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Title	<b>Transport connection establishment of a MS served by a RS in moving BS mode</b>	
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Re:	IEEE 802.16j-07/019: "Call for Technical Comments Regarding IEEE Project 802.16j"	
Abstract	For a RS operates in moving BS mode, the service flow of a MS is managed by MR-BS and service flow ID (SFID) is assigned by a MR-BS. However, the CID of corresponding transport connection is assigned by the MS's serving RS.	
Purpose	To incorporate the proposed text into the P802.16j Baseline Document (IEEE 802.16j-06/026r4)	
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# Transport connection establishment of a MS served by a RS in moving BS mode

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## 1. Introduction

In current baseline document, a RS can work in moving RS mode or in a moving BS mode (refer to 6.3.22.4.1.1). The corresponding data forwarding protocol is described in section 1.4.3. In this contribution, the service flow setup and transport connection assignment is proposed.

## 2. Proposal

When a RS operates in moving BS mode, the service flow of a MS is managed by MR-BS and service flow ID (SFID) is assigned by a MR-BS. However, the CID of corresponding transport connection is assigned by the MS's serving RS.

The procedure of service flow set up initiated by MR-BS is shown in Figure 1.

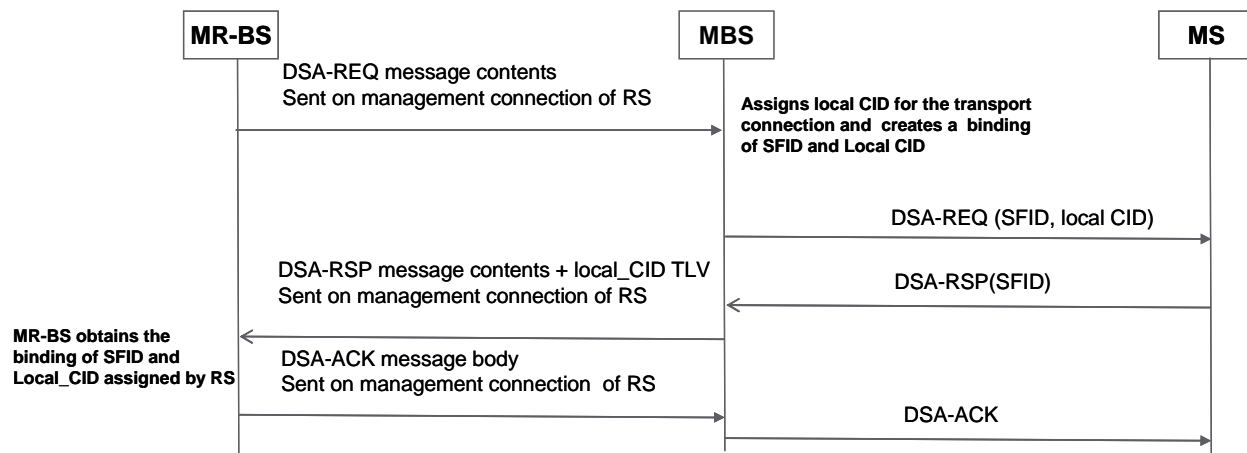


Figure1. Transport connection setup via a RS in MBS mode (MR-BS initiated)

For MR-BS initiated service flow setup, the MR-BS sends the contents of DSA-REQ message using RS\_MSG\_Relay-REQ message over management connection of the RS (refer to contribution “Relaying of Messages of MSs served by RS in moving BS mode”). After the RS receives this message, the RS shall assign a local CID (L\_CID) to the transport connection to be established for this service flow and creates binding between this SFID and this L\_CID. The RS shall then send the DSA-REQ message to corresponding MS with the assigned local CID. After RS receives the DSA-RSP message from the MS, the RS shall relay the contents of this message as well as the assigned local CID TLV using RS\_MSG\_Relay-RSP message to MR-BS over its management connection.

After this MR-BS receives this RS\_MSG\_Relay-RSP message, the MR-BS creates a binding between SFID and local CID assigned by this RS.

For MS initiated service flow setup (refer to Figure 2), after a RS receives DSA-REQ from a MS, the RS shall

assign a local CID to this potential UL service flow and relay the contents from the received DSA-REQ message as well as the local assigned CID to the MR-BS. The binding between the UL service flow and the local CID is established by MR-BS. The MR-BS shall use RS\_MSG\_Relay RSP message to carry the contents of DSA-RSP message and send this message the RS. The RS then creates the DSA-RSP message to the MS. The RS crates a binding between the SFID and the local CID.

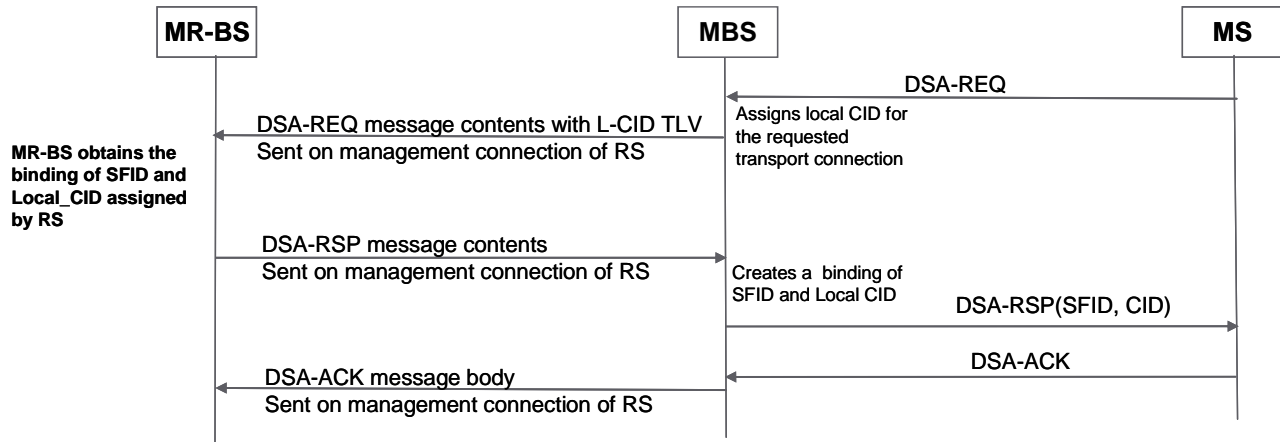


Figure 2. Transport connection setup via a RS in moving BS mode (MS initiated service set up).

### 3. Proposed text change

[Add the section 6.3.14.9.6 as followings]

+++++ Start text +++++

#### 6.3.14.9.6 Service flow management through a RS in moving BS mode

When a RS operates in moving BS mode, the service flow of a MS is managed by MR-BS and service flow ID (SFID) is assigned by a MR-BS. However, the CID of corresponding transport connection is assigned by the MS’s serving RS.

For MR-BS initiated service flow setup, the MR-BS sends the contents of DSA-REQ message using RS\_MSG\_Relay-REQ message over management connection of the RS(refer to contribution “Relaying of Messages of MSs served by RS in moving BS mode”). After the RS receives this message, the RS shall assign a local CID (L CID) to the transport connection to be established for this service flow and creates binding between this SFID and this L CID. The RS shall then send the DSA-REQ message to corresponding MS with the assigned local CID. After RS receives the DSA-RSP message from the MS, the RS shall relay the contents of this message as well as the assigned local CID TLV using RS\_MSG\_Relay-RSP message to MR-BS over its management connection.

After this MR-BS receives this RS\_MSG\_Relay-RSP message, the MR-BS creates a binding between SFID and local CID assigned by this RS.

For MS initiated service flow setup (refer to Figure 2), after a RS receives DSA-REQ from a MS, the RS shall assign a local CID to this potential UL service flow and relay the contents from the received DSA-REQ message as well as the local assigned CID to the MR-BS. The binding between the UL service flow and the

local CID is established by MR-BS. The MR-BS shall use RS\_MSG\_Relay\_RSP message to carry the contents of DSA-RSP message and send this message the RS. The RS then creates the DSA-RSP message to the MS. The RS crates a binding between the SFID and the local CID.

+++++++ End text ++++++

*[Insert the following to the end of 11.27 RS\_MSG\_Relay-REQ/RSP message encodings]*

+++++++ End text ++++++

11.27 RS\_MSG\_Relay-REQ/RSP message encodings

The RS-MSG\_Relay-REQ/RSP message encodings are shown in Table XXX.

Table XXX. RS-MSG\_Relay-REQ/RSP message encodings

<u>Name</u>	<u>Type</u>	<u>Length</u>	<u>Value</u>	<u>Scope</u>
<u>Locally assigned transport connection CIDs</u>	<u>1</u>	<u>2</u>	<u>Locally assigned transport connection CID</u>	<u>RS_MSG_Relay-REQ/RSP</u>

11.27.1 Locally assigned transport connection CID

This TLV is used for an access RS in moving BS mode to inform MR-BS its locally assigned transport connection CID to a MS.

+++++++ End text ++++++