Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Service Management in MR network with Distributed Scheduling RS**
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Re:	IEEE 802.16j-06/027: "Call for Technical Proposals regarding IEEE Project P802.16j"
Abstract	This proposal clarifies the service flow management in MR with distributed RS.
Purpose	Discuss and adopt proposed text.
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Service Management in MR with Distributed Scheduling RS

1. Introduction

In MR networks, the RS may use two types of scheduling. Centralized Scheduling is where MR-BS controls all the radio resource scheduling and MAP allocation. Distributed Scheduling is where some functionality of radio resource scheduling and MAC allocation are distributed to RS. This contribution proposes text to clarify the handling of service flow management in distributed scheduling case.

When MR-BS creating/modifying the QoS parameters of service flow, to facilitate the distributed scheduling RS, the MR-BS has to inform the QoS information with the related RS.

4. Specific Text Change

6.3.2.3.10 DSA-REQ message

[Insert the following text after the second paragraph of subclause 6.3.2.3.10:]

If the DSA-REQ message is destined to the distributed scheduling RS' subordinate MS, before sending the DSA-REQ message to the MS, the MR-BS shall send the DSA-REQ to the access RS with distributed scheduling on its basic CID. The MR-BS needs to indicate the destined MS' basic CID in the TLV field of this message.

[Add the explanation text of DSA-REQ message as indicated:]

The DSA-REQ message shall contain the following :

> MS basic CID (see)

>> Specification of the basic CID of the MS, who relates to this service flow.

6.3.2.3.11 DSA-RSP message

[Insert the following text after the second paragraph of subclause 6.3.2.3.11:]

If the DSA-RSP message is destined to the distributed scheduling RS' subordinate MS, before sending the DSA-RSP message to the MS, the MR-BS shall send the DSA-RSP to the access RS with distributed scheduling on its basic CID. In this case, the MR-BS needs to indicate the destined MS' basic CID in the TLV field of this message.

The distributed scheduling RS may use the CC field of DSA-RSP message to reject/accept the service flow as the response to the received DSA-REQ message from MR-BS.

[Change the explanation text of DSA-RSP message as indicated:]

The DSA-RSP message shall contain the following :

MS basic CID (see)

Specification of the basic CID of the MS, who relates to this service flow.

6.3.2.3.12 DSA-ACK message

[Insert the following text after the second paragraph of subclause 6.3.2.3.12:]

The distributed scheduling RS may use the CC field of DSA-ACK message to reject/accept the service flow as the response to the received DSA-RSP message from MR-BS.

6.3.14.9.3   DSA
6.3.14.9.3.1   SS-initiated DSA
Insert the following table the end of 6.3.14.9.3.1:

In MR network, before MR-BS sending DSA-RSP to the distributed scheduling RS' subordinate MS, the MR-BS shall send DSA-RSP to the access RS on its basic CID. The access RS shall perform the proper scheduling based on the obtained QoS parameters in DSA-RSP. RS shall send the DSA-ACK to the BS as the acknowledgement. The access RS may check whether the QoS requirements can be supported on access link (RS-SS) or relay link(RS-RS) based on the received DSA-RSP, and use the field CC=success or CC=reject to accept or reject the service flow. If MR-BS receives DSA-ACK from the RS within T48, it shall send DSA-RSP to the MS on its basic CID.

6.3.14.9.3.2   BS-initiated DSA

Insert the following table the end of 6.3.14.9.3.2:

In MR network, before MR-BS sending DSA-REQ to the distributed scheduling RS' subordinate MS, the MR-BS shall send DSA-REQ to the access RS on its basic CID. The access RS shall perform the proper scheduling based on the obtained QoS parameters in received DSA-REQ. The access RS may check whether the QoS requirements can be supported on access link (RS-SS) or relay link(RS-RS) based on the received DSA-REQ, and use the CC=success or CC=reject in DSA-RSP to accept or reject the service flow. If MR-BS receives DSA-RSP from the RS within T48, it shall send DSA-REQ to the MS on its basic CID.

6.3.14.9.4.1   SS-initiated DSC
Insert the following table the end of 6.3.14.9.4.1:
In MR network, before MR-BS sending DSA-RSP to the distributed scheduling RS' subordinate MS, the MR-BS shall send DSA-RSP to the access RS on its basic CID. The access RS shall perform the proper scheduling based on the obtained QoS parameters. The access RS may check whether the QoS requirements can be supported on access link (RS-SS) or relay link(RS-RS) based on the received DSA-RSP, and use CC=success or CC=reject to accept/reject the service flow. If MR-BS receives DSA-ACK from the RS within T48, it shall send DSA-RSP to the MS on its basic CID.

6.3.14.9.4.2   BS-initiated DSC
Insert the following table the end of 6.3.14.9.4.2:

In MR network, before MR-BS sending DSA-REQ to the distributed scheduling RS' subordinate MS, the MR-BS shall send DSA-REQ to the access RS on its basic CID. The access RS shall perform the proper scheduling based on the obtained the QoS parameters. The access RS may check whether the QoS requirements can be supported on access link (RS-SS) or relay link(RS-RS) based on the received DSA-REQ, and use CC=success or CC=reject to accept/reject the service flow. If MR-BS receives DSA-RSP from the RS within T48, it shall send DSA-REQ to the MS on its basic CID.

6.3.14.9.5 Connection release
6.3.14.9.5.1 SS-initiated DSD
Insert the following table the end of 6.3.14.9.5.1:

In MR distributed scheduling case, the MR-BS shall delete the service flow on relay link (MR-BS ~ RS). And then the RS shall delete the service flow on access link (RS-SS). This process is illustrated in Table 128b.

6.3.14.9.5.2 BS-initiated DSD
Insert the following table the end of 6.3.14.9.5.2:

In MR distributed scheduling case, the MR-BS shall delete the service flow on relay link (MR-BS ~ RS). And then the RS shall delete the service flow on access link (RS-SS). This process is illustrated in Table 130b.

10.1 Global values
[**Add one row in table 342 as indicated**]

System	Name	Time reference	Minimum value	Default value	Maximum value
MR-BS	T48	Time the MR-BS waits for DSA-RSP or DSA-ACK from RS	-	-	-

11.13 Global values
[**Add one subclause after 11.13.37**]

11.13.38 MS basic CID

Type	Length	Value	Scope
TBA	2	Basic CID of the Destined MS	DSA-REQ, DSA-RSP