**Comment Date** 

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment # 3002 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # Gen Starting Line # Fig/Table# Section T

I submitted 18 comments, but only 3 were answered in the files that were provided. I am repeating essentially all of my comments because the group did not bother to address them.

#### Suggested Remedy

The group needs to make sure that all comments are addressed before going out to ballot.

Proposed Resolution Recommendation: Accepted Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

All comments, including those of Mr. Gilb, have always been, and will continue to be, addressed.

In the previous recirculation package, we recirculated the responses to all four of Mr. Gilb's comments that he had marked as "Technical". We did not recirculate the responses to the 14 comments Mr. Gilb had marked as "Editorial". In the current recirculation, we will provide access to the responses to editorial as well as technical comments.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3003 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # all Starting Line # Vario Fig/Table# Section Various

The level of editorial problems with this draft is such that even a 40 day ballot would not be sufficient to list all of them in detail.

Suggested Remedy

Spend some time to fix the draft so that it adheres to the 2005 IEEE Style Guide and have a 40 day ballot to review the draft.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Substantial editorial changes are being implemented in the standard and will comply with 2005 style guidelines.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

The 2005 Style Manual is actually in the "review" stages at this point. Sections of it still have to be presented to ProCom. The important change that is being implemented now is to the reference clause. The title has been changed to "Normative References," which I did, but the group will have to change the introductory paragraph as needed. See the Style Guide for more info.

**Editor's Questions and Concerns** 

Comment # 3008 Comment submitted by: Byoung-Jo Kim Member 2005/03/09

Comment Type Technical, Binding Starting Page # Gen Starting Line # Fig/Table# Section

The new draft defines FS and MS for fixed and mobile subscribers. Then throughout the document, there is no more occurrence of FS, and most references to SS and MSS are replaced with MS, even including sections that clearly apply to both MS and FS such as the common MAC portions and Privacy sublayers, etc.. Clearly, certain functions specific to MS or FS or both can be for technical and regulatory reasons. Thus, without knowing whether this was an editorial error, or a deliberate technical decision, I regret to vote No with technical comments to ensure a resolution.

#### Suggested Remedy

The definitions and the superceding relationship between FS, MS, SS must be clarified further in the definitions section. The use of FS, MS, SS shall be consistently applied throughout the document, based on technical or other reasons to limit certain parts of the draft to FS or MS.

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns

Comment # 3020 Comment submitted by: Dorothy Stanley Member 2005/03/09

Comment Type Technical, Binding Starting Page # 7 Starting Line # Fig/Table# Section 2

Section 2, Page 7 of diffmarked version, References must be published standards, not drafts. Missing reference to RFC 3748.

Suggested Remedy

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

See resolution of comment 3123

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

See resolution of comment 3123

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3027 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 9 Starting Line # 56 Fig/Table# Section 3.71

The definition of MS should explicitly state that a MS is a subscriber station (SS). Otherwise any protocol that is defined with the SS as the protocol peer will from the point of view of the MS be irrelevant. Another problem with the defintion adopted as a result of the comment from Jose Costa is that it refers to 'the mobile service' which is 802.16 isn't defined. To me it unfortunately seems that if we want to harmonize our defintion with the definition used in ITU this would require tens if not hundreds of changes to 802.16-2004.

#### Suggested Remedy

Replace the current definition for the MS with

"mobile station(MS): A subscriber station that supports communications while in motion"

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

duplicate

**Editor's Questions and Concerns** 

Comment # 3034 Comment submitted by: Jonathan Labs Member 2005/03/09

Comment Type Technical, Binding Starting Page # 13 Starting Line # 1 Fig/Table# Section 6.

I object to the resolution of comment 1945 in IEEE 802.16-05/010. This comment is about how the term MSS (now MS) has replaced SS in text pulled from the base document. The Decision of the Group was to supercede that comment by comment #71, and the reason for the Group's Decision was that "This comment has been superseded by comment #71 which changes the usage of MSS and SS." However, I cannot find comment #71 listed in IEEE 802.16-05/010 or IEEE 802.16-04/011. Going back to IEEE 802.16-04/69r4, I find comment #71 (which is also technically binding), and the resolution of the group for that comment was "DJ, possibly David Castelow, possibly others to supply a specific list of changes to be made."

If this action item was done, I do not find that all the necessary fixes were made. The title of this ammendment is "Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands" I think many sections of this document lose sight of the fact that fixed systems must also be able operate.

My Suggested Remedy is an attempt to fix the SS/FS/MS language in all sections up to and including section 6. MAC Common part sublayer.

#### Suggested Remedy

- 1) On page 34, line 59, change "Initial ranging CID if the MS has not yet registered" to "Initial ranging CID if the SS has not yet registered" (this feature for RNG REQ messages are for both fixed and mobile SSs).
- 2) On page 35, line 4, change "the MS shall make UL BW request of sufficient size" to "the SS shall make UL BW request of sufficient size" (this feature for RNG\_REQ messages are for both fixed and mobile SSs).
- 3) On page 35, line 8, change "when the MSs is attempting to join" to "when the Ss is attempting to join" (the parameter that follow are for both fixed and mobile Sss).
- 4) On page 49, line 3, change "6.3.2.3.24 MS basic capability response (SBC-RSP) messge" to "6.3.2.3.24 SS basic capability response (SBC-RSP) messge"
- 5) On page 50, line 60, change "6.3.2.3.42 MS De-registration Request (DREG-REQ) message" to "6.3.2.3.42 SS De-registration Request (DREG-REQ) message"
- 6) On page 51, line 13, change "MSS De-Registration request from BS" to "SS De-Registration request from BS" (this De-Registration Request Code applies to both fixed and mobile SS's)
- 7) On page 51, line26, change "An MSS shall generate MSS DREG-REQs including the following parameters:" to "An SS shall generate SS DREG-REQs including the following parameters:"
- 8) On page 52, line 45, change "basic CIDs of MS connected with the BS" to "basic CIDs of SS connected with the BS" (text in D6 does not correctly copy the original text from 802.16-2004)
- 9) On page 52, line 49, change "n-bits of LSB of CID of MS." to "n-bits of LSB of CID of MS." (again text in D6 does not correctly copy the original text from 802.16-2004).
- 10) On page 54, line 22, change "the MS." to "the SS." (again text in D6 does not correctly copy the original text from 802.16-2004).

- 11) On page 54, line 26, change "by the MS in every 2° frames." to "by the SS in every 2° frames." (again text in D6 does not correctly copy the original text from 802.16-2004).
- 12) On page 54, line 29, change "The MS starts reporting at the frame of which the number has the same 3 LSB as the specified frame offset. If the current frame is specified, the MS should start reporting in 8 frames." to "The MSS starts reporting at the frame of which the number has the same 3 LSB as the specified frame offset. If the current frame is specified, the MSS should start reporting in 8 frames." (the original text from 802.16-2004 incorrectly refers to an MSS which is not defined for 802.16-2004).
- 13) On page 54, line 36, change "A CQI feedback is transmitted on the CQI channels indexed by the (CQI Channel Index) by the MS for 2<sup>(d-I)</sup> frames. If d is 0b1111, the MS should report until the BS commands the MS to stop." to "A CQI feedback is transmitted on the CQI channels indexed by the (CQI Channel Index) by the SS for 2<sup>(d-I)</sup> frames. If d is 0b1111, the MSS should report until the BS commands the MSS to stop." (text in D6 does not correctly copy the original text from 802.16-2004, and the original text from 802.16-2004 incorrectly refers to an MSS which is not defined for 802.16-2004).
- 14) On page 74, line 6, change "MSS sends CQI report in CQI region." to "SS sends CQI report in CQI region." (According to the text in 802.16-2004, this statement also applies to fixed SS's.)
- 15) On page 74, line 9, change "When there exist a need to allocate multiple CQICHs to a SS, the number of used subchannels for CQICH region shall be increased by the total number of additional CQICHs for all MS within the frame" to "When there exist a need to allocate multiple CQICHs to a SS, the number of used subchannels for CQICH region shall be increased by the total number of additional CQICHs for all SS within the frame" (The sentence starts to talk about SS's and later only MS's, which I try to fix).
- 16) On page 125, line 30, change "the MSS can request to change the size of the request opportunity using the extended piggyback and request headers." to "the SS can request to change the size of the request opportunity using the extended piggyback and request headers." (the text in the following paragraph seems to indicate that this feature is applicable to both mobile and fixed SS's.)
- 17) On page 126, line 18, change
- "Otherwise, for fixed SS and for MSs using IPv4 and not using mobile IP, the SS/MS shall invoke DHCP mechanisms [IETF RFC 2131] in order to obtain an IP address and any other parameters needed to establish IP connectivity. If the SS has a configuration file, the DHCP response shall contain the name of a file which contains further configuration parameters. For MS using IPv6 the SS/MS shall either invoke DHCPv6 [IETF RFC 3315] or IPv6 Stateless Address Autoconfiguration [IETF RFC 2462] based on the value of a TLV tuple in REG\_RSP. Establishment of IP connectivity shall be performed on the SS's Secondary Management Connection (see Table 110)."

to

"Otherwise, for FSs and for MSs using IPv4 and not using mobile IP, the SS shall invoke DHCP mechanisms [IETF RFC 2131] in order to obtain an IP address and any other parameters needed to establish IP connectivity. If the SS has a configuration file, the DHCP response shall contain the name of a file which contains further configuration parameters. For SS using IPv6 the SS shall either invoke DHCPv6 [IETF RFC 3315] or IPv6 Stateless Address Autoconfiguration [IETF RFC 2462] based on the value of a TLV tuple in REG\_RSP. Establishment of IP connectivity shall be performed on the SS's Secondary Management Connection (see Table 110)."

18) In 6.3.17 MAC support for H-ARQ starting on page 133, line 57, replace all instances of MS with SS. Otherwise, the text would indicate that

HARQ is no longer supported for fixed systems.

Proposed Resolution Recommendation:

Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

duplicate

**Editor's Questions and Concerns** 

# 2005/05/23 IEEE 802.16-05/012r5

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3042 Comment submitted by: Rainer Ullmann Member 2005/03/09

Comment Type Technical, Binding Starting Page # 14 Starting Line # 21 Fig/Table# Section 6.3.2.1.2

This section is still really screwed up:

- under e) the allowed values for Type are 000, 001 and 111. type 011 is not allowed? How about 100?
- no description for "CQICH channel allocation request." other than "BR may be 0". May I assume description follows Figure 20/Table 7?
- the description of the type field fort table 7a allows 000 and 001, even though it can only be 011. Furthermore the title of the table is wrong (Table 7a—Description of fields of the PHY channel report header)
- -reference to table "ddd"

#### Suggested Remedy

#### p.14 l.26:

The Bandwidth Request PDU shall consist of bandwidth request header alone and shall not contain apayload.

The bandwidth request header is types are illustrated in Figure 20, Figure 20a and Figure 20ba. An SS receiving a bandwidth request header on the downlink shall discard the PDU.

#### p.14 l.45:

e) The allowed types for bandwidth requests are "000" for incremental and "001" for aggregate <u>BR</u>, "011" for <u>BR</u> and <u>UL Tx power report</u> header, "100" for "BR and DBPC request header" and "111" for CQICH channel allocation request.

## p.14 l.45:

The fields of the bandwidth request header are defined in Table 7 for types "000", "001 and "111", Table 7a for type "011" and Table 7b for "100". Every header is encoded, starting with the HT and EC fields. The coding of these fields is such that the first byte of a MAC header shall never have the value of 0xFX. This prevents false detection of the stuff byte.

#### p.14 l.61

Figure ddd -> Figure 20a

## p.15 l.34 replace

- d) The allowed types for bandwidth requests are "000" for incremental, "001" for aggregate, and "011" for an aggregate request with UL Tx transmit power report.
- d) The type for Bandwidth request with UL Tx transmit power report.bandwidth requests is "011" . or even better, delete d) alltogether

## p.16 l.4:

Table 7a—Description of fields of the PHY channel report header -> Table 7a -- Description of fileds of BR and UL Tx power report header

Proposed Resolution Recommendation: Superceded Recommendation by

Reason for Recommendation

See 3070

Resolution of Group Decision of Group: Superceded

Reason for Group's Decision/Resolution

See 3070

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

2005/05/23

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment # 3065 Comment submitted by: James Gilb

Comment Type Technical, Binding Starting Page # 21 Starting Line #

The figure shall not be split across pages.

Suggested Remedy

Rework the figure so it stays on one page. Use Figure 20a as an example.

Proposed Resolution Recommendation: Accepted Recommendation by

Rework the figure so it stays on one page. Use Figure 20a as an example.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Rework the figure so it stays on one page. Use Figure 20a as an example.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

**Editor's Action Items** 

## IEEE 802.16-05/012r5

Comment Date
Member 2005/03/09

Fig/Table# 21a Section 6.3.2.1.4.3

Comment # 3068 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # 22 Starting Line # 49 Fig/Table# Section 6.3.2.1.4.3

Table 7e: The header needs to be repeated on the continuation pages.

## Suggested Remedy

"Fix the table so that the header is repeated on the pages where it is continued and add ""(continued)"" to the title."

Proposed Resolution Recommendation: Accepted Recommendation by

"Fix the table so that the header is repeated on the pages where it is continued and add ""(continued)"" to the title."

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

"Fix the table so that the header is repeated on the pages where it is continued and add ""(continued)"" to the title."

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3070 Comment submitted by: Rainer Ullmann Member 2005/03/09

Comment Type Technical, Binding Starting Page # 24 Starting Line # 21 Fig/Table# Section 6.3.2.1.5

Description of "Bandwidth request and uplink sleep control header" with HT=1, EC=0 and Type='000' is identical to "Incremental Bandwidth Request header" - how does an SS distinguish those ????

The table for MOB\_SLP-ULC\_Message\_Format () does not have a title or number, should the name not be something like BR\_SLP-ULC\_Message\_Format () ?

Also, wouldn't it be logic to add this section as subsection to 6.3.2.1.2 Bandwidth request header?

#### Suggested Remedy

p.24 I.31 add

Table 7ea - Bandwidth request and uplink sleep control header format

p.24. I.40 Replace Type with "010"

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt contribution C80216-05/192r4

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Adopt contribution C802.16-05/192r4

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

The pagination really changed in this clause. Check cross-references. I have be setting cross-refs as I see them, but I am worried about the ones I did not mark.

**Editor's Questions and Concerns** 

Comment # 3084 Comment submitted by: David Castelow Member 2005/03/09

Comment Type Technical, Binding Starting Page # 26 Starting Line # 63 Fig/Table# Section 6.3.9.5

The Corrigendum document does not contain the accepted resolution of comment 80216maint-04/010#614, dealing with Initial Ranging.

## Suggested Remedy

Accept and adopt the latest revision of contribution C80216maint-05/009.

Proposed Resolution Recommendation: Withdrawn Recommendation by David Castelow

Reason for Recommendation

Resolution of Group Decision of Group: Withdrawn

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3114 Comment submitted by: David Castelow Member 2005/03/09

Comment Type Technical, Binding Starting Page # 38 Starting Line # 50 Fig/Table# Section 8.3.5.1

Inclusion of

Suggested Remedy

Proposed Resolution Recommendation: Withdrawn Recommendation by David Castelow

Reason for Recommendation

Resolution of Group Decision of Group: Withdrawn

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3121 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 41 Starting Line # 57 Fig/Table# Section 6.3.2.3.9.11

PKM v2 is defined in the mobile amendment but is mobility support a necessary requirement for using it. From the current text it is not clear as MS and SS seem to be used incosistently.

Suggested Remedy

Change " MS" to "SS" on p41 I. 57

and on any other applicable instances.

Change "SS" to "MS" p.42 l. 51 and in all other applicable instances.

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

duplicate

Editor's Questions and Concerns

IEEE 802.16-05/012r5

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3132 Comment submitted by: Dorothy Stanley Member 2005/03/09

Comment Type Technical, Binding Starting Page # 47(d Starting Line # Fig/Table# Section

Page 47, Table 26a and innumerous following clauses - The EAP-Establish Key messages are not EAP messages. They are 802.16 messages which are used to derive temporal keys from the keys established using EAP.

Suggested Remedy

Suggest removing "EAP" from these message names.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Nothing needs to be done. This text has been deleted

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Nothing needs to be done. This text has been deleted

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment # 3135 Comment submitted by: Dorothy Stanley Member 2005/03/09

**Comment Date** 

Comment Type Technical, Binding Starting Page # 48 Starting Line # Fig/Table# Section 6.3.2.3.9.11

Section 6.3.2.3.9.11, Page 48 of diffmarked version, line 16 Incorrect reference to RFC 2284bis.

Suggested Remedy

Should be RFC3748

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

See resolution of comment 3123

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

See resolution of comment 3123

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3137 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 49 Starting Line # Fig/Table# 55 Section 6.3.2..3.26

The change from SS to MS in the five first instances (0x00-0x04) breaks backwards compatibility.

## Suggested Remedy

Change from MS to SS in Action colums for codes 0x00-0x04.

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

duplicate

**Editor's Questions and Concerns** 

Comment # 3138 Comment submitted by: Dorothy Stanley Member 2005/03/09

Comment Type Technical, Binding Starting Page # 49 Starting Line # Fig/Table# Section

Page 49 - MKID is not defined in the list of acronyms.

Suggested Remedy

Page 49 - suggest renaming MKID to PMKID, as in table 133. Also makes the naming consistent with 802.11.

Proposed Resolution Recommendation: Superceded Recommendation by

See resolution of comment # 3243

Reason for Recommendation

Referenced text was deleted.

Resolution of Group Decision of Group: Superceded

See resolution of comment # 3243

Reason for Group's Decision/Resolution

Referenced text was deleted.

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Comment # 3174 Comment submitted by: David Castelow Member 2005/03/09

Comment Type Technical, Binding Starting Page # 100 Starting Line # 12 Fig/Table# 240 Section 8.4.7.1

In C80216maint-04/09r4, comment 504 was marked as superceded.

I think that the diagrams are worse than previously.

(a) No definition of GRD: do you mean Guard?

(b) shading of the 3rd and 7th grey boxes in figure 240 should be altered from diagonal top left/bottom right to diagonal top right/bottom left to match shading of destination areas (4th and 8th).

## Suggested Remedy

(a) ?????

Page 100, line 12

(b) Shading of the 3rd and 7th grey boxes in figure 240 should be altered from diagonal top left/bottom right to diagonal top right/bottom left to match shaging of destination areas (4th and 8th).

Proposed Resolution Recommendation: Withdrawn Recommendation by David Castelow

Reason for Recommendation

Resolution of Group Decision of Group: Withdrawn

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Comment # 3192 Comment submitted by: Vladimir Yanover Member 2005/03/09

Comment Type Technical, Binding Starting Page # 127 Starting Line # 8 Fig/Table# Section 6.3.13

[Reiteration of Comment #570 which was rejected]

Section 6.3.13 contains unexplained terms and uses 802.16 MAC terms in different sense, sometimes in multiple senses. This makes the text unclear and in some cases misleading. For example, term "connection" is in case when a MS receives data from multiple BSs:

In contrast to Single-BS MBS connections, Multi-BS-MBS does not require that the MS be registered to the BS from which it receives the transmission, or to any other BS. To provide seamless multicast and broadcast service over multiple BS, a Multi-BS-MBS connection [as MS might be not registered to BS, it didn't pass phase of connections setup, so there are no connections in the sense of 802.16 MAC] shall use the same CID, and transport the same data in a synchronized manner

#### Suggested Remedy

According to contribution IEEE C802.16e-05/102 "Clarification of Multicast and broadcast services section" by Vladimir Yanover et al

Proposed Resolution Recommendation: Accepted Recommendation by

Adopt IEEE C802.16e-05/102r1

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Adopt IEEE C802.16e-05/102r1

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3223 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 160 Starting Line # 9 Fig/Table# Section 6.3.20.6

Either provide a description conformant with ITU-T Z.100 or refrain from refering to the flowcharts as SDL.

## Suggested Remedy

In the title delete "SDLs"

On line 12 change "the SDL of" to the "the process of"

Do the same change on lines 54 and on the pages 161 I. 49 and 163 line 49.

Proposed Resolution Recommendation: Accepted Recommendation by

In the title delete "SDLs"

On line 12 change "the SDL of" to the "the process of"

Do the same change on lines 54 and on the pages 161 I. 49 and 163 line 49.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

In the title delete "SDLs"

On line 12 change "the SDL of" to the "the process of"

Do the same change on lines 54 and on the pages 161 I. 49 and 163 line 49.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3229 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 168 Starting Line # 53 Fig/Table# Section 6.3.21.8.2

The absolute requirement (shall) that a BS sends a backbone message to the Paging Controller in a puzzling one since the Paging controller remains undefined. Also the fact that the backbone message remains undefined does not help.

#### Suggested Remedy

Change "The BS at which ...." to read " The BS at which the MS re-entered the network shall inform the appropriate element in the network of the re-entry of the MS. The means by which the BS accomplishes this is outside the scope of this specification."

Proposed Resolution Recommendation: Accepted Recommendation by

Change "The BS at which ...." to read " The BS at which the MS re-entered the network shall inform the appropriate element in the network of the re-entry of the MS. The means by which the BS accomplishes this is outside the scope of this specification."

#### Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Change "The BS at which ...." to read " The BS at which the MS re-entered the network shall inform the appropriate element in the network of the re-entry of the MS. The means by which the BS accomplishes this is outside the scope of this specification."

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment Type Technical, Binding Starting Page # 169 Starting Line # 28 Fig/Table# Section 6.3.21.9.1.2

Eklund

Member

2005/03/09

The main part of the section concerns functionality outside the scope of the standard.

Comment submitted by: Carl

Suggested Remedy

Comment # 3230

Delete remainder of paragraph starting line 29 " This mechanism enables ..."

Proposed Resolution Recommendation: Accepted Recommendation by

Delete remainder of paragraph starting line 29 " This mechanism enables ..."

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Delete remainder of paragraph starting line 29 " This mechanism enables ..."

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

# 2005/05/23 IEEE 802.16-05/012r5

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3231 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 169 Starting Line # 40 Fig/Table# Section 6.3.21.9.1.3

Most of the paragraph is irrelvant to the air interface.

## Suggested Remedy

Change the subsection to read:

"The MS shall attempt to complete a Location Update once as part of its orderly power down procedure."

Add in section 3 a definition for

"Orderly power down procedure: The procedure which the MS performs when powering down as directed by e.g. user input or prompted by a automatic power down mechanism."

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Change the subsection to read:

"The MS shall attempt to complete a Location Update once as part of its orderly power down procedure."

Add in section 3 a definition for

"Orderly power down procedure: The procedure which the MS performs when powering down as directed by e.g. user input or prompted by a automatic power down mechanism . "

#### Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change the subsection first sentence in the subsection to read:

"The MS shall attempt to complete a Location Update once as part of its orderly power down procedure."

Add in section 3 a definition for

"Orderly power down procedure: The procedure which the MS performs when powering down as directed by e.g. user input or prompted by a automatic power down mechanism."

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3233 Comment submitted by: Jonathan Labs Member 2005/03/09

Comment Type Technical, Binding Starting Page # 173 Starting Line # 1 Fig/Table# Section 7.

I object to the resolution of comment 1945 in IEEE 802.16-05/010. This comment is about how the term MSS (now MS) has replaced SS in text pulled from the base document. The Decision of the Group was to supercede that comment by comment #71, and the reason for the Group's Decision was that "This comment has been superseded by comment #71 which changes the usage of MSS and SS." However, I cannot find comment #71 listed in IEEE 802.16-05/010 or IEEE 802.16-04/011. Going back to IEEE 802.16-04/69r4, I find comment #71 (which is also technically binding), and the resolution of the group for that comment was "DJ, possibly David Castelow, possibly others to supply a specific list of changes to be made."

If this action item was done, I do not find that all the necessary fixes were made. The title of this ammendment is "Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands" I think many sections of this document lose sight of the fact that fixed systems must also be able operate.

My Suggested Remedy is an attempt to fix the SS/FS/MS language in section 7. Privacy sublayer.

#### Suggested Remedy

- 1) On page 173, line 6, change "connections between MS and BS." to "connections between SS and BS."
- 2) On page 173, line 12, change "keying material to client MS." to "keying material to client SS."
- 3) On page 173, line 13, change "digital-certificate-based MS device-authentication" to "digital-certificate-based SS device-authentication".
- 4) On page 175, starting on line 23, change all instances of MS to SS in Section 7.1 (including subsections).
- 5) I believe sections 7.2, 7.5, and 7.7 should have all instances of MS be change to SS as well.

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Group's Decision/Resolution

2005/05/23 IEEE 802.16-05/012r5

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

duplicate

**Editor's Questions and Concerns** 

Comment # 3234 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 173 Starting Line # 17 Fig/Table# Section 7

The editorial instructions in this section should conform to the guidelines provided by IEEE-SA. These guidelines can be found at http://standards.ieee.org/guides/style/2005Style.pdf. Not only is the instruction non-conforming but also very confusing. Despite the problem being mostly editorial it has technical impact as the result of implementing the editional instructions determines the technical content.

#### Suggested Remedy

Provide a section with text that conforms to the editorial guidelines.

Proposed Resolution Recommendation: Accepted Recommendation by

Provide a section with text that conforms to the editorial guidelines.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Provide a section with text that conforms to the editorial guidelines.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions h) defer to next round

This change requires not only re-arrangement of text currently in the 802.16e document, but also inclusion and re-arrangement of text currently in 802.16-2004. This is too much work and too much risk to drop in with the "regular" editorial work, so I recommend either we leave the mark-up as it is now, or we appoint a clause editor team to tackle the task. Essentially, we'd be replacing Clause 7 in 802.16-2004 with the contents of Clause 7 in 802.16e.

**Editor's Questions and Concerns** 

Comment # 3245 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 181 Starting Line # 2 Fig/Table# Section 7.2.1.3.2

The specification should be clear with respect to which MAC management messages to use.

#### Suggested Remedy

Change "The message is encapsulated in a MAC Management PDU and transmitted." to read "The message shall be encapsulated in a PKM-REQ MAC Management message with Code = 13 (EAP Transfer)".

Do the corresponding change on line 17.

Proposed Resolution Recommendation: Accepted Recommendation by

Change " The message is encapsulated in a MAC Management PDU and transmitted." to read

" The message shall be encapsulated in a PKM-REQ MAC Management message with Code = 13 (EAP Transfer)".

Do the corresponding change on line 17.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Change "The message is encapsulated in a MAC Management PDU and transmitted." to read "The message shall be encapsulated in a PKM-REQ MAC Management message with Code = 13 (EAP Transfer)".

Do the corresponding change on line 17.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3250 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # 184 Starting Line # 12 Fig/Table# Section 7.2.2.2

The cross refernces (See 7.x.x.x) are missing the subclause numbers.

#### Suggested Remedy

"Provide the correct subclause numbers here and throughout the draft, e.g., search for x.x. This was supposed to be fixed from the last revision, yet many remain in the current draft. I counted at least 6."

Proposed Resolution Recommendation: Accepted Recommendation by

"Provide the correct subclause numbers here and throughout the draft, e.g., search for x.x. This was supposed to be fixed from the last revision, yet many remain in the current draft. I counted at least 6."

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Provide the correct subclause numbers here and throughout the draft, e.g., search for x.x.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3252 Comment submitted by: Carl Eklund Member 2005/03/09

Comment Type Technical, Binding Starting Page # 191 Starting Line # 61 Fig/Table# Section 7.2.5

Inappropriate section heading.

Suggested Remedy

Change "MAC Management Messages" to "TEK State Machine"

Proposed Resolution Recommendation: Accepted Recommendation by

Change "MAC Management Messages" to "TEK State Machine"

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Change "MAC Management Messages" to "TEK State Machine"

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3268 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 212 Starting Line # 38 Fig/Table# Section 8.4.6.1.1.2

I object to the resolution of Comments 1327 because the original resolution requires exhaustive search for preamble sequences. Using a set of 4 PN sequences the preamble sequences can be divided into 4 sub-groups. Current contribution provides a solution for MSS to perform fast cell search.

#### Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/036r1 or the latest version.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Vote: 0-7

Commenter proposes a solution without providing any technical justification for that solution.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Ballot Number: 0001010 Document under Review: P802.16e/D6 **Comment Date** 

Comment # 3269 Comment submitted by: Jonathan Labs Member 2005/03/09

Type Technical, Binding Starting Page # 213 Starting Line # 1 Section 8. Fig/Table# Comment

I object to the resolution of comment 1945 in IEEE 802.16-05/010. This comment is about how the term MSS (now MS) has replaced SS in text pulled from the base document. The Decision of the Group was to supercede that comment by comment #71, and the reason for the Group's Decision was that "This comment has been superseded by comment #71 which changes the usage of MSS and SS." However, I cannot find comment #71 listed in IEEE 802.16-05/010 or IEEE 802.16-04/011. Going back to IEEE 802.16-04/69r4, I find comment #71 (which is also technically binding), and the resolution of the group for that comment was "DJ, possibly David Castelow, possibly others to supply a specific list of changes to be made."

If this action item was done, I do not find that all the necessary fixes were made. The title of this ammendment is "Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands" I think many sections of this document lose sight of the fact that fixed systems must also be able operate.

My Suggested Remedy is an attempt to fix the SS/FS/MS language in section 8. PHY

#### Suggested Remedy

- 1) On page 243, line 36, change "for MSS supporting H-ARQHARQ." to "for SS supporting H-ARQHARQ."
- 2) On page 407, line 42, change "used by any MS that wants to synchronize" to "used by any SS that wants to synchronize" (a fixed SS still needs to be able to do intial ranging).
- 3) On page 407, line 56, change "onto those the MS shall transmit the two consecutive initial-ranging/handover-ranging codes" to "onto those the SS shall transmit the two consecutive initial-ranging/handover-ranging codes" (a fixed SS still needs to be able to do initial ranging).
- 4) On page 456, line 37, change "the correction term for MS-specific power offset." to "the correction term for SS-specific power offset." (fixed SS's still need power control).

**Proposed Resolution** Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Decision of Group: Accepted-Modified Resolution of Group

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

2005/05/23 IEEE 802.16-05/012r5

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

duplicate

**Editor's Questions and Concerns** 

IEEE 802.16-05/012r5

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3275 Comment submitted by: Rainer Ullmann Member 2005/03/09

Comment Type Technical, Binding Starting Page # 220 Starting Line # Fig/Table# 251a Section 8.3.6.3.9

The table (Fast\_Ranging\_IE) still does not follow the structure of an OFDM UL-MAP extended IE. since it contains fields already defined in the body of the UL-MAP itself. The entries for CID, UIUC and Reserved have to be deleted. My comment 2170 which dealt with this section was accepted (see 80216-05\_001r3.usr) but only partly implemented. Somehow further entries made it into this table in this revison which also have to be deleted. An editorial correction within the original comment was also missed.

#### Suggested Remedy

In table 251a delete entries for

CID Start time Subchannel Index UIUC

as they are already part of the UL-MAP\_IE body. Furthermore delete

Reserved

as it is not necessary to reach a byte boundary and the length of the IE is 8 bytes

p.219 I 61. extend UIUC -> extended UIUC

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

See comment 3276

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

- 114 1 4 41 14

Ballot Number: 0001010 Document under Review: P802.16e/D6 **Comment Date** 

Comment # 3277 Comment submitted by: Rainer Ullmann Member 2005/03/09

Type Technical, Binding Starting Page # 221 Section 8.3.6.6 Starting Line # 53 Fig/Table# Comment

The titles for 8.3.6.6.1 and 8.3.6.6.2 are sort of misleading since they seem to indicate that this subsections deals with

compressed versions of standard DL/UL-MAPs rather than private maps.

Also there is a typo and a missing table reference in line 19 "presneted in Table AAA"

On the other hand Reduced Compressed Private Maps (8.3.6.7) sounds a bit like overkill, Reduced Private Maps would do too....in fact that's what they are called in subsections 8.3.6.7.1 & 2

Here comes the technical part:

According to the text the Compressed private UL-MAP is appended to the compressed private DL-MAP if the UL-MAP appended bit is set. This is not reflected in Table 251c. Here the bit would basically only indicate an HCS on/off option. The if -clause should contain an "else branch in which the Compressed\_Private\_UL-MAP() is included.

## Suggested Remedy

## p. 221 l.53

The presence of the compressed private DL-MAP format is indicated by the contents of the most significant two bits of the first data byte. These bits overlay the HT and EC bits of a generic MAC header. When these bits are both set to 1 (an invalid combination for a standard header), the compressed private DL-MAP format is present. A compressed private UL-MAP shall only appear immediately after a compressed private DL-MAP. The presence of a compressed private UL-MAP is indicated by a bit in the compressed private DL-MAP data structure.

## p. 222 l.16

8.3.6.6.1 Compressed private\_DL-MAP

The compressed private DL-MAP format is presented in Table 251c.

## p. 222 I.28

Table 251c - Compressed private DL-MAP message format Compressed\_Private\_DL-MAP()

# p. 223 l.59

8.3.6.6.2 Compressed private UL-MAP

The compressed private UL-MAP format is presented in Table 251d. The message may only appear after a compressed private DL-MAP message to which it shall be appended. The message presents the same information as the standard format with the exception that the Generic MAC header and the Uplink Channel ID are omitted.

Table 251d- Compressed private UL-MAP message format Compressed\_Private\_UL-MAP()

# 8.3.6.7 Reduced Compressed Private Maps

Reduced compressed private maps are based upon the compressed map format, however they are specifically designed to support a single unicast ID per map. Their use is identical to standard compressed private maps. However, fields have been removed that are not required to support a single ID. The reduced private

map will be pointed to by a broadcast map or private compressed map which will define the values of several fields that will be constant for the duration of the private map chain. The behavior of the compressed map fields that are not present in the reduced private map are described below:

Note: strikeouts in the above pararagraph are only to indicate change w.r.t. the working draft but should not be included into the draft, since the changes are w.r.t. Std IEEE 802.16-2004 ....

Modify Table 251c line 17ff: (note: I changed the NOT condition - positive is my preference)							
if (UL-MAP appended) {	1	l					
Compressed_Private_UL-MAP()	Variable						
}	l	l					
else {	l						
HCS	bits						
}	l	l					

Proposed Resolution Recommendation: Accepted Recommendation by

## p. 221 l.53

The presence of the compressed private DL-MAP format is indicated by the contents of the most significant two bits of the first data byte. These bits overlay the HT and EC bits of a generic MAC header. When these bits are both set to 1 (an invalid combination for a standard header), the compressed private DL-MAP format is present. A compressed private UL-MAP shall only appear immediately after a compressed private DL-MAP. The presence of a compressed private UL-MAP is indicated by a bit in the compressed private DL-MAP data structure.

## p. 222 l.16

8.3.6.6.1 Compressed private\_DL-MAP

The compressed private DL-MAP format is presented in Table 251c.

## p. 222 l.28

Table 251c - Compressed private DL-MAP message format Compressed\_Private\_DL-MAP()

## p. 223 l.59

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Table 251d- Compressed private UL-MAP message format Compressed Private UL-MAP()

8.3.6.7 Reduced Compressed Private Maps

Reduced compressed private maps are based upon the compressed map format, however they are specifically designed to support a single unicast ID per map. Their use is identical to standard compressed private maps. However, fields have been removed that are not required to support a single ID. The reduced private map will be pointed to by a broadcast map or private compressed map which will define the values of several fields that will be constant for the duration of the private map chain. The behavior of the compressed map fields that are not present in the reduced private map are described below:

Note: strikeouts in the above pararagraph are only to indicate change w.r.t. the working draft but should not be included into the draft, since the changes are w.r.t. Std IEEE 802.16-2004 ....

Reason for Recommendation

Resolution of Group

Decision of Group: Accepted

p. 221 I.53

The presence of the compressed private DL-MAP format is indicated by the contents of the most significant two bits of the first data byte. These bits overlay the HT and EC bits of a generic MAC header. When these bits are both set to 1 (an invalid combination for a standard header), the compressed private DL-MAP format is present. A compressed private UL-MAP shall only appear immediately after a compressed private DL-MAP. The presence of a compressed private UL-MAP is indicated by a bit in the compressed private DL-MAP data structure.

```
p. 222 l.16
```

8.3.6.6.1 Compressed private\_DL-MAP

The compressed private DL-MAP format is presented in Table 251c.

# p. 222 I.28

Table 251c - Compressed private DL-MAP message format Compressed Private DL-MAP()

n 222 LEO

p. 223 1.08

8.3.6.6.2 Compressed private UL-MAP

The compressed private UL-MAP format is presented in Table 251d. The message may only appear after a compressed private DL-MAP message to which it shall be appended. The message presents the same information as the standard format with the exception that the Generic MAC header and the Uplink Channel ID are omitted.

Table 251d- Compressed private UL-MAP message format Compressed\_Private\_UL-MAP()

## 8.3.6.7 Reduced Compressed Private Maps

Reduced compressed private maps are based upon the compressed map format, however they are specifically designed to support a single unicast ID per map. Their use is identical to standard compressed private maps. However, fields have been removed that are not required to support a single ID. The reduced private map will be pointed to by a broadcast map or private compressed map which will define the values of several fields that will be constant for the duration of the private map chain. The behavior of the compressed map fields that are not present in the reduced private map are described below:

Note: strikeouts in the above pararagraph are only to indicate change w.r.t. the working draft but should not be included into the draft, since the changes are w.r.t. Std IEEE 802.16-2004 ....

Modify Table 251c line 17ff: (note: I changed the NOT condition - positive is my preference...)

	if ( <del>!</del> UL-MAP appended) {			
	Compressed_Private_UL-MAP()	Variable	l	
	}	l	l	
	else {			   

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Document under Review: P802.16e/D6

Ballot Number: 0001010

Comment Date

Comment # 3279

Comment submitted by: Rainer

Ullmann

Member 2005/03/09

Comment Type Technical, Binding Starting Page # 225 Starting Line # 6 Fig/Table# Section 8.3.6.7.1

Tables 257e/f - HELP !!!!!!

- OFDM has neither HARQ/CQICH, nor repetition coding, Fast Feedback,....

- HCS should be at the end of table 257e with an if/else clause to distinguish UL-MAP appended case.

- HCS missing at the end of Table 257f
- Size fields often lack units (i.e. bit or bits)
- No Length field
- Preamble Time Shift descriptors after Table point to wrong section

Suggested Remedy

Consider document C8016e-05\_138.doc

Proposed Resolution Recommendation: Accepted Recommendation by

Adopt C8016e-05\_138.doc

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Adopt C8016e-05\_138.doc

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3285 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 233 Starting Line # 16 Fig/Table# Section Table 268

"I object to the current DL-MAP transmission structure for not providing STC option in the first PUSC zone. For deployments using STC zones, not providing STC in the first PUSC zone causes large MAC overhead in the DL-MAP and imbalance of cell coverage."

Suggested Remedy

Adopt contribution C80216e-05\_29 or the latest revision.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt contribution C80216e-05\_29r2

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Vote: 34-27

Putting an optional coding on a mandatory message effectively makes it mandatory for everyone.

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3294 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 236 Starting Line # Fig/Table# Section 8.4.5.3

contribution 802.16e-05/084r4 was accepted in session #35 but was not incorporated into 802.16e/D6 due to an editorial error in the original

contribution.

Suggested Remedy

Adopt 802.16e-05/84r5 which corrects the editorial error.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Incorporate the changes suggested in C80216e-05/084r6

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Incorporate the changes suggested in C802.16e-05/084r6

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Dupe of previous resolution

**Editor's Questions and Concerns** 

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3301 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 240 Starting Line # 10 Fig/Table# Section Table 279

"I object to the current solutions of providing only PUSC or FUSC(or the like) deployments only. In multiple sector deployment scheme, the current PUSC deployment incurs large equipment cost on antenna subsystems whereas FUSC deployment needs to overcome interference problem. By introducing a hybrid scheme of transmit diversity, the OFDMA deployment brings about a mild increase of equipment cost while delivering interference mitigation."

## Suggested Remedy

Adopt contribution C80216e-05\_30 or the latest revision.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Out of scope of the recirc.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Comment # 3331 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 259 Starting Line # 55 Fig/Table# Section 8.4.5.3.22

The type of fast-feedback encoding (4-bit or enhanced 6-bit) to be used by CQI channels allocated through H-ARQ IEs is not clear.

## Suggested Remedy

Clarify that FFB CQI channels allocated through H-ARQ IEs are enhanced feedback channels (6 bits):

add the following text to page 259, line 55:

The enhanced feedback 6-bit channel type shall be used for CQI channels allocated through any of the DL HARQ sub-burst IEs.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

See comment 3336

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3340 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 261 Starting Line # Fig/Table# 285n Section 8.4.5.3.22

The 'ACK disable' field is defined in 2850 for DL HARQ IR CTC sub-burst IE. For consistency, this field should be defined for the other HARQ sub-burst IEs.

Suggested Remedy

Add the following field to table 285n ("DL HARQ Chase sub-burst IE") after the AI\_SN field:

ACK disable 1 bit When this bit is "1" no ACK channel is allocated and the SS shall not reply with an ACK

Add the following field to table 285p ("DL HARQ IR CC sub-burst IE") after the AI\_SN field:

ACK disable 1 bit When this bit is "1" no ACK channel is allocated and the SS shall not reply with an ACK

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

See comment 3336

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3355 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 269 Starting Line # 8 Fig/Table# Section 8.4.5.3.26

"I object to the DL-MAP and UL-MAP IE without providing the CID table at the beginning. MSS should be able to only check this table to determine whether there is traffic designated in the frame. As defined in the current 802.16e standard, a MSS has to, at the minimum, finish listening to the whole DL-MAP and UL-MAP regardless there is DL traffic or UL traffic for the MSS in the current frame."

### Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/059r2 or the latest version.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Out of scope of the recirc.

These are new sections to provide new capabilities.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3359 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 272 Starting Line # 30 Fig/Table# 298a Section 8.4.5.4.10.4

The tables describing 6-bit enhanced feedback (section 8.4.5.4.10.4) have been replaced with 3-bit encoding tables.

## Suggested Remedy

Undo the changes to 8.4.5.4.10.4 in 802.16e/D6

or

add 6-bit encoding tables for enhanced feedback channels

or

explain how 6-bit encoding can be obtained from the 3-bit encoding tables.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Insert the table spanning page 260, line 58 - page 264, line 49 in D5a into page 273 line 20 in D6

#### Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Insert the table spanning page 260, line 58 - page 264, line 49 in D5a into page 273 line 20 in D6

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

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3369 Comment submitted by: Victor Stolpman Member 2005/03/09

Comment Type Technical, Binding Starting Page # 281 Starting Line # Fig/Table# Section 8.4.5.4.11

[Identical comments submitted by Nico van Waes and Victor Stolpman.]

The matrix codebooks specified in 8.4.5.4.11 only allow 3-bit and 6-bit codebooks. However, with a large antenna configuration a 9-bit can bring the performance much closer to the optimal solution. Since both 3-bit and 6-bit CQICHs are already available

in the spec 8.4.5.4.15 table 302a, it is possible to combine a 3-bit and a 6-bit CQICH to allow a 9-bit payload.

### Suggested Remedy

Adopt the proposal in contribution C80216-05\_104r2

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Out of scope of the recirc. Adds new capability and new material.

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

2005/05/23 IEEE 802.16-05/012r5

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3376 Comment submitted by: Brian Kiernan Member 2005/03/09

Comment Type Technical, Binding Starting Page # 282 Starting Line # 48 Fig/Table# Section

I object to the changes incorporated into D6 as to being the correct resolution of comment #1445. Part of the resolution of comment #1445 was to incorporate the changes contained in contribution C802.16e-04/552r7 with certain text to be converted to tables and provided to the editor.

The tables that were provided to the editor contained additional technical material that was not approved by the ballot resolution committee and should not be included in the draft standard. The specific material is enumerated below in the suggested remedy.

### Suggested Remedy

Since this text was never approved by the ballot resolution committe and needs to be voted on, it is proposed to accept the following text, which is already contained in the D6 draft.

Should this text not be accepted by the ballot resolution committe, the chair intends to rule, as a procedural matter, that it be deleted from the draft, since it never supposed to be in there in the first place.

The text proposed for acceptance:

Pg 282, lines 48-56

Pg 283, lines 26-31, table 298i

Pg 284, lines 17-24, table 298k

Pg 285, lines 10-17, table 298l

Pg 286, lines 19-29, table 298n

Pg 287, lines 30-38, table 2980

Pg 288, lines 38-47, table 298p

Pg 290, lines 44-51, table 298r

Pg 294, lines 31-36, table 298s

Pg 297, lines 27-35, table 298u

Pg 301, lines 18-28, table 298w

Pg 306, lines 56-63, table 298x

Pg 314, lines 16-26, table 298z

Pg 319, lines 56-63, table 298aa

Pg 327, lines 14-24, table 298ac

Pg 334, lines 42-50, table 298ad

Proposed Resolution Recommendation: Rejected Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Vote: 19-29

Since this material currently exists in the text but was not accepted by the group, the Chair ruled procedurally to remove that material.

# Editor is to remove the following text:

Pg 282, lines 48-56

Pg 283, lines 26-31, table 298j

Pg 284, lines 17-24, table 298k

Pg 285, lines 10-17, table 298l

Pg 286, lines 19-29, table 298n

Pg 287, lines 30-38, table 2980

Pg 288, lines 38-47, table 298p

Pg 290, lines 44-51, table 298r

Pg 294, lines 31-36, table 298s

Pg 297, lines 27-35, table 298u

Pg 301, lines 18-28, table 298w

Pg 306, lines 56-63, table 298x

Pg 314, lines 16-26, table 298z

Pg 319, lines 56-63, table 298aa

Pg 327, lines 14-24, table 298ac

Pg 334, lines 42-50, table 298ad

## Reason for Group's Decision/Resolution

Group's Notes

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3384 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # 319 Starting Line # Vario Fig/Table# Section C

{pages 319-332:}

"The following commands are in the figure, but not the document: HO-notification-\*, HO-pre-\*. It is incorrect to justify it by claiming a forward reference to an unpublished draft, i.e., 802.16g."

### Suggested Remedy

"Either define the commands or delete them. If the MSCs don't work without them, then delete the MSCs because they can't possibly inform the reader if they use undefined commands"

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Remove Figure C6 through Figure C12, Figure C18, Figure C19.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Remove Figure C6 through Figure C12, Figure C18, Figure C19.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Refer these figures over to 802.16g

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3385 Comment submitted by: James Gilb Member 2005/03/09

Comment Type Technical, Binding Starting Page # 332 Starting Line # Vario Fig/Table# Section C

"The MSC references 2 commands, I-am-host-of and MS-info-req, that do not appear in this document or in 802.16-2001. It is incorrect to justify it by claiming a forward reference to an unpublished draft, i.e., 802.16g."

## Suggested Remedy

"Either define the commands or delete them. If the MSCs don't work without them, then delete the MSCs because they can't possibly inform the reader if they use undefined commands"

Proposed Resolution Recommendation: Accepted Recommendation by

Remove Figure C20

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Remove Figure C20

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Refer these figures over to 802.16g

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

**Comment Date** 

Ballot Number: 0001010 Document under Review: P802.16e/D6

**Comment # 3388** 2005/03/09 Member Comment submitted by: Tal Kaitz

Type Technical, Binding Starting Page # 335 Starting Line # 14 Fig/Table# 302a Section 8.4.5.4.15 Comment

CQICH-related control elements should specify on which zone CINR should be reported, since CINR measurements are very much dependent

on the zone type (for example whether it is reuse-1, reuse-3, etc.)

Suggested Remedy

Adopt contribution 802.16e-05/150 ("Corrections to CINR feedback through CQI Channels")

**Proposed Resolution** Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Technically incomplete.

Ran Yaniv requested this be rejected as technically incomplete.

**Group's Notes** 

Group's Action Items

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

Editor's Questions and Concerns

**Comment # 3420** 

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment submitted by: Rajesh

Member 2005/03/09

**Comment Date** 

Comment Type Technical, Binding Starting Page # 376 Starting Line # 6 Fig/Table# Section 8.4.6.1.1.1

I object to that the standard can only allow the Common SYNC symbol to be transmitted in every fourth downlink frame. It may introduce too much overhead for system of short frames and my not be frequent enough for system of long frames.

Bhalla

## Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/128 or the latest version.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Out of scope of the recirc.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3424 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 380 Starting Line # 61 Fig/Table# 311 Section 8.4.6.1.2.2

The current value of of PermutationBase in table 311b (FUSC for FFT-512) results in a high hit ratio. The maximum hit ratio between two subchannels from different cells can reach 38%.

This can be reduced to 25% through a simple change to the PermutationBase value.

### Suggested Remedy

Modify the value of the 'PermutationBase' field in table 311b to

2,0,1,6,4,3,5,7

Proposed Resolution Recommendation: Accepted Recommendation by

Modify the value of the 'PermutationBase' field in table 311b to

2,0,1,6,4,3,5,7

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Modify the value of the 'PermutationBase' field in table 311b to

2,0,1,6,4,3,5,7

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3454 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 425 Starting Line # 20 Fig/Table# Section 8.4.8.3.7

I object to the resolution of Comment 1541 in 80216-05\_010.pdf comment resolution database that current CL-MIMO solution that the power can

not be redistributed effectively among streams.

## Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/125 or the latest version.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Out of scope of the recirc.

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3456 Comment submitted by: Victor Stolpman Member 2005/03/09

Comment Type Technical, Binding Starting Page # 444 Starting Line # Fig/Table# Section 8.4.9.2.5.1

The document structure of 5.1 and 5.2 substantially violates IEEE layout guidelines.

It is "not done" to insert somewhere in the middle of 5.1 the words "informative" and make that by vague implication apply to 5.2.

In the current section 5.2, under method 1 an equivalent second method is snuck in. Given that all methods are equivalent, because the output is the same, this ought to be listed as "method 2".

The spec should not have page after page of informative implementation garbage, which is absolutely unnecessary for even a novice engineer to implement this spec and for which I can think up any number of alternatives, litter this already huge spec of normative language.

### Suggested Remedy

Make "Direct Encoding (Informative)" a proper header 5.2, remove the current header 5.2.

Insert "method 2" above "equivalently" and rename the current method 2 to method 3

Bury the newly created 5.2 in a subsubsubsection of an appendix, or by substantial preference, move it to /dev/null

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Duplicate

See 3458 (contains solutions)

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns

Comment # 3457 Comment submitted by: Nico van Waes Member 2005/03/09

Comment Type Technical, Binding Starting Page # 444 Starting Line # Fig/Table# Section 8.4.9.2.5.1

The document structure of 8.4.9.2.5.1 and 8.4.9.2.5.2 substantially violates IEEE layout guidelines.

It is "not done" to insert somewhere in the middle of 5.1 the words "informative" and make that by vague implication apply to 8.4.9.2.5.2.

In the current section 8.4.9.2.5.2, under method 1 an equivalent second method is snuck in. Given that all methods are by definition equivalent, because the output is exactly the same, this ought to be listed as "method 2".

The spec should not have page after page of informative implementation garbage (which is absolutely unnecessary for even a novice engineer to implement this spec and for which I can think up any number of alternatives) litter this already huge spec of normative language.

### Suggested Remedy

Make "Direct Encoding (Informative)" a proper header 8.4.9.2.5.2, remove the current header 8.4.9.2.5.2.

Insert "method 2" above "equivalently" and rename the current method 2 to method 3

Bury the newly created 8.4.9.2.5.2 in a subsubsubsection of an appendix, or by substantial preference, move it to /dev/null

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Change "Method 1, second method equivalent to Method 1, and Method 2" to three distinct methods: Method 1a, Method 1b, and Method 2. Newly renamed "Method 1b" should be inserted on page 449 line 8 above the words "equivalently, ..."

Make "Direct Encoding (Informative)" a proper header 8.4.9.2.5.2, remove the current header 8.4.9.2.5.2.

In the change from contribution 134, there's a comment to move the line "Direct Encoding (Informative)". Remove the "(Informative)" because the entire subclause is now informative.

#### Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change "Method 1, second method equivalent to Method 1, and Method 2" to three distinct methods: Method 1a, Method 1b, and Method 2. Newly renamed "Method 1b" should be inserted on page 449 line 8 above the words "equivalently, ..."

Make "Direct Encoding (Informative)" a proper header 8.4.9.2.5.2, remove the current header 8.4.9.2.5.2.

In the change from contribution 134, there's a comment to move the line "Direct Encoding (Informative)". Remove the "(Informative)" because the entire subclause is now informative.

## Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

#### **Editor's Questions and Concerns**

IEEE does not support informative text within the "normative" part of the document. They usually prefer informative text to appear as a Note within the body or as an annex. I don't think Michelle Turner will let this through.

#### **Editor's Action Items**

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3460 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 444 Starting Line # 10 Fig/Table# Section 8.4.9.2.5.1

I object to resolution of Comment 1606 in 80216-05\_010.pdf comment resolution database that the current LDPC solution that the 5/6 coding rate is missing from the standard.

### Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/126 or the latest version.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt the resolution text in contribution IEEE C802.16e-05/126 or the latest version.

#### Reason for Recommendation

Resolution of Group Decision of Group: Rejected

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

Vote: 26-25

The performance improvement between 3/4 and 5/6 is too small to justify an extra mode.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3463 Comment submitted by: Victor Stolpman Member 2005/03/09

Comment Type Technical, Binding Starting Page # 445 Starting Line # Fig/Table# Section 8.4.9.2.5.1

Code rate 2/3 A is at its best less than .1 dB better than 2/3 B for a few cases, whereas 2/3 B is better in all other cases.

From the scheduler's perspective, choosing between the two will be an exercise in futility.

In addition, it requires a complete different computation rule to create, which adds unnecessary complexity if we want to avoid storing the entire set of matrices (which is best avoided because of the huge storage requirements).

This additional complexity is by no means justified by the minute achieved gain in those few cases.

### Suggested Remedy

Delete code rate 2/3 A and the corresponding shift rule.

Proposed Resolution Recommendation: Accepted Recommendation by

Delete code rate 2/3 A and the corresponding shift rule.

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Vote: 5-8

The rate 2/3 A code has better FER performance than the rate 2/3 B code for a few code block sizes.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions |) none needed

**Editor's Questions and Concerns** 

Comment # 3464 Comment submitted by: Victor Stolpman Member 2005/03/09

Comment Type Technical, Binding Starting Page # 445 Starting Line # Fig/Table# Section 8.4.9.2.5.1

[Identical comments submitted by Nico van Waes and Victor Stolpman.]

Code rate 3/4 A is according to the published results always worse than 3/4 B (not by much, but anyway). Despite the warm and fuzzy feeling of stacking everybody's favorite numbers on top of each other, this type of redundancy for the sake of redundancy has zero technical justification. In fact the additional storage requirements and needless complexity are a good justification to toss it.

## Suggested Remedy

Delete code rate 3/4 A

Proposed Resolution Recommendation: Accepted Recommendation by

Delete code rate 3/4 A

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

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

Vote: The rate 3/4 A code has a complexity advantage over the rate 3/4 B code (because it is a regular code), and it is desirable to retain the flexibility between processing complexity and performance.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3465 Comment submitted by: Nico van Waes Member 2005/03/09

Comment Type Technical, Binding Starting Page # 445 Starting Line # Fig/Table# Section 8.4.9.2.5.1

Code rate 2/3 A is at its best less than .1 dB better than 2/3 B for a few cases, whereas 2/3 B is better in all other cases.

From the scheduler's perspective, choosing between the two will be an exercise in futility and not something anybody is going to have simultaneously active in burst profiles.

In addition, it requires a complete different computation rule to create, which adds unnecessary complexity if we want to avoid storing the entire expanded matrices (which is best avoided because of the huge storage requirements).

This additional complexity is by no means justified by the minute achieved gain in those few cases.

### Suggested Remedy

Delete code rate 2/3 A and the corresponding shift rule.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected-Duplicate

See comment 3463

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment submitted by: James

Ballot Nulliber.

Member 2005/03/09

**Comment Date** 

Comment Type Technical, Binding Starting Page # 446 Starting Line # 12 Fig/Table# Section 8.4.9.2.5.1

Gilb

It is not proper to mark a subclause as informative (see 2005 IEEE Style Guide).

Suggested Remedy

Comment # 3468

Move this text to an informative Annex.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Same issue was addressed by comment 3457.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Comment # 3470 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 456 Starting Line # 3 Fig/Table# Section 8.4.10.3

The power control scheme in 8.4.10 requires some corrections and clarifications. For example:

1) Open loop power control mechanism should be divided into two explicit categories - passive open loop and active open loop, where in passive open loop the MSS estimates the path loss but does not update its Offset\_SSperSS variable.

2) The open power control mechanism for initial ranging should be made consistent with the mechanism for regular transmission.

3) The units of measurement are not consistent between different power control parameters. They should be given in dbm/subcarrier.

### Suggested Remedy

Adopt contribution 802.16e-05/137 "Correction to Power Control for OFDMA PHY".

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt contribution 802.16e-05/137r1

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Adopt contribution C802.16e-05/137r1

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

Could not find change 8 regarding the BS EIRP field in BS EIRP.

**Editor's Questions and Concerns** 

Comment # 3472 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 458 Starting Line # 40 Fig/Table# Section 8.4.11.3

The current 802.16e SINR reporting mechanism requires the MSS to report a straightforward CINR measurement. This mechanism does not provide the BS with any knowledge on the frequency selectivity of the channel and noise (especially prominent with partially loaded cells and with multipath). This knowledge is important since, contrary to the AWGN channel, in a frequency selective channel there is no 1 to 1 relation between amount of increase in power and amount of improvement in "effective SINR". Furthermore, the relation is dependent on MCS level. This results in larger fade margins, which translates directly to reduction in capacity.

In this contribution we propose a mechanism based on the "Exponential Effective SIR Mapping" (EESM) model that provides the BS with sufficient knowledge on the channel-dependent relationship between power increase, MCS change and improvement in effective SINR.

## Suggested Remedy

Adopt contribution 802.16e-05/141 "CINR measurements using the EESM method"

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt contribution 802.16e-05/141r2 "CINR measurements using the EESM method" Duplicate 8.4 changes in 8.3

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

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

Vote: 30-15

Does not show performance gain over the conventional method.

The proposal introduces a deployment specific parameter, beta, which is not explicitly specified.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions |) none needed

Editor's Questions and Concerns

Comment # 3473 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Comment Type Technical, Binding Starting Page # 460 Starting Line # 55 Fig/Table# Section 8.4.16

"I object to the current draft for not specifying PHY performance requirement related to mobile handoffs. Without the specifying the requirements, equipments can have dissimilar timing reference points and dissimilar neighbor cell scanning mechanism. It will cause interoperation problems."

## Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/033 or the latest version.

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt the resolution text in contribution IEEE C802.16e-05/033r4

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Adopt the resolution text in contribution IEEE C802.16e-05/033r4

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns

Ballot Number: 0001010 Document under Review: P802.16e/D6 Comment Date

**Comment # 3474** Comment submitted by: Jonathan Labs Member 2005/03/09

Starting Page # 461 Section 9. Type Technical, Binding Starting Line # 4 Fig/Table# Comment

I object to the resolution of comment 1945 in IEEE 802.16-05/010. This comment is about how the term MSS (now MS) has replaced SS in text pulled from the base document. The Decision of the Group was to supercede that comment by comment #71, and the reason for the Group's Decision was that "This comment has been superseded by comment #71 which changes the usage of MSS and SS." However, I cannot find comment #71 listed in IEEE 802.16-05/010 or IEEE 802.16-04/011. Going back to IEEE 802.16-04/69r4, I find comment #71 (which is also technically binding), and the resolution of the group for that comment was "DJ, possibly David Castelow, possibly others to supply a specific list of changes to be made."

If this action item was done, I do not find that all the necessary fixes were made. The title of this ammendment is "Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands" I think many sections of this document lose sight of the fact that fixed systems must also be able operate.

My Suggested Remedy is an attempt to fix the SS/FS/MS language in section 9. Configuration

## Suggested Remedy

On page 461, line 4, change "9.1 MS IP addressing" to "9.1 SS IP addressing"

**Proposed Resolution** Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

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

**Editor's Questions and Concerns** 

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3480 Comment submitted by: Jonathan Labs Member 2005/03/09

Comment Type Technical, Binding Starting Page # 467 Starting Line # 1 Fig/Table# Section 11

I object to the resolution of comment 1945 in IEEE 802.16-05/010. This comment is about how the term MSS (now MS) has replaced SS in text pulled from the base document. The Decision of the Group was to supercede that comment by comment #71, and the reason for the Group's Decision was that "This comment has been superseded by comment #71 which changes the usage of MSS and SS." However, I cannot find comment #71 listed in IEEE 802.16-05/010 or IEEE 802.16-04/011. Going back to IEEE 802.16-04/69r4, I find comment #71 (which is also technically binding), and the resolution of the group for that comment was "DJ, possibly David Castelow, possibly others to supply a specific list of changes to be made."

If this action item was done, I do not find that all the necessary fixes were made. The title of this ammendment is "Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands" I think many sections of this document lose sight of the fact that fixed systems must also be able operate.

My Suggested Remedy is an attempt to fix the SS/FS/MS language in section 11. TLV Encodings

### Suggested Remedy

- 1) On p. 483, starting line 28, change MS to SS through out section 11.7.6.
- 2) On p. 483, line 48, change "11.7.8 MS capabilities encodings" to "11.7.8 SS capabilities encodings"
- 3) On p. 494, line 1, change "11.8.3.7.2 OFDMA MS demodulator" to "11.8.3.7.2 OFDMA SS demodulator"
- 4) On p. 495, line 31, change "11.8.3.7.3 OFDMA MSS modulator" to "11.8.3.7.3 OFDMA SS modulator"
- 5) On p. 495, line 61, change "11.8.3.7.5 OFDMA MSS Permutation support" to "11.8.3.7.5 OFDMA SS Permutation support"

Proposed Resolution Recommendation: Recommendation by

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances.

Delete the definition of FS

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

All of the specific instances above were changed. Not every instance throughout document.

**Editor's Questions and Concerns** 

**Editor's Action Items** 

Document under Review: P802.16e/D6 Ballot Number: 0001010 Comment Date

Comment # 3493 Comment submitted by: Victor Stolpman Member 2005/03/09

Comment Type Technical, Binding Starting Page # 478 Starting Line # Fig/Table# Section 11.4.2

[Identical comments submitted by Nico van Waes and Victor Stolpman.]

There are only so many burst profiles that can be simultaneously active. Setting up so many different flavors of LDPC FEC code types, some of which provide no relevant difference in performance, is hence not only absurd, but downright bad engineering. I'd like to see the first implementation that is having both A and B versions of a code simultaneously active. In practice, the person implementing this stuff will make an arbitrary choice between the two and never enable the other one, making it de facto a "for extra-expensive testpurposes and needless implementation cost only" feature.

### Suggested Remedy

Undo the changes made to table 361, deleting all references to A and B flavors.

Proposed Resolution Recommendation: Rejected Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

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

As comment said, it is totally implementation dependent. It cannot be the reason that the value field should not specify which code is used.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

**Comment Date** 

Document under Review: P802.16e/D6 Ballot Number: 0001010

Comment # 3503 Comment submitted by: Tal Kaitz Member 2005/03/09

Comment Type Technical, Binding Starting Page # 496 Starting Line # Fig/Table# Section 8.4

The standard does not provide any means for the MS to send mobility related PHY parameters to the BS. Important parameters include a mobility indication (can be related to Doppler spread), and indication of change in the distance from BS (changes to round trip delay).

Suggested Remedy

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

No text provided.

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

Ballot Number: 0001010 Document under Review: P802.16e/D6 **Comment Date** 

Comment # 3520 Comment submitted by: Rajesh Bhalla Member 2005/03/09

Type Technical, Binding Starting Page # 527 Starting Line # 30 Section 12.4 Fig/Table# Comment

I object to the resolution of Comment #1850, #1859, #1861, #1864 in 80216-05\_010.pdf comment resolution because I believe that specific system profiles should be included in the standard for mobility operation.

Suggested Remedy

Adopt contribution C80216e-05\_60r2 or the latest revision.

**Proposed Resolution** Recommendation: Accepted Recommendation by

Adopt contribution C80216e-05 60r2 or the latest revision.

Reason for Recommendation

Decision of Group: Rejected Resolution of Group

Reason for Group's Decision/Resolution

Vote: 48-23

This contribution is incomplete in several ways:

- it only defines a few parameters for the MAC and PHY, but there is a lot more than what's being proposed

- incomplete in terms of frequency bands, parameters, options

**Group's Notes** 

**Group's Action Items** 

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

**Editor's Questions and Concerns** 

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Comment # 3542 Comment submitted by: David Castelow Member 2005-03-10

Comment Type Technical, Binding Starting Page # 17 Starting Line # 19 Fig/Table# 7b Section 6.3.2.1.2.2

I disagree with the resolution of comment xxx.

CINR is not a measure of UL Tx Power, so either rename or replace description.

Also no units specified.

### Suggested Remedy

Page 17, line 19, replace "UL Tx power level" with "CINR".

Page 17, line 21, replace "Tx power" with "CINR".

Style question: should the units be mentioned in the table, or the body, or in both?

Re format columns of table to avoid unnecessary hyphenation (page 17, line 26).

Proposed Resolution Recommendation: Accepted Recommendation by

Page 17, line 19, replace "UL Tx power level" with "CINR".

Page 17, line 21, replace "Tx power" with "CINR".

Style question: should the units be mentioned in the table, or the body, or in both?

Re format columns of table to avoid unnecessary hyphenation (page 17, line 26).

#### Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Page 17, line 19, replace "UL Tx power level" with "CINR".

Page 17, line 21, replace "Tx power" with "CINR".

Style question: should the units be mentioned in the table, or the body, or in both?

Re format columns of table to avoid unnecessary hyphenation (page 17, line 26).

## Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3548 Comment submitted by: David Castelow Member 2005-03-10

Comment Type Technical, Binding Starting Page # 20 Starting Line # 54 Fig/Table# 7d Section 6.3.2.1.4.2

I disagree with the resolution of comments because

the various headers are incompatible with requirements on headers.

The first byte of the minifeedback header can take on the value "0xFX", disallowed by base standard (see .16e/D6 page 14 line 50-52).

Either delete section 6.3.2.1.4.2 or delete last three rows of Table 7d (page 20, lines 54-62).

### Suggested Remedy

Delete section 6.3.2.1.4.2

Proposed Resolution Recommendation: Accepted-Duplicate Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Duplicate

See comment 3066

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions I) none needed

Waiting for resolution of 3066

**Editor's Questions and Concerns** 

Comment # 3552 Comment submitted by: David Castelow Member 2005-03-10

Comment Type Technical, Binding Starting Page # 25 Starting Line # 6 Fig/Table# 21C Section 6.3.2.1.6

Mismatch between Table 7f and Figure 21c.

SDU\_SN(18) in Figure but 3 separate 6 bit fields in Table 7f.

### Suggested Remedy

Specify ordering by changing Figure 21c to make explicit three 6-bit fields marked "SDU SN 1 (6)", "SDU SN 2 (6)", "SDU SN 3 (6)".

Proposed Resolution Recommendation: Accepted Recommendation by

Specify ordering by changing Figure 21c to make explicit three 6-bit fields marked "SDU SN 1 (6)", "SDU SN 2 (6)", "SDU SN 3 (6)".

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Specify ordering by changing Figure 21c to make explicit three 6-bit fields marked "SDU SN 1 (6)", "SDU SN 2 (6)", "SDU SN 3 (6)".

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

**Editor's Questions and Concerns** 

Comment # 3553 Comment submitted by: David Castelow Member 2005-03-10

Comment Type Technical, Binding Starting Page # 26 Starting Line # 51 Fig/Table# Section 6.3.2.2

The requirement at page 26, line 51:

If the Mesh subheader is indicated, it shall precede all other subheaders.

is incompatible with the requirement at page 28, line 6:

The Extended Subheader Field subheader is specified in Table 13a. The Extended Subheader Field, when used, shall always appear

immediately after the GMH and before all other subheaders, as described in 6.3.2.2.

Also, what is a GMH? (Actually used in 802.16-2004, so this becomes a corrigendum issue).

### Suggested Remedy

State that extended subheaders cannot be used in MESH mode.

Proposed Resolution Recommendation: Accepted Recommendation by

State that extended subheaders cannot be used in MESH mode.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

State that extended subheaders cannot be used in MESH mode.

Reason for Group's Decision/Resolution

**Group's Notes** 

**Group's Action Items** 

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns