall "indicate" any changes of SFH-IE at specific superframes (those that satisfy SFN modulo "S-SFH change cycle" == 0). It is unclear if this means that the ABS is allowed to change the S-SFH change count in these frames or if the change count can be changed at any time but the new versions of the S-SFH IE (those that changed and caused the change count to be incremented) can only be sent at these specific superframes.

Suggested Remedy

Adopt contribution C802.16m-10/0844 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.24 Update of S-SFH IEs

Editor's Notes

Editor's Actions      b) none needed



## 16.2.24 Update of S-SFH IEs

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # **434**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 31      Fig/Table#      Subclause 16.2.6.3.3

Some parts of the text in the handover section need to be clarified and rearranged. This section has suffered from repeated edits and re-edits and some definitions have become scattered around in the paragraph with irrelevant text in between.

### Suggested Remedy

Adopt contribution C802.16m-10/0845 or its latest revision.

### GroupResolution

Decision of Group: **Agree**

Adopt contribution C802.16m-10/0845r1.

### Reason for Group's Decision/Resolution

### Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 435

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 55      Fig/Table#      Subclause 16.2.26.1

Some parts of the text in the coverage loss section are vague and need to be clarified and corrected. Specifically there are incorrect references to "padding PDUs" which are undefined and to network entities that store the AMS context, which are out of scope.

Suggested Remedy

Adopt contribution C802.16m-10/0873 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Padding bits can have integrity protection so no other message is required.

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 436

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 66      Line 57      Fig/Table#      Subclause 16.2.2.2.7

The usefulness of the MAC PDU length extended header is highly questionable. AGMH allows only 11 bits length and the group has agreed that this is enough. But then MLEH adds 8 bits of overhead to extend the length field by 3 more bits!! This is wasteful and unnecessarily increases overhead.

Suggested Remedy

Adopt contribution C802.16m-10/0874 or its latest revision.

GroupResolution

Decision of Group: Principle

same resolution as #495:

Adopt contribution C80216m-10\_0766r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions    b) none needed

Same as 495

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 437

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 284 Line 18

Fig/Table#

Subclause 16.2.6.3.4

Grammar

Suggested Remedy

[change the text as indicated]

If the AAI\_HO-CMD message includes more than one target ABS<delete>s</delete>, the AMS shall select one of these targets and inform the S-ABS of its selection by sending an AAI\_HO-IND message with HO Event Code 0b000 to the S-ABS before the expiration of Disconnect Time.

GroupResolution

Decision of Group: Agree

[change the text as indicated]

If the AAI\_HO-CMD message includes more than one target ABS<delete>s</delete>, the AMS shall select one of these targets and inform the S-ABS of its selection by sending an AAI\_HO-IND message with HO Event Code 0b000 to the S-ABS before the expiration of Disconnect Time.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 438

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 350      Line 1      Fig/Table#      Subclause 16.2.13.1.2

The convention of labeling the first fragment of an encapsulation as "Frag 0" is confusing. While this might reflect software development practice, the standard should identify elements in natural language where "first" corresponds to "1" and "second" corresponds to "2".

Suggested Remedy

[apply the following changes to figure 433]

1. Change all instances of "Frag 1" to "Fragment 2"
2. Change all instances of "Frag 0" to "Fragment 1"

GroupResolution

Decision of Group: Agree

[apply the following changes to figure 433]

1. Change all instances of "Frag 1" to "Fragment 2"
2. Change all instances of "Frag 0" to "Fragment 1"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 439

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 401 Line 8

Fig/Table#

Subclause 16.2.18.2.3

Brackets

Suggested Remedy

Remove the brackets surrounding the reference on line 8, page 401. Update the cross reference if necessary.

GroupResolution

Decision of Group: Agree

Remove the brackets surrounding the reference on line 8, page 401. Update the cross reference if necessary.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Schumacher, Joseph

Membership Status: Member

Date: 2010-07-09

Comment # 440

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 14      Line 1      Fig/Table#      Subclause 5.2.6

Use of the word must.

The IEEE Standards Style Manual (section 13.1) establishes rules for the usage of the words shall, should, may and can. Regarding the word must, the section states

"The use of the word must is deprecated and shall not be used when stating mandatory requirements; must is used only to describe unavoidable situations."

The word must appears 7 times in D6 in normative contexts. In each instance, it is used to express mandatory functionality and can blindly be replaced with the word shall.

While I understand that this comment could be construed as a nuisance, this issue was raised during the development of 802.16-2009 and consumed a great deal of working group time, and could potentially interfere with sponsor ballot progress if not resolved now.

Suggested Remedy

Replace all instances of the word must on page 14 and following pages with the word shall.

GroupResolution

Decision of Group: Agree

Replace all instances of the word must on page 14 and following pages with the word shall.

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 441

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 59      Fig/Table#      Subclause 16.2.18.4.2  
opposition to using DID because of backward compatibility violation

Suggested Remedy

In "If the Network Configuration bit in the S-SFH is set to 0b1, the AMS provides its actual MAC address in the AAI\_RNG-REQ message, instead of providing the DID."  
change "DID" to AMSID\*

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 442

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical

Part of Dis  Satisfied

Page 404 Line 12

Fig/Table#

Subclause 16.2.18.5

opposition to using DID

Suggested Remedy

change "DID" to "AMSID\*\*"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 443

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 861

Line 30

Fig/Table#

Subclause

opposition to using DID

Suggested Remedy

change "DID" to "AMSID\*\*"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

Annex P

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 444

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 862

Line 19

Fig/Table#

Subclause

opposition to using DID

Suggested Remedy

change "DID ::= BIT STRING (SIZE(10))" to:  
AMSID\* ::= BIT STRING (SIZE(24))

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

Annex P

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 445

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis

Satisfied

Page 862

Line 60

Fig/Table#

Subclause

opposition to use DID which is non-backward compatible

Suggested Remedy

change "DID" to "AMSID"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

[straw vote in the Idle Mode Ad-hoc: 2 votes in favor, 12 votes in against]  
[alcatel-lucent has serious concerns on backward compatible]

Current DID has less control message overhead than MSID/MAC Address does.

Group's Notes

Annex P

Editor's Notes

Editor's Actions

b) none needed

Comment by:

Onggosanusi, Eko

Membership Status: MemberDate: 2010-07-09Comment # 446Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 770	<u>Line</u> 1	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.11.1.5.1
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	---------------	-------------------	--------------------------------

This is a comment on Sec 16.3.11.1.5.1:

The current CTC interleaver parameters do not generally support contention free parallelism in the turbo decoder implementations for block sizes below 1024. Lack of support for contention free parallelism in the interleaver can cause either a significant reduction in the throughput or significant increase in complexity to meet high throughput requirements for the turbo decoder. This is especially the case for the base station which may be required to decode a large number of small block sizes with a very tight latency budget. At a minimum, the CTC interleaver should support parallelism order 2 for all block sizes to enable efficient, low complexity implementation of high throughput turbo decoders. The proposed remedy in IEEE C802.16m-10/0922 enables support for contention-free parallelism order 2 for all block sizes with no loss in BLER performance and with no change in the already well-designed block sizes.

The 802.16-2009 CTC interleaver supports parallelism order 2 for all block sizes except one. The CTC interleaver in the current 802.16m draft has significantly less support for contention-free parallelism. It is observed that 10 block sizes do not support parallelism order 2 as a minimum which is highly concerning. Another highly concerning observation is that many block sizes do not support any order of parallelism between 2 and 8 including block sizes as large as 568.

Note that in other air interface standards that may be considered for IMT-Advanced such as in LTE the CTC encoder interleaver supports parallelism orders 2, 4, and 8, for all block sizes, and parallelism order 16 for all block sizes above 512. This allows very efficient implementation of very high-speed turbo decoding based on parallel decoding methods.

#### Suggested Remedy

To address this issue I suggest the working group adopt the text changes in the latest revision of contribution IEEE C802.16m-10/0922.

#### GroupResolution

Decision of Group: Disagree

Resolved by comment #540.

Resolution:

Disagree: Benefits of this scheme require further review.

#### Reason for Group's Decision/Resolution

#### Group's Notes

Clause 16.3: AAI PHY

#### Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Carlo, James

Membership Status: Member

Date: 2010-07-09

Comment # 447

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 999

Line

Fig/Table#

Subclause

The abbreviation N.A., which appears in many of the tables is not defined. Does N.A. stand for Not Applied, Not Appropriate, New Approach, Not Allowed, Not Always?

Suggested Remedy

Define N.A. appropriately (N.A. = Not Allowed)? Note that this designation is not used in the base standard. Also, it may be that in some tables, N.A. means one thing and in other tables, N.A. means something else? Possibly change N.A. to a more meaningful description.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No remedy available for the group to consider.

Group's Notes

General Comment

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Carlo, James

Membership Status: Member

Date: 2010-07-09

Comment # 448

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis



Satisfied



Page 999

Line

Fig/Table#

Subclause

In some cases, the abbreviation NA is used? Is this the same as N.A.? N/A is also used. Is this different?

Suggested Remedy

Choose either NA or N.A.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No remedy available for the group to consider. noted that a proper resolution to #447 will resolve this comment.

Group's Notes

General Comment

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Carlo, James

Membership Status: Member

Date: 2010-07-09

Comment # 449

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 177

Line 49

Fig/Table#

Subclause

"Bit#0 : Null SA is supported if it is set to 1". Sometimes the use of Null is confusing.

Suggested Remedy

Clarify "Null SA" as (SAID = 0x00). In other uses of the word "Null", does it always mean "0x00?"

GroupResolution

Decision of Group: Principle

Replace

Bit#0 : Null SA

with

Bit#0 : Null SA (SAID = 0x00)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Carlo, James

Membership Status: Member

Date: 2010-07-09

Comment # 450

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 303 Line

Fig/Table#

Subclause

"When NULL detection is used" -should NULL be capitalized? Not clear what piece of NULL is being detected.

Suggested Remedy

Clarify better the term NULL DETECTION.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

NULL is capitalized in the same spirit as 'ACK' or 'NACK'. If neither an 'ACK' nor a 'NACK' is transmitted in the HF channel, a three-state 'ACK/NACK' channel detector can be implemented. A "NULL" can be detected if neither 'ACK' nor 'NACK' pass the threshold test.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 451

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 20

Fig/Table#

Subclause

no need to limit scope to IP CS only

Suggested Remedy

delete line 20

GroupResolution

Decision of Group: Agree

same resolution as comment #8

delete line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 452

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 11

Line 22

Fig/Table#

Subclause

don't break backward compatibility with GPCS

Suggested Remedy

delete line 22

GroupResolution

Decision of Group: Agree

same resolution as comment #6

delete line 200

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions

a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 453

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 14

Line 38

Fig/Table#

Subclause

no benefit provided by this method to existing CS methods. Actually adds overhead to each packet

Suggested Remedy

delete subclause 5.2.6, delete P11 L33-34, remove protocol ID field from figure 8 (p11)

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

General agreement that the functionality is missing, group prefers to keep the existing, incomplete text, and provide the missing functions.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 454

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 69

Line 61

Fig/Table#

Subclause

ASN.1 code is currently informative, not acceptable for modern radio protocol

Suggested Remedy

add ASN.1 code definition for all MAC control messages, delete Annex P.2

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Incomple Remed

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 455

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 96

Line 1

Fig/Table#

Subclause

AAI\_REG-REQ message is incomplete, poorly defined and ambiguous.

Suggested Remedy

delete existing definition by deleting table 687 and replace with definition in ASN.1 code

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The specific ASN.1 code mentioned in the remedy is not provided.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 456

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 102

Line 52

Fig/Table#

Subclause

AAI\_REG-RSP message is incomplete, poorly defined and ambiguous.

Suggested Remedy

delete existing definition by deleting table 688 and replace with definition in ASN.1 code

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The specific ASN.1 code mentioned in the remedy is not provided.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Probasco, Michael

Membership Status: Member

Date: 2010-07-09

Comment # 457

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 333

Line 11

Fig/Table#

Subclause

Definition of procedures for QoS and management of flows is incomplete

Suggested Remedy

copy text from 802.16-2009 section 16.3.14.7.1, 6.3.14.8, 6.3.14.9 and update these sections as required for use in the AAI

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposed remedy lack adequate specification and requires the editor to take too much license to author technical material.

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jovanovic, Slobodan

Membership Status: Member

Date: 2010-07-09

Comment # 458

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 770      Line 1      Fig/Table#      Subclause 16.3.11.1.5.1

This comment is on Section 16.3.11.1.5.1 Convolutional Turbo Codes.

The problem with the current CTC interleaver parameters are that they are not supporting good contention free parallelism for all block sizes. As a minimumally satisfactory remedy, the CTC interleaver should support parallelism order 2 for all block sizes to enable efficient, low complexity implemetation of high throughput turbo decoders. In the current interleaver design, there can be a significant reduction in the throuphgput or significant increase in complexity to meet high throughput requirements for the turbo decoder. Having a contention free interleaver and efficient high speed turbo decoding for all block sizes is important for the base station which can be required to decode a large number of small block sizes with a very tight latency budget.

Suggested Remedy

To address this issue I suggest the working group adopt the text changes in the latest revision of contribution IEEE C802.16m-10/0922

GroupResolution

Decision of Group: Disagree

Resolved by comment #540.

Resolution:

Disagree: Benefits of this scheme require further review.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Cudak, Mark

Membership Status: Member

Date: 2010-07-09

Comment # 459

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 999

Line

Fig/Table#

Subclause

Disapprove commentary database has been uploaded to the IEEE 802.16m website also

Suggested Remedy

See comments in attached commentary database

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

the group does not understand this comment. the group believes this comment is an error, resulting from problems submitting comments to the ballot. comments submitted outside of "myballot" are addressed as part of the ballot.

Group's Notes

General Comment

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Purkovic, Aleksandar

Membership Status: Member

Date: 2010-07-09

Comment # 460

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 770      Line 1      Fig/Table#      Subclause 16.3.11.1.5.1

This comment is on Section 16.3.11.1.5.1 Convolutional Turbo Codes.

Current text doesn't provide even degree of 2 of the interleaver parallelism for information block sizes less than 640 bits. Having contention free parallelism of at least degree of two for all block sizes is very important for the efficient implementation of the turbo decoder for very high throughput. The proposed remedy in IEEE C802.16m-10/0922 enables support for contention free parallelism order 2 for all block sizes with no loss in BLER performance and with no change in the already well designed block sizes.

Suggested Remedy

To address this issue adopt the text changes in the latest revision of contribution IEEE C802.16m-10/0922

GroupResolution

Decision of Group: Disagree

Resolved by comment #540.

Resolution:

Disagree: Benefits of this scheme require further review.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mao, Ronald

Membership Status: Member

Date: 2010-07-09

Comment # 461

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 559      Line 44      Fig/Table#      Subclause 16.3.6.5.2.4.1

UL CQI/MIMO feedback error need handle

Suggested Remedy

Adopt proposals in contribution C80216m-10\_0769 or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposed solution is incomplete:

- it does not address all modes
- it does not define how the AMS behaves in response to this

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mao, Ronald

Membership Status: Member

Date: 2010-07-09

Comment # 462

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 647

Line 48

Fig/Table#

Subclause 16.3.7.2.5.5.1

transformation codebook need to be enhanced

Suggested Remedy

Adopt proposals in contribution C80216m-10\_0770 or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The overhead reduction does not warrant the increased complexity.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Friedmann, Arnon

Membership Status: Member

Date: 2010-07-09

Comment # 463

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 770      Line 1      Fig/Table#      Subclause 16.3.11.1.5.1

This comment is for section 16.3.11.1.5.1.

I'm voting no due to an issue with the CTC interleaver design. The current CTC interleaver parameters do not support contention-free parallelism in the decoder for all block sizes. This can cause either a reduction in throughput or an increase in complexity in order to meet the system throughput and latency requirements. At a minimum, the CTC interleaver should support contention-free parallelism of order 2 for all block sizes. Of course, there should be no loss in performances relative to the current interleavers as well.

The proposal in IEEE C802.16m-10/0922 enables support for contention-free parallelism order 2 for all block sizes with no loss in BLER performance and with no changes to the current block sizes that already enable this.

In addition, other air interface standards (LTE) being considered for IMT-Advanced already support contention-free parallelism with order 2,4, and 8 for all block sizes and 2,4,8, and 16 for all block sizes greater than 512. This allows efficient implementation of very high speed decoders which the current 802.16m proposal does not allow.

Suggested Remedy

Adopt the text changes in the latest revision of contribution IEEE C802.16m-10/0922

GroupResolution

Decision of Group: Disagree

Resolved by comment #540.

Resolution:

Disagree: Benefits of this scheme require further review.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed



Comment by:

Sultan, Robert

Membership Status: MemberDate: 2010-07-09Comment # 464Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 253	<u>Line</u> 6	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.5.2.3.1.1
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	---------------	-------------------	---------------------------------

The sentence "The ciphertext message authentication code is transmitted so that byte index 0 (as enumerated in NIST Special Publication 800-38) is transmitted first (i.e., LSB first)." contradicts subclause 16.2.4.1, which specifies that "bits within a byte are transmitted in the order "MSB first."" The NIST Publication does not specify the order of transmission; it only defines the bit order of the code (ie. which is LSB, which is MSB). The document does not describe a 'byte index'. The document should be referenced as NIST Special Publication 800-38C (but the reference is not needed here).

Suggested Remedy

Delete the text "The ciphertext message authentication code is transmitted so that byte index 0 (as enumerated in NIST Special Publication 800-38) is transmitted first (i.e., LSB first)." Relocate the text "The processing yields a payload that is 7 or 11 bytes longer than the plaintext payload" so that it is not orphaned and specify what processing is being referenced (ie. so it's clear what 'the processing' means).

GroupResolutionDecision of Group: Principle

Adopt the text in contribution C802.16m-10/0935r1.  
Same resolution for comments 122, 127, 464.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.5 AAI Security

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sultan, Robert

Membership Status: Member

Date: 2010-07-09

Comment # 465

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 24      Line 1      Fig/Table#      Subclause 6.3.20.10

Amendment 802.16j specifies insertion of a subclause '6.3.20.10 MS sleep mode support in MR systems'. Amendment 802.16m specifies the insertion of a subclause ' 6.3.20.10 Activation and transition of MS states'. The 802.16m subclause must be assigned a heading number that does not conflict with the 802.16j subclause. The commenter observes that the discovery of such a conflict in 802.16m suggests that the amendment be thoroughly reviewed by the editor for other such conflicts before re-circulation in order to avoid similar comments in future ballots.

Suggested Remedy

Change '6.3.20.10' to '6.3.20.11' or other appropriate correction. Review the document for similar discrepancies.

GroupResolution

Decision of Group: Agree

Change '6.3.20.10' to '6.3.20.11' or other appropriate correction. Review the document for similar discrepancies.

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sultan, Robert

Membership Status: Member

Date: 2010-07-09

Comment # 466

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 4      Line 4      Fig/Table#      Subclause 3

The definitions will, at some later time, merged with existing 802.16 definitions and those introduced by other amendments. One way to indicate this is to list the definitions in Clause 3 as 3.1, 3.2, 3.3,,,, etc and provide an editorial instruction as to how these are to be merged with the base standard.

Suggested Remedy

Change the instruction "[Insert the following definitions:]" to "Insert the following definitions into Clause 3, in appropriate collating Sequence, renumbering existing/new definitions as appropriate:" Also, remove the brackets around the editing instruction. List the definition in the amendment as 3.1, 3.2, 3.3, etc.

GroupResolution

Decision of Group: Agree

Change the instruction "[Insert the following definitions:]" to "Insert the following definitions into Clause 3, in appropriate collating Sequence, renumbering existing/new definitions as appropriate:" Also, remove the brackets around the editing instruction. List the definition in the amendment as 3.1, 3.2, 3.3, etc.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions      g) editor disagrees

Numbering sequence and editorial instruction is clear for the eventual merge. This is why the numbers start at 3.97.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sultan, Robert

Membership Status: Member

Date: 2010-07-09

Comment # 467

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 4      Line 26      Fig/Table#      Subclause 3.102

If a definition is to be removed from the base text, this should be indicated by a distinct editing instruction.

Suggested Remedy

remove the item "3.102 (deleted)" from the list of definitions. Insert the editing instruction "Delete subclause 3.102" (I'm assuming that 3.102 is a definition in the base standard; else, this should be appropriately corrected)

GroupResolution

Decision of Group: Agree

remove the item "3.102 (deleted)" from the list of definitions. Insert the editing instruction "Delete subclause 3.102" (I'm assuming that 3.102 is a definition in the base standard; else, this should be appropriately corrected)

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    g) editor disagrees

Definitions in the base standard do not go this high. The definitions in this amendment are to be added to the existing definitions. The "3.102 (deleted)" defintion was an editorial artifact.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sultan, Robert

Membership Status: Member

Date: 2010-07-09

Comment # 468

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 0      Line 0      Fig/Table#      Subclause 0

I notice that many of the editorial instructions in the draft are enclosed by brackets. Does this have some meaning?

Suggested Remedy

Remove brackets from editorial instructions.

GroupResolution

Decision of Group: Agree

Remove brackets from editorial instructions.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    i) didn't have time

Consider this task following the September meeting when we do not have such tight editorial turn-around times. To do this right, it will take some time.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 469

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 790

Line 46

Fig/Table#

Subclause

Femto synchronization to the macro cell is now recommended but not required. It should be mandated in all cases where interference can occur in either UL or DL.

Suggested Remedy

Rewrite sentence:

A Femto ABS should be synchronized with the overlay ABS network

as:

"A Femto ABS shall be synchronized with the overlay ABS network in all cases where interference in UL or DL can occur,"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The "should" is appropriate as it leaves the decision with the network operator and BS vendor to determine when synchronization is appropriate.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions b) none needed

Comment by:

Zeira, Eldad

Membership Status: MemberDate: 2010-07-09Comment # 470Document under Review: P802.16m/D6Ballot ID: sb\_16mCommentType TechnicalPart of DisSatisfiedPage 790Line 53Fig/Table#Subclause

BS offset measurement by AMS (Arrival Time Difference in 16-2009 or Relative Delay in 16m) may be used to help synchronize the Femto to the overlaid macro ABS.

Suggested Remedy

rewrite

The Femto ABS may also achieve network synchronization from GPS or backhaul network (e.g. IEEE 1588)

as:

The Femto ABS may also achieve network synchronization from GPS or backhaul network (e.g. IEEE 1588) or from AMS attached to it or the overlaid macro"

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Methods for synchronizing with attached AMSs or the overlaid macro are not provided by the standard.

Group's Notes

Clause 16.4: AAI Femto

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 471

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 796

Line 57

Fig/Table#

Subclause

There is a reference to a macro ABS "in idle mode" which doesn't exist.

Suggested Remedy

Remove clause 16.4.9

GroupResolution

Decision of Group: Principle

<del>The Femto ABSs operate like macro ABSs in Idle mode.</del>

<ins>The Femto ABSs support Idle mode identical to macro ABSs with the exceptions given in this section.</ins>

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions

a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 472

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 797

Line 17

Fig/Table#

Subclause

"The Femto ABS may enter low-duty mode if there are no AMSs attached to the Femto ABS and there are no AMSs in the process of network entry" - we generally do not specify BS behavior

Suggested Remedy

remove sentence

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This is essential to the description and understanding of LDM.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 473

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 798

Line 55

Fig/Table#

Subclause

Text states that disabled sub-frames can be announced on AAI\_SON-ADV. Message doesn't contain fields for the purpose.

Suggested Remedy

Modify AAI\_SON-ADV or remove mode.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Remedy to fix this issue was incomplete.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 474

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 799

Line 50

Fig/Table#

Subclause

"The Femto ABS shall set the maximum downlink transmit power and should take into account building penetration losses" - the statement about building penetration losses is redundant, there are a lot of other potential losses which we don't name.

Suggested Remedy

Rewrite

The Femto ABS shall set the maximum downlink transmit power and should take into account building penetration losses as:

The Femto ABS shall set the maximum downlink transmit power

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Taking into consideration building Penetration losses is very essential for the Femto ABS to set the optimum DL power level. This should therefore be explicitly mentioned; you may of course name other main potential losses in addition to penetration losses.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Zeira, Eldad

Membership Status: Member

Date: 2010-07-09

Comment # 475

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 805

Line 19

Fig/Table#

Subclause

Text states: "The default number of neighboring ABSs coordinated to support Collaborative MIMO (Co-MIMO) transmission is three" - redundant information

Suggested Remedy

remove sentence

GroupResolution

Decision of Group: Agree

Remove sentence: "The default number of neighboring ABSs coordinated to support Collaborative MIMO (Co-MIMO) transmission is three"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.5: AAI Multi-BS MIMO

Editor's Notes

Editor's Actions a) done

Comment by:

Zeira, Eldad

Membership Status: MemberDate: 2010-07-09Comment # 476Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 835	<u>Line</u> 53	<u>Fig/Table#</u>	<u>Subclause</u>
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	------------------

Text states that parameters of ABS location and sector orientation should be reported in AAI\_NBR-ADV. The message doesn't contain the necessary fields for this report. Moreover, direct observations that are already available are more suitable for the purpose.

Suggested Remedy

Fix AAI\_NBR-ADV or remove sentence

GroupResolutionDecision of Group: Principle

ABS should report BSID, location of ABS (i.e. longitude, latitude, and sector bearing - indicating the direction where the sector is pointing), and ABS attributes ~~as defined in AAI\_NBR-ADV messages~~, in order to initiate Neighbor Macro ABS Self-configuration function. In response, neighbor ABS attributes (as defined in AAI\_NBR-ADV messages) in the ABS should be updated.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.7: AAI Support for SON

Editor's NotesEditor's Actions a) done

Comment by:

Zeira, Eldad

Membership Status: MemberDate: 2010-07-09Comment # 477Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u>	<u>Part of Dis</u>	<u>Satisfied</u>	<u>Page</u>	<u>Line</u>	<u>Fig/Table#</u>	<u>Subclause</u>
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Technical

Part of Dis



Satisfied



Page 845

Line 10

Fig/Table#

Subclause

The sentence "Each multicast/broadcast connection is associated with a service flow provisioned with the QoS and traffic parameters for that service flow" is misleading as there is no mechanism provided in the spec for QoS to be measured or reported by the AMS. This situation is exacerbated for those cases where AMS is allowed to skip EMBS transmissions without informing ABS.

Suggested Remedy

Eliminate references to QoS. Rewrite sentence:

Each multicast/broadcast connection is associated with a service flow provisioned with the QoS and traffic parameters for that service flow

As:

Each multicast/broadcast connection is associated with a service flow

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Service flow for E-MBS is already provisioned with the QoS and traffic parameters for E-MBS

Group's Notes

Clause 16.9: AAI EMBS

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsuan, Yi

Membership Status: Member

Date: 2010-07-09

Comment # 478

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 530      Line 27      Fig/Table#      Subclause 16.3.6.2.2.4

The location of broadcast assignment AMAP IE is ambiguous in the case of FFR.

Suggested Remedy

If a broadcast assignment A-MAP IE, i.e., the assignment A-MAP IE intended for all the AMSs, exists in a DL AAI subframe, it shall be present at the beginning of either assignment A-MAP group 1 or assignment A-MAP group 3 the assignment A-MAP group using the lower code rate in the primary frequency partition.

GroupResolution

Decision of Group: Principle

Resolved by comment #486.

Resolution:

Replace

"either assignment A-MAP group 1 or assignment A-MAP group 3"

with

"the assignment A-MAP group using the lower code rate in the primary frequency partition."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsuan, Yi

Membership Status: Member

Date: 2010-07-09

Comment # 479

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 784      Line 16      Fig/Table#      Subclause 16.3.14.2

In equation (316), mu\_hat is missing on the left of the equation.

Suggested Remedy

Add greek letter mu\_hat in front of RSSI[k] as described in C80216m-10/0648r4.

GroupResolution

Decision of Group: Agree

Add greek letter mu\_hat in front of RSSI[k] as described in C80216m-10/0648r4.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsuan, Yi

Membership Status: Member

Date: 2010-07-09

Comment # 480

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 785      Line 43

Fig/Table#

Subclause 16.3.14.3

In equation (319), mu\_hat is missing on the left of the equation.

Suggested Remedy

Add greek letter mu\_hat in front of CINR[k] as described in C80216m-10/0648r4.

GroupResolution

Decision of Group: Agree

Add greek letter mu\_hat in front of CINR[k] as described in C80216m-10/0648r4.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsuan, Yi

Membership Status: Member

Date: 2010-07-09

Comment # 481

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 413      Line 56      Fig/Table#      Subclause 16.2.21.1

Midamble based CINR and CQI estimation needs to assume all ABSs use the same FFR power loading (FPi\_Power). Therefore power loading of FFR frequency partition needs to be close or identical among all ABS so that the CINR and CQI estimation can be made accurately.

Suggested Remedy

Add the following sentence at the end of the paragraph:

FPi\_Power of different ABS in a nearby area should be the same or close in value to allow accurate CINR and CQI estimation at AMS.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Need to justify it. And current design includes the proposal. If inaccuray has big problem, then BS can set the parameters all same.

Group's Notes

16.2.21 Interference Mitigation Mechanism

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yung-Han

Membership Status: Member

Date: 2010-07-09

Comment # 482

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 320

Line 21

Fig/Table#

Subclause 16.2.9.1

Incorrect reference table

Suggested Remedy

At line 21 on p. 320, please replace "Table 847" with "Table 850" in IEEE P802.16m/D6

GroupResolution

Decision of Group: Agree

At line 21 on p. 320, please replace "Table 847" with "Table 850" in IEEE P802.16m/D6

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Bin

Membership Status: Member

Date: 2010-07-09

Comment # 483

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 593      Line 26      Fig/Table#      Subclause ?

the burst sizes and resource sizes are all associated with group, so the other MSs in the group know all the MCS for the resource allocation in the A-MAP IE, which makes the resource un-secure.

Suggested Remedy

adopt the contribution C80216m-10\_0772 and its latest version

GroupResolution

Decision of Group: Principle

adopt the contribution C80216m-10\_0772r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

\*\*\* Roshni \*\*\* Remedy 2(PHY) done, Remedy 1 (MAC), Remedy 3 (Annex P) not implemented Remedy 1(PHY) in C80216m-10/0772r2 done, MAC changes done by Hyunjeong

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yung-Han

Membership Status: Member

Date: 2010-07-09

Comment # 484

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 321      Line 29

Fig/Table#

Subclause 16.2.9.2

Incorrect reference table

Suggested Remedy

At line 29 on p. 321, please replace "Table 923" with "Table 959" in IEEE P802.16m/D6.

GroupResolution

Decision of Group: Agree

At line 29 on p. 321, please replace "Table 923" with "Table 959" in IEEE P802.16m/D6.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Bin

Membership Status: Member

Date: 2010-07-09

Comment # 485

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 324      Line 29      Fig/Table#      Subclause 16.2.9.4.1

the user bitmap size could be 4,8,16,32, but in this text, it can just be 8,16,32

Suggested Remedy

add a "4" to the text in line 29 as "flow to signal which users are scheduled in the frame. The user bitmap size can be <begin insert>4,<end insert> 8, 16 or 32 bits. Each"

GroupResolution

Decision of Group: Principle

Resolved by comment #102.

Resolution:

16.2.9.4.1 Bitmaps in Group Resource Allocation

The ABS uses bitmaps to signal resource allocation information for flows within a group. These bitmaps are sent in the Group Resource Allocation A-MAP IE. The first bitmap is the User Bitmap which uses 1 bit per flow to signal which users are scheduled in the frame. The user bitmap size can be <ins>4</ins>, 8, 16 or 32 bits. Each flow belonging to the group shall be assigned a unique index in the User Bitmap of that group.

Reason for Group's Decision/Resolution

Group's Notes

16.2.9 Group Resource Allocation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Hsuan, Yi

Membership Status: Member

Date: 2010-07-09

Comment # 486

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 530      Line 29      Fig/Table#      Subclause 16.3.6.2.2.4

The location of broadcast assignment AMAP IE is ambiguous in the case of FFR.

Suggested Remedy

Replace

"either assignment A-MAP group 1 or assignment A-MAP group 3"

with

"the assignment A-MAP group using the lower code rate in the primary frequency partition."

GroupResolution

Decision of Group: Agree

Replace

"either assignment A-MAP group 1 or assignment A-MAP group 3"

with

"the assignment A-MAP group using the lower code rate in the primary frequency partition."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 487

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 901      Line 1      Fig/Table#      Subclause Annex

The draft is lacking in radio specifications. Radio specifications, including information on supported frequency bands and associated unwanted emissions, form an important part of the ITU's detailed IMT specifications, including IMT-Advanced radio interface technology specifications. Such information is essential to regulatory agencies around the world. It is also a key element of ITU-R provisions enabling global circulation of terminals. Therefore, detailed radio specifications should be added to the draft. These should be based on the radio specifications already submitted to ITU as part of IEEE's IMT-Advanced proposal based on 802.16m.

For a more detailed comment, see IEEE C802.16m-10/0934.

Suggested Remedy

Accept the proposal in IEEE C802.16m-10/0934, adding two normative annexes to specify the "Supported frequency bands" and the "Unwanted emissions for WirelessMAN-Advanced Air Interface".

GroupResolution

Decision of Group: Agree

Accept the proposal in IEEE C802.16m-10/0934

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Roshni created Annex R and Annex S from this contribution.



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yung-Han

Membership Status: Member

Date: 2010-07-09

Comment # 488

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 851      Line 51      Fig/Table#      Subclause 16.9.3.3

The parameter "NMSI" in lines 51 to 61 are in an incorrect style.

Suggested Remedy

The "MSI" of the parameter "NMSI" should be the subscript (subindex).

GroupResolution

Decision of Group: Agree

The "MSI" of the parameter "NMSI" should be the subscript (subindex).

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 489

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 858      Line 1      Fig/Table#      Subclause Annex P

Annex P and Annex Q need to be renamed with a new designation. Annex P was introduced into IEEE Std 802.16 in 802.16j. Annex Q was introduced into IEEE Std 802.16 in 802.16h.

Suggested Remedy

Rename Annex P to be Annex R.  
Rename Annex Q to be Annex S.

GroupResolution

Decision of Group: Agree

Rename Annex P to be Annex R.  
Rename Annex Q to be Annex S.

Reason for Group's Decision/Resolution

Group's Notes

Annex P

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 490

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 852

Line 1

Fig/Table#

Subclause

Page 852 is blank.

Suggested Remedy

Delete Page 852.

GroupResolution

Decision of Group: Agree

Delete Page 852.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 491

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Editorial

Part of Dis

Satisfied

Page 1

Line 1

Fig/Table#

Subclause

The first page should be numbered "i", not "0".

Suggested Remedy

Renumber frontmatter pages to begin with "i".

GroupResolution

Decision of Group: Agree

Renumber frontmatter pages to begin with "i".

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 492

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 64      Line 13      Fig/Table#      Subclause 16.2.2.2.3

Table 670

Some MAC control messages need to contain CMAC tuple to enable the receiver to check the authenticity and the integrity of the message.

A method is proposed to include CMAC tuple in a MAC control message that is encoded in ASN.1 format.

Suggested Remedy

Adopt contribution C80216m-10\_0768

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

CMAC calculation cannot be done before the ASN.1 decoding.

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 493

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 107      Line 30      Fig/Table#      Subclause 16.2.3.9

Table 690  
AAI\_DSX-REQ, AAI\_DSX-RSP, and AAI\_DSX-ACK messages have many attributes that are missing definitions, not properly defined, or using wrong format.

Suggested Remedy

Adopt contribution C80216m-10\_0702

GroupResolution

Decision of Group: Principle

Adopt the text proposed in C80216m-10\_0702r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Chou, Joey

Membership Status: MemberDate: 2010-07-09Comment # 494Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 789	<u>Line</u> 30	<u>Fig/Table#</u>	<u>Subclause</u> 16.4.4
----------------	-----------------------	---------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	-------------------------

There is no CSG ID in the AAI\_REG-RSP message. It should be AAI\_RNG-REQ.

The CSG ID, as a part of the BS ID, may be derived from the full BS ID or may be provided to the CSG Femto ABS during initial network entry in the AAI\_REG-RSP or may be pre-provisioned by the network.

**Suggested Remedy**

Change as the following

The CSG ID, as a part of the BS ID, may be derived from the full BS ID or may be provided to the CSG Femto ABS during initial network entry in the AAI\_REG-RSP AAI\_RNG-REQ or may be pre-provisioned by the network.

**GroupResolution****Decision of Group: Principle**

Change as the following

The CSG ID, as a part of the BS ID, may be derived from the full BS ID or may be provided ~~to~~ by the CSG Femto ABS during initial network entry in the AAI\_REG-RSP or may be pre-provisioned by the network.

**Reason for Group's Decision/Resolution****Group's Notes**

Clause 16.4: AAI Femto

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 495

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 49      Line 41      Fig/Table#      Subclause 16.2.2.1.2

802.16m D6 draft contains AGMH, SPMH, and many extended headers. But, there is no guideline on how to mix these MAC headers and extended headers to construct MAC PDU structure that results in confusion and contradictions between various parts of the specification.

Suggested Remedy

Adopt contribution C80216m-10\_0766

GroupResolution

Decision of Group: Principle

Adopt contribution C80216m-10\_0766r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 496

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 66

Line 51

Fig/Table#

Subclause 16.2.2.2.6

Table numbers are wrong i

Suggested Remedy

Change Table 674 to table 673

GroupResolution

Decision of Group: Agree

Change Table 674 to table 673

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 497

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 66

Line 62

Fig/Table#

Subclause 16.2.2.2.7

Table numbers are wrong i

Suggested Remedy

Change Table 675 to table 674

GroupResolution

Decision of Group: Agree

Change Table 675 to table 674

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 498

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 67

Line 52

Fig/Table#

Subclause 16.2.2.2.8

Table numbers are wrong i

Suggested Remedy

Change Table 676 to table 675

GroupResolution

Decision of Group: Agree

Change Table 676 to table 675

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 499

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 67

Line 65

Fig/Table#

Subclause 16.2.2.2.9

Table numbers are wrong i

Suggested Remedy

Change Table 677 to table 676

GroupResolution

Decision of Group: Agree

Change Table 677 to table 676

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 500

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 858      Line 11      Fig/Table#      Subclause Annex P

Add byte unaligned option

Suggested Remedy

Change as the following

This Appendix defines MAC control messages using ASN.1 notation. The Packed Encoding Rules (PER) with byte unaligned option shall be used to produce compact transfer syntax for MAC control message to be transmitted over the air interface efficiently.

GroupResolution

Decision of Group: Principle

Replace:

This Appendix defines MAC control messages using ASN.1 notation. The Packed Encoding Rules (PER) shall be used to produce compact transfer syntax for MAC control message to be transmitted over the air interface efficiently.

with:

This Appendix defines MAC control messages using ASN.1 notation. The Packed Encoding Rules (PER) with byte unaligned option shall be used to produce compact transfer syntax for MAC control message to be transmitted over the air interface efficiently.

Reason for Group's Decision/Resolution

Group's Notes

Annex P

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 501

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 118      Line 39      Fig/Table#      Subclause 16.2.3.12

The Delta Information attributes in AAI\_NBR-ADV and AAI\_MC-ADV messages have the following issues:

- 1) They are encoded as a sequence of TLVs that are not valid, as AAI\_NBR-ADV and AAI\_MC-ADV messages are encoded in ASN.1. The type is not needed for ASN.1 encoding.
- 2) It indicated that parameters from Type 60 to Type 91 shall only be included in AAI\_MC-ADV. But, the title of table 693 shows that the types are for delta SFH encoding. This is not true, since it contains type 60 to 91 that are derived from AAI\_SCD message.

Suggested Remedy

Adopt contribution C80216m-10\_0703

GroupResolution

Decision of Group: Agree

Adopt the text proposed in C802.16m-10/0703.

Reason for Group's Decision/Resolution

Marked Disagree with the following reason: The comment introduces inconsistency with other existing tables in the specification.

Re-opened on Thursday. Agreed without opposition.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 502

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 107      Line 30      Fig/Table#      Subclause 16.2.3.10

AAI\_HO-XXX messages have many attributes that are not defined or completely defined.

Suggested Remedy

Adopt contribution C80216m-10\_0704

GroupResolution

Decision of Group: Disagree

The comment introduces inconsistency with other existing tables in the specification.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 503

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 96      Line 38      Fig/Table#      Subclause 16.2.3.7

AAI\_REG-XXX messages have many attributes that are not defined or completely defined.

Suggested Remedy

Adopt contribution C80216m-10\_0705

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 504

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 78      Line 55      Fig/Table#      Subclause 16.2.3.1

AAI\_RNG-XXX messages have many attributes that are not defined or completely defined.

Suggested Remedy

Adopt contribution C80216m-10\_0706

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0706r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 505

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 175      Line 22      Fig/Table#      Subclause 16.2.3.42  
EAP payload has variable size

Suggested Remedy

Change the size of EAP payload from variable to 1400 x 8

GroupResolution

Decision of Group: Principle

In table 728, page 175, Line 22, change the size of EAP payload from "variable" to "Variable (1 ... 1400 x 8)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 506

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 177      Line 7      Fig/Table#      Subclause 16.2.3.42

EAP payload has variable size

Suggested Remedy

Change the size of EAP payload from variable to 1400 x 8

GroupResolution

Decision of Group: Principle

In table 729, page 177, Line 7, change the size of EAP payload from "variable" to "Variable (1 ... 1400 x 8)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 507

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 214      Line 48      Fig/Table#      Subclause 16.2.3.51

verboseNspNames needs to have a size. Otherwise, it can't be defined in ASN.1 variable size.

Suggested Remedy

Change the size of verboseNspNames from variable to 128 x 8

GroupResolution

Decision of Group: Principle

In table 754, page 214, Line 48, change the size of verboseNspNames from "variable" to 'Variable (1 ... 128 x 8)'

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 508

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 157      Line 56      Fig/Table#      Subclause 16.2.3.30

Parameters\_GRA has no size, value or note. It is not clear what Parameters\_GRA is needed for.

Suggested Remedy

Delete Parameters\_GRA attribute

GroupResolution

Decision of Group: Agree

Delete row for Parameters\_GRA attribute

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 509

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 113      Line 11      Fig/Table#      Subclause 16.2.3.12

The AAI\_NBR-ADV message as defined in Table 692 does not reflect the text in section 16.2.3.12.

For example, the text extracted from section 16.2.3.12, indicates that ABS always provides the total number of deployment types and total number of recommended T-ABS for each type. But, the table does not contain the total number of deployment types and total number of recommended T-ABS for each type.

Moreover, the attributes to be included in neighbor ABS array or carrier per neighbor BS array are indicated in the conditions (e.g. Shall be included for each neighbor, BS Shall be included for each carrier of each neighbor BS) that don't not consistent to the table format. This contribution is intended to fix the issues described above.

Suggested Remedy

Adopt contribution C80216m-10\_0767

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0767r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 510

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 136      Line 27      Fig/Table#      Subclause 16.2.3.19

FFR REPORT - fp0Report, fp1Report, fp2Report, fp3Report attributes are missing size and Value/Nore definitions.,

Suggested Remedy

Provide size and value/note definitions

GroupResolution

Decision of Group: Principle

Adopt C80216m-10/0940.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 511

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 157      Line 26      Fig/Table#      Subclause 16.2.3.30  
SA\_PreamblePartitionforBStyle attribute is missing Size.

Suggested Remedy

Change as the following:

M/O M

Attributes / Array of attributes SA\_PreamblePartitionforBStyle

Size 20

Value/Note Indicates the SA-Preamble partition information.Each 4bit represents a partition range for each cell type, as defined in 16.3.6.1.2 and Table 826

Conditions M N.A.

GroupResolution

Decision of Group: Principle

P157 L26

Insert "20" for size column

Value/Note column change text to "Indicates the SA-Preamble partition information.Each 4bit represents a partition range for each cell type, as defined in 16.3.6.1.2 and Table 826."

Conditions Column should read: "Not Applicable"

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Some of this was already done. I fixed the conditions column and created proper links.



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 512

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 50

Line 53

Fig/Table#

Subclause 16.2.2.1.3

Reserved bits need to be used in signaling header for byte alignment

Suggested Remedy

Add the following after the Contents

Syntax Size(bits) Notes

Reserved variable reserved bits for byte alignment

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Message definition is already such that the message is properly aligned. No adjustment is need to ensure alignment.

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # **513**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 58      Line 19      Fig/Table#      Subclause 16.2.2.1.3.7

CMFH has nested FOR loops. When ABS has 4 Tx antennas, then CMFH can be greater 48 bits.

Suggested Remedy

CMFH can be too big to fit into the signaling header

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

It is not. Second for loop is starting from first for loops' index + 1. So, contents size for 4Tx is 28 bits.

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 514

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 142      Line 53      Fig/Table#      Subclause 16.2.3.22

Paging\_Group\_IDs bitmap is missing size

Suggested Remedy

Chnage as the following  
M/O Attributes/Array of attributes Size  
M Paging\_Group\_IDs bitmap 4

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

4 may not be the correct value, more evidence is required.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 515

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 356

Line 49

Fig/Table#

Subclause 16.2.13.5.2.2

Typo

Suggested Remedy

When ARQ sub-block is transmitted, ARQ sub-block state transits transmits from "not-sent" to "outstanding" state

GroupResolution

Decision of Group: Agree

When ARQ sub-block is transmitted, ARQ sub-block state transits transmits from "not-sent" to "outstanding" state

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 516

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 350      Line 16      Fig/Table#      Subclause 16.2.13.1.3

Packet PDU #2 in the 2nd diagram of Figure 433 consists of the packing of Frag 1 of SDU #1 and Frag 0 of SDU #2. So, it should be PEH

Suggested Remedy

Change FEH to PEH

GroupResolution

Decision of Group: Agree

P350, on L16, above the "2". Change FEH to PEH.

Reason for Group's Decision/Resolution

Group's Notes

16.2.13 ARQ mechanism

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 517

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 351      Line 39      Fig/Table#      Subclause 16.2.13.2.1

There are two Selective ACK MAP in table 790 that are confusing. In fact, they should be 1st Selective ACK MAP and continuous Selective ACK MAP

Suggested Remedy

page 351, line 39, change "Selective ACK MAP" to "1st Selective ACK MAP"

Page 351, line 53, change "Selective ACK MAP" to "Continuous Selective ACK MAP"

GroupResolution

Decision of Group: Agree

page 351, line 39, change "Selective ACK MAP" to "1st Selective ACK MAP"

Page 351, line 53, change "Selective ACK MAP" to "Continuous Selective ACK MAP"

Reason for Group's Decision/Resolution

Group's Notes

16.2.13 ARQ mechanism

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 518

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical

Part of Dis  Satisfied

Page 352

Line 27

Fig/Table#

Subclause 16.2.13.2.1

Wrong For loop

Suggested Remedy

Change as the following  
For(i=0 ; i< Num\_SN ; i++) {

GroupResolution

Decision of Group: Agree

Change as the following  
For(i=0 ; <insert>i</insert> Num\_SN ; i++) {

Reason for Group's Decision/Resolution

Group's Notes

16.2.13 ARQ mechanism

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chou, Joey

Membership Status: Member

Date: 2010-07-09

Comment # 519

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 352      Line 9      Fig/Table#      Subclause 16.2.13.2.1

The number of bits in SEM indicates the number of ARQ blocks in the selective ACK map that have been NACKed. There is no SN for these ARQ blocks provided in ARQ Feedback IE. How can the transmitter know which ARQ blocks need to be retransmitted.

Suggested Remedy

Need to provide teh SN of ARQ blocks been NACKed

GroupResolution

Decision of Group: Principle

Adopt the text proposed in C802.16m-10/948r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.13 ARQ mechanism

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 520

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 0      Line 1      Fig/Table#      Subclause  
The title is incorrect. It should reflect the title of the base standard: "Air Interface for Broadband Wireless Access Systems".

Suggested Remedy

On the title page, delete the words "Fixed and Mobile".

GroupResolution

Decision of Group: Agree

On the title page, delete the words "Fixed and Mobile".

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 521

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 1      Line 12      Fig/Table#      Subclause  
The title is incorrect. It should reflect the title of the base standard: "Air Interface for Broadband Wireless Access Systems".

Suggested Remedy

On Page, delete the words "Fixed and Mobile" from the title.

GroupResolution

Decision of Group: Agree

On Page, delete the words "Fixed and Mobile" from the title.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 522

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page      Line 7      Fig/Table#      Subclause

The title in the Introduction is flawed. It should reflect the title of the base standard: "Air Interface for Broadband Wireless Access Systems".

Suggested Remedy

Delete the words "Fixed and Mobile".

GroupResolution

Decision of Group: Agree

Delete the words "Fixed and Mobile".

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 523

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page      Line 10      Fig/Table#      Subclause Introduction

This comment refers to Page i.

The content of the Introduction, on Lines 9-13, could be improved. It should use the same format used in IEEE Std 802.16j.

Suggested Remedy

Change content of Introduction to:

This amendment specifies the WirelessMAN-Advanced Air Interface, an enhanced air interface designed to meet the requirements of the IMT-Advanced standardization activity conducted by the International Telecommunications Union - Radiocommunications Sector (ITU-R). The amendment is based on the WirelessMAN-OFDMA specification and provides continuing support for legacy subscriber stations. As of the publication date, the current applicable version of IEEE Std 802.16 is IEEE Std 802.16-2009, as amended by IEEE 802.16j-2009, IEEE 802.16h-2009, and IEEE 802.16m-2011.

GroupResolution

Decision of Group: Agree

Change content of Introduction to:

This amendment specifies the WirelessMAN-Advanced Air Interface, an enhanced air interface designed to meet the requirements of the IMT-Advanced standardization activity conducted by the International Telecommunications Union - Radiocommunications Sector (ITU-R). The amendment is based on the WirelessMAN-OFDMA specification and provides continuing support for legacy subscriber stations. As of the publication date, the current applicable version of IEEE Std 802.16 is IEEE Std 802.16-2009, as amended by IEEE 802.16j-2009, IEEE 802.16h-2009, and IEEE 802.16m-2011.

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 524

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page      Line 12      Fig/Table#      Subclause Participants

On Page iii, the Task Group leadership should be specified.

**Suggested Remedy**

Primary development was carried out by the Working Group's Task Group m.  
TGM Leadership Team  
Brian Kiernan, Chair  
Phillip Barber, Vice Chair  
Jong-Kae Fwu, Vice Chair  
Carl Eklund, Vice Chair  
Hokyu Choi, Secretary  
Avraham Freedman, Secretary  
Ron Murias, Chief Editor, 802.16m  
Shkumbin Hamiti, Editor, System Description Document  
Mark Cudak, Editor, System Requirements Document  
Roshni Srinivasan, Editor, Evaluation Methodology Document

**GroupResolution**

**Decision of Group: Agree**

Primary development was carried out by the Working Group's Task Group m.  
TGM Leadership Team  
Brian Kiernan, Chair  
Phillip Barber, Vice Chair  
Jong-Kae Fwu, Vice Chair  
Carl Eklund, Vice Chair  
Hokyu Choi, Secretary  
Avraham Freedman, Secretary  
Ron Murias, Chief Editor, 802.16m  
Shkumbin Hamiti, Editor, System Description Document  
Mark Cudak, Editor, System Requirements Document  
Roshni Srinivasan, Editor, Evaluation Methodology Document

**Reason for Group's Decision/Resolution**

**Group's Notes**

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Yang, Rongzhen

Membership Status: Member

Date: 2010-07-09

Comment # **525**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment Type Editorial

Part of Dis  Satisfied

Page 743

Line 28

Fig/Table#

Subclause 16.3.9.4.2

minor editorial change

Suggested Remedy

Change "Imin is minimum" as "Imin is the minimum"

GroupResolution

Decision of Group: Agree

Change "Imin is minimum" as "Imin is the minimum"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Rongzhen

Membership Status: Member

Date: 2010-07-09

Comment # 526

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 744      Line 27

Fig/Table#

Subclause 16.3.9.4.4

minor editorial change

Suggested Remedy

change "power level adjustment indication bit equal 0" as "power level adjustment indication bit equals 0"

GroupResolution

Decision of Group: Agree

change "power level adjustment indication bit equal 0" as "power level adjustment indication bit equals 0"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Rongzhen

Membership Status: Member

Date: 2010-07-09

Comment # 527

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 744      Line 37

Fig/Table#

Subclause 16.3.9.4.4

minor editorial change

Suggested Remedy

change "base the power used for" as "base on the power used for"

GroupResolution

Decision of Group: Agree

change "base the power used for" as "base on the power used for"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Rongzhen

Membership Status: Member

Date: 2010-07-09

Comment # 528

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 57      Line 14      Fig/Table#      Subclause 16.2.2.1.3.6

If PSR can include the "Physical Carrier Index" field, it can enhance the multicarrier usage scenario as: 1. Provide the scheduling flexibility for PSR transmission to avoid the unnecessary signaling overhead of bandwidth request; 2. Save the power of one carrier in the case of low uplink activity;

Suggested Remedy

Adopt the latest version of contribution C80216m-10/0936

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No benefit justification of suggested remedies.

Vote:

In favor: 5

Opposed: 7

Abstain:

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang, Rongzhen

Membership Status: Member

Date: 2010-07-09

Comment # 529

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 73

Line 57

Fig/Table#

Subclause 16.2.3

AAI\_UL\_PSR message don't exists now

Suggested Remedy

Delete whole line of table for "AAI\_UL\_PSR" (table item #52)

GroupResolution

Decision of Group: Agree

Delete whole line of table for "AAI\_UL\_PSR" (table item #52)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 530

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page      Line 4      Fig/Table#      Subclause Participants

On Page iii Line 4, the sentence should be extended to match the base standard.

Suggested Remedy

On Page iii Line 4, change the introductory sentence to  
"This document was developed by the IEEE 802.16 Working Group on Broadband Wireless Access, which develops the WirelessMAN(R) Standard for Wireless Metropolitan Area Networks."

GroupResolution

Decision of Group: Agree

On Page iii Line 4, change the introductory sentence to  
"This document was developed by the IEEE 802.16 Working Group on Broadband Wireless Access, which develops the WirelessMAN(R) Standard for Wireless Metropolitan Area Networks."

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Marks, Roger

Membership Status: Member

Date: 2010-07-09

Comment # 531

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page      Line 25      Fig/Table#      Subclause Participants

On Page iii Line 25, the list of Working Group Letter Ballot participants should be added.

**Suggested Remedy**

On Page iii Line 25, add the following:

The following members of the IEEE 802.16 Working Group on Broadband Wireless Access participated in the Working Group Letter Ballot in which the draft of this standard was prepared and finalized for IEEE Ballot:

Rajni Agarwal  
Anil Agiwal  
Sassan Ahmadi  
Hassan Al-Kanani  
Xavier Ambroise  
Dov Andelman  
Ramesh Annavajjala  
Tsuguhide Aoki  
Reza Arefi  
Youngkyo Baek  
Phillip Barber  
Harry Bims  
Erez Biton  
Adrian Boyer  
Sean Cai  
Jaesun Cha  
Suchang Chae  
Sung-Cheol Chang  
YoungBin Chang  
Yu-Hao Chang  
Naftali Chayat  
Cheng-Ming Chen  
Chiu-Wen Chen  
Mei-Dai Chen  
Wei-Peng Chen  
Whai-En Chen  
Yih-Shen Chen  
Yung-Han Chen

Yuqin Chen  
Paul Cheng  
Ray-Guang Cheng  
Shih-Yuan Cheng  
Hua (Mary) Chion  
Chun-Yuan Chiu  
HanGyu Cho  
Jaehee Cho  
Jaeweon Cho  
Youngbo Cho  
Hokyu Choi  
Jinsoo Choi  
Joonyoung Choi  
Yang-Seok Choi  
Chao-Chin Chou  
Chie Ming Chou  
Ching-Chun Chou  
Joey Chou  
Jerry Chow  
Ming-Hsueh Chuang  
Jin Young Chun  
Russell Chung  
Bruno Clerckx  
Steven Crowley  
Mark Cudak  
Alexey Davydov  
Kamran Etemad  
Yu-Chang Eun  
Linghang Fan  
Huiying Fang  
Yu-Chuan Fang  
Peretz Feder  
Chengyan Feng  
Mo-Han Fong  
I-Kang Fu  
Jong-Kae (JK) Fwu  
Dan Gal  
Mariana Goldhamer  
Yanfeng Guan  
Michael Gundlach  
Zion Hadad

GeneBeck Hahn  
Seishi Hanaoka  
Tom Harel  
Shigenori Hayase  
William Hillery  
Nageen Himayat  
Chieh Yuan Ho  
Chung-Lien Ho  
Ying-Chuan Hsiao  
Ching-Tarng Hsieh  
Yu-Tao Hsieh  
Chun-Yen Hsu  
Chung-Hsien Hsu  
Jen-Yuan Hsu  
Yi Hsuan  
Cancan Huang  
Din Hwa Huang  
Lei Huang  
Jie Hui  
Junhong Hui  
Yerang Hur  
Bin-Chul Ihm  
Tetsu Ikeda  
Satoshi Imata  
Yih Guang Jan  
Jaehyuk Jang  
Junghoon Jee  
Baowei Ji  
Lei Jin  
Sunggeun Jin  
Kerstin Johnsson  
Kaushik Josiam  
Rong-Terng Juang  
Inuk Jung  
Soojung Jung  
Heewon Kang  
Hyunjeong Kang  
Minsuk Kang  
Seunghyun Kang  
Hajime Kanzaki  
Chien-Yu Kao

Tsuguo Kato  
Mohammad Khojastepour  
Alexey Khoryaev  
Brian Kiernan  
Eunkyung Kim  
Jeong Gon Kim  
Jihyung Kim  
Juhee Kim  
Namgi Kim  
Ronny (Yong-Ho) Kim  
Sangheon Kim  
Sungkyung Kim  
Taeyoung Kim  
Won Ik Kim  
Takaaki Kishigami  
J. Klutto Milleth  
Ali Koc  
Thanasis Korakis  
Gokhan Korkmaz  
Kiran Kumar Kuchi  
Ping-Heng Kuo  
Jin-Sam Kwak  
Dong Seung Kwon  
Young Hoon Kwon  
Jonathan Labs  
Byung Moo Lee  
Howon Lee  
Hyun Lee  
HyunWoo Lee  
Jeong Julie Lee  
Jin Lee  
Ju Seung Lee  
Ki-Dong Lee  
Mi Hyun Lee  
Sukwoo Lee  
Sungjin Lee  
Wookbong Lee  
Yang-Han Lee  
Youn-Tai Lee  
Yung-Ting Lee  
Guangjie Li

Ying Li  
Zexian Li  
Pei-Kai Liao  
Junsung Lim  
Kwangjae Lim  
Chih-Yuan Lin  
Hsin-Piao Lin  
Kuhn-Chang Lin  
Yi-Ting Lin  
Hang Liu  
Yang Liu  
Michael Livschitz  
Kanchei Loa  
Jianmin Lu  
Kaiying Lv  
Mohammad Madihian  
Andreas Maeder  
Alexander Maltsev  
Ronald Mao  
Roger Marks  
Gerard Marque-Pucheu  
Arif Maskatia  
Wataru Matsumoto  
David Mazzaresse  
Sean McBeath  
Djamal-Eddine Meddour  
Scott Migaldi  
Shantidev Mohanty  
Andreas Molisch  
Sungho Moon  
Ronald Murias  
Keiichi Nakatsugawa  
Huaning Niu  
Mitsuo Nohara  
Min-Seok Oh  
Masato Okuda  
Kim Olszewski  
Ryoji Ono  
Philip Orlik  
Apostolos Papathanassiou



Giwon Park  
Hyungho Park  
Jeongho Park  
Jisoo Park  
Sung-Eun Park  
Zhouyue Pi  
Kevin Power  
Scott Probasco  
Jose Puthenkulam  
Hongyun Qu  
Sudhir Ramakrishna  
Rong Ran  
Ranga Reddy  
Fang-Ching Ren  
Maximilian Riegel  
Kwanhee Roh  
Wonil Roh  
Zhigang Rong  
Herbert Ruck  
Kiseon Ryu  
Yousuf Saifullah  
Luciano Sarperi  
Shahab Sayeedi  
Joerg Schaepperle  
Joseph Schumacher  
Ji-Yun Seol  
Ahmed Shalash  
Peretz Shekalim  
Jaejeong (Brian) Shim  
Wooram Shin  
Takashi Shono  
Sten Sjoberg  
Tricci So  
Jung Je Son  
Yeongmoon Son  
Ting-Chen (Tom) Song  
Young Seog Song  
Roshni Srinivasan  
Kenneth Stanwood  
Bo Sun  
Hongmei Sun

**GroupResolution**

**Decision of Group: Agree**

On Page iii Line 25, add the following:

The following members of the IEEE 802.16 Working Group on Broadband Wireless Access participated in the Working Group Letter Ballot in which the draft of this standard was prepared and finalized for IEEE Ballot:

Rajni Agarwal  
Anil Agiwal  
Sassan Ahmadi  
Hassan Al-Kanani  
Xavier Ambroise  
Dov Andelman  
Ramesh Annavajjala  
Tsuguhide Aoki  
Reza Arefi  
Youngkyo Baek  
Phillip Barber  
Harry Bims  
Erez Biton  
Adrian Boyer  
Sean Cai  
Jaesun Cha  
Suchang Chae  
Sung-Cheol Chang  
YoungBin Chang  
Yu-Hao Chang  
Naftali Chayat  
Cheng-Ming Chen  
Chiu-Wen Chen  
Mei-Dai Chen  
Wei-Peng Chen  
Whai-En Chen  
Yih-Shen Chen  
Yung-Han Chen  
Yuqin Chen  
Paul Cheng  
Ray-Guang Cheng  
Shih-Yuan Cheng  
Hua (Mary) Chion  
Chun-Yuan Chiu

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # **532**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type **Technical**      Part of Dis  Satisfied       Page **380**      Line **1**      Fig/Table#      Subclause **16.2.15.4**

The content of the capability classes has not been specified and therefore the network entry/re-entry procedures cannot be completed.

Suggested Remedy

All mandatory features of the standard (those features that have been clearly specified with "shall" have to be grouped as Capability Class 0.

GroupResolution

Decision of Group: **Disagree**

Reason for Group's Decision/Resolution

No specific text provided.

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # 533

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line 1      Fig/Table#      Subclause 16.2..3.4

The device class parameter is missing in AAI\_SBC-REQ/RSP messages

Suggested Remedy

Adopt the proposal in the latest revision of contribution C802.16m-10/700

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10\_750r1  
(Same as resolution of comment #50)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 50

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # 534

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line 1      Fig/Table#      Subclause 16.2.3.4

The parameters negotiated through AAI\_SBC-REQ need adjustments (reduced) based on the parameters that are set via device classes, Capability Class 0 (default parameters), and A-MAP IEs to avoid unnecessary negotiation of parameters

Suggested Remedy

Adopt the proposal in in the latest revision of contributions C802.16m-10/750 and C802.16m-10/701

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10\_750r1  
(Same as resolution of comment #50)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 50

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # 535

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 91      Line 17      Fig/Table#      Subclause 16.2.3.5

The parameters negotiated through AAI\_SBC-RSP need adjustments (reduced) based on the parameters that are set via device classes, Capability Class 0 (default parameters), and A-MAP IEs to avoid unnecessary negotiation of parameters

Suggested Remedy

Adopt the proposal in in the latest revision of contributions C802.16m-10/750 and C802.16m-10/701

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10\_750r1  
(Same as resolution of comment #50)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Same as 50

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # 536

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 94      Line 57      Fig/Table#      Subclause 16.2.3.7

The parameters negotiated through AAI\_REG-REQ need adjustments (reduced) based on the parameters that are set via device classes, Capability Class 0 (default parameters), and A-MAP IEs to avoid unnecessary negotiation of parameters

Suggested Remedy

Adopt the proposal in in the latest revision of contributions C802.16m-10/705 and C802.16m-10/701

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ahmadi, Sassan

Membership Status: Member

Date: 2010-07-09

Comment # 537

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 102      Line 39      Fig/Table#      Subclause 16.2.3.8

The parameters negotiated through AAI\_REG-RSP need adjustments (reduced) based on the parameters that are set via device classes, Capability Class 0 (default parameters), and A-MAP IEs to avoid unnecessary negotiation of parameters

Suggested Remedy

Adopt the proposal in in the latest revision of contributions C802.16m-10/705 and C802.16m-10/701

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done



Comment by:

Gal, Dan

Membership Status: MemberDate: 2010-07-09Comment # 538Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 854      Line 40      Fig/Table#      Subclause 16.10.3

This section appears like an informative summary and examples citing text from other sections. Yet, line 54 on page uses a "shall" rather than a descriptive language. The section should be properly edited per the following suggested remedies

Suggested Remedy

1. Label the section heading: "Migrating to AAI without impacting the deployed legacy network - INFORMATIVE"
2. change line 54 to "b)Features such as DCR, multiple paging groups per AMS, are not supported when the ABS is connected to a legacy core network".

GroupResolutionDecision of Group: Principle

Delete the text on lines 42-54:

~~If the ABS is connected to legacy network elements, the ABS shall communicate to the AMSs that it is attached to the legacy network elements and the AMSs shall function in accordance to legacy network requirements.~~

~~Some examples include:~~

- ~~a)AMS privacy via AMSID\* shall not be used. AMS provides actual MAC address in the AAI\_RNG-REQ message for network entry. ABS provides the hash of the actual MAC address in the AAI\_PAG-ADV message.~~
- ~~b)Features such as DCR, multiple paging groups per AMS shall not be supported.~~

Replace the text on line 57:

The Network Configuration bit in the S-SFH is set to '1' if the ABS intends to select a Legacy ASN GW for the AMS.

with:

The ABS shall set the Network Configuration bit in the S-SFH to '1' to indicate that the ABS is connected to a legacy access network.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.10: AAI Support for AAI in LZone

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 539

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 858      Line 12      Fig/Table#      Subclause Annex P

This annex is labeled Informative, yet, it includes Normative language in line 12.

Suggested Remedy

change line 12 to: "The Packed Encoding Rules (PER) is used to produce compact transfer syntax..."

GroupResolution

Decision of Group: Principle

same as resolution to comment #500

Remedy:

Replace:

This Appendix defines MAC control messages using ASN.1 notation. The Packed Encoding Rules (PER) shall be used to produce compact transfer syntax for MAC control message to be transmitted over the air interface efficiently.

with:

This Appendix defines MAC control messages using ASN.1 notation. The Packed Encoding Rules (PER) with byte unaligned option shall be used to produce compact transfer syntax for MAC control message to be transmitted over the air interface efficiently.

Reason for Group's Decision/Resolution

Group's Notes

Annex P

Editor's Notes

Editor's Actions    a) done

Comment by:

Johnson, Brian

Membership Status: MemberDate: 2010-07-09Comment # 540Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 770      Line 1      Fig/Table#      Subclause 16.3.11.1.5.1

### Section 16.3.11.1.5.1 Convolutional Turbo Codes

The current CTC interleaver parameters do not generally support even the minimal contention free parallelism order 2 for all block sizes. Lack of support for contention free parallelism in the interleaver can cause either a significant reduction in the throughput or significant increase in complexity to meet high throughput requirements for the turbo decoder. This is especially the case for the base station which can be required to decode a large number of small block sizes with a very tight latency budget. At a minimum, the CTC interleaver should support parallelism order 2 for all block sizes to enable efficient, low complexity implementation of high throughput turbo decoders.

The 802.16-2009 CTC interleaver supports parallelism order 2 for all block sizes except one. The CTC interleaver in the current 802.16m draft has significantly less support for contention free parallelism. It is observed that 10 block sizes do not support parallelism order 2 as a minimum which is highly concerning. Another highly concerning observation is that many block sizes do not support any order of parallelism between 2 and 8 including block sizes as large as 568. Enabling efficient turbo decoding with contention free parallelism is very important to achieve the high throughput requirements of the specification. Enabling contention free parallelism of order 2 for all block sizes will significantly lower the cost and complexity to implement high throughput turbo decoding for 802.16m and facilitate efficient multi-standard implementations. In other air interface standards that may be considered for IMT-Advanced such as in LTE the CTC encoder interleaver supports parallelism orders 2, 4, and 8, for all block sizes, and parallelism order 16 for all block sizes above 512. This allows very efficient implementation of very high speed turbo decoding based on parallel decoding methods.

It cannot be considered good for the evolution of the 802.16 standard or the evolution of the 4G technology in general to introduce an 802.16m amendment with a CTC specification that has poor support for efficient parallel implementation of the turbo decoder. The proposed remedy in IEEE C802.16m-10/0922 enables support for contention free parallelism order 2 for all block sizes and order 4 for all except 2 block sizes with no loss in BLER performance and with no change in the already well designed block sizes.

### Suggested Remedy

Adopt the text changes in the latest revision of contribution IEEE C802.16m-10/0922 or any other remedy that results in support for CTC interleaver contention free parallelism order 2 for all block sizes.

### GroupResolution

Decision of Group: Disagree

### Reason for Group's Decision/Resolution

Benefits of this scheme require further review.

### Group's Notes

Clause 16.3: AAI PHY

### Editor's Notes

Editor's Actions b) none needed

Comment by:

Gal, Dan

Membership Status: MemberDate: 2010-07-09Comment # 541Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type General      Part of Dis  Satisfied       Page 94      Line 10      Fig/Table#      Subclause 16.2.3.6

The classification of Mandatory/Optional (M/O) for the parameters for AAI\_SON-ADV message makes no sense if only 1. the Action field is mandatory and other fields are optional. In the extreme case a useless message could be transmitted containing only the first field - action type. Need to define the whole message as optional (to be used if the ABS and the core network implement SON) and make some essential parameters mandatory.

2. eight out of the listed fields are missing entries for the field size.

3. those fields that are defined as mandatory in certain action types, should be marked M/O rather than O

#### Suggested Remedy

1. change line 29 on page 93 as follows: "This message is optional and used by an ABS connected to a core access network that supports SON (Self Organizing and Optimizing Networks) to broadcast relevant SON information for action types as defined below."

2. corrects the O entry to M/O for these fields: "reason", "Tx power reduction", "FA index", "Time of power down", "Expected uptime or new FA uptime", "New IDcell"

#### GroupResolution

Decision of Group: Agree

1. change line 29 on page 93 as follows: "This message is optional and used by an ABS connected to a core access network that supports SON (Self Organizing and Optimizing Networks) to broadcast relevant SON information for action types as defined below."

2. corrects the O entry to M/O for these fields: "reason", "Tx power reduction", "FA index", "Time of power down", "Expected uptime or new FA uptime", "New IDcell"

#### Reason for Group's Decision/Resolution

#### Group's Notes

16.2.3 MAC Control messages

#### Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 542Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 301      Line 64      Fig/Table#      Subclause 16.2.7

The sentence in line 64 on page 301 raises a very basic issue for 16m UL PA allocations, i.e., a 16m PA allocation is per-connection, or per flow. We all understand that the PA is designed for the connections with periodic traffic patterns with relatively fixed payload sizes. The traffic patterns are application specific, i.e., service flow specific. Therefore, there are good reasons for the UL PA allocations for some specific service flows.

However, there is critical problem with UL PA allocation, i.e., the current 16m UL PA allocation mechanism does not support per-connection allocation, as there is no indications to tell the AMS which connection or flow a UL PA allocation is intended for.

In addition, although there are good reasons to have UL PA allocations for certain flows, it may not be a good idea to remove all the flexibility of the AMS to use UL PA allocations for other flows, e.g., use the leftover resources; or transmit other urgent data for control or other services, e.g., emergency services.

Therefore, we would propose:

- a) to fix the problem of lack of indications of the intended flow info for UL PA allocations; and
- b) to add a clarification allowing the AMS to use the UL PA allocations for other flows in some cases, e.g. use the leftover resources, or transmit other urgent data for other flows.

In this way, we can maximize the effectiveness of UL PA allocations while also keeping the flexibility of AMS's usage of the given UL allocations.

Suggested Remedy

discuss and adopt contribution C80216m-10\_0098r2 or its latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

In the UL, HARQ transmission is synchronous. A HARQ retransmission may require the same allocation as a persistent allocation. In this case, HARQ retransmission is given higher priority and the persistent allocation is reallocated to a different resource. The proposed solution would work if the reallocation can be made in the same subframe. However, if there is insufficient resource, the reallocation would have to be made in a different subframe. The proposed solution is not viable since it ties a persistent allocation to a particular subframe. reallocation would require additional DSX messages which introduce overhead and delay.

Group's Notes

16.2.7 Persistent Scheduling in the Advanced Air Interface

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 543

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 378      Line 52      Fig/Table#      Subclause 16.2.15.3

I don't agree in 16m ranging design a ranging opportunity is a ranging channel. I think a ranging opportunity is a combination of ranging channel and ranging preamble code, which corresponds to how a ranging request is identified.

Suggested Remedy

make the following changes:

1. change the paragraph in line 52 on page 378 as follows:

Ranging channel and ranging preamble codes for initial ranging are specified in 16.3.9.2.4. Each combination of a ranging channel and a ranging preamble code indicates a ranging opportunity.

2. change sentence in line 5 on page 379 as follows:

The AMS shall send the selected ranging preamble code to the ABS in the selected ranging channel opportunity.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposed remedy must apply to multiple places in the standard. This remedy only touches one location and is therefore incomplete.

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 544Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 379	<u>Line</u> 11	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.15.3
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	----------------------------

When the ranging status is "success", there is still possible UL transmission parameter adjustments needed to be provided to the AMS, as shown in the paragraph in line 24 on page 379.

**Suggested Remedy**

change the sentence in line 11 on page 379 as follows:

If all the detected ranging preamble codes prove 'success' status without needing UL transmission parameter adjustments and the ABS provides all UL BW allocations for each detected ranging preamble codes before the T31 Timer is expired, the AAI\_RNG-ACK may be omitted.

**GroupResolution****Decision of Group: Principle**

change the sentence in line 11 on page 379 as follows:

If all the detected ranging preamble codes prove 'success' status without needing UL transmission parameter adjustments and the ABS provides all UL BW allocations for each detected ranging preamble codes before the T31 Timer is expired, the AAI\_RNG-ACK may be omitted.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.15 Network Entry and Initialization

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 545

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 427      Line 35      Fig/Table#      Subclause 16.3.2.4

why not use more straightforward way, i.e., sampling frequency, to derive sampling time?

Suggested Remedy

Change line 35 on page 427 as follows:

-- Sampling time:  $T_b / NFFT$  1/Fs

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This format is consistent with 8.4.2.4 of the base standard.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 546Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 431      Line 48      Fig/Table#      Subclause 16.3.3.1

Based on the 16m/D6, the use of long TTI is per burst, plus some constraint, e.g., no partially overlapping. However, there still are some questions/issues with the use of long TTI, e.g.,

1. Can an AMS have a default TTI allocation and a long TTI allocation simultaneously?
2. Can a subframe have both default TTI allocations long TTI allocations?

**Suggested Remedy**

change the paragraph in line 47, page 431, as follows:

A data burst shall occupy either one AAI subframe (i.e. the default TTI transmission) or contiguous multiple AAI subframes (i.e. the long TTI transmission). Any 2 long TTI bursts allocated to an AMS shall not be partially overlapped, i.e. any 2 long TTI bursts in FDD shall either be over the same 4 subframes or without any overlap. A long TTI burst allocated to an AMS can be partially overlapped with default TTI allocations to the same AMS. The long TTI in FDD shall be 4 AAI subframes for both DL and UL. For DL (UL), the long TTI in TDD shall be all DL (UL) AAI subframes in a frame. A subframe can have default TTI allocations and long TTI allocations

**GroupResolution****Decision of Group: Principle**

change the paragraph in line 47, page 431, as follows:

A data burst shall occupy either one AAI subframe (i.e. the default TTI transmission) or contiguous multiple AAI subframes (i.e. the long TTI transmission). Any 2 long TTI bursts allocated to an AMS shall not be partially overlapped, i.e. any 2 long TTI bursts in FDD shall either be over the same 4 subframes or without any overlap. The long TTI in FDD shall be 4 AAI subframes for both DL and UL. For DL (UL), the long TTI in TDD shall be all DL (UL) AAI subframes in a frame. [A subframe can have default TTI allocations and long TTI allocations](#)

**Reason for Group's Decision/Resolution****Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes****Editor's Actions** a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 547Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 528      Line 14      Fig/Table#      Subclause 16.3.6.2.2

if all the resources in a DL subframe are part of long TTI allocations but not the first subframe, does it need to have the A-MAP region?  
Or, in other extreme case, if all the 16m allocations are long TTI, then is the A-MAP region needed in the subframes not as the first subframe in the long TTI allocations?  
If the answer is no, then how do we allocate the resources reserved for A-MAP region in those subframes?

Suggested Remedy

answer the question: can all the 16m allocations be long TTI? Accordingly, clearly specify the long TTI usage and corresponding A-MAP locations.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Disagree for no text provided. Response to the question:

A-MAP region includes not only assignment A-MAP but also NUS A-MAP, HF-A-MAP, PC-A-MAP. And a long TTI burst can be signaled through an assignment A-MAP in all subframes.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 548Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 432	<u>Line</u> 50	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.3.1
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	---------------------------

What's "time repeated broadcast data burst"? What's "non-time repeated broadcast data burst"?

Searched the entire 16m/D6; and could not find any definitions.

It should certainly keep consistent with the description given in the Broadcast Assignment A-MAP IE.

Suggested Remedy

Change the paragraph in line 50 page 432 as follows:

ABS shall not allocate more than 1 time repeated broadcast data burst with time domain repetition per frame and 1 non-time repeated broadcast data burst without time domain repetition per AAI subframe (using Broadcast Assignment A-MAP IE with the field "Transmission Format" indicating with or without time domain repetition) and 1 E-MBS burst (using E-MBS A-MAP IE) per AAI subframe. Here, a long TTI burst shall be counted as one burst for each and every AAI subframe that the long TTI burst spans.

GroupResolutionDecision of Group: Agree

Change the paragraph in line 50 page 432 as follows:

ABS shall not allocate more than 1 ~~time repeated~~ broadcast data burst with time domain repetition per frame and 1 ~~non-time repeated~~ broadcast data burst without time domain repetition per AAI subframe (using Broadcast Assignment A-MAP IE with the field "Transmission Format" indicating with or without time domain repetition) and 1 E-MBS burst (using E-MBS A-MAP IE) per AAI subframe. Here, a long TTI burst shall be counted as one burst for each and every AAI subframe that the long TTI burst spans.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 549

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 432      Line 35      Fig/Table#      Subclause 16.3.3.1

the numbers regarding bursts specified on page 432 seems not consistent with page 530 about the number A-MAP IEs.  
On page 432, the max number of DL bursts for an AMS in a subframe is 7, including 4 unicast bursts, 2 broadcast bursts, and 1 E-MBS burst. The max number of UL bursts is 4, including 3 unicast bursts and 1 CDMA/BR-ACK IE allocated burst.  
On page 530, the max number of assignment IEs to an AMS in a subframe is 8. Note that it includes both DL assignment IEs and UL assignment IEs.  
In addition, the numbers gets more complicated when considering the sum of FFT size is larger than 2048 in multicarrier systems as specified in line 46 page 432.

Suggested Remedy

clarify the relevant text to make the numbers in different places consistent.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Maximum DL is 7, maximum UL is 4, the maximum total is 8, which means you can mix and match, but cannot exceed 8.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 550

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 460      Line 37      Fig/Table#      Subclause 16.3.5.2.1

the number of subbands should be an integer number.

Suggested Remedy

make the following changes:

1. in line 37 page 460, change: NPRU/4 - 3 to floor( NPRU/4) -3
2. in line 43, page 460, change: NPRU/4 - 2 to floor(NPRU/4) -2

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

N\_PRU is always multiple of 4, so the floor() function is not necessary.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 551

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 470      Line 16      Fig/Table#      Subclause 16.3.5.3.1

The parameter DCAS<sub>i</sub> is actually one parameter, not a series of parameters with subscript i, as specified in line 63 page 470 and Table 840.

It is misleading to use the notation DCAS<sub>i</sub> with i as subscript, as comparing to all the other parameter names with subscript.

Suggested Remedy

Throughout the entire 16m/D6 document, change DCAS<sub>i</sub> to DCASI.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

DCAS<sub>i</sub> indicates the size per partition, with 'i' indicating which partition.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 552

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 551      Line 22      Fig/Table#      Subclause 16.3.6.5.2.1

The case of  $N_{total}=0$  is not consistent with the sentence in line 14 on page 528, i.e., A-MAP shall present in all DL subframes.

Suggested Remedy

either remove the sentence in line 14 on page 528 or remove all the cases in the description on page 550 to 553 for deriving the number of assignment A-MAP IEs.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

A-MAP region includes not only assignment A-MAP but also NUS A-MAP, HF-A-MAP, PC-A-MAP.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 553Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 552	<u>Line</u> 42	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.6.5.2.1
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why do we have two groups using QPSK 1/2?

Is the the Group 3 with QPSK for assignment A-MAP in the power-boosted reuse-3 partition of FFR?

Suggested Remedy

change the paragraph in line 42 page 552 as follows:

For FFR configuration with Group 1 using QPSK 1/4 and Group 2 using QPSK 1/2 for assignment A-MAP in the reuse-1 parititon, and Group 3 using QPSK 1/2 for assignment A-MAP in the power-boosted reuse-3 partition, the lookup table can be generated using Equation (220) to Equation (224) and looping through all values of  $N_{total}$  and  $k$ .

GroupResolutionDecision of Group: Agree

change the paragraph in line 42 page 552 as follows:

For FFR configuration with Group 1 using QPSK 1/4 <ins>and</ins> Group 2 using QPSK 1/2 <ins>for assignment A-MAP in the reuse-1 parititon</ins>, and Group 3 using QPSK 1/2 <ins>for assignment A-MAP in the power-boosted reuse-3 partition</ins>, the lookup table can be generated using Equation (220) to Equation (224) and looping through all values of  $N_{total}$  and  $k$ .

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 554Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 560	<u>Line</u> 10	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.6.5.2.4.1
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In the 20MHz system bandwidth, there are 4656 possible combinations of (L, S), where L is the location of an allocation; and S is the size of an allocation. With 11-bit RI field, those 4656 combinations cannot be signaled by the RI field. Based on the text in line 9 to line 23 on page 560, the number of allowed S values is reduced. Basically, the allocation granularity is no long 1 LRU, it is actually 1, 2, 4, and 8, depending on the value of S.

Sacrificing the allocation granularity seems a very bad design choice, particularly at steps as big as 8 LRUs. Even with code-matching schemes, the offset of the required size to the nearest allowed S value can be up to 4 LRUs. This makes the ratio of the offset to the assigned size is greater than majority of the code steps based on the nominal MCS table given in Table 934, on page 729 in 16m/D6. We would recommend reconsidering the RI field encoding issue, particularly for the 20MHz system bandwidth, instead of sacrificing the allocation granularity, looking for some other alternatives, e.g., change the RI field from 11 bits to 12 bits by using the 1 reserved bit, and/or consider the constraints of the allocations to remove those ones that do not need to be signaled by the assignment A-MAP IEs, e.g., the control channel occupied resources, and/or allocations spanning over multiple frequency partitions, etc.

Suggested Remedy

discuss and develop an alternative RI field encoding mechanism to solve the allocation granularity issue in the 20MHz system bandwidth.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

This issue was analyzed in the original design. Refer to the analysis in section 4 of contribution C802.16m-09/1334r1. It has been shown that link adaptation with the granularity of feedback MCS levels as defined in the 802.16m is not adversely affected by the proposed reduction in assignable resource indices with 11 bits for 20MHz. The original analysis does require an update with  $\Delta_{min} = 31/256$  based on Table 834, but this change does not change the final conclusion since  $1/6 < 31/1422$ .

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 555

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 607      Line 50      Fig/Table#      Subclause 16.3652413

the size of "reserved" is missing.

Suggested Remedy

add 30 to the size field of the "Reserved" field in line 50 page 607.

GroupResolution

Decision of Group: Principle

Resolved by comment #627.

Resolution:

Reserved bit size = 11

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 556Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 607      Line 41      Fig/Table#      Subclause 16.3652413

There some important aspects that are missing regarding the ranging channel allocation through the Broadcast assignment A-MAP IE, e.g.,

1. is this NS-RCH or S-RCH?
2. can the ranging channels allocated in the same subframe or have to be in different subframe?

Suggested Remedy

add text specify the identified missing aspects about the dynamic ranging channel allocation or remove line 41 to 53 on page 607.

GroupResolutionDecision of Group: Principle

1) only for NS-RCH

2)  
On page 710 line 44:

The NS-RCH for handover ranging can also be allocated by A-MAP based on ABS scheduling decision in any AAI subframe, except the AAI subframe that has already been used for a regular allocation.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions    b) none needed

"no resolution to additionally implement"

This may mean that the text was resolve db by another comment (check with editor HY)

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 557

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 38      Fig/Table#      Subclause 16.2.26

The section title "Coverage Loss" does not well reflect the contents of this section.

Suggested Remedy

Change line 38 on page 423 as follows:  
16.2.26 Coverage loss Loss Detection and Recovery

GroupResolution

Decision of Group: Agree

Change line 38 on page 423 as follows:

**16.2.26 Coverage** ~~loss~~ Detection and Recovery

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 558Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 423	<u>Line</u> 55	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.26.1
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The padding MAC PDU is not defined in 16m, although it is defined in 16e. However, there is a padding CID defined specifically for the padding PDU. Well, in 16m, the 16-bit CID is segmented into 12-bit STID and 4-bit FID, therefore, the 16e padding PDU is no longer applicable in 16m.

For the purpose of using padding PDU in 16.2.26.1, there are two possible ways:

1. define a valid padding MAC PDU in 16m; or
2. the AMS sends a valid MAC PDU, e.g., a MAC control message or MAC signaling header with its STID info to the ABS, something similar to the AAI-RNG-CFM message, when receiving a UL grant and having not data to send.

We would recommend sending a MAC control signal (either MAC control message or MAC signaling header) with the AMS's STD ID.

#### Suggested Remedy

make the following changes:

1. change the paragraph in line 54 page 423 as follows:

Upon each expiration of the active\_ABS\_timer, to check whether an AMS is still alive in active mode, the ABS shall grant UL burst to the AMS and the AMS shall transmit a MAC PDU with data or if no data pending to be transmitted, then just transmit an AAI\_RNG-CFM message with padding bytes on the UL grant.

2. change the paragraph in line 62 page 423 as follows:

If the ABS does not receive padding PDU or MAC PDU on a predetermined number of successive UL grants (e.g., 10), the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

#### GroupResolution

Decision of Group: Principle

make the following changes:

1. change the paragraph in line 54 page 423 as follows:

Upon each expiration of the active\_ABS\_timer, to check whether an AMS is still alive in active mode, the ABS shall grant UL burst to the AMS and the AMS shall transmit a MAC PDU with data or if no data pending to be transmitted, then just with padding bytes on the UL grant.

2. change the paragraph in line 62 page 423 as follows:

If the ABS does not receive an UL burst padding PDU or MAC PDU on a predetermined number of successive UL grants (e.g., 10), the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # **559**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type **Technical**      Part of Dis  Satisfied       Page **423**      Line **59**      Fig/Table#      Subclause **16.2.26.1**

In addition to sleep interval, there is a other case that the AMS is temporarily not available at the air link to the serving ABS, i.e., scanning interval.

Suggested Remedy

Change the paragraph line 59 on page 423 as follows:

In sleep mode, ABS may grant the UL burst at the listening window which is the nearest to the point of active\_ABS\_timer's expiration. Similarly, at the point of active\_ABS\_timer's expiration, if the AMS is in the scanning interval, the ABS may grant the UL burst for the coverage loss detection at the next interleaving interval of the AMS.

GroupResolution

Decision of Group: **Principle**

Change the paragraph line 59 on page 423 as follows:

In sleep mode, ABS may grant the UL burst at the listening window which is the nearest to the point of active\_ABS\_timer's expiration. Similarly, at the point of active\_ABS\_timer's expiration, if the AMS is in the scanning interval, the ABS may grant the UL burst for the coverage loss detection at the next interleaving interval of the AMS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 560

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 63      Fig/Table#      Subclause 16.2.26.1

To have a proper specification, the "predetermined number of successive UL grants (e.g., 10)" in the paragraph in line 63 page 423 shall be either specified as system configuration parameter or specified as a known value. Plus, 10 seems a very high number.

Suggested Remedy

make the following changes:

1. Change the paragraph line 63 on page 423 as follows:

If the ABS does not receive padding PDU or MAC PDU on a predetermined number of successive UL grants, called number of Coverage Loss Detection UL grants N<sub>CLD\_UL\_Grants</sub>, (e.g., 10), the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

2. page 40, line 43, append the following row in Table 554,  
System Name Time Reference Minimum Value Default Value Maximum Value

ABS N<sub>CLD\_UL\_Grants</sub> Number of Coverage Loss Detection UL Grants 2 3 10

GroupResolution

Decision of Group: Agree

make the following changes:

1. Change the paragraph line 63 on page 423 as follows:

If the ABS does not receive padding PDU or MAC PDU on a predetermined number of successive UL grants, <ins>called number of Coverage Loss Detection UL grants N<sub>CLD\_UL\_Grants</sub></ins> ~~(e.g., 10),</del> the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.~~

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
ABS	N <sub>CLD_UL_Grants</sub>	Number of Coverage Loss Detection UL Grants	2	3	10

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes**

**Editor's Actions** a) done



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 561Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 424      Line 33      Fig/Table#      Subclause 16.2.26.2

To have a proper specification, the "predetermined number of contiguous (e.g., 5) SFHs" in the paragraph in line 63 page 423 shall be either specified as system configuration parameter or specified as a known value.

Suggested Remedy

make the following changes:

1. Change the paragraph line 33 on page 424 as follows:

The AMS can detect a coverage loss when it loses PHY synchronization or DL synchronization or UL synchronization, i.e., if the AMS cannot decode a predetermined number of contiguous (e.g., 5) SFHs, called number of lost SFHs denoted as NLost-SFHs, the AMS shall regard it as Link Loss from the ABS.

2. page 40, line 43, append the following row in Table 554,  
System Name Time Reference Minimum Default Maximum  
Value Value Value

AMS NLost-SFHs Number of lost SFHs for 3 5 10

DL sync loss detection

GroupResolutionDecision of Group: Principle

make the following changes:

1. Change the paragraph line 33 on page 424 as follows:

The AMS can detect a coverage loss when it loses PHY synchronization or DL synchronization or UL synchronization, i.e., if the AMS cannot decode a predetermined number of contiguous ~~(e.g., 5)~~ SFHs, called number of lost SFHs denoted as N<sub>lost-SFHs</sub>, the AMS shall regard it as Link Loss from the ABS.

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
AMS	N <sub>lost-SFHs</sub>	Number of lost SFHs for DL sync loss detection	3	5	10

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # **562**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 64      Fig/Table#      Subclause 16.2.26.1

There are multiple questions/issues around the usage of AAI\_RNG-RSP message in subsection 16.2.26.1, e.g.,

1. is the 1-bit "Ranging Request bit" field the only information needed to be included in the AAI\_RNG-RSP for this coverage loss detection usage? if so, why do we need such a complicated message to carry 1-bit information? if not, then what are the other field that are needed?
2. the unsolicited AAI\_RNG-RSP usage is not specified in the definition of AAI\_RNG-RSP in section 16.2.3.2, where it actually says AAI\_RNG-RSP shall be sent as a response to AAI\_RNG-REQ;
3. when the ABS invites the AMS to do periodic ranging, the ABS actually knows the AMS's ID. If the ABS can keep the knowledge of the AMS's ID info during this coverage loss detection required periodic ranging process, then the steps for AMS to send its ID info after a successful periodic ranging can be saved.

Suggested Remedy

Either define a new MAC control signal, e.g., a MAC control message or a MAC control signaling header, for the ABS to invite the AMS to conduct periodic ranging; or change the specification of the current AAI\_RNG-RSP message to allow the unsolicited usage as described in the current coverage loss detection procedure.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is specific remedy proposed for the group to consider.

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 563Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 423	<u>Line</u> 62	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.26.1
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In 16m/D6, there are two mechanisms that are related to air link status monitoring and maintenance, periodic ranging and coverage loss detection. Periodic ranging is used for maintain the UL synchronization, and a periodic ranging timer is maintained at AMS. Coverage loss detection is used for the ABS to monitor the status of the AMS, and a timer is maintain at the ABS for each active AMS. Those two mechanisms are disconnected and could have one running right after another, because the periodic ranging process does not provide the ABS the AMS's identification so the ABS does not know who have just successfully done a periodic ranging, and the coverage loss detection process may not cause a reset of the periodic ranging timer at the AMS. Some minor changes can build the connection between those two air link status monitoring/maintenance mechanisms for system performance improvement. For example, in the coverage loss detection procedure, at expiration of the active\_ABS\_timer, the ABS grants the AMS a UL grant, if the AMS transmit a MAC PDU to the ABS successfully, then the ABS can reset the active\_ABS\_timer, plus send an unicast RNG-ACK to the AMS.

**Suggested Remedy**

In line 62 page 423 insert the following new paragraph:

If the ABS successfully receives a MAC PDU from the AMS in the UL allocation granted to it at active\_ABS\_timer timeout, the ABS shall reset the active\_ABS\_timer for the AMS. In addition, the ABS shall sends an unicast AAI\_RNG-ACK message to the AMS based on the measurement on the received data burst from the AMS.

**GroupResolution****Decision of Group: Principle**

In line 56 page 423 append the following text to the paragraph:

If the ABS successfully receives an UL data burst from the AMS in the UL allocation granted to it, the ABS shall reset the active\_ABS\_timer for the AMS. The ABS shall send a unicast AAI\_RNG-ACK message with status "success" to the AMS with or without adjustment parameters based on the measurement on the received UL burst from the AMS.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.26 Coverage loss

**Editor's Notes****Editor's Actions** a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 564Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 424      Line 22      Fig/Table#      Subclause 16.2.26.2

The 2nd sentence in the paragraph is line 22 page 424 does not provide any useful information, as it is basically when to start the active\_ABS\_timer for an AMS in HO, which is specified in the paragraph in line 46 on page 423. Plus, there are multiple issues with it, e.g., the first MAC PDU that ABS receives from an AMS during HO are not necessary to be bandwidth request; what does "initiate the coverage loss detection procedure" mean, start the timer or start the procedure triggered by the timeout event?

Suggested Remedy

Change the paragraph in line 22 page 424 as follows:

In case of a HO, if the ABS identifies the AAI\_HO\_CMD message is successfully sent to the AMS, the ABS shall stop the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS. Once the ABS receives a MAC PDU (i.e. bandwidth request) from the AMS that is assumed to handover to a neighbor ABS (i.e. T-ABS), the ABS shall initiate the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Sentence conveys a correct idea.

Group's Notes

16.2.26 Coverage loss

Editor's NotesEditor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 565Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Editorial	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 424	<u>Line</u> 44	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.26.2
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more straightforward English sentence is suggested.

**Suggested Remedy**

Change the sentence in line 44 on page 424 as follows:

Upon exhausted HARQ retransmissions of the AAI\_RNG-CFM message, the AMS considers that the ABS considers that the AMS it is not connected with the ABS anymore, and the AMS shall perform coverage loss recovery procedure as indicated in Section 16.2.26.3.

**GroupResolution****Decision of Group: Agree**

Change the sentence in line 44 on page 424 as follows:

Upon exhausted HARQ retransmissions of the AAI\_RNG-CFM message, the AMS considers that ~~the ABS considers~~ that ~~the AMS~~ it is not connected with the ABS anymore, and the AMS shall perform coverage loss recovery procedure as indicated in Section 16.2.26.3.

**Reason for Group's Decision/Resolution****Group's Notes**

Clause 16.1, 16.2: AAI MAC

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 566

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 424      Line 28      Fig/Table#      Subclause 16.2.26.1

When an AMS is de-registered from the ABS, e.g., entering the idle mode or completeing a deregistration, the ABS shall stop the active\_ABS\_timer for the AMS.

Suggested Remedy

Insert the following paragraph in line 28 page 424:

When an AMS is de-registered from the ABS, e.g., entering the idle mode as specified in Section 16.218 or completed a deregistration procedure as specified in Section 16.2.27, the ABS shall stop the active\_ABS\_timer for the AMS.

GroupResolution

Decision of Group: Principle

When an AMS is successfully de-registered from the ABS by explicit control message transaction , e.g., entering the idle mode as specified in Section 16.218 or completed a deregistration procedure as specified in Section 16.2.27, the ABS shall stop the active\_ABS\_timer for the AMS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 567Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 382      Line 51      Fig/Table#      Subclause 16.2.16

The operations about the Periodic Ranging Timer needs further specification, e.g., when start / restart?

Suggested Remedy

Change the bullet a) in line 51 on page 382 as follows:

a) The AMS maintains and controls a Periodic Ranging timer. The AMS shall starts the Periodic Ranging timer upon the completion of the initial network entry or the network re-entry. The AMS shall restart or reset the Periodic Ranging timer upon triggered by the events specified in the Periodic Ranging procedure below. The AMS shall stop the Periodic Ranging timer when it is disconnected from the ABS, e.g., entering idle mode, de-registered, or HO.

GroupResolutionDecision of Group: Disagree

Vote: 1-5-0

Reason for Group's Decision/Resolution

starting of the periodic ranging after network entry is not correct

Group's Notes

16.2.16 Periodic Ranging

Editor's NotesEditor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 568Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 383      Line 30      Fig/Table#      Subclause 16.2.16

Based on the current periodic ranging design, when the AMS has active UL data communication and the UL is nicely synchronized with the ABS, the ABS does not need to send any UL Tx parameter adjustments to the AMS. However, in this case, the periodic ranging timer is still running at the AMS, then when timeouts, it will trigger the AMS to conduct periodic ranging, which is totally not necessary. Due to the mandatory HARQ for UL unicast data burst, the ACK to the UL bursts of the AMS is certainly a good indication of UL condition. So, we suggest the AMS reset the Periodic Ranging timer upon receiving a HARQ ACK for the AMS's UL transmission.

Suggested Remedy

Insert the following new bullet in line 30 on page 383:

e) Upon receiving a HARQ ACK for an UL data burst of the AMS, the AMS shall reset the Periodic Ranging timer.

GroupResolutionDecision of Group: Disagree

Vote: 1-6-0

Reason for Group's Decision/Resolution

The HARQ ACK is received at PHY layer, and it is implementation issue how or if this is communicated to MAC layer. Thus solution is incomplete.

Group's Notes

16.2.16 Periodic Ranging

Editor's NotesEditor's Actions    b) none needed



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 569Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 383	<u>Line</u> 30	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.16
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In 16m/D6, there are two mechanisms that are related to air link status monitoring and maintenance, periodic ranging and coverage loss detection. Periodic ranging is used for maintain the UL synchronization, and a periodic ranging timer is maintained at AMS. Coverage loss detection is used for the ABS to monitor the status of the AMS, and a timer is maintain at the ABS for each active AMS. Those two mechanisms are disconnected and could have one running right after another, because the periodic ranging process does not provide the ABS the AMS's identification so the ABS does not know who have just successfully done a periodic ranging. Some minor changes can build the connection between those two air link status monitoring/maintenance mechanisms for system performance improvement. For example, after a successful periodic ranging, the ABS provides an UL allocation through CDMA allocation IE for the AMS to transmit an AAI\_RNG-CFM message to the ABS, so that the ABS knows who has just successfully completed periodic ranging process. In this way, the ABS can reset the active\_ABS\_timer for the coverage loss detection, then unnecessary triggers to the coverage loss detection procedure can be avoided.

Suggested Remedy

Insert the following new bullet in line 30 on page 383:

f) After responding to a periodic ranging request with a ranging status of "success" in the AAI\_RNG-ACK message, the ABS shall provide a unicast UL allocation through a CDMA allocation A-MAP assignment IE to the AMS who sent the periodic ranging request. The AMS shall send its STID information in an AAI\_RNG-CFM message to the ABS.

GroupResolutionDecision of Group: Disagree

vote: 2-3-0

Reason for Group's Decision/Resolution

AAI\_RNG-CFM should be sent only in case of a successful periodic ranging initiated by this unsolicited AAI-RNG-RSP. When ABS receives periodic ranging code, ABS can not know whether the periodic ranging request is for coverage loss detection or not. Increases complexity.

Group's Notes

16.2.16 Periodic Ranging

Editor's NotesEditor's Actions b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 570Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 339      Line 50      Fig/Table#      Subclause 16.2.12.8

The parameter, MAC in-order delivery indicator, should be applied to both non-ARQ connection and ARQ connection, as long as it is a data transport connection. This is because, in an IP-based networks, Layer-2 in-order delivery is application-specific, i.e., it helps for certain applications. However, it cannot be used alone to guarantee the in-order delivery of the application that needs in-order delivery, because IP-based Layer-3 is above it and IP won't keep the delivery order. Therefore, we should not bind all the ARQ connections with Layer-2 in-order delivery.

Suggested Remedy

change the first sentence in the description box of "MAC in-order delivery indicator" in Table 786 as follows:  
Indicate whether or not the order of delivery in the non-ARQ connection is preserved by the MAC.

GroupResolutionDecision of Group: Disagree

Vote: 1-2-0.

Reason for Group's Decision/Resolution

ARQ connection is not delay sensitive.

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 571

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 584      Line 61      Fig/Table#      Subclause 16.3.6.5.2.4.7

The description for the "CDMA allocation indication" needs a clarification.

Suggested Remedy

Change the "notes" box of the "CDMA allocation indication" field in Table 858 as follows:

0b0: Bandwidth allocation in response to a received contention-based for bandwidth request.

0b1: Bandwidth allocation in response to a received contention-based for ranging request.

GroupResolution

Decision of Group: Agree

Change the "notes" box of the "CDMA allocation indication" field in Table 858 as follows:

0b0: Bandwidth allocation <ins>in response to a received contention-based</ins> ~~for</del>~~ bandwidth request.

0b1: Bandwidth allocation <ins>in response to a received contention-based</ins> ~~for</del>~~ ranging <ins>request</ins>.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 572

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 585      Line 22      Fig/Table#      Subclause 16.3.6.5.2.4.7

When using a CDMA allocation IE to allocate UL resource in response to a received contention-based bandwidth request, the allocation size don't have to be just for a BW REQ header. Depending on the traffic load, the ABS may allocate different sizes of data bursts. Therefore, the Isizeoffset is needed.

Suggested Remedy

make the following changes:

1. insert a new row in line 22 page 585 in Table 858 as follows:

Syntax Size (bits) Notes

ISizeOffset 5 Offset used to compute burst size index

2. in line 24 page 585, change the size field of the "Reserved" row from 20 to 15.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

BW REQ Hdr is fixed size, we don't need I<sub>sizeoffset</sub>

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 573Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 586      Line 8      Fig/Table#      Subclause 16.3.6.5.2.4.7

The "else" branch in line 8 page 586 is for a DL allocation as a response to a received ranging request for the ABS to send RNG-RSP message before STID is assigned. For DL HARQ, the SPID needs to be signaled in the assignment IE. In addition, if ACID is used in such an anonymous unicast DL allocation, then the AI\_SN is also should be used, otherwise, how can such an ACID be used for a new data burst?

Suggested Remedy

make the following changes:

1. insert two new rows in line 11 page 586 in Table 858 as follows:

Syntax Size (bits) Notes

AI\_SN 1 HARQ identifier sequence number

SPID 2 HARQ subpacket identifier for HARQ IR

2. in line 12 page 586, change the size field of the "Reserved" row from 10 to 7.

GroupResolutionDecision of Group: Agree

make the following changes:

1. insert two new rows in line 11 page 586 in Table 858 as follows:

Syntax	Size (bits)	Notes
AI_SN	1	HARQ identifier sequence number
SPID	2	HARQ subpacket identifier for HARQ IR

2. in line 12 page 586, change the size field of the "Reserved" row from 10 to 7.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 574Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 585      Line 24      Fig/Table#      Subclause 16.3.6.5.2.4.7

With the 16m UL synchronous HARQ retransmission mechanism, before reaching the max number of HARQ retransmissions but still not successful, the ABS can change or stop the UL allocations for the synchronous UL HARQ retransmissions by sending a basic UL allocation IE with the same ACID by with AI\_SN not-toggled or toggled, respectively.

However, the above mentioned mechanisms do not apply to the unicast UL allocations anonymously allocated by CDMA allocation IE or BR-ACK IE, because there is no ACID or AI\_SN fields in such unicast UL allocations, and the AMS of the UL allocation is identified by RAID or the used random access channel and random access preamble.

We propose to introduce a 1-bit flag in the CDMA allocation A-MAP IE to indicate a stop of UL HARQ retransmissions.

Suggested Remedy

make the following changes:

1. replace the "Reserved" row in line 24 page 585 in Table 858 by the following two rows:

Syntax Size (bits) Notes

ReTx Stop Indicator 1 when set to 1, indicate to stop the UL HARQ retransmissions

Reserved 20 19 Reserved bits

2. in line 6 page 586, change the "Reserved" as follow:

Syntax Size (bits) Notes

ReTx Stop Indicator 1 when set to 1, indicate to stop the UL HARQ retransmissions

Reserved 1 Reserved bits

3. change the paragraph in line 30 on page 586 as follows:

The maximum number of the HARQ retransmission is set to the default value defined in 16.2.14.2. HARQ retransmission control information cannot be changed during retransmission process. If the AMS receives a CDMA Allocation A-MAP IE with the ReTx Stop Indicator set to 1, it shall stop the HARQ retransmissions of the UL data burst allocated to the RAID.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Stop operation is not required because the maximum number of retransmission is restricted to 4, it may be better to use non-adaptive HARQ for simple operation/implementation.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # **575**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type **Technical**      Part of Dis  Satisfied       Page **680**      Line **3**      Fig/Table#      Subclause **16.3.8.3.3**

The UL control channels are not actually in each of the UL frequency partitions, based on the paragraph in line 1 on page 681.

Suggested Remedy

change the first sentence in the paragraph in line 3 on page 680 as follows:

The distributed LRUs in an each of uplink frequency partition may be further divided into data, bandwidth request, and feedback regions.

GroupResolution

Decision of Group: **Agree**

change the first sentence in the paragraph in line 3 on page 680 as follows:

The distributed LRUs in <ins>[an](#)</ins> <del>each of</del> uplink frequency partition may be further divided into data, bandwidth request, and feedback regions.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 576

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 700      Line 36      Fig/Table#      Subclause 16.3.9.1.5

The paragraph in line 36 on page 700 is confusing regarding the usage of BR tile vs. BR channel. It says each BR tile carries a BR code and a quick access message, and a BR channel consists of 3 BR tiles. Then, does it mean that an AMS choose a BR tile, not actually BR channel, to send its BR request?

Suggested Remedy

throughout the 16m/D6, clean up the usage of BR tile vs. BR channel.

GroupResolution

Decision of Group: Principle

*Modify the text in line 36 on page 700 as below:*

A BR tile is defined as six contiguous subcarriers by six OFDMA symbols. Each BR channel consists of three distributed BR tiles. Each BR tile carries a BR preamble and [a part of](#) a quick access message. The AMS may transmit the BR preamble only and leave the resources for the quick access message unused.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 577Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 710	<u>Line</u> 6	<u>Fig/Table#</u>	<u>Subclause</u> 16.3.9.2.4.1
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Formula (283) gives, ISB, the subband index as the location in frequency domain for NS-RCH ranging channel allocations. It varies with IDcell, which puts the ranging channels in different subbands for different cells. However, it does not consider the frequency partition scenarios, which may put the ranging channel in a disadvantaged frequency partition for a cell, e.g., one of the not-power-boosted reuse-3 partition.

We would like to suggest having the NS-RCH ranging channel in the UL primary frequency partition.

Suggested Remedy

Change the text in line 57 page 709 to line 10 page 710 as follows:

The information for ranging time resource allocation is indicated by the S-SFH in a regular allocation. The information of the NS-RCH allocation consists of the ranging configuration with AAI subframe-offset (OSF) for ranging resource allocation in the time domain. The information for ranging frequency resource allocation, i.e., the subband index for ranging resource allocation is determined by the IDcell and the allocated number of subbands in the UL primary frequency partition YSB,PP YSB according to the Equation (283), where IDcell is defined in 16.3.6.1.2 and YSB is defined in 16.3.6.5.2.4.3 with exception of is the number of allocated subband CRUs in 16.3.8.3.

ISB = mode (IDCell, YSB,PP YSB ) (283)

where ISB denotes the subband index (0, to YSB,PP YSB-1) for ranging resource allocation among YSB,PP YSB subbands.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

There is no primary frequency partition in the UL.

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 578Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 713      Line 6      Fig/Table#      Subclause 16.3.9.2.4.2

Similar to the comment on Formula (283), the Formula (286) gives, ISB,s, the subband index as the location in frequency domain for S-RCH ranging channel allocations. It varies with IDcell, which puts the ranging channels in different subbands for different cells. However, it does not consider the frequency partition scenarios, which may put the ranging channel in a disadvantaged frequency partition for a cell, e.g., one of the not-power-boosted reuse-3 partition.

We would like to suggest having the S-RCH ranging channel in the UL primary frequency partition.

Suggested Remedy

change the text in line 59 page 712 to line 48 page 713 (except Table 925) as follows:

The information of the S-RCH allocation consists of the ranging configuration with AAI subframe-offset (OSF) for ranging resource allocation in the time domain where OSF is same AAI subframe-offset of the NS-RCH defined in 16.3.9.2.4.1. The information for ranging frequency resource allocation, i.e., the subband index for ranging resource allocation is determined by the IDcell and the allocated number of subbands in the UL primary frequency partition YSB,PP YSB according to the Equation (286) where IDcell is defined in 16.3.6.1.2 and YSB is defined in 16.3.6.5.2.4.3 with exception of is the number of allocated subband CRUs in 16.3.8.3.

$ISB, s = \text{mod}(ID_{\text{cell}} + 1, YSB, PP \ YSB) \ (286)$

where ISB, s denotes the subband index (0, to YSB,PP YSB-1) for ranging resource allocation among YSB,PP YSB subbands.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

There is no primary frequency partition in the UL.

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 579

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 681      Line 1      Fig/Table#      Subclause 16.3.8.3.3

How does an AMS know which frequency partition the UL control channel is?

Suggested Remedy

Change the paragraph in line 1 page 681 as follows:

If FFR is used in an UL AAI subframe, the UL control channels are used in the reuse 1 partition or the power-boostered reuse 3 partition. The frequency partition where the UL control channels are located is called UL primary frequency partition, which is indicated by the ABS through S-SFH SP1 IE.

GroupResolution

Decision of Group: Principle

Change the paragraph in line 1 page 681 as follows:

If FFR is used in an UL AAI subframe, the UL control channels are used in the reuse 1 partition or the power-boostered reuse 3 partition. The frequency partition where the UL control channels are located is indicated by the ABS through S-SFH SP1 IE.

Reason for Group's Decision/Resolution

There is no UL primary frequency partition in D6, removed that part.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 580Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 220	<u>Line</u> 20	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.56
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Why does the AAI\_MC-ADV have to be periodically broadcasted?

As shown in Section 16.2.8, the AAI\_MC-ADV is needed at the MC operation initialization which is after the AMS enters the "operational" status. Therefore, it would be much efficiently for the ABS to unicast the AAI\_MC-ADV message to the AMS who needs it either in a unsolicited way or upon requested from the AMS. Having said this, the ABS can broadcast it, not shall.

Note that periodic broadcasting is very expensive, particularly, with a potentially huge message with all the system configuration info, e.g., AAI\_SCD, SFH SPs, etc. for each of the carriers.

#### Suggested Remedy

Make the following changes:

1. on page 220, change the paragraph in line 20 as follows:

The MC ABS shall periodically broadcast AAI\_MC-ADV message is transmitted by the ABS to for the reception by all AMSs in an unicast manner and/or broadcast manner.

2. on page 307, change the paragraph in line 57 as follows:

The ABS will broadcast the SFH on each carrier with the format defined in 16.3.6.2.1. The ABS shall also provide the AMS with basic radio configuration for all available carriers in the ABS through the AAI\_MC-ADV message. This message is periodically broadcast by the ABS, which includes the multicarrier mode and the configurations supported by the ABS. It can be broadcasted by the ABS for the reception by all the AMSs and it can also be unicasted by the ABS for the reception by a specific AMS with or without receiving a request from the AMS. The multicarrier configuration information is relevant to and shall be used by all AMSs in any of multicarrier modes or in single carrier mode.

#### GroupResolution

Decision of Group: Disagree

#### Reason for Group's Decision/Resolution

Unicasting the AAI\_MC-ADV message leads to more signaling overhead because it shall be transmisted to every AMSs whenever system information is upadted.

#### Group's Notes

16.2.3 MAC Control messages (Multicarrier)

#### Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 581

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 223      Line 30

Fig/Table#

Subclause 16.2.3.57

wrong Table reference

Suggested Remedy

in line 30 page 223, change "Table 803" to "Table 806"

GroupResolution

Decision of Group: Agree

in line 30 page 223, change "Table 803" to "Table 806"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Not done. Previous comments have deleted this line.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 582

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 215      Line 31      Fig/Table#      Subclause 16.2.3.52

The "DL/UL indicator" should be per carrier attribute, not per carrier group in the AAI\_MC-REQ message.

Suggested Remedy

move the row of "DL/UL indicator" to inside the "j" loop in Table 755.

GroupResolution

Decision of Group: Principle

Resolved by comment #339.

Resolution:

Adopt the proposed text modification in C802.16m-10/0867r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 583Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 304	<u>Line</u> 22	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.8.1
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I think there is a problem with the mechanisms described in the paragraph in line 22 on page 304, i.e., transmitting an AAI\_SCD message on an unpaired DL carrier to specify where in the primary UL carrier the feedback region is.

Note that the concept of primary carrier is per AMS, and different AMS may have different fully configured carriers as their primary carriers. If an unpaired DL carrier is activated for two AMSs, AMS-1 and AMS-2, and those two AMSs have different UL primary carriers, e.g., UL-fc1 and UL-fc2, respectively, then an AAI\_SCD message transmitted on the unpaired DL carrier will be received by AMS-1 and AMS-2, but it means differently to the two AMSs, i.e., the same feedback region specification actually means on two regions on two different fully configured UL carriers. This will make fast feedback channel and HARQ feedback channel mapping very complicated.

One simple way to solve this problem is to put a constraint on the AMSs who can use an unpaired DL carrier for DL unicast traffic shall have the same UL primary carrier.

#### Suggested Remedy

Change the paragraph in line 22 on page 304 as follows:

If a partially configured carrier is used for DL unicast traffic, the required UL feedback channels are provided by the primary carrier. All the AMSs that uses the same DL-only secondary carrier for DL unicast traffic shall use the same fully configured UL carrier as primary UL carrier. In multicarrier aggregation, the UL control channels corresponding to the secondary partially configured carriers i.e., DL only secondary carriers shall be located in distinct non-overlapping control regions in the UL of the primary carrier. The UL control regions for the DL only secondary carriers are behind the UL control region for the primary carrier. The location information of the UL control channels for the DL only secondary carriers are informed through the AAI\_SCD message which are transmitted on the secondary carriers. The AMS shall use the UL control channels on the primary carrier to feedback HARQ ACK/NACK and channel quality measurements corresponding to transmission over DL only secondary carrier. Only the FDD primary carriers may be used to provide UL feedback channels for DL partially configured carriers. A partially configured carrier may be optimized and used for E-MBS services only in which case it would not need UL feedback channel support on primary carrier.

#### GroupResolution

Decision of Group: Disagree

#### Reason for Group's Decision/Resolution

AAI\_SCD message indicates the feedback region of AMS not primary carrier index. AMS already knows its primary carrier.

#### Group's Notes

16.2.8 Multicarrier operation

#### Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 584

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 306      Line 1      Fig/Table#      Subclause 16.2.8.2.3

The sentence in line 1 on page 306 is not consistent with the multicarrier switching operation mode definition on page 304, i.e., carrier switching is for E-MBS services.

Suggested Remedy

delete the sentence in line 1 on page 306.

GroupResolution

Decision of Group: Principle

[Change the text as follows:]

~~Support for both Multicarrier Aggregation and Switching does not imply E-MBS support, which is negotiated separately.~~

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 585

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 304      Line 26      Fig/Table#      Subclause 16.2.8.1

What does "behind" mean in the sentence in line 26 on page 304?  
Also, a similar sentence appears in line 41 on page 309?

Suggested Remedy

Either clarify what "behind" means or delete the sentence in both places.

GroupResolution

Decision of Group: Principle

[Change the text in line 26 on the page 304, as follows:]

The UL control regions for the DL only secondary carriers follow ~~are behind~~ the UL control region for the primary carrier.

[Change the text in line 41 on the page 309, as follows:]

The feedback region of the active DL-only secondary carrier follows ~~is behind~~ the feedback region of the primary carrier

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 586Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 313	<u>Line</u> 15	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.8.2.9.2.2
----------------	-----------------------	---------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	---------------------------------

One MC specific HO procedure allows the AMS performs network re-entry to the target ABS on one carrier and maintains normal communication with the serving ABS on another carrier. This seems a very good utilization of an AMS's capability of concurrently processing multiple radio carriers.

However, the current spec limits the utilization of such an AMS's capability to HO related optimizations, including scanning and network re-entry. Such a limitation seems unnecessary, and there are some obvious benefits and advantages to allow an AMS with the capability of concurrently processing multiple radio carriers to connect to multiple ABSs for normal communications, e.g., connect to both a Femto ABS and an overlay Macro ABS simultaneously to get best service from both.

**Suggested Remedy**

make the following changes:

1. change the sentence in line 15 on page 313 as follows:

In this case, Disconnect\_time should be long enough that network reentry procedure to target ABS can be completed prior to the expiration of Disconnect\_time or the Disconnect\_time should not be used.

2. change the paragraph in line 38 on page 314 as follows:

From AMS point of view, if network entry is completed (see 16.2.6), the AMS may shall stop communicating with the serving ABS. Then, the AMS may send UL data or BW-REQ message to the target ABS.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

Currently TGm doesn't support simultaneous connection between one AMS with two ABSs. This modification makes HO quite complex.

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 587

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 316      Line 45      Fig/Table#      Subclause 16.2.8.2.10.2

We are writing 16m as an amendment to the baseline 802.16 standard. Equation number (5) is used by the baseline document. So, it shall not be duplicately used here.

Suggested Remedy

Change the equation number in line 45 on page 316 to a valid equation number based on both baseline doc and 16m doc; and then throughout the 16m spec, change the references to the equation accordingly.

GroupResolution

Decision of Group: Agree

Change the equation number in line 45 on page 316 to a valid equation number based on both baseline doc and 16m doc; and then throughout the 16m spec, change the references to the equation accordingly.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 588

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 317    Line 7

Fig/Table#

Subclause 16.2.8.2.10.2

"Equation (2)" in line 7 on page 317 is for sure a wrong reference to the equation.

Suggested Remedy

correct the equation referenc (sorry, no idea what it should be); or delete the sentence containing the wrong reference.

GroupResolution

Decision of Group: Agree

correct the equation reference

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 589Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 317      Line 46      Fig/Table#      Subclause 16.2.8.2.11.1

Based on the paragraph in line 46 page 317, with the AMS has a single radio transceiver, the AMS needs to reconfigure its hardware settings in order to Tx/Rx from one carrier to another carrier. Then the question is how can such an AMS support the use of another activated secondary carrier? note that the use of activated secondary carrier means the AMS still maintain its communication with the primary carrier at least for control signaling, while communicating with the ABS for data on the secondary carrier. Such an operation requires the AMS to communicate with the ABS on more than one carriers.

It seems not practical to do secondary carrier activation for the AMS with a single radio transceiver.

Suggested Remedy

delete the paragraph in line 46 on page 317.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The current text is correct and adequate. It is possible to do secondary carrier activation for the AMS with a single radio transceiver.

Group's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 590Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 8      Fig/Table#      Subclause 16.2.8.2.11.2

The serving carrier and target carrier are not defined in D6.

**Suggested Remedy**

Change the first sentence in the paragraph in line 8 on page 318 as follows:

The Primary Carrier change involves changing the primary serving carrier for an AMS from one fully configured carrier to another fully configured carrier in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover, where the current primary carrier is called serving carrier, and the fully configured carrier as the candidate for the primary carrier change is called target carrier .

**GroupResolution****Decision of Group: Principle**

[Change the first sentence in the paragraph in line 8 on page 318 as follows:]

The Primary Carrier change involves changing the <ins>primary</ins> <del>serving</del> carrier for an AMS <ins>to another assigned fully configured carrier</ins> in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover <ins>, where the current primary carrier is called serving carrier, and the fully configured carrier as the candidate for the primary carrier change is called target carrier</ins>.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 591

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 30      Fig/Table#      Subclause 16.2.8.2.11.2

In primary carrier change, which carrier doe the AMS use to send AAI\_CM-IND message?

Suggested Remedy

Change the sentence in line 30 on page 318 as follows:

After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message on the target carrier to notify its readiness of the target carrier to the ABS.

GroupResolution

Decision of Group: Principle

[Change the sentence in line 30 on page 318 as follows:]

After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message <ins>on the target carrier</ins> to notify its readiness of the target carrier to the ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 592Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 36      Fig/Table#      Subclause 16.2.8.2.11.2

The logical carrier index is implicitly assigned as the order of assigned physical carriers for an AMS. So, it is a per AMS concept., which increases the implementation of complexity. Its benefit is 3-bit logical carrier index vs. 6-bit physical carrier index. Note that the carrier index is used in the MC related MAC control signaling, not in any data packets.  
Suggest removing the logical index in the MC.

**Suggested Remedy**

make the following changes:

1. remove the last sentence in line 36 page 318, i.e.,;

For the multi-carrier supported AMS, the logical carrier indices of the serving and target primary carrier are swapped after the primary carrier change.

2. throughout D6, delete the all definitions of logical carrier index, i.e., on page 217, line 7,  
Logical carrier index is assigned implicitly in the order of assigned physical carrier index**GroupResolution****Decision of Group: Principle**

Adopt the text proposed in C802.16m-10/0945r2

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions** a) done



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 593Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 319	<u>Line</u> 36	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.8.2.11.2
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	--------------------------------

There are couple of issues with the Figure 425 on page 319, e.g.,

1. at the AMS side, the Common MAC box is missing;
2. at the AMS side, the S-carrier and T-carrier shall be shown.

**Suggested Remedy**

make the following changes in Figure 425 on page 319:

1. add the box at the AMS side with Common MAC with S-carrier and T-carrier i.e., (the same box at the ABS side);
2. show that all the messages before the action time are on S-carrier between the ABS and the AMS; also show that all the interactions after the action time are on T-carrier between the ABS and the AMS.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

The primary carrier change can be performed for an AMS in basic MC mode, MC aggregation or switching mode. If the AMS is in basic MC mode, then such AMS doesn't have common MAC. In Figure 425, we should cover both single carrier supported AMSs and MC supported AMSs. So we don't need to add more modification in Figure 435.

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions** b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 594Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 317      Line 11      Fig/Table#      Subclause 16.2.8.2.11

In the carrier management procedure, the AAI\_CM-CMD message is used for the ABS to instruct the AMS to perform certain actions, and the carrier management procedure is always initiated by the ABS. Then, the question is why the AMS is not allowed to initiate a carrier management procedure.

Note that in some cases it is useful and important that the AMS can also initiate carrier management processes. For example, based on the AMS's measurements and monitoring of its assigned multiple carriers, it may detect one of the fully configured secondary carrier is more suitable to be used as its primary carrier, in this case the AMS may want to initiate a carrier management process to make the primary carrier change. This is very similar to the use case of AMS-initiated HO, as the primary carrier is actually the anchor for the AMS to connect to the ABS in the multicarrier operation.

**Suggested Remedy**

discuss and adopt contribution C80216m-10\_0400r1 or its latest version.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

According to the current text, the ABS can direct to activate/deactivate the secondary carrier or change the primary carrier based on the QoS requirement, load condition of carriers, channel quality from CQI for active carrier or scan report for inactive carrier and other factors. So we don't need to define the MS-initiated carrier management. The AMS already reports the channel quality of the assigned carriers to the ABS.

**Vote:**

In favor: 1

Opposed: 3

Abstain:

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions**    b) none needed

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 595Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 8      Fig/Table#      Subclause 16.2.8.2.11.2

what happens if the AMS could not conduct the primary change as instructed by the ABS even it correctly received and ack-ed the AAI\_CM-CMD message? There are reasons similar to HO failure that triggers this error condition.

The two primary carrier change cases as shown in Figure 424 and 425 have no means to handle such an error condition. Well, in the case of Figure 424, it actually causes disconnection of the AMS from the ABS, as there is no AAI\_CM-IND message for triggering the actual primary carrier change.

we suggest the following to handle this problem:

1. use AAI\_CM-IND sent on the target carrier to indicate a success of primary carrier change at AMS. only after receiving an AAI\_CM-IND sent on the target carrier, the ABS can use the target carrier as the new primary carrier for control channels;
2. use AAI\_CM-IND sent on the serving carrier at the action time to indicate a failure of primary carrier change.

#### Suggested Remedy

make the following changes:

1. in Figure 424 on page 319, add a line at the action time from AMS's T-carrier to ABS's T-carrier with the caption of "AAI\_CM-IND";
2. change the paragraph in line 25 on page 318 as follows:

If the AMS supports carrier aggregation mode and the target carrier is one of the active secondary carriers of the AMS, the AMS may receive data and control signal on the target carrier immediately after switching. Otherwise, the AMS first reconfigures its hardware setting (e.g. RF center frequency) and switches to target carrier. If Ranging indicator in the AAI\_CM-CMD message is set to '1', the AMS shall perform the periodic ranging procedure with the target carrier. After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message on the target carrier to notify its readiness of the target carrier to the ABS; otherwise the AMS shall transmit an AAI\_CM-IND on the serving carrier to indicate a failure of the primary carrier change. If Ranging indicator in the AAI\_CM-CMD message is set to '0', at the action time, the AMS shall transmit an AAI\_CM-IND message to the ABS on the target carrier if it is ready to use the target carrier as its new primary carrier; otherwise it shall transmit the AAI\_CM-IND message on its serving carrier. The ABS shall use the target carrier as the primary carrier may transmit data and control signal after the AAI\_CM-IND message is received on the target carrier from the AMS through the target primary carrier. Given that a common MAC manages both serving and target primary carriers, network reentry procedures at the target primary carrier is not required. The ABS may direct an AMS to change the primary carrier without scanning. For the multi-carrier supported AMS, the logical carrier indices of the serving and target primary carrier are swapped after the primary carrier change.

3. insert the following new paragraph in line 39 on page 318:

At the action time of the primary carrier change as instructed by the ABS in a received AAI\_CM-CMD message, if the AMS is not ready to use the target carrier as the new primary carrier, i.e., a failure of primary carrier change, the AMS shall send an AAI\_CM-IND message on the serving primary carrier. When receiving an AAI\_CM-IND message on the serving carrier at or after the action time, the ABS considers the corresponding primary carrier change procedure is failed and it shall keep using the serving carrier as the primary carrier for the AMS.

GroupResolutionDecision of Group: Disagree

**Reason for Group's Decision/Resolution**

In figure 424, we don't need to transmit the AAI\_CM-IND message. Since the target carrier is one of already activated carrier, the AMS can change the primary carrier without any readiness time for activation. In this case, if the AAI\_CM-CMD message is successfully transmitted to the AMS, it means that the primary carrier is also successfully changed. So, we can confirm the successful primary carrier change through the exchange of AAI\_CM-CMD and MSG ACK. If the ABS doesn't receive the MSG\_ACK within the retransmission timer, then the ABS considers the primary carrier change as failed. The AAI\_CM-IND is only used as a readiness indication for the newly activated carrier.

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes**

**Editor's Actions** b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Wang, Lei

**Membership Status:** Member

**Date:** 2010-07-09

**Comment #** 596

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 845      **Line** 29      **Fig/Table#**      **Subclause** 16.9

The last sentence in line 29 on page 845 is extra, as the sentence in line 21 on page 845 already specifies the uniqueness of the E-MBS\_Zone\_ID.

**Suggested Remedy**

Delete the last sentence in line 29 on page 845, i.e.,  
The E-MBS\_Zone\_IDs shall not be reused across any two adjacent E-MBS Zones.

**GroupResolution**

**Decision of Group:** Agree

Delete the last sentence in line 29 on page 845, i.e.,  
The E-MBS\_Zone\_IDs shall not be reused across any two adjacent E-MBS Zones.

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.9: AAI EMBS

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 597

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 320      Line 1      Fig/Table#      Subclause 16.2.8.2.11.3

Based on the current 16m/D6 spec, a lots of pieces about the carrier switching operation for the E-MBS, e.g., how, how long, what periodicity, what triggers for the carrier switching.It is not properly specified in the E-MBS section 16.9.2.1, nor in the DSA-REQ/RSP messages, nor MC scetion.

Suggested Remedy

Either complete the specification of the carrier switching operation or delete all relevant text / references.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Group would like to complete the specification of the carrier switching operation. However, commentor did not provide the specific resolution.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 598

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 790      Line 14      Fig/Table#      Subclause 16.4.5.1

When a Femto ABS is connected to an overlaid Macro ABS through the Femto ABS's air interface, Why is the wireless connection between Femto ABS and Macro ABS limited to control message only?

Suggested Remedy

change the paragraph in line 14 on page 790 as follows:

For a Femto ABS that uses air interface connection with the overlaid Macro ABS for exchanging control messages, the Femto ABS shall perform the following additional initialization procedure during the Femto ABS initialization procedure.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Allowing data messages increases complexity.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 599

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 20      Fig/Table#      Subclause 5.2

IP CS is designed to support IP over 802.16 air interface, but it is not designed to support all packet-based protocol over 802.16 air interface.

Suggested Remedy

Delete the sentence in line 20 on page 11, i.e.,  
ABS and AMS shall use IP CS for all packet-based protocols.

GroupResolution

Decision of Group: Agree

same resolution as comment #8  
delete line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 600

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 14      Line 33      Fig/Table#      Subclause 5.2.5.2

what parameters do "the parameters" mean in the sentence in line 33 on page 14?

Suggested Remedy

either clarify "the parameters" or delete the sentence.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The parameters should be specified but no text available to consider.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 601Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 11      Line 50      Fig/Table#      Subclause 5.2.1

In Figure 8, the correct term for "Packet PDU" should be "CS SDU", i.e., convergence sublayer SDU, based on the 802.16 protocol architecture.

Suggested Remedy

make the following changes:

1. in Figure 8 on page 11, change ""Packet PDU" to "CS SDU"
2. change the sentence in line 30 as follows:

Once classified and associated with a specific MAC connection, the Convergence Sublayer SDUs (CS SDUs), i.e., higher layer PDUs, shall be encapsulated in the MAC SDU format as illustrated in Figure 8.

GroupResolutionDecision of Group: Agree

make the following changes:

1. in Figure 8 on page 11, change ""Packet PDU" to "CS SDU"
2. change the sentence in line 30 as follows:

Once classified and associated with a specific MAC connection, <ins>the Convergence Sublayer SDUs (CS SDUs), i.e.</ins>, higher layer PDUs, shall be encapsulated in the MAC SDU format as illustrated in Figure 8.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 602

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 14      Line 52      Fig/Table#      Subclause 5.2.6

In Figure 18a and Figure 18b, the correct term for "Packet" should be "CS SDU", i.e., convergence sublayer SDU, based on the 802.16 protocol architecture.

Suggested Remedy

in Figure 18a and Figure 18b on page 14, change ""Packet" to "CS SDU"

GroupResolution

Decision of Group: Agree

in Figure 18a and Figure 18b on page 14, change ""Packet" to "CS SDU"

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

Comment by:

Wang, Lei

Membership Status: MemberDate: 2010-07-09Comment # 603Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input checked="" type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 15	<u>Line</u> 8	<u>Fig/Table#</u>	<u>Subclause</u> 5.2.6
----------------	-----------------------	--------------------------------------------------------	-------------------------------------------	----------------	---------------	-------------------	------------------------

Don't agree with the sentence in line 8 on page 15. The protocol ID is introduced for the multiprotocol flow support. As shown in Figure 18a and Figure 18b, the MAC SDUs are formed with the protocol ID added. Where the MAC SDU is formed, it is at the CS that supports multiprotocol flow. Note that CS is a sublayer of 802.16 air interface.

The protocol ID is definitely needed for the support of multiprotocol flow. How the protocol ID is identified for a packet is definitely in the scope of 16m as long as multiprotocol flow is supported. Actually, the sentence in line 5 on page 15 already says it is identified by the classification.

Suggested Remedy

Delete the paragraph in line 8 on page 15, i.e.,

The method by which the protocol of a packet introduced to the CS layer is identified is beyond the scope of this standard.

GroupResolutionDecision of Group: Agree

Delete the paragraph in line 8 on page 15, i.e.,

~~The method by which the protocol of a packet introduced to the CS layer is identified is beyond the scope of this standard.~~

Reason for Group's Decision/ResolutionGroup's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Wang, Lei

Membership Status: Member

Date: 2010-07-09

Comment # 604

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 35      Line 8      Fig/Table#      Subclause 10.1

not sure how the editing instruction mean by "change the table as indicated"? Are we talking about the entire Table 554 is now as shown in page 35 in 16m/D6? or are we talking about adding those new entries in Table 554, then how about those entries with the same name as in the 802.16-2009 Table 554, e.g., Ranging Request Retries?

For simplicity, we would like to recommend creating a new table for the advance air-interface to define the parameters and constants.

Suggested Remedy

replace line 8 to line 13 by the following:

[Change the table as indicated Insert the follwoing at the end of 10.1:]

Table 554a shows the parameters and constants that are used for the Advanced Air Interface.

Table 554a--Parameters and constants for Advanced Air Interface

GroupResolution

Decision of Group: Agree

same resolution as 199

creating a new AAI specific Parameters and constancs table in clause 16. Move ABS and AMS entries from table 554 to this new table.

leave BS parameters in table 554

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    b) none needed

Same resolution as 199.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chayat, Naftali

Membership Status: Member

Date: 2010-07-09

Comment # 605

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 41      Line 22      Fig/Table#      Subclause 11.1.3

The 16j specification is not widely supported by the industry. Moreover, 802.16m has a standalone specification of relay operation. Therefore an option is needed to describe a capability in which conformance with IEEE Std 802.16-2009 and IEEE Std 802.16m-2010 are indicated, without supporting , IEEE Std 802.16j-2009.

Suggested Remedy

Add value "11: Indicates conformance with IEEE Std 802.16-2009 and IEEE Std 802.16m-2010

GroupResolution

Decision of Group: Principle

P41, L21 change the sentence to read:

10: Indicates conformance with IEEE Std 802.16-2009, IEEE Std 802.16j-2009, IEEE Std 802.16h-2010 and IEEE Std 802.16m-2010

Reason for Group's Decision/Resolution

IEEE-SA bylaws required recognition of all approved amendments to be part of the base standard.

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chayat, Naftali

Membership Status: Member

Date: 2010-07-09

Comment # 606

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 415

Line

Fig/Table#

Subclause

The calculation of resource metric assumes that the metric of lower power partitions is always lower than either reuse-1 partition or the high-power partition. This is not necessarily always correct. A way is needed to indicate the Resource\_Metric for each partition independently.

Suggested Remedy

Change the table to reflect that there are as many 4-bit fields as active partitions, and that the Resource Metric is interpreted identically for each partition.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

In simulation, the metric of lower power partitions is lower than either reuse-1 partition or the high-power partition.

Group's Notes

16.2.21 Interference Mitigation Mechanism

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chayat, Naftali

Membership Status: Member

Date: 2010-07-09

Comment # 607

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 498      Line      Fig/Table#      Subclause 16.3.6.1.1

The Primary Preamble, as it appears now, suffers from PAPR degraded by 3 dB when two channels are transmitted through same power amplifier, introducing additional distortion or necessitating additional backoff

Suggested Remedy

Adopt the solution for Primary Preamble as provided in C80216m-09/3094 or its latest revision

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The contribution is incomplete and is over six months old, referring do Draft 3 of 802.16m. It only covers one example bandwidth.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chayat, Naftali

Membership Status: Member

Date: 2010-07-09

Comment # 608

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 500      Line      Fig/Table#      Subclause 16.3.6.1.2

The Secondary Preamble, as it appears now, suffers from substantial PAPR when less than 8 antennas are used

Suggested Remedy

Adopt the solution for Secondary Preamble as provided in C80216m-09/3094 or its latest revision

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The contribution is incomplete and is over six months old, referring do Draft 3 of 802.16m. It only covers one example bandwidth.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chayer, Remi

Membership Status: Member

Date: 2010-07-09

Comment # 609

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type General

Part of Dis  Satisfied

Page 999

Line

Fig/Table#

Subclause

The radio transmitter and receiver parameters of 802.16m are not sufficiently defined to permit the evaluation of coexistence potential by regulatory organizations.

Suggested Remedy

802.16m should include a section or refer to another document defining all applicable radio parameters, such as Tx power, receiver threshold, spectrum mask, spurious requirements and ACLR, for various frequency bands and equipment configurations. Those parameters should be normative as they will be used by various organizations to determine radio equipment coexistence criteria's.

GroupResolution

Decision of Group: Principle

Resolved by comment #487.

Resolution:

Accept the proposal in IEEE C802.16m-10/0934

Reason for Group's Decision/Resolution

Group's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 610

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 404      Line 34      Fig/Table#      Subclause 16.2.19

wrong language in this sentence

Suggested Remedy

change "until the Context Retention Timer is valid" to:  
"until the Context Retention Timer expires"

GroupResolution

Decision of Group: Agree

change "until the Context Retention Timer is valid" to:  
"until the Context Retention Timer expires"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Gal, Dan

Membership Status: Member

Date: 2010-07-09

Comment # 611

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 798      Line 58      Fig/Table#      Subclause 16.4.11

The sentence "While using the TDM manner, Femto ABS may disable some of its subframes and announce the disabled subframes via AAI\_SON-ADV." is inconsistent with table 686 that contains no fields to announce disabled subframes

Suggested Remedy

add the required fields to the AAI\_SON-ADV message definition

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Start and Interval of unavailable time are specified in Table 686.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 612

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 458

Line 28

Fig/Table#

Subclause 16.3.4

Reserved clause is not needed

Suggested Remedy

Remove reserved clause 16.3.4

GroupResolution

Decision of Group: Agree

Remove reserved clause 16.3.4

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 613

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 790      Line 60      Fig/Table#      Subclause 16.4.6

This paragraph is full of "may do this, should do that, and offers no normative text.

Suggested Remedy

Remove the paragraph starting on page 790 line 60 and ending on pange 791 line 4.

GroupResolution

Decision of Group: Principle

Delete lines 56-65 on Page 790 and delete lines 3-7 on Page 791.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 614

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 42      Line 33      Fig/Table#      Subclause 11.3.18.6  
NON\_ARQ\_REORD\_ERING\_TIMEOUT length is not defined.

Suggested Remedy

Define the length

GroupResolution

Decision of Group: Principle

P42 L33 set length to "6" bits

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 615

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical

Part of Dis  Satisfied

Page 78

Line 55

Fig/Table#

Subclause 16.2.3.1

CSGID(s) size is not defined

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

Resolved by comment #504.

Resolution:

Adopt the text proposed in contribution C80216m-10\_0706r1  
(The value of CSGID has been populated in the contribution 706r1)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages  
Same as teh resolution of Comment #504

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 616

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 83      Line 11      Fig/Table#      Subclause 16.2.3.2

The size of the Update QoS information is not clearly defined here.

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

P38, L11

replace current text for size column "Note: refer to DSA message" with "variable"

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 617

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 83      Line 23      Fig/Table#      Subclause 16.2.3.2

CLC-INFO size is not clearly defined

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

same remedy as #650

Adopt the proposed text in IEEE C802.16m-10/0938 or its latest revision.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 618

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 96      Line 20      Fig/Table#      Subclause 16.2.3.7  
ARQ\_SUB\_BLOCK\_SIZE is undefined

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

On page 96, Line 20, add value "10" in the column "Size".

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 619

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 96      Line 38      Fig/Table#      Subclause 16.2.3.7  
MAXIMUM\_ARQ\_BUFFER\_SIZE is undefined. What does "depends on AMS's memory" mean?

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

On page 96, Line 38, add value "16" in the column "Size".

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 620

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 101      Line 18      Fig/Table#      Subclause 16.2.3.7

for Convergence sublayer capabilities, "Classification/PHS options and SDU encapsulation support" and "Maximum number of classification rules" the size (bits) is not defined

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4 (Same as the resolution to comment #503) This contribution contains the sizes requested by the commenter.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 621

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 103      Line 17      Fig/Table#      Subclause 16.2.3.8

ARQ\_SUB\_BLOCK\_SIZE is undefined. This entire table has been screwed up by new formatting and it is not clear which attributes belong together.

Suggested Remedy

Define ARQ\_SUB\_BLOCK\_SIZE, and fix the formatting of the table.

GroupResolution

Decision of Group: Principle

On page 103, Line 17, add value "10" in the column "Size".

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 622

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 104      Line 27      Fig/Table#      Subclause 16.2.3.8

The following items do not have a defined size:  
"Classification/PHS options and SDU encapsulation support",  
and  
"Maximum number of classification rules".

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)  
This contribution contains the sizes requested by the commenter.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 623

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 105      Line 19      Fig/Table#      Subclause 16.2.3.8

The following two do not have a defined size:  
"Additional-Host-Configurations IE",  
and  
ABSID, preamble index and center frequency for one or more neighbor ABS".

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 624

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 112      Line 7      Fig/Table#      Subclause 16.2.3.11

Pre-assigned secondary carrier information size is not defined.

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Principle

Put 'Variable' into the size field.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 625

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 155      Line 37      Fig/Table#      Subclause 16.2.3.29

Control Message Type size is not defined.

Suggested Remedy

Define the size

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Type field is not needed as we are using ASN.1 format.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 626

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 297      Line 7      Fig/Table#      Subclause 16.2.6.5.2.1

This entire table is incomplete, with missing field types and sizes.

Suggested Remedy

Define types and lengths for Table 776.

GroupResolution

Decision of Group: Principle

Adopt the remedy in 412

Delete the sentence in Line 65 on Page 296 and delete Table 776.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 627

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 607      Line 50      Fig/Table#      Subclause 16.3652413

Number of reserved bits is empty

Suggested Remedy

Reserved bit size = 11

GroupResolution

Decision of Group: Agree

Reserved bit size = 11

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 628

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 185      Line 54      Fig/Table#      Subclause 16.2.3.43

MAC Control Message type is not defined

Suggested Remedy

Define MAC Control message type value

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Type field is not needed as we are using ASN.1 format.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 629

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 186      Line 10      Fig/Table#      Subclause 16.2.3.44

Mac Control Message type

Suggested Remedy

Define MAC Control message type value

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Type field is not needed as we are using ASN.1 format.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 630

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 294      Line 62      Fig/Table#      Subclause 16.2.6.4.1.3.1

Paragraph states:

The FIDs for the control connections are set automatically. To what value are the FIDs set?

Suggested Remedy

Define the value.

GroupResolution

Decision of Group: Principle

Adopt the remedy in comment 75.

Change the text in page 294 line 62 as follows.

The FIDs for the control connections are set to <ins>0b0000</ins> automatically. The FIDs for the transport connections are sequentially derived starting from <ins>0b0010</ins> for all of the transport CIDs used in LZone. The AMS autonomously updates its Flow IDs in the ascending order from the first transport Connection ID.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Murias, Ronald G

Membership Status: Member

Date: 2010-07-09

Comment # 631

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 294      Line 62      Fig/Table#      Subclause 16.2.6.4.1.3.1

Paragraph states:

The FIDs for the transport connections are sequentially derived starting from for all of the transport CIDs used in LZone. Starting from what value?

Suggested Remedy

Define the value.

GroupResolution

Decision of Group: Principle

Adopt the remedy in comment 75.

Change the text in page 294 line 62 as follows.

The FIDs for the control connections are set to <ins>0b0000</ins> automatically. The FIDs for the transport connections are sequentially derived starting from <ins>0b0010</ins> for all of the transport CIDs used in LZone. The AMS autonomously updates its Flow IDs in the ascending order from the first transport Connection ID.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 632

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 113      Line 1      Fig/Table#      Subclause 16.2.3.12

Two problems should be noticed:

- 1.How to sort ABS by physical index? Suggest to delete this sentence or clarify it .
- 2.ABS type--legacy can be covered by the parameter MAC version.Suggest to delete it.

Suggested Remedy

AAI\_NBR-ADV message may sort neighbor ABSs (RSs) according to their deployment types, which is categorized by the following parameters:

- 1) ABS type (macro, micro, macro hotzone, Femto, relay, legacy)
  - a) physical carrier index referring AAI\_Global-Config message which provides carrier frequency, BW, CP info, TDD/FDD and related definitions (expected to be the same given carrier frequency)
  - a)2) MAC version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

the remedy is not clear.(It is a duplicated comment of 10063 where a clear remedy is provided)

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 633

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 223      Line 30      Fig/Table#      Subclause 16.2.3.57

Wrong reference in Table 762. Multi-Carrier Configuration Index Table should be Table 806.

Suggested Remedy

Change Line 30 on Page 223 as follows: Multi-Carrier Configuration Index Across the Network 6 Index associated to Table 803806

GroupResolution

Decision of Group: Agree

Change Line 30 on Page 223 as follows: Multi-Carrier Configuration Index Across the Network 6 Index associated to Table 803806

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Not done. Previous comments have deleted this line.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 634

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 305      Line 1      Fig/Table#      Subclause 16.2.8.1

By saying "basic MC mode is in which the AMS operates only with single carrier..." may be confused with the concept single-carrier AMS. The AMS could perform basic MC mode is actually a multicarrier AMS.

Suggested Remedy

Suggest to change as follows:

Basic MC mode: The basic MC mode in which the AMS operates only with single carriersingle radio transceiver but shall support the primary carrier change procedure as well as optimized scanning of carriers involved multicarrier operation.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The original text is more clear and correct. AMS with single radio transceiver may support multi-carrier operation.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 635

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 308      Line 32      Fig/Table#      Subclause 16.2.8.2.4

The description of periodic ranging duplicates with the last sentence in first paragraph ,16.2.8.2.4.

Suggested Remedy

CDMA initial/periodic ranging with a fully configured carrier shall be the same as defined in 6.3.10.3.1, 6.3.10.3.2[1]. Periodic ranging may only be performed on the activated secondary carrier(s) if directed by the ABS in AAI\_CM-CMD at secondary carrier activation. CDMA handover ranging shall be done only with one of the fully configured carriers of target ABS.

GroupResolution

Decision of Group: Agree

CDMA initial/periodic ranging with a fully configured carrier shall be the same as defined in 6.3.10.3.1, 6.3.10.3.2[1]. Periodic ranging may only be performed on the activated secondary carrier(s) if directed by the ABS in AAI\_CM-CMD at secondary carrier activation. CDMA handover ranging shall be done only with one of the fully configured carriers of target ABS.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions e) instructions unclear

\*\*\* Editorial instructions unclear. Did not implement \*\*\*\*

Comment by:

Chen, Yuqin

Membership Status: MemberDate: 2010-07-09Comment # 636Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 311      Line 57      Fig/Table#      Subclause 16.2.8.2.9.1.2

It's described in P802.16/D6, 16.2.8.2.9.1.2 that the AMS and the ABS may negotiate through AAI\_SCN-REQ/RSP messages the radio carriers to be assigned for scanning operations to avoid resource allocation on those carriers. The carrier index will be included in AAI\_SCN-REQ/RSP/REP message.

However, the parameter Scanning\_Carrier\_Index is missing in AAI\_SCN-REQ message. Another question is, there is no need to include this carrier index in AAI\_SCN-REP message.

Suggested Remedy

Please adopt C80216m-10\_0901 or its latest version.

GroupResolutionDecision of Group: Disagree

In order to support the scanning of multicarrier AMS, the carrier index should be also included in AAI\_SCN-REP message.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 637

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 106      Line 64      Fig/Table#      Subclause 16.2.3.10

Since the AMS may perform multicarrier scanning before HO procedure, carrier information based on AMS's scanning could be included in AAI\_HO-REQ message.

Suggested Remedy

Suggest to add Physical\_Carrier\_Index into AAI\_HO-REQ message: O //Physical\_Carrier\_Index // 6 // Physical carrier indexof the ABS// May be included for each ABS with ABS Index or ABS ID when the ABS is multi-carrier ABS

GroupResolution

Decision of Group: Principle

Add the following row to the end of Table 690 :

O	Physical_Carrier_Index	6	Physical carrier index of the ABS	May be included for each ABS with ABS Index or ABS ID when the ABS is multi-carrier ABS
---	------------------------	---	-----------------------------------	-----------------------------------------------------------------------------------------

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 638

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 107      Line 50      Fig/Table#      Subclause 16.2.3.10

In D6 , multicarrier capability in AAI-REG-REQ has been changed to 3bits, therefore, an update is needed in the condition for parameter "Carrier Preassignment Indication" in Table 690 .

Suggested Remedy

Suggest to modify the text in Table 690 as follows:

O //Carrier Preassignment Indication // 1// Indicates whether AMS needs pre-assignment of secondary carriers at the Target ABS. May be included when AMS supports MC mode=0b10 or 0b11ob010,ob011 or ob100

GroupResolution

Decision of Group: Principle

Suggest to modify the text in Table 690 as follows:

O //Carrier Preassignment Indication // 1// Indicates whether AMS needs pre-assignment of secondary carriers at the Target ABS. // May be included when AMS supports MC mode=~~0b10 or 0b11~~ 0b010 or 0b100

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 639

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 108      Line 3      Fig/Table#      Subclause 16.2.3.11

In D6 , multicarrier capability in AAI-REG-REQ has been changed to 3bits, therefore, an update is needed for the parameters in Table 691 .

Suggested Remedy

Suggest to change Page112 , Line45 in Table 691 as follows: O// Physical carrier index at the serving ABS // 6 // Recommended carrier index of the AMS to be used for network reentry to the target ABS. May be included when AMS's multicarrier capability= 0b10 0b010 or 0b100, HO Reentry Mode = 1 and the target carrier is different from the serving carrier.

GroupResolution

Decision of Group: Agree

Suggest to change Page112 , Line45 in Table 691 as follows: O// Physical carrier index at the serving ABS // 6 // Recommended carrier index of the AMS to be used for network reentry to the target ABS. May be included when AMS's multicarrier capability= 0b10 0b010 or 0b100, HO Reentry Mode = 1 and the target carrier is different from the serving carrier.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 640

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 848      Line 24      Fig/Table#      Subclause 16.9.2.2

According to 802.16m/D6, for a carrier switching capable AMS, if its E-MBS services are transmitted on carriers other than its primary carrier, it performs carrier switching to receive the E-MBS services. However, the ABS could not acquire information about which E-MBS service the AMS is currently receiving. It affects the unicast service scheduling for the AMS on its primary carrier.

Suggested Remedy

Discuss and adopt contribution IEEE C802.16m-10\_0900 or latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This proposal introduces a new message on top of the existing DSx messages which introduces a lot of overhead.

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 641

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 30      Fig/Table#      Subclause 16.2.18.4.2

In 16m draft, there is no definition of "extended system parameters and system configuration information", suggest to replace it by "AAI\_SCD message".

Suggested Remedy

After synchronization with its preferred ABS and getting P-SFH, if the AMS finds that it does not have the updated information after comparing the system configuration change count, the AMS needs to get the S-SFH or extended system parameters and system configuration information AAI\_SCD message from the preferred ABS.

GroupResolution

Decision of Group: Principle

Resolved by comment #18.

Resolution:

Adopt the following changes from P 403, L33:

the AMS needs to get the S-SFH or ~~extended system parameters and system configuration information~~ AAI\_SCD message from the preferred ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 642

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line 1      Fig/Table#      Subclause 16.2.3.4

AMS basic capability negotiation is done by SBC-REQ/RSP messages(Table 682 and 684), in which "Capability\_Index" is applied. Besides, the explicit parameters negotiated between AMS and ABS is also defined in Table 683. But how to map the parameters to the Capability\_Index is not defined yet.

Suggested Remedy

Suggest to fit this hole.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Incomplete remedy

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 643

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 5      Fig/Table#      Subclause 16.2.8.2.11.2

For primary change, currently AMS only follows ABS' command for the purpose of load balancing. But as people discussed previously, different carriers may have different coverage. In this case, it would be better for AMS to initiate the request to change its primary carrier.

Suggested Remedy

Suggest to consider "AMS request to perform primary carrier change" again among the group.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The scan report for the inactive secondary carrier will help to resolve this problem. So we don't need to define MS-initiated primary carrier change. We can reuse the existing scanning procedure for this case.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 644

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 187      Line 32      Fig/Table#      Subclause 16.2.3.46.1

"MBS service" should be "E-MBS service".

Suggested Remedy

E-MBS Service: Indicates whether the E-MBS Service is being requested or provided for the connection that is being setup.F18

GroupResolution

Decision of Group: Agree

E-MBS Service: Indicates whether the E-MBS Service is being requested or provided for the connection that is being setup.F18

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 645

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 848

Line 47

Fig/Table#

Subclause 16.9.2.3

Wrong grammar.

Suggested Remedy

When an AMS in Idle mode moves to an ABS which does not belongs to AMS' previous E-MBS Zone, the AMS is xpected to update the E-MBS service flow management encodings at that ABS to provide continuous reception of E-MBS content.

GroupResolution

Decision of Group: Agree

When an AMS in Idle mode moves to an ABS which does not belongs to AMS' previous E-MBS Zone, the AMS is xpected to update the E-MBS service flow management encodings at that ABS to provide continuous reception of E-MBS content.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 646

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 850

Line 2

Fig/Table#

Subclause 16.9.3.1

BS should be "ABS".

Suggested Remedy

Zone\_Allocation Bit-MAP: Zone\_Allocation Bit-MAP consists of sub-band indices reserved for all E-MBS zones the ABS belongs to.

GroupResolution

Decision of Group: Agree

Zone\_Allocation Bit-MAP: Zone\_Allocation Bit-MAP consists of sub-band indices reserved for all E-MBS zones the ABS belongs to.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 647

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 847      Line 29

Fig/Table#

Subclause 16.9.2.1

Strange symbol should be deleted.

Suggested Remedy

In addition the E-MBS service flows may also be established optionally through upper layer signaling which is outside the scope of this specification.

Note: The symbol could not be shown here.

GroupResolution

Decision of Group: Agree

In addition the E-MBS service flows may also be established optionally through upper layer signaling which is outside the scope of this specification.

Note: The symbol could not be shown here.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 648

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 112    Line 17

Fig/Table#

Subclause 16.2.3.11

Typo.

Suggested Remedy

O || LZone Preamble Index || 7 || LZone Preamble Index for AMS ..... ||Shall be included ...

GroupResolution

Decision of Group: Agree

O || LZone Preamble Index || 7 || LZone Preamble Index for AMS ..... ||Shall be included ...

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Marked "not needed" by Joey, no reason given.



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 649

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 134      Line 39      Fig/Table#      Subclause 16.2.3.17

Currently there is no methods propopsed in 16m for an ABS to determine if the co-existence scenario is co-located or non-located. The justification behind distinguishing between the two interference cases (i.e. collocated and non-collocated) is that the ABS can make an informed decision about necessary actions to prevent performance degradation. Note that performance degradation in the two cases may be distinct in nature i.e. collocated cases will tend to be more static since both radios exist on the same platform, whereas interference for non-collocated radios is more likely to be dynamic (e.g. the two non-collocated devices housing the radios may simply move away from each other and that would reduce interference)  
Alternatively the ABS could share this information with a higher entity (e.g. SON server) which in turn can inform the non-802.16 network to take appropriate action(s) to mitigate interference (eg. channel change). This contribution proposes methods to inform the ABS about the types of coexistence.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0937 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/0937r2

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 650

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 83      Line 23      Fig/Table#      Subclause 16.2.3.2

There are several inconsistent text in Section 16.2.3.2. This comment proposes the clean up to make the text of this section consistent.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0938 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/0938 r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 651

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 383      Line 59      Fig/Table#      Subclause 16.2.17

There are several editorial as well minor technical inconsistencies in the sleep mode operation text in Section 16.2.17. This contribution proposes changes to different parts of this section to clean up the text in this section.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0670 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Contribution is an old one and was not updated to reflect the content in Draft 6.

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 652

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 383      Line 45      Fig/Table#      Subclause 16.2.17

Although current D6 specifies that 'AMS shall ensure that it has up-to-date system information for proper operation.', there is no specific mechanism defined to achieve this. This comment proposes methods using which AMS in sleep mode can ensure that it has up-to-date system information.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0671 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposed text is already in the standard.

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 653

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 387      Line 1      Fig/Table#      Subclause 16.2.17.2.3.1

The current method used in D6 upon the loss of AAI\_TRF-IND is inefficient. This comment proposes efficient methods that are invoked upon the loss of AAI\_TRF-IND message.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0675 or its latest revision.

GroupResolution

Decision of Group: Principle

Same resolution as comment 10181

Adopt the proposed text in contribution C80216m-10/0854

Reason for Group's Decision/Resolution

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 654

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 48      Fig/Table#      Subclause 16.2.18.2.2

In the 16m legacy mode operation defined in IEEE 802.16m standard, a 16m base station is attached to a legacy 16e network. In this case, the legacy network considers all the terminals as legacy terminals and hence uses the legacy protocols for various operations such as idle mode, paging etc. In legacy networks based on IEEE 802.16e standard, the paging cycles and paging offsets for idle mode MSs are represented in terms of number of frames. On the other hand, in IEEE 802.16m these parameters are represented in terms of number of super-frames. It may be noted that one super-frame consists of four frames. Duration of each frame in IEEE 802.16e and IEEE 802.16m is 5 ms. Thus, the duration of super-frame = 4 \* 5 = 20ms. In legacy mode of operation the network entity responsible for idle mode operation of MSs , e.g., Paging Controller, assign the paging cycle and paging offset that are represented in terms of frames. However, the MS is attached to a base station that uses IEEE 802.16m specifications. Thus, the MS is aware about paging cycle and paging offset to be defined in terms of number of super-frames. Therefore there is a need for mechanisms using which the MS can determine its paging operational parameters, i.e., its paging listening interval in IEEE 802.16m legacy mode operation using the IEEE 802.16e paging parameters that it receives from the BS. This comment provides methods for the above problem.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0678 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

An old contribution is cited. No updated contribution (to reflect the content in Draft 6) was provided.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 655

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 27      Fig/Table#      Subclause 16.2.1.2.3

In IEEE 802.16m based networks, idle mode MSs are identified using the Deregistration Identifier (DID), their paging cycle and paging offsets. Thus, idle mode MSs that belong to same paging group and have same paging cycle and paging offset have unique DID so that they can be identified uniquely. The DIDs are assigned to idle mode MS by the paging controllers (PCs). One or more PCs manage each paging group. Thus, when two different PCs assign the DIDs to different idle mode MSs of the same paging group, there is a possibility that they assign the same DID to two different MSs. This is because the DID assignment of each PC is independent of the other ones. If both the MS that have the same DID also have the same paging cycle and paging offset, then these MSs have the same identification. This leads to false paging message indication as the paging message for one of these MSs also results in unwanted paging indication. This result in unwanted paging operation and unnecessary signaling overhead. This comment proposes methods to resolve this issue.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0679 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No up-to-date contribution provided. Cited document is from a previous meeting and does not map into Draft 6.

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Puthenkulam, Jose

Membership Status: Member

Date: 2010-07-09

Comment # 656

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 422      Line 45      Fig/Table#      Subclause 16.2.24

The update procedure of SFH as well as the application of the new SFH information is very complicated. This comment proposes flow chart to illustrate these steps. In addition it provides additional text to provide clarifications for SFH update procedures.

Suggested Remedy

Adopt the proposed text in IEEE C802.16m-10/0676 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No contribution available.

Group's Notes

16.2.24 Update of S-SFH IEs

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 657

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 215      Line 5      Fig/Table#      Subclause 16.2.3.52

The contents of Table 755 and Table 756 are duplicated. It's better to remove one of them. The format of Table 756 is aligned with most of the MAC control messages. However, the array attribute in the message is not well presented.

Suggested Remedy

Adopt the proposed text in C802.16m\_10\_0722 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #339.

Resolution:

Adopt the proposed text modification in C802.16m-10/0867r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Resolved by comment 339

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 658

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 316      Line 36      Fig/Table#      Subclause 16.2.8.2.10.2

The approach for the determination of paging carrier is not well presented and needs clarification.

Suggested Remedy

Adopt the proposed text in C802.16m\_10\_0723. or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C802.16m\_10\_0723.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

Comment by:

Chen, Yuqin

Membership Status: MemberDate: 2010-07-09Comment # 659Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 288      Line 54      Fig/Table#      Subclause 16.2.6.3.5.2

The following text is confusing and somewhat redundant. If the ABS could determine the STID is no longer in use, then this STID could be re-assigned to other AMS. "After an ABS determines that an STID value is no longer in use, the ABS should assure that STID values are not re-assigned such that an AMS that has current assignment for the STID value may confuse STID use with an AMS that has been previously assigned the same STID value."

**Suggested Remedy**

Please accept the following modification in page 288, line 54:replace the following sentence:"After an ABS determines that an STID value is no longer in use, the ABS should assure that STID values are not re-assigned such that an AMS that has current assignment for the STID value may confuse STID use with an AMS that has been previously assigned the same STID value." with the following one: "The STID could not be assigned to other AMS until the ABS assure that the STID is no longer in use."

**GroupResolution****Decision of Group: Principle**

Please accept the following modification in page 288, line 54:replace the following sentence:

"After an ABS determines that an STID value is no longer in use, the ABS should assure that STID values are not re-assigned such that an AMS that has current assignment for the STID value may confuse STID use with an AMS that has been previously assigned the same STID value."

with the following one:

"The STID shall not be assigned to another AMS until the ABS assure that the STID is no longer in use."

**Reason for Group's Decision/Resolution**

Vote:

In favor: 25

Opposed: 6

Abstain:

**Group's Notes**

16.2.6 MAC HO procedures

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 660

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 77      Line 17      Fig/Table#      Subclause 16.2.3.1

In the Cnditions column, the "serving Legacy BS" looks strange. The "Legacy" should be removed.

Suggested Remedy

Accept the following modification in page 77, line 17: It shall be included when the AMS is attempting to perform HO reentry. In case of performing Direct HO, this is the BSID of the previous serving Legacy BS.

GroupResolution

Decision of Group: Principle

Accept the following modification in page 77, line 17:

It shall be included when the AMS is attempting to perform HO reentry. In case of performing Direct HO, this is the BSID of the previous serving ~~Legacy~~ BS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 661

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 114      Line 31      Fig/Table#      Subclause 16.2.3.12

In page 113 of D6, line 56, the paging carrier indication is listed to be provided for each ABS in AAI\_NBR-ADV message. However, this field is not appeared in Table 692. It's better to add the paging carrier indication field in Table 692.

Suggested Remedy

Add the following field in Table 692.

M/O	Attributes/ Array of attributes	Size(bits)	Value/Note	Conditions
O	paging carrier indication	1	Indicate whether the carrier is a paging carrier in ABS or not 0: no paging carrier 1: paging carrier is applied	May be present when multiple carrier operation is applied

GroupResolution

Decision of Group: Principle

Add the following field in Table 692.

M/O	Attributes/ Array of attributes	Size(bits)	Value/Note	Conditions
O	paging carrier indication	1	Indicate whether the carrier is a paging carrier in ABS or not 0: no paging carrier 1: paging carrier	May be present when multiple carrier operation is applied

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Chen, Yuqin

Membership Status: MemberDate: 2010-07-09Comment # 662Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 80	<u>Line</u> 21	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.2
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The following sentence appeared twice in table 680. "STID is presented in the AAI\_RNG-RSP message during uncontrolled HO, NW reentry or Zone switching in case that the AAI\_RNG-RSP is encrypted" The first place is in page 80, line 21, the description of the Temporary STID field; the second place is in the page 80, line 40, the description of the STID field. To avoid the redundancy, it is better to remove the STID explanation in the Temporary STID field.

Suggested Remedy

Accept the following modification in page 80, line 21:"It shall be included in the AAI\_RNG-RSP message in response to the AAI\_RNG-REQ message, which is not CMAC protected, when the AMS is not assigned its STID/DID yet. STID is presented in the AAI\_RNG-RSP message during uncontrolled HO, NW reentry or Zone switching in case that the AAI\_RNG-RSP is encrypted"

GroupResolutionDecision of Group: Principle

On Page 80, starthoig from Line 21 in the consitions column, delete the following sentence:  
STID is presented in the AAI\_RNG-RSP message during uncontrolled HO, NW reentry or Zone switching in case that the AAI\_RNG-RSP is encrypted

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 663

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 143      Line 22      Fig/Table#      Subclause 16.2.3.22

In the Conditions column, the "and" looks strange. There is no other conditions follows. So the "and" should be removed.

Suggested Remedy

Accept the following modifications in line 22, page 143, Table 708, "Shall be present if the Network Configuration indicates ABS is attached to the advanced network and unless Num\_AMSs is 0 and"

GroupResolution

Decision of Group: Principle

Modify as indicated:

line 22, page 143, Table 708, "Shall be present if the Network Configuration indicates ABS is attached to the advanced network and unless Num\_AMSs is 0 <del>and</del>"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 664

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 117      Line 47

Fig/Table#

Subclause 16.2.3.12

The title of table 693 misspell the word "encoding".

Suggested Remedy

Accept the following modifications in line 47, page 117, Table 693: "Table 693--Type values for delta SFH encoidngencoding in AAI\_NBR-ADV and AAI\_MC-ADV"

GroupResolution

Decision of Group: Agree

Accept the following modifications in line 47, page 117, Table 693: "Table 693--Type values for delta SFH encoidngencoding in AAI\_NBR-ADV and AAI\_MC-ADV"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chen, Yuqin

Membership Status: Member

Date: 2010-07-09

Comment # 665

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 382      Line 54      Fig/Table#      Subclause 16.2.16

The following sentence is hard to follow and needs to be modified. "The AMS shall send to selected ranging preamble code to the ABS in the selected ranging opportunity;"

Suggested Remedy

Accept the following modifications: "The AMS shall send the to selected ranging preamble code to the ABS in the selected ranging opportunity;"

GroupResolution

Decision of Group: Principle

Accept the following modifications: "The AMS shall send <ins>the</ins><del>to</del> selected ranging preamble code to the ABS in the selected ranging opportunity;"

Reason for Group's Decision/Resolution

Group's Notes

16.2.16 Periodic Ranging

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Huang

Membership Status:

Date: 2010-07-09

Comment # 10001

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 6      Line 1      Fig/Table#      Subclause 4

In D6, the resource mapping of HARQ Feedback A-MAP, Power Control A-MAP, and Non-user specific A-MAP in an A-MAP region has been described clearly. However, there is no clear description about the resource mapping of Assignment A-MAP in an A-MAP region. Thus the resource mapping of Assignment A-MAP in an A-MAP region needs to be clarified.

Suggested Remedy

to adopt the suggested remedy in C80216m-10/0739 or its latest version.

GroupResolution

Decision of Group: Agree

to adopt the suggested remedy in C80216m-10/0739

Reason for Group's Decision/Resolution

Group's Notes

Clause 8.4: WirelessMAN OFDMA PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10002

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 6      Line 34      Fig/Table#      Subclause 3.135

suggest to change "WirelessMAN OFDMA" to "WirelessMAN-OFDMA"

Suggested Remedy

Find "WirelessMAN OFDMA" in the draft and change to "WirelessMAN-OFDMA"

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Existing definition does not preclude either Lzone or Mzone in different carriers.

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10003

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 6      Line 56      Fig/Table#      Subclause 3.141

For WirelessMAN-OFDMA Advanced co-existing System, mixed-mode ABS can apply TDM mode or FDM mode for deploying LZone and MZone. In TDM mode, LZONE and MZONE are located in the same carrier. In FDM mode, LZone and MZone are located in separate carriers. Which mode will be deployed in the real network is depending on the operator's policy. So it is necessary to explicitly state that the FDM mode is also supported for WirelessMAN-OFDMA Advanced co-existing System.

Suggested Remedy

accept the following modification:

"3.141 Mixed Mode ABS: An ABS with an operating Lzone and operating Mzone. Lzone and Mzone can be TDM(i.e., located in the same carrier) or FDM(i.e., located in separate carriers)."

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Existing definition does not preclude either Lzone or Mzone in different carriers.

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10004

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 6      Line 59      Fig/Table#      Subclause 3.142

3.142 and 3.143 are duplicate with 3.135 and 3.136

Suggested Remedy

remove the text from line 59 to 65 on page 6

GroupResolution

Decision of Group: Agree

remove the text from line 59 to 65 on page 6

Reason for Group's Decision/Resolution

Group's Notes

Clause 0-4: Front Matter, Definitions, Abbreviations

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10005

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 20      Fig/Table#      Subclause 5.2

IP CS is designed to support IP over 802.16 air interface, but it is not designed to support all packet-based protocol over 802.16 air interface.

Suggested Remedy

Delete the sentence in line 20 on page 11, i.e.,

~~ABS and AMS shall use IP CS for all packet-based protocols.~~

GroupResolution

Decision of Group: Agree

Resolved by comment #599.

Resolution:

same resolution as comment #8

delete line 20

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10006

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 11      Line 50      Fig/Table# Figur      Subclause 5.2.1

In Figure 8, the correct term for "Packet PDU" should be "CS SDU", i.e., convergence sublayer SDU, based on the 802.16 protocol architecture.

Suggested Remedy

make the following changes:

1. in Figure 8 on page 11, change ""Packet PDU" to "CS SDU"
2. change the sentence in line 30 as follows:

Once classified and associated with a specific MAC connection, [the Convergence Sublayer SDUs \(CS SDUs\)](#), i.e., higher layer PDUs, shall be encapsulated in the MAC SDU format as illustrated in Figure 8.

GroupResolution

Decision of Group: Agree

Resolved by comment #601.

Resolution:

make the following changes:

1. in Figure 8 on page 11, change ""Packet PDU" to "CS SDU"
2. change the sentence in line 30 as follows:

Once classified and associated with a specific MAC connection, [the Convergence Sublayer SDUs \(CS SDUs\)](#), i.e., higher layer PDUs, shall be encapsulated in the MAC SDU format as illustrated in Figure 8.

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10007

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 14      Line 33      Fig/Table#      Subclause 5.2.5.2

what parameters do "the parameters" mean in the sentence in line 33 on page 14?

Suggested Remedy

either clarify "the parameters" or delete the sentence.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The parameters should be specified but no text available to consider.

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10008

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 14      Line 52      Fig/Table# Figur      Subclause 5.2.6

In Figure 18a and Figure 18b, the correct term for "Packet" should be "CS SDU", i.e., convergence sublayer SDU, based on the 802.16 protocol architecture.

Suggested Remedy

in Figure 18a and Figure 18b on page 14, change ""Packet" to "CS SDU"

GroupResolution

Decision of Group: Agree

Resolved by comment #602.

Resolution:

in Figure 18a and Figure 18b on page 14, change ""Packet" to "CS SDU"

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10009

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 15      Line 8      Fig/Table#      Subclause 5.2.6

Don't agree with the sentence in line 8 on page 15. The protocol ID is introduced for the multiprotocol flow support. As shown in Figure 18a and Figure 18b, the MAC SDUs are formed with the protocol ID added. Where the MAC SDU is formed, it is at the CS that supports multiprotocol flow. Note that CS is a sublayer of 802.16 air interface.

The protocol ID is definitely needed for the support of multiprotocol flow. How the protocol ID is identified for a packet is definitely in the scope of 16m as long as multiprotocol flow is supported. Actually, the sentence in line 5 on page 15 already says it is identified by the classification.

Suggested Remedy

Delete the paragraph in line 8 on page 15, i.e.,

~~The method by which the protocol of a packet introduced to the CS layer is identified is beyond the scope of this standard.~~

GroupResolution

Decision of Group: Agree

Resolved by comment #603.

Resolution:

Delete the paragraph in line 8 on page 15, i.e.,

~~The method by which the protocol of a packet introduced to the CS layer is identified is beyond the scope of this standard.~~

Reason for Group's Decision/Resolution

Group's Notes

Clause 5-6: Service Specific CS, MAC Common Part Sublayer

Editor's Notes

Editor's Actions    a) done

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10010Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 35      Line 8      Fig/Table# Tabl      Subclause 10.1

not sure how the editing instruction mean by "change the table as indicated"? Are we talking about the entire Table 554 is now as shown in page 35 in 16m/D6? or are we talking about adding those new entries in Table 554, then how about those entries with the same name as in the 802.16-2009 Table 554, e.g., Ranging Request Retries?

For simplicity, we would like to recommend creating a new table for the advance air-interface to define the parameters and constants.

Suggested Remedy

replace line 8 to line 13 by the following:

~~[Change the table as indicated]~~ *Insert the follwoing at the end of 10.1:]*

[Table 554a shows the parameters and constants that are used for the Advanced Air Interface.](#)

### Table 554a—Parameters and constants [for Advanced Air Interface](#)

GroupResolutionDecision of Group: Principle

Resolved by comment #604.

Resolution:

same resolution as 199

creating a new AAI specific Parameters and constancs table in clause 16. Move ABS and AMS entries from table 554 to this new table. leave BS parameters in table 554

Reason for Group's Decision/ResolutionGroup's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yeongmoon Son

Membership Status:

Date: 2010-07-09

Comment # 10011

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 38      Line 23      Fig/Table#      Subclause 10.1

SCEH does not exist any more. So, 'SCEH' should be removed

Suggested Remedy

AMS      T43      Time the AMS waits for AAI\_SLP-RSP or SCH/SCEH

GroupResolution      Decision of Group: Principle

same resolution as #76  
Time the AMS waits for AAI\_SLP-RSP or SCH<Begin Delete>/SCEH<End Delete>

Reason for Group's Decision/Resolution

Group's Notes  
Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes      Editor's Actions      a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10012

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 39      Line 7      Fig/Table#      Subclause 10.2

Some PKMv3 parameters' configuration settings are missing in the table 554 and some mismatch with their descriptions in other parts. Hence I suggest modifying some missed PKMv3 configuration parameter setting and fixing those mismatches.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0889 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C802.16m-10/0889r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    a) done

Needs cross-references (done: RM)

RM: Note that the AAI parameters and constants were moved to their own subclause, now 16.11, and the rest of the work in this contribution was done around that new subclause.

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10013

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 40      Line 43      Fig/Table# Tabl      Subclause 10.1

If Resource Retain Time used in handover is defined in section 10 (Global Values), it can be omitted both in the the AAI\_REG-REQ/RSP messages and the AAI\_HO-CMD message.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0850 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0850r4

Reason for Group's Decision/Resolution

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Namgi Kim

Membership Status:

Date: 2010-07-09

Comment # 10014

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 43      Line 30      Fig/Table#      Subclause 11.6.2.3.3

This is comment for operating Transmission Time Interval (TTI) in IEEE 802.16m. In this comment, we propose for dynamically assigning TTI by the subframe without heavy overhead.

Suggested Remedy

Please review the contribution C802.16m-08/755r1.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This comment is out of context and work group does not understand how process it.

Group's Notes

Clause 10 - 11: WirelessMAN OFDMA Parameters and Constants, TLV Encodings

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10015

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 43      Line 421      Fig/Table#      Subclause 16.2.24

About update of S-SFH IEs, there are some places to need to be cleaned up or explained further all the same. For example, Page 421 Line 60 "*If the AMS determines that the "S-SFH change count" field in P-SFH has not changed, then the AMS determines that it has up to date information.*" This sentence is not accurate enough during S-SFH update, because only after finishing S-SFH update procedure, an AMS shall own up to date information.

Suggested Remedy

Page 421 Line 60 :

If the AMS determines that the "S-SFH change count" field in P-SFH has not changed at the superframes where the change of S-SFH SP IE(s) probably happens, then the AMS determines that it has up to date information.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions      b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10016

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 27      Fig/Table#      Subclause 16.2.1.2.3

The definition of DID seems unclear, e.g. how to get DID for AMS?

**Suggested Remedy**

*Modify the sentence (from line 27 on page 48) of P802.16m/D6 as follows.*

The network shall assign a 12bit DID to each AMS during Idle Mode initiation. The DID shall uniquely identify the Idle Mode AMS within the set of paging group ID, paging cycle and paging offset.

**GroupResolution**

**Decision of Group: Agree**

*Resolved by comment #409.*

*Resolution:*

*Modify the sentence (from line 27 on page 48) of P802.16m/D6 as follows.*

The network shall assign a 12bit DID to each AMS during Idle Mode initiation. The DID shall uniquely identify the Idle Mode AMS within the set of paging group ID, paging cycle and paging offset.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.18 Idle mode

**Editor's Notes**

**Editor's Actions**    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10017

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 48      Line 30      Fig/Table#      Subclause 16.2.1.2.4

In Idle mode, DID instead of CRID is used as the AMS identifier. So CRID shall also be assigned to AMS during idle mode re-entry.

Suggested Remedy

Adopt the following modification:

"The network shall assign a 72bit CRID to each AMS during network entry, idle mode re-entry or zone switch to Mzone."

GroupResolution

Decision of Group: Principle

same resolution as 223:

P48, L32. replace the first sentence with:

"The network shall assign a 72bit CRID to each AMS during network entry. The network may reassign a CRID to each AMS during network reentry."

Reason for Group's Decision/Resolution

Group's Notes

16.2.1 Addressing

Editor's Notes

Same as 223

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10018

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 52      Line 36      Fig/Table#      Subclause 16.2.2.1.3.3

The current draft says that when AMS initiates aGP adaptation, ABS may adjust the start time of adaptation of new QoS parameters. But, Service Specific Scheduling Control Header which is used as a response to adaptation request from AMS does not contain any information on the start time.

Suggested Remedy

Adopt texts in C802.16m-10/0788

GroupResolution

Decision of Group: Principle

same resolution as #10019:

Adopt the proposed text in contribution C802.16m-10/0851r7

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions    b) none needed

Same as 10019

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10019

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 53      Line 4      Fig/Table# Tabl      Subclause 16.2.2.1.3.3

Even in BS-initiated adaptation of aGP service, SSSCH exchanges should be done. If BS fails to decode UL data due to transmission error, BS may switch the QoS parameter set wrongly. In this case, UL resources need to be assigned using SSSCH for MS to send SSSCH in response of BS-initiated SSSCH.

In addition, SSSCH format should be refined. BR Type and BR Size should be inside of 'if' statement.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0851 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0851r7

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.1 MAC header formats

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10020

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 54      Line 9

Fig/Table#

Subclause 16.2.2.1.3.4

Editorial correction

Suggested Remedy

In case that a SCH is used for the response to the SCH, an AMS and an ABS shall set the Response indication in the SCH to 1 (i.e. indicating a response) and the same sub-type upon reception of SCH with Response indication = 0 (i.e. indicating a request). If both an ABS initiated request and an AMS-initiated request occur concurrently (i.e. If the AMS or the ABS receives SCH with Response Indication = 0 while waiting for the SCH with Response Indication = 1 ~~since~~ after transmitting SCH with Response Indication = 0), the ABS-initiated request takes precedence over the AMS-initiated request.

GroupResolution

Decision of Group: Agree

In case that a SCH is used for the response to the SCH, an AMS and an ABS shall set the Response indication in the SCH to 1 (i.e. indicating a response) and the same sub-type upon reception of SCH with Response indication = 0 (i.e. indicating a request). If both an ABS initiated request and an AMS-initiated request occur concurrently (i.e. If the AMS or the ABS receives SCH with Response Indication = 0 while waiting for the SCH with Response Indication = 1 ~~since~~ after transmitting SCH with Response Indication = 0), the ABS-initiated request takes precedence over the AMS-initiated request.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10021

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 57      Line 16      Fig/Table#      Subclause 16.2.2.1.3.6

Editorial correction of header name

Suggested Remedy

The ~~AMS~~-Uplink Power Status Report Header should be used to convey AMS ULPC status from AMS to ABS. The control of the reporting is described in section 16.3.9.4.7.

GroupResolution

Decision of Group: Agree

The <del>AMS</del>-Uplink Power Status Report Header should be used to convey AMS ULPC status from AMS to ABS. The control of the reporting is described in section 16.3.9.4.7.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10022

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Editorial

Part of Dis

Satisfied

Page 57

Line 42

Fig/Table#

Subclause 16.2.\*

"Change Configuration Change" in AAI\_SCD message should be changed to "Configuration Change Count"

Suggested Remedy

Find "Change Configuration Change" in the draft and replace with "Configuration Change Count"

GroupResolution

Decision of Group: Agree

Find "Change Configuration Change" in the draft and replace with "Configuration Change Count"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Anil Agiwal

Membership Status:

Date: 2010-07-09

Comment # 10023

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 61      Line 24      Fig/Table#      Subclause 16.2.2.2.1

What is the meaning of 'Which require a Sequence number' is not clear in FEH description.

Suggested Remedy

Adopt the proposed text in latest version of contribution C80216m-10\_0783

GroupResolution

Decision of Group: Principle

Modify the section 16.2.2.2.1, page 61, lines 24-30 as follows

16.2.2.2.1 MAC SDU fragmentation extended header (FEH)

The FEH shall be included in the MAC PDU with SPMH/AGMH if the transport connection payload in the MAC PDU contains a fragment of MAC SDU. The FEH shall also be included in the MAC PDU with AGMH if the transport connection payload in the MAC PDU contains an unfragmented MAC SDU which requires a sequence number including <insert>either ARQ or MAC SDU in-order delivery for the transport connection</insert>. The FEH format is defined in Table 665.

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Namgi Kim

Membership Status:

Date: 2010-07-09

Comment # 10024

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 62      Line 18      Fig/Table#      Subclause 11.7.2.3.3

In the current SDD, the 'n' value is statically fixed. that limits the flexibility of system operation.

Suggested Remedy

Adopt the proposed text in C802.16m-008/xxx or latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This is an SDD comment. This comment was rejected as out of scope of the Sponsor Ballot and was dealt with during SDD comment resolution at Session #68.

Group's Notes

?????

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Namgi Kim

Membership Status:

Date: 2010-07-09

Comment # 10025

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 62      Line 18      Fig/Table#      Subclause 11.7.2.3.3

In the SDD, the 'n' value is statically fixed. That limits the flexibility of system operation.

Suggested Remedy

Adopt the proposed text in C802.16m-08/899 or latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This is an SDD comment. This comment was rejected as out of scope of the Sponsor Ballot and was dealt with during SDD comment resolution at Session #68.

Group's Notes

?????

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10026

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 62      Line 35      Fig/Table# 668      Subclause 16.2.2.2.2

PEH can not be present when SPMH is used, which is the consensus made in the last meeting. But, 'SPMH' is still present in Table 668.

Suggested Remedy

Delete all the occurrence of 'SPMH' from Table 668

GroupResolution

Decision of Group: Agree

Delete all the occurrence of 'SPMH' from Table 668 (two instances).

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions    a) done

Comment by:

Anil Agiwal

Membership Status:Date: 2010-07-09Comment # 10027Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 64      Line 37      Fig/Table#      Subclause 16.2.2.2.3

In the IEEE P802.16m/D6 specification encryption status of payload in a control connection MAC PDU is determined based on the EC bit in MCEH whereas the FlowID in MAC header (AGMH or CMH) is used to determine the encryption status of payload in a transport connection MAC PDU. This mechanism has following issues:

- In control connection MAC PDU because of addition of Type field in MCEH, MCEH can be present anywhere in the extended header group following MAC header, so receiver has to decode MAC header and then the extended headers before it can decrypt the payload. There are several EHs, which are variable in nature. One or more EHs can be present in a MAC PDU. This delays the processing of MAC PDU payload and hence impacts performance
- The EC bit in the MCEH mandates MCEH to be present in all MAC PDUs of control connection. In case of unfragmented management message which do not require polling, we do not need other fields in MCEH. So EC bit in MCEH imposes an overhead of 2 bytes (1 byte EH Length and 1 byte MCEH) in a MAC PDU of control connection.

Suggested Remedy

Adopt the proposed text in latest version of contribution C80216m-10\_0781

GroupResolutionDecision of Group: Principle

same resolution as 495:

Adopt contribution C80216m-10\_0766r1

Reason for Group's Decision/ResolutionGroup's Notes

16.2.2.2 Extended header formats

Editor's Notes

Same as 495

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10028

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 67

Line 1

Fig/Table# 673

Subclause 16.2.2.2.6

Incorrect location

Suggested Remedy

Move Table 673 to the line 54 on page 66 from line 1 on page 67

GroupResolution

Decision of Group: Agree

Move Table 673 to the line 54 on page 66 from line 1 on page 67

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10029

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 68

Line 1

Fig/Table# 675

Subclause 16.2.2.2.8

Incorrect location

Suggested Remedy

Move Table 675 to the line 56 on page 67 from line 1 on page 68

GroupResolution

Decision of Group: Agree

Move Table 675 to the line 56 on page 67 from line 1 on page 68

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10030

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 69      Line 5      Fig/Table# 676      Subclause 16.2.2.2.9

The SPMH is defined to support applications which uses small data packets and non ARQ connection, while RFPEH is defined to support ARQ retransmission. Therefore, SPMH and RFPEH can not exist in the same MAC PDU.

Suggested Remedy

Delete all the occurrence of 'SPMH' from Table 676.

GroupResolution

Decision of Group: Agree

Delete all the occurrence of 'SPMH' from Table 676 (two instances)

Reason for Group's Decision/Resolution

Group's Notes

16.2.2.2 Extended header formats

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10031

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 70

Line 5

Fig/Table#

Subclause 16.2.3

wrong reference table

Suggested Remedy

Table 67~~6~~8 lists the MAC control messages that shall be defined in the ASN.1 format, as shown in Annex P. The indication to the receiver whether the PDU is encrypted is indicated by the EC=1 in MCEH. Whether the encryption is applied on a MAC control message or not shall be determined by the message type and MAC procedure context, which is defined in Table 67~~6~~8. A message included in a PDU whose EC bit value does not match the combined message type and corresponding context defined in the Table 67~~6~~8 shall be discarded. Encrypted and non encrypted MAC control messages shall not be sent in the same PDU.

GroupResolution

Decision of Group: Agree

Table 67~~6~~8 lists the MAC control messages that shall be defined in the ASN.1 format, as shown in Annex P. The indication to the receiver whether the PDU is encrypted is indicated by the EC=1 in MCEH. Whether the encryption is applied on a MAC control message or not shall be determined by the message type and MAC procedure context, which is defined in Table 67~~6~~8. A message included in a PDU whose EC bit value does not match the combined message type and corresponding context defined in the Table 67~~6~~8 shall be discarded. Encrypted and non encrypted MAC control messages shall not be sent in the same PDU.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10032

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 70      Line 17      Fig/Table# 678      Subclause 16.2.3

the table678 lists up all MAC control messages but does not have their message type. ( even if I guess column 'No.' is for message type, it coinsides with the Annex P. that is . in annex P maps the message type 0 onto the first message and 1 onto the second message and so on.. but 'No.' in the table starts from 1.  
so I suggest replacing the name 'No.' with 'message type' and making the number in the table starts from 0.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0892 or its later version.

GroupResolution

Decision of Group: Disagree

Message types are no longer needed in ASN.1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10033

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 70      Line 42      Fig/Table# 678      Subclause 16.2.3

According to Table 678, AAI\_RNG-RSP is encrypted only when it is transmitted in reponse to the AAI\_RNG-REQ message. But, AAI\_RNG-RSP message may be transmitted in unsolicited manner for coverage loss detection. In this case, the AAI\_RNG-RSP message shall be encrypted because a primary SA is already established between AMS and ABS.

Suggested Remedy

[Modify the 7th row of Table 678 as follows]

6	Network Entry / Re-entry	AAI_RNG-RSP	Ranging purpose	Null: during ranging procedure when there is no primary SA already established or pre-updated	Initial Ranging or Unicast
				Encrypted/ICV: all other cases <del>in</del> response to the AAI_RNG-REQ message	

GroupResolution

Decision of Group: Agree

[Modify the 7th row of Table 678 as follows]

6	Network Entry / Re-entry	AAI_RNG-RSP	Ranging purpose	Null: during ranging procedure when there is no primary SA already established or pre-updated	Initial Ranging or Unicast
				Encrypted/ICV: all other cases <del>in</del> response to the AAI_RNG-REQ message</del>	

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Jeongki Kim

Membership Status:Date: 2010-07-09Comment # 10034Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 75	<u>Line</u>	<u>Fig/Table#</u> 679	<u>Subclause</u> 16.2.3.1
----------------	-----------------------	---------------------------------------------	-------------------------------------------	----------------	-------------	-----------------------	---------------------------

An AAI\_SCD (System Configuration descriptor) message carries E-MBS configuration parameters (e.g., Zone allocation Bit-MAP, ZF, MSI length, E-MBS AAI frame offset) which a information to determine E-MBS resource region. The AAI\_SCD message will be transmitted with very long period compared to MSI length or the period of AAI-E-MBS-CFG.

An Idle mode AMS which subscribes an E-MBS awakes at the superframe which E-MBS MAP is transmitted, receives the E-MBS MAP, checks whether E-MBS bursts for the AMS are transmitted in a MSI, and receives the E-MBS bursts based on the E-MBS connections allocated to the AMS. However, if the Idle mode AMS does not receives the SCD message including the changed E-MBS configuration parameters, the Idle mode AMS cannot decode the E-MBS MAP and the E-MBS bursts until the AMS receives the changed SCD message.

Therefore, the method of update SCD message for E-MBS AMS needs to be defined

Suggested Remedy

Adopt the Text proposals in C802.16m-10/0793 or the latest revision of the contribution.

GroupResolutionDecision of Group: Disagree

E-MBS MAP is a zone-specific message and cannot carry cell specific parameters.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10035

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 75      Line 8      Fig/Table#      Subclause 16.2.3.1

AAI\_RNG message cleanup is required.

For example,

1. According to 16m/D6[1], SMS may be transmitted by AAI\_RNG-REQ and AAI\_RNG-RSP messages in idle mode. But this SMS attribute is not contained in those messages' field description.

2. CMAC tuple should be the last attribute in the control messages to know the position of the CMAC value.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0885 or its later version.

GroupResolution

Decision of Group: Principle

Resolved by comment #504.

Resolution:

Adopt the text proposed in contribution C80216m-10\_0706r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

same as the resolution of comment #504

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Giwon Park

Membership Status:

Date: 2010-07-09

Comment # 10036

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 75      Line 8      Fig/Table# 679      Subclause 16.2.3.1

In P802.16h/D6 there is no clear criteria about the fast/medium/slow in mobility information of AAI\_RNG-REQ/AAI\_DREG-REQ message. We propose the criteria of fast/medium/slow in mobility information. For example, Preferred BS changing can be used to decide the mobility speed of AMS. That is, AMS decides its mobility speed via the number of the times which it changed preferred BS. Moreover, when the AMS calculates the number of preferred BS changing, it only considers the macro BS changing.

Suggested Remedy

Adopt the text proposal in C80216m-10\_0796 or the latest revision of the contribution.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

How to determine the mobility is belonging to implementation.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10037

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 75      Line 10      Fig/Table# 679      Subclause 16.2.3.1

AAI\_RNG-REQ message needs cleanup.

1) Ranging purpose indication should be re-organized, without increasing its length, to indicate the exact ranging purpose. For example, HO reentry and idle mode reentry should better be indicated separately. And “location update due to power down” should better be moved to the “ranging purpose indication” instead of using a separate bit in AAI\_RNG-REQ.

2) The conditions of transmitting AMSID\* and MAC version shall be different. MAC version shall only be transmitted during initial network entry, regardless of legacy ASN mode or advanced ASN mode. Besides initial network entry into advanced network, AMSID\* shall also be transmitted when AMS handover from a legacy BS to ABS or zone switch to MZone from LZone.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0710

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C80216m-10\_0710r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

An Nguyen

Membership Status:Date: 2010-07-09Comment # 10038Document under Review: P802.16m/D6Ballot ID: sb\_16mCommentType TechnicalPart of Dis Satisfied Page 76LineFig/Table# 679Subclause

The “ranging purpose indication” in 802.16m only has one code to indicate “emergency call”, initially designed for the citizen-to-authority type of emergency service (e.g., E911 in the U.S.). To support authority-to-authority type of NS/EP service with multiple user priority levels (e.g., ETS as specified in the WiMAX Forum Release 1.6 documents and ITU), the original single code is not sufficient to distinguish the authority-to-authority call from the citizen-to-authority call.

Suggested Remedy

Original text:

Under Value/Note column

0b0010 = ranging request for emergency call setup. When this value is set, it indicates AMS action of Emergency Call process.

0b1000 – 0b1111 = reserved.

Proposed text:

Under Value/Note column

0b0010 = ranging request for emergency (e.g. E911) call setup. When this value is set, it indicates AMS action of Emergency Call process.

0b1000 = ranging request for NS/EP call setup. When this value is set, it indicates AMS action of NS/EP Call process.

0b1001 – 0b1111 = reserved.

GroupResolutionDecision of Group: Agree

Original text:

Under Value/Note column

0b0010 = ranging request for emergency call setup. When this value is set, it indicates AMS action of Emergency Call process.

0b1000 – 0b1111 = reserved.

Proposed text:

Under Value/Note column

0b0010 = ranging request for emergency (e.g. E911) call setup. When this value is set, it indicates AMS action of Emergency Call process.

0b1000 = ranging request for NS/EP call setup. When this value is set, it indicates AMS action of NS/EP Call process.

0b1001 – 0b1111 = reserved.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes**

**Editor's Actions** a) done



Comment by: YoungKyo BaekMembership Status:Date: 2010-07-09Comment # 10039Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 79      Line 36      Fig/Table#      Subclause 16.2.3.2

cleanup;

AAI\_RNG-RSP is not allocated using CDMA allocation AMAP IE, but the DL bandwidth to send that message is allocated using CDMA allocation AMAP IE.

Suggested Remedy

HARQ operation is applied to the DL burst including the AAI\_RNG-RSP message. In contention-based random access ranging procedure, DL bandwidth to send the AAI\_RNG-RSP message is allocated using CDMA Allocation A-MAP IE only when the ABS transmits the AAI\_RNG-RSP message to an AMS that has ~~no~~ neither STID or TSTID assigned.

GroupResolutionDecision of Group: Agree

HARQ operation is applied to the DL burst including the AAI\_RNG-RSP message. In contention-based random access ranging procedure, <u>DL bandwidth to send</u> the AAI\_RNG-RSP message is allocated using CDMA Allocation A-MAP IE only when the ABS transmits the AAI\_RNG-RSP message to an AMS that has ~~no~~ <u>neither</u> STID or TSTID assigned.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.1, 16.2: AAI MAC

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10040

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 79      Line 41      Fig/Table#      Subclause 16.2.3.2

According to 16m/D6, CRID is used for MS identification when the AMS performs Network reentry from the coverage loss/DCR mode. And this CRID contains information which network entity manages and AMS's identifier. Due to some reasons the network entity may be changed so that the CRID has to be refreshed.  
We propose a mechanism to refresh the CRID.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0894 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0894r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10041

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 79      Line 59      Fig/Table# 480      Subclause 16.2.3.2

In WirelessMAN OFDMA reference system for HO optimization target ABS may send SBC/REG parameters encodings by RNG-RSP message. and so additonal SBC/REG transaction can be omitted at the target BS.  
Similar AMS capability adjustment by AAI\_RNG-RSP message is needed in the wirelessMAN OFDMA advanced system.  
Hence, I suggest that the AAI\_RNG-RSP message contain SBC/REG parameters to adjust the negotiated AMS capability.

Suggested Remedy

Add attributes about 'AMS capability parameters' to the AAI\_RNG-RSP.

GroupResolution

Decision of Group: Disagree

No specific remedy is provided.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Feng Xie

Membership Status:Date: 2010-07-09Comment # 10042Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 79      Line 59      Fig/Table# 680      Subclause 16.2.3.2

Random access procedure is applied during initial network entry, idle mode re-entry, location update, and DCR mode re-entry. AMS sends ranging code to ABS to initiate the procedure. During the random access procedure, Random Access Identifier (RAID), composed of ranging code attributes, is used as part of the CRC mask for CDMA Allocation A-MAP IE. There's a certain probability that more than one AMS transmits the same ranging code in the exact same ranging opportunity. That is called RAID confusion because more than one AMS may successfully decode the CDMA Allocation A-MAP IE for sending/receiving UL/DL data (i.e. AAI\_RNG-REQ or AAI\_RNG-RSP). So how AMS confirms that the AAI\_RNG-RSP is a response to AAI\_RNG-REQ message which the AMS sent needs clarification.

1) During initial network entry, AMSID\* is transmitted by AAI\_RNG-RSP message as a response to AAI\_RNG-REQ message. This has been presented in current D6.

2) During idle mode re-entry or location update, PGID, Paging Cycle, paging offset, and DID shall be carried in AAI\_RNG-RSP as a response to AAI\_RNG-REQ message. This is absent in current D6. (Note that these parameters are not the same as those if PGID/Paging Cycle/paging offset/DID are updated by the Paging controller.)

3) During re-entry from DCR mode, CRID shall be carried in AAI\_RNG-RSP as a response to AAI\_RNG-REQ message. This is also absent in current D6. (Note that the parameter is different from that newly assigned by the network entity).

Suggested Remedy

Adopt the proposed text in C80216m-10\_0711

GroupResolutionDecision of Group: Principle

Adopt the proposed text in C80216m-10\_0711r3

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

An Nguyen

Membership Status:

Date: 2010-07-09

Comment # 10043

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 81

Line

Fig/Table# 680

Subclause

The “ranging purpose indication” in 802.16m only has one code to indicate “emergency call”, initially designed for the citizen-to-authority type of emergency service (e.g., E911 in the U.S.). To support authority-to-authority type of NS/EP service with multiple user priority levels (e.g., ETS as specified in the WiMAX Forum Release 1.6 documents and ITU), the original single code is not sufficient to distinguish the authority-to-authority call from the citizen-to-authority call.

Suggested Remedy

Original text: None

Proposed text: Add the following entry to Table 680.

M/O: O

Attributes / Array of attributes: NS/EP service FID

Size (bits): 4

Value / Note: A FID number assigned within the transport FID numbers 0010-1111 according to Table 652

Conditions: It shall be included when an ABS sends an AAI\_RNG-RSP in response to an AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b1000 when an AMS performs initial ranging.

GroupResolution

Decision of Group: Agree

Original text: None

Proposed text: Add the following entry to Table 680.

M/O: O

Attributes / Array of attributes: NS/EP service FID

Size (bits): 4

Value / Note: A FID number assigned within the transport FID numbers 0010-1111 according to Table 652

Conditions: It shall be included when an ABS sends an AAI\_RNG-RSP in response to an AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b1000 when an AMS performs initial ranging.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang Liu

Membership Status:

Date: 2010-07-09

Comment # 10044

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 85      Line      Fig/Table# 681      Subclause 16.2.3.3

Since a unicast AAI\_RNG-ACK can be identified by DL basic assignment A MAP IE, the unicast indication and related text should be removed from table 681.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul//upload/TGm\\_db/C80216m-10\\_0881.doc](http://dot16.org/ul//upload/TGm_db/C80216m-10_0881.doc) or later revisions

GroupResolution

Decision of Group: Principle

Resolved by comment #317.

Resolution:

Adopt the proposed text change in C80216m-10\_0881r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages  
Same as the resolution of #317

Editor's Notes

Editor's Actions    b) none needed

Same as 334

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Shao-Cheng Wang

Membership Status:

Date: 2010-07-09

Comment # 10045

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 89      Line      Fig/Table#      Subclause 16.2.3

This comment is intended to clean up AAI\_SBC-REQ/RSP attributes.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10\_750 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10\_750r1  
(Same as resolution of comment #50) (Duplicate of comment #50)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Resolved by comment 50



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10046

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 89      Line 1      Fig/Table#      Subclause 16.2.3.4

AMS basic capability negotiation is done by SBC-REQ/RSP messages(Table 682 and 684), in which "Capability\_Index" is applied. Besides, the explicit parameters negotiated between AMS and ABS is also defined in Table 683. But how to map the parameters to the Capability\_Index is not defined yet.

Suggested Remedy

Suggest to fit this hole.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

No specific text provided.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jinsoo Choi

Membership Status:

Date: 2010-07-09

Comment # 10047

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Editorial

Part of Dis  Satisfied

Page 94

Line 45

Fig/Table#

Subclause

Several 'IDcell' and 'IDCell' in P802.16m/D6 should be changed as '*IDcell*'.

Suggested Remedy

Change all 'IDcell' as '*IDcell*' in

- line 45 in page 94
- line 13 and 20 in page 115
- line 30 and 38 in page 799
- line 64 in page 843
- line 60 in page 844

GroupResolution

Decision of Group: Agree

Change all 'IDcell' as '*IDcell*' in

- line 45 in page 94
- line 13 and 20 in page 115
- line 30 and 38 in page 799
- line 64 in page 843
- line 60 in page 844

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Also marked "done" by Hyunjeong

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Shao-Cheng Wang

Membership Status:

Date: 2010-07-09

Comment # 10048

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 96      Line      Fig/Table#      Subclause 16.2.3.7

There are a few parameters in current D6 NE procedures that lack technical justifications to be included in capability negotiation.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10\_701 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)  
Duplicate of COmment #49

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10049

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical Part of Dis  Satisfied  Page 96 Line 1 Fig/Table# 687 Subclause 16.2.3.7

During the network entry procedure AMS's capabilities are negotiated through SBC and REG messages. Since DCR mode is optional feature and it's related to network operation, we suggest adding this item to the REG capability negotiation parameter list.

Suggested Remedy

[ add the following attribute to the table 687]

Table 687 - AAI\_REG-REQ message Field Descriptions

M/O	attributes/array of attributes	Size (bits)	Value / Note	conditions
.....	.....	.....	.....	.....
<u>M</u>	<u>DCR mode support</u>	<u>1</u>	<u>0b0: no support</u> <u>0b1: support</u>	
.....	.....	.....	.....	.....

[ add the following attribute to the table 688]

Table 688 - AAI\_REG-RSP message Field Descriptions

M/O	attributes/array of attributes	Size (bits)	Value / Note	conditions
.....	.....	.....	.....	.....
<u>M</u>	<u>DCR mode support</u>	<u>1</u>	<u>0b0: no support</u> <u>0b1: support</u>	
.....	.....	.....	.....	.....

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

DCR modes should be mandatory in 16m

Vote:

In favor: 20

Opposed: 20

Abstain:

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # **10050**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis       Satisfied       Page 96      Line 1      Fig/Table#      Subclause 16.2.3

Table 687 and Table 688 describe parameter s to be negotiated by AAI\_REG-REQ and AAI\_REG-RSP, respectively. But since some parameters are missing and some boxes are still blank, we suggest clean-up those messages as the proposed texts.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0887 or its later version.

GroupResolution

Decision of Group: **Principle**

Adopt the text proposed in contribution C80216m-10\_0705r4  
(Same as the resolution to comment #503)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions

b) none needed

Same as 503

Joey labeled this one as "Done, Joey".

Comment by:

Chiwoo Lim

Membership Status:Date: 2010-07-09Comment # 10051Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 98      Line 26      Fig/Table# 687      Subclause 16.2.3.7

There is no negotiation field for sounding antenna switching.

However, ABS can command the AMS to switch the physical transmit antenna(s) for sounding transmission for antenna switching capable AMS and multi-antenna AMS in section 16.3.9.2.3.2.

Moreover, in case of AMS with 2Rx/1Tx, ABS (with 4Tx) can know only 4\*1 channels without sounding antenna switching. Actually, there are 4\*2 channels (ABS: 4Tx, AMS: 2Rx).

It causes the performance loss due to channel mismatch. With sounding antenna switching, ABS can know 4\*2 channels and there is no performance loss.

Therefore, we want to add the negotiation fields for sounding antenna switching in AAI\_REG\_REQ message. In addition, we also want to clarify some texts related to sounding antenna switching.

Suggested Remedy

Adopt the contribution C80216m-10/0802 or its latest version.

GroupResolutionDecision of Group: Principle

Adopt the contribution C80216m-10/0802r2

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

done 10/802r2 hyunjeong except remedy 3 (16.3) and remedy 4 (16.3)

Comment by: Shuangfeng HanMembership Status:Date: 2010-07-09Comment # 10052Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 98      Line 27      Fig/Table# 687/      Subclause 16.2.3.7/8

To support multiBS sounding calibration, we need to negotiate this capability between ABS and AMS.

Suggested Remedy

From Line 27 on page 98, add one row In Table 687 before E-MBS capabilities.

		Capabilities for	Multi_BS sounding		0: AMS is not multi_BS sounding calibration
O		interference mitigation	calibration capability	1	capable
		support			1: AMS is multi_BS sounding calibration capable

From Line 16 on Page 104, add one row In Table 688 before E-MBS capabilities.

		A.4.5) Capabilities for	Multi_BS sounding		0: ABS is not multi_BS sounding calibration
O		interference mitigation	calibration capability	1	capable
		support			1: ABS is multi_BS sounding calibration capable

GroupResolutionDecision of Group: Agree

From Line 27 on page 98, add one row In Table 687 before E-MBS capabilities.

		Capabilities for	Multi_BS sounding		0: AMS is not multi_BS sounding calibration
O		interference mitigation	calibration capability	1	capable
		support			1: AMS is multi_BS sounding calibration capable

From Line 16 on Page 104, add one row In Table 688 before E-MBS capabilities.

		A.4.5) Capabilities for	Multi_BS sounding		0: ABS is not multi_BS sounding calibration
O		interference mitigation	calibration capability	1	capable
		support			1: ABS is multi_BS sounding calibration capable

Reason for Group's Decision/ResolutionGroup's Notes

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # **10053**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 100      Line 22      Fig/Table# 687      Subclause 16.2.3.7

AAI\_REG-REQ message needs clean-up. AMS's capability of supporting omission of CDMA HO ranging and seamless HO should be notified to the ABS by AAI\_REG-REQ message.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0713

GroupResolution

Decision of Group: **Disagree**

Reason for Group's Decision/Resolution

Seamless HO is the baseline optimized HO in 16m.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10054

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 106      Line 46      Fig/Table# Tab1      Subclause 16.2.3.9

The definition of 'Physical carrier index at the serving ABS' seems incorrect. Although the name says 'at the serving ABS', description does not show any text related to the serving ABS.

Suggested Remedy

Modify the description of 'Physical carrier index at the serving ABS' in line 46, pp. 106 as follows:

~~Recommended carrier index of the AMS to be used for network reentry to the target ABS~~ Carrier index of the AMS to be used for data communication with the serving ABS during network reentry in EBB mode

Modify the description of 'Physical carrier index at the serving ABS' in line 45, pp. 112 as follows:

~~Recommended carrier index of the AMS to be used for network reentry to the target ABS~~ Carrier index of the AMS to be used for data communication with the serving ABS during network reentry in EBB mode

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Physical carrier index at the serving ABS' in AAI-HO -IND message and HO-CM-CMD message is used to indicate which radio carrier the AMS will use to perform NE ,primary carrier or other carriers.

This parameter is coincident with the description in 16.2.8.2.9.2.2 MCHO execution and network reentry with HO\_Reentry\_Mode=1: 'The AMS may use the original primary carrier for network reentry to the target ABS. It may also use another carrier different from its original primary carrier for network reentry procedures'.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10055

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 106      Line 46      Fig/Table# 689      Subclause 16.2.3.9

The 'Physical carrier index at the serving ABS' is redundant and such information is already provided in AAI\_HO-CMD message. Hence, this parameter may be omitted.

Suggested Remedy

Review and adopt text in proposed contribution IEEE80216m-10\_0741

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The physical carrier index is needed for EBB HO.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by: Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10056

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 106      Line 64      Fig/Table#      Subclause 16.2.3.10

Since the AMS may perform multicarrier scanning before HO procedure, carrier information based on AMS's scanning could be included in AAI\_HO-REQ message.

Suggested Remedy

Suggest to add Physical\_Carrier\_Index into AAI\_HO-REQ message:

O Physical_Carrier_Index 6	Physical carrier index of the ABS	May be included for each ABS with ABS Index or ABS ID when the ABS is multi-carrier ABS
----------------------------	-----------------------------------	-----------------------------------------------------------------------------------------

GroupResolution

Decision of Group: Agree

Suggest to add Physical\_Carrier\_Index into AAI\_HO-REQ message on page 106, line 64:

O Physical_Carrier_Index 6	Physical carrier index of the ABS	May be included for each ABS with ABS Index or ABS ID when the ABS is multi-carrier ABS
----------------------------	-----------------------------------	-----------------------------------------------------------------------------------------

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by: Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10057

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 107      Line 1      Fig/Table# 690      Subclause 16.2.3.10

The 'AAI\_NBR-ADV Change count' parameter should be optional and included when referring to an ABS index within the AAI\_NBR-ADV message.

Suggested Remedy

Modify parameter in table 690 (AAI\_HO-REQ) as follows:

M/O	Attributes / Array of attributes	Size(bits)	Value / Note	Conditions
<del>M</del>	AAI_NBR-ADV Change count	8	AAI_NBR-ADV change count last received from the serving ABS	<del>N.A.</del> Shall be included when N_New_ABS_index > 0

GroupResolution

Decision of Group: Agree

Modify parameter in table 690 (AAI\_HO-REQ) on page 107, line 1 as follows:

M/O	Attributes / Array of attributes	Size(bits)	Value / Note	Conditions
<del>M</del> <ins>O</ins>	AAI_NBR-ADV Change count	8	AAI_NBR-ADV change count last received from the serving ABS	<del>N.A.</del> <ins>Shall be included when N_New_ABS_index &gt; 0</ins>

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Yuqin Chen

Membership Status:Date: 2010-07-09Comment # 10058Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Editorial      Part of Dis  Satisfied       Page 107      Line 50      Fig/Table# 690      Subclause 16.2.3.10

In D6 , multicarrier capability in AAI-REG-REQ has been changed to 3bits, therefore, an update is needed in the condition for parameter "Carrier Preassignment Indication" in Table 690 .

Suggested Remedy

Suggest to modify the text in Table 690 as follows:

Table 690:

---

O Carrier Preassignment Indication 1 Indicates whether AMS needs pre-assignment of secondary carriers at the Target ABS. May be included when AMS supports MC mode=~~0b10 or 0b11~~ob010.ob011 or ob100

---

GroupResolutionDecision of Group: Agree

Suggest to modify the text in Table 690 as follows:

Table 690:

---

O Carrier Preassignment Indication 1 Indicates whether AMS needs pre-assignment of secondary carriers at the Target ABS. May be included when AMS supports MC mode=<del>0b10 or 0b11</del><ins>ob010.ob011 or ob100</ins>

---

Reason for Group's Decision/ResolutionGroup's Notes

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10059

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment    Type Editorial    Part of Dis  Satisfied     Page 108    Line 3    Fig/Table# 691    Subclause 16.2.3.11

In D6 , multicarrier capability in AAI-REG-REQ has been changed to 3bits, therefore, an update is needed for the parameters in Table 691 .

Suggested Remedy

Suggest to change Page112 , Line45 in Table 691 as follows:

-----

O Physical carrier index at the serving ABS 6	Recommended carrier index of the AMS to be used for network reentry to the target ABS. May be included when AMS's multicarrier capability= <del>0b10</del> <u>0b010 or 0b100</u> , HO Reentry Mode = 1 and the target carrier is different from the serving carrier.
-----------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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GroupResolution

Decision of Group: Agree

Suggest to change Page112 , Line45 in Table 691 as follows:

-----

O Physical carrier index at the serving ABS 6	Recommended carrier index of the AMS to be used for network reentry to the target ABS. May be included when AMS's multicarrier capability= <del>0b10</del> <u>0b010 or 0b100</u> , HO Reentry Mode = 1 and the target carrier is different from the serving carrier.
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Reason for Group's Decision/Resolution

Group's Notes

Comment by:

Feng Xie

Membership Status:Date: 2010-07-09Comment # 10060Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 108      Line 4      Fig/Table# 691      Subclause 16.2.3.11

AAI\_HO-CMD message (16.2.3.11) and operations during EBB mode and zone switch from MZone to LZone need clarification.

1) Some of the text in AAI\_HO-CMD message does not comply with the text from line 1 to 12 in page 283 (16.2.6.3.3).

=====cited from line 1 to 12 in page 283=====

If HO\_Reentry\_Mode is set to 1, the serving ABS shall negotiate with the target ABS the EBB HO parameters. In the single carrier handover case, the EBB HO parameters include HO\_Reentry\_Interleaving\_Interval, HO\_Reentry\_Interval and HO\_Reentry\_Iteration for the AMS to communicate with the serving ABS during network reentry, in which case HO\_Reentry\_Interleaving\_Interval and HO\_Reentry\_Interval must be no less than the minimal values defined in AMS capability. The HO\_Reentry\_Interval defines the period during which an AMS performs network re-entry at the target ABS. Whereas the HO\_Reentry\_Interleaving\_Interval defines the period during which an AMS performs normal data communication at the serving ABS after the HO\_Reentry\_Interval. In the multicarrier handover case, the EBB\_HO parameters include the carrier information in the target ABS for the AMS performing network reentry while continuing communication with the serving ABS concurrently.

=====end of citation=====

According to the description, EBB HO parameters include three parameters named as HO\_Reentry\_Interleaving\_Interval, HO\_Reentry\_Interval and HO\_Reentry\_Iteration. However, only two of them, namely HO\_Reentry\_Interleaving\_Interval and HO\_Reentry\_Iteration are included in AAI\_HO-CMD message. So HO\_Reentry\_Interval is missed from the message, which defines the period during which an AMS performs network re-entry at the target ABS.

2) FA index should be included in AAI\_HO-CMD message when AMS handover to neighbor R1 BS or when zone switch from MZone and LZone if MZone and target LZone are located in different carriers. This may happen in two scenarios. a) mixed-mode ABS applies FDM mode for deploying LZone and MZone. b) mixed-mode ABS applies TDM mode for deploying LZone and MZone in one carrier and the ABS support multi-carrier. Then MZone and target LZone may be located in different carriers.

#### Suggested Remedy

Adopt the proposed text in C80216m-10\_0712

#### GroupResolution

Decision of Group: Principle

Resolved by comment #337.

Resolution:

Adopt the proposed text modification in C80216m-10/0865r3

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.3 MAC Control messages  
same as the resolution of comment 337

**Editor's Notes**

**Editor's Actions**

b) none needed

Resolved by comment #337



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10061

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 109      Line 56      Fig/Table# 691      Subclause 16.2.3.11

clarification of conditions for 'Ranging opportunity index' and 'Subframe index'.

Suggested Remedy

[Modify the 'Value/Note' field and 'Conditions' field for 'Ranging opportunity index' as follows]

Value/Note: Indicates the index of the allocated ranging opportunity. If this field is present, Action Time shall refer to a frame in which the the allocated ranging opportunity is present.

Conditions: May be included when CDMA\_RNG\_FLAG = 1 ~~Shall be included when Action Time refers to a frame where a dynamic-ranging channel is allocated~~

[Modify the 'Value/Note' field and 'Conditions' field for 'Subframe index' as follows]

Value/Note: Indicates the subframe index of the allocated ranging opportunity. If this field is present, Action Time shall refer to a frame in which the the allocated ranging opportunity is present.

Conditions: May be included when CDMA\_RNG\_FLAG = 1 ~~Shall be included when Action Time refers to a frame where a dynamic-ranging channel is allocated~~

GroupResolution

Decision of Group: Principle

[Modify the "Conditions' field for 'Ranging opportunity index' as follows]

Conditions: May be included when CDMA\_RNG\_FLAG = 1 ~~Shall be included when Action Time refers to a frame where a dynamic-ranging channel is allocated~~

[Modify the "Conditions' field for 'Subframe index' as follows]

Conditions: May be included when CDMA\_RNG\_FLAG = 1 ~~Shall be included when Action Time refers to a frame where a dynamic-~~

~~ranging channel is allocated~~

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # **10062**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 109      Line 56      Fig/Table# Tabl      Subclause 16.2.3.11

The opportunity\_index is used in RAID of CDMA allocation IE when BS responds to the ranging code. The RAID is defined as follows in pp. 556, D6.

That is, RAID = (LSB 5bits of superframe number | frame\_index | preamble\_code\_index | opportunity\_index).

If the ranging opportunity is allocated by broadcast manner, i.e., allocated either by SFH or Broadcast Assignment A-MAP IE, all MSs can count the exact ranging opportunity index for each ranging opportunity. So, everything is clear.

However, if the ranging opportunity is allocated in \*unicast\* manner, i.e., allocated by the AAI\_HO-CMD message, only the MS which receives the AAI\_HO-CMD message can know the existence of unicast ranging opportunity. This causes ambiguity of the ranging opportunity index.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0852 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0852r2.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10063

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 111      Line 16      Fig/Table# 691      Subclause 16.2.3.11

The 'Physical\_Carrier\_Index' parameter should be always included in case Mode=0b00. The target ABS's carrier for network re-entry is mandatory for HO.

Suggested Remedy

Review and adopt text in proposed contribution IEEE80216m-10\_0742

GroupResolution

Decision of Group: Principle

Resolved by comment #337.

Resolution:

Adopt the proposed text modification in C80216m-10/0865r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages  
same as the resolution of comment 337

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10064

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 112      Line 17      Fig/Table# Tabl      Subclause 16.2.3.11

Typo.

Suggested Remedy

O || LZone Preamble Index || 7 || LZone Preamble Index for AMS ..... ||Shall be included ...

GroupResolution

Decision of Group: Agree

O || LZone Preamble Index || 7 || LZone Preamble Index for AMS ..... ||Shall be included ...

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10065

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 113      Line 1      Fig/Table#      Subclause 16.2.3.12

Two problems should be noticed:

- 1.How to sort ABS by physical index? Suggest to delete this sentence or clarify it .
- 2.ABS type--legacy can be covered by the parameter MAC version.Suggest to delete it.

Suggested Remedy

AAI\_NBR-ADV message may sort neighbor ABSs (RSs) according to their deployment types, which is categorized by the following parameters:

- 1) ABS type (macro, micro, macro hotzone, Femto, relay, ~~legacy~~)
  - a) ~~physical carrier index referring AAI\_Global-Config message which provides carrier frequency, BW, CP info, TDD/FDD and related definitions (expected to be the same given carrier frequency)~~
  - a)2) MAC version

GroupResolution

Decision of Group: Principle

change the text in page 113 ,line 1 as follows

AAI\_NBR-ADV message may sort neighbor ABSs (RSs) according to their deployment types, which is categorized by the following parameters:

- 1)ABS type (macro, micro, macro hotzone, Femto, relay, legacy)
  - a)physical carrier index referring AAI\_Global-Config message which provides carrier frequency, BW, CP info, TDD/FDD and related definitions (expected to be the same given carrier frequency)
  - a)b)MAC version

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10066

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 113	<u>Line</u> 53	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.12
----------------	-----------------------	---------------------------------------------	-------------------------------------------	-----------------	----------------	-------------------	----------------------------

One ABS has one MAC version even if it is a multi-carrier ABS. This is already implemented in the message format, but text still says a differnet thing. Text should be consistent.

Suggested Remedy

Update following sentences in line 53, pp. 113:

- ~~Number of~~ MAC protocol versions ~~supported~~ (4 bits)
- ~~list of supported MAC protocol versions~~ (4 bits per entry)

GroupResolution

Decision of Group: Principle

Update following sentences in line 53, pp. 113:

- ~~Number of~~ MAC protocol versions ~~supported~~ (4 8bits)
- ~~list of supported MAC protocol versions~~ (4 bits per entry)

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Comment by:

Feng Xie

Membership Status:Date: 2010-07-09Comment # 10067Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 114      Line 31      Fig/Table# 692      Subclause 16.2.3.12

The parameters in AAI\_NBR-ADV message should be consistent with the message descriptions in 16.2.3.12.

1) "IDcell" in the message format should be changed to "SA-preamble index" for consistency and convention. The name "Preamble index" is used in the 16e/16m MAC procedures. And the name "IDcell" or Cell\_ID is used in the 16e/16m PHY procedures.

2) Prefix of BSID should be included in the message format for consistency with the message descriptions.

Suggested Remedy

Adopt the text proposal in C80216m-10\_0715

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

IDcell is already defined and used in the specification.

Group's Notes

16.2.3 MAC Control messages  
A duplicate comment of 229

Editor's NotesEditor's Actions    b) none needed

Comment by: Youngbo Cho

Membership Status:

Date: 2010-07-09

Comment # 10068

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 115      Line      Fig/Table#      Subclause 16.2.3.12

Indoor micro ABS (which cannot received GPS signal) may achieve network synchronization from backhaul network (e.g. IEEE 1588). If an MS recognizes the serving ABS is the network synchronized ABS, the AMS may advance its FFT window. The advance allows BS timing misalignment without signal quality loss.

**Suggested Remedy**

Insert pp 115 table 692-AAI\_NBR-ADB parameters line 64

M/O	Array of attributes	Size (bits)	Value/Note	Note
Q	<a href="#">Network synchronization indicator</a> or not (0b00).	1	<a href="#">Indicates whether this neighbor ABS achieves synchronization from backhaul network (0b01)</a>	<a href="#">Shall be included for each carrier of each</a>

Insert pp 162 table 716-AAI\_SCD Message line 13

M/O	Array of attributes	Size (bits)	Value/Note	Note
Q	<a href="#">Network synchronization indicator</a> or not (0b00).	1	<a href="#">Indicates whether ABS achieves synchronization from backhaul network (0b01)</a>	

**GroupResolution**

**Decision of Group: Principle**

Insert pp 162 table 716-AAI\_SCD Message line 13

M/O	Array of attributes	Size (bits)	Value/Note	Note
Q	<a href="#">Network synchronization indicator</a> or not (0b00).	1	<a href="#">Indicates whether ABS achieves synchronization from backhaul network (0b01)</a> or not (0b00).	

**Reason for Group's Decision/Resolution**



Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # **10069**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis       Satisfied       Page 117      Line 37      Fig/Table# Tab1      Subclause 16.2.3.12

To support 16m only ABS to R1 BS, the AAI\_NBR-ADV message should include legacy information such as BS ID, Preamble Index.

Moreover, these value can be added in mixed-mode ABS as well. Current mechanism which uses NBR-ADV offset/interval can be alternative approach to provide neighbor R1 BSs. It is the ABS's decision whether to include 'NBR-ADV offset/interval in LZone' or 'simple R1 BS information' which is proposed in this proposal.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0853 or its later version.

GroupResolution

Decision of Group: **Agree**

Adopt the remedy in C802.16m-10/0877r3.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Comment by:

Jaehyuk Jang

Membership Status:Date: 2010-07-09Comment # 10070Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 121      Line 26      Fig/Table# Tabl      Subclause 16.2.3.13

The AAI\_SCN-RSP message may contain neighbor ABSs information to be scanned, but the AAI\_SCN-REQ message does not have to include these information. 16m specification does not provide any usage scenario using these information. There is no usage scenario in 802.16-2009 although it also contains these parameters.

Suggested Remedy

Remove the following parameters in Table 694, line 26, pp. 121 in D6. That is, remove from line 26, pp. 121 to line 29, pp. 122.

- ~~-N\_Recommended\_ABS\_Index~~
- ~~-Configuration Change Count for AAI\_NBR-ADV~~
- ~~-Neighbor ABS index~~
- ~~-N\_Recommended\_ABS\_Full~~
- ~~-Recommended ABS ID~~
- ~~-N\_Recommended\_SA\_Preamble\_Index~~
- ~~-SA Preamble Index~~
- ~~-N\_Recommended\_Carrier\_Index~~
- ~~-Recommended\_Carrier\_Index~~
- ~~-N\_Recommended\_Carrier\_Index\_at\_Serving\_ABS~~
- ~~-Recommended\_Carrier index at serving ABS~~

Group ResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

We can not delete these paramters because they could be useful for femto scanning.

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10071

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 122      Line 26      Fig/Table# Tabl      Subclause 16.2.3.13

Regardless of serving ABS or neighbor ABSs, scanning procedure is identical. Not sure the parameter Carrier index at serving ABS in the AAI\_SCN-REQ/RSP is needed.

Suggested Remedy

Remove following items in Table 694, line 26, page 122 in D6.

~~-N\_Recommended\_Carrier\_Index\_at\_Serving\_ABS~~

~~-Carrier index at serving ABS~~

Remove following items in Table 695, line 60, page 125 in D6.

~~-N\_Recommended\_Carrier\_Index\_at\_Serving\_ABS~~

~~-Carrier index at serving ABS~~

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This information is needed for multicarrier scanning operation.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhou

Membership Status:

Date: 2010-07-09

Comment # 10072

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 122      Line 53      Fig/Table# 695      Subclause 16.2.3.14

Based on IEEE 802.16m/D6,"802.16m Draft Amendment ", new E-LBS zone design and transmission plan have been included. There is no any control signaling for E-LBS zone including information of E-LBS zone and triggering measurement procedure in current 16m spec. So we propose to use AAI-SCN-RSP for triggering AMS to measure E-LBS zone.

Suggested Remedy

Adopt the proposed AWD text changes in contribution C802.16m-10\_0800 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #10322.

Resolution:

Adopt text proposed in C80216m-10\_0924r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10073

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 123      Line 1      Fig/Table# 695      Subclause 16.2.3.14

AAI\_SCN-RSP message needs restructuring regarding inclusion of physical carrier index and some other parameters. (e.g. BW parameter may be deleted. Already covered by physical carrier index). LG preparing contribution

Suggested Remedy

Review and adopt text in proposed contribution IEEE80216m-10\_0740

GroupResolution

Decision of Group: agree

Review and adopt text in proposed contribution IEEE80216m-10\_0740

Reason for Group's Decision/Resolution

Review and adopt text in proposed contribution IEEE80216m-10\_0740

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhou

Membership Status:

Date: 2010-07-09

Comment # 10074

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 128      Line 45      Fig/Table# 696      Subclause 16.2.3.15

Based on IEEE 802.16m/D6,"802.16m Draft Amendment ", new E-LBS zone design and transmission plan have been included. There is no any control signaling for E-LBS zone including information of E-LBS zone and triggering measurement procedure in current 16m spec. So we propose to use AAI-SCN-REP for reporting its measurement results.

Suggested Remedy

Adopt the proposed AWD text changes in contribution C802.16m-10\_0800 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #10322.

Resolution:

Adopt text proposed in C80216m-10\_0924r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10075

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 142      Line 13      Fig/Table#      Subclause 16.2.3.22

In this legacy ASN scenario, the DID is replaced by the MAC address hash which shall be used as the paging identifier. In D6, the usage of MAC address hash has been adopted. However, the related management messages do not give clear condition of when the MAC address hash shall be used and when the DID shall be used. So in this contribution, we give the clarification of these idle mode related management messages.

Suggested Remedy

Adopt the proposed text in C802.16m-10\_0721 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #410.

Resolution:

Adopt the proposed text in C802.16m-10\_0721

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yeongmoon Son

Membership Status:

Date: 2010-07-09

Comment # 10076

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 145      Line 50      Fig/Table#      Subclause 16.2.3.24

To efficiently use full range of Initial Sleep/Final Sleep/Listening Windows, we need to redefine them.

Suggested Remedy

Adopt the proposed text in contribution C80216m-10/0855 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C80216m-10/0855

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done



Comment by:

Lei Zhang

Membership Status:Date: 2010-07-09Comment # 10077Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 157	<u>Line</u> 8	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.30
----------------	-----------------------	---------------------------------------------	-------------------------------------------	-----------------	---------------	-------------------	----------------------------

AAI\_SCD message contains some important parameters associated with UL power control, ranging, sounding and handover etc. An AMS should ensure that AAI\_SCD parameters being used are identical with those required by ABS; otherwise, AMS may not be in normal operation, and even may impact normal operation of other AMSs. Because AAI\_SCD transmission process is very robust as that of broadcast message, an AMS in active mode usually can successfully receive and update AAI\_SCD in time. But, as an AMS in sleep mode may not be able to receive the changed AAI\_SCD during sleep interval, thus after the AMS wakes up, it shall not have up-to-date AAI\_SCD parameters, and also shall not be in normal operation; in addition, if AAI\_SCD transmission periodicity is very long, the above AMS may not return to normal operation condition within a very short time.

In the other hand, ABS transmits and changes system parameters in the AAI\_SCD message as well as SFH (Super Frame Header). The changed S-SFH contents are applied in the super-frame which is indicated by S-SFH apply offset in P-SFH. However, there is no description of when ABS applies the system parameters associated with the current Configuration Change Count in the AAI\_SCD message.

Therefore, a scheme shall be needed to resolve the above problem.

Suggested Remedy

Adopted C802.16m-10\_0726 or its latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Requires further technical analysis before a decision can be made on how to update the SCD.

Group's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions b) none needed

Comment by: Heejeong ChoMembership Status:Date: 2010-07-09Comment # 10078Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment    Type Editorial    Part of Dis  Satisfied     Page 158    Line 6    Fig/Table# 716    Subclause 16.2.3.30  
 Editorial comment

Suggested Remedy

M/O	Attributes / Array of attributes	Size (bits)	Value / Note	Conditions
O	periodicityOfRngChSync	.....	.....	This is not <del>sentin</del> <a href="#">sent in</a> Femtocell and WirelessMAN-OFDMA with FDM-based UL PUSC zone.
O	cntlStartCodeOfRngChSync	.....	....	This is not <del>sentin</del> <a href="#">sent in</a> Femtocell and WirelessMAN-OFDMA with FDM-based UL PUSC zone.
O	rangingPreambleCodeSync	.....	....	This is not <del>sentin</del> <a href="#">sent in</a> Femtocell and WirelessMAN-OFDMA with FDM-based UL PUSC zone.

GroupResolutionDecision of Group: Agree

M/O	Attributes / Array of attributes	Size (bits)	Value / Note	Conditions
O and	periodicityOfRngChSync	.....	.....	This is not <del>sentin</del> <ins> <a href="#">sent in</a> </ins> Femtocell and WirelessMAN-OFDMA with FDM-based UL PUSC zone.
O and	cntlStartCodeOfRngChSync	.....	....	This is not <del>sentin</del> <ins> <a href="#">sent in</a> </ins> Femtocell and WirelessMAN-OFDMA with FDM-based UL PUSC zone.

O rangingPreambleCodeSync ..... ....  
and

This is not ~~sent in~~ sent in Femtocell

WirelessMAN-  
OFDMA with FDM-based UL PUSC zone.

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.1, 16.2: AAI MAC

**Editor's Notes**

**Editor's Actions** a) done

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10079Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 159      Line 7      Fig/Table# 716      Subclause 16.2.3.30

[BH] The value 32 is missing from the values for the dataSinrMax field of the AAI\_SCD message.

**Suggested Remedy**

*Modify the "Value/Note" column for the dataSinrMax field in Table 716 on p. 159 beginning at line 7 as follows (insert the value 32 between 30 and 34):*

dataSinrMax is the maximum SINR threshold defined by ABS. SINRmmax\_Data has 4 bits to represent the value in dB among {10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40}

**GroupResolution****Decision of Group: Agree**

*Modify the "Value/Note" column for the dataSinrMax field in Table 716 on p. 159 beginning at line 7 as follows (insert the value 32 between 30 and 34):*

dataSinrMax is the maximum SINR threshold defined by ABS. SINRmmax\_Data has 4 bits to represent the value in dB among {10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, <ins>32</ins>, 34, 36, 38, 40}

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes****Editor's Actions** a) done

Comment by: Youngbin ChangMembership Status:Date: 2010-07-09Comment # 10080Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 160      Line 6      Fig/Table# 716      Subclause 160

Currently, SN of MAC PDU is 10 bit which is unique value during 64 frames. However, MAC PDU can be buffered for re-ordering in the receiver side. Therefore, HARQ maximum process should be limited 32 frames considering re-ordering time in the receiver. If not, SN of old MAC PDU and SN of new MAC PDU can be arrived in the receiver during re-ordering in the receiver.

Suggested Remedy

[Modify the text of line 6 on page 160 as follows:]

---

| T\_ReTx\_Interval    | 3    | ~~0-8~~ 1-8. if DL\_N\_MAX\_ReTx = 4, 1-4 if DL\_N\_MAX\_ReTx = 8 |

---

GroupResolutionDecision of Group: Principle

[Modify the text of line 6 on page 160 as follows:]

---

| T\_ReTx\_Interval    | 3    | ~~0-8~~ 1-8 if DL\_N\_MAX\_ReTx = 4; 1-4 if DL\_N\_MAX\_ReTx = 8 |

---

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10081

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 7      Fig/Table#      Subclause 16.2.3.30

T\_ReTx\_Interval is 3 bits, so the value of T\_ReTx\_Interval can only be 0-7 instead of 0-8

Suggested Remedy

[Remedy the text in "Value/Note" Table 716 in line 7 of page 160 as following]

T\_ReTx\_Interval                      3                      0-~~8~~7

GroupResolution

Decision of Group: Principle

Resolved by comment #10081.

Resolution:

[Modify the text of line 6 on page 160 as follows:]

-----  
| T\_ReTx\_Interval    | 3    | ~~0-8~~ 1-8 if DL\_N\_MAX\_ReTx = 4; 1-4 if DL\_N\_MAX\_ReTx = 8 |  
-----

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Jaehyuk Jang

Membership Status:Date: 2010-07-09Comment # 10082Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 160      Line 8      Fig/Table# Tabl      Subclause 16.2.3.30

The value of BR\_Channel Configuration MIN Access Class needs to be fix.

Suggested Remedy

Update the table 716 in line 8, pp. 160, D6 as follows:

O   BR_Channel Configuration MIN Access Class of the (i+0)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+1)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+2)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+3)-th frame	32	INTERGER (0..43)

GroupResolutionDecision of Group: Principle

Update the table 716 in line 8, pp. 160, D6 as follows:

O   BR_Channel Configuration MIN Access Class of the (i+0)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+1)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+2)-th frame	32	INTERGER (0..43)
O   BR_Channel Configuration MIN Access Class of the (i+3)-th frame	32	INTERGER (0..43)

Reason for Group's Decision/ResolutionGroup's Notes

16.2.3 MAC Control messages

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10083

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 24      Fig/Table# 716      Subclause 16.2.3.30

[BH] Both the AAI\_SCD message and the UL Sounding Command A-MAP IE rely on knowing the sounding multiplexing type. However, in D6 there is no method for signaling the multiplexing type to the AMS. A means for signaling tye UL sounding multiplexing type is required.

Suggested Remedy

Adopt contribution C802.16m-10/0930 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #269.

Resolution:

Adopt contribution C802.16m-10/0780r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed



Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10084

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 160      Line 42      Fig/Table# 716      Subclause 16.2.3.30

To allow seamless transition from one E-MBS Zone to another without any interruption of E-MBS data service and operation as well as to enjoy macro diversity, overlapped E-MBS zones are usually deployed. However, current Zone Allocation Bitmap does not support E-MBS region as well as E-MBS Zone especially in the case of any ABS belonging to boundary of E-MBS Zones. Therefore, E-MBS configuration parameters (i.e., ZF, Zone Allocation Bitmap) should be modified more efficiently using following procedure.

- Step 1: Check whether current carrier is mixed or dedicated carrier
- Step 2: Divide the subbands into unicast region and multicast region where the multicast region may be used for E-MBS – only for the mixed carrier
- Step 3: Divide the multicast region into E-MBS region and non-E-MBS region

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0913 or its latest revision.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposed remedy affects the operation of non-EMBS AMS.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Taeyoung Kim

Membership Status:

Date: 2010-07-09

Comment # 10085

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 160      Line 42      Fig/Table#      Subclause 16.2.3.30

In current 16m/D6, there are two methods to support E-MBS service using a dedicated carrier to E-MBS traffic only and a carrier that is not dedicated to E-MBS traffic. When the dedicated carrier to E-MBS traffic is considered in 16m/D6, the E-MBS operation scenario is not clear and some parameters needed are not included in AAI\_SCD message for completing the E-MBS operation.

Suggested Remedy

*Adopt the contribution C80216m-10/0808 or its latest revision.*

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The considered scenario is unclear (commenter's words).

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yujian Zhang

Membership Status:

Date: 2010-07-09

Comment # 10086

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 160      Line 42      Fig/Table# 716      Subclause 16.2.3.30

In current P802.16m/D6, some IE sizes in AAI\_SCD message is not specified. Cleanup is needed.

Suggested Remedy

Adopt the text proposal in the latest version of contribution C80216m-10/0775.

GroupResolution

Decision of Group: Principle

Resolved by comment #425.

Resolution:

Adopt the text proposal in the latest version of contribution C80216m-10/0775r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jeongho Park

Membership Status:

Date: 2010-07-09

Comment # 10087

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 162      Line 17      Fig/Table#      Subclause 16.2.3.31

Currently uplink target SINR range is -9~40dB considering both of control and data channel..

And UL IoT range is 0~63.5dB.

For extreme case, two frequency resource from one AMS has different tone power which range is -9~103.5dB.

For uplink FFR, usual operation IoT value is around 10dB. And IoT difference between frequency partitions would not exceed to 10dB.

So it would be better to modify signaling method for IoT information of frequency partitions.

Suggested Remedy

Adopt the contribution IEEE C802.16m-10/0839 or its latest version

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposed remedy has the potential to decrease performance.

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10088Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 163      Line 50      Fig/Table# 718      Subclause 16.2.3.32

[BH] There is an error in the specification of allocationDuration field of the AAI\_UL\_POWER\_ADJ message.

**Suggested Remedy**

*Modify the entry in the "Value/Note" column in Table 718 for the allocationDuration field of the AAI\_UL\_POWER\_ADJ message, beginning at line 50, as follows:*

An FBCH is transmitted on the FBCH channels indexed by Channel Index for  ~~$8 \times 2^d$~~   $2^d$  frames, where d is the value given by allocationDuration. If d = 0b000, the FBCH is deallocated. If d = 0b111, the AM reports until the ABS command for the AMS to stop

**GroupResolution****Decision of Group: Principle**

Resolved by comment #255.

**Resolution:**

Remedy #1. In line 31 of p. 163, p shall be superscript

Remedy #2. In line 36 of p. 163, q shall be superscript

Remedy #3. In line 52 of p. 163,

An FBCH is transmitted on the FBCH channels indexed by Channel Index for  $8 \times 2^d$  (d shall be superscript of 2)**Reason for Group's Decision/Resolution****Group's Notes**

16.2.3 MAC Control messages

**Editor's Notes****Editor's Actions**      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Namgi Kim

Membership Status:

Date: 2010-07-09

Comment # 10089

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 167      Line 16      Fig/Table# 722      Subclause 16.2.3.36

The AAI\_NBR-REQ message format shall be clarified.

Suggested Remedy

adopt the C802.16m-10/0904 or later version.

GroupResolution

Decision of Group: Principle

Resolved by comment #10090.

Resolution:

accept the proposed text in C80216m-10\_0716r5

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10090

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 167      Line 16      Fig/Table# 722      Subclause 16.2.3.36

How AMS requests the neighbor information with AAI\_NBR-REQ message needs clarification. In section 16.4.8.1.2, it reads:

-----  
If the AMS decides to perform HO to any Femto ABS, it may request more detailed system information of the detected neighbor Femto ABSs to the serving ABS using an AAI\_NBR-REQ message.

AMS may include the CSGID(s) of the subscribed CSG femto BSs in the AAI\_NBR-REQ message.  
-----

1) If an AMS request more detailed system information of the detected neighbor Femto ABSs to the serving ABS using an AAI\_NBR-REQ message. The AMS shall include the information of the detected Femto ABS such as SA-preamble index or LSB of BSID. Note that LSB of BSID in S-SFH SP1 IE is 12-bits length instead of 16-bits.

2) CSGID shall be present in the AAI\_NBR-REQ message when an AMS request the information of subscribed CSG femto ABSs.

Suggested Remedy

accept the proposed text in C80216m-10\_0716

GroupResolution

Decision of Group: Principle

accept the proposed text in C80216m-10\_0716r5

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions a) done

Was partially done, I added the 16.4 changes

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Shuangfeng Han

Membership Status:

Date: 2010-07-09

Comment # 10091

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical    Part of Dis  Satisfied     Page 172    Line 29    Fig/Table# 724    Subclause 16.2.3.38

In CO-MIMO, CPMI is feedback for multiBS operation. But relative channel amplitude information is not included. This may degrade performance of CO-MIMO.

Suggested Remedy

TO add one row (under the last row) in table 724.

| O    | D)   | 4    | Relative channel amplitude (Normalized by channel amplitude of serving ABS) | Only  
for ICT=0b11    |

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Incomplete. Performance verification is not provided.

Vote:

In favor: 4

Opposed: 2

Abstain:

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Prateek Kapadia

Membership Status:

Date: 2010-07-09

Comment # 10092

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 187      Line 1      Fig/Table# 742      Subclause 16.2.3.46

Connection priority parameters are defined as Service Flow parameters in Table 786 in Section 16.2.12.8.

These also need to be defined as Service Flow parameters in Tables 742, 743 & 745 in Section 16.2.3.46 (DSx Message formats)

Suggested Remedy

Adopt text in contribution C80216m-10\_0907.doc (or its latest revision)

GroupResolution

Decision of Group: Principle

Adopt text in contribution C80216m-10\_0907r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10093

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 187      Line 32      Fig/Table#      Subclause 16.2.3.46.1

"MBS service" should be "E-MBS service".

Suggested Remedy

-E-MBS Service: Indicates whether the E-MBS service is being requested or provided for the connection that is being setup.

GroupResolution

Decision of Group: Agree

-E-MBS Service: Indicates whether the E-MBS service is being requested or provided for the connection that is being setup.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Heejeong Cho

Membership Status:

Date: 2010-07-09

Comment # 10094

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 200      Line 31      Fig/Table#      Subclause 16.2.3.46.4

Editorial comment

Suggested Remedy

— ~~Predefined BR index:~~ Predefined BR index parameters: Predefined BR index parameters define the mapping from predefined BR index(es) to BR action and BR size, which is used in 3-step Bandwidth Request procedure.

GroupResolution

Decision of Group: Agree

— ~~Predefined BR index:~~ Predefined BR index parameters: Predefined BR index parameters define the mapping from predefined BR index(es) to BR action and BR size, which is used in 3-step Bandwidth Request procedure.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10095

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 215      Line 31      Fig/Table# Tabl      Subclause 16.2.3.52

The "DL/UL indicator" should be per carrier attribute, not per carrier group in the AAI\_MC-REQ message.

Suggested Remedy

move the row of "DL/UL indicator" to inside the "j" loop in Table 755.

GroupResolution

Decision of Group: Principle

Resolved by comment #339.

Resolution:

Adopt the proposed text modification in C802.16m-10/0867r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.3 MAC Control messages

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10096Document under Review: P802.16m/D6Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Technical	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 220	<u>Line</u> 20	<u>Fig/Table#</u>	<u>Subclause</u> 16.2.3.56
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Why does the AAI\_MC-ADV have to be periodically broadcasted?

As shown in Section 16.2.8, the AAI\_MC-ADV is needed at the MC operation initialization which is after the AMS enters the "operational" status. Therefore, it would be much efficiently for the ABS to unicast the AAI\_MC-ADV message to the AMS who needs it either in a unsolicited way or upon requested from the AMS. Having said this, the ABS can broadcast it, not shall.

Note that periodic broadcasting is very expensive, particularly, with a potentially huge message with all the system configuration info, e.g., AAI\_SCD, SFH SPs, etc. for each of the carriers.

Suggested Remedy

Make the following changes:

1. on page 220, change the paragraph in line 20 as follows:

The ~~MC-ABS shall periodically broadcast~~ AAI\_MC-ADV message is transmitted by the ABS to ~~for the reception by all~~ AMSs in an unicast manner and/or broadcast manner.

2. on page 307, change the paragraph in line 57 as follows:

The ABS will broadcast the SFH on each carrier with the format defined in 16.3.6.2.1. The ABS shall also provide the AMS with basic radio configuration for all available carriers in the ABS through the AAI\_MC-ADV message. This message ~~is periodically broadcast by the ABS, which~~ includes the multicarrier mode and the configurations supported by the ABS. It can be broadcasted by the ABS for the reception by all the AMSs and it can also be unicasted by the ABS for the reception by a specific AMS with or without receiving a request from the AMS. ~~The multicarrier configuration information is relevant to and shall be used by all AMSs in any of multicarrier modes or in single carrier mode.~~

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Unicasting the AAI\_MC-ADV message leads to more signaling overhead because it shall be transmisted to every AMSs whenever system information is upadted.

Group's Notes

16.2.3 MAC Control messages (Multicarrier)

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10097

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

<u>Comment</u>	<u>Type</u> Editorial	<u>Part of Dis</u> <input type="checkbox"/>	<u>Satisfied</u> <input type="checkbox"/>	<u>Page</u> 223	<u>Line</u>	<u>Fig/Table#</u> 762	<u>Subclause</u> 16.2.3.57
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Wrong reference in Table 762. Multi-Carrier Configuration Index Table should be Table 806.

Suggested Remedy

Change Line 30 on Page 223 as follows:

-----

Multi-Carrier Configuration Index Across the Network    6    Index associated to Table ~~803~~806

-----

GroupResolution

Decision of Group: Agree

Change Line 30 on Page 223 as follows:

-----

Multi-Carrier Configuration Index Across the Network    6    Index associated to Table <del>803</del><ins>806</ins>

-----

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10098

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 223      Line 30

Fig/Table# Tabl

Subclause 16.2.3.57

wrong Table reference

Suggested Remedy

in line 30 page 223, change "Table 803" to "Table 806"

GroupResolution

Decision of Group: Agree

Resolved by comment #581.

Resolution:

in line 30 page 223, change "Table 803" to "Table 806"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Anil Agiwal

Membership Status:

Date: 2010-07-09

Comment # 10099

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 229      Line 22      Fig/Table#      Subclause 16.2.4.2

In the IEEE P802.16m/D6 specification MCEH in the MAC PDU (with control connection FID in the AGMH) provides the encryption status of the payload in the MAC PDU. MCEH is an extended header and can be present anywhere between the AGMH and the payload. This delays the determination of encryption status at the receiver as various other extended headers needs to be parsed before parsing the MCEH.

Suggested Remedy

Adopt the proposed text in latest version of contribution C80216m-10\_0782

GroupResolution

Decision of Group: Principle

same resolution as #495:  
Adopt contribution C80216m-10\_0766r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions    b) none needed

Already done by comment 495. Scott



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10100

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 230      Line 1      Fig/Table# 389      Subclause 16.2.4.2

MAC header and extended headers are not encrypted.

Suggested Remedy

In Figure 389, change the 'Encrypted' at the left-hand side of the MAC PDU to 'Un-encrypted'.

GroupResolution

Decision of Group: Agree

In Figure 389, change the 'Encrypted' at the left-hand side of the MAC PDU to 'Un-encrypted'.

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10101

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 230      Line 56      Fig/Table#      Subclause 16.2.4.3

The current text says that MAC control messages, user data and BR MAC PDUs may be concatenated into the same transmission. But, any other signaling headers can also be concatenated into the same transmission.

Suggested Remedy

MAC control messages, user data (from one or more connections), and signaling headers~~BR-MAC-PDUs~~ may be concatenated into the same transmission.

GroupResolution

Decision of Group: Agree

MAC control messages, user data (from one or more connections), and <ins>signaling headers</ins><del>BR-MAC-PDUs</del> may be concatenated into the same transmission.

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Youngbin Chang

Membership Status:

Date: 2010-07-09

Comment # 10102

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 230      Line 58      Fig/Table#      Subclause 16.2.4.3

Concatenation is function of MAC PDUs from different connections (different flow IDs). If MAC SDUs from a single connection should be transmitted in one PHY burst, it should be packed not concatenated. 10 bit SN, identifying SN of the MAC PDU, is unique value during the interval of 64frames (One frame can have 16 HARQ bursts). To avoidng SN overlapping, one PHY burst should include a single SN from single connection.

Therefore, limitation is necessary in the concatenation section that MAC PDUs from a same connection can not be concatenated into single PHY burst.

Suggested Remedy

[Modify the text at line 48 on page 230 as follows:]

Multiple MAC PDUs construced from different connections may be concatenated into a single transmission in either the UL or DL directions.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Initial transmission and retransmission of the SDUs cannot be put in the same PDU for ARQ.

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10103

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 231    Line 30

Fig/Table#

Subclause 16.2.4.4.1

Editorial correction

Suggested Remedy

[Modify the text as follows]

T~~H~~he FEH provides the information about the SDU fragment.

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

T~~<del>H</del><ins>h</ins>~~e FEH provides the information about the SDU fragment.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Youngbin Chang

Membership Status:

Date: 2010-07-09

Comment # 10104

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 231      Line 35      Fig/Table#      Subclause 16.2.4.4.1.1

When an out-of-order non-ARQ block arrived in an AMS, AMS has to buffer it within the capability of AMS's buffer size. Therefore, ABS has to know the AMS capability of reordering buffer size and shall transmit non-ARQ blocks not exceeding AMS buffer size.

Suggested Remedy

Adopt the proposed text in the contribution C802.16m-10\_0836 or latest version

GroupResolution

Decision of Group: Agree

Adopt the proposed text in the contribution C802.16m-10\_0836

Reason for Group's Decision/Resolution

Group's Notes

16.2.4 Construction and Transmission of MAC PDUs

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10105

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 244      Line 43      Fig/Table#      Subclause 16.2.5.2.1.4

AMSID\* is derived based on the MS MAC address and a 64-bit random number NONCE\_AMS. The description mentions the NONCE\_AMS is the same as the random NONCE\_AMS in keyagreement MSG#2 message. However there is no advantage on that binding and the binding leads easily to misunderstanding. (i.e. it looks AMSID\* is changed whenever keyagreement occurs, but it's not true)

Hence, I suggest removing the binding between AMSID\* and key agreement procedure.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0891or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0891r2

Reason for Group's Decision/Resolution

Group's Notes

16.2.5 AAI Security

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10106

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 255      Line 25      Fig/Table#      Subclause 16.2.5.2.3.2

CMAC calculation clean up is required considering the ASN.1 format because current CMAC calculation scheme is described based on TLV format.

For example, per current D6 description, the entire control message, which CMAC tuple is not included in, is one of input parameters for CMAC derivation. But per ASN.1 since CMAC tuple is optional attribute, some other parts of the control message except CMAC tuple become different depending on whether the CMAC tuple is included or not. (contrary to the ASN.1, in case of TLV format like 16e, inclusion of CMAC tuple does not effect on the other part of the control message.)

Hence CMAC calculation can not be done before ASN.1 encoding.

We suggest a method to implement the CMAC value in the control message

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0896 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C802.16m-10/0896r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.5 AAI Security

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10107

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 262      Line 31      Fig/Table#      Subclause 16.2.5.2.4.5  
typo ( ?> should be the rightarrow ->)

Suggested Remedy

1-A: Stopped (Start Auth) ?-> Not Authenticated

GroupResolution

Decision of Group: Agree

1-A: Stopped (Start Auth) <del>?</del><ins>\_</ins>> Not Authenticated

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10108

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 263      Line 22      Fig/Table#      Subclause 16.2.5.2.4.5

typo

Suggested Remedy

e) Notify TEK FSMs about key agreement 3-way handshake finish so they will be above to obtain TEKs from new AK

GroupResolution

Decision of Group: Agree

e) Notify TEK FSMs about key agreement 3-way handshake finish so they will be abo<ins>v</ins>e to obtain TEKs from new AK

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Jaesun Cha

Membership Status:Date: 2010-07-09Comment # 10109Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 277      Line 33      Fig/Table#      Subclause 16.2.6.1.2

The following sentences which describe the trigger condition for scanning are ambiguous.

1. "The ABS may specify the different trigger parameter values based on the target ABSs or ABS types in the AAI\_SCD message." The ABS may also specify the neighbor ABS-specific trigger in AAI\_NBR-ADV message. But, the AAI\_SCD message does not contain ABS-specific trigger condition because trigger definition contains only ABS type.

2. "ABS may specify the target ABS types the AMS shall scan, and/or averaging parameters that override the value defined in the AAI\_SCD message."

Regarding this sentence, I'm not sure which message contains the target ABS types and averaging parameters. If this sentence describes neighbor-specific trigger, it is redundant because there is another paragraph which describes the neighbor-specific trigger (p.281). If this sentence is related with AAI\_SCN-RSP, then the description is wrong. The ABS may specify the target ABS that the AMS shall scan, but can specify neither the target ABS types nor averaging parameter because ABS type and any trigger parameters are not defined in the AAI\_SCN-RSP message.

Two sentences need to be removed or clarified.

#### Suggested Remedy

The scanning procedure provides the opportunity for the AMS to perform measurement and obtain necessary system configuration information of the neighboring cells for handover decision. An ABS may allocate time intervals to an AMS to seek and monitor suitability of neighbor ABSs as targets for HO. Such a time interval during which the AMS scans neighbor ABS while not available to serving ABS is referred to as a scanning interval. The ABS may specify the different trigger parameter values based on the ~~target ABSs or~~ ABS types in the AAI\_SCD message. ~~The ABS may specify the target ABS types the AMS shall scan, and/or averaging parameters that override the value defined in the AAI\_SCD message.~~

#### GroupResolution

Decision of Group: Agree

Revise the text from page 227, line 33 as follows.

The scanning procedure provides the opportunity for the AMS to perform measurement and obtain necessary system configuration information of the neighboring cells for handover decision. An ABS may allocate time intervals to an AMS to seek and monitor suitability of neighbor ABSs as targets for HO. Such a time interval during which the AMS scans neighbor ABS while not available to serving ABS is referred to as a scanning interval. The ABS may specify the different trigger parameter values based on the ~~<del>~~target ABSs or ~~</del>~~ABS types in the AAI\_SCD message. ~~<del>~~The ABS may specify the target ABS types the AMS shall scan, and/or averaging ~~</del>~~

~~parameters that override the value defined in the AAI\_SGD message.</del>~~

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.6 MAC HO procedures

**Editor's Notes**

**Editor's Actions** a) done

Comment by:

Jaesun Cha

Membership Status:Date: 2010-07-09Comment # 10110Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 282      Line 36      Fig/Table#      Subclause 16.2.6.3.3

Once a dedicated ranging code and opportunity is assigned through AAI\_HO-CMD message, the AMS shall use the assigned code and opportunity until Ranging Initiation Deadline is expired. The current sentence is not consistent with Figure 411 - MS state machine during HO network reentry.

Suggested Remedy

During HO preparation phase, the target ABS may allocate a dedicated ranging code and dedicated ranging opportunity to the AMS via the serving ABS through the AAI\_HO-CMD message, indicated by both Dedicated\_Ranging\_Code\_Flag and Dedicated\_Ranging\_Opportunity\_Flag. The dedicated code and opportunity is assigned to the AMS until the Ranging Initiation Deadline. The AMS shall ~~may reuse~~ the pre-assigned dedicate ranging code and opportunity during network re-entry unless Ranging Initiation Deadline is expired. If the AMS fails to perform ranging before expiration of Ranging Initiation Deadline, it shall stop using the dedicated code and opportunity but randomly pick a ranging code if further ranging is necessary. The target ABS shall select the dedicated ranging code from the group of codes which are allocated for dedicated handover ranging purpose.

GroupResolutionDecision of Group: Principle

change the text at page 286, line 32 as follows

During HO preparation phase, the target ABS may allocate a dedicated ranging code and dedicated ranging opportunity to the AMS via the serving ABS through the AAI\_HO-CMD message, indicated by both Dedicated\_Ranging\_Code\_Flag and Dedicated\_Ranging\_Opportunity\_Flag. The dedicated code and opportunity is assigned to the AMS until the Ranging Initiation Deadline. ~~The AMS may reuse the pre-assigned dedicate ranging code and opportunity during network re-entry.~~ If the AMS fails to perform ranging before expiration of Ranging Initiation Deadline, it shall stop using the dedicated code and opportunity but randomly pick a ranging code if further ranging is necessary. The target ABS shall select the dedicated ranging code from the group of codes which are allocated for dedicated handover ranging purpose.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.6 MAC HO procedures

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10111

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 282      Line 47      Fig/Table#      Subclause 16.2.6.3.3

Text needs to be clarified.

Suggested Remedy

Modify the sentence in line 47, pp. 282 as follows:

~~Information regarding AMS identity (e.g. STID) and security context should be pre-updated during HO preparation~~ Upon reception of the AAI\_HO-CMD message, the AMS should pre-update STID and AK to be used in the target ABS.

GroupResolution

Decision of Group: Agree

Modify the sentence in line 47, pp. 282 as follows:

~~Information regarding AMS identity (e.g. STID) and security context should be pre-updated during HO preparation~~  
Upon reception of the AAI\_HO-CMD message, the AMS should pre-update STID and AK to be used in the target ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang Liu

Membership Status:

Date: 2010-07-09

Comment # 10112

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 295      Line 16      Fig/Table#      Subclause 16.2.6.4

There are two scenarios for HO from 16m ABS to legacy BS defined in IEEE P802.16m/D6. One is “Handover from WirelessMAN-OFDMA Advanced System to WirelessMAN-OFDMA Reference System” in 16.2.6.4.2 (case one), the other is 16.2.6.4.2.4(case two), “Handover from WirelessMAN-OFDMA Advanced only System to WirelessMAN-OFDMA Reference System”. For case one, it is expected that AMS obtains the neighbor R1 BS information from the MOB\_NBR-ADV message transmitted in its serving ABS LZone based on an indication in serving MZone. For case 2, since there is no LZone in serving ABS, AMS has to scan R1 BS(s) or neighbor ABS LZone(s) based on the same indication.

In current IEEE P802.16m/D6, the indication for case one is illustrated as follows in 16.2.3.12. “The parameters NBR-ADV offset and NBR-ADV interval indicate the existence of neighbor WirelessMAN-OFDMA BS or LZone of ABS. The parameters shall be included in the AAI\_NBR-ADV message when ABS indicates the existence of neighbor WirelessMAN-OFDMA BS or LZone of ABS.”

However, the indication of neighbor R1 BS or LZone of neighbor ABS existence in case 2 is not clearly defined. In addition, the text in the two cases mentioned above need clean up.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul/upload/TGm\\_db/C80216m-10\\_0877.doc](http://dot16.org/ul/upload/TGm_db/C80216m-10_0877.doc) or later revisions

GroupResolution

Decision of Group: Principle

Resolved by comment #10069.

Resolution:

Adopt the remedy in C802.16m-10/0877r3.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10113

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 296      Line 65      Fig/Table# 776      Subclause 16.2.6.5.1

Redundant text and table. Parameters for Inter-RAT capabilities have already been included in AAI\_SBC-REQ/RSP messages.

Suggested Remedy

Delete the sentence in Line 65 on Page 296 and Table 776

GroupResolution

Decision of Group: Principle

adopt the remedy in 412.

Delete the sentence in Line 65 on Page 296 and delete Table 776.

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yang Liu

Membership Status:

Date: 2010-07-09

Comment # 10114

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 297      Line 61      Fig/Table#      Subclause 16.2.6.5.2.1.1

Passive other RAT discovery in current IEEE P802.16m/D6 needs clean up since RAN(radio access network) and RAP(radio access network point) information are not well organized.

Suggested Remedy

Please refer the proposed text change in [http://dot16.org/ul//upload/TGm\\_db/C80216m-10\\_0878.doc](http://dot16.org/ul//upload/TGm_db/C80216m-10_0878.doc) or later revisions

GroupResolution

Decision of Group: Principle

Resolved by comment #316.

Resolution:

Adopt the remedy in C80216m-10\_0878r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.6 MAC HO procedures

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10115Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 301      Line 64      Fig/Table#      Subclause 16.2.7

The sentence in line 64 on page 301 raises a very basic issue for 16m UL PA allocations, i.e., a 16m PA allocation is per-connection, or per flow. We all understand that the PA is designed for the connections with periodic traffic patterns with relatively fixed payload sizes. The traffic patterns are application specific, i.e., service flow specific. Therefore, there are good reasons for the UL PA allocations for some specific service flows.

However, there is critical problem with UL PA allocation, i.e., the current 16m UL PA allocation mechanism does not support per-connection allocation, as there is no indications to tell the AMS which connection or flow a UL PA allocation is intended for.

In addition, although there are good reasons to have UL PA allocations for certain flows, it may not be a good idea to remove all the flexibility of the AMS to use UL PA allocations for other flows, e.g., use the leftover resources; or transmit other urgent data for control or other services, e.g., emergency services.

Therefore, we would propose:

- a) to fix the problem of lack of indications of the intended flow info for UL PA allocations; and
- b) to add a clarification allowing the AMS to use the UL PA allocations for other flows in some cases, e.g. use the leftover resources, or transmit other urgent data for other flows.

In this way, we can maximize the effectiveness of UL PA allocations while also keeping the flexibility of AMS's usage of the given UL allocations.

#### Suggested Remedy

discuss and adopt contribution C80216m-10\_0098r2 or its latest version.

#### GroupResolution

Decision of Group: Disagree

Resolved by comment #542.

#### Resolution:

In the UL, HARQ transmission is synchronous. A HARQ retransmission may require the same allocation as a persistent allocation. In this case, HARQ retransmission is given higher priority and the persistent allocation is reallocated to a different resource. The proposed solution would work if the reallocation can be made in the same subframe. However, if there is insufficient resource, the reallocation would have to be made in a different subframe. The proposed solution is not viable since it ties a persistent allocation to a particular subframe. reallocation would require additional DSX messages which introduce overhead and delay.

Reason for Group's Decision/Resolution

Group's Notes

16.2.7 Persistent Scheduling in the Advanced Air Interface

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Jeongki Kim

Membership Status:

Date: 2010-07-09

Comment # **10116**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment Type Editorial

Part of Dis  Satisfied

Page 302 Line 6

Fig/Table#

Subclause 16.2.7

Duplicated words

Suggested Remedy

[Modify the related sentence as follows:]

be allocated ~~using a~~ using a DL Basic Assignment A-MAP IE.

GroupResolution

Decision of Group: Agree

[Modify the related sentence as follows:]

be allocated ~~<del>using a</del>~~ using a DL Basic Assignment A-MAP IE.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Eunjong Lee

Membership Status:Date: 2010-07-09Comment # 10117Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 303      Line 59      Fig/Table#      Subclause 16.2.8.1

For clarification

Suggested Remedy

[Modify the text as follows]

- Primary Carrier: A primary carrier is a standalone carrier where AMS complete initial network entry or network reentry procedure. When supporting multicarrier operations, an AMS shall only have one primary carrier and may be assigned with multiple secondary carriers. All the unicast MAC control messages relative to multicarrier operations shall be sent to the AMS through its primary carrier.
- Secondary Carrier: Secondary carriers are additional carriers which may be assigned to the AMS by the ABS. ~~All the unicast MAC control messages relative to multicarrier operations shall be sent to the AMS through its primary carrier.~~

GroupResolutionDecision of Group: Agree

[Modify the text as follows]

- Primary Carrier: A primary carrier is a standalone carrier where AMS complete initial network entry or network reentry procedure. When supporting multicarrier operations, an AMS shall only have one primary carrier and may be assigned with multiple secondary carriers. All the unicast MAC control messages relative to multicarrier operations shall be sent to the AMS through its primary carrier.
- Secondary Carrier: Secondary carriers are additional carriers which may be assigned to the AMS by the ABS. ~~All the unicast MAC control messages relative to multicarrier operations shall be sent to the AMS through its primary carrier.~~

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Soojung Jung

Membership Status:

Date: 2010-07-09

Comment # 10118

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 304      Line 17      Fig/Table#      Subclause 16.2.8.1

Accordng to the table 807,808, and 809, DL only frame is configured in the FDD mode. Therefore the description of partially configured carrier is in need of modification.

Suggested Remedy

adopt the proposed text in the latest version of contribution C80216m-10\_0906

GroupResolution

Decision of Group: Principle

Resolved by comment #10119.

Resolution:

[Remedy-1: Modify the text in line 17, page 304 as below]

Partially Configured Carrier: A carrier configured for ~~downlink only transmission in TDD or~~ a downlink only transmission ~~carrier without paired UL carrier in FDD mode.~~

[Remedy-2: Add the text in line 48, page 454 as below]

PA-Preamble index 10 and the frame configuration index corresponding to a FDD mode shall be applied to a partially configured carrier.

[Remedy-3: Modify the text in line 45, page 4 as below]

3.106 partially configured carrier: A ~~carrier with only downlink transmission in TDD or a~~ downlink only carrier ~~without paired UL carrier in FDD mode and~~ configured with ~~all~~ control channels to support downlink transmission.

[Remedy-4: Modify the text in line 42, page 436 as below]

of D : U shall be selected from one of the following values: ~~8:0~~, 6:2, 5:3, 4:4 or 3:5 for 5, 10 and 20 MHz channel bandwidths, and ...

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Taeyoung Kim

Membership Status:

Date: 2010-07-09

Comment # 10119

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 304      Line 17      Fig/Table#      Subclause 16.2.8.1

The downlink only transmission in TDD, e.g., DL:UL=8:0 is technically same as a downlink carrier without paired UL carrier in FDD. So, I'd like to suggest to consider only "a downlink carrier without paired UL carrier in FDD".

Suggested Remedy

*[Remedy-1: Modify the text in line 17, page 304 as below]*

Partially Configured Carrier: A carrier configured for ~~downlink only transmission in TDD or~~ a downlink carrier without paired UL carrier in FDD mode.

*[Remedy-2: Add the text in line 48, page 454 as below]*

There is a frame configuration of a downlink carrier without paired UL carrier in FDD mode.

GroupResolution

Decision of Group: Principle

*[Remedy-1: Modify the text in line 17, page 304 as below]*

Partially Configured Carrier: A carrier configured for ~~downlink only transmission in TDD or~~ a downlink only transmission ~~carrier without paired UL carrier in FDD mode.~~

*[Remedy-2: Add the text in line 48, page 454 as below]*

PA-Preamble index 10 and the frame configuration index corresponding to a FDD mode shall be applied to a partially configured carrier.

*[Remedy-3: Modify the text in line 45, page 4 as below]*

3.106 partially configured carrier: A ~~carrier with only downlink transmission in TDD or a~~ downlink only carrier ~~without paired UL carrier in FDD mode and~~ configured with all control channels to support downlink transmission.

*[Remedy-4: Modify the text in line 42, page 436 as below]*

of D : U shall be selected from one of the following values: ~~8:0~~, 6:2, 5:3, 4:4 or 3:5 for 5, 10 and 20 MHz channel bandwidths, and ...

Reason for Group's Decision/Resolution

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes**

**Editor's Actions** a) done

Partial; remedies 2 and 4 affect 16.3 JRS

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10120Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 304      Line 22      Fig/Table#      Subclause 16.2.8.1

I think there is a problem with the mechanisms described in the paragraph in line 22 on page 304, i.e., transmitting an AAI\_SCD message on an unpaired DL carrier to specify where in the primary UL carrier the feedback region is.

Note that the concept of primary carrier is per AMS, and different AMS may have different fully configured carriers as their primary carriers. If an unpaired DL carrier is activated for two AMSS, AMS-1 and AMS-2, and those two AMSS have different UL primary carriers, e.g., UL-fc1 and UL-fc2, respectively, then an AAI\_SCD message transmitted on the unpaired DL carrier will be received by AMS-1 and AMS-2, but it means differently to the two AMSS, i.e., the same feedback region specification actually means on two regions on two different fully configured UL carriers. This will make fast feedback channel and HARQ feedback channel mapping very complicated.

One simple way to solve this problem is to put a constraint on the AMSS who can use an unpaired DL carrier for DL unicast traffic shall have the same UL primary carrier.

**Suggested Remedy**

Change the paragraph in line 22 on page 304 as follows:

If a partially configured carrier is used for DL unicast traffic, the required UL feedback channels are provided by the primary carrier. All the AMSS that uses the same DL-only secondary carrier for DL unicast traffic shall use the same fully configured UL carrier as primary UL carrier. In multicarrier aggregation, the UL control channels corresponding to the secondary partially configured carriers i.e., DL only secondary carriers shall be located in distinct non-overlapping control regions in the UL of the primary carrier. The UL control regions for the DL only secondary carriers are behind the UL control region for the primary carrier. The location information of the UL control channels for the DL only secondary carriers are informed through the AAI\_SCD message which are transmitted on the secondary carriers. The AMS shall use the UL control channels on the primary carrier to feedback HARQ ACK/NACK and channel quality measurements corresponding to transmission over DL only secondary carrier. Only the FDD primary carriers may be used to provide UL feedback channels for DL partially configured carriers. A partially configured carrier may be optimized and used for E-MBS services only in which case it would not need UL feedback channel support on primary carrier.

**GroupResolution****Decision of Group: Disagree**

Resolved by comment #583.

**Resolution:**

**Disagree:** AAI\_SCD message indicates the feedback region of AMS not primary carrier index. AMS already knows its primary carrier.

**Reason for Group's Decision/Resolution**

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # **10121**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment    Type Technical    Part of Dis     Satisfied     Page 304    Line 26    Fig/Table#    Subclause 16.2.8.1

What does "behind" mean in the sentence in line 26 on page 304?

Also, a similar sentence appears in line 41 on page 309?

Suggested Remedy

Either clarify what "behind" means or delete the sentence in both places.

GroupResolution

Decision of Group: **Principle**

Resolved by comment #585.

Resolution:

[Change the text in line 26 on the page 304, as follows:]

The UL control regions for the DL only secondary carriers follow ~~are behind~~ the UL control region for the primary carrier.

[Change the text in line 41 on the page 309, as follows:]

The feedback region of the active DL-only secondary carrier follows ~~is behind~~ the feedback region of the primary carrier

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Soojung Jung

Membership Status:

Date: 2010-07-09

Comment # 10122

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 304      Line 37      Fig/Table#      Subclause 16.2.8.1

PA - Preamble carries the information of system bandwidth and carrier configuration.

Suggested Remedy

[Modify the text as follows]

Whether a carrier is fully configured or partially configured is indicated using PA-Preamble of the carrier.

GroupResolution

Decision of Group: Agree

[Change the text as follows]

Whether a carrier is fully configured or partially configured is indicated using <ins>P</ins>A-Preamble of the carrier.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10123

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis



Satisfied



Page 304

Line 59

Fig/Table#

Subclause

[MC] Multicarrier switching mode defines a mode where an AMS is only listening to the secondary carrier and not the primary carrier. This mode appears to be another form of handoff. The AMS is not monitoring both carriers. Per my opinion, the purpose of Multicarrier is to improve the throughput by increasing the total bandwidth. With Multicarrier switching, the achievable peak rate per AMS is identical to single carrier. Multicarrier switching provides no clear benefit over single carrier.

Suggested Remedy

Remove Multicarrier Switching: Delete lines 59 through 65 on page 304

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Multicarrier switching is useful for single radio AMS to receive E-MBS services on carriers other than its primary carrier, which is one of the E-MBS scenarios.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions

b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10124

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 305      Line 1      Fig/Table#      Subclause 16.2.8.1

By saying "basic MC mode is in which the **AMS operates only with single carrier...**" may be confused with the concept **single-carrier AMS**. The AMS could perform basic MC mode is actually a multicarrier AMS.

Suggested Remedy

Suggest to change as follows:

Basic MC mode: The basic MC mode in which the AMS operates only with ~~single carrier~~ single radio transceiver but shall support the primary carrier change procedure as well as optimized scanning of carriers involved multicarrier operation.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The original text is more clear and correct. AMS with single radio transceiver may support multi-carrier operation.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10125

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 306      Line 1      Fig/Table#      Subclause 16.2.8.2.3

The sentence in line 1 on page 306 is not consistent with the multicarrier switching operation mode definition on page 304, i.e., carrier switching is for E-MBS services.

Suggested Remedy

delete the sentence in line 1 on page 306.

GroupResolution

Decision of Group: Principle

Resolved by comment #584.

Resolution: [Change the text as follows:]

~~Support for both Multicarrier Aggregation and Switching does not imply E-MBS support, which is negotiated separately.~~

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10126

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 308      Line 11      Fig/Table#      Subclause 16.2.8.2.3.2

Clarify the E-MBS operation in terms of E-MBS carrier assignment and activation to perform independent operation between Multicarrier operation and E-MBS operation as follows.

- Any assignment or activation for E-MBS carrier is not performed using any MC-specific message to distinguish typical MC operation with E-MBS operation.

- Any activation of secondary carrier (i.e., non E-MBS carrier) is performed using MC-specific message even though the carrier to activate has already been activated for E-MBS operation.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0914 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposal in IEEE C802.16m-10/0914r1.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10127

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 308    Line 32

Fig/Table#

Subclause 16.2.8.2.4

The description of periodic ranging duplicates with the last sentence in first paragraph ,16.2.8.2.4.

Suggested Remedy

CDMA initial/periodic ranging with a fully configured carrier shall be the same as defined in 6.3.10.3.1, 6.3.10.3.2[1]. ~~Periodic ranging may only be performed on the activated secondary carrier(s) if directed by the ABS in AAI\_CM-CMD at secondary carrier activation.~~ CDMA handover ranging shall be done only with one of the fully configured carriers of target ABS.

GroupResolution

Decision of Group: Agree

CDMA initial/periodic ranging with a fully configured carrier shall be the same as defined in 6.3.10.3.1, 6.3.10.3.2[1]. ~~Periodic ranging may only be performed on the activated secondary carrier(s) if directed by the ABS in AAI\_CM-CMD at secondary carrier activation.~~ CDMA handover ranging shall be done only with one of the fully configured carriers of target ABS.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Chiwoo Lim

Membership Status:Date: 2010-07-09Comment # 10128Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 309      Line 16      Fig/Table#      Subclause 16.2.8.2.8

PHY level controls (MIMO/PC/FFR/CINR report) should be clarified for multi-carrier operation. UL channel operation and DL CINR report operation for CA (Carrier Aggregation) with partially configured secondary carrier are already defined. However, PHY level controls using MAC control message or MAC signaling header for CA with fully configured carriers are not clear.

We propose to handle some PHY level controls per carrier unlike MAC state, mobility and context of an AMS that are managed and controlled by an ABS through the primary carrier. In addition, bandwidth request related to PHY level controls of each carrier is transmitted using the corresponding carrier.

Suggested Remedy

Adopt the contribution C80216m-10/0803 or its latest version.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

In MC operaiton of current text, all unicast MAC control messages are transmitted on the primary carrier.

Group's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10129

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 311      Line 57      Fig/Table#      Subclause 16.2.8.2.9.1.2

It's described in P802.16/D6, 16.2.8.2.9.1.2 that the AMS and the ABS may negotiate through AAI\_SCN-REQ/RSP messages the radio carriers to be assigned for scanning operations to avoid resource allocation on those carriers. The carrier index will be included in AAI\_SCN-REQ/RSP/REP message.

However, the parameter Scanning\_Carrier\_Index is missing in AAI\_SCN-REQ message. Another question is, there is no need to include this carrier index in AAI\_SCN-REP message.

Suggested Remedy

Please adopt C80216m-10\_0901 or its latest version.

GroupResolution

Decision of Group: Disagree

Resolved by comment #636.

Resolution:

Disagree: In order to support the scanning of multicarrier AMS, the carrier index should be also included in AAI\_SCN-REP message.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10130

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 312      Line 45      Fig/Table#      Subclause 16.2.8.2.9.2

Propose to describe the section number.

Suggested Remedy

[Modify the text as follows]

The multicarrier handover (MCHO) is defined as the handover procedure which involves multiple radio carriers, which includes multi-carrier EBB HO and HO with secondary carrier pre-assignment as described in ~~this section~~ [16.2.8.2.9.2.2](#) and [16.2.8.2.9.2.3](#) respectively.

GroupResolution

Decision of Group: Agree

[Change the text as follows]

The multicarrier handover (MCHO) is defined as the handover procedure which involves multiple radio carriers, which includes multi-carrier EBB HO and HO with secondary carrier pre-assignment as described in ~~this section~~ [16.2.8.2.9.2.2](#) and [16.2.8.2.9.2.3](#) respectively.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    a) done

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10131Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 313      Line 15      Fig/Table#      Subclause 16.2.8.2.9.2.2

One MC specific HO procedure allows the AMS performs network re-entry to the target ABS on one carrier and maintains normal communication with the serving ABS on another carrier. This seems a very good utilization of an AMS's capability of concurrently processing multiple radio carriers.

However, the current spec limits the utilization of such an AMS's capability to HO related optimizations, including scanning and network re-entry. Such a limitation seems unnecessary, and there are some obvious benefits and advantages to allow an AMS with the capability of concurrently processing multiple radio carriers to connect to multiple ABSs for normal communications, e.g., connect to both a Femto ABS and an overlay Macro ABS simultaneously to get best service from both.

Suggested Remedy

make the following changes:

1. change the sentence in line 15 on page 313 as follows:

In this case, Disconnect\_time should be long enough that network reentry procedure to target ABS can be completed prior to the expiration of Disconnect\_time or the Disconnect\_time should not be used.

2. change the paragraph in line 38 on page 314 as follows:

From AMS point of view, if network entry is completed (see 16.2.6), the AMS may shall stop communicating with the serving ABS. Then, the AMS may send UL data or BW-REQ message to the target ABS.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Currently TGm doesn't support simultaneous connection between one AMS with two ABSs. This modification makes HO quite complex.

Group's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10132

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical

Part of Dis  Satisfied

Page 313    Line 18

Fig/Table#

Subclause 16.2.8.2.9.2.2

For clean-up of the term

Suggested Remedy

[Modify the text as follows]

In case of AAI\_HO-CMD message with multiple target ABS and carriers, the physical [carrier](#) index of each candidate carrier provided by each target ABS should also be indicated in the AAI\_HO-CMD message.

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

In case of AAI\_HO-CMD message with multiple target ABS and carriers, the physical [<ins>carrier</ins>](#) index of each candidate carrier provided by each target ABS should also be indicated in the AAI\_HO-CMD message.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10133

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 316      Line 45      Fig/Table#      Subclause 16.2.8.2.10.2

We are writing 16m as an amendment to the baseline 802.16 standard. Equation number (5) is used by the baseline document. So, it shall not be duplicately used here.

Suggested Remedy

Change the equation number in line 45 on page 316 to a valid equation number based on both baseline doc and 16m doc; and then throughout the 16m spec, change the references to the equation accordingly.

GroupResolution

Decision of Group: Agree

Resolved by comment #587.

Resolution:

Change the equation number in line 45 on page 316 to a valid equation number based on both baseline doc and 16m doc; and then throughout the 16m spec, change the references to the equation accordingly.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Comment by: Eunkyung KimMembership Status:Date: 2010-07-09Comment # 10134Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 317      Line 1      Fig/Table#      Subclause 16.2.8.2.10.2

In order to support idle state if multicarrier feature is supported by the AMS and ABS minimizing the modification current draft in idle mode and multicarrier operation, following operation should be considered.

- PGID\_Info message is transmitted in all carriers including fully and partially configured carrier.
- Any traffic pointed by A-MAP IE does not transmitted in the dedicated carrier but AAI\_E-MBS-CFG message is transmitted in the dedicated carrier.
- PGID\_Info and PAG-ADV message should be transmitted via an corresponded carrier met the equation "Paging carrier index = DID modulo N."
- It may not impact on the normal idle mode.
- It degrades the overhead in the dedicated carrier.
- Carrier switching is necessary to perform location update which is done via primary carrier.
- In order to avoid any interruption of E-MBS during paging, any E-MBS traffic is not transmitted during the paging listening interval.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0915 or its lastest revision.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The PAG-ADV for E-MBS AMS should be transmitted in the carrier which carries the E-MBS data in order to remove the carrier switching to receive the PAG-ADV.

Vote:

In favor: 5

Opposed: 4

Abstain:

Group's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10135

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 317    Line 7

Fig/Table#

Subclause 16.2.8.2.10.2

"Equation (2)" in line 7 on page 317 is for sure a wrong reference to the equation.

Suggested Remedy

correct the equation referenc (sorry, no idea what it should be); or delete the sentence containing the wrong reference.

GroupResolution

Decision of Group: Agree

Resolved by comment #588.

Resolution:

correct the equation reference

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10136Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 317      Line 11      Fig/Table#      Subclause 16.2.8.2.11

In the carrier management procedure, the AAI\_CM-CMD message is used for the ABS to instruct the AMS to perform certain actions, and the carrier management procedure is always initiated by the ABS. Then, the question is why the AMS is not allowed to initiate a carrier management procedure.

Note that in some cases it is useful and important that the AMS can also initiate carrier management processes. For example, based on the AMS's measurements and monitoring of its assigned multiple carriers, it may detect one of the fully configured secondary carrier is more suitable to be used as its primary carrier, in this case the AMS may want to initiate a carrier management process to make the primary carrier change. This is very similar to the use case of AMS-initiated HO, as the primary carrier is actually the anchor for the AMS to connect to the ABS in the multicarrier operation.

Suggested Remedy

discuss and adopt contribution C80216m-10\_0400r1 or its latest version.

GroupResolutionDecision of Group: Disagree

Resolved by comment #594.

Resolution:

According to the current text, the ABS can direct to activate/deactivate the secondary carrier or change the primary carrier based on the QoS requirement, load condition of carriers, channel quality from CQI for active carrier or scan report for inactive carrier and other factors. So we don't need to define the MS-initiated carrier management. The AMS already reports the channel quality of the assigned carriers to the ABS.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10137

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 317      Line 15      Fig/Table#      Subclause 16.2.8.2.11.1  
In line 15 on page 317, a comma is missing.

Suggested Remedy

[Modify the text as follows]

The activation or deactivation of secondary carrier(s) is decided by the ABS based on QoS requirement, load condition of carriers, channel quality from CQI for active carrier or scan report for inactive carrier, and other factors.

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

The activation or deactivation of secondary carrier(s) is decided by the ABS based on QoS requirement, load condition of carriers<ins>.</ins> channel quality from CQI for active carrier or scan report for inactive carrier, and other factors.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Soojung Jung

Membership Status:

Date: 2010-07-09

Comment # 10138

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 317      Line 40      Fig/Table# 690      Subclause 16.2.8.2.11.1

The ABS activates and/or deactivates one or more assigned secondary carriers with the AAI\_CM-CMD MAC control message. The AMS transmits the AAI\_CM-IND MAC control message through the primary carrier, where this message confirms with the ABS that the AMS has successfully activated/deactivated the carriers listed in the AAI\_CM-CMD message.

In case that an AMS received the AAI\_CM-CMD message may fail to activate/deactivate some of secondary carrier listed in the AAI\_CM-CMD message within the activation deadline, the transmission of AAI\_CM-IND message is ambiguous and in need of clarification.

Suggested Remedy

adopt the proposed text in the latest version of contribution C80216m-10\_0795

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The considered scenario is not practical.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10139Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 317      Line 46      Fig/Table#      Subclause 16.2.8.2.11.1

Based on the paragraph in line 46 page 317, with the AMS has a single radio transceiver, the AMS needs to reconfigure its hardware settings in order to Tx/Rx from one carrier to another carrier. Then the question is how can such an AMS support the use of another activated secondary carrier? note that the use of activated secondary carrier means the AMS still maintain its communication with the primary carrier at least for control signaling, while communicating with the ABS for data on the secondary carrier. Such an operation requires the AMS to communicate with the ABS on more than one carriers.

It seems not practical to do secondary carrier activation for the AMS with a single radio transceiver.

Suggested Remedy

delete the paragraph in line 46 on page 317.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The current text is correct and adequate. It is possible to do secondary carrier activation for the AMS with a single radio transceiver.

Group's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10140

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 317      Line 59

Fig/Table#

Subclause 16.2.8.2.11.1

Editorial correction

Suggested Remedy

[Modify the text as follows]

The ~~M~~multicarrier allocation and aggregation may be used independently in the downlink or uplink and the ABS performs the operations based on QoS, loading and AMS's capabilities.

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

The ~~M~~multicarrier allocation and aggregation may be used independently in the downlink or uplink and the ABS performs the operations based on QoS, loading and AMS's capabilities.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10141

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 5      Fig/Table#      Subclause 16.2.8.2.11.2

For primary change, currently AMS only follows ABS' command for the purpose of load balancing. But as people discussed previously, different carriers may have different coverage. In this case, it would be better for AMS to initiate the request to change its primary carrier.

Suggested Remedy

Suggest to consider "AMS request to perform primary carrier change" again among the group.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The existing scanning procedure in the current draft standard can be used for this case.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10142

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 318      Line 8

Fig/Table#

Subclause 16.2.8.2.11.2

Editorial correction

Suggested Remedy

[Modify the text as follows]

The Primary Carrier Cchange involves changing the serving carrier for an AMS in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover.

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

The Primary Carrier C~~e~~change involves changing the serving carrier for an AMS in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10143Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 318      Line 8      Fig/Table#      Subclause 16.2.8.2.11.2

The serving carrier and target carrier are not defined in D6.

**Suggested Remedy**

Change the first sentence in the paragraph in line 8 on page 318 as follows:

The Primary Carrier change involves changing the primary serving carrier for an AMS from one fully configured carrier to another fully configured carrier in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover, where the current primary carrier is called serving carrier, and the fully configured carrier as the candidate for the primary carrier change is called target carrier.

**GroupResolution****Decision of Group: Principle**

Resolved by comment #590.

Resolution:

[Change the first sentence in the paragraph in line 8 on page 318 as follows:]

The Primary Carrier change involves changing the primary serving carrier for an AMS to another assigned fully configured carrier in a multicarrier ABS without changing the MAC layer security and mobility contexts and unlike normal inter-FA handover, where the current primary carrier is called serving carrier, and the fully configured carrier as the candidate for the primary carrier change is called target carrier.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes****Editor's Actions**      b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10144Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 8      Fig/Table#      Subclause 16.2.8.2.11.2

what happens if the AMS could not conduct the primary change as instructed by the ABS even it correctly received and ack-ed the AAI\_CM-CMD message? There are reasons similar to HO failure that triggers this error condition.

The two primary carrier change cases as shown in Figure 424 and 425 have no means to handle such an error condition. Well, in the case of Figure 424, it actually causes disconnection of the AMS from the ABS, as there is no AAI\_CM-IND message for triggering the actual primary carrier change.

we suggest the following to handle this problem:

1. use AAI\_CM-IND sent on the target carrier to indicate a success of primary carrier change at AMS. only after receiving an AAI\_CM-IND sent on the target carrier, the ABS can use the target carrier as the new primary carrier for control channels;
2. use AAI\_CM-IND sent on the serving carrier at the action time to indicate a failure of primary carrier change.

#### Suggested Remedy

make the following changes:

1. in Figure 424 on page 319, add a line at the action time from AMS's T-carrier to ABS's T-carrier with the caption of "AAI\_CM-IND";
2. change the paragraph in line 25 on page 318 as follows:

If the AMS supports carrier aggregation mode and the target carrier is one of the active secondary carriers of the AMS, the AMS may receive data and control signal on the target carrier immediately after switching. Otherwise, the AMS first reconfigures its hardware setting (e.g. RF center frequency) and switches to target carrier. If Ranging indicator in the AAI\_CM-CMD message is set to '1', the AMS shall perform the periodic ranging procedure with the target carrier. After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message on the target carrier to notify its readiness of the target carrier to the ABS: otherwise the AMS shall transmit an AAI\_CM-IND on the serving carrier to indicate a failure of the primary carrier change. If Ranging indicator in the AAI\_CM-CMD message is set to '0', at the action time, the AMS shall transmit an AAI\_CM-IND message to the ABS on the target carrier if it is ready to use the target carrier as its new primary carrier; otherwise it shall transmit the AAI\_CM-IND message on its serving carrier. The ABS shall use the target carrier as the primary carrier ~~may transmit data and control signal~~ after the AAI\_CM-IND message is received on the target carrier from the AMS ~~through the target primary carrier~~. Given that a common MAC manages both serving and target primary carriers, network reentry procedures at the target primary carrier is not required. The ABS may direct an AMS to change the primary carrier without scanning. For the multi-carrier supported AMS, the logical carrier indices of the serving and target primary carrier are swapped after the primary carrier change.

3. insert the following new paragraph in line 39 on page 318:

At the action time of the primary carrier change as instructed by the ABS in a received AAI\_CM-CMD message, if the AMS is not ready to use the target carrier as the new primary carrier, i.e., a failure of primary carrier change, the AMS shall send an AAI\_CM-IND message on the serving primary carrier. When receiving an AAI\_CM-IND message on the serving carrier at or after the action time, the ABS considers the corresponding primary carrier change procedure is failed and it shall keep using the serving carrier as the primary carrier for the AMS.

**GroupResolution**

**Decision of Group: Disagree**

Resolved by comment #595.

**Resolution:**

In figure 424, we don't need to transmit the AAI\_CM-IND message. Since the target carrier is one of already activated carrier, the AMS can change the primary carrier without any readiness time for activation. In this case, if the AAI\_CM-CMD message is successfully transmitted to the AMS, it means that the primary carrier is also successfully changed. So, we can confirm the successful primary carrier change through the exchange of AAI\_CM-CMD and MSG ACK. If the ABS doesn't receive the MSG\_ACK within the retransmission timer, then the ABS considers the primary carrier change as failed. The AAI\_CM-IND is only used as a readiness indication for the newly activated carrier.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.8 Multicarrier operation

**Editor's Notes**

**Editor's Actions** b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10145

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 30      Fig/Table#      Subclause 16.2.8.2.11.2

In primary carrier change, which carrier doe the AMS use to send AAI\_CM-IND message?

Suggested Remedy

Change the sentence in line 30 on page 318 as follows:

After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message [on the target carrier](#) to notify its readiness of the target carrier to the ABS.

GroupResolution

Decision of Group: Disagree

Resolved by comment #591.

Resolution:

[Change the sentence in line 30 on page 318 as follows:]

After successfully completing this action, the AMS shall transmit an AAI\_CM-IND message [on the target carrier](#) to notify its readiness of the target carrier to the ABS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10146Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 318      Line 36      Fig/Table#      Subclause 16.2.8.2.11.2

The logical carrier index is implicitly assigned as the order of assigned physical carriers for an AMS. So, it is a per AMS concept., which increases the implementation of complexity. Its benefit is 3-bit logical carrier index vs. 6-bit physical carrier index. Note that the carrier index is used in the MC related MAC control signaling, not in any data packets.

Suggest removing the logical index in the MC.

Suggested Remedy

make the following changes:

1. remove the last sentence in line 36 page 318, i.e.,;

~~For the multi-carrier supported AMS, the logical carrier indices of the serving and target primary carrier are swapped after the primary carrier change.~~

2. throughout D6, delete the all definitions of logical carrier index, i.e., on page 217, line 7,

~~Logical carrier index is assigned implicitly in the order of assigned physical carrier index~~

GroupResolutionDecision of Group: Principle

Resolved by comment #592.

Resolution:

Adopt the text proposed in C802.16m-10/0945r2

Reason for Group's Decision/ResolutionGroup's Notes

16.2.8 Multicarrier operation

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Eunjong Lee

Membership Status:

Date: 2010-07-09

Comment # 10147

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 318      Line 54      Fig/Table#      Subclause 16.2.8.2.11.2

For clarification and typo

Suggested Remedy

[Modify the texts as follows]

- Target primary carrier index: [\(referred by physical carrier index\)](#)
- Indication of the next state of serving primary carrier: if the AMS does not support carrier aggregation, this ~~filed~~ [field](#) shall be always set to '0'

GroupResolution

Decision of Group: Agree

[Modify the texts as follows]

- Target primary carrier index: ~~<ins>(referred by physical carrier index)</ins>~~
- Indication of the next state of serving primary carrier: if the AMS does not support carrier aggregation, this ~~<del>filed</del>~~ ~~<ins>field</ins>~~ shall be always set to '0'

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10148

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 319      Line 36      Fig/Table# Figur      Subclause 16.2.8.2.11.2

There are couple of issues with the Figure 425 on page 319, e.g.,

1. at the AMS side, the Common MAC box is missing;
2. at the AMS side, the S-carrier and T-carrier shall be shown.

Suggested Remedy

make the following changes in Figure 425 on page 319:

1. add the box at the AMS side with Common MAC with S-carrier and T-carrier i.e., (the same box at the ABS side);
2. show that all the messages before the action time are on S-carrier between the ABS and the AMS; also show that all the interactions after the action time are on T-carrier between the ABS and the AMS.

GroupResolution

Decision of Group: Disagree

Resolved by comment #593.

Resolution:

Disagree: The primary carrier change can be performed for an AMS in basic MC mode, MC aggregation or switching mode. If the AMS is in basic MC mode, then such AMS doesn't have common MAC. In Figure 425, we should cover both single carrier supported AMSs and MC supported AMSs. So we don't need to add more modification in Figure 435.

Reason for Group's Decision/Resolution

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10149

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 320      Line 1      Fig/Table#      Subclause 16.2.8.2.11.3

Based on the current 16m/D6 spec, a lots of pieces about the carrier switching operation for the E-MBS, e.g., how, how long, what periodicity, what triggers for the carrier switching.It is not properly specified in the E-MBS section 16.9.2.1, nor in the DSA-REQ/RSP messages, nor MC scetion.

Suggested Remedy

Either complete the specification of the carrier switching operation or delete all relevant text / references.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Group would like to complete the specification of the carrier switching operation. However, commentor did not provide the specific resolution.

Group's Notes

16.2.8 Multicarrier operation

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10150

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 327      Line      Fig/Table# 36      Subclause 16.2.10.2

Mangement of transport connection is described in the section 16.2.10.2 but default service flow is not regarded in the description even if the default service flow is mapped to the transport connection.

Hence, I suggest adding some description regarding the default service flow and modifying some related sentences here and there to keep consistency as the following text proposals.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0895 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C802.16m-10/0895

Reason for Group's Decision/Resolution

Group's Notes

16.2.10 Connection Management

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10151

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 328      Line 20      Fig/Table#      Subclause 16.2.11.1.1

Transport FID may have an access class assigned via DSx message, but other FIDs such as control FID, Signaling header FID cannot have an access class. Need to be clarified.

Suggested Remedy

Update the sentence in line 20, page 328, D6.

An access class [for Transport FIDs](#) is assigned to a service flow via DSx MAC control messages during the service flow establishment / modification. [An access class 0 shall be used for the connections which are not established by DSx exchange.](#)

GroupResolution

Decision of Group: Agree

Update the sentence in line 20, page 328, D6.

An access class [<ins>for Transport FIDs</ins>](#) is assigned to a service flow via DSx MAC control messages during the service flow establishment / modification. [<ins>An access class 0 shall be used for the connections which are not established by DSx exchange.</ins>](#)

Reason for Group's Decision/Resolution

Group's Notes

16.2.11 Bandwidth Request and Allocation Mechanism

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10152

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 328      Line 25      Fig/Table#      Subclause 16.2.11.1.1

Unclear sentence. Need to be clarified.

Suggested Remedy

Update the sentence in line 25, pp. 328, D6 as follows:

If ~~it is not (the minimum access classes are not sufficiently low such that the AMS access class is allowed), then~~ the minimum access class of a ranging opportunity is greater than an access class of the service flow, the AMS shall not send BR preamble to the ranging opportunity ~~wait until the BR channel configuration in the AAI\_SCD advertises a sequence of minimum access classes, one of which is less than or equal to the access class of the data and the AMS.~~

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The original text is unambiguous and correct.

Group's Notes

16.2.11 Bandwidth Request and Allocation Mechanism

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10153

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 330      Line 6      Fig/Table#      Subclause 16.2.11.1.1

MS should send BR header only to UL resources allocated by the BR ACK A-MAP IE or CDMA Allocation A-MAP IE. Only BR header can contain STID.

Suggested Remedy

In Step 3, the AMS transmits a standalone BR header only.

GroupResolution

Decision of Group: Agree

In Step 3, the AMS transmits a standalone BR header <ins>only</ins>.

Reason for Group's Decision/Resolution

Group's Notes

16.2.11 Bandwidth Request and Allocation Mechanism

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10154

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 330      Line 53      Fig/Table# Figur      Subclause 16.2.11.1.1

Need to provide exact description for Figure 430

Suggested Remedy

Update the caption of Figure 430 in line 53, Figure 330 , D6.

Figure 430—Example of 5-step random access BR procedure ([fall backs from 3-step BR](#))

GroupResolution

Decision of Group: Principle

Adopt the text proposed in C802.16m-10/0944

Reason for Group's Decision/Resolution

Group's Notes

16.2.11 Bandwidth Request and Allocation Mechanism

Editor's Notes

Editor's Actions    a) done

Comment by: Heejeong Cho

Membership Status:

Date: 2010-07-09

Comment # 10155

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 330      Line 56      Fig/Table#      Subclause 16.2.11.1.1  
Editorial comment

Suggested Remedy

If the ABS detects at least one BR preamble sequence in frame n, and does not grant UL resources by the CDMA\_Allocation\_IE IE to all the successfully received BR requests before or in the frame n+BR\_ACK\_Offset, the ABS shall send at ~~least~~ least one BR ACK A-MAP IE ~~in~~ at the frame n+BR\_ACK\_Offset.

GroupResolution

Decision of Group: Agree

If the ABS detects at least one BR preamble sequence in frame n, and does not grant UL resources by the CDMA\_Allocation\_IE IE to all the successfully received BR requests before or in the frame n+BR\_ACK\_Offset, the ABS shall send at ~~least~~ least one BR ACK A-MAP IE ~~in~~ at the frame n+BR\_ACK\_Offset.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions a) done

Comment by:

Jaehyuk Jang

Membership Status:Date: 2010-07-09Comment # 10156Document under Review: P802.16m/D6Ballot ID: sb\_16mComment Type EditorialPart of Dis  Satisfied Page 330 Line 56Fig/Table#Subclause 16.2.11.1.1

Duplicated words

Suggested Remedy

Delete the duplicated words in line 58, page 30, D6.

If the ABS detects at least one BR preamble sequence in frame n, and does not grant UL resources by the CDMA\_Allocation\_IE ~~IE~~ to all the successfully received BR requests before or in the frame n+BR\_ACK\_Offset, the ABS shall send at least one BR ACK A-MAP IE in the frame n+BR\_ACK\_Offset.

GroupResolutionDecision of Group: Agree

Delete the duplicated words in line 58, page 30, D6.

If the ABS detects at least one BR preamble sequence in frame n, and does not grant UL resources by the CDMA\_Allocation\_IE ~~IE~~ to all the successfully received BR requests before or in the frame n+BR\_ACK\_Offset, the ABS shall send at least one BR ACK A-MAP IE in the frame n+BR\_ACK\_Offset.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.1, 16.2: AAI MAC

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaehyuk Jang

Membership Status:

Date: 2010-07-09

Comment # 10157

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 331      Line 23      Fig/Table#      Subclause 16.2.11.1.4.1

The name of "Indication flag" is unclear. And, text needs to be more clarified.

Suggested Remedy

Update the section 16.2.11.1.4.1 as follows:

16.2.11.1.4.1 [BR](#) Indication flag feedback

An AMS can send an [BR](#) indication flag on the P-FBCH. The [BR](#) indication flag is used by the AMS to indicate to the ABS its intention to request UL allocation without the need to perform the random access bandwidth request. The codeword 0b111110 is used for that purpose. After receiving the [BR](#) indication flag from the AMS, the ABS may allocate the required UL resource [for the signaling header](#) to the AMS.

GroupResolution

Decision of Group: Agree

Update the section 16.2.11.1.4.1 as follows:

16.2.11.1.4.1 <ins>[BR](#)</ins> Indication flag feedback

An AMS can send an <ins>[BR](#)</ins> indication flag on the P-FBCH. The <ins>[BR](#)</ins> indication flag is used by the AMS to indicate to the ABS its intention to request UL allocation without the need to perform the random access bandwidth request. The codeword 0b111110 is used for that purpose. After receiving the <ins>[BR](#)</ins> indication flag from the AMS, the ABS may allocate the required UL resource <ins>[for the signaling header](#)</ins> to the AMS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.11 Bandwidth Request and Allocation Mechanism

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Seho Kim

Membership Status:

Date: 2010-07-09

Comment # 10158

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 336      Line 57      Fig/Table#      Subclause 15.3.6.5.4.6

This contribution proposes changes to the DL and UL Persistent Allocation A-MAP IEs.

N\_ACID calculation is changed based on the maximum retransmission delay of persistent allocation for preventing collision of ACID in persistently scheduled resources.

This contribution also proposes to correct some typo in Allocation Period in UL Individual Persistent A-MAP IE.

Suggested Remedy

Adopt the proposed text in C80216m-09/1891 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This comment appears to be a mistake, possibly included from an old database.

Group's Notes

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jeongki Kim

Membership Status:

Date: 2010-07-09

Comment # 10159

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 338      Line 33      Fig/Table# 785      Subclause 16.2.12.3.1.1

In rtPS UPI is used instead of UGI

Suggested Remedy

[Modify the related sentence as follows:]

UPGI = Primary GPI

GroupResolution

Decision of Group: Agree

P338 L33, right hand column. Modify the related sentence as follows:

U<ins>P</ins><del>G</del>I = Primary GPI

Reason for Group's Decision/Resolution

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10160

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 338      Line 42      Fig/Table#      Subclause 16.2.12.4

Current 16m/D6 description about emergency service flow is not arranged in the view of terminology.  
Need some text cleanup to keep consistency.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0893 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C802.16m-10/0893

Reason for Group's Decision/Resolution

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

An Nguyen

Membership Status:

Date: 2010-07-09

Comment # 10161

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 338

Line 48

Fig/Table#

Subclause

The “ranging purpose indication” in 802.16m only has one code to indicate “emergency call”, initially designed for the citizen-to-authority type of emergency service (e.g., E911 in the U.S.). To support authority-to-authority type of NS/EP service with multiple user priority levels (e.g., ETS as specified in the WiMAX Forum Release 1.6 documents and ITU), the original single code is not sufficient to distinguish the authority-to-authority call from the citizen-to-authority call.

Suggested Remedy

Original text:

During the network entry, the ABS shall allocate the emergency service FID through AAI\_RNG-RSP upon receiving AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b0010.

Proposed text:

Add the following:

During the network entry, the ABS shall allocate the NS/EP service FID through AAI\_RNG-RSP upon receiving AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b10000.

GroupResolution

Decision of Group: Agree

Original text:

During the network entry, the ABS shall allocate the emergency service FID through AAI\_RNG-RSP upon receiving AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b0010.

Proposed text:

Add the following:

During the network entry, the ABS shall allocate the NS/EP service FID through AAI\_RNG-RSP upon receiving AAI\_RNG-REQ with Ranging Purpose Indication set to code 0b10000.

Reason for Group's Decision/Resolution

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

An Nguyen

Membership Status:

Date: 2010-07-09

Comment # 10162

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment

Type Technical

Part of Dis

Satisfied

Page 338

Line 57

Fig/Table#

Subclause

The “ranging purpose indication” in 802.16m only has one code to indicate “emergency call”, initially designed for the citizen-to-authority type of emergency service (e.g., E911 in the U.S.). To support authority-to-authority type of NS/EP service with multiple user priority levels (e.g., ETS as specified in the WiMAX Forum Release 1.6 documents and ITU), the original single code is not sufficient to distinguish the authority-to-authority call from the citizen-to-authority call.

Suggested Remedy

Original text:

The AMS may request for Emergency Service flow setup during initial ranging process by setting the Ranging Purpose Indication to code 0b0010 in the AAI\_RNG-REQ message. Default service flow parameters are defined for emergency service flow.

Proposed text:

The AMS may request for Emergency Service flow setup during initial ranging process by setting the Ranging Purpose Indication to code 0b0010 for E911 type services and code 0b1000 for NS/EP services in the AAI\_RNG-REQ message. Default service flow parameters are defined for emergency service flow.

GroupResolution

Decision of Group: Agree

Original text:

The AMS may request for Emergency Service flow setup during initial ranging process by setting the Ranging Purpose Indication to code 0b0010 in the AAI\_RNG-REQ message. Default service flow parameters are defined for emergency service flow.

Proposed text:

The AMS may request for Emergency Service flow setup during initial ranging process by setting the Ranging Purpose Indication to code 0b0010 for E911 type services and code 0b1000 for NS/EP services in the AAI\_RNG-REQ message. Default service flow parameters are defined for emergency service flow.

Reason for Group's Decision/Resolution

Group's Notes

## 16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # **10163**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment    Type Technical    Part of Dis     Satisfied     Page 339    Line 50    Fig/Table# Tabl    Subclause 16.2.12.8

The parameter, MAC in-order delivery indicator, should be applied to both non-ARQ connection and ARQ connection, as long as it is a data transport connection. This is because, in an IP-based networks, Layer-2 in-order delivery is application-specific, i.e., it helps for certain applications. However, it cannot be used alone to guarantee the in-order delivery of the application that needs in-order delivery, because IP-based Layer-3 is above it and IP won't keep the delivery order. Therefore, we should not bind all the ARQ connections with Layer-2 in-order delivery.

### Suggested Remedy

change the first sentence in the description box of "MAC in-order delivery indicator" in Table 786 as follows:

Indicate whether or not the order of delivery in the non-ARQ connection is preserved by the MAC.

GroupResolution

Decision of Group: **Disagree**

Resolved by comment #570.

Resolution:

Disagree: ARQ connection is not delay sensitive.

Reason for Group's Decision/Resolution

Group's Notes

16.2.12 Quality of Service (QoS)

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Anil Agiwal

Membership Status:

Date: 2010-07-09

Comment # 10164

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 359      Line 4      Fig/Table#      Subclause 16.2.13.5.4

The ARQ packets in the ongoing HARQ transmissions at the time of sending ARQ reset message, can be received by the receiver after receiving the ARQ reset message and after it has reset its windows. This will lead to discarding of new packets as duplicates once the new ARQ packet transmissions are initiated by the transmitter. In some cases it can also lead to combination of two SDU fragments, one from old transmission and one for new transmission leading to delivery of incorrect SDU to upper layer.

Suggested Remedy

Adopt the proposed text in latest version of contribution C80216m-10\_0784

GroupResolution

Decision of Group: Agree

Adopt the proposed text in latest version of contribution C80216m-10\_0784

Reason for Group's Decision/Resolution

Group's Notes

16.2.13 ARQ mechanism

Editor's Notes

Editor's Actions a) done

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10165Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 360      Line 5      Fig/Table#      Subclause 16.2.14.1

[AT] For uplink HARQ retransmissions, it is specified in page 360, line 4-6 that, the AMS shall send the subpacket labeled 0b00 when the AMS receives the UL Basic Assignment A-MAP IE regardless of the transmission number. This rule may restrict the HARQ retransmission scheme to only Chase combining in scenarios where resource allocation constraints may not allow synchronous HARQ re-transmissions.

Suggested Remedy

Delete the lines 4-6 in Page 360 as follows:

## 16.2.14.1 HARQ subpacket generation and transmission

Generating the HARQ subpackets shall follow 16.3.11 Channel coding and HARQ . The received subpackets shall be combined by the FEC decoder as part of the decoding process.

Incremental redundancy (IR) is mandatory, with Chase combining as a special case of IR. For IR, each subpacket contains the part of codeword determined by a subpacket identifier (SPID).

The rule of subpacket transmission is as follows:

For downlink,

- a)At the first transmission, ABS shall send the subpacket labeled 0b00.
- b)ABS may send one among subpackets labeled 0b00, 0b01, 0b10 and 0b11 in any order.

For uplink,

- a)At the first transmission, AMS shall send the subpacket labeled 0b00.
- b)AMS shall send one among subpackets labeled 0b00, 0b01, 0b10 and 0b11 in sequential order.
- c) ~~AMS shall send the subpacket labeled 0b00 when the AMS receives the UL Basic Assignment A-MAP IE regardless of the transmission number.~~

Insert SPID field in the UL Basic Assignment A-MAP IE on page 565

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Although the AMS successfully receives the UL Basic Assignment A-MAP IE for retransmission, if an AMS failed to decode the UL Basic Assignment A-MAP IE for the initial UL subpacket transmission, then the ABS cannot decode the HARQ subpacket indicated by UL

Basic Assignment A-MAP IE for retransmission because the SPID of the AMS is different from that of the ABS. Generally, 16m UL HARQ operation is synchronous. The resource wastage by the MAP error is bigger problem than using CC instead of IR.

**Group's Notes**

16.2.14 HARQ Functions

**Editor's Notes**

**Editor's Actions** b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Jin Lee

**Membership Status:**

**Date:** 2010-07-09

**Comment #** 10166

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 365      **Line** 54      **Fig/Table#**      **Subclause** 16.2.15

The draft does not clearly specify the predefined time period by enabling unsolicited bandwidth indicator during network entry

**Suggested Remedy**

Discuss and adopt the contribution C80216m-10\_0734 or its latest version.

**GroupResolution**

**Decision of Group:** Agree

Adopt the contribution C80216m-10\_0734

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.14 HARQ Functions

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Heejeong Cho

Membership Status:

Date: 2010-07-09

Comment # 10167

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 376      Line 1      Fig/Table# 444      Subclause 16.2.15

'Wait for AAI\_RNG-ACK or CDMA allocation A-MAP IE' status is triggered to 'Wait for Ranging opportunity' status if the following conditions are met :

1. AMS receives its response of ranging status 'continue' via AAI\_RNG-ACK;
2. AMS receives AAI\_RNG-ACK, but its response is not included in the message;
3. AMS receives its response of ranging status 'success' via AAI\_RNG-ACK, but does not receives CDMA Allocation A-MAP IE until T3 timer is expired.
4. AMS does not receives AAI\_RNG-ACK including responses for ranging opportunity selected by AMS until T31 timer is expired.

However, 4th condition is not properly reflected in the Fig. 444.

Suggested Remedy

Adopt contribution C80216m-10/0745 or later version.

GroupResolution

Decision of Group: Agree

Adopt contribution C80216m-10/0745

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10168

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 378      Line 9      Fig/Table#      Subclause 16.2.15

X.509 certificate in section 7 is defined for the RSA-based authentication, which is not used in 16m. Hence even if the X.509 certificate is used for authentication through EAP methods, it is different from the X.509 certificate defined in section 7.  
So I suggest removing the specific reference in the description as the suggested remedy.

Suggested Remedy

Security information ~~as defined in Clause 7~~ (e.g., X.509 certificate) used to authenticate the AMS to the security server and authenticate the responses from the security and provisioning servers.

GroupResolution

Decision of Group: Agree

Security information ~~as defined in Clause 7~~ (e.g., X.509 certificate) used to authenticate the AMS to the security server and authenticate the responses from the security and provisioning servers.

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10169

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 378      Line 52      Fig/Table#      Subclause 16.2.15.3

I don't agree in 16m ranging design a ranging opportunity is a ranging channel. I think a ranging opportunity is a combination of ranging channel and ranging preamble code, which corresponds to how a ranging request is identified.

Suggested Remedy

make the following changes:

1. change the paragraph in line 52 on page 378 as follows:

Ranging channel and ranging preamble codes for initial ranging are specified in 16.3.9.2.4. Each [combination of a](#) ranging channel [and a ranging preamble code](#) indicates a ranging opportunity.

2. change sentence in line 5 on page 379 as follows:

The AMS shall send the selected ranging preamble code to the ABS in the selected ranging [channel opportunity](#).

GroupResolution

Decision of Group: Disagree

Resolved by comment #543.

Resolution: The proposed remedy must apply to multiple places in the standard. This remedy only touches one location and is therefore incomplete.

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10170

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 379      Line 11      Fig/Table#      Subclause 16.2.15.3

When the ranging status is "success", there is still possible UL transmission parameter adjustments needed to be provided to the AMS, as shown in the paragraph in line 24 on page 379.

Suggested Remedy

change the sentence in line 11 on page 379 as follows:

If all the detected ranging preamble codes prove 'success' status [without needing UL transmission parameter adjustments](#) and the ABS provides all UL BW allocations for each detected ranging preamble codes before the T31 Timer is expired, the AAI\_RNG-ACK may be omitted.

GroupResolution

Decision of Group: Principle

Resolved by comment #544.

Resolution:

change the sentence in line 11 on page 379 as follows:

If all the detected ranging preamble codes prove 'success' status [without needing UL transmission parameter adjustments](#) and the ABS provides all UL BW allocations for each detected ranging preamble codes before the T31 Timer is expired, the AAI\_RNG-ACK may be omitted.

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10171

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 381      Line 11      Fig/Table#      Subclause 16.2.15.6

AMS may perform Zone switch from Mzone to Lzone or direct HO from Mzone to R1BS.

In those cases AMS's R1 capabilities has to be negotiated at the target zone or target BS. That means additional control message transactions are required besides RNG message transaction because R1 capabilities are different from 16m capability.

But, if the AMS's R1 capabilities are pre-neogotiated at the serving ABS, additional control message transactions for capability negotiation are not required.

We suggest that when the AMS access to the mixed ABS, if it perform network entry to M zone then it pre-negotiate the AMS capability for WirelessMAN-OFDMA reference system

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0888 or its later version.

GroupResolution

Decision of Group: Disagree

Vote: 9-14-0

Reason for Group's Decision/Resolution

It is not known when in run-time situations if the remedy saves overhead or actually increases overhead.

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10172

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 381      Line 38      Fig/Table#      Subclause 16.2.15.6

During network entry if it is acknowledged during registration procedure that the Global carrier configuration needs to be updated then the ABS shall send a unicast AAI\_Global-config message.  
But, after registration procedure ABS and AMS shall switch its TSTID to STID notified by AAI\_REG-RSP.  
in order to prohibit conflict of TSTID and STID, the ABS has to send a unicast AAI\_Global-config message after switching between STID and TSTID.

Suggested Remedy

If the AAI\_Global-Config message parameters are to be updated, the ABS shall unicast the updated AAI\_Global-Config message to each AMS's served by the ABS in unicast manner after AMS and ABS complete switching between TSTID and STID. The ABS shall set Polling bit to 1 in MCEH of the AAI\_Global-Config message.

GroupResolution

Decision of Group: Principle

If the AAI\_Global-Config message parameters are to be updated, the ABS shall unicast the updated AAI\_Global-Config message to each AMS's served by the ABS ~~in unicast manner~~ after the AMS and ABS complete switching between TSTID and STID. The ABS shall set Polling bit to 1 in MCEH of the AAI\_Global-Config message.

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10173

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 381      Line 43      Fig/Table#      Subclause 16.2.15.6

According to 16m/D6[1], in order to support AMS location privacy, ABS assigns two station identifiers such as TSTID and STID. The TSTID is assigned by AAI\_RNG-RSP during initial ranging procedure and it is used until STID is assigned by AAI\_REG-RSP during registration procedure.

However, it may occur that AAI\_REG-RSP is not successfully transmitted to the AMS but the ABS regards it as successful transmission. Then the ABS would switch to STID from TSTID but the AMS would still keep TSTID. Finally the link between AMS and ABS is lost.

Hence we need to a switching mechanism that guarantees non-disrupted link connection.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0884 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0884r2

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10174

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 381      Line 50      Fig/Table#      Subclause 16.2.15.6

The use of the Default Service Flow (DSF) has been adopted by P802.1616m/D6. According to 16m/D6, one UL FID and one DL FID are reserved for default service flow in each direction, which are activated after successful completion of Registration transaction. However, there are some remaining issues.

1. the CS type associated with the DSF is not clear
2. the QoS parameters values for the DSF is predefined and there is no method for their update. That is, it does not permit the flexibility of changing/customizing the values by the operators for their subscribers in a different deployment or for a different usage scenario.
3. usage of DSF, when multiple CS types are enabled, is not clear

Hence we suggest remedies to solve the remaining issues.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0857 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0857r3

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Giwon Park

Membership Status:

Date: 2010-07-09

Comment # 10175

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 382      Line 25      Fig/Table#      Subclause 16.2.15.7

In D6 the description of 16.2.15.7(Network reentry during the ABS restart) is incomplete. we propose the clarification of it.

Suggested Remedy

Adopt the text proposal in C80216m-10\_876 or the latest revision of the contribution.

GroupResolution

Decision of Group: Principle

Replace subclause 16.2.15.7 with the following text:

The ABS maintains a restart count that is incremented by one whenever the ABS restarts. The restart count is included in AAI\_SCD message (refer to 16.2.3.30). The AMS stores the restart count advertised in the latest instance of the AAI\_SCD message. Whenever the AMS detects a restart count which is different that the latest stored value it shall determine that the ABS has been restarted. Then the AMS performs network reentry as defined in 16.2.26.3.

Reason for Group's Decision/Resolution

Group's Notes

16.2.15 Network Entry and Initialization

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10176

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 382      Line 51      Fig/Table#      Subclause 16.2.16

The operations about the Periodic Ranging Timer needs further specification, e.g., when start / restart?

Suggested Remedy

Change the bullet a) in line 51 on page 382 as follows:

a) The AMS maintains and controls a Periodic Ranging timer. The AMS shall starts the Periodic Ranging timer upon the completion of the initial network entry or the network re-entry. The AMS shall restart or reset the Periodic Ranging timer upon triggered by the events specified in the Periodic Ranging procedure below. The AMS shall stop the Periodic Ranging timer when it is disconnected from the ABS, e.g., entering idle mode, de-registered, or HO.

GroupResolution

Decision of Group: Disagree

Resolved by comment #567.

Resolution:

Reason for Group's Decision/Resolution

starting of the periodic ranging after network entry is not correct

Group's Notes

16.2.16 Periodic Ranging

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10177

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 383      Line 30      Fig/Table#      Subclause 16.2.16

Based on the current periodic ranging design, when the AMS has active UL data communication and the UL is nicely synchronized with the ABS, the ABS does not need to send any UL Tx parameter adjustments to the AMS. However, in this case, the periodic ranging timer is still running at the AMS, then when timeouts, it will trigger the AMS to conduct periodic ranging, which is totally not necessary.

Due to the mandatory HARQ for UL unicast data burst, the ACK to the UL bursts of the AMS is certainly a good indication of UL condition. So, we suggest the AMS reset the Periodic Ranging timer upon receiving a HARQ ACK for the AMS's UL transmission.

Suggested Remedy

Insert the following new bullet in line 30 on page 383:

e) Upon receiving a HARQ ACK for an UL data burst of the AMS, the AMS shall reset the Periodic Ranging timer.

GroupResolution

Decision of Group: Disagree

Resolved by comment #568.

Reason for Group's Decision/Resolution

Group's Notes

16.2.16 Periodic Ranging

Editor's Notes

Editor's Actions      b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10178Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 383      Line 30      Fig/Table#      Subclause 16.2.16

In 16m/D6, there are two mechanisms that are related to air link status monitoring and maintenance, periodic ranging and coverage loss detection. Periodic ranging is used for maintain the UL synchronization, and a periodic ranging timer is maintained at AMS. Coverage loss detection is used for the ABS to monitor the status of the AMS, and a timer is maintain at the ABS for each active AMS.

Those two mechanisms are disconnected and could have one running right after another, because the periodic ranging process does not provide the ABS the AMS's identification so the ABS does not know who have just successfully done a periodic ranging.

Some minor changes can build the connection between those two air link status monitoring/maintenance mechanisms for system performance improvement. For example, after a successful periodic ranging, the ABS provides an UL allocation through CDMA allocation IE for the AMS to transmit an AAI\_RNG-CFM message to the ABS, so that the ABS knows who has just successfully completed periodic ranging process. In this way, the ABS can reset the active\_ABS\_timer for the coverage loss detection, then unnecessary triggers to the coverage loss detection procedure can be avoided.

Suggested Remedy

Insert the following new bullet in line 30 on page 383:

f) After responding to a periodic ranging request with a ranging status of "success" in the AAI\_RNG-ACK message, the ABS shall provide a unicast UL allocation through a CDMA allocation A-MAP assignment IE to the AMS who sent the periodic ranging request. The AMS shall send its STID information in an AAI\_RNG-CFM message to the ABS.

GroupResolutionDecision of Group: Disagree

Resolved by comment #569.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.16 Periodic Ranging

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jaesun Cha

Membership Status:

Date: 2010-07-09

Comment # 10179

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 385      Line 12      Fig/Table#      Subclause 16.2.17.2.1

Usage of SCH and AAI\_SLP-RSP message is not clear and the operation of NSCF seems to be inefficient.

Suggested Remedy

adopt texts in C802.16m-10/0787

GroupResolution

Decision of Group: Principle

adopt texts in C802.16m-10/0787r2

Reason for Group's Decision/Resolution

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10180

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 385      Line 44      Fig/Table#      Subclause 16.2.17

There are several editorial as well minor technical inconsistencies in the sleep mode operation text in Section 16.2.17. we proposes changes to different parts of this section to clean up the text in this section.

Suggested Remedy

Adopted contribution C802.16m-10\_0902 or its latest version.

GroupResolution

Decision of Group: Principle

Same as comment #413

Adopted contribution C802.16m-10\_0902r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yeongmoon Son

Membership Status:

Date: 2010-07-09

Comment # 10181

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 387      Line 22      Fig/Table#      Subclause 16.2.17.2.3.1

In 16m/D6, if the AMS in Sleep Mode detects that the information it has is not up-to-date, then it shall not transmit in the Listening Window until it receives the up-to-date system information. Therefore, when the AMS lost AAI\_TRF-IND message and detects 'out of date' of system information (i.e. change of S-SFH info.), the AMS cannot transmit AAI\_TRF\_IND-REQ message to request its own traffic indication. As you know, it takes a little long time for the AMS to get entire information of s-SFH. On the contrary, the current Sleep Cycle can be reset. As a result, the AMS may miss several Listening Windows without transmitting an AAI\_TRF\_IND-REQ message when the AMS identifies system information has been changed. In that sense, it may be meaningless for the AMS to inquire the traffic indication in the frame in which the first lost traffic was transmitted. In other words, the AMS hardly calculates the position of the next scheduled Listening Window because the AMS may miss Listening Windows

Suggested Remedy

Adopt the proposed text in contribution C80216m-10/0854 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C80216m-10/0854

Reason for Group's Decision/Resolution

Group's Notes

16.2.17 Sleep Mode

Editor's Notes

Editor's Actions    a) done

**Comment by:** Yeongmoon Son**Membership Status:****Date:** 2010-07-09**Comment #** 10182**Document under Review:** P802.16m/D6**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 387      **Line** 22      **Fig/Table#**      **Subclause** 16.2.17.2.3.1

There is a missing sentences about AAI\_TRF\_IND-REQ which existed in D5. We need to describe when to transmit AAI\_TRF-IND as described in 16m/D5

**Suggested Remedy**

## 16.2.3.27 AAI\_TRF\_IND-REQ

If the TIMF is set to 1, the ABS shall transmit AAI\_TRF-IND message in the first frame during the Listening Window. However, if the traffic indication message is lost or otherwise not detected by the AMS, the AMS shall stay awake for the rest of the Listening Window. If the AMS receives any unicast data during the listening window, then it shall assume that the traffic indication was positive. If the AMS receives neither the traffic indication message nor any unicast data in the Listening Window, the AMS shall send an AAI\_TRF\_IND-REQ message to the ABS after the Listening Window in order to ask the starting frame number and the size of next scheduled Sleep Cycle.

**GroupResolution****Decision of Group:** Agree

## 16.2.3.27 AAI\_TRF\_IND-REQ

If the TIMF is set to 1, the ABS shall transmit AAI\_TRF-IND message in the first frame during the Listening Window. However, if the traffic indication message is lost or otherwise not detected by the AMS, the AMS shall stay awake for the rest of the Listening Window. If the AMS receives any unicast data during the listening window, then it shall assume that the traffic indication was positive. <ins>If the AMS receives neither the traffic indication message nor any unicast data in the Listening Window, the AMS shall send an AAI\_TRF\_IND-REQ message to the ABS after the Listening Window in order to ask the starting frame number and the size of next scheduled Sleep Cycle.</ins>

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.17 Sleep Mode

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10183

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 391      Line 58      Fig/Table#      Subclause 16.2.18

Some descriptions on Idle Mode operation are still very unclear. For example, what's the meaning of operation mode in Idle Mode?

Suggested Remedy

Adopted contribution C802.16m-10\_0903 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #414.

Resolution:

Adopted the proposed text in contribution C802.16m-10\_0903

Reason for Group's Decision/Resolution

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Feng Xie

Membership Status:Date: 2010-07-09Comment # 10184Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 400      Line 21      Fig/Table#      Subclause 16.2.18.2.1

AMS operation when paged by an ABS with cell bar bit =1 needs clarification. It reads in current D6:

"If an idle mode AMS is paged by an ABS whose Cell Bar bit=1, then the AMS shall not perform network re-entry to this ABS. The AMS shall perform ABS reselection and perform network re-entry if another ABS with Cell Bar bit=0 is found."

However, the procedure shall be applied only when the Action code =0b0 (network re-entry) in AAI\_PAG-ADV message.

Suggested Remedy

adopt the following modifications:

"If an idle mode AMS is paged by an ABS whose Cell Bar bit=1 with Action Code=0b0, then the AMS shall not perform network re-entry to this ABS. The AMS shall perform ABS reselection and perform network re-entry if another ABS with Cell Bar bit=0 is found."

GroupResolutionDecision of Group: Principle

Resolved by comment #392.

## Resolution:

[Adopt the following changes from P 400, L20]

"If an Idle Mode AMS is paged by an ABS whose Cell Bar bit=1 with Action Code = 0b0, then the AMS shall not ~~perform attempt~~ network reentry to this ABS. Instead, the AMS shall perform ABS reselection of the preferred ABS. and perform network re-entry If ~~another~~ the preferred ABS with Cell Bar bit=0 is found, the AMS shall try network re-entry to the ABS."

Reason for Group's Decision/ResolutionGroup's Notes

16.2.18 Idle mode

Editor's NotesEditor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10185

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 402      Line 7      Fig/Table#      Subclause 16.2.18.2.3

In order to support the legacy ASN, the ABS/AMS has to bridge the gap between the legacy ASN-GW and the 16m AMS/ABS. For example, the paging listening interval relevant parameters are quite different between 16e and 16m. The mapping of paging listening interval has to be done by the AMS and ABS.

Suggested Remedy

Adopt the proposed text in C802.16m\_10\_0720 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Suggested remedy of this contribution is incomplete because the MS does not need to calculate the paging offset in terms of superframe (commenter's words).

Group's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Yuqin Chen

Membership Status:Date: 2010-07-09Comment # 10186Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 403      Line 30      Fig/Table#      Subclause 16.2.18.4.2

In 16m draft, there is no definition of "extended system parameters and system configuration information", suggest to replace it by "AAI\_SCD message".

Suggested Remedy

After synchronization with its preferred ABS and getting P-SFH, if the AMS finds that it does not have the updated information after comparing the system configuration change count, the AMS needs to get the S-SFH or ~~extended system parameters and system configuration information~~ AAI\_SCD message from the preferred ABS.

GroupResolutionDecision of Group: Principle

Resolved by comment #18.

Resolution:

Adopt the following changes from P 403, L33:

the AMS needs to get the S-SFH or ~~extended system parameters and system configuration information~~ AAI\_SCD message from the preferred ABS.

Reason for Group's Decision/ResolutionGroup's Notes

16.2.18 Idle mode

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10187Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 415      Line 23      Fig/Table# 800      Subclause 16.2.21.1.1

[BH] An error exists in the equations used to set the value of the Resource\_Metric\_FPi field in Table 800.

**Suggested Remedy**

*Modify the equations in the "Notes" column of Table 800 for the Resource\_Metric\_FPi field, beginning at line 23, as follows (add a set of parentheses around  $(x-0.5)*8/0.3$  in the equation used when  $0.5 \leq x < 0.8$ ):*

if  $0 \leq x < 0.5$ :

$$y = \text{floor}(x/0.125)$$

if  $(0.5 \leq x < 0.8)$ :

$$y = \text{floor}((x-0.5)*8/0.3) + 4$$

otherwise:

$$y = \text{floor}((x-0.8)/0.05) + 12$$

**GroupResolution****Decision of Group: Agree**

*Modify the equations in the "Notes" column of Table 800 for the Resource\_Metric\_FPi field, beginning at line 23, as follows (add a set of parentheses around  $(x-0.5)*8/0.3$  in the equation used when  $0.5 \leq x < 0.8$ ):*

if  $0 \leq x < 0.5$ :

$$y = \text{floor}(x/0.125)$$

if  $(0.5 \leq x < 0.8)$ :

$$y = \text{floor}((x-0.5)*8/0.3) + 4$$

otherwise:

$$y = \text{floor}((x-0.8)/0.05) + 12$$

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.21 Interference Mitigation Mechanism

**Editor's Notes****Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jinsoo Choi

Membership Status:

Date: 2010-07-09

Comment # 10188

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 421      Line 44      Fig/Table#      Subclause 16.2.24

In 16.2.24 Update of S-SFH IEs, there are still ambiguous descriptions and the section needs proper figures to represent each S-SFH IE transmission case based on the agreed concept of S-SFH IE update. C80216m-10/0738 provides the proposed text about clarification of current update of S-SFH IEs section.

Suggested Remedy

Adopt the remedies from 1 to 6 in the proposed text in C80216m-10/0738 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

16.2.24 Update of S-SFH IEs

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10189Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 422      Line 28      Fig/Table#      Subclause 16.2.24

[MC] The term "S-SFH applying offset" is a confusing name for the IE. I had to re-read the section a few times to understand the purpose of this field. Effectively, it seems to delay or prevent application of the new S-SFH parameters until new S-SFH is transmitted at least two times. I would suggest that term "Hold" could be used to replace applying offset to suggest a "holding period" before the new S-SFH is applicable.

I suggest that all instances of "S-SFH applying offset" be replaced with "S-SFH Hold"

Suggested Remedy

**Modify lines 19 through 35 on page 422 as follows:**

The ~~S-SFH applying offset~~ S-SFH Hold in the P-SFH IE is used to indicate ~~which~~ previous S-SFH change count shall be considered for applying the system parameters in the S-SFH SPx IEs. If the S-SFH Hold is set to 1, then current contents of the S-SFHx shall be acquired but not used. Instead, the parameters associated with the previous change count will be continue to be applied to the system until the hold is removed. If the S-SFH Hold is set to 0, the hold is removed and the S-SFH IEs associated with the current S-SFH change count are in effect. ~~According to the S-SFH applying offset, if the S-SFH applying offset is set to 0, the AMS shall use the system parameters of S-SFH SPx IEs associated with the current S-SFH change count. Otherwise, if the S-SFH applying offset is 1, the AMS shall store the changed parameters of S-SFH SP IEs associated with the current S-SFH change count, but use the parameters associated with previous S-SFH change count(= (the current S-SFH change count-1) modulo 16).~~

The ABS shall set the ~~S-SFH applying offset~~ S-SFH Hold to 1 indicating a hold for a number of superframes after the S-SFH change count is incremented by 1. To guarantee enough time for AMSs to receive the changed S-SFH SPx IE(s), ~~S-SFH applying offset~~ S-SFH Hold shall be set to 1 shall remain in effect until the changed S-SFH SP1 IE and the changed S-SFH SP2 IE are transmitted 2 times at their regularly scheduled transmission times and the changed S-SFH SP3 IE is transmitted once, i.e, ~~S-SFH applying offset~~ S-SFH Hold shall be set to 0 in the next superframe after the changed S-SFH SP1 IE and the changed S-SFH SP2 IE are transmitted 2 times and the changed S-SFH SP3 IE is transmitted once.

**Replace "S-SFH applying offset" with "S-SFH Hold" in line 28, 59, 61, 64 on page 539**

**Modify line 28 of page 539 as follows:**

Indicate the ~~associated~~ S-SFH change count ~~in this~~

~~superfame~~ is currently in effect.

0b0: No Hold -Use S-SFH SPx IEs associated with the current S-SFH change count

0b1: Hold -Use S-SFH SPx IEs associated withb (the current S-SFH change count - 1) modulo 16

**GroupResolution**

**Decision of Group: Disagree**

**Reason for Group's Decision/Resolution**

Current term "applying offset" is clear.

**Group's Notes**

16.2.24 Update of S-SFH IEs

**Editor's Notes**

**Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10190

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 38      Fig/Table#      Subclause 16.2.26

The section title "Coverage Loss" does not well reflect the contents of this section.

Suggested Remedy

Change line 38 on page 423 as follows:

**16.2.26 Coverage ~~loss~~ Loss Detection and Recovery**

GroupResolution

Decision of Group: Agree

Resolved by comment #557.

Resolution:

Change line 38 on page 423 as follows:

**16.2.26 Coverage <del>loss</del> <ins>Loss Detection and Recovery</ins>**

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions      b) none needed



Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10191Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 423      Line 55      Fig/Table#      Subclause 16.2.26.1

The padding MAC PDU is not defined in 16m, although it is defined in 16e. However, there is a padding CID defined specifically for the padding PDU. Well, in 16m, the 16-bit CID is segmented into 12-bit STID and 4-bit FID, therefore, the 16e padding PDU is no longer applicable in 16m.

For the purpose of using padding PDU in 16.2.26.1, there are two possible ways:

1. define a valid padding MAC PDU in 16m; or
2. the AMS sends a valid MAC PDU, e.g., a MAC control message or MAC signaling header with its STID info to the ABS, something similar to the AAI-RNG-CFM message, when receiving a UL grant and having not data to send.

We would recommend sending a MAC control signal (either MAC control message or MAC signaling header) with the AMS's STD ID.

#### Suggested Remedy

make the following changes:

1. change the paragraph in line 54 page 423 as follows:

Upon each expiration of the active\_ABS\_timer, to check whether an AMS is still alive in active mode, the ABS shall grant UL burst to the AMS and the AMS shall transmit a MAC PDU with data or if no data pending to be transmitted, then just transmit an AAI\_RNG-CFM message with padding bytes on the UL grant.

2. change the paragraph in line 62 page 423 as follows:

If the ABS does not receive ~~padding PDU or~~ MAC PDU on a predetermined number of successive UL grants (e.g., 10), the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

#### GroupResolution

Decision of Group: Principle

Resolved by comment #558.

Resolution:

make the following changes:

1. change the paragraph in line 54 page 423 as follows:

Upon each expiration of the active\_ABS\_timer, to check whether an AMS is still alive in active mode, the ABS shall grant UL burst to the AMS and the AMS shall transmit a MAC PDU with data or if no data pending to be transmitted, then just with padding bytes on the UL grant.

2. change the paragraph in line 62 page 423 as follows:

If the ABS does not receive an UL burst padding PDU or MAC PDU on a predetermined number of successive UL grants (e.g., 10), the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes**

**Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10192

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 423      Line 59      Fig/Table#      Subclause 16.2.26.1

In addition to sleep interval, there is a other case that the AMS is temporarily not available at the air link to the serving ABS, i.e., scanning interval.

Suggested Remedy

Change the paragraph line 59 on page 423 as follows:

In sleep mode, ABS may grant the UL burst at the listening window which is the nearest to the point of active\_ABS\_timer's expiration. Similarly, at the point of active\_ABS\_timer's expiration, if the AMS is in the scanning interval, the ABS may grant the UL burst for the coverage loss detection at the next interleaving interval of the AMS.

GroupResolution

Decision of Group: Principle

Resolved by comment #559.

Resolution:

Change the paragraph line 59 on page 423 as follows:

In sleep mode, ABS may grant the UL burst at the listening window which is the nearest to the point of active\_ABS\_timer's expiration. Similarly, at the point of active\_ABS\_timer's expiration, if the AMS is in the scanning interval, the ABS may grant the UL burst for the coverage loss detection at the next interleaving interval of the AMS.

Reason for Group's Decision/Resolution

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions      b) none needed

**Comment by:**

Lei Wang

**Membership Status:****Date:** 2010-07-09**Comment #** 10193**Document under Review:** P802.16m/D6**Ballot ID:** sb\_16m**Comment**      **Type** Technical      **Part of Dis**       **Satisfied**       **Page** 423      **Line** 62      **Fig/Table#**      **Subclause** 16.2.26.1

In 16m/D6, there are two mechanisms that are related to air link status monitoring and maintenance, periodic ranging and coverage loss detection. Periodic ranging is used for maintain the UL synchronization, and a periodic ranging timer is maintained at AMS. Coverage loss detection is used for the ABS to monitor the status of the AMS, and a timer is maintain at the ABS for each active AMS.

Those two mechanisms are disconnected and could have one running right after another, because the periodic ranging process does not provide the ABS the AMS's identification so the ABS does not know who have just successfully done a periodic ranging, and the coverage loss detection process may not cause a reset of the periodic ranging timer at the AMS.

Some minor changes can build the connection between those two air link status monitoring/maintenance mechanisms for system performance improvement. For example, in the coverage loss detection procedure, at expiration of the active\_ABS\_timer, the ABS grants the AMS a UL grant, if the AMS transmit a MAC PDU to the ABS successfully, then the ABS can reset the active\_ABS\_timer, plus send an unicast RNG-ACK to the AMS.

**Suggested Remedy**

In line 62 page 423 insert the following new paragraph:

If the ABS successfully receives a MAC PDU from the AMS in the UL allocation granted to it at active\_ABS\_timer timeout, the ABS shall reset the active\_ABS\_timer for the AMS. In addition, the ABS shall sends an unicast AAI\_RNG-ACK message to the AMS based on the measurement on the received data burst from the AMS.

**GroupResolution****Decision of Group:** Principle

Resolved by comment #563.

**Resolution**

In line 56 page 423 append the following text to the paragraph:

If the ABS successfully receives an UL data burst from the AMS in the UL allocation granted to it, the ABS shall reset the active\_ABS\_timer for the AMS. The ABS shall send a unicast AAI\_RNG-ACK message with status "success" to the AMS with or without adjustment parameters based on the measurement on the received UL burst from the AMS.

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes**

**Editor's Actions**

b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10194Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 423      Line 63      Fig/Table#      Subclause 16.2.26.1

To have a proper specification, the "predetermined number of successive UL grants (e.g., 10)" in the paragraph in line 63 page 423 shall be either specified as system configuration parameter or specified as a known value.

Plus, 10 seems a very high number.

Suggested Remedy

make the following changes:

1. Change the paragraph line 63 on page 423 as follows:

If the ABS does not receive padding PDU or MAC PDU on a predetermined number of successive UL grants, called number of Coverage Loss Detection UL grants  $N_{\text{CLD\_UL\_Grants}}$  ~~(e.g., 10)~~, the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
ABS	$N_{\text{CLD\_UL\_Grants}}$	Number of Coverage Loss Detection UL Grants	2	3	10

GroupResolutionDecision of Group: Agree

Resolved by comment #560.

## Resolution:

make the following changes:

1. Change the paragraph line 63 on page 423 as follows:

If the ABS does not receive padding PDU or MAC PDU on a predetermined number of successive UL grants,

<ins>called number of Coverage Loss Detection UL grants  $N_{\text{CLD UL Grants}}$ </ins> <del>(e.g., 10)</del> the ABS shall send an unsolicited AAI\_RNG-RSP message to request the AMS to perform ranging, as described below.

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
<u>ABS</u>	<u><math>N_{\text{CLD UL Grants}}</math></u>	<u>Number of Coverage Loss Detection UL Grants</u>	<u>2</u>	<u>3</u>	<u>10</u>

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes**

**Editor's Actions** b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10195Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 423      Line 64      Fig/Table#      Subclause 16.2.26.1

There are multiple questions/issues around the usage of AAI\_RNG-RSP message in subsection 16.2.26.1, e.g.,

1. is the 1-bit "Ranging Request bit" field the only information needed to be included in the AAI\_RNG-RSP for this coverage loss detection usage? if so, why do we need such a complicated message to carry 1-bit information? if not, then what are the other field that are needed?
2. the unsolicited AAI\_RNG-RSP usage is not specified in the definition of AAI\_RNG-RSP in section 16.2.3.2, where it actually says AAI\_RNG-RSP shall be sent as a response to AAI\_RNG-REQ;
3. when the ABS invites the AMS to do periodic ranging, the ABS actually knows the AMS's ID. If the ABS can keep the knowledge of the AMS's ID info during this coverage loss detection required periodic ranging process, then the steps for AMS to send its ID info after a successful periodic ranging can be saved.

**Suggested Remedy**

Either define a new MAC control signal, e.g., a MAC control message or a MAC control signaling header, for the ABS to invite the AMS to conduct periodic ranging; or change the specification of the current AAI\_RNG-RSP message to allow the unsolicited usage as described in the current coverage loss detection procedure.

**GroupResolution****Decision of Group: Disagree****Reason for Group's Decision/Resolution**

There is specific remedy proposed for the group to consider.

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes****Editor's Actions**    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10196

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 424      Line 22      Fig/Table#      Subclause 16.2.26.1

Coverage loss for HO need some clarification. Rather than reinitating the coverage loss procedure upon receiving any MAC PDU, we may clarify that its done upon receiving a HO cancel indication by AAI\_HO-IND message.

Suggested Remedy

Modify text as follows:

"Once the ABS receives a AAI\_HO-IND message with HO Event Code 0b100 (i.e. HO cancel) ~~MAG-PDU (i.e. bandwidth request)~~ from the AMS that is assumed to handover to a neighbor ABS (i.e. T-ABS), the ABS shall initiate the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS."

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Sentence conveys correct information.

Group's Notes

16.2.26 Coverage loss

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10197Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis       Satisfied       Page 424      Line 22      Fig/Table#      Subclause 16.2.26.2

The 2nd sentence in the paragraph is line 22 page 424 does not provide any useful information, as it is basically when to start the active\_ABS\_timer for an AMS in HO, which is specified in the paragraph in line 46 on page 423. Plus, there are multiple issues with it, e.g., the first MAC PDU that ABS receives from an AMS during HO are not necessary to be bandwidth request; what does "initiate the coverage loss detection procedure" mean, start the timer or start the procedure triggered by the timeout event?

Suggested Remedy

Change the paragraph in line 22 page 424 as follows:

In case of a HO, if the ABS identifies the AAI\_HO\_CMD message is successfully sent to the AMS, the ABS shall stop the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS. ~~Once the ABS receives a MAC PDU (i.e. bandwidth request) from the AMS that is assumed to handover to a neighbor ABS (i.e. T-ABS), the ABS shall initiate the coverage loss detection procedure (i.e. described in 16.2.26.2) for the AMS.~~

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

Sentence conveys a correct idea.

Group's Notes

16.2.26 Coverage loss

Editor's NotesEditor's Actions    b) none needed

**Comment by:**

Lei Wang

**Membership Status:****Date:** 2010-07-09**Comment #** 10198**Document under Review:** P802.16m/D6**Ballot ID:** sb\_16m**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 424      **Line** 28      **Fig/Table#**      **Subclause** 16.2.26.1

When an AMS is de-registered from the ABS, e.g., entering the idle mode or completing a deregistration, the ABS shall stop the active\_ABS\_timer for the AMS.

**Suggested Remedy**

Insert the following paragraph in line 28 page 424:

When an AMS is de-registered from the ABS, e.g., entering the idle mode as specified in Section 16.218 or completed a deregistration procedure as specified in Section 16.2.27, the ABS shall stop the active\_ABS\_timer for the AMS.

**GroupResolution****Decision of Group:** Principle

Resolved by comment #566.

Resolution:

When an AMS is successfully de-registered from the ABS by explicit control message transaction, e.g., entering the idle mode as specified in Section 16.218 or completed a deregistration procedure as specified in Section 16.2.27, the ABS shall stop the active\_ABS\_timer for the AMS.

**Reason for Group's Decision/Resolution****Group's Notes**

16.2.26 Coverage loss

**Editor's Notes****Editor's Actions** b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10199Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 424      Line 33      Fig/Table#      Subclause 16.2.26.2

To have a proper specification, the "predetermined number of contiguous (e.g., 5) SFHs" in the paragraph in line 63 page 423 shall be either specified as system configuration parameter or specified as a known value.

Suggested Remedy

make the following changes:

1. Change the paragraph line 33 on page 424 as follows:

The AMS can detect a coverage loss when it loses PHY synchronization or DL synchronization or UL synchronization, i.e., if the AMS cannot decode a predetermined number of contiguous ~~(e.g., 5)~~ SFHs, called number of lost SFHs denoted as  $N_{\text{lost-SFHs}}$  the AMS shall regard it as Link Loss from the ABS.

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
AMS	$N_{\text{lost-SFHs}}$	Number of lost SFHs for DL sync loss detection	3	5	10

GroupResolutionDecision of Group: Principle

Resolved by comment #561.

## Resolution:

make the following changes:

1. Change the paragraph line 33 on page 424 as follows:

The AMS can detect a coverage loss when it loses PHY synchronization or DL synchronization or UL synchronization, i.e., if the AMS cannot decode a predetermined number of contiguous (~~e.g., 5~~) SFHs, called number of lost SFHs denoted as  $N_{\text{lost-SFHs}}$  the AMS shall regard it as Link Loss from the ABS.

2. page 40, line 43, append the following row in Table 554,

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
AMS	$N_{\text{lost-SFHs}}$	Number of lost SFHs for DL sync loss detection	3	5	10

**Reason for Group's Decision/Resolution**

**Group's Notes**

16.2.26 Coverage loss

**Editor's Notes**

**Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10200

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 424      Line 44      Fig/Table#      Subclause 16.2.26.2

more straightforward English sentence is suggested.

Suggested Remedy

Change the sentence in line 44 on page 424 as follows:

Upon exhausted HARQ retransmissions of the AAI\_RNG-CFM message, the AMS considers that ~~the ABS considers~~ that ~~the AMS~~ it is not connected with the ABS anymore, and the AMS shall perform coverage loss recovery procedure as indicated in Section 16.2.26.3.

GroupResolution

Decision of Group: Agree

Resolved by comment #565.

Resolution:

Change the sentence in line 44 on page 424 as follows:

Upon exhausted HARQ retransmissions of the AAI\_RNG-CFM message, the AMS considers that ~~the ABS considers~~ that ~~the AMS~~ it is not connected with the ABS anymore, and the AMS shall perform coverage loss recovery procedure as indicated in Section 16.2.26.3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.1, 16.2: AAI MAC

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

sean cai

Membership Status:

Date: 2010-07-09

Comment # 10201

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 427      Line 6      Fig/Table#      Subclause 16.3.2.3

The two major competing IMT-Advanced technologies are based on LTE-Advanced and IEEE 802.16m. LTE has fixed its subcarrier spacing to 15 KHz, but IEEE 802.16 has made its subcarrier spacing a variable for different sets of system bandwidths, namely 10.9375 KHz, 7.8125 KHz, 9.765625 KHz. It is critical that the design of IEEE 802.16m can satisfy the critical needs for a cost-effective and performance competitive global technology in order to enable IEEE 802.16m to be well into the future. Since TD-LTE and TD-SCDMA will be introduced to market earlier than 16m and 16m has to be able to adjacent channel co-exist with LTE. With current variable subcarrier spacing and Frame structure in D6, 16m greenfield deployment can not work with competitive performance when adjacent channel co-existence with LTE. In order to resolve problems induced by the subcarrier spacing, a physical layer design based on fixed subcarrier spacing for greenfield deployment without legacy support is proposed.

Suggested Remedy

to accept the proposed text in the contribution C802.16m-10/0193r3 or the latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This requirement is not covered by the current project. It could potentially be addressed by a future standard developed by this group.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10202

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 427      Line 35      Fig/Table#      Subclause 16.3.2.4

why not use more straightforward way, i.e., sampling frequency, to derive sampling time?

Suggested Remedy

Change line 35 on page 427 as follows:

— Sampling time:  ~~$T_b / N_{FFT}$~~   $1/F_s$

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This format is consistent with 8.4.2.4 of the base standard.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10203Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 431      Line 48      Fig/Table#      Subclause 16.3.3.1

Based on the 16m/D6, the use of long TTI is per burst, plus some constraint, e.g., no partially overlapping. However, there still are some questions/issues with the use of long TTI, e.g.,

1. Can an AMS have a default TTI allocation and a long TTI allocation simultaneously?
2. Can a subframe have both default TTI allocations long TTI allocations?

Suggested Remedy

change the paragraph in line 47, page 431, as follows:

A data burst shall occupy either one AAI subframe (i.e. the default TTI transmission) or contiguous multiple AAI subframes (i.e. the long TTI transmission). Any 2 long TTI bursts allocated to an AMS shall not be partially overlapped, i.e. any 2 long TTI bursts in FDD shall either be over the same 4 subframes or without any overlap. [A long TTI burst allocated to an AMS can be partially overlapped with default TTI allocations to the same AMS.](#) The long TTI in FDD shall be 4 AAI subframes for both DL and UL. For DL (UL), the long TTI in TDD shall be all DL (UL) AAI subframes in a frame. [A subframe can have default TTI allocations and long TTI allocations](#)

GroupResolutionDecision of Group: Principle

Resolved by comment #546.

Resolution:

change the paragraph in line 47, page 431, as follows:

A data burst shall occupy either one AAI subframe (i.e. the default TTI transmission) or contiguous multiple AAI subframes (i.e. the long TTI transmission). Any 2 long TTI bursts allocated to an AMS shall not be partially overlapped, i.e. any 2 long TTI bursts in FDD shall either be over the same 4 subframes or without any overlap. The long TTI in FDD shall be 4 AAI subframes for both DL and UL. For DL (UL), the long TTI in TDD shall be all DL (UL) AAI subframes in a frame. [A subframe can have default TTI allocations and long TTI allocations](#)

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by: Lei Wang

Membership Status: Date: 2010-07-09

Comment # **10204**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment Type **Technical** Part of Dis  Satisfied  Page **432** Line **35** Fig/Table# Subclause **16.3.3.1**

the numbers regarding bursts specified on page 432 seems not consistent with page 530 about the number A-MAP IEs.

On page 432, the max number of DL bursts for an AMS in a subframe is 7, including 4 unicast bursts, 2 broadcast bursts, and 1 E-MBS burst. The max number of UL bursts is 4, including 3 unicast bursts and 1 CDMA/BR-ACK IE allocated burst.

On page 530, the max number of assignment IEs to an AMS in a subframe is 8. Note that it includes both DL assignment IEs and UL assignment IEs.

In addition, the numbers gets more complicated when considering the sum of FFT size is larger than 2048 in multicarrier systems as specified in line 46 page 432.

Suggested Remedy

clarify the relevant text to make the numbers in different places consistent.

GroupResolution

Decision of Group: **Disagree**

Resolved by comment #549.

Resolution:

Disagreed for reasons below.

Reason for Group's Decision/Resolution

Maximum DL is 7, maximum UL is 4, the maximum total is 8, which means you can mix and match, but cannot exceed 8.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10205

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 432      Line 50      Fig/Table#      Subclause 16.3.3.1

What's "time repeated broadcast data burst"? What's "non-time repeated broadcast data burst"?

Searched the entire 16m/D6; and could not find any definitions.

It should certainly keep consistent with the description given in the Broadcast Assignment A-MAP IE.

Suggested Remedy

Change the paragraph in line 50 page 432 as follows:

ABS shall not allocate more than 1 ~~time repeated~~ broadcast data burst [with time domain repetition](#) per frame and 1 ~~non-time repeated~~ broadcast data burst [without time domain repetition](#) per AAI subframe (using Broadcast Assignment A-MAP IE [with the field "Transmission Format" indicating with or without time domain repetition](#)) and 1 E-MBS burst (using E-MBS A-MAP IE) per AAI subframe. Here, a long TTI burst shall be counted as one burst for each and every AAI subframe that the long TTI burst spans.

GroupResolution

Decision of Group: Agree

Resolved by comment #548.

Resolution:

Change the paragraph in line 50 page 432 as follows:

ABS shall not allocate more than 1 ~~<del>time repeated</del>~~ broadcast data burst [<ins>with time domain repetition</ins>](#) per frame and 1 ~~<del>non-time repeated</del>~~ broadcast data burst [<ins>without time domain repetition</ins>](#) per AAI subframe (using Broadcast Assignment A-MAP IE [<ins>with the field "Transmission Format" indicating with or without time domain repetition</ins>](#)) and 1 E-MBS burst (using E-MBS A-MAP IE) per AAI subframe. Here, a long TTI burst shall be counted as one burst for each and every AAI subframe that the long TTI burst spans.

Reason for Group's Decision/Resolution

Group's Notes

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10206

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 450      Line 54      Fig/Table#      Subclause 16.3.3.6.1

[MC] Many aspects of support for WirelessMAN-OFDMA with multicarrier operation are not well defined in the current standard. Many different reuse configurations of WirelessMAN-OFDMA have been deployed throughout the world. Some examples of deployment include reuse 3 with 1x3x3, reuse 2 with 1x4x2 configurations and reuse 4 with 1x4x4 configurations. Some of these deployments use 5 MHz while others use 10 MHz. The IEEE 802.16m standard should enable the smooth migration of these systems to fully functional 20 MHz IEEE 802.16m deployments. Specifically, the multicarrier mode should aggregate both 2, 10 MHz carriers and 4, 5 MHz carriers to form a 20 MHz advanced carrier. This aggregation should be possible independent of the reuse mode employed by WirelessMAN-OFDMA.

Suggested Remedy

The following additions to standard are required to support WirelessMAN migration to 20 MHz 16m:

- a) Explicit definition of the multicarrier WirelessMAN-OFDMA modes support. Aggregation of 2, 10 MHz carriers and 4, 5 MHz carriers
- b) Enable a primary carrier operation where the WirelessMAN-OFDMA zone is mirrored on both the primary and secondary carrier allowing a reuse 2 WirelessMAN-OFDMA deployment to coexist with the reuse 1 16m deployment
- c) Support for subcarrier alignment even when all carriers support WirelessMAN-OFDMA.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The standard supports backwards compatibility for 5, 7, 8.75, and 10 MHz.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10207

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 460      Line 37      Fig/Table#      Subclause 16.3.5.2.1  
the number of subbands should be an integer number.

Suggested Remedy

make the following changes:

1. in line 37 page 460, change:  $N_{PRU}/4 - 3$  to   $N_{PRU}/4$   -3
2. in line 43, page 460, change:  $N_{PRU}/4 - 2$  to   $N_{PRU}/4$   -2

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

$N_{PRU}$  is always multiple of 4, so the floor() function is not necessary.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10208

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 462      Line 26      Fig/Table#      Subclause 16.3.5.2.1

[FV] In the PHY structure in the D6 draft, when few sub-bands are allocated, those sub-bands are very close together in frequency. We propose to slightly modify the sub-band partitioning equations in the D6 draft to improve the location of the PRUs that are allocated to be sub-bands while preserving the spacing of the DRUs achieved in D6.

Suggested Remedy

*Adopt proposed text changes in contribution C802.16m-10/0749 or latest version*

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no significant performance gain for the additional complexity.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10209

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 470      Line 16      Fig/Table#      Subclause 16.3.5.3.1

The parameter DCAS<sub>i</sub> is actually one parameter, not a series of parameters with subscript i, as specified in line 63 page 470 and Table 840.

It is misleading to use the notation DCAS<sub>i</sub> with i as subscript, as comparing to all the other parameter names with subscript.

Suggested Remedy

Throughout the entire 16m/D6 document, change DCAS<sub>i</sub> to DCASI.

GroupResolution

Decision of Group: Disagree

Resolved by comment #551.

Resolution:

Disagree

Reason for Group's Decision/Resolution

DCASI indicates the size per partition, with 'i' indicating which partition.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Chia-Lung Tsai

Membership Status:

Date: 2010-07-09

Comment # 10210

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 477      Line 26      Fig/Table#      Subclause 16.3.5.3.2

The parameter value of IDcell indicated in the text describing Figure 494 is incorrect.

Suggested Remedy

Figure 494 presents the subcarrier permutation for BW=10 MHz, KSB = 7, FPCT = 4, FPS0= FPSi = 12, DFPSC = 2, DCASSB,0 = 1, DCASMB,0 = 1, DCASi = 2, ~~IDcell = 2~~ IDcell = 0, and 2 data streams.

GroupResolution

Decision of Group: Agree

Figure 494 presents the subcarrier permutation for BW=10 MHz, KSB = 7, FPCT = 4, FPS0= FPSi = 12, DFPSC = 2, DCASSB,0 = 1, DCASMB,0 = 1, DCASi = 2, ~~IDcell = 2~~ IDcell = 0, and 2 data streams.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: Chia-Lung Tsai

Membership Status:

Date: 2010-07-09

Comment # 10211

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 478      Line 26      Fig/Table#      Subclause 16.3.5.3.2  
The caption of Figure 494 is incorrect.

Suggested Remedy

Correct the caption of Figure 494 as follow:

~~Figure 542 – Subcarrier Permutation for BW=10 MHz, KSB=7, FPCT=4, FPS0=FPSi=12, DFPSC=2~~

Figure 542 – Subcarrier permutation for BW=10 MHz

GroupResolution

Decision of Group: Principle

Correct the caption of Figure 494 as follow:

~~Figure 542 – Subcarrier Permutation for BW=10 MHz, KSB=7, FPCT=4, FPS0=FPSi=12, DFPSC=2~~

Figure 494 – Subcarrier permutation for BW=10 MHz

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Jinsoo Choi

Membership Status:Date: 2010-07-09Comment # 10212Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 482      Line 1      Fig/Table#      Subclause 16.3.5.4.1

'pilot stream 1 and pilot stream 2' in the description for "Figure 495 Pilot patterns used for 1 DL data stream" is a little confusing because Figure 495 represents the pilot pattern about 1 data stream and this expression is used for 2 data stream case as we can see in line 1 in page 483.

It would be better to replace it with 'stream set 0 and stream set 1', which is already used in the description for "Figure 499 Interlaced pilot patterns for 1 data stream".

Suggested Remedy

Modify as

Subfigure (a) and Subfigure (b) in Figure 495 show the pilot locations for ~~pilot~~ stream set 0 ~~1~~ and ~~pilot~~ stream set 1 ~~2~~, respectively.

GroupResolutionDecision of Group: Agree

Modify as

Subfigure (a) and Subfigure (b) in Figure 495 show the pilot locations for ~~pilot~~ stream set 0 ~~1~~ and ~~pilot~~ stream set 1 ~~2~~, respectively.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10213

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 492      Line 21      Fig/Table#      Subclause 16.3.5.4.3

[FV] The paragraph from on page 492 lines 21-27 is confusing and should be re-written.

Suggested Remedy

*Delete the following paragraph from line 21-27 of page 492*

~~If no data is transmitted by the ABS on all or some CLRUs in the open-loop region type 1 or type 2, the MaxMt pilots shall still be transmitted across all CLRUs in that open-loop region. If no data is transmitted by the ABS on all or some CLRUs outside any open-loop region, the pilots shall not be transmitted on the CLRUs where no data is sent.~~

*Add the following paragraph on line 21:*

Inside an open-loop region of type 1 or type 2, the MaxMt pilots shall always be transmitted across all CLRUs in that open-loop region. Outside an open-loop region, the pilots shall not be transmitted on CLRUs where no data is sent.

GroupResolution

Decision of Group: Agree

*Delete the following paragraph from line 21-27 of page 492*

~~If no data is transmitted by the ABS on all or some CLRUs in the open-loop region type 1 or type 2, the MaxMt pilots shall still be transmitted across all CLRUs in that open-loop region. If no data is transmitted by the ABS on all or some CLRUs outside any open-loop region, the pilots shall not be transmitted on the CLRUs where no data is sent.~~

*Add the following paragraph on line 21:*

Inside an open-loop region of type 1 or type 2, the MaxMt pilots shall always be transmitted across all CLRUs in that open-loop region. Outside an open-loop region, the pilots shall not be transmitted on CLRUs where no data is sent.

Reason for Group's Decision/Resolution

Group's Notes

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10214

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 492      Line 38      Fig/Table#      Subclause 16.3.5.4.3

[FV] The two sentences starting on line 38 of page 492 imply that in DL CL-MU-MIMO, an AMS can only have one stream. However, table 873 clearly allows more than one stream to an AMS during MU-MIMO.

Suggested Remedy

*Make the following changes to the paragraph starting on line 38 of page 492:*

In MU-MIMO transmissions in CLRU each pilot stream is dedicated to one AMS. ~~The AMS shall use its dedicated pilot stream for channel estimation within the allocation. Other pilot streams may be used for inter-stream interference estimation.~~ A pilot stream dedicated to an AMS may be used by the AMS for channel estimation within the allocation. Pilot streams dedicated to other AMSs may be used for inter-stream interference estimation. The total number of streams in the transmission and the index of the dedicated pilot stream are indicated in the DL Basic Assignment A-MAP IE, DL Persistent Allocation A-MAP IE or DL Subband Assignment A-MAP IE.

GroupResolution

Decision of Group: Principle

*Make the following changes to the paragraph starting on line 38 of page 492:*

In MU-MIMO transmissions in CLRU each pilot stream is dedicated to one AMS. ~~The AMS shall use its dedicated pilot stream for channel estimation within the allocation. Other pilot streams may be used for inter-stream interference estimation.~~ A pilot stream dedicated to an AMS shall be used by the AMS for channel estimation within the allocation. Pilot streams dedicated to other AMSs may be used for inter-stream interference estimation. The total number of streams in the transmission and the index of the dedicated pilot stream are indicated in the DL Basic Assignment A-MAP IE, DL Persistent Allocation A-MAP IE or DL Subband Assignment A-MAP IE.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by: Chia-Lung Tsai

Membership Status:

Date: 2010-07-09

Comment # **10215**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type **Technical**      Part of Dis       Satisfied       Page **496**      Line **62**      Fig/Table#      Subclause **16.3.5.6**

Two errors and some typos are identified in the 16.3.5.6.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0746 or its latest version

GroupResolution

Decision of Group: **Agree**

Resolved by comment #319.

Resolution:

Adopt the proposed text in C802.16m-10/0746.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Sangheon Kim

Membership Status:

Date: 2010-07-09

Comment # 10216

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 497      Line 39      Fig/Table#      Subclause 16.3.6.1

In the 67th session, it was decided that LBS beacon signal of D-LBS zone is transmitted at the position of the last Secondary A-preamble in the pattern of synchronization signals S-P-S-S. Since the AMS trying the initial network entry cannot obtain the information on whether or not LBS zone is activated, the usage of the last SA-Preamble is very limited even in a non-LBS zone mode. Therefore it is proposed to remove the last SA-Preamble.

Suggested Remedy

Adopt the proposed text in C80216m-10/0833 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C80216m-10/0833

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Note: a later version exists; use the original version.

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Youngbo Cho

Membership Status:

Date: 2010-07-09

Comment # 10217

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 499      Line 53      Fig/Table#      Subclause 16.3.6.1

There is no description of A-Preamble boosting levels for multi-carrier mode.

Suggested Remedy

Adopt the contribution C80216m-10/0789 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The power backoff as currently defined is sufficient to account for multicarrier operation.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Chia-Lung Tsai

Membership Status:

Date: 2010-07-09

Comment # 10218

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Editorial

Part of Dis  Satisfied

Page 507 Line 3

Fig/Table#

Subclause 16.3.6.1.2

Grammatical error

Suggested Remedy

Change the text on line 3 as

"Preamble at ~~k<sup>th</sup>~~ the kth subcarrier can be written as:"

GroupResolution

Decision of Group: Agree

Change the text on line 3 as

"Preamble at <del>k<sup>th</sup></del> <ins>the kth</ins> subcarrier can be written as:"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10219

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 526      Line 32      Fig/Table#      Subclause 16.3.6.2.1.2

According to Tsp1 < Tsp2 < Tsp3 and current S-SFH SPx transmission periods, it shall not occur that S-SFH is transmitted in every superframe.

Suggested Remedy

~~The Secondary Superframe Header (S-SFH) may be transmitted in every superframe.~~

GroupResolution

Decision of Group: Agree

Resolved by comment #238.

Resolution:

~~The Secondary Superframe Header (S-SFH) may be transmitted in every superframe.~~

Reason for Group's Decision/Resolution

Resolved by comment #238.

Resolution:

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jinsoo Choi

Membership Status:

Date: 2010-07-09

Comment # 10220

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 527      Line 1      Fig/Table#      Subclause 16.3.6.2.1.2

To avoid possible confusion about the transmission of additional S-SFH SPs, C80216m-10/0738 provides a proposed text to clarify the current description.

Suggested Remedy

Adopt the remedy-8 in the proposed text in C80216m-10/0738 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10221

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 528      Line 14      Fig/Table#      Subclause 16.3.6.2.2

if all the resources in a DL subframe are part of long TTI allocations but not the first subframe, does it need to have the A-MAP region? Or, in other extreme case, if all the 16m allocations are long TTI, then is the A-MAP region needed in the subframes not as the first subframe in the long TTI allocations?

If the answer is no, then how do we allocate the resources reserved for A-MAP region in those subframes?

Suggested Remedy

answer the question: can all the 16m allocations be long TTI? Accordingly, clearly specify the long TTI usage and corresponding A-MAP locations.

GroupResolution

Decision of Group: Principle

Resolved by comment #547.

Resolution:

Response to the question written in "reason" field below

Reason for Group's Decision/Resolution

A-MAP region includes not only assignment A-MAP but also NUS A-MAP, HF-A-MAP, PC-A-MAP. And a long TTI burst can be signaled through an assignment A-MAP in all subframes.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10222

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 531      Line 1      Fig/Table#      Subclause 16.3.6.2.3

Cleanup for the E-MBS MAP and E-MBS MAP IE to support the transmission of superframe header in the first AAI subframe of the first frame of each superframe.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0916 or its latest revision.

GroupResolution

Decision of Group: Agree

Please adopt the text proposal in IEEE C802.16m-10/0916

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Kaushik Josiam

Membership Status:

Date: 2010-07-09

Comment # 10223

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 531      Line 20      Fig/Table# 837      Subclause 16.3.6.2.3

The AAI\_E-MBS-CFG Change Indicator must be removed from the E-MBS MAP. The MAP is a message whose identical copies carried at all ABSs in the E-MBS zone while the E-MBS\_CFG message is ABS specific message that is different at every ABS in the zone. The E-MBS MAP currently carries the AAI\_E-MBS-CFG Change Indicator which this contribution proposes to remove. The AAI\_E-MBS-CFG message contains a field called CFG Lifetime which indicates when the configuration message is likely to change.

Suggested Remedy

Adopt the changes suggested in the latest revision of C802.16m-10/0927

GroupResolution

Decision of Group: Agree

Adopt the changes suggested in C802.16m-10/0927

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Huiying Fang

Membership Status:

Date: 2010-07-09

Comment # 10224

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 537      Line 58      Fig/Table#      Subclause 16.3.6.3.2.4

The burst indicated by Broadcast Assignment A-MAP is for all AMSs. Non-robust broadcast burst transmission will degrade the system performance. So it is necessary to make the probability of decoding broadcast assignment A-MAP correctly higher than that of decoding multicast or unicast assignment A-MAP correctly. We propose to use a fixed or predefined transmission method for Broadcast Assignment A-MAP.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0724 or its latest revision.

Group Resolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposal forces blind detection of the broadcast A-MAP and can result in decoding failure of all subsequent A-MAPs.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10225

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 538      Line 39      Fig/Table#      Subclause 16.3.6.5.1

About P-SFH IE and S-SFH SPx IE, firstly, some notes are not accurate enough; secondly, some information fields can be further optimized all the same.

Suggested Remedy

Page 538, Line 61:

Indicates the value of S-SFH change count associated with the S-SFH SPx IE(s) transmitted in this ~~superframe~~ S-SFH change cycle.

Page 542, Line 61:

Frame configuration index

~~65~~

The mapping between value of this index and frame configuration is listed in Table 807, Table 808, and Table 809

GroupResolution

Decision of Group: Principle

Resolved by comment #239.

Resolution:

Page 538, Line 61:

Indicates the value of S-SFH change count associated with the S-SFH SPx IE(s) transmitted in this ~~superframe~~ S-SFH change cycle.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jinsoo Choi

Membership Status:

Date: 2010-07-09

Comment # 10226

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 539      Line 46      Fig/Table#      Subclause 16.3.6.5.1.1

Based on the current update procedure of S-SFH IEs, it is recommended to clarify the descriptions for S-SFH change count and S-SFH SP change bitmap in 16.3.6.5.1.1 P-SFH IE section.

Suggested Remedy

Adopt the remedy-7 in the proposed text in C80216m-10/0738 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #170.

Resolution:

Adopt the text proposed in C802.16m-10/0824r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10227

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 540      Line 15      Fig/Table#      Subclause 16.3.6.5.1.2

This sentence "Each S-SFH subpacket IE is of a fixed size." is not identical with the previous expression that "Size<sub>S-SFH</sub> varies according to the scheduled S-SFH SPx IEs, FFT size and S-SFH size extension."

Suggested Remedy

~~Each S-SFH subpacket IE is of a fixed size.~~

GroupResolution

Decision of Group: Principle

Resolved by comment #240.

Resolution:

Replace:

"Each S-SFH subpacket IE is of a fixed size."

with:

"The size of the S-SFH subpacket IE is determined by the value of the S-SFH size extension field of the P-SFH IE."

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jeongho Park

Membership Status:

Date: 2010-07-09

Comment # 10228

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 542      Line 23      Fig/Table# 840      Subclause 16.3.6.5.1.2

Several frame configuration for mixed modes has DL:UL = 1:3 frame structure (for 16m).  
In this case, PC-A-MAP IE size (per subframe) would be three times according to D6, which results in over 130 PC-A-MAP IE per subframe in these frame configuration.  
This seems to make no sense because the number user connected to 16m, in mixed mode, would be smaller than pure 16m.

Suggested Remedy

Adopt the contribution IEEE C802.16m-10/0813 or its latest version

GroupResolution

Decision of Group: Principle

Adopt the contribution IEEE C802.16m-10/0813r5

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by:

Ying Li

Membership Status:Date: 2010-07-09Comment # 10229Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 543      Line 47      Fig/Table# 840      Subclause 16.3.6.5.1.2

In the current draft D6, it uses a bit 'femto indicator' in S-SFH SP1 IE, for the purpose of indicating different ranging configuration of femto and other types of the cells.

We think the key reason to use different ranging configuration is because of the different size or Tx power of the cell. Not only femtocells, but also other small-sized cells can use the same ranging configuration as femto, different from macrocell.

Since in S-SFH SP1 IE, it has already included the Tx power of the cell, we can use the Tx power level partition, to indicate which ranging configuration is used.

- If the Tx power is small, it means the cell can be of a small size, so the current ranging configuration for femtocell is used.
- If the Tx power is large, it means the cell can be of large size, so the current ranging configuration for macrocell is used.

Advantage of the proposal:

- Save one bit overhead in S-SFH SP1.
- Make the ranging configuration more flexibly related to the cell size, not just the type of the cell.

#### Suggested Remedy

Please adopt the text in contribution C80216m-10\_0921 or its latest version.

#### GroupResolution

Decision of Group: Disagree

#### Reason for Group's Decision/Resolution

The proposed contribution is incomplete.

#### Group's Notes

Clause 16.3: AAI PHY

#### Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10230

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 546      Line      Fig/Table# 17      Subclause 16.2.5.3.1

Currently a legacy Access networks are deployed together with a legacy core networks (e.g. AAA server). Due to development of the new 16m technologies we expect the 16m Access network will be deployed in some time. So we may expect that 16m Access network is deployed together with a legacy core network. For example, some service providers may want to deploy 16m Access network but maintain their legacy core network. As another case, some users, who has 16m AMS but subscribes legacy-supporting NSP, may use Roaming service through the local NSP supporting the advanced technology. In those situations, some 16m features may not be available to support.(e.g. MSID privacy etc.). Now we suggest supporting MSID privacy disabled mode .

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0890 or its later version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Incomplete remedy.

Vote:

In favor: 15

Opposed: 21

Abstain:

Group's Notes

Clause 16.3: AAI PHY (remanded to MAC->16.2.5 AAI Security)

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Alexey Khoryaev

Membership Status:

Date: 2010-07-09

Comment # 10231

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 547      Line 2      Fig/Table#      Subclause 16.3.6.5.1.2

All AMSs (served by ABS and ARS) have to be informed about the presence of ARS in the cell and shall know duration of the AAI Access and AAI Relay zone when ARS is attached to ABS. This information is required since AMS served by ABS can not decode control and data burst in the sub-frame where ARS MIMO midamble is transmitted. In addition different cell-specific permutations can be configured in AAI Access and AAI Relay zones (if ABS decides to use Relay Zone for communication with ARS only). The control signaling for support of ARS that resolves mentioned issues is proposed in C80216m-10\_0929.

Suggested Remedy

Adopt text proposed in the latest revision of C80216m-10\_0929

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/929r1.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10232

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical Part of Dis  Satisfied  Page 547 Line 34 Fig/Table# 842 Subclause 16.3.6.5.1.2

NSP list is broadcast by AAI\_SII-ADV message. AMS recognizes which NSPs it can access by the ABS. However, NSP list can be changed or some users want to access another NSP which is different from a stored NSP. So whenever network entry, the AMS has to wait for AAI\_SII-ADV message. However, if there is some indicator for the change of NSP list and the AMS stores the NSP list, network (re)entry can be proceeded without receiving AAI\_SII-ADV in case that NSP list is not changed. I suggest using S-SFH SP3 IE to carry this change counter.

Suggested Remedy

[ add the following attribute to the table 842]

Table 842—S-SFH SP3 IE format

Syntax	Size (bits)	Value / Note
.....	.	.....
<u>NSP change count</u>	<u>8</u>	<u>The value of NSP Change Count is programmable. NSP Change Count is an incrementing value. A change in NSP Change Count signals to an AMS that Contents of AAI_SII-ADV has changed.</u>
.....	.	.....

GroupResolution

Decision of Group: Principle

[ add the following attribute to the table 842]

Table 842—S-SFH SP3 IE format

Syntax	Size (bits)	Value / Note
.....	.	.....
<u>NSP change count</u>	<u>4</u>	<u>The value of NSP Change Count is</u>

[\\_programmable. NSP Change Count is an incrementing value. Achange in NSP Change Count signals to an AMS that Contents of AAI\\_SII-ADV has changed.](#)

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY (remanded to MAC -> 16.2.15 Network Entry and Initialization)

**Editor's Notes**

**Editor's Actions** a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Huiying Fang

**Membership Status:**

**Date:** 2010-07-09

**Comment #** 10233

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Editorial      **Part of Dis**  **Satisfied**       **Page** 549      **Line** 63      **Fig/Table#**      **Subclause** 16.3.6.5.2.1

A-MAP IE here is Non-user-specific A-MAP IE.

**Suggested Remedy**

[Non-user-specific](#) A-MAP IE also includes HF-A-MAP Index Parameter and HFBCH Index Parameter,

**GroupResolution**

**Decision of Group:** Agree

[<ins>Non-user-specific</ins>](#) A-MAP IE also includes HF-A-MAP Index Parameter and HFBCH Index Parameter,

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10234

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 550      Line 37      Fig/Table# 844      Subclause 16.3.6.5.2.1

[EV] In Section 16.3.6.5.2.1 on NUS A-MAP IE, page 550, it is stated that:

The actual number of assignment A-MAP IEs in each assignment A-MAP group can be equal to or less than the number indicated by the lookup tables.

Why wouldn't NUS A-MAP IE exactly signal the number of assignment A-MAP IEs in each assignment A-MAP group, since this would simplify decoding of assignment A-MAP IEs?

Suggested Remedy

Modify text on page 550, starting on line 35, as follows:

The number of assignment A-MAPs in each assignment A-MAP group can be derived from the Assignment A-MAP size in the non-user-specific A-MAP IE through table lookup. ~~The actual number of assignment A-MAP IEs in each assignment A-MAP group can be equal to or less than the number indicated by the lookup tables.~~ The lookup tables, each with 256 entries, can be generated by the following equations for a particular assignment A-MAP MCS set and FFR configuration.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Current non-user specific A-MAP doesn't always indicate actual number of assignment A-MAP channels because of the limit of bits for non-user A-MAP IE. Some indication is used for several combinations of assignment A-MAP channels. So the original text is correct.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10235

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 551      Line 22      Fig/Table#      Subclause 16.3.6.5.2.1

The case of  $N_{total}=0$  is not consistent with the sentence in line 14 on page 528, i.e., A-MAP shall present in all DL subframes.

**Suggested Remedy**

either remove the sentence in line 14 on page 528 or remove all the cases in the description on page 550 to 553 for deriving the number of assignment A-MAP IEs.

**GroupResolution**

**Decision of Group: Disagree**

Resolved by comment #552.

**Resolution:**

(disagree) A-MAP region includes not only assignment A-MAP but also NUS A-MAP, HF-A-MAP, PC-A-MAP.

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions**    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10236

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 552      Line 42      Fig/Table#      Subclause 16.3.6.5.2.1

why do we have two groups using QSPK 1/2?

Is the the Group 3 with QPSK for assignment A-MAP in the power-boosted reuse-3 partition of FFR?

Suggested Remedy

change the paragraph in line 42 page 552 as follows:

For FFR configuration with Group 1 using QPSK 1/4 and Group 2 using QPSK 1/2 for assignment A-MAP in the reuse-1 parititon, and Group 3 using QPSK 1/2 for assignment A-MAP in the power-boosted reuse-3 partition, the lookup table can be generated using Equation (220) to Equation (224) and looping through all values of  $N_{total}$  and  $k$ .

GroupResolution

Decision of Group: Principle

Resolved by comment #553.

Resolution:

change the paragraph in line 42 page 552 as follows:

For FFR configuration with Group 1 using QPSK 1/4 and Group 2 using QPSK 1/2 for assignment A-MAP in the reuse-1 parititon, and Group 3 using QPSK 1/2 for assignment A-MAP in the power-boosted reuse-3 partition, the lookup table can be generated using Equation (220) to Equation (224) and looping through all values of  $N_{total}$  and  $k$ .

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10237Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 560      Line 10      Fig/Table#      Subclause 16.3.6.5.2.4.1

In the 20MHz system bandwidth, there are 4656 possible combinations of (L, S), where L is the location of an allocation; and S is the size of an allocation. With 11-bit RI field, those 4656 combinations cannot be signaled by the RI field. Based on the text in line 9 to line 23 on page 560, the number of allowed S values is reduced. Basically, the allocation granularity is no long 1 LRU, it is actually 1, 2, 4, and 8, depending on the value of S.

Sacrificing the allocation granularity seems a very bad design choice, particularly at steps as big as 8 LRUs. Even with code-matching schemes, the offset of the required size to the nearest allowed S value can be up to 4 LRUs. This makes the ratio of the offset to the assigned size is greater than majority of the code steps based on the nominal MCS table given in Table 934, on page 729 in 16m/D6.

We would recommend reconsidering the RI field encoding issue, particularly for the 20MHz system bandwidth, instead of sacrificing the allocation granularity, looking for some other alternatives, e.g., change the RI field from 11 bits to 12 bits by using the 1 reserved bit, and/or consider the constraints of the allocations to remove those ones that do not need to be signaled by the assignment A-MAP IEs, e.g., the control channel occupied resources, and/or allocations spanning over multiple frequency partitions, etc.

**Suggested Remedy**

discuss and develop an alternative RI field encoding mechanism to solve the allocation granularity issue in the 20MHz system bandwidth.

**GroupResolution****Decision of Group: Disagree**

Resolved by comment #554.

**Resolution:**

Disagree for the reason included.

**Reason for Group's Decision/Resolution**

This issue was analyzed in the original design. Refer to the analysis in section 4 of contribution C802.16m-09/1334r1. It has been shown that link adaptation with the granularity of feedback MCS levels as defined in the 802.16m is not adversely affected by the proposed reduction in assignable resource indices with 11 bits for 20MHz. The original analysis does require an update with  $\Delta_{min} = 31/256$  based on Table 834, but this change does not change the final conclusion since  $1/6 < 31/1422$ .

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes****Editor's Actions** b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10238

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 560      Line 34      Fig/Table#      Subclause 16.3.6.5.2.4.1

In 802.16m D6 the system can't assign the DLRUs or NLRUs across mutiple frequency partitions, especially for two deboosted frequency partitions. This configuration is quite useful in some cases. To fix this defects, we propose to modify "Derivation of the mapping between LRU index and physical PRU index" part in DL/UL Basic Assignment IE and DL/UL Subband Assignment IE .

Suggested Remedy

Adopt the contribution C80216m-10/0725or its latest version.

GroupResolution

Decision of Group: Disagree

Resolved by comment #235.

Resolution:

Disagree: There is no need to schedule across two deboosted partitions.

Reason for Group's Decision/Resolution

There is no need to schedule across two deboosted partitions.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10239

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 566      Line 9      Fig/Table#      Subclause 16.3.6.5.2.4.3

[EV] MFM 5 (supporting DL OL MU-MIMO mode 3) allows feedback of the preferred Stream Indicator (SI) per subband. However, DL Subband Assignment A-MAP IE assigns SI on a WB basis (common to all subbands). This DL signaling restriction could significantly reduce performance of the DL OL MU-MIMO mode, as there is no reason to expect that the same stream index would be preferred across multiple and possibly disjoint subbands assigned to a user.

Suggested Remedy

Enable per-subband stream index assignment in DL Subband Assignment A-MAP IE.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Different streams for different subbands can be allocated to the AMS without having different stream indexes.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10240

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 572      Line 1      Fig/Table# 534      Subclause 16.3.6.5.2.4.3

[BH] When the total number of subbands is between 11 and 21 and a 2 subband assignment is made using a single DL Subband Assignment A-MAP IE (ModelIndicator is 0b0), some combinations of 2 subbands cannot be assigned using the current Resource Index format. Specifically, the combinations where both subbands come from the same subband pair (SBP) cannot be assigned in a single IE. A simple modification to the RIF formula will allow these combinations to be assigned.

Also, Figure 534 illustrates the definition of SBP's, but contains errors which suggest that there may be 12 SBP's in a 20 MHz system. The errors in this figure should be fixed.

Suggested Remedy

Adopt contribution C802.16m-10/0931 or its latest revision.

GroupResolution

Decision of Group: Principle

Append to the end of line 39 on page 571:

Allocations of contiguous subbands may be made using the DL Basic Assignment A-MAP IE.

Adopt the figure change from Remedy 2 of C802.16m-10/0931 (ignore Remedy 1).

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Sudhir Ramakrishna

Membership Status:

Date: 2010-07-09

Comment # 10241

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 575      Line 1

Fig/Table#

Subclause 16.3.6.5.2.4.3

Itemization.

Suggested Remedy

Line 1 - Please change the "a)" to "2)" to make the itemization consistent.

Line 9 on same page - Please change the "a)" to "2)" to make the itemization consistent.

GroupResolution

Decision of Group: Agree

Line 1 - Please change the "a)" to "2)" to make the itemization consistent.

Line 9 on same page - Please change the "a)" to "2)" to make the itemization consistent.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10242Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 576      Line 10      Fig/Table# 856      Subclause 16.3.6.5.2.4.5

[EV] In Feedback Allocation A-MAP IE, for MFM 6 (CL MU-MIMO) base codebook feedback is not enabled (the bits are simply reserved). This seems to be an arbitrary restriction.

Suggested Remedy

Allow feedback of base codebook for MFM 6 in Table 856. Specifically, modify Table 856 as follows starting on line 52, page 580:

Codebook Feedback Mode and Codebook  
Coordination Enable

0b00: ~~reserved~~ base mode with codebook coordination disabled

0b01: transformation mode with codebook  
coordination disabled

0b10: differential mode with codebook  
coordination disabled

0b11: base mode with codebook coordination  
enabled

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The transformation mode provides greater performance than the base codebook mode and therefore is the default.

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions    b) none needed



Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10243Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 582      Line 46      Fig/Table#      Subclause 16.3.6.5.2.4.5

The CQI calculation for MaxMt=1 needs to be clarified.

Suggested Remedy

*Make the following modification to the paragraph that starts on page 582 line 46:*

With an MFM supporting MU MIMO operation, MaxMt indicates the maximum number of users the AMS should assume will be scheduled in future MU MIMO allocations. Based on this information, the AMS may make a better estimation of the multiuser interference in the CQI. If MaxMt is set to one, then the AMS shall assume it will be paired with no other AMSs ~~when it calculates~~ and feed back Rank 1 CL-SU-MIMO CQI. If MFM 5 is indicated in the Feedback Allocation A-MAP IE, MaxMt indicates the rank of the open-loop codebook subset to which belongs to the unitary matrix from which the AMS should feedback its preferred stream index on a given physical subband.

GroupResolutionDecision of Group: Agree

*Make the following modification to the paragraph that starts on page 582 line 46:*

*With an MFM supporting MU MIMO operation, MaxMt indicates the maximum number of users the AMS should assume will be scheduled in future MU MIMO allocations. Based on this information, the AMS may make a better estimation of the multiuser interference in the CQI. If MaxMt is set to one, then the AMS shall assume it will be paired with no other AMSs ~~when it calculates~~ and feed back Rank 1 CL-SU-MIMO CQI. If MFM 5 is indicated in the Feedback Allocation A-MAP IE, MaxMt indicates the rank of the open-loop codebook subset to which belongs to the unitary matrix from which the AMS should feedback its preferred stream index on a given physical subband.*

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10244

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 584      Line 61      Fig/Table# Tabl      Subclause 16.3.6.5.2.4.7

The description for the "CDMA allocation indication" needs a clarification.

Suggested Remedy

Change the "notes" box of the "CDMA allocation indication" field in Table 858 as follows:

Ob0: Bandwidth allocation in response to a received contention-based ~~for~~ bandwidth request.

Ob1: Bandwidth allocation in response to a received contention-based ~~for~~ ranging request.

GroupResolution

Decision of Group: Agree

Resolved by comment #571.

Resolution:

Change the "notes" box of the "CDMA allocation indication" field in Table 858 as follows:

Ob0: Bandwidth allocation <ins>in response to a received contention-based</ins> ~~<del>for</del>~~ bandwidth request.

Ob1: Bandwidth allocation <ins>in response to a received contention-based</ins> ~~<del>for</del>~~ ranging <ins>request</ins>.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10245Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 585      Line 22      Fig/Table# Tabl      Subclause 16.3.6.5.2.4.7

When using a CDMA allocation IE to allocate UL resource in response to a received contention-based bandwidth request, the allocation size don't have to be just for a BW REQ header. Depending on the traffic load, the ABS may allocate different sizes of data bursts. Therefore, the  $I_{\text{sizeoffset}}$  is needed.

Suggested Remedy

make the following changes:

1. insert a new row in line 22 page 585 in Table 858 as follows:

Syntax	Size (bits)	Notes
$I_{\text{SizeOffset}}$	5	Offset used to compute burst size index

2. in line 24 page 585, change the size field of the "Reserved" row from 20 to 15.

GroupResolutionDecision of Group: Disagree

Resolved by comment #572.

## Resolution:

Disagree: BW REQ Hdr is fixed size, we don't need  $I_{\text{sizeoffset}}$ Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10246Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 585      Line 24      Fig/Table# Tabl      Subclause 16.3.6.5.2.4.7

With the 16m UL synchronous HARQ retransmission mechanism, before reaching the max number of HARQ retransmissions but still not successful, the ABS can change or stop the UL allocations for the synchronous UL HARQ retransmissions by sending a basic UL allocation IE with the same ACID by with AI\_SN not-toggled or toggled, respectively.

However, the above mentioned mechanisms do not apply to the unicast UL allocations anonymously allocated by CDMA allocation IE or BR-ACK IE, because there is no ACID or AI\_SN fields in such unicast UL allocations, and the AMS of the UL allocation is identified by RAID or the used random access channel and random access preamble.

We propose to introduce a 1-bit flag in the CDMA allocation A-MAP IE to indicate a stop of UL HARQ retransmissions.

Suggested Remedy

make the following changes:

1. replace the "Reserved" row in line 24 page 585 in Table 858 by the following two rows:

Syntax	Size (bits)	Notes
<u>ReTx Stop Indicator</u>	<u>1</u>	<u>when set to 1, indicate to stop the UL HARQ retransmissions</u>
Reserved	<del>20</del> <u>19</u>	Reserved bits

2. in line 6 page 586, change the "Reserved" as follow:

Syntax	Size (bits)	Notes
<u>ReTx Stop Indicator</u>	<u>1</u>	<u>when set to 1, indicate to stop the UL HARQ retransmissions</u>
<del>Reserved</del>	<del>1</del>	<del>Reserved bits</del>

3. change the paragraph in line 30 on page 586 as follows:

The maximum number of the HARQ retransmission is set to the default value defined in 16.2.14.2. HARQ retransmission control information cannot be changed during retransmission process. If the AMS receives a CDMA Allocation A-MAP IE with the ReTx Stop Indicator set to 1, it shall stop the HARQ retransmissions of the UL data burst allocated to the RAID.

**GroupResolution**

**Decision of Group: Disagree**

Resolved by comment #574.

Resolution:

Disagree: Stop operation is not required because the maximum number of retransmission is restricted to 4, it may be better to use non-adaptive HARQ for simple operation/implementation.

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10247Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 586      Line 8      Fig/Table# Tabl      Subclause 16.3.6.5.2.4.7

The "else" branch in line 8 page 586 is for a DL allocation as a response to a received ranging request for the ABS to send RNG-RSP message before STID is assigned. For DL HARQ, the SPID needs to be signaled in the assignment IE. In addition, if ACID is used in such an anonymous unicast DL allocation, then the AI\_SN is also should be used, otherwise, how can such an ACID be used for a new data burst?

Suggested Remedy

make the following changes:

1. insert two new rows in line 11 page 586 in Table 858 as follows:

Syntax	Size (bits)	Notes
AI_SN	1	HARQ identifier sequence number
SPID	2	HARQ subpacket identifier for HARQ IR

2. in line 12 page 586, change the size field of the "Reserved" row from 10 to 7.

GroupResolutionDecision of Group: Agree

Resolved by comment #573.

## Resolution:

make the following changes:

1. insert two new rows in line 11 page 586 in Table 858 as follows:

Syntax	Size (bits)	Notes
AI_SN	1	HARQ identifier sequence number
SPID	2	HARQ subpacket identifier for HARQ IR

2. in line 12 page 586, change the size field of the "Reserved" row from 10 to 7.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by: Sangheon Kim

Membership Status:

Date: 2010-07-09

Comment # **10248**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis  Satisfied       Page 589      Line 17      Fig/Table#      Subclause 16.3.6.5.2.4.9

TNS field in the UL persistent allocation A-MAP IE should be changed to indicate 1stream for SU-MIMO. We don't need the the sentence about the compulsion to use long TTI in the case that the number of DL AAI subframes is less than the number of UL AAI subframes because we have the field of 'Allocation Relevance'. Additional modifications to the fields of N\_ACID and Allocation period are proposed.

Suggested Remedy

Adopt the proposed text in C80216m-10/0834 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C80216m-10/0834r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10249

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 590      Line 16      Fig/Table# 860      Subclause 16.3.5.6.5.2.4

[AT] Table 860 in IEEE P802.16m/D6 describes the contents of the UL Persistent Allocation A-MAP IE. In this IE, the parameter 'TNS' describes the total number of stream in the LRU for CSM. Currently 'TNS' values allows 2, 3 or 4 streams but does not allow specification of a single stream UL transmission. With this limitation, single stream UL transmission, although possible, is inefficient since pilot overhead for at least two streams will be incurred.

Suggested Remedy

In line 18, Page 590, allow 'TNS' to have the value 0b00 and use this value to indicate a single stream transmission. For such transmissions, pilot resources in the LRU should be allocated for a single stream transmission only for vertical encoding format.

In the 3rd column of table 860, in Page 590, line 18, replace "0b00:reserved" by "0b00: 1 stream".

GroupResolution

Decision of Group: Principle

Resolved by comment #10248.

Resolution:

Adopt the proposed text in C80216m-10/0834r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



Comment by: Taeyoung KimMembership Status:Date: 2010-07-09Comment # 10250Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 592      Line 11      Fig/Table#      Subclause ?

A segmentable IE always requires a 1-bit flag even when it is not segmented (when IE size is not larger than 40 bits). However, there is no 1-bit flag in Group resource allocation A-MAP IE. The proposed remedy is to insert 1-bit flag in GRA A-MAP IE.

Suggested Remedy

*[Remedy-1: Add the following text, at line 11 in page 592, section 16.3.6.5.2.4.10, as]*

Segment Flag | 1 | 0b0: indicates the segment except the first segment  
0b1: indicates the first segment

*[Remedy-2: Add the following text, at line 58 in page 608, section 16.3.6.5.2.4.15, as]*

1. The IE, without IE type and segment flag, is divided into 35-bit ...

GroupResolutionDecision of Group: Agree

*[Remedy-1: Add the following text, at line 11 in page 592, section 16.3.6.5.2.4.10, as]*

Segment Flag | 1 | 0b0: indicates the segment except the first segment  
0b1: indicates the first segment

*[Remedy-2: Add the following text, at line 58 in page 608, section 16.3.6.5.2.4.15, as]*

1. The IE, without IE type <ins>and segment flag</ins>, is divided into 35-bit ...

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10251

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 593      Line 37      Fig/Table#      Subclause 16.3652411

[EV] With both short and long term feedback periods enabled ( $p > 0$ ,  $q > 0$ ) in the Feedback Polling A-MAP IE, it is not clear how persistent feedback allocation works (Polling\_sub\_type = 0b0), since the payload will vary. In some frames, only the short term period feedback will be transmitted while in other frames both the short term and long term feedback will be sent together.

Suggested Remedy

Clarify persistent allocation mechanism in Feedback Polling A-MAP IE when both short and long-term feedback periods are activated ( $p > 0$ ,  $q > 0$ ) and Polling\_sub\_type = 0b0.

GroupResolution

Decision of Group: Principle

Resolved by comment #10253.

Resolution:

*Adopt the contribution C80216m-10/0807r1*

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10252

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 593      Line 39      Fig/Table#      Subclause 16.3652411

[EV] Description of Feedback Polling A-MAP IE signaling is not clear and leaves many feedback operation details ambiguous.

Suggested Remedy

Adopt changes in contribution 10/0840

GroupResolution

Decision of Group: Principle

Resolved by comment #10253.

Resolution:

*Adopt the contribution C80216m-10/0807r1*

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Taeyoung Kim

Membership Status:

Date: 2010-07-09

Comment # 10253

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 593      Line 45      Fig/Table#      Subclause

Feedback Polling A-MAP IE should be modified since some descriptions are still ambiguous and the procedure for MIMO feedback is a little bit complicated. The main concerns are as follows.

- Feedback resource allocation with Feedback Polling A-MAP IE with Polling\_sub\_type=0b1.
- Uplink HARQ retransmission for MIMO feedback
- Transmission timing of Feedback Polling A-MAP IE when ABS want to change only feedback contents without reallocation of feedback resource and change of feedback period.

Suggested Remedy

*Adopt the contribution C80216m-10/0807 or its latest revision.*

GroupResolution

Decision of Group: Principle

*Adopt the contribution C80216m-10/0807r1*

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10254Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 602      Line 60      Fig/Table# 863      Subclause 16.3652411

[EV] The MFM de-allocation mechanism in Feedback Allocation A-MAP IE is not clear. General description of the MFM de-allocation mechanism should be included in Section 16.3.7.2.5.3. Table 863 is very cryptic and requires more explanation of how it is to be used. One specific concern is that the table lists Transmit Correlation Matrix (TCM) feedback separately from deallocating other MIMO feedback modes. However, TCM feedback is configured as part of an assigned MFM in the first place. Then why is it listed separately from deallocated MFMs in the table? This needs to be further clarified.

Line 63 appears to be missing "MFM" abbreviation in front of "k (k < j)".

Suggested Remedy

1. Clarify operation of Table 863.
2. Modify line 63 on page 602 as follows:

Ordering of concurrent allocations in the Polling\_deallocation\_bitmap shall follow the order MFM i, MFM j (j>i), MFM k (k>j), transmit correlation matrix, multiBS MIMO feedback, as shown in Table 863.

3. Modify Section 16.3.7.2.5.3, page 626, as follows:

The MIMO feedback mode 7 is used for CL MU MIMO in diversity permutation using wideband beamforming. In this mode, AMS shall feedback the wideband CQI. The wideband CQI shall be estimated at the AMS assuming short-term or long-term precoding at the ABS, according to the feedback period. The channel state information may be obtained at the ABS via the feedback of the correlation matrix. or via the feedback of the wideband PMI.

An AMS supports a maximum of 3 distinct concurrent feedback allocations, including one or several MFMs, the transmit correlation matrix, and multiBS MIMO feedback. Any or all feedback modes assigned to an AMS can be deallocated using Polling\_deallocation\_bitmap included in the Feedback Allocation A-MAP IE. For details of the Polling\_deallocation\_bitmap operation refer to Section 16.3.6.5.2.4.11.

GroupResolutionDecision of Group: Principle

1. Modify line 63 on page 602 as follows:

Ordering of concurrent allocations in the Polling\_deallocation\_bitmap shall follow the order MFM i, MFM j (j>i), ~~MFM~~ k (k>j), transmit correlation matrix, multiBS MIMO feedback, as shown in Table 863.

2. Modify Section 16.3.7.2.5.3, page 626, as follows (insert the second paragraph):

The MIMO feedback mode 7 is used for CL MU MIMO in diversity permutation using wideband beamforming. In this mode, AMS shall feedback the wideband CQI. The wideband CQI shall be estimated at the AMS assuming short-term or long-term precoding at the ABS, according to the feedback period. The channel state information may be obtained at the ABS via the feedback of the correlation matrix. or via the feedback of the wideband PMI.

<ins>An AMS supports a maximum of 4 distinct concurrent feedback allocations, including one or several MFMs, the transmit correlation matrix, and multiBS MIMO feedback. One feedback allocation may be assigned using the Feedback Allocation A-MAP IE and up to three may be assigned using the Feedback Polling A-MAP IE. Any or all feedback modes assigned to an AMS using the Feedback Polling A-MAP IE can be deallocated using the Polling deallocation\_bitmap included in the Feedback Polling A-MAP IE. For details of the Polling\_deallocation\_bitmap operation, refer to Section 16.3.6.5.2.4.11. Feedback modes assigned to an AMS using the Feedback Allocation A-MAP IE are deallocated using the Allocation Duration field of this IE, found in 16.3.6.5.2.4.5.</ins>

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10255

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 604      Line 11      Fig/Table#      Subclause 16.3652411

[EV] For MFM 6 in the Feedback Polling A-MAP IE, CL subband feedback without correlation MTX feedback is not allowed ( $p > 0$ ,  $q = 0$  option). This seems to be an arbitrary restriction.

Suggested Remedy

Allow  $p > 0$ ,  $q = 0$  option for MFM = 6 in Feedback Polling A-MAP IE. Specifically, modify the paragraph beginning on line 6, page 604, as follows:

For MFM 6: When  $p > 0$ ,  $q > 0$ , the Best\_subbands\_index, subband CQI and subband PMI from the transformed codebook shall be transmitted using short period, while the correlation matrix shall be transmitted using long period. When  $p = 0$  and  $q > 0$ , only the correlation matrix shall be transmitted using long feedback period. ~~The ABS shall not set  $p > 0$  and  $q = 0$  simultaneously.~~ When  $p > 0$ ,  $q = 0$ , the Best\_subbands\_index, subband CQI and subband PMI from the base codebook shall be transmitted using short period.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The transformation mode provides greater performance than the base codebook mode and therefore is the default.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10256

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 606      Line 39      Fig/Table#      Subclause 16.3652413

Dynamic NS-RCHs can be allocated by Broadcast Assignment A-MAP IE. But the allocation number for dynamic NS-RCHs in one frame and the purpose for using dynamic NS-RCHs are not clarified.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0727 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #241.

Resolution:

Adopt the text proposal in IEEE C802.16m-10/0727r4.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10257

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 606      Line 50      Fig/Table# 865      Subclause 16.3.6.5

In case of AAI\_HO-CMD is used for assigning dynamic ranging channel, the opportunity index is included in the message. However Broadcast Assignment A-MAP does not contain the opportunity index. Because AAI\_HO-CMD is unicast message, without the clear indication of the opportunity index in the B A A-MAP AMSs can have different interpretation for the opportunity index

Suggested Remedy

Review and adopt text in proposed contribution IEEE80216m-10\_0797

GroupResolution

Decision of Group: Agree

Review and adopt text in proposed contribution IEEE80216m-10\_0797

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Seho Kim

Membership Status:

Date: 2010-07-09

Comment # 10258

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 606      Line 59      Fig/Table# 865      Subclause 16.3652413

IEEE 802.16e support both multicast service and the multicast and broadcast services which utilize MBS specific features. In IEEE 802.16m, even if E-MBS service is supported, multicast service is also required to support simple multicasting service in an ABS. This contribution provides the description of multicast operation in single ABS.

Suggested Remedy

Adopt the proposed text in C80216m-10/0805 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

Proposed remedy does not call every scenario, not clear why this should be supported.

Vote:

In favor: 7

Opposed: 9

Abstain:

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10259

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 607      Line 41      Fig/Table# Tabl      Subclause 16.3652413

There some important aspects that are missing regarding the ranging channel allocation through the Broadcast assignment A-MAP IE, e.g.,

1. is this NS-RCH or S-RCH?
2. can the ranging channels allocated in the same subframe or have to be in different subframe?

Suggested Remedy

add text specify the identified missing aspects about the dynamic ranging channel allocation or remove line 41 to 53 on page 607.

GroupResolution

Decision of Group: Principle

Resolved by comment #556.

Resolution:

1) only for NS-RCH

2)

On page 710 line 44:

The NS-RCH for handover ranging can also be allocated by A-MAP based on ABS scheduling decision in any AAI subframe, except the AAI subframe that has already been used for a regular allocation.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10260

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 607      Line 50      Fig/Table# Tabl      Subclause 16.3652413

the size of "reserved" is missing.

Suggested Remedy

add 30 to the size field of the "Reserved" field in line 50 page 607.

GroupResolution

Decision of Group: Principle

Resolved by comment #627.

Resolution:

Reserved bit size = 11

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Sangheon Kim

Membership Status:

Date: 2010-07-09

Comment # 10261

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 616      Line 52      Fig/Table#      Subclause 16.3.7.1.3

Downlink MU-MIMO mode supports the maximum 4 streams, while SU-MIMO supports 8 streams. However, 8stream condition is more feasible to MU-MIMO than SU-MIMO which requires 8 receive antennas and spatial rank of 8. Additionally, since AMS has at most 4 receive antennas in general, 8 streams should be supported in MU-MIMO in order to obtain the peak rate. The modification for support of 8streams in downlink MU-MIMO is proposed.

Suggested Remedy

Adopt the proposed text in C80216m-10/0832 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in C80216m-10/0832r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by: Yanfeng Guan

Membership Status:

Date: 2010-07-09

Comment # 10262

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 622      Line 63      Fig/Table#      Subclause 16.3.7.2.5.1

In current P802.16m/D6, there are some problems on MIMO OL Region design including signaling and function. For example, when the OL region type 0 is enabled, all the DLRUs in FP0 will be used for OL Region Type0. If the primary frequency partition also is located in FP0, the power of OL Region in different ABSs maybe different due to the different boosted power for A-MAP Region of different ABS. So, if different ABS will adjust the transmission power for A-MAPs according to the channel condition, the actual transmission can't be controlled and then the interference in OL region 0 can't be stable. At a result of that, OL region type 0 can't offer a stable interference environment. In order to fix this problem, it is suggested to indicate the DLRU size for OL region type0 in the AAI SCD message.

Suggested Remedy

Adopt the contribution C80216m-10/0875 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

To support this scheme, the change of subchannelization must be followed. Also, this scheme might give the loss of frequency diversity in DLRU.

Basically location of OL Region is only important for measurement. If AMS needs to report for OL Region, then it will calculate CQI based on OL Region pilot. But in DLRU, all pilots are shared. So, even though we reduce the OL Region type 0 by proposed method, it does not have any impact on measurement.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10263Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 624      Line 22      Fig/Table# 877      Subclause 16.3.7.2.5.3

[EV] In section 16.3.7.2.5.3, only MIMO feedback mode 0 is supported with sounding. However, MFM 0 carries only wideband feedback information and therefore does not enable use of sounding with frequency selective scheduling. This comment proposes to allow use of MFM 2 with sounding to enable sounding-based frequency selective scheduling.

Suggested Remedy

Modify Section 16.3.7.2.5.3 on page 624 as follows:

MIMO feedback mode 0 is used for the OL-SU SFBC and SM adaptation in diversity permutation. The AMS estimates the wideband CQI for both SFBC and SM, and reports the CQI and STC Rate. STC Rate 1 means SFBC with precoding and STC Rate 2 means rank-2 SM with precoding. In diversity permutation, MIMO feedback mode 0 may also be used for CQI feedback for sounding based beamforming defined in 16.3.7.2.5.6. The AMS shall estimate the wideband CQI for SFBC mode (MaxMt = 0b00), and report the CQI.

MIMO feedback mode 1 is used for the OL-SU CDR with STC rate 1/2 in diversity permutation.

MIMO feedback mode 2 is used for the OL-SU SM in localized permutation for frequency selective scheduling. The STC Rate indicates the preferred number of MIMO streams for SM. The subband CQI shall correspond to the selected rank. In localized permutation, MIMO feedback mode 2 may also be used for sounding based beamforming. The AMS shall estimate subband CQI assuming MaxMt = 1, and report the CQI.

In Table 877, for MIMO Feedback Mode 2 (Lines 30-33), add the underlined text in the column "Supported MIMO transmission mode outside the OL region...":

MIMO mode 1  
1<=STC Rate <=8

For Sounding based CL SU & MU MIMO, CQI for STC Rate=1.

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The subband CQI feedback at AMS does not work because the ABS cannot tell which subband AMS is to use.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Sudhir Ramakrishna

Membership Status:

Date: 2010-07-09

Comment # **10264**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type **Technical**      Part of Dis  Satisfied       Page **647**      Line **46**      Fig/Table#      Subclause **16.3.7.2.5.5.2**

In the case of 8 transmit antennas, the correlation matrix feedback for the transformation mode in Section 16.3.7.2.5.5.2 imposes a significant overhead.

This overhead can be reduced, while maintaining the accuracy of the method, by using existing PMI feedback to track the correlation matrix. This allows for less frequent correlation matrix feedback.

Suggested Remedy

Please adopt the text in contribution C80216m-10\_0933 or its latest revision.

GroupResolution

Decision of Group: **Disagree**

Reason for Group's Decision/Resolution

The overhead reduction does not warrant the increased complexity.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10265

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 648      Line 53      Fig/Table#      Subclause 16.3.7.2.5.5.2

Comments on Differential codebook-based feedback mode (16.3.7.2.5.5.2)

Suggested Remedy

Adopt contribution C80216m-10\_0909 or its latest version.

GroupResolution

Decision of Group: Disagree

Resolved by comment #328.

Resolution:

Disagree: The original text is correct.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10266

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 648      Line 53      Fig/Table#      Subclause 16.3.7.2.5.5.2

Comments on Differential codebook-based feedback mode (16.3.7.2.5.5.2)

Suggested Remedy

Adopt contribution C80216m-10\_0909 or its latest version.

GroupResolution

Decision of Group: Disagree

Resolved by comment #328.

Resolution:

Disagree: The original text is correct.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Taeyoung Kim

Membership Status:

Date: 2010-07-09

Comment # 10267

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 663      Line 54      Fig/Table#      Subclause 16.3.8.2.1

In current 16m/D6, the equations of UL subband partitioning are incorrectly implemented in the previous meeting.

Suggested Remedy

*Adopt the contribution C80216m-10/0809 or its latest revision.*

GroupResolution

Decision of Group: Agree

*Adopt the contribution C80216m-10/0809*

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Double-checked this one and it was already done. I don't have the correct editor assigned in the tag because I don't know who implemented this change.

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Chia-Lung Tsai

Membership Status:

Date: 2010-07-09

Comment # 10268

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 678      Line 36      Fig/Table#      Subclause 16.3.8.3.2

1. The mapping result of CRU/DRU allocation in Fig. 542 is inconsistent with the parameters, especially for the allocated CLRUs that are reserved for minibands.
2. On page 678, line 36 – 38, the parameter value of IDcell is incorrect.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0747 or its latest version

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C802.16m-10/0747

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10269

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 680      Line 3      Fig/Table#      Subclause 16.3.8.3.3

The UL control channels are not actually in each of the UL frequency partitions, based on the paragraph in line 1 on page 681.

Suggested Remedy

change the first sentence in the paragraph in line 3 on page 680 as follows:

The distributed LRUs in an ~~each-of~~ uplink frequency partition may be further divided into data, bandwidth request, and feedback regions.

GroupResolution

Decision of Group: Agree

Resolved by comment #575.

Resolution:

change the first sentence in the paragraph in line 3 on page 680 as follows:

The distributed LRUs in an ~~each-of~~ uplink frequency partition may be further divided into data, bandwidth request, and feedback regions.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10270

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 681      Line 1      Fig/Table#      Subclause 16.3.8.3.3

How does an AMS know which frequency partition the UL control channel is?

Suggested Remedy

Change the paragraph in line 1 page 681 as follows:

If FFR is used in an UL AAI subframe, the UL control channels are used in the reuse 1 partition or the power-booster reuse 3 partition. [The frequency partition where the UL control channels are located is called UL primary frequency partition, which is indicated by the ABS through S-SFH SP1 IE.](#)

GroupResolution

Decision of Group: Principle

Resolved by comment #579.

Resolution:

Change the paragraph in line 1 page 681 as follows:

If FFR is used in an UL AAI subframe, the UL control channels are used in the reuse 1 partition or the power-booster reuse 3 partition. [The frequency partition where the UL control channels are located is indicated by the ABS through S-SFH SP1 IE.](#)

Reason for Group's Decision/Resolution

There is no UL primary frequency partition in D6, removed that part.

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiwoo Lim

Membership Status:

Date: 2010-07-09

Comment # 10271

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 683      Line 1      Fig/Table#      Subclause 16.3.8.3.3.2

There are some confusing alphabet indexes. The alphabet k is already used as the HARQ feedback channel index. In addition, there is no explain of K in  $L_{FB} - K * \text{floor}(L_{HFB}/6)$ . K is the number of HARQ feedback regions in an UL AAI subframe.

Suggested Remedy

Adopt the contribution C80216m-10/0804 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the contribution C80216m-10/0804

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Comment by:

Chiwoo Lim

Membership Status:Date: 2010-07-09Comment # 10272Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 694      Line 9      Fig/Table#      Subclause 16.3.9.1

The problem is there is no description for UL control region in type-2 subframe not having sounding symbol.

We have to clarify this.

The UL control region is allocated from second symbol in type-2 subframe having sounding symbol.

It's possible to use the same region in case of type-2 subframe not having sounding symbol.

However, I think that using from the first symbol in this case makes convenient implementation due to AGC operation.

Suggested Remedy

*Insert the following text on page 694 line 9 :*

[Feedback channels and bandwidth request channel are allocated in first 6 symbols of any AAI subframe when sounding channel is not allocated.](#)

GroupResolutionDecision of Group: Agree

*Insert the following text on page 694 line 9 :*

[Feedback channels and bandwidth request channel are allocated in first 6 symbols of any AAI subframe when sounding channel is not allocated.](#)

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiwoo Lim

Membership Status:

Date: 2010-07-09

Comment # 10273

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 698      Line 49      Fig/Table#      Subclause 16.3.9.1.4.3

There is no clear description for the index of Code (X+1) in case that Code X has the last index in the code set. In general, each code set for initial and handover is distinguished. So, it's proper that the index of Code (X+1) is the first index in the corresponding code set. (Cyclic mapping)

In addition, there is a wrong implemented comment. Figure 566 (a) has a problem for the direction of dotted arrow.

Suggested Remedy

Adopt the contribution C80216m-10/0806 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the contribution C80216m-10/0806 or its latest version.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10274

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 700      Line 36      Fig/Table#      Subclause 16.3.9.1.5

The paragraph in line 36 on page 700 is confusing regarding the usage of BR tile vs. BR channel. It says each BR tile carries a BR code and a quick access message, and a BR channel consists of 3 BR tiles. Then, does it mean that an AMS chooses a BR tile, not actually BR channel, to send its BR request?

Suggested Remedy

throughout the 16m/D6, clean up the usage of BR tile vs. BR channel.

GroupResolution

Decision of Group: Principle

Resolved by comment #576.

Resolution:

*Modify the text in line 36 on page 700 as below:*

A BR tile is defined as six contiguous subcarriers by six OFDMA symbols. Each BR channel consists of three distributed BR tiles. Each BR tile carries a BR preamble and [a part of](#) a quick access message. The AMS may transmit the BR preamble only and leave the resources for the quick access message unused.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Zhang

Membership Status:Date: 2010-07-09Comment # 10275Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 710      Line      Fig/Table# 10      Subclause 16.3.9.2.4.1

In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH.

Suggested Remedy

Please adopt following sentence:

"In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH."

Table 923 shows the information of the NS-RCH allocation in a regular allocation, which is indicated by the S-SFH."

GroupResolutionDecision of Group: DisagreeReason for Group's Decision/Resolution

The frequency partition is defined by Equation 283. The frequency partition is explicit in the definition of I\_SB.

Group's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10276

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 710      Line 1      Fig/Table#      Subclause 16.3.9.2.4.1

How to understand the term "with exception of LSBGRUFPi", it is very confused to get the variable YSB with above description. In order to mitigate intercell interference, NS-RCH shall be located in the frequency partition of uplink control channel, which indicated by the S-SFH.

Suggested Remedy

Delete the term "~~with exception of LSBGRUFPi~~".

GroupResolution

Decision of Group: Principle

Resolved by comment #417.

Resolution:

On page 710, line 1, make the following change:

<del>with the exception of</del> <ins>except in the UL, where</ins>  $L_{\{USB - CRU, FP\}}$  is the number of allocated subband CRUs <ins>as defined</ins> in 16.3.8.3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10277Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 710      Line 6      Fig/Table#      Subclause 16.3.9.2.4.1

Formula (283) gives,  $I_{SB}$ , the subband index as the location in frequency domain for NS-RCH ranging channel allocations. It varies with IDcell, which puts the ranging channels in different subbands for different cells. However, it does not consider the frequency partition scenarios, which may put the ranging channel in a disadvantaged frequency partition for a cell, e.g., one of the not-power-boosted reuse-3 partition.

We would like to suggest having the NS-RCH ranging channel in the UL primary frequency partition.

Suggested Remedy

Change the text in line 57 page 709 to line 10 page 710 as follows:

The information for ranging time resource allocation is indicated by the S-SFH in a regular allocation. The information of the NS-RCH allocation consists of the ranging configuration with AAI subframe-offset ( $O_{SF}$ ) for ranging resource allocation in the time domain. The information for ranging frequency resource allocation, i.e., the subband index for ranging resource allocation is determined by the IDcell and the allocated number of subbands in the UL primary frequency partition  $Y_{SB,PP}$   ~~$Y_{SB}$~~  according to the Equation (283), where IDcell is defined in 16.3.6.1.2 ~~and  $Y_{SB}$  is defined in 16.3.6.5.2.4.3 with exception of is the number of allocated subband CRUs in 16.3.8.3.~~

$$I_{SB} = \text{mode} (\text{IDCell}, Y_{SB,PP} \text{ } \del{Y_{SB}} ) \quad (283)$$

where  $I_{SB}$  denotes the subband index (0, ...,  $Y_{SB,PP} \text{ } \del{Y_{SB}} - 1$ ) for ranging resource allocation among  $Y_{SB,PP}$   ~~$Y_{SB}$~~  subbands.

GroupResolutionDecision of Group: Disagree

Resolved by comment #577.

Resolution:

Disagree: There is no primary frequency partition in the UL.

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** b) none needed

Comment by:

Lei Wang

Membership Status:Date: 2010-07-09Comment # 10278Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 713      Line 6      Fig/Table#      Subclause 16.3.9.2.4.2

Similar to the comment on Formula (283), the Formula (286) gives,  $I_{SB,s}$ , the subband index as the location in frequency domain for S-RCH ranging channel allocations. It varies with IDcell, which puts the ranging channels in different subbands for different cells. However, it does not consider the frequency partition scenarios, which may put the ranging channel in a disadvantaged frequency partition for a cell, e.g., one of the not-power-boasted reuse-3 partition.

We would like to suggest having the S-RCH ranging channel in the UL primary frequency partition.

Suggested Remedy

change the text in line 59 page 712 to line 48 page 713 (except Table 925) as follows:

The information of the S-RCH allocation consists of the ranging configuration with AAI subframe-offset ( $O_{SF}$ ) for ranging resource allocation in the time domain where  $O_{SF}$  is same AAI subframe-offset of the NS-RCH defined in 16.3.9.2.4.1. The information for ranging frequency resource allocation, i.e., the subband index for ranging resource allocation is determined by the IDcell and the allocated number of subbands in the UL primary frequency partition  $Y_{SB,PP}$   $Y_{SB}$  according to the Equation (286) where IDcell is defined in 16.3.6.1.2 ~~and  $Y_{SB}$  is defined in 16.3.6.5.2.4.3 with exception of is the number of allocated subband CRUs in 16.3.8.3.~~

$$I_{SB,s} = \text{mod}(ID_{\text{cell}}+1, Y_{SB,PP} Y_{SB}) \quad (286)$$

where  $I_{SB,s}$  denotes the subband index (0, ...,  $Y_{SB,PP} Y_{SB}-1$ ) for ranging resource allocation among  $Y_{SB,PP} Y_{SB}$  subbands.

GroupResolutionDecision of Group: Disagree

Resolved by comment #578.

Resolution:

Disagree: There is no primary frequency partition in the UL.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Jeongho Park

Membership Status:

Date: 2010-07-09

Comment # **10279**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment    Type Technical    Part of Dis     Satisfied     Page 719    Line 37    Fig/Table#    Subclause 16.3.9.2.5

Current design of BW REQ channel for power level of MSG and Preamble shows the unbalanced link performance. For better performance it would be better to make two link performance similar to each other.

Suggested Remedy

Adopt the contribution IEEE C802.16m-10/0811 or its latest version.

GroupResolution

Decision of Group: **Disagree**

Reason for Group's Decision/Resolution

The boosting of data makes the BW REQ 3-step to 5-step format useless.

Vote:

In favor: 8

Opposed: 6

Abstain:

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10280

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 721      Line 25      Fig/Table# 929      Subclause 16.3.9.3.1.1  
[FV] In Table 929, The STC Rate indicator is listed for MIMO Feedback modes 0,1,2,3. MIMO Mode 4 also has STC rate

Suggested Remedy

*In line 25 of Table 929: add "4" to the column for "Related MIMO Feedback Mode":*

STC Rate Indicator      0,1,2,3, 4

GroupResolution

Decision of Group: Principle

*Resolved by comment #279.*

*Resolution:*

*In line 25 of Table 929: add "4" to the column for "Related MIMO Feedback Mode":*

STC Rate Indicator      0,4,2,3, 4

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions      b) none needed

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10281Document under Review: P802.16m/D6Ballot ID: sb\_16mComment      Type Technical      Part of Dis  Satisfied       Page 728      Line 7      Fig/Table# 933      Subclause 16.3.9.3.1.2

[EV] Purpose of the PFBCH indicator bit carried in SFBCH is not clear. The specification never explains why puncturing SFBCH with PFBCH Type 0 transmissions is enabled.

Suggested Remedy

Remedy 1: Explain the purpose of the PFBCH indicator in the specification (Section 16.3.9.3.1.2)

Remedy 2: If no useful purpose can be found, delete PFBCH indicator from SFBCH.

GroupResolutionDecision of Group: Principle

Resolved by comment #10283.

Resolution:*[Modify the text in line 9 on the page 728 as below:]*The UL SFBCH carries <ins>wideband/</ins>narrowband CQI and MIMO feedback information.*[Add a row in Table 933 in line 40 on the page 728 as below:]*

-----

STC Rate Indicator	2,3, <u>&lt;ins&gt;4,&lt;/ins&gt;</u> 5,6, <u>&lt;ins&gt;7&lt;/ins&gt;</u>	
--------------------	----------------------------------------------------------------------------	--

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PFBCH Indicator	2,3, <u>&lt;ins&gt;7&lt;/ins&gt;</u> 5,6 <u>&lt;ins&gt;7&lt;/ins&gt;</u>	One bit indicator <delete>is</delete> used for indicating the
		transmission of PFBCH in the next SFBCH
		opportunity. In the transmission of PFBCH,
		encoding type 0 <ins>shall be used and an
		EDI shall be transmitted.<ins><del>is used.</del>

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<u>&lt;ins&gt;Wideband CQI and PMI &lt;/ins&gt;</u>		<u>&lt;ins&gt;4.7 &lt;/ins&gt;</u>	
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*[Change 'Number of reports' to '1' from '2' when feedback format=2 of MFM 4,7 in Table 935 of page 732.]*Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** b) none needed

**2010/10/29**

**IEEE 802.16-10/0040r3**

**Comment by:**

Mark Cudak

**Membership Status:**

**Date:** 2010-07-09

**Comment #** 10282

**Document under Review:** P802.16m/D6

**Ballot ID:** sb\_16m

**Comment**      **Type** Technical      **Part of Dis**  **Satisfied**       **Page** 729      **Line** 54      **Fig/Table#**      **Subclause** 16.3.9.3.1.3

[FV] Section 16.3.9.3.1.3 (CQI definition) and Section 16.3.6.5.2.4.5 (Feedback Allocation A-MAP IE) need to be consistent with each other with respect to accounting for the precoder in the CQI calculation

**Suggested Remedy**

*On Page 729, change the paragraph starting on Line 54 as follows:*

For MU-MIMO feedback modes with codebook-based feedback, the CQI is calculated at the AMS assuming there are (MaxMt -1) interfering users and that the interfering users are scheduled by the serving ABS using rank-1 precoders orthogonal to each other and orthogonal to the rank-1 precoder represented by the reported PMI. If MaxMt = 1, the AMS feeds back rank-1 CL SU-MIMO CQI.

**GroupResolution**

**Decision of Group:** Agree

*On Page 729, change the paragraph starting on Line 54 as follows:*

For MU-MIMO feedback modes with codebook-based feedback, the CQI is calculated at the AMS assuming <ins>there are (MaxMt -1) interfering users and</ins> that the interfering users are scheduled by the serving ABS using rank-1 precoders orthogonal to each other and orthogonal to the rank-1 precoder represented by the reported PMI. <ins>there are (MaxMt -1) interfering users and</ins>

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10283

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment Type Technical Part of Dis  Satisfied  Page 731 Line 25 Fig/Table# 935 Subclause 16.3.9.3.1.5

[EV] Table 935 in IEEE P802.16m/D6 specifies SFBCH as Feedback format 1 for MFM 4 and 7. However, MFM 4 and 7 are WB feedback modes which should not be supported by SFBCH according to SFBCH definition in Table 933.

Suggested Remedy

Delete Feedback format 1 from Table 935 for MFM 4 and 7. Also, modify the paragraph on page 731 as follows:

Feedback format for MFM 0,1,4,7

Feedback formats for MFM 0, 4, and 7 are listed in Table 935. Short term report happens in every reporting period as defined in feedback allocation A-MAP IE, long term report will puncture short term report according to long term feedback period in feedback allocation A-MAP IE. The long period report shall start by puncturing the first short period report. When q = 0, only the short period reports shall be sent. If the PFBCCH indicator in SFBCCH is set to '1', PFBCCH is transmitted by puncturing SFBCCH in the next feedback opportunity regardless of short-term and long-term feedback using encoding type 0. If MFM = 4 or 7 and q = 0 for feedback format = 0b0, the ABS should allocate the feedback of the transmit correlation matrix using Feedback Polling A-MAP IE before allocating MFM 4 or 7 to the AMS, where q is defined in the Feedback Allocation A-MAP IE. ~~If MFM = 4 or 7 for feedback format = 0b1, the ABS shall set q = 0, and only the long period reports shall be sent.~~

GroupResolution

Decision of Group: Principle

[Modify the text in line 9 on the page 728 as below:]

The UL SFBCCH carries ~~wideband~~ narrowband CQI and MIMO feedback information.

[Add a row in Table 933 in line 40 on the page 728 as below:]

STC Rate Indicator		2,3, <del>4</del> , <del>5</del> , <del>6</del> , <del>7</del>	
--------------------	--	----------------------------------------------------------------	--

PFBCH Indicator	2,3, <del>7</del> 5,6 <del>7</del>	One bit indicator <del>is</del> used for indicating the transmission of PFBCH in the next SFBCH opportunity. In the transmission of PFBCH, encoding type 0 <del>shall</del> be used and an EDI shall be transmitted. <del>is used.</del>
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[Wideband CQI and PMI](#) | [4.7](#) |

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*[Change 'Number of reports' to '1' from '2' when feedback format=2 of MFM 4,7 in Table 935 of page 732.]*

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.3: AAI PHY

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10284

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 731      Line 55      Fig/Table#      Subclause 16.3.9.3.1.5

[FV] Section 16.3.5.4.3 and Section 16.3.9.3.1.5 need to be consistent with each other with respect to accounting for the precoder when calculating CQI. An additional sentence in Section 16.3.9.3.1.5 is warranted

Suggested Remedy

*Add the following sentence at the end of the paragraph that starts on Page 731 line 54:*

For MFM 0, the calculated CQI should account for the non adaptive precoder to be used by the ABS.

GroupResolution

Decision of Group: Agree

*Add the following sentence at the end of the paragraph that starts on Page 731 line 54:*

<ins>For MFM 0, the calculated CQI should account for the non adaptive precoder to be used by the ABS.</ins>

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10285

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 735      Line 45      Fig/Table# 941      Subclause 16.3.9.3.1.5

[EV] Operation of MFM 5 with Feedback format 3 (2 short period messages and 1 long period message) is not defined in the description of MFM 5 in Section 16.3.9.3.1.5.

Suggested Remedy

Include description of operation of MFM 5 with 3 message in Section 16.3.9.3.1.5.

GroupResolution

Decision of Group: Principle

In Table 941, when Feedback format = 3, change "Number of reports" from '2' to '3'.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Sangheon Kim

Membership Status:

Date: 2010-07-09

Comment # 10286

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 740      Line 64      Fig/Table#      Subclause 16.3.9.3.1

In the D6, EDI type 0 is defined for the request from an AMS to switch MIMO feedback mode between distributed and localized allocations. However, the way EDI type 0 is operated is not specified. The description on the operation of EDI type 0 is needed.

Suggested Remedy

Adopt the proposed text in C80216m-10/0835 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C80216m-10/0835

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10287

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 745      Line 36      Fig/Table#      Subclause 16.3.9.4.6

[BH] The last paragraph of section 16.3.9.4.6 is unclear when explaining how an AMS prioritizes uplink transmit channels.

Suggested Remedy

*Modify the text on p. 745 beginning at line 36 as follows:*

If AMS has not sufficient power to transmit an assigned channel, compared to the power level determined by Equation (291), then the AMS shall transmit this channel with the remaining ~~insufficient~~ power. even if it is insufficient to meet the requirements of equation (291).

GroupResolution

Decision of Group: Agree

*Modify the text on p. 745 beginning at line 36 as follows:*

If AMS has not sufficient power to transmit an assigned channel, compared to the power level determined by Equation (291), then the AMS shall transmit this channel with the remaining ~~insufficient~~ power>. even if it is insufficient to meet the requirements of equation (291)~~</ins>~~.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jeongho Park

Membership Status:

Date: 2010-07-09

Comment # 10288

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 746      Line 41      Fig/Table#      Subclause 16.3.9.4.7.2

Sometimes, MS can be facing with different pathloss between downlink and uplink.

Current uplink power control does not work in this situation.  
In worst case, the connection would be disconnected.

Suggested Remedy

Adopt the contribution IEEE C802.16m-10/0812 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the contribution IEEE C802.16m-10/0812r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Done by Hyunkyu, Remedy-5 needs to be done in MAC side

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jeongho Park

Membership Status:

Date: 2010-07-09

Comment # 10289

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 746      Line 61      Fig/Table#      Subclause 16.3.9.4.7

Several places need to be clarified.

- 1) P\_TN  
: exact value needs to be provided
- 2) SINR\_Target in PSR  
: SINR\_Target for data channel ? or which control channel?
- 3) Usage of Power offset values in AAI\_HO-CMD  
: what is these values for ?

Suggested Remedy

Adopt the contribution IEEE C80216m-10/0810 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the contribution IEEE C80216m-10/0810r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

Remedy-2 Done Hyunkyuu, Remedy-1 done Hyunjeong, Remedy-3 needs cross reference with MAC section, done by RM.

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10290Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 747      Line 4      Fig/Table#      Subclause 16.3.9.4.7.2

[BH] The txPowerReportThreshold, txPowerReportMinimumInterval, and txPowerReportPeriodicalInterval fields of AAI\_UL\_PSR\_CFG are defined in two places: Table 719 on p. 164 and on p. 747. The details of these fields should be defined in only one place to avoid inconsistencies in their definitions. Currently, the two interval fields are defined differently in each location.

Suggested Remedy

*Delete text on p. 747 beginning at line 4 as shown below:*

~~txPowerReportThreshold is a 4 bit unsigned integer value in 0.5 dB steps, the specific value “0b1111” shall be interpreted as “infinite”;~~

~~—txPowerReportMinimumInterval and txPowerReportPeriodicalInterval are coded by 4 bit unsigned integer values d representing 2d frames, the specific value d = 0b1111 shall be interpreted as “infinite”~~

GroupResolutionDecision of Group: Agree

*Delete text on p. 747 beginning at line 4 as shown below:*

~~txPowerReportThreshold is a 4 bit unsigned integer value in 0.5 dB steps, the specific value “0b1111” shall be interpreted as “infinite”;~~

~~—txPowerReportMinimumInterval and txPowerReportPeriodicalInterval are coded by 4 bit unsigned integer values d representing 2d frames, the specific value d = 0b1111 shall be interpreted as “infinite”~~

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

Comment by:

Mark Cudak

Membership Status:Date: 2010-07-09Comment # 10291Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 748      Line 15      Fig/Table#      Subclause 16.3.9.4.9

[BH] The description of uplink power control in handover in section 16.3.9.4.9 requires editorial modification for clarity.

Suggested Remedy

*Modify the text on p. 748 beginning at line 15 as shown:*

During the handover processing, if CDMA\_RNG\_FLAG in message AAI\_HO-CMD is set to 0, CDMA based ranging will be skipped; and the power offset values for the target ABS will be included in the AAI\_HO-CMD, as shown in Table 690. Other uplink power control parameters for target ABS are set by using the serving ABS value.

If CDMA\_RNG\_FLAG in message AAI\_HO-CMD is set to 1, CDMA based ranging shall be performed, the power control parameters of target ABS will be ~~got as~~ determined using the process defined in 16.3.9.4.8.

GroupResolutionDecision of Group: Agree

*Modify the text on p. 748 beginning at line 15 as shown:*

During the handover processing, if CDMA\_RNG\_FLAG in message AAI\_HO-CMD is set to 0, CDMA based ranging will be skipped~~,</del> and the power offset values for the target ABS will be included in the AAI\_HO-CMD, as shown in Table 690. Other uplink power control parameters for target ABS are set by using the serving ABS value.~~

If CDMA\_RNG\_FLAG in message AAI\_HO-CMD is set to 1, CDMA based ranging shall be performed, the power control parameters of target ABS will be ~~got as</del> determined using the process defined in 16.3.9.4.8.~~

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.3: AAI PHY

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Sangheon Kim

Membership Status:

Date: 2010-07-09

Comment # 10292

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 753      Line 7      Fig/Table#      Subclause 16.3.10.1.3

In UL MU-MIMO mode, the total number of streams is limited to four as UL SU-MIMO. Because it is more feasible that ABS adopts eight receiver antennas and a complex receiving algorithm, compared with AMS, we do not have to limit the number of streams to four for CSM. Therefore, the modification for support of 8 streams in uplink CSM is proposed.

Suggested Remedy

Adopt the proposed text in C80216m-10/0814 or its latest version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C80216m-10/0814

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Mark Cudak

Membership Status:

Date: 2010-07-09

Comment # 10293

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 768      Line      Fig/Table# 962      Subclause 16.3.11.1.5.1

[MC] The current CTC interleaver parameters do not generally support parallelism in the turbo decoder implementations for block sizes below 1024. This will lead to significantly lower throughput CTC decoding for the smaller block sizes or significantly increased complexity and cost to implement turbo decoding to deliver high throughputs, especially in the uplink base station decoder when there can be a large number of small blocks to decode with tight latency budget. This contribution proposes small changes to the interleaver parameter table maintaining the existing well-designed block sizes and performance while also improving the design so that all block sizes below 1024 have at least parallelism order 2 and all except 2 block sizes have parallelism order 4. This will significantly lower the cost and complexity to implement high throughput turbo decoding for 802.16m and facilitate efficient multi-standard implementations.

Suggested Remedy

Adopted proposed text in contribution 10/0922

GroupResolution

Decision of Group: Disagree

Resolved by comment #540.

Resolution:

Disagree: Benefits of this scheme require further review.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Chiwoo Lim

Membership Status:

Date: 2010-07-09

Comment # 10294

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 780      Line 1      Fig/Table#      Subclause 16.3.11.4.1

There is a conflict for UL HARQ operation.

In page 360 line 4 , AMS shall send the subpacket labeled 0b00 when the AMS receives the UL Basic Assingmet A-MAP IE regardless of the transmission number.

But, in page 780 line 1~4, the sentences don't cover such operation.

With considering UL A-MAP loss, it's proper to change the sentences as same as the santances in page 360.

Suggested Remedy

*[Modify the texts on page 780 line 1~4 as following]*

~~For uplink HARQ, subpackets shall be transmitted in cyclic order of SPIDs starting from 0 (or 0 -> 1 -> 2 -> 3 -> 0 -> ...). In other words, for the  $t^{\text{th}}$  transmission, the subpacket ID shall be set to  $\text{SPID} = t \bmod 4$ , where  $t = 0, 1, 2, \dots$ .~~

For uplink HARQ, the SPID of a subpacket shall be initiated to 0 when the AMS receives the UL Basic Assignment A-MAP IE and UL Subband Assignment A-MAP IE regardless of the transmission number.

The SPID of a subpacket shall be increased in cyclic order of SPIDs (i.e. 0 -> 1 -> 2 -> 3 -> 0 -> ...).

GroupResolution

Decision of Group: Agree

*[Modify the texts on page 780 line 1~4 as following]*

~~<del>For uplink HARQ, subpackets shall be transmitted in cyclic order of SPIDs starting from 0 (or 0 -> 1 -> 2 -> 3 -> 0 -> ...). In other words, for the  $t^{\text{th}}$  transmission, the subpacket ID shall be set to  $\text{SPID} = t \bmod 4$ , where  $t = 0, 1, 2, \dots$ . </del>~~

<ins>For uplink HARQ, the SPID of a subpacket shall be initiated to 0 when the AMS receives the UL Basic Assignment A-MAP IE and UL Subband Assignment A-MAP IE regardless of the transmission number.

The SPID of a subpacket shall be increased in cyclic order of SPIDs (i.e. 0 -> 1 -> 2 -> 3 -> 0 -> ...). </ins>

Reason for Group's Decision/Resolution



Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions a) done

**2010/10/29**

**IEEE 802.16-10/0040r3**

Comment by:

Jin Xu

Membership Status:

Date: 2010-07-09

Comment # **10295**

Document under Review: **P802.16m/D6**

Ballot ID: **sb\_16m**

Comment      Type Technical      Part of Dis       Satisfied       Page 781      Line 1      Fig/Table#      Subclause 16.3.11.4.2

The CoRe version indication method in D6 uses "j" as the index of QAM symbols based on  $N_{\text{shift},i} = 0$ . However the index of real transmitted QAM symbols has been already circular-shifted in "bit-selection and repetition" operation. These two index are not equal, and might cause ambiguity in calculation of CRV.

We suggest using the real index of transmitted QAM symbols to define the CRV.

Suggested Remedy

Adopt C80216m-10\_0778r1 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #212.

Resolution:

Adopt C80216m-10\_0778r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10296

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 787      Line 55      Fig/Table#      Subclause 16.3.14.5

Comments on Downlink noise and interference level mean and variance (16.3.14.5)

Suggested Remedy

Adopt contribution C80216m-10\_0910 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #329.

Resolution:

Adopt contribution C80216m-10\_0910r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10297

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 787      Line 55      Fig/Table#      Subclause 16.3.14.5

Comments on Downlink noise and interference level mean and variance (16.3.14.5)

Suggested Remedy

Adopt contribution C80216m-10\_0910 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #329.

Resolution:

Adopt contribution C80216m-10\_0910r3

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.3: AAI PHY

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10298

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 790      Line 14      Fig/Table#      Subclause 16.4.5.1

When a Femto ABS is connected to an overlaid Macro ABS through the Femto ABS's air interface, Why is the wireless connection between Femto ABS and Macro ABS limited to control message only?

Suggested Remedy

change the paragraph in line 14 on page 790 as follows:

For a Femto ABS that uses air interface connection with the overlaid Macro ABS ~~for exchanging control messages~~, the Femto ABS shall perform the following additional initialization procedure during the Femto ABS initialization procedure.

GroupResolution

Decision of Group: Disagree

Resolved by comment #598.

Resolution:

Disagree: Allowing data messages increases complexity.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Anshuman Nigam

Membership Status:

Date: 2010-07-09

Comment # 10299

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 792      Line 65      Fig/Table#      Subclause 16.4.7.1

During Network (Re) Entry, the AMS needs to prioritize the base stations that it has found by scanning, for attempting cell (re)selection. Standard can give some recommendations for this

Suggested Remedy

Adopt the proposed text in the latest version of the contribution number C80216m-10\_0786

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

There is no need to enumerate all possible vectors.

Vote:

In favor: 12

Opposed: 8

Abstain:

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10300

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 793      Line 65      Fig/Table#      Subclause 16.4

"OSG femto" and "open femto" should be unified with a unique name

Suggested Remedy

p.793 line 65: replace "open Femto" to "OSG Femto"  
p.794, line 1: replace "open Femto" to "OSG Femto"  
p.794, line 22: replace "open Femto" to "OSG Femto"

GroupResolution

Decision of Group: Agree

p.793 line 65: replace "open Femto" to "OSG Femto"  
p.794, line 1: replace "open Femto" to "OSG Femto"  
p.794, line 22: replace "open Femto" to "OSG Femto"

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Anshuman Nigam

Membership Status:

Date: 2010-07-09

Comment # 10301

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 794      Line 23      Fig/Table#      Subclause 16.4.7.5

word "matching" is used two times which is not necessary

Suggested Remedy

If the Femto ABS has CSGID info of nearby Femto ABSs, then it may filter the "Redirection Info" based on the CSGID(s) provided by the AMS in the AAI\_RNG-REQ message and only provide the open Femto ABSs as well as ~~matching~~ CSG Femto ABSs with matching CSGID(s) to the AMS in the "Redirection Info".

GroupResolution

Decision of Group: Agree

If the Femto ABS has CSGID info of nearby Femto ABSs, then it may filter the "Redirection Info" based on the CSGID(s) provided by the AMS in the AAI\_RNG-REQ message and only provide the open Femto ABSs as well as ~~matching~~ CSG Femto ABSs with matching CSGID(s) to the AMS in the "Redirection Info".

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Anshuman Nigam

Membership Status:

Date: 2010-07-09

Comment # 10302

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 795      Line 26      Fig/Table#      Subclause 16.4.8.1.2

The triggering of scanning for Femtos can be based on location/speed/battery.

Suggested Remedy

Based on location information [and/or speed and/or battery level](#), AMS may initiate the scanning procedure (See 16.2.6.1.2).

GroupResolution

Decision of Group: Principle

Based on location information [<ins>and/or speed</ins>](#), AMS may initiate the scanning procedure (See 16.2.6.1.2).

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Inuk Jung

Membership Status:

Date: 2010-07-09

Comment # 10303

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 795      Line 62      Fig/Table#      Subclause 16.4.8.1.2

The procedure for receiving an accessible list of CSG/OSG femtocells are possible by AAI\_SCN-REQ message and AAI\_SCN-REP message, which is duplicate and confusing. We suggest to allow AMS to receive an accessible femtocell list by message exchange of AAI\_SCN-REQ/RSP messages only.

Suggested Remedy

Review and adopt text in proposed contribution IEEE80216m-10\_0897

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This is required to receive an optimized Femto neighbor list.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ying Li

Membership Status:

Date: 2010-07-09

Comment # 10304

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 796      Line 9      Fig/Table#      Subclause 16.4.8.1.2

In the current draft D6, it describes some methods on how AMS performs cell detection, and how AMS scans its neighbor femto ABSs. However, some of these methods are not clearly described, or some of them could be further optimized, and some corresponding messages are not complete.

Suggested Remedy

Please adopt the text in contribution C80216m-10\_0926 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The proposal adds many new parameters but the benefit of these parameters is not clear.

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10305

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 797      Line 17      Fig/Table#      Subclause 16.4.10.1

The purpose of Low duty mode is to reduce interference to neighbor cells.

In order to control inter-cell interference between the overlay Macro ABS and the Femto ABS, the overlay Macro ABS may send indication to request the Femto ABS to enter into low duty mode.

**Suggested Remedy**

*Modify the sentence (from line 17 on page 797) of P802.16m/D6 as follows.*

The Femto ABS may enter low-duty mode if there are no AMSs attached to the Femto ABS and there are no AMSs in the process of network entry, or it receives indication from the overlay Macro BS.

**GroupResolution**

**Decision of Group: Principle**

Resolved by comment #418.

Resolution:

Please adopt contribution C80216m-10\_0774r2

**Reason for Group's Decision/Resolution**

**Group's Notes**

Clause 16.4: AAI Femto

**Editor's Notes**

**Editor's Actions** a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Giwon Park

Membership Status:

Date: 2010-07-09

Comment # 10306

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 797      Line 29      Fig/Table#      Subclause 16.4.10.1

The AIs at the Femto ABS comprise AIs of the paging cycle and of the Default LDM pattern regardless of sleep cycle. However, current figure 586 of P802.16h/D6 describes the sleep cycle in AIs of femto ABS. Therefore, the three gray quadrangles (related to the sleep cycle) shall be deleted in figure 586.

Suggested Remedy

Adopt the text proposal in C80216m-10\_0733 or the latest revision of the contribution.

GroupResolution

Decision of Group: Agree

Adopt the text proposal in C80216m-10\_0733

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Anshuman Nigam

Membership Status:

Date: 2010-07-09

Comment # 10307

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 798      Line 11      Fig/Table#      Subclause 16.4.10.2

There exits no simple means to intimate the change in LDM parameters to the AMS.

Suggested Remedy

Adopt the proposed text in the latest version of the contribution number C80216m-10\_0785

GroupResolution

Decision of Group: Agree

Adopt the proposed text in C80216m-10\_0785

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhang

Membership Status:

Date: 2010-07-09

Comment # 10308

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 798      Line 25      Fig/Table#      Subclause 16.4.11

The purpose of Low duty mode is to reduce interference to neighbor cells.

In order to control inter-cell interference between the overlay Macro ABS and the Femto ABS, the overlay Macro ABS may send indication to request the Femto ABS to enter into low duty mode.

Suggested Remedy

Please adopt contribution C80216m-10\_0774 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #418.

Resolution:

Please adopt contribution C80216m-10\_0774r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ying Li

Membership Status:

Date: 2010-07-09

Comment # 10309

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 800      Line 32      Fig/Table#      Subclause 16.4.13

In the current draft D6, it says that the AMS who hands out from the Femto ABS because of Femto ABS failure of backhaul or power down, can be called back, when the Femto ABS recovers from those reasons.

An AMS can hand out from the Femto ABS because of the interference coordination, e.g., the Femto ABS makes some resource adjustment such as reducing its TX power, to reduce the interference to other AMSs. In this scenario, when the Femto ABS regains the resources from interference coordination, the AMS who hands out can be called back, similar to calling back the AMS who hands out due to Femto ABS backhaul failure or power down.

Suggested Remedy

Please adopt the text in contribution C80216m-10\_0923 or its latest version.

GroupResolution

Decision of Group: Agree

Please adopt the text in contribution C80216m-10\_0923

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.4: AAI Femto

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Youngbo Cho

Membership Status:

Date: 2010-07-09

Comment # 10310

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 808      Line 11      Fig/Table#      Subclause 16.6.1

This comment is for the proposed text for the simultaneous transmit and receive (STR) relaying mode for Relay in the IEEE 802.16m AWD.

Suggested Remedy

Adopt the text proposed in contribution C802.16m-10/0790 or its latest version.

GroupResolution

Decision of Group: Principle

Adopt the text proposed in contribution C802.16m-10/0790r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    a) done

Partially done, Joey - one proposed text can't be implemented, since table 683 has been removed



2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10311

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 809      Line 58      Fig/Table#      Subclause 16.6.2.4

Current D6 relay security description does not match with the current PKM v3. Especially AK derivation and Key Agreement 3-way handshake procedure are described differently from macro's PKM v3.  
We suggest modifying the relay security in accordance with PKMv3.

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0886 or its later version.

GroupResolution

Decision of Group: Agree

Adopt the proposed text in contribution C802.16m-10/0886

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Youngbin Chang

Membership Status:

Date: 2010-07-09

Comment # 10312

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 826      Line 46      Fig/Table#      Subclause 16.3.3

ARS frame structrue needs to clean up to support following criteria

1. Frame configuration for ARS should be transparent to AMS attaching ABS.
2. Ratio of Access and Relay zone should be decided not to change HARQ timing in section 16.2.14.2.2

Suggested Remedy

Adopt the proposed text in the contribution C802.16m-10\_0837 or latest version

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/837r1.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jinyoung Chun

Membership Status:

Date: 2010-07-09

Comment # 10313

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 826      Line 63      Fig/Table#      Subclause 16.6.3.1

When ABS supports ARS, ABS-AMS link shall be operated regardless of ARS existence. But Relay HARQ operation can be different between relay and macro, especially in FDD. Therefore I suggest the change of ARS FDD frame structure to solve the problem.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0846 or the revised version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

The HARQ timing defined in the current draft specification cannot be applied to the proposed ARS FDD frame structure. A new HARQ timing needs to be defined for it, but a single HARQ timing protocol is preferred for simple system design.

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Alexey Khoryaev

Membership Status:

Date: 2010-07-09

Comment # 10314

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 827      Line 2      Fig/Table#      Subclause 16.6.3.1

The contribution C80216m-10\_0925 provides text clean up of the section 16.6.3.1 Basic frame structure supporting ARS and also defines the basic set of requirements on the durations of the AAI Access and Relay zones.

Suggested Remedy

Adopt text proposed in the latest revision of C80216m-10\_0925

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/925r2.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Jinyoung Chun

Membership Status:

Date: 2010-07-09

Comment # 10315

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 828      Line 37      Fig/Table#      Subclause 16.6.3.1

If ABS sends a MIMO midamble in relay zone for ARS, ABS's frame structure should be changed. Then AMS served by ABS has to know the changed frame structure and it means ARS affects normal ARS operation which does not support ARS operation. Therefore I suggest a method to solve the problem.

Suggested Remedy

Adopt the proposed text in C802.16m-10/0847 or the revised version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/847r1.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Alexey Khoryaev

Membership Status:

Date: 2010-07-09

Comment # 10316

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 832      Line 1      Fig/Table#      Subclause 16.6.3.3.1

The contribution C80216m-10\_0928 provides clarification on periodicity of additional MIMO-Midamble transmission in AAI DL Relay zone when ARS is attached to ABS. It is proposed to explicitly define one value for the periodicity of MIMO-Midamble transmission on relay link equal to 20 ms.

Suggested Remedy

Adopt text proposed in the latest revision of C80216m-10\_0928

GroupResolution

Decision of Group: Principle

Adopt the proposed text in IEEE C802.16m-10/928r2.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10317

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 832      Line 37      Fig/Table#      Subclause 16.6.3.3

Comments on Relay Downlink PHY Structure (16.6.3.3)

Suggested Remedy

Adopt contribution C80216m-10\_0908 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #330.

Resolution:

Adopt the proposed text in IEEE C802.16m-10/908r3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Yih Guang Jan

Membership Status:

Date: 2010-07-09

Comment # 10318

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 832      Line 37      Fig/Table#      Subclause 16.6.3.3

Comments on Relay Downlink PHY Structure (16.6.3.3)

Suggested Remedy

Adopt contribution C80216m-10\_0908 or its latest version.

GroupResolution

Decision of Group: Principle

Resolved by comment #330.

Resolution:

Adopt the proposed text in IEEE C802.16m-10/908r3.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.6: AAI Support for Relay

Editor's Notes

Editor's Actions    b) none needed



2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jin Lee

Membership Status:

Date: 2010-07-09

Comment # 10319

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 836      Line 45      Fig/Table#      Subclause 16.7.4

According to section 16.2.15.7, AMS performs re-entry procedure from coverage loss when it recognizes that the ABS restarts by comparing restart count. Therefore, the AMS should follow the same re-entry procedure after it receives an AAI\_SON-ADV indicating ABS restart or reconfiguration.

Suggested Remedy

Before ABS changes its FA, it may send AAI\_SON-ADV message which includes the current FA downtime, new FA and its up time to AMS. The AMS may perform network re-entry into the same ABS, at the new FA uptime and continue with its session, ~~when it receives this AAI\_SON-ADV message.~~ Re-entry procedure is defined in section 16.2.26.3

GroupResolution

Decision of Group: Principle

Before ABS changes its FA, it may send AAI\_SON-ADV message which includes the current FA downtime, new FA and its up time to AMS. The AMS may perform network re-entry into the same ABS, at the new FA uptime and continue with its session ~~<del>, when it receives this AAI\_SON-ADV message</del>.~~

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.7: AAI Support for SON

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Ying Li

Membership Status:

Date: 2010-07-09

Comment # 10320

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 836      Line 49      Fig/Table#      Subclause 16.7.4

In the current draft D6, the reconfiguration section needs more clarification.

Suggested Remedy

Please adopt the text in contribution C80216m-10\_0932 or its latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

It has no impact on the air interface and the improvement is not justified.

Group's Notes

Clause 16.7: AAI Support for SON

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhou

Membership Status:

Date: 2010-07-09

Comment # 10321

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 841      Line 56      Fig/Table#      Subclause 16.8.2.4.2

Based on IEEE 802.16m/D6,"802.16m Draft Amendment ", for LBS, in connect mode, AAI\_LBS-IND message is used for general U-TDOA and special U-TDOA .AAI\_LBS-IND message need be clearly clarified and some operation description on how to use AAI\_LBS-IND message for general U-TDOA and special U-TDOA need be added.

Suggested Remedy

Adopt the proposed AWD text changes in contribution C802.16m-10\_0799 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the proposed AWD text changes in contribution C802.16m-10\_0799r2

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Alexey Khoryaev

Membership Status:

Date: 2010-07-09

Comment # 10322

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 843      Line 13      Fig/Table#      Subclause 16.8.3.1.2

In the previous IEEE meeting the physical structure of D-LBS zone was defined. The contribution C80216m-10\_0924 proposes to add control signaling to indicate the activation of the D-LBS zone transmission.

Suggested Remedy

Adopt text proposed in the latest revision of C80216m-10\_0924

GroupResolution

Decision of Group: Principle

Adopt text proposed in C80216m-10\_0924r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jinsoo Choi

Membership Status:

Date: 2010-07-09

Comment # 10323

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial      Part of Dis  Satisfied       Page 844      Line 18      Fig/Table#      Subclause 16.8.3.3

'IDCell' should be changed as 'IDcell'.

Suggested Remedy

Change 'IDCell' as 'IDcell' in line 18 in page 844

GroupResolution

Decision of Group: Agree

Change 'IDCell' as 'IDcell' in line 18 in page 844

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AA1 LBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Zhou

Membership Status:

Date: 2010-07-09

Comment # 10324

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 844      Line 64      Fig/Table#      Subclause 16.8.3

Based on IEEE 802.16m/D6,"802.16m Draft Amendment ", new E-LBS zone design and transmission plan have been included. There is no any control signaling for E-LBS zone including information of E-LBS zone and triggering measurement procedure in current 16m spec. So we propose to clarify control signaling for E-LBS zone.

Suggested Remedy

Adopt the proposed AWD text changes in contribution C802.16m-10\_0800 or its latest revision.

GroupResolution

Decision of Group: Principle

Resolved by comment #10322.

Resolution:

Adopt text proposed in C80216m-10\_0924r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.8: AAI LBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Lei Wang

Membership Status:

Date: 2010-07-09

Comment # 10325

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 845      Line 29      Fig/Table#      Subclause 16.9

The last sentence in line 29 on page 845 is extra, as the sentence in line 21 on page 845 already specifies the uniqueness of the E-MBS\_Zone\_ID.

Suggested Remedy

Delete the last sentence in line 29 on page 845, i.e.,

~~The E-MBS\_Zone\_IDs shall not be reused across any two adjacent E-MBS Zones.~~

GroupResolution

Decision of Group: Principle

Resolved by comment #596.

Resolution:

Delete the last sentence in line 29 on page 845, i.e.,  
The E-MBS\_Zone\_IDs shall not be reused across any two adjacent E-MBS Zones.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Soojung Jung

Membership Status:

Date: 2010-07-09

Comment # 10326

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 846      Line 29

Fig/Table#

Subclause 16.9.1.2

typo

Suggested Remedy

[Modify the text as follows]

- Mapping of SDUs to PDU (order fo the SDUs and fragments) including Extended Headers }>

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

- Mapping of SDUs to PDU (order fo the SDUs and fragments) including Extended Headers }>

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10327

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 846      Line 42      Fig/Table#      Subclause 16.9.2

E-MBS operation in multicarrier deployment should be provided clearly in order to achieve an efficient carrier switching operation.

Proposed E-MBS operation includes following

- Report from AMS to ABS which E-MBS the AMS to start receiving using a new message in connected state and location update in idle state.

- Avoiding the scheduling simultaneously between non E-MBS data and E-MBS data on the individual carrier using grouping a new paging zone as well as TDMed E-MBS Zone allocation.

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0917 or its latest revision.

GroupResolution

Decision of Group: Principle

Adopt the text proposed in C802.16m-10/0917r4

Reason for Group's Decision/Resolution

Disagree with the following reason: The Start Time parameter in the DSA, this parameter is required.

Vote:

In favor: 7

Opposed: 10

Abstain:

Re-opened Thursday afternoon. No other discussion. C802.16m-10/0917r4 was accepted without opposition.

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10328

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 847      Line 29

Fig/Table#

Subclause 16.9.2.1

Strange symbol "£" should be deleted.

Suggested Remedy

In addition the E-MBS service flows may also be established optionally through upper layer signaling£" which is outside the scope of this specification.

GroupResolution

Decision of Group: Agree

In addition the E-MBS service flows may also be established optionally through upper layer signaling<del>£</del>" which is outside the scope of this specification.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Soojung Jung

Membership Status:

Date: 2010-07-09

Comment # 10329

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial  
typo

Part of Dis  Satisfied

Page 847    Line 29

Fig/Table#

Subclause 16.9.2.1

Suggested Remedy

[Modify the text as follows]

established optionally through upper layer signaling~~£~~ which is

GroupResolution

Decision of Group: Agree

[Modify the text as follows]

established optionally through upper layer signaling~~<del>£</del>~~ which is

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    a) done

Comment by: Taeyoung KimMembership Status:Date: 2010-07-09Comment # 10330Document under Review: P802.16m/D6Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 847      Line 34      Fig/Table#      Subclause 16.9.2.1

In the initial stage, it has been considered as a reasonable working scenario for AMS to receive MBS traffic on both AAI zone or legacy MBS zone. So, some descriptions are addressed in Section 16.9.2.1. But, it seems that this kind of working scenario is not realistic since legacy MBS service is not implemented yet and it might cause the increase of implementation complexity. So, I'd like to suggest to remove the description using legacy MBS zone.

Suggested Remedy

*[Modify the text in line 34, page 847 as below]*

The ABS sends the AAI\_DSA-REQ/RSP to the AMS containing the relevant E-MBS/MBS parameters. ~~The parameters sent will indicate to the AMS whether to listen to E-MBS on an AAI zone or to listen to MBS on a legacy MBS zone.~~ It also includes E-MBS IDs and FIDs, E-MBS zone IDs, E-MBS carrier information (physical carrier index). Selective decoding of content is at the granularity of FID's.

If multicarrier feature is supported by the AMS and the ABS, the ABS should use AAI\_DSA-REQ/RSP message to redirect the MS to ~~legacy MBS zones or~~ AAI E-MBS zone of other carriers, if such redirection is needed.

GroupResolutionDecision of Group: Agree

*[Modify the text in line 34, page 847 as below]*

The ABS sends the AAI\_DSA-REQ/RSP to the AMS containing the relevant E-MBS<del>/MBS</del> parameters. <del>The parameters sent will indicate to the AMS whether to listen to E-MBS on an AAI zone or to listen to MBS on a legacy MBS zone.</del> It also includes E-MBS IDs and FIDs, E-MBS zone IDs, E-MBS carrier information (physical carrier index). Selective decoding of content is at the granularity of FID's.

If multicarrier feature is supported by the AMS and the ABS, the ABS should use AAI\_DSA-REQ/RSP message to redirect the MS to <del>legacy MBS zones or</del> AAI E-MBS zone of other carriers, if such redirection is needed.

Reason for Group's Decision/ResolutionGroup's Notes

Clause 16.9: AAI EMBS

Editor's NotesEditor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Jeongki Kim

Membership Status:

Date: 2010-07-09

Comment # 10331

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 847      Line 45      Fig/Table#      Subclause 16.9.2.1

To receive the E-MBS MAP and E-MBS Data, an E-MBS AMS should receive the AAI\_SCD message as well as AAI\_E-MBS-CFG message

Suggested Remedy

[Modify the related sentence as follows:]

A Start time parameter is included in AAI-DSA message for carrier switching mode to indicate the time the AMS performs carrier switching to the E-MBS carrier for detecting and decoding the AAI\_E-MBS\_CFG message [or AAI\\_SCD message](#).

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This message is not required to initiate E-MBS service.

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10332

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis       Satisfied       Page 848      Line 24      Fig/Table#      Subclause 16.9.2.2

According to 802.16m/D6, for a carrier switching capable AMS, if its E-MBS services are transmitted on carriers other than its primary carrier, it performs carrier switching to receive the E-MBS services. However, the ABS could not acquire information about which E-MBS service the AMS is currently receiving. It affects the unicast service scheduling for the AMS on its primary carrier.

Suggested Remedy

Discuss and adopt contribution IEEE C802.16m-10\_0900 or latest version.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

This proposal introduces a new message on top of the existing DSx messages which introduces a lot of overhead.

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions    b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10333

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 848      Line 47

Fig/Table#

Subclause 16.9.2.3

Wrong grammar.

Suggested Remedy

When an AMS in Idle mode moves to an ABS which does not belong~~s~~ to AMS' previous E-MBS Zone, the AMS is expected to update the E-MBS service flow management encodings at that ABS to provide continuous reception of E-MBS content.

GroupResolution

Decision of Group: Agree

When an AMS in Idle mode moves to an ABS which does not belong~~s~~ to AMS' previous E-MBS Zone, the AMS is expected to update the E-MBS service flow management encodings at that ABS to provide continuous reception of E-MBS content.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10334

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 849      Line 18      Fig/Table#      Subclause 16.9.3.1

Cleanup for E-MBS\_CFG\_LIFETIME in AAI\_E-MBS-CFG by modification the value to LSB of superframe number

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0918 or its lastest revision.

GroupResolution

Decision of Group: Principle

Please adopt the text proposal in IEEE C802.16m-10/0918r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done



2010/10/29

IEEE 802.16-10/0040r3

Comment by: Eunkyung Kim

Membership Status:

Date: 2010-07-09

Comment # 10335

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 849      Line 20      Fig/Table# 980      Subclause 16.9.3.1

Cleanup for AAI\_E-MBS-CFG Message as the ASN.1 format

Suggested Remedy

Please adopt the text proposal in IEEE C802.16m-10/0919 or its latest revision.

GroupResolution

Decision of Group: Principle

Please adopt the text proposal in IEEE C802.16m-10/0919r1

NOTE to Editor:

Contribution C802.16m-10/918r1 was accepted. Take only the sentence above the table from that contribution. Contribution C802.16m-10/919r1 includes the table change from C802.16m-10/918r1 and re-formats the table. Use the table from C802.16m-10/919r1 to replace the current Table 980.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Yuqin Chen

Membership Status:

Date: 2010-07-09

Comment # 10336

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Editorial

Part of Dis  Satisfied

Page 850      Line 2

Fig/Table#

Subclause 16.9.3.1

"BS" should be "ABS".

Suggested Remedy

Zone\_Allocation Bit-MAP: Zone\_Allocation Bit-MAP consists of sub-band indices reserved for all E-MBS zones the ABS belongs to.

GroupResolution

Decision of Group: Agree

Zone\_Allocation Bit-MAP: Zone\_Allocation Bit-MAP consists of sub-band indices reserved for all E-MBS zones the ABS belongs to.

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.9: AAI EMBS

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10337

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 853      Line 58      Fig/Table#      Subclause 16.10.2

AMS may perform Zone switch from Lzone to Mzone or direct HO from Lzone to 16mABS.

In those cases AMS's capabilities in 16mABS has to be negotiated at the target zone or target ABS. That means additional control message transactions are required besides AAI\_RNG message transaction because 16m capabilities are different from R1 capability. But, if the AMS's 16m capabilities are pre-neogotiated at the serving BS, additional control message transactions for capability negotiation are not required.

Suggested Remedy

Define TLV encodnings about 16m capabilities negotiated by SBC/REG procedure, which is available in the mixed mode ABS. Support 16m capability negotiation through by SBC or REG messages containing the TLV encoding.

GroupResolution

Decision of Group: Disagree

Reason for Group's Decision/Resolution

lack of sufficent, specific remedy

Group's Notes

Clause 16.10: AAI Support for AAI in LZone

Editor's Notes

Editor's Actions b) none needed

2010/10/29

IEEE 802.16-10/0040r3

Comment by:

Feng Xie

Membership Status:

Date: 2010-07-09

Comment # 10338

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 854      Line 5      Fig/Table# 982      Subclause 16.10.2.1

Zone Switch TLV in RNG-RSP message, Table 982 (OFDMA-specific RNG-RSP message encodings) , needs clarification and clean-up.

1) NONCE\_BS is no longer used and should be deleted from zone switch TLV.

2) FA index should be included in Zone Switch TLV if LZone and target MZone are located in different carriers. This may happen in two scenarios. a) mixed-mode ABS applies FDM mode for deploying LZone and MZone. b) mixed-mode ABS applies TDM mode for deploying LZone and MZone in one carrier and the ABS support multi-carrier. Then LZone and target MZone may be located in different carriers.

Suggested Remedy

Adopt the proposed text in C80216m-10\_0717

GroupResolution

Decision of Group: Principle

Same remedy as comment #233

Remedy:

Adopt the proposed text in C80216m-10\_0717r1

Reason for Group's Decision/Resolution

Group's Notes

Clause 16.10: AAI Support for AAI in LZone

Editor's Notes

Editor's Actions a) done

2010/10/29

IEEE 802.16-10/0040r3

Comment by: YoungKyo Baek

Membership Status:

Date: 2010-07-09

Comment # 10339

Document under Review: P802.16m/D6

Ballot ID: sb\_16m

Comment      Type Technical      Part of Dis  Satisfied       Page 897      Line 1      Fig/Table#      Subclause AnnexQ

CurrentD6 test vectors don't reflect correctly the current cryptographic method.(e.g. Flag field of initial CCM block is applied wrongly.)  
So we suggest change of test vectors depending on the current cryptographic methods and deletion of unnecessary parts(e.g plaintext ICV).

Suggested Remedy

Adopt the proposed text in contribution C802.16m-10/0879 or its later version.

GroupResolution

Decision of Group: Principle

Adopt the proposed text in contribution C802.16m-10/0879r2

Reason for Group's Decision/Resolution

Group's Notes

Annex Q

Editor's Notes

Editor's Actions a) done