

---

**Source:** SA5 (Telecom Management)  
**Title:** Rel-4/5 CRs 32.200 (Service Charging): "Alignments on MMS charging CDRs plus addition in Rel-5 of the MMBox"  
**Document for:** Approval  
**Agenda Item:** 7.5.3

---

Doc-1st-	Spec	CR	R	Phase	Subject	Cat	Version	Doc-2nd-	Workitem
SP-020741	32.200	017	-	Rel-4	Alignment on MMS charging scenarios with MMS CDR type definitions	F	4.2.0	S5-024478	OAM-CH
SP-020741	32.200	018	-	Rel-5	Several alignments on MMS charging+ MMBox CDRs have been added	F	5.1.0	S5-024479	OAM-CH

CR-Form-v7
<b>CHANGE REQUEST</b>
⌘ <b>32.200 CR 017</b> ⌘ rev <b>-</b> ⌘ Current version: <b>4.2.0</b> ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Alignment on MMS charging scenarios with MMS CDR type definitions		
<b>Source:</b>	⌘ SA5		
<b>Work item code:</b>	⌘ OAM-CH	<b>Date:</b>	⌘ 11/10/2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ MMS Charging scenarios are not consistent with the specified MMS CDR types.
<b>Summary of change:</b>	⌘ The Recipient MM1 Retrieve Request CDR trigger is removed.
<b>Consequences if not approved:</b>	⌘ Contradiction between the charging stage 2 and stage 3 descriptions.

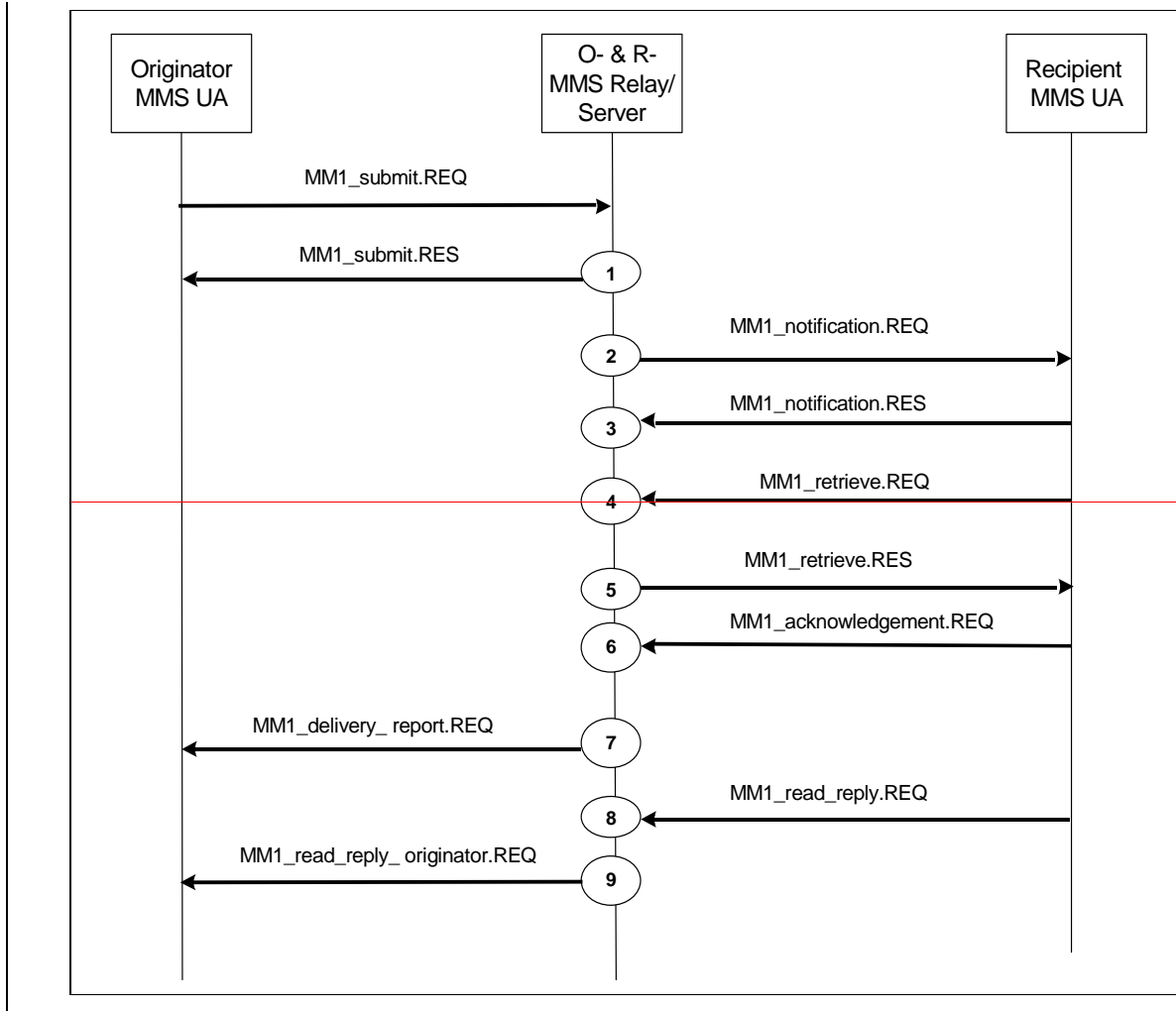
<b>Clauses affected:</b>	⌘ 7.1.2						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>	Y	N		X	Other core specifications	⌘ Rel-5 32.200.
	Y	N					
		X					
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>		X	Test specifications			
	X						
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> </tr> </table>	X		O&M Specifications				
X							
<b>Other comments:</b>	⌘ Rel-5 Mirror CR in 32200CR018.						

**Change in Clause 7.1.2**

### 7.1.2 Charging scenarios

This subclause contains an example scenario illustrating the purpose and practical usage of the various types of records defined in the interface description [19]. The events triggering the generation of CDRs are events at the MM1 reference point and/or events at the MM4 reference point.

#### 7.1.2.1 Originator and Recipient MMS Relay Server are the same



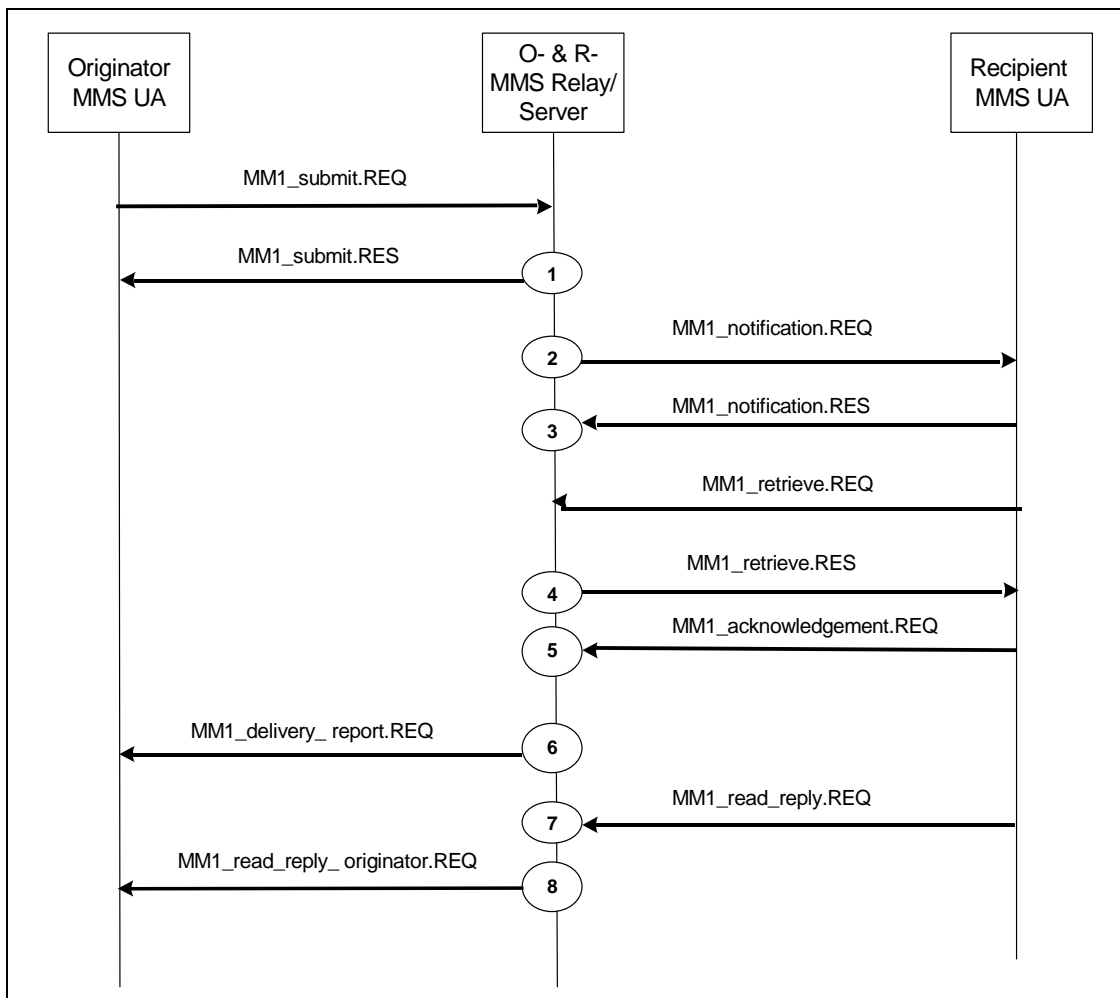
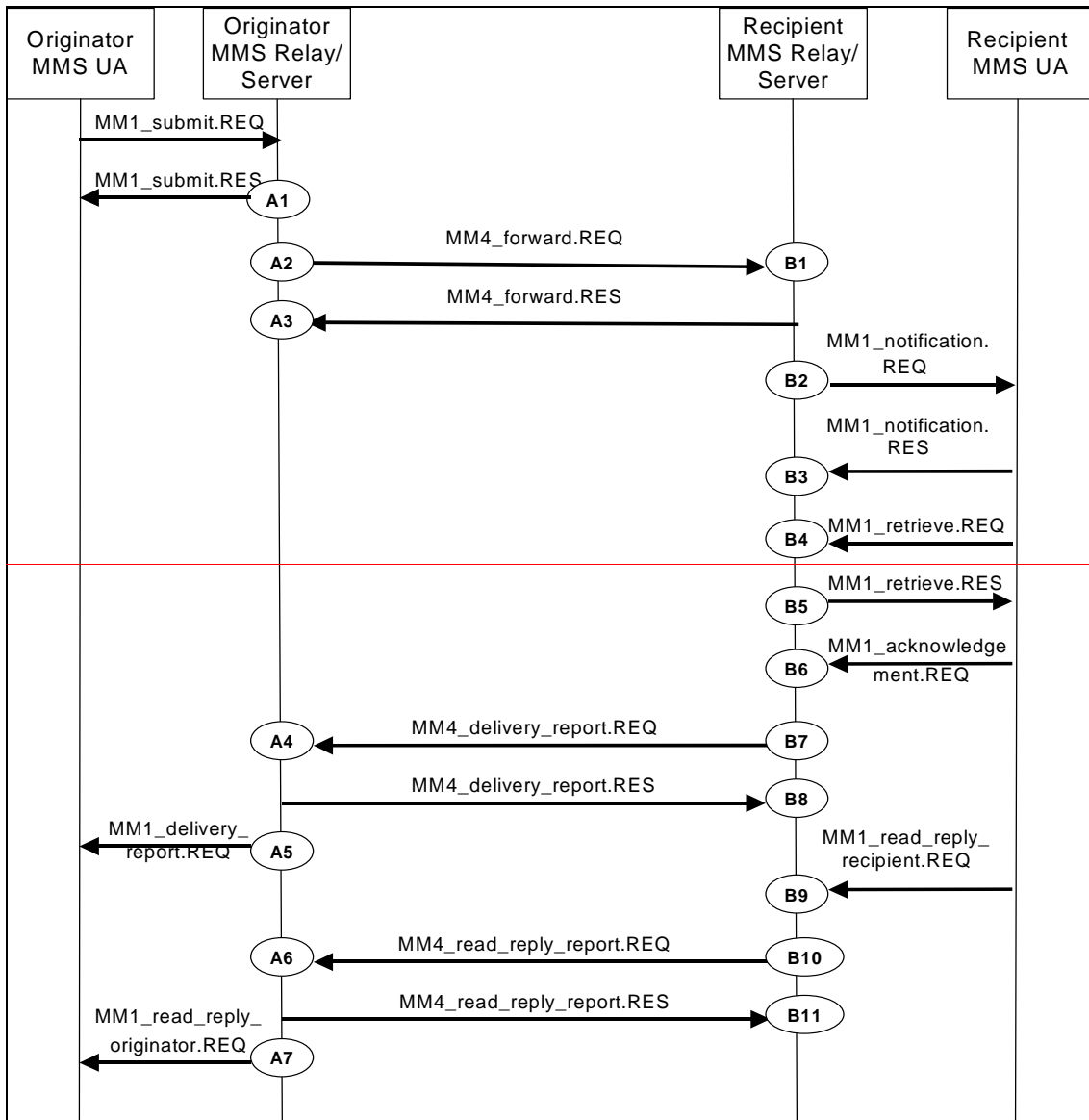


Figure 31: Record trigger overview for combined case

Table 18: Record type overview for combined MMS Relay/Server

Trigger point	Trigger name
1	Originator MM1 Submission
2	Recipient MM1 Notification Request
3	Recipient MM1 Notification Response
4	Recipient MM1 Retrieve Request
5	Recipient MM1 Retrieve Response
5/6	Recipient MM1 Acknowledgement
6/7	Originator MM1 Delivery report
7/8	Recipient MM1 Read reply Recipient
8/9	Originator MM4 Read reply originator
Any time between 1 .. 8/9*	Originator MM Deletion
NOTE: No CDR will be generated by receiving of <a href="#">MM1 User Agent initiated transactions (i.e. <del>the</del> MM1_submit.REQ and MM1_retrieve.REQ)</a>	

7.1.2.2 Originator and Recipient MMS Relay Server are not the same



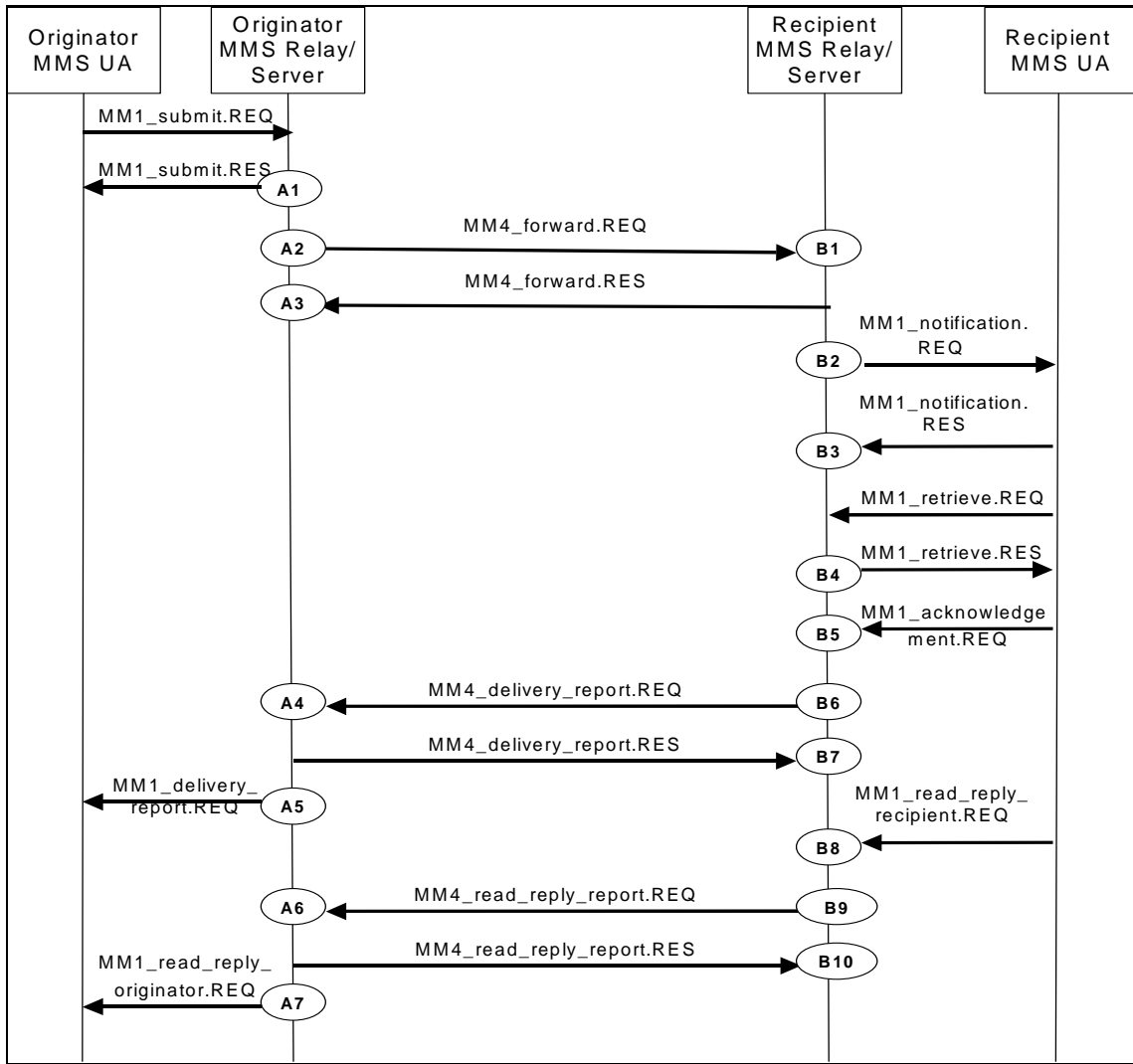


Figure 32: Record trigger overview for distributed case

Table 19: Trigger type overview for the Originator MMS Relay/Server

Trigger point	Trigger name
A1	Originator MM1 Submission
A2	Originator MM4 Forward Request
A3	Originator MM4 Forward Response
A4	Originator MM4 Delivery report
A5	Originator MM1 Delivery report
A6	Originator MM4 Read reply report
A7	Originator MM1 Read reply originator
Any time between A1.. A7	Originator MM Deletion

Table 20: Trigger type overview for the Recipient MMS Relay/Server

Trigger point	Trigger name
B1	Recipient MM4 Forward
B2	Recipient MM1 Notification Request
B3	Recipient MM1 Notification Response
B4	Recipient MM1 Retrieval Request
<del>B5</del>	<del>Recipient MM1 Retrieve Response</del>
<del>B6</del> B5	Recipient MM1 Acknowledgement
<del>B6</del> 7	Recipient MM4 Delivery report Request
<del>B7</del> 8	Recipient MM4 Delivery report Response
<del>B8</del> 9	Recipient MM1 Read reply Recipient
<del>B9</del> 10	Recipient MM4 Read reply report Request
<del>B10</del> 4	Recipient MM4 Read reply report Response
Anytime after B1	Recipient MM Deletion

**End of Change in Clause 7.1.2**  
**End of document**



## CHANGE REQUEST

⌘ **32.200 CR 018** ⌘ rev **-** ⌘ Current version: **5.1.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Several alignments on MMS charging+ MMBBox CDRs have been added		
<b>Source:</b>	⌘ SA5		
<b>Work item code:</b>	⌘ OAM-CH	<b>Date:</b>	⌘ 11/10/2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ Changes on the MMS Charging scenarios in Rel-4 have not yet been implemented in Rel-5.  MMBox CDRs have been added to Rel-5 32.235 but are missing from 32.200.
<b>Summary of change:</b>	⌘ The following changes are made: - addition of MMBBox record triggers - alignment with Rel-4 charging scenarios
<b>Consequences if not approved:</b>	⌘ Incompatibility between Rel-4 and Rel-5 MMS charging description. Inconsistency between stage 2 and stage 3 MMS charging with respect to the MMBBox feature.

<b>Clauses affected:</b>	⌘ 8.1.2						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
<b>Other comments:</b>	⌘ Rel-5 Mirror CR of 32200CR017 + MMBBox CDRs have been added to Rel-5.						

**Change in Clause 8.1.2**

### 8.1.2 Charging scenarios

~~This subclause contains an example scenario illustrating the purpose and practical usage of the various types of records defined in the interface description [19].~~

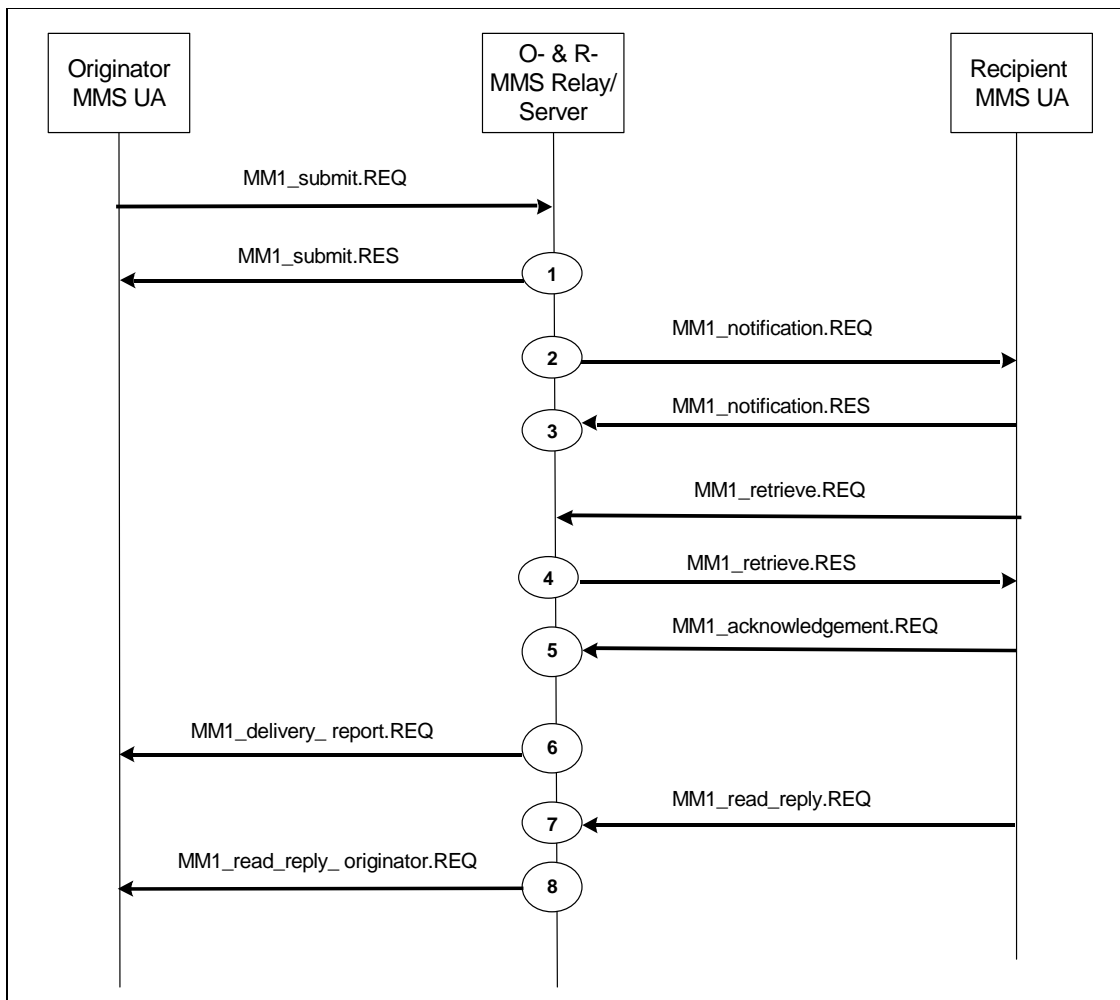
~~The MM submission in the MMS Relay/Server is routed in MMSO and MMSR direction. The Originator MMS Relay/Server and the Recipient MMS Relay/Server shall create the MMSO-CDR and the MMSR-CDR for the originator and recipient User Agent (UA).~~

For the purpose of this example the following assumptions have been made:

- originator MMS UA party is "A" and recipient MMS UA is party "B";

This subclause contains an example scenario illustrating the purpose and practical usage of the various types of records defined in the interface description [19]. The events triggering the generation of CDRs are events at the MM1 reference point and/or events at the MM4 reference point.

#### 8.1.2.1 Originator and Recipient MMS Relay Server are the same



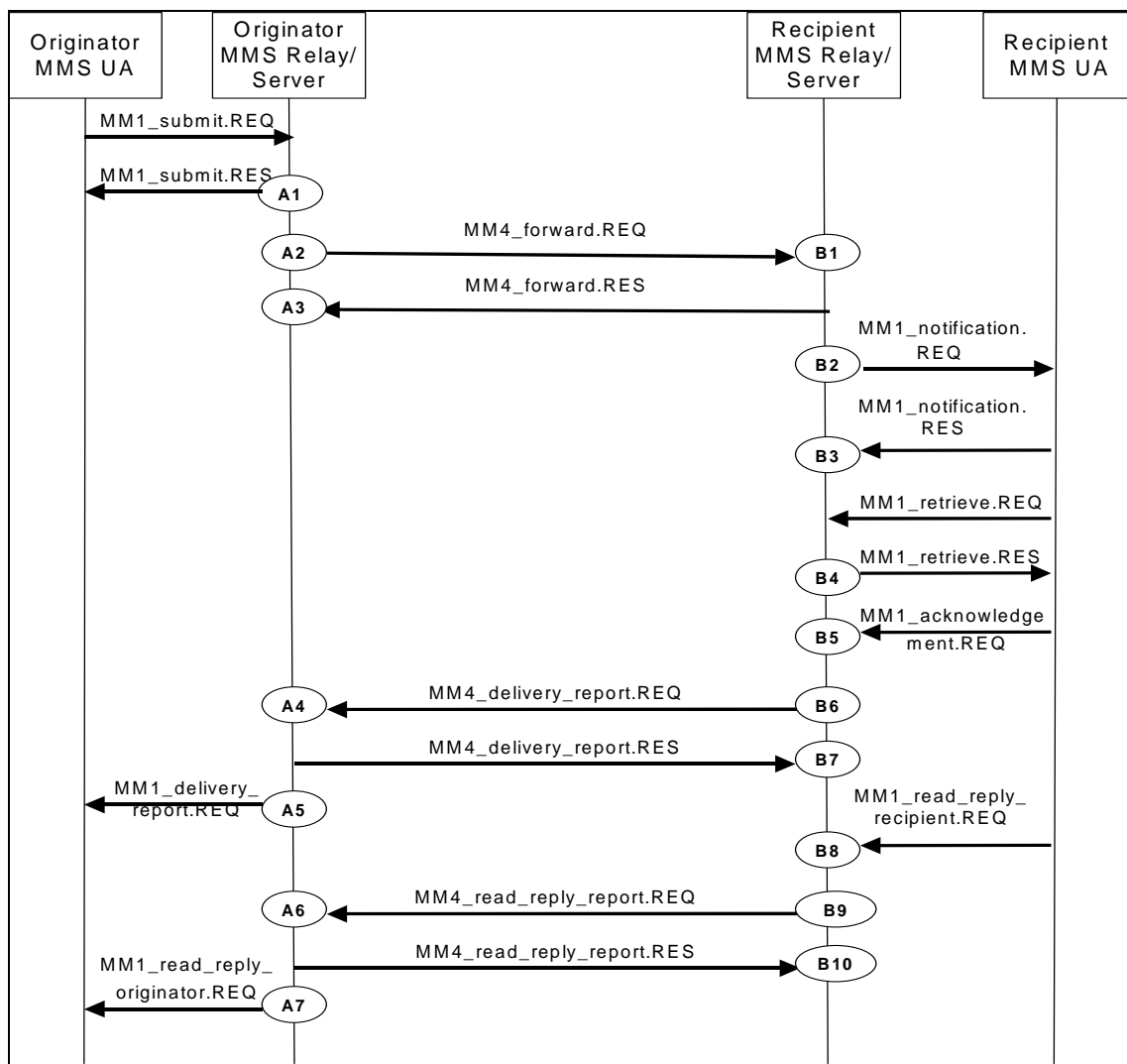
**Figure 8.1: Record trigger overview for combined case**

**Table 8.1: Record type overview for combined MMS Relay/Server**

Trigger point	Trigger name
1	Originator MM1 Submission
2	Recipient MM1 Notification Request
3	Recipient MM1 Notification Response
4	Recipient MM1 Retrieval
5	Recipient MM1 Acknowledgement
6	Originator MM1 Delivery report
7	Recipient MM1 Read reply Recipient
8	Originator MM4 Read reply originator
Any time between 1 .. 8*	Originator MM Deletion

**NOTE:** No CDR will be generated by receiving of MM1 User Agent initiated transactions (i.e. submit.REQ and MM1 retrieve.REQ)

**8.1.2.2 Originator and Recipient MMS Relay Server are not the same**



**Figure 8.2: Record trigger overview for distributed case**

**Table 8.2: Trigger type overview for the Originator MMS Relay/Server**

<u>Trigger point</u>	<u>Trigger name</u>
<u>A1</u>	<u>Originator MM1 Submission</u>
<u>A2</u>	<u>Originator MM4 Forward Request</u>
<u>A3</u>	<u>Originator MM4 Forward Response</u>
<u>A4</u>	<u>Originator MM4 Delivery report</u>
<u>A5</u>	<u>Originator MM1 Delivery report</u>
<u>A6</u>	<u>Originator MM4 Read reply report</u>
<u>A7</u>	<u>Originator MM1 Read reply originator</u>
<u>Any time between A1.. A7</u>	<u>Originator MM Deletion</u>

**Table 8.3: Trigger type overview for the Recipient MMS Relay/Server**

<u>Trigger point</u>	<u>Trigger name</u>
<u>B1</u>	<u>Recipient MM4 Forward</u>
<u>B2</u>	<u>Recipient MM1 Notification Request</u>
<u>B3</u>	<u>Recipient MM1 Notification Response</u>
<u>B4</u>	<u>Recipient MM1 Retrieval</u>
<u>B5</u>	<u>Recipient MM1 Acknowledgement</u>
<u>B6</u>	<u>Recipient MM4 Delivery report Request</u>
<u>B7</u>	<u>Recipient MM4 Delivery report Response</u>
<u>B8</u>	<u>Recipient MM1 Read reply Recipient</u>
<u>B9</u>	<u>Recipient MM4 Read reply report Request</u>
<u>B10</u>	<u>Recipient MM4 Read reply report Response</u>
<u>Anytime after B1</u>	<u>Recipient MM Deletion</u>

8.1.2.3 MMBox management

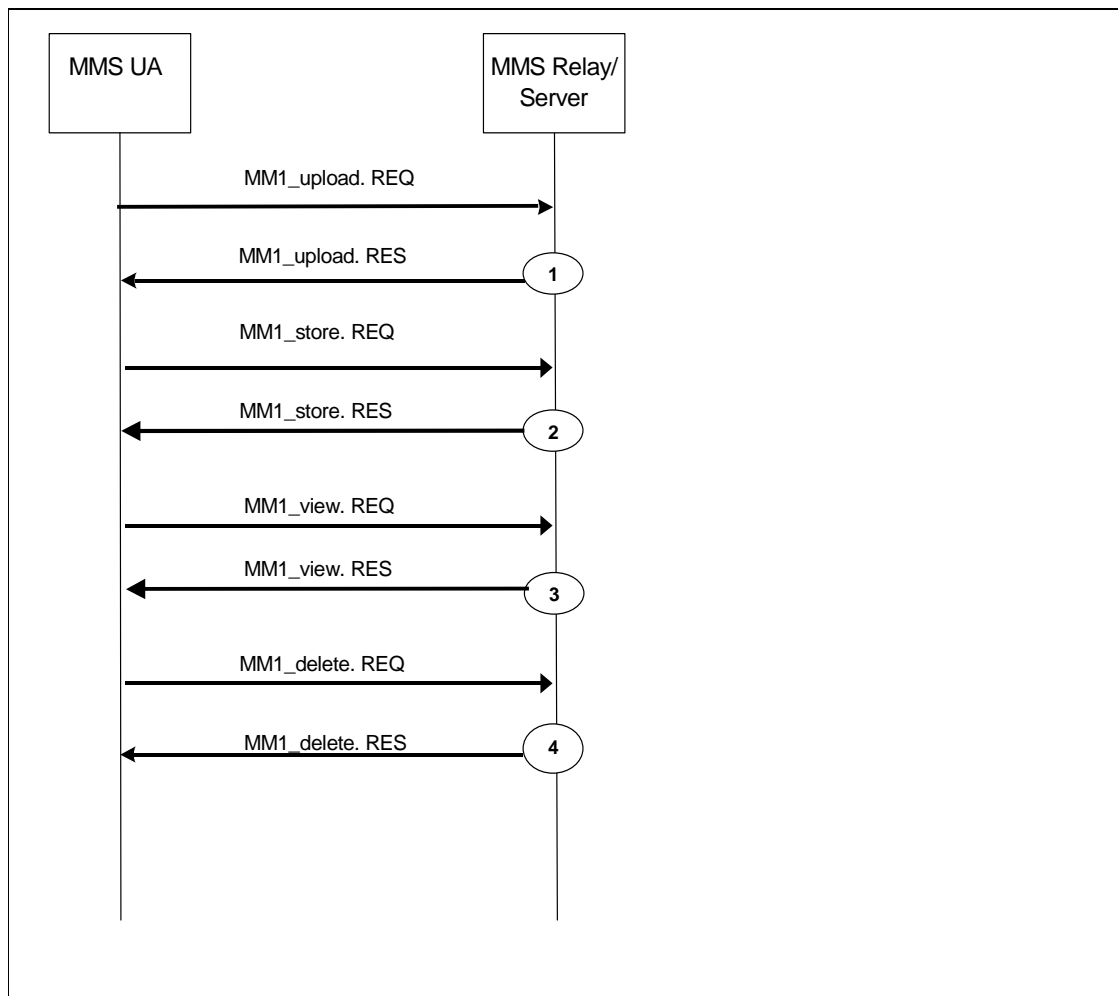
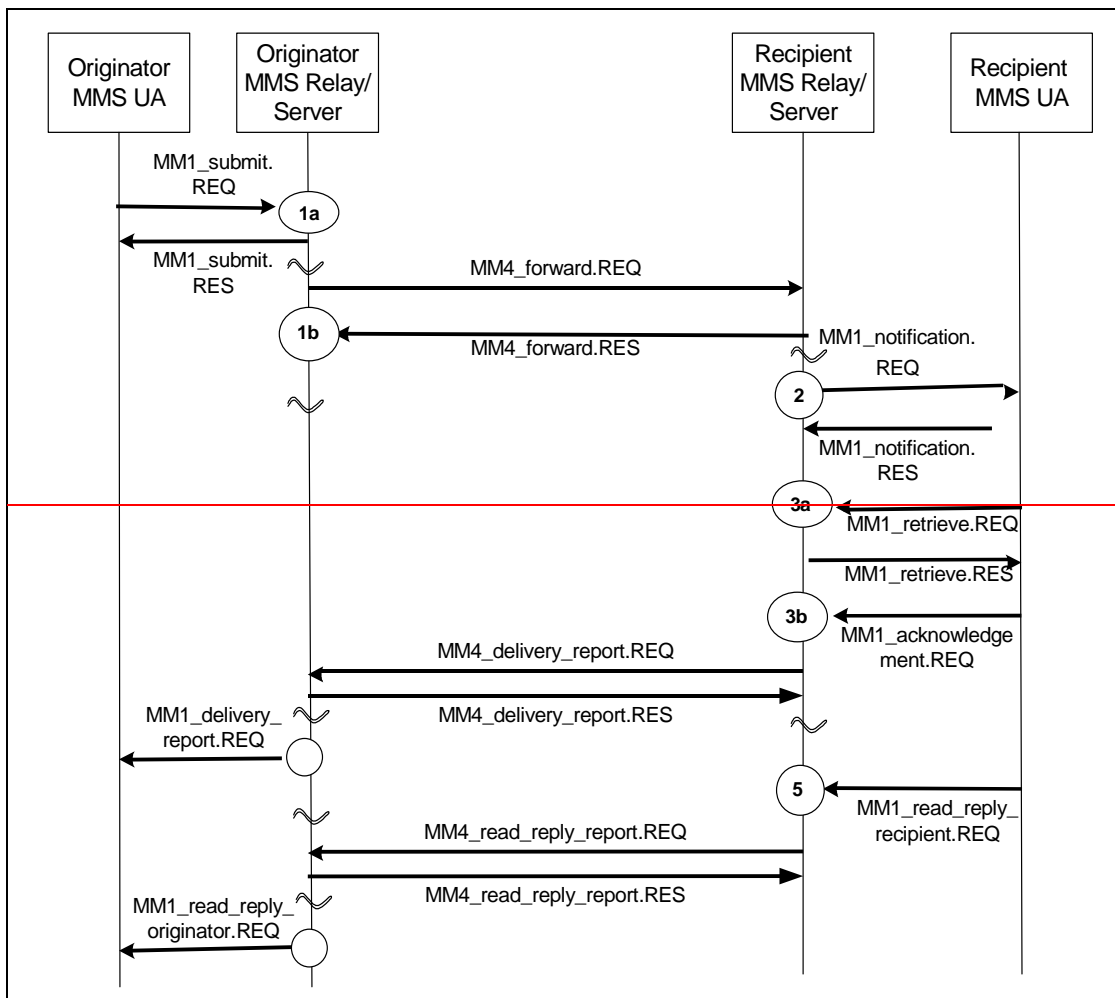


Figure 8.3: Record trigger overview for MMBox management

Table 8.4: Record type overview for MMBox management

Trigger point	Trigger name
1	MMBox MM1 Upload
2	MMBox MM1 Store
3	MMBox MM1 View
4	MMBox MM1 Delete



**Figure 8.1: Example Abstract Message Flow**

The records are generated in the MMS Relay/Server in this call scenario are shown in the following tables:

**Table 8.1: Submission of MM from Originator MMS UA to Originator MMS Relay/Server (Trigger Point 1a and 1b)**

Record Parameter	Content
Record Type	MMSO-CDR
Message Type	Message-MM
Originator Address	E-mail address /MSISDN of A/IP address
Recipient Address	List of E-mail address/MSISDN of B1 ... Bn
Submission Time	Timestamp of MM1_submit_REQ arrived at O-R/S
Duration of Transmission	Time between receipt of MM1_submit_REQ and MM1_submit_RES
Duration of Storage	Time between MM1_submit_RES and MM4_forward_RES
Sequence Number	1a and 1b

**Table 8.2: MM Notification from Recipient MMS Relay/Server to Recipient MMS UA (Trigger Point 2)**

Record Parameter	Content
Record Type	MMSR-CDR
Message Type	Notification
Originator Address	E-mail-address /MSISDN of A/IP address
Recipient Address	E-mail-address/MSISDN of B
Delivery Time	Timestamp at MM1_notification_REQ at R-R/S
Duration of Transmission	Not Applicable
Duration of Storage	Not Available
Sequence Number	Not Applicable

**Table 8.3: Acknowledgement of MM retrieval from Recipient MMS UA to Recipient MMS Relay/Server (Trigger Points 3a and 3b)**

Record Parameter	Content
Record Type	MMSR-CDR
Message Type	Message-MM
Originator Address	E-mail-address /MSISDN of A/IP address
Recipient Address	E-mail-address/MSISDN of B
Delivery Time	Timestamp of MM1_retrieve_REQ arrived at O-R/S
Duration of Transmission	Time between receipt of MM1_submit_REQ and MM1_acknowledgement_REQ, only applicable if acknowledgement was requested
Duration of Storage	Time between MM4_forward_RES and MM1_retrieve_RES
Sequence Number	3a and 3b

**Table 8.4: Delivery Report to Originator MMS UA (Trigger Point 4)**

Record Parameter	Content
Record Type	MMSR-CDR
Message Type	Delivery-Report
Originator Address	E-mail-address /MSISDN of B/IP address
Recipient Address	E-mail-address/MSISDN of A
Delivery Time	Timestamp of MM1_delivery_report_REQ at O-R/S
Duration of Transmission	Not Available
Duration of Storage	Not Available
Sequence Number	Not Applicable

**Table 8.5: Read Reply Information from Recipient MMS UA to Recipient MMS Relay/Server (Trigger Point 5)**

Record Parameter	Content
Record Type	MMSO-CDR
Message Type	Read-reply
Originator Address	E-mail-address /MSISDN of B/IP address
Recipient Address	E-mail-address/MSISDN of A
Submission Time	Timestamp of MM1_read_reply_recipient_REQ arrived at R-R/S
Duration of Transmission	Not Available
Duration of Storage	Not Available
Sequence Number	Not Applicable

**Table 8.6: Read Replay Report to Originator MMS UA (Trigger Point 6)**

<b>Record Parameter</b>	<b>Content</b>
Record Type	MMSR-CDR
Message Type	Read-reply
Originator Address	E-mail-address /MSISDN of B/IP address
Recipient Address	E-mail-address/MSISDN of A
Delivery Time	Timestamp of MM1_read_reply_originator_REQ at O-R/S
Duration of Transmission	Not Available
Duration of Storage	Not Available
Sequence Number	Not Applicable

**End of Change in Clause 8.1.2**  
**End of document**