**3GPP TSG-SA3 Meeting #95-LI *s3i240742***

**Las Vegas, United States, 29th Oct 2024 - 1st Nov 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.128** | **CR** | **0687** | **rev** | **1** | **Current version:** | **19.0.1** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Solution for email target identifier in MMS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3-LI (OTD\_US) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI19 | | | | |  | ***Date:*** | | | 2024-10-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Current version of MMS solution is failing to intercept some messages with an email target identifier. This CR adds a solution to capture the missing messages for email target identifiers in the MMS Proxy-Relay. | | | | | | | | |
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| ***Summary of change:*** | | Adds a new trigger for xIRI and adds two additional xIRI messages in the event of a translation between Email and MMS messages. Additionally, changed MMS tables to comply with drafting rules for 5 column tables. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The current solution will remain incomplete and be unable to intercept messages which are translated for the external interface (MM3) in the MMS Proxy-Relay. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.4.2.4, 7.4.3, 7.4.3.2a(new), 7.4.3.4a(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR has the following changes in the forge:  Merge Request: [!290](https://forge.3gpp.org/rep/sa3/li/-/merge_requests/290)  Commit Hash: [66f38da17dd1827dffdd609bd0719f8f19d15580](https://forge.3gpp.org/rep/sa3/li/-/commit/66f38da17dd1827dffdd609bd0719f8f19d15580) | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | s3i240665 | | | | | | | | |

## \*\*\*\* START OF FIRST CHANGE (MAIN DOCUMENT) \*\*\*\*

#### 7.4.2.4 MMS Record Generation Cases

The triggers for MMS record generation are detailed in each of clauses 7.4.3.1 through 7.4.3.20. All triggers are defined by the detection of messages at the local MMS Proxy-Relay. They belong to one of the following high-level categories:

- at the local MMS Proxy-Relay, the sending or arrival of a message, either to or from the local target UE, using OMA-TS-MMS\_ENC [39] definitions, or

- at the local MMS Proxy-Relay, the sending or arrival of a message to or from a non-local MMS Proxy-Relay, pertaining to messages either to or from a non-local target UE served by that non-local MMS Proxy-Relay, using the inter-proxy MM4 reference point, TS 23.140 [40] clause 8.4 definitions, or

- at the local MMS Proxy-Relay, the sending or arrival of a message to or from an external server (e.g. MM3 interface), pertaining to messages to or from a non-local target UE, using TS 23.140 [40] Annex D and Annex D1 for transformed message definitions.

NOTE: A clear mapping of OMA WAP PDUs to 3GPP Abstract Messages is defined in OMA-TS-MMS\_ENC [39] Appendix C.

The present document assumes that the intercepted MMS complies with version 1.3 of OMA-TS-MMS\_ENC [39]. If the intercepted messages do not comply fully, or the version is other than 1.3, parameters are required to be provided only if available.

In the following tables, the acronym Multimedia Message (MM) refers to a message in particular, while Multimedia Message Service (MMS) refers to the service in general.

## \*\*\*\* END OF FIRST CHANGE (MAIN DOCUMENT) \*\*\*\*

## \*\*\*\* START OF SECOND CHANGE (MAIN DOCUMENT) \*\*\*\*

### 7.4.3 MMS Records

#### 7.4.3.1 MMSSend

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSSend record when the MMS Proxy-Relay sends *m-send-conf* (as defined in OMA-TS-MMS\_ENC [39] clause 6.1.1) to local target UE.

Table 7.4.3.1-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-send-req* message (from the local target UE to the MMS Proxy-Relay), and the *m-send-conf* message(from MMS Proxy-Relay to the local target UE).

Table 7.4.3.1-1: Payload for MMSSend

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). For origination, included by the sending MMS client or the originating MMS Proxy-Relay. | M |
| originatingMMSParty | MMSParty | 1 | ID(s) of the originating party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 0..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included.  This parameter is included if the corresponding MM includes a "TO" field.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| cCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "CC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "CC" field.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| bCCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "BCC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "BCC" field.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "from target". | M |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent to the MMS Proxy-Relay. | C |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal". Include if sent to the MMS Proxy-Relay. | C |
| expiry | MMSExpiry | 1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. | M |
| desiredDeliveryTime | Timestamp | 0..1 | Date and Time of desired delivery. Indicates the earliest possible delivery of the MM to the recipient. Include if sent to the MMS Proxy-Relay. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Include if sent to the MMS Proxy-Relay. | C |
| senderVisibility | BOOLEAN | 0..1 | An indication that the sender's address should not be delivered to the recipient. Sent by the target to indicate the target's visibility to the other party or if not signalled by the target and the default is to not make target visible to the other party. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.52 shall be encoded as follows: "Show" = True, "Hide" = False. Include if sent to the MMS Proxy-Relay. | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a delivery report from each recipient. Sent by the target to indicate the desired delivery report. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.13. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a read report from each recipient. Sent by the target to indicate the desired read report. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.37 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| store | BOOLEAN | 0..1 | Specifies whether the originator MM UE wants the submitted MM to be saved in the user's MMBox, in addition to sending it.Sent by the target to indicate the MM is to be stored. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.56 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a to be stored or stored MM. See OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent to the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent to the MMS Proxy-Relay. | C |
| replyCharging | MMSReplyCharging | 0..1 | If this field is present its value is set to "accepted" or "accepted text only" and the MMS-version-value of the M-Notification.ind PDU is higher than 1.0, this header field will indicate that a reply to this particular MM is free of charge for the recipient.  If the Reply-Charging service is offered and the request for reply-charging has been accepted by the MMS service provider the value of this header field SHALL be set to "accepted" or "accepted text only".  See OMA-TS-MMS\_ENC [39] clause 7.3.43. Include if sent to the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Sent by the target to identify the destination application as defined in OMA-TS-MMS\_ENC [39] clause 7.3.2. Include if sent to the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Sent by the target to identify the application to which replies, delivery reports, and read reports are addressed as defined in OMA-TS-MMS\_ENC [39] clause 7.3.42. Include if sent to the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent to the MMS Proxy-Relay. | C |
| contentClass | MMSContentClass | 0..1 | Classifies the content of the MM to the smallest content class to which the message belongs. Sent by the target to identify the class of the content. See OMA-TS-MMS\_ENC [39] clause 7.3.9. Include if sent to the MMS Proxy-Relay. | C |
| dRMContent | BOOLEAN | 0..1 | Indicates if the MM contains any DRM-protected element. Provide when sent by the target to indicate if the MM contains any DRM-protected element. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.16 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| adaptationAllowed | MMSAdaptation | 0..1 | Provide when sent by the target to identify whether the target wishes the MM to be adapted or not. If overridden, an indication shall be included in the parameter. Include if sent to the MMS Proxy-Relay. | C |
| contentType | MMSContentType | 1 | The content type of the MM. See OMA-TS-MMS\_ENC [39] clause 7.3.11 | M |
| responseStatus | MMSResponseStatus | 1 | MMS specific status. See OMA-TS-MMS\_ENC [39] clause 7.3.48. | M |
| responseStatusText | UTF8String | 0..1 | Text that qualifies the Response Status. Include if sent to the target. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.49. Include if sent by the MMS Proxy-Relay. | C |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. | M |

#### 7.4.3.2 MMSSendByNonLocalTarget

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSSendByNonLocalTarget record when the MMS Proxy-Relay receives *MM4\_forward.REQ* (as defined in TS 23.140 [40] clause 8.4.1) from the non-local MMS Proxy-Relay, that contains a non-local target ID.

Table 7.4.3.2-1 contains parameters generated by the IRI-POI, along with parameters derived from the *MM4\_forward.REQ* message (from the non-local MMS Proxy-Relay to the local MMS Proxy-Relay).

Table 7.4.3.2-1: Payload for MMSSendByNonLocalTarget

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the proxies. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1. | M |
| originatingMMSParty | MMSParty | 1 | ID(s) of the originating party in one or more of the formats described in 7.4.2.1. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "from target." | M |
| contentType | MMSContentType | 1 | The content type of the MM. See OMA-TS-MMS\_ENC [39] clause 7.3.11 | M |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal." Include if sent to the MMS Proxy-Relay. | C |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). | M |
| expiry | MMSExpiry | 0..1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. Include if sent to the MMS Proxy-Relay. | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a delivery report from each recipient. Indicates the desired delivery report. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Included if it exists in the MMS Proxy-Relay message. Include if sent to the MMS Proxy-Relay. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Reported if sent by the target. Include if sent to the MMS Proxy-Relay. | C |
| senderVisibility | BOOLEAN | 0..1 | An indication that the sender's address should not be delivered to the recipient. Indicates the target's visibility to the other party or if not signalled by the target and the default is to not make target visible to the other party. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Show" = True, "Hide" = False. Include if sent to the MMS Proxy-Relay. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a read report from each recipient. Provide when sent by the target to indicate the desired read report. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent by the target. | C |
| forwardCount | INTEGER | 0..1 | The number of times the MM was forwarded | C |
| previouslySentBy | MMSPreviouslySentBy | 0..1 | History of Ues that have forwarded (including originally submitted) the MM. Include if sent to the MMS Proxy-Relay. | C |
| previouslySentByDateTime | Timestamp | 0..1 | The timestamp associated with the previous forward events. Include if sent to the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Provide when sent by the target to identify the destination application as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Provide when sent by the target to identify the application to which replies, delivery reports, and read reports are addressed as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent to the MMS Proxy-Relay. | C |
| contentClass | MMSContentClass | 0..1 | Classifies the content of the MM to the smallest content class to which the message belongs. Identifies the class of the content. Include if sent to the MMS Proxy-Relay. Include if sent to the MMS Proxy-Relay. | C |
| dRMContent | BOOLEAN | 0..1 | Indicates if the MM contains any DRM-protected element. Indicates if the MM contains any DRM-protected element. The values given as defined in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| adaptationAllowed | MMSAdaptation | 0..1 | Identifies whether the target wishes the MM to be adapted or not. If overridden, an indication shall be included in the parameter. Include if sent to the MMS Proxy-Relay. | C |

#### 7.4.3.2a MMSConvertedFromEmail

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSConvertedFromEmail record when the MMS Proxy-Relay transforms an email from an external server (as defined in TS 23.140 [40] Annex D and Annex D1) that contains a non-local target ID.

Table 7.4.3.2a-1 contains parameters generated by the IRI-POI, along with parameters derived from the transformed message.

Table 7.4.3.2a-1: Payload for MMSConvertedFromEmail

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. Generated by the MMS Proxy-Relay at the time of conversion. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. Generated by MMS Proxy-Relay at the time of conversion. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1 (see NOTE). | M |
| contentType | MMSContentType | 1 | The content type of the transformed message (see NOTE). | M |
| originatingMMSParty | MMSParty | 1 | ID of the originating party in one or more of the formats described in 7.4.2.1 (see NOTE). | M |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE.  Should be created by the MMS Proxy-Relay at the time of conversion and set to "personal". Include when created by the MMS Proxy-Relay at the time of transformation. | C |
| dateTime | Timestamp | 1 | Date and time when the message was last handled (either originated or forwarded) (see NOTE). | M |
| expiry | MMSExpiry | 0..1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM Include when sent to the MMS Proxy-Relay (see NOTE). | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator email requests a delivery report from each recipient. Sent by the target to indicate the desired delivery report. Shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay (see NOTE). | C |
| priority | MMSPriority | 0..1 | Priority of the email assigned by the originator. Include if sent to the MMS Proxy-Relay (see NOTE). | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator requests a read reply report from each recipient. Sent by the target to indicate the desired read reply report (see NOTE). Shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| subject | MMSSubject | 0..1 | The subject of the email. Include if sent to the MMS Proxy-Relay. | C |
| messageID | UTF8String | 0..1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. Include if sent to the MMS Proxy-Relay (see NOTE). | C |
| NOTE: The transformation of these fields from an email header to an MMS information element is defined in TS 23.140 [40] table D1.3. | | | | |

#### 7.4.3.3 MMSNotification

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSNotification record when the MMS Proxy-Relay sends a *m-notification-ind* (as defined in OMA-TS-MMS\_ENC [39] clause 6.2) to the MMS client in the local target UE.

Table 7.4.3.3-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-notification-ind* message (from the local MMS Proxy-Relay to the local target).

Table 7.4.3.3-1: Payload for MMSNotification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| originatingMMSParty | MMSParty | 0..1 | ID(s) of the originating party in one or more of the formats described in clause 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included.  If the originating MMS client requested address hiding, but the MMS Proxy-Relay has access to the "From" field, this shall be reported, regardless of the fact that it may be hidden from the recipient. | C |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target." | M |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent by the MMS Proxy-Relay. | C |
| deliveryReportRequested | BOOLEAN | 0..1 | Specifies whether the originator MMS UE requests a delivery report from each recipient. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.13 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| stored | BOOLEAN | 0..1 | Specifies whether the MM was stored in the target's MMBox, and that the *content-location-value* field is a reference to it. "Stored" is coded as True, and "not Stored" is coded as False. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.57.  Include if sent by the MMS Proxy-Relay. | C |
| messageClass | MMSMessageClass | 1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. | M |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Include if sent by the MMS Proxy-Relay. | C |
| messageSize | INTEGER | 1 | Specifies the size of the MM that was viewed or uploaded. Specified in bytes. | M |
| expiry | MMSExpiry | 1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. | M |
| replyCharging | MMSReplyCharging | 0..1 | If this field is present its value is set to "accepted" or "accepted text only" and the MMS-version-value of the M-Notification.ind PDU is higher than 1.0, this header field will indicate that a reply to this particular MM is free of charge for the recipient.  If the Reply-Charging service is offered and the request for reply-charging has been accepted by the MMS service provider the value of this header field SHALL be set to "accepted" or "accepted text only".  See OMA-TS-MMS\_ENC [39] clause 7.3.43. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.4 MMSSendToNonLocalTarget

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSSendToNonLocalTarget record when the local MMS Proxy-Relay sends a *MM4\_forward.REQ* (as defined in TS 23.140 [40] clause 8.4.1) to the non-local MMS Proxy-Relay, that contains a non-local target ID.

Table 7.4.3.4-1 contains parameters generated by the IRI-POI, along with parameters derived from the *MM4\_forward.REQ* message (from the non-local MMS Proxy-Relay to the local MMS Proxy-Relay).

Table 7.4.3.4-1: Payload for MMSSendToNonLocalTarget

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the proxies. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1. | M |
| originatingMMSParty | MMSParty | 1 | ID(s) of the originating party in one or more of the formats described in 7.4.2.1. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target." | M |
| contentType | MMSContentType | 1 | The content type of the MM. See OMA-TS-MMS\_ENC [39] clause 7.3.11 | M |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal." Include if sent by the MMS Proxy-Relay message. | C |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). | M |
| expiry | MMSExpiry | 0..1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. Include if sent by the MMS Proxy-Relay message. | C |
| deliveryReportRequested | BOOLEAN | 0..1 | Specifies whether the originator MMS UE requests a delivery report from each recipient. Indicates the desired delivery report. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay message. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Reported if sent by the target. Include if sent by the MMS Proxy-Relay message. | C |
| senderVisibility | BOOLEAN | 0..1 | Indicates whether the sender's address should not be delivered to the recipient. Indicates the target's visibility to the other party or if not signalled by the target and the default is to not make target visible to the other party. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Show" = True, "Hide" = False. Include if sent by the MMS Proxy-Relay message. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MMS UE requests a read report from each recipient. Indicates the desired read report. The values given in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay message. | C |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent to the target. | C |
| forwardCount | INTEGER | 0..1 | The number of times the MM was forwarded | C |
| previouslySentBy | MMSPreviouslySentBy | 0..1 | History of Ues that have forwarded (including originally submitted) the MM. Include if sent by the MMS Proxy-Relay message. | C |
| previouslySentByDateTime | Timestamp | 0..1 | The timestamp associated with the previous forward events. Include if sent by the MMS Proxy-Relay message. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Provide when sent by the target to identify the destination application as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent by the MMS Proxy-Relay message. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Identifies the application to which replies, delivery reports, and read reports are addressed as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent by the MMS Proxy-Relay message. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent by the MMS Proxy-Relay message. | C |
| contentClass | MMSContentClass | 0..1 | Classifies the content of the MM to the smallest content class to which the message belongs. Identifies the class of the content. Include if sent by the MMS Proxy-Relay message. | C |
| dRMContent | BOOLEAN | 0..1 | Indicates if the MM contains any DRM-protected element. Indicates if the MM contains any DRM-protected element. The values given as defined in TS 23.140 [40] clause 8.4.1.4 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay message. | C |
| adaptationAllowed | MMSAdaptation | 0..1 | identifies whether the target wishes the MM to be adapted or not. If overridden, an indication shall be included in the parameter. Include if sent by the MMS Proxy-Relay message. | C |
|  |  |  | """" |  |



#### 7.4.3.4a MMSConvertedToEmail

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSConvertedToEmail record when the MMS Proxy-Relay transforms a submitted MM into an email format (as defined in TS 23.140 [40] Table D1.1) to a non-local target ID.

Table 7.4.3.4a-1 contains parameters generated by the IRI-POI, along with parameters derived from the submitted MM message being transformed into an external format.

Table 7.4.3.4a-1: Payload for MMSConvertedToEmail

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. Retreaved from the submitted MM being transformed into external format. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the sender and the MMS Proxy-Relay. Retreaved from the submitted MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1. | M |
| contentType | MMSContentType | 1 | The content type of the MM. As defined in TS 23.140 [40] clause D1.1. | M |
| originatingMMSParty | MMSParty | 1 | ID of the originating party in one or more of the formats described in 7.4.2.1. | M |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal". Retreaved from the submitted MM being transformed into external format. Include if sent to the MMS Proxy-Relay. | C |
| dateTime | Timestamp | 1 | Date and time when the MM was last handled (either originated or forwarded). For origination, included by the sending MMS client or the originating MMS Proxy-Relay. | M |
| expiry | MMSExpiry | 0..1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. Include if sent to the MMS Proxy-Relay. | C |
| desiredDeliveryTime | Timestamp | 0..1 | Date and Time of desired delivery. Indicates the earliest possible delivery of the MM to the recipient. Include if sent to the MMS Proxy-Relay. Retrieved from the submitted MM as defined in TS 23.140 [40] Table D1.1. | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a delivery report from each recipient. Sent by the sender to indicate the desired delivery report. Shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Include if sent to the MMS Proxy-Relay. | C |
| senderVisibility | BOOLEAN | 0..1 | An indication that the sender's address should not be delivered to the recipient. Sent by the sender to indicate the sender's visibility to the other party or if not signalled by the sender and the default is to not make sender visible to the other party. Shall be encoded as follows: "Show" = True, "Hide" = False. Include if sent to the MMS Proxy-Relay. | C |
| store | BOOLEAN | 0..1 | Specifies whether the originator MM UE wants the submitted MM to be saved in the user's MMBox, in addition to sending it. Shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a to be stored or stored MM. Include if sent to the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. Include if sent to the MMS Proxy-Relay. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a read reply report from each recipient. Sent by the sender to indicate the desired read reply report. Shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent to the MMS Proxy-Relay. | C |
| messageID | UTF8String | 0..1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in TS 23.140 [40] clause D1.1. Shall be included when it is generated by the MMS Proxy-Relay. | C |

#### 7.4.3.5 MMSNotificationResponse

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSNotificationResponse record when the MMS Proxy-Relay receives a *m-notifyresp-ind* (as defined in OMA-TS-MMS\_ENC [39] clause 6.2 table 4) from the MMS client in the target UE for the deferred retrieval case only. The immediate retrieval trigger on *m-notifyresp-ind* is in clause 7.4.3.7.

Table 7.4.3.5-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-notifyresp-ind*message (from the local target UE to the MMS Proxy-Relay).

Table 7.4.3.5-1: Payload for MMSNotificationResponse

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target" | M |
| status | MMStatus | 1 | Provides a MM status. A status of "retrieved" is only signalled by the retrieving UE after retrieval of the MM. | M |
| reportAllowed | BOOLEAN | 0..1 | Indication whether or not the sending of delivery report is allowed by the recipient MMS Client. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.47 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |

#### 7.4.3.6 MMSRetrieval

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSRetrieval record when the MMS Proxy-Relay sends a *m-retrieve-conf* (as defined in OMA-TS-MMS\_ENC [39] clause 6.3) to the MMS client in the target UE.

Table 7.4.3.6-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-retrieve-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.6-1: Payload for MMSRetrieval

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. | M |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). For origination, included by the sending MMS client or the originating MMS Proxy-Relay. | M |
| originatingMMSParty | MMSParty | 0..1 | ID(s) of the originating party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. Include if sent by the MMS Proxy-Relay. | C |
| previouslySentBy | MMSPreviouslySentBy | 0..1 | History of UEs that have forwarded (including originally submitted) the MM. Include if sent by the MMS Proxy-Relay. | C |
| previouslySentByDateTime | Timestamp | 0..1 | The timestamp associated with the previous forward events. Include if sent by the MMS Proxy-Relay. | C |
| terminatingMMSParty | SEQUENCE OF MMSParty | 0..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. Include if sent by the MMS Proxy-Relay.  At least one of the terminatingMMSParty or cCRecipients must be included. | C |
| cCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "CC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. Include if sent by the MMS Proxy-Relay.  At least one of the terminatingMMSParty or cCRecipients must be included. | C |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target," or "fromTarget," as appropriate. | M |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent by the MMS Proxy-Relay. | C |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a to be stored or stored MM. See OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent by the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. Include if sent. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent by the MMS Proxy-Relay. | C |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal." Include if sent by the MMS Proxy-Relay. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Include if sent by the MMS Proxy-Relay. | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a delivery report from each recipient. Indicates whether a delivery report is desired. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.13. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MM UE requests a read report from each recipient. Indicates whether a read report is desired. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.37 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| replyCharging | MMSReplyCharging | 0..1 | If this field is present its value is set to "accepted" or "accepted text only" and the MMS-version-value of the PDU is higher than 1.0, this header field will indicate that a reply to this particular MM is free of charge for the recipient.  If the Reply-Charging service is offered and the request for reply-charging has been accepted by the MMS service provider the value of this header field SHALL be set to "accepted" or "accepted text only".  See OMA-TS-MMS\_ENC [39] clause 7.3.43. Include if sent by the MMS Proxy-Relay. | C |
| retrieveStatus | MMSRetrieveStatus | 0..1 | MMS specific status. It is used by the recipient MMS Proxy-Relay to inform the recipient MMS Client about errors, if any that occurred during the preceding retrieval operation. Include if sent by the MMS Proxy-Relay. | C |
| retrieveStatusText | UTF8String | 0..1 | Text that qualifies the Retrieve Status. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.55. Include if sent by the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Sent by the target to identify the destination application as defined in OMA-TS-MMS\_ENC [39] clause 7.3.2. Include if sent by the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Sent by the target to identify the application to which replies, delivery reports, and read reports are addressed as defined in OMA-TS-MMS\_ENC [39] clause 7.3.42. Include if sent by the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent by the MMS Proxy-Relay. | C |
| contentClass | MMSContentClass | 0..1 | Classifies the content of the MM to the smallest content class to which the message belongs. Sent by the target to identify the class of the content. See OMA-TS-MMS\_ENC [39] clause 7.3.9. Include if sent by the MMS Proxy-Relay. | C |
| dRMContent | BOOLEAN | 0..1 | Indicates if the MM contains any DRM-protected element. Provide when sent by the target to indicate if the MM contains any DRM-protected element. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.16 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| replaceID | UTF8String | 0..1 | Indicates the message ID of the message this one is intended to replace. Include if sent by the MMS Proxy-Relay. | C |
| contentType | UTF8String | 1 | The content type of the MM. See OMA-TS-MMS\_ENC [39] clause 7.3.11. | M |

#### 7.4.3.7 MMSDeliveryAck

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSDeliveryAck record when:

- the MMS Proxy-Relay receives an m-acknowledge-ind (as defined in OMA-TS-MMS\_ENC [39] clause 6.4) from the MMS client in the target UE (for deferred retrieval), or

- the MMS Proxy-Relay receives an m-notifyresp-ind (as defined in OMA-TS-MMS\_ENC [39] clause 6.4) from the MMS client in the target UE (for immediate retrieval).

Table 7.4.3.7-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-acknowledge-ind* message (from the local target UE to the MMS Proxy-Relay), and the *m-notifyresp-ind* message (from the local target UE to the MMS Proxy-Relay).

Table 7.4.3.7-1: Payload for MMSDeliveryAck

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| reportAllowed | BOOLEAN | 0..1 | Indicates whether the target allows sending of a delivery report. Encoded as "Yes" = True, "No" = False. Include if received by the MMS Proxy-Relay. | C |
| status | MMStatus | 0..1 | Provides a MM status. A status of "retrieved" is only signalled by the retrieving UE after retrieval of the MM. Include if received by the MMS Proxy-Relay and if generated from a ***m-notifyresp-ind***. | C |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target." | M |

#### 7.4.3.8 MMSForward

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSForward record when the MMS Proxy-Relay sends an *m-forward-conf* (as defined in OMA-TS-MMS\_ENC [39] clause 6.5.2) to the MMS client in the target UE.

Table 7.4.3.8-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-forward-req* message (from the local target UE to the MMS Proxy-Relay), and the *m-forward-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.8-1: Payload for MMSForward

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| dateTime | Timestamp | 0..1 | Date and Time when the MM was last handled (either originated or forwarded). For origination, included by the sending MMS client or the originating MMS Proxy-Relay. Include if sent to the MMS Proxy-Relay. | C |
| originatingMMSParty | MMSParty | 1 | ID(s) of the originating (forwarding) party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address to the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 0..MAX | ID(s) of the terminating party in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. Include if sent to the MMS Proxy-Relay.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| cCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "CC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "CC" field. Include if sent to the MMS Proxy-Relay.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| bCCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "BCC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "BCC" field. Include if sent to the MMS Proxy-Relay.  At least one of the terminatingMMSParty, cCRecipients, or bCCRecipients must be included. | C |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "from target". | M |
| expiry | MMSExpiry | 0..1 | Length of time in seconds the MM will be stored in MMS Proxy-Relay or time to delete the MM. The field has two formats, either absolute or relative. Include either the signalled expiry or the default, whichever applies. Include if sent to the MMS Proxy-Relay. | C |
| desiredDeliveryTime | Timestamp | 0..1 | Date and Time of desired delivery. Indicates the earliest possible delivery of the MM to the recipient. Include if sent to the MMS Proxy-Relay. | C |
| deliveryReportAllowed | BOOLEAN | 0..1 | An indication that the target requested reporting to the original sender or the default, whichever applies. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.47 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| deliveryReport | BOOLEAN | 0..1 | Specifies whether the originator MMS UE requests a delivery report from each recipient. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.13. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| store | BOOLEAN | 0..1 | Specifies whether the originator MMS UE wants the submitted MM to be saved in the user's MMBox, in addition to sending it. Sent by the target to have the forwarded MM stored. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.56 shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a MM to be stored or stored MM. Sets the state for the forwarded MM when it is stored. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent to the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. Include if sent to the MMS Proxy-relay. See OMA-TS-MMS\_ENC [39] clause 7.3.32. | C |
| contentLocationReq | UTF8String | 1 | The content-location-value field defines the URL for the MMS server location of the content to be retrieved as it appears in the m-forward-req. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. | M |
| replyCharging | MMSReplyCharging | 0..1 | If this field is present its value is set to "accepted" or "accepted text only" and the MMS-version-value is higher than 1.0, this header field will indicate that a reply to this particular MM is free of charge for the recipient.  If the Reply-Charging service is offered and the request for reply-charging has been accepted by the MMS service provider the value of this header field SHALL be set to "accepted" or "accepted text only".  See OMA-TS-MMS\_ENC [39] clause 7.3.43. Include if sent to the MMS Proxy-Relay. | C |
| responseStatus | MMSResponseStatus | 1 | MMS specific status. See OMA-TS-MMS\_ENC [39] clause 7.3.48. | M |
| responseStatusText | UTF8String | 0..1 | Text that qualifies the Response Status. Include if sent to the target. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.49. Include if sent by the MMS Proxy-Relay. | C |
| messageID | UTF8String | 0..1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. Include if sent by the MMS Proxy-Relay. | C |
| contentLocationConf | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-forward-conf*. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| storeStatus | MMSStoreStatus | 0..1 | Indicates if the MM was successfully stored in the MMBox. Include if sent by the MMS Proxy-Relay. | C |
| storeStatusText | UTF8String | 0..1 | Text that qualifies the Store Status. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.59. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.9 MMSDeleteFromRelay

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSDeleteFromRelay record when the MMS Proxy-Relay sends a *m-delete-conf* (defined in OMA-TS-MMS\_ENC [39]) to the MMS client in the target UE.

Table 7.4.3.9-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-delete-req* message (from the local target UE to the MMS Proxy-Relay), and the *m-delete-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.9-1: Payload for MMSDeleteFromRelay

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target," or "fromTarget," as appropriate. | M |
| contentLocationReq | SEQUENCE OF UTF8String | 1..MAX | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-delete-conf,* as defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent to the MMS Proxy-Relay. | M |
| contentLocationConf | SEQUENCE OF UTF8String | 0..MAX | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-delete-conf*, as defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| deleteResponseStatus | MMSDeleteResponseStatus | 1 | The delete response, as defined in OMA-TS-MMS\_ENC [39] clause 7.3.48. | M |
| deleteResponseText | SEQUENCE OF UTF8String | 0..MAX | The delete response, as defined in OMA-TS-MMS\_ENC [39] clause 7.3.49. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.10 MMSMBoxStore

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSMBoxStore record when the MMS Proxy-Relay sends a m-mbox-store-conf (defined in OMA-TS-MMS\_ENC [39] clause 6.8) to the MMS client in the target UE.

Table 7.4.3.10-1 contains parameters generated by the IRI-POI, along with parameters derived from the m-mbox-store-req message (from the local target UE to the MMS Proxy-Relay), and from the *m-mbox-store-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.10-1: Payload for MMSMBoxStore

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target." | M |
| contentLocationReq | UTF8String | 1 | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-mbox-store-req*. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | M |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a MM to be stored or stored MM. Sets the state for the forwarded MM when it is stored. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent by the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent by the MMS Proxy-Relay. | C |
| contentLocationConf | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-mbox-store-conf*. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| storeStatus | MMSStoreStatus | 1 | Indicates if the MM was successfully stored in the MMBox. | M |
| storeStatusText | UTF8String | 0..1 | Text that qualifies the Store Status. Include if sent to the target. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.59. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.11 MMSMBoxUpload

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSMBoxUpload record when the MMS Proxy-Relay sends a *m-mbox-upload-conf* (defined in OMA-TS-MMS\_ENC [39] clause 6.10) to the MMS client in the target UE.

Table 7.4.3.11-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-mbox-upload-req* message (from the local target UE to the MMS Proxy-Relay), and from the *m-mbox-upload-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.11-1: Payload for MMSMBoxUpload

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target," or "fromTarget," as appropriate. | M |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a MM to be stored or stored MM. Sets the state for the forwarded MM when it is stored. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent by the MMS Proxy-Relay. | C |
| flags | MMFlags | 0..1 | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent by the MMS Proxy-Relay. | C |
| contentType | UTF8String | 1 | The content type of the MM. See OMA-TS-MMS\_ENC [39] clause 7.3.11 | M |
| contentLocation | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS server location of the MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| storeStatus | MMSStoreStatus | 1 | Indicates if the MM was successfully stored in the MMBox. | M |
| storeStatusText | UTF8String | 0..1 | Text that qualifies the Store Status. Include if sent to the target. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.59. Include if sent by the MMS Proxy-Relay. | C |
| mMBoxDescription | SEQUENCE OF MMBoxDescription | 0..MAX | The MMBox description PDU as defined in 7.4.3.20 corresponds to the particular MM. include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.12 MMSMBoxDelete

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSMBoxDelete record when the MMS Proxy-Relay sends a *m-mbox-delete.conf* (defined in OMA-TS-MMS\_ENC [39]) to the MMS client in the target UE.

Table 7.4.3.12-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-mbox-delete-req* message (from the local target UE to the MMS Proxy-Relay), and from the *m-mbox-delete-conf* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.12-1: Payload for MMSMBoxDelete

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "to target," or "fromTarget," as appropriate. | M |
| contentLocationReq | SEQUENCE OF UTF8String | 1..MAX | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-mbox-delete-req*. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. | M |
| contentLocationConf | SEQUENCE OF UTF8String | 0..MAX | The *content-location-value* field defines the URL for the MMS server location of the MM as it appears in the *m-mbox-delete-conf*. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| responseStatus | MMSDeleteResponseStatus | 1 | MMS specific status. | M |
| responseStatusText | UTF8String | 0..1 | Text that qualifies the Response Status. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.49. | C |

#### 7.4.3.13 MMSDeliveryReport

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSDeliveryReport record when the MMS Proxy-Relay sends an *m-delivery-ind* (as defined in OMA-TS-MMS\_ENC [39] clause 6.11) to the MMS client in the target UE.

Table 7.4.3.13-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-delivery-ind* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.13-1: Payload for MMSDeliveryReport

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. Include if sent by the MMS Proxy-Relay. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party of the original message this Delivery Report refers to, in one or more of the formats described in 7.4.2.1  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). Include if sent by the MMS Proxy-Relay. | M |
| responseStatus | MMSResponseStatus | 1 | MMS specific status. | M |
| responseStatusText | UTF8String | 0..1 | Text that qualifies the Response Status. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.49. Include if sent by the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Sent by the target to identify the destination application as defined in OMA-TS-MMS\_ENC [39] clause 7.3.2. Include if sent by the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Sent by the target to identify the application to which replies, delivery reports, and read reports are addressed as defined in OMA-TS-MMS\_ENC [39] clause 7.3.42. Include if sent by the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.14 MMSDeliveryReportNonLocalTarget

The IRI-POI in the MMS Proxy-Relay shall generate an xIRI containing an MMSDeliveryReportNonLocalTarget record when the MMS Proxy-Relay:

- sends MM4\_delivery\_report.REQ (as defined in TS 23.140 [40] clause 8.4.2), that contains a non-local target ID, to the non-local MMS Proxy-Relay, or

- receives MM4\_delivery\_report.REQ, that contains a non-local target ID, from the non-local MMS Proxy-Relay.

Table 7.4.3.14-1 contains parameters generated by the IRI-POI, along with parameters derived from the *MM4\_delivery\_report.REQ* message (from the local MMS Proxy-Relay to the non-local MMS Proxy-Relay, or inversely).

Table 7.4.3.14-1: Payload for MMSDeliveryReportNonLocalTarget

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the proxies. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party of the original message this Delivery Report refers to, in one or more of the formats described in 7.4.2.1. | M |
| originatingMMSParty | MMSParty | 1 | ID(s) of the originating party of the original message this Delivery Report refers to, in one or more of the formats described in 7.4.2.1. | M |
| direction | MMSDirection | 1 | Indicates the direction of the MM. This shall be encoded as "toTarget," or "from target," as appropriate. | M |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). | M |
| forwardToOriginator | BOOLEAN | 0..1 | Indicates whether the MMS Proxy-Relay is allowed to forward the delivery report to the originating UE. "Yes" is coded as True, and "No" is coded as False. Include if sent to/by the MMS Proxy-Relay. | C |
| mMStatus | MMStatus | 1 | Provides a MM status. A status of "retrieved" is only signalled by the retrieving UE after retrieval of the MM. | M |
| mMStatusExtension | MMStatusExtension | 0..1 | Extension of the MMStatus, that provides more granularity. Include if sent to/by the MMS Proxy-Relay. | C |
| mMStatusText | MMStatusText | 0..1 | Text that qualifies the MM Status. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.55. Include if sent to/by the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Identifies the destination application as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to/by the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Identifies the application to which replies, delivery reports, and read reports are addressed as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to/by the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent to/by the MMS Proxy-Relay. | C |

#### 7.4.3.15 MMSReadReport

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSReadReport record when the MMS Proxy-Relay:

- sends a m-read-orig-ind (as defined in OMA-TS-MMS\_ENC [39] clause 6.7.2) to the MMS client in the target UE, or

- receives a m-read-rec-ind (as defined in OMA-TS-MMS\_ENC [39] clause 6.7.2) from the MMS client in the target UE.

Table 7.4.3.15-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-read-orig-ind* message (from the MMS Proxy-Relay to the local target UE), and from the *m-read-rec-ind* message (from the local target UE to the MMS Proxy-Relay).

Table 7.4.3.15-1: Payload for MMSReadReport

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party (i.e. the intended recipient of the read report or the originator of the initial MM message to which the read report applies) in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| originatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the originating party (i.e. the originator of the read report or the recipient the initial MM message to which the read report applies) in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| direction | MMSDirection | 1 | Indicates the direction of the original MM (**not** of this message). This shall be encoded either as "from target," or "to target," as appropriate. | M |
| dateTime | Timestamp | 0..1 | Date and Time when the MM was last handled (either originated or forwarded). Include if sent to/by the MMS Proxy-Relay. | C |
| readStatus | MMSReadStatus | 1 | Status of the MMS (e.g. read or deleted without reading). | M |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.2. Include if sent to/by the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.42. Include if sent to/by the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent to/by the MMS Proxy-Relay. | C |

#### 7.4.3.16 MMSReadReportNonLocalTarget

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSReadReportNonLocalTarget record when the MMS Proxy-Relay:

- sends a MM4\_read\_reply\_report.REQ (as defined in TS 23.140 [40] clause 8.4.3), that contains a non-local target ID, to the non-local MMS Proxy-Relay, or

- receives a MM4\_read\_reply\_report.REQ (as defined in TS 23.140 [40] clause 8.4.3), that contains a non-local target ID, from the non-local MMS Proxy-Relay.

Table 7.4.3.16-1 contains parameters generated by the IRI-POI, along with parameters derived from the ***MM4\_read\_reply\_report.REQ*** message (from the local MMS Proxy-Relay to the non-local MMS Proxy-Relay, or inversely).

Table 7.4.3.16-1: Payload for MMSReadReportNonLocalTarget

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the proxies. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| terminatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the terminating party in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| originatingMMSParty | SEQUENCE OF MMSParty | 1..MAX | ID(s) of the originating party in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. | M |
| direction | MMSDirection | 1 | Indicates the direction of the original MM (**not** of this message). This shall be encoded either as "from target" = True, or "to target" = False. | M |
| messageID | UTF8String | 1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. As defined in TS 23.140 [40] clause 8.4.1.4. | M |
| dateTime | Timestamp | 1 | Date and Time when the MM was last handled (either originated or forwarded). | M |
| readStatus | MMSReadStatus | 1 | Status of the MMS (e.g. read or deleted without reading). | M |
| readStatusText | MMSReadStatusText | 0..1 | Text explanation corresponding to the Read Status. Include if sent to/by the MMS Proxy-Relay. | C |
| applicID | UTF8String | 0..1 | Identification of the originating application of the original MM. Identifies the destination application as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to/by the MMS Proxy-Relay. | C |
| replyApplicID | UTF8String | 0..1 | Identification of an application to which replies, delivery reports, and read reports are addressed. Identifies the application to which replies, delivery reports, and read reports are addressed, as defined in TS 23.140 [40] clause 8.4.1.4. Include if sent to/by the MMS Proxy-Relay. | C |
| auxApplicInfo | UTF8String | 0..1 | Auxiliary application addressing information as indicated in the original MM. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.4. Include if sent to/by the MMS Proxy-Relay. | C |

#### 7.4.3.17 MMSCancel

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSCancel record when the MMS Proxy-Relay sends a *m-cancel-req* (as defined in OMA-TS-MMS\_ENC [39] clause 6.13) to the MMS client in the target UE.

Table 7.4.3.17-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-cancel-req* message (from the MMS Proxy-Relay to the local target UE).

Table 7.4.3.17-1: Payload for MMSCancel

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| cancelID | UTF8String | 1 | This field includes the Message ID identifying the message to be cancelled. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.6. | M |
| direction | MMSDirection | 1 | Indicates the direction of the original MM. This shall be encoded as "to target". | M |

#### 7.4.3.18 MMSMBoxViewRequest

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSMBoxViewRequest record when the MMS Proxy-Relay receives a *m-mbox-view-req* (as defined in OMA-TS-MMS\_ENC [39] clause 6.9) from the MMS client in the target UE.

Table 7.4.3.18-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-mbox-vew-req* message (from the local target UE to the MMS Proxy-Relay).

Table 7.4.3.18-1: Payload for MMSMBoxViewRequest

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
| contentLocation | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS Proxy-Relay location of the content to be retrieved. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent to the MMS Proxy-Relay. | C |
| state | SEQUENCE OF MMState | 0..MAX | Specifies a MM State value to use in selecting the messages to return. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent to the MMS Proxy-Relay. | C |
| flags | SEQUENCE OF MMFlags | 0..MAX | Specifies a MM Flags keyword to use in selecting the messages to return in the response. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent to the MMS Proxy-Relay. | C |
| start | INTEGER | 0..1 | A number, indicating the index of the first MM of those selected to have information returned in the response. Include if sent to the MMS Proxy-Relay. | C |
| limit | INTEGER | 0..1 | A number indicating the maximum number of selected MMs whose information are to be returned in the response.  If this is absent, information elements from all remaining MMs are to be returned. If this is zero, then no MM-related information are to be returned. Include if sent to the MMS Proxy-Relay. | C |
| mMSAttributes | SEQUENCE OF UTF8String | 0..MAX | A list of information elements that should appear in the view for each selected message. Include if sent to the MMS Proxy-Relay. | C |
| mMSTotals | INTEGER | 0..1 | Indicates a request for or the actual count of messages currently stored in the MMBox. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.62. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |
| mMSQuotas | MMSQuota | 0..1 | Indicates a request for or the actual quotas for the user's MMBox in messages or bytes. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.36. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent to the MMS Proxy-Relay. | C |

#### 7.4.3.19 MMSMBoxViewResponse

The IRI-POI present in the MMS Proxy-Relay shall generate an xIRI containing an MMSMBoxViewResponse record when the MMS Proxy-Relay sends a *m-mbox-view.conf* (as defined in OMA-TS-MMS\_ENC [39] clause 6.9) to the MMS client in the target UE.

Table 7.4.3.19-1 contains parameters generated by the IRI-POI, along with parameters derived from the *m-mbox-vew-conf* message (from the local target UE to the MMS Proxy-Relay).

Table 7.4.3.19-1: Payload for MMSMBoxViewResponse

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| transactionID | UTF8String | 1 | An ID used to correlate an MMS request and response between the target and the MMS Proxy-Relay. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.63. | M |
| version | MMSVersion | 1 | The version of MM, to include major and minor version. | M |
|  |  |  |  |  |
|  |  |  |  |  |
| contentLocation | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS server location of the content to be retrieved. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| state | SEQUENCE OF MMState | 0..MAX | Specifies a MM State value to use in selecting the messages to return. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent by the MMS Proxy-Relay. | C |
| flags | SEQUENCE OF MMFlags | 0..MAX | Specifies a MM Flags keyword to use in selecting the messages to return in the response. See OMA-TS-MMS\_ENC [39] clause 7.3.32. Include if sent by the MMS Proxy-Relay. | C |
| start | INTEGER | 0..1 | A number, indicating the index of the first MM of those selected to have information returned in the response. Include if sent by the MMS Proxy-Relay. | C |
| limit | INTEGER | 0..1 | A number indicating the maximum number of selected MMs whose information are to be returned in the response.  If this is absent, information elements from all remaining MMs are to be returned. If this is zero then no MM-related information are to be returned. Include if sent by the MMS Proxy-Relay. | C |
| mMSAttributes | SEQUENCE OF UTF8String | 0..MAX | A list of information elements that should appear in the view for each selected message. Include if sent by the MMS Proxy-Relay. | C |
| mMSTotals | BOOLEAN | 0..1 | Indicates a request for or the actual count of messages currently stored in the MMBox. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.62. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| mMSQuotas | BOOLEAN | 0..1 | Indicates a request for or the actual quotas for the user's MMBox in messages or bytes. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.36. shall be encoded as follows: "Yes" = True, "No" = False. Include if sent by the MMS Proxy-Relay. | C |
| mMessages | SEQUENCE OF MMBoxDescription | 1..MAX | The MMBox description PDU as defined in 7.4.3.20 corresponds to the particular MM. | M |

#### 7.4.3.20 MMBoxDescription

The MMBoxDescription used in MMSMBoxViewResponse and MMSMBoxUpload records is defined in table 7.4.3.20-1.

Table 7.4.3.20-1: Payload for MMBoxDescription

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| contentLocation | UTF8String | 0..1 | The *content-location-value* field defines the URL for the MMS Proxy-relay location of the content to be retrieved. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.10. Include if sent by the MMS Proxy-Relay. | C |
| messageID | UTF8String | 0..1 | An ID assigned by the MMS Proxy-Relay to uniquely identify an MM. Included unconditionally for the MMS View Confirm report and is included for the MMS Upload report if a Message ID was previously assigned to the MM. In this latter case, if a Message ID was not previously assigned, this parameter is excluded. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.29. Include if sent by the MMS Proxy-Relay. | C |
| state | MMState | 0..1 | Identifies the value of the MM State associated with a MM to be stored or stored MM. Include for the MMS View Confirm. Include for the MMS View Request if provided by the target. As defined in OMA-TS-MMS\_ENC [39] clause 7.3.33. Include if sent by the MMS Proxy-Relay. | C |
| flags | SEQUENCE OF MMFlags | 0..MAX | Identifies a keyword to add or remove from the list of keywords associated with a stored MM. This parameter may convey all the keywords associated with the MM. Include if at least one keyword is associated with the MM. If no keywords are associated with the MM, then this parameter may be excluded. Include if sent by the MMS Proxy-Relay. | C |
| dateTime | Timestamp | 0..1 | Date and Time when the MM request was detected. Include if sent by the MMS Proxy-Relay. | C |
| originatingMMSParty | MMSParty | 0..1 | ID(s) of the originating party in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. Include if sent by the MMS Proxy-Relay. | C |
| terminatingMMSParty | SEQUENCE OF MMSParty | 0..MAX | ID(s) of the terminating party in one or more of the formats described in clause 7.4.2.1.  When address translation occurs (such as the case of a token sent by the client and replaced with a proper address by the MMS Proxy-Relay), both the pre and post translated addresses (with appropriate correlation) are included. I Include if sent by the MMS Proxy-Relay. | C |
| cCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "CC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "CC" field. Include if sent by the MMS Proxy-Relay. | C |
| bCCRecipients | SEQUENCE OF MMSParty | 0..MAX | Address of a recipient; the "BCC" field may include addresses of multiple recipients. When address translation occurs, both the pre and post translated addresses (with appropriate correlation) are included. This parameter is included if the corresponding MM includes a "BCC" field. Include if sent by the MMS Proxy-Relay. | C |
| messageClass | MMSMessageClass | 0..1 | Class of the MM. For example, a value of "auto" is automatically generated by the UE. If the field is not present, the class should be interpreted as "personal". Include if sent by the MMS Proxy-Relay. | C |
| subject | MMSSubject | 0..1 | The subject of the MM. Include if sent by the MMS Proxy-Relay. | C |
| priority | MMSPriority | 0..1 | Priority of the MM assigned by the originator MMS Client. Reported if sent by the target. Include if sent by the MMS Proxy-Relay. | C |
| deliveryTime | Timestamp | 0..1 | Date and Time of delivery. Include if sent by the MMS Proxy-Relay. | C |
| readReport | BOOLEAN | 0..1 | Specifies whether the originator MMS UE requests a read report from each recipient. The values given in OMA-TS-MMS\_ENC [39] clause 7.3.37. shall be encoded as follows: "Yes"" = True, "No"" = False. Include if sent by the MMS Proxy-Relay. | C |
| messageSize | INTEGER | 0..1 | Specifies the size of the MM that was viewed or uploaded. Specified in bytes. Include if sent by the MMS Proxy-Relay. | C |
| replyCharging | MMSReplyCharging | 0..1 | If this field is present its value is set to "accepted" or "accepted text only" and the MMS-version-value of the M-Notification.ind PDU is higher than 1.0, this header field will indicate that a reply to this particular MM is free of charge for the recipient.  If the Reply-Charging service is offered and the request for reply-charging has been accepted by the MMS service provider the value of this header field SHALL be set to "accepted" or "accepted text only".  See OMA-TS-MMS\_ENC [39] clause 7.3.43. Include if sent by the MMS Proxy-Relay. | C |
| previouslySentBy | MMSPreviouslySentBy | 0..1 | Address of the MMS Client that forwarded or previously sent the message. along with a sequence number and timestamp.  A higher sequence number indicates a forwarding event at a later point in time. The sequence number indicates the correspondence to the MMS Client's address in the "X-Mms-Previously- Sent-By" header field with the same sequence number. This header field MAY appear multiple times. Include if sent by the MMS Proxy-Relay. | C |
| previouslySentByDateTime | Timestamp | 0..1 | Date/Time MM was previously sent. This header field MAY appear multiple times. Include if sent by the MMS Proxy-Relay. | C |
| contentType | UTF8String | 0..1 | The content type of the MM. Include if sent by the MMS Proxy-Relay. | C |

#### 7.4.3.21 MMS Content

If content delivery is authorized, the CC-POI in the MMS Proxy-Relay shall generate an xCC as per clause 7.4.2.3 when any of the events in clauses 7.4.3.1 through 7.4.3.19 are detected.

## \*\*\*\* END OF SECOND CHANGE (MAIN DOCUMENT) \*\*\*\*

## \*\*\*\* START OF ATTACHMENT CHANGES (ATTACHMENT TS33128Payloads.asn) \*\*\*\*

START OF CHANGE 1

---a/33128/r19/TS33128Payloads.asn  
+++b/33128/r19/TS33128Payloads.asn

@@ -67,7 +67,7 @@ XIRIEvent ::= CHOICE

67 67

68 68 -- Tag 16 is reserved because there is no equivalent mDFCellSiteReport in XIRIEvent.

69 69

70 - -- MMS events, see clause 7.4.3

70 + -- MMS events, see clause 7.4.3 see also MMSConverted events ([162-163] below)

71 71 mMSSend [17] MMSSend,

72 72 mMSSendByNonLocalTarget [18] MMSSendByNonLocalTarget,

73 73 mMSNotification [19] MMSNotification,

@@ -278,7 +278,11 @@ XIRIEvent ::= CHOICE

278 278 uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication,

279 279

280 280 -- IP Packet Report, see clause 6.2.3.9.5

281 - iPIRIPacketReport [161] IPAccessPDU.IPIRIPacketReport

281 + iPIRIPacketReport [161] IPAccessPDU.IPIRIPacketReport,

282 +

283 + -- MMS-related events continued from choice 35

284 + mMSConvertedFromEmail [162] MMSConvertedFromEmail,

285 + mMSConvertedToEmail [163] MMSConvertedToEmail

282 286 }

283 287

284 288 -- ==============

@@ -331,7 +335,7 @@ IRIEvent ::= CHOICE

331 335 -- MDF events, see clause 7.3.2.2

332 336 mDFCellSiteReport [16] MDFCellSiteReport,

333 337

334 - -- MMS events, see clause 7.4.4.1

338 + -- MMS events, see clause 7.4.4.1 see also MMSConverted events ([162-163] below)

335 339 mMSSend [17] MMSSend,

336 340 mMSSendByNonLocalTarget [18] MMSSendByNonLocalTarget,

337 341 mMSNotification [19] MMSNotification,

@@ -538,9 +542,13 @@ IRIEvent ::= CHOICE

538 542

539 543 -- UDM events, see clause 7.2.2.3, continued from tag 124

540 544 uDMProSeTargetIdentifierDeconcealment [159] UDMProSeTargetIdentifierDeconcealment,

541 - uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication

545 + uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication,

542 546

543 547 -- Tag 161 is reserved because there is no equivalent IP Packet Report in IRIEvent.

548 +

549 + -- MMS-related events continued from choice 35

550 + mMSConvertedFromEmail [162] MMSConvertedFromEmail,

551 + mMSConvertedToEmail [163] MMSConvertedToEmail

544 552 }

545 553

546 554 IRITargetIdentifier ::= SEQUENCE

@@ -3574,6 +3582,45 @@ MMBoxDescription ::= SEQUENCE

3574 3582 contentType [19] UTF8String OPTIONAL

3575 3583 }

3576 3584

3585 + MMSConvertedFromEmail ::= SEQUENCE

3586 + {

3587 + version [1] MMSVersion,

3588 + transactionID [2] UTF8String,

3589 + terminatingMMSParty [3] SEQUENCE OF MMSParty,

3590 + contentType [4] MMSContentType,

3591 + originatingMMSParty [5] MMSParty,

3592 + messageClass [6] MMSMessageClass OPTIONAL,

3593 + dateTime [7] Timestamp,

3594 + expiry [8] MMSExpiry OPTIONAL,

3595 + deliveryReport [9] BOOLEAN OPTIONAL,

3596 + priority [10] MMSPriority OPTIONAL,

3597 + readReport [11] BOOLEAN OPTIONAL,

3598 + subject [12] MMSSubject OPTIONAL,

3599 + messageID [13] UTF8String OPTIONAL

3600 + }

3601 +

3602 + MMSConvertedToEmail ::= SEQUENCE

3603 + {

3604 + version [1] MMSVersion,

3605 + transactionID [2] UTF8String,

3606 + terminatingMMSParty [3] SEQUENCE OF MMSParty,

3607 + contentType [4] MMSContentType,

3608 + originatingMMSParty [5] MMSParty,

3609 + messageClass [6] MMSMessageClass OPTIONAL,

3610 + dateTime [7] Timestamp,

3611 + expiry [8] MMSExpiry OPTIONAL,

3612 + desiredDeliveryTime [9] Timestamp OPTIONAL,

3613 + deliveryReport [10] BOOLEAN OPTIONAL,

3614 + priority [11] MMSPriority OPTIONAL,

3615 + senderVisibility [12] BOOLEAN OPTIONAL,

3616 + store [13] BOOLEAN OPTIONAL,

3617 + state [14] MMState OPTIONAL,

3618 + flags [15] MMFlags OPTIONAL,

3619 + readReport [16] BOOLEAN OPTIONAL,

3620 + subject [17] MMSSubject OPTIONAL,

3621 + messageID [18] UTF8String OPTIONAL

3622 + }

3623 +

3577 3624 -- =========

3578 3625 -- MMS CCPDU

3579 3626 -- =========

END OF CHANGE 1

## \*\*\*\* END OF ATTACHMENT CHANGES (ATTACHMENT TS33128Payloads.asn) \*\*\*\*

## \*\*\*\* END OF ALL CHANGES \*\*\*\*