**3GPP TSG-CT WG1 Meeting #141-eC1-232091**

**E-meeting, 17-21 April 2023**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.582** | **CR** | **0036** | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Addition of 5G MBS in MCData media plane |
|  |  |
| ***Source to WG:*** | TD Tech |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MCOver5MBS |  | ***Date:*** | 2023-04-04 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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 canbe 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | According to the approved WID MCOver5MBS, the 5G MBS transmission of downlink media should be supported in MCData media plane. |
|  |  |
| ***Summary of change:*** | 1. Add necessary references.
2. Add necessary abbreviations.
3. Added SDS and FD MBS, referenced MBMS, and mapped terms by referring to the Annex X.
4. Add new messages for 5G MBS in clause 11.A.
 |
|  |  |
| ***Consequences if not approved:*** | 5G MBS in MCData media plane is not supported. |
|  |  |
| ***Clauses affected:*** | 2, 3.2, 6.X, 7.X, 11A, Annex X |
|  |  |
|  | **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's revision history:*** |  |

\* \* \* 1st Change \* \* \* \*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.282: "Functional architecture and information flows to support Mission Critical Data (MCData) Stage-2".

[3] 3GPP TS 23.280: "Common functional architecture to support mission critical services Stage-2".

[4] 3GPP TS 24.481: "Mission Critical Services (MCS) group management; Protocol Specifications".

[5] 3GPP TS 24.482: "Mission Critical Services (MCS) identity management; Protocol Specifications".

[6] 3GPP TS 24.483: "Mission Critical Services (MCS) Management Object (MO)".

[7] 3GPP TS 24.484: "Mission Critical Services (MCS) configuration management; Protocol Specifications ".

[8] 3GPP TS 24.282: "Mission Critical Services (MCS) signalling control; Protocol Specifications ".

[9] IETF RFC 2046 (November 1996): "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types".

[10] IETF RFC 4122 (July 2005): "A Universally Unique IDentifier (UUID) URN Namespace".

[11] IETF RFC 4975 (September 2007): "The Message Session Relay Protocol (MSRP)".

[12] IETF RFC 6135 (February 2011): "An Alternative Connection Model for the Message Session Relay Protocol (MSRP)".

[13] IETF RFC 6714 (August 2012): "Connection Establishment for Media Anchoring (CEMA) for the Message Session Relay Protocol (MSRP)".

[14] IETF RFC 4976 (September 2007): "Relay Extensions for the Message Session Relay Protocol (MSRP)".

[15] 3GPP TS 33.180: "Security of mission critical services".

[16] IETF RFC 3550 (July 2003): "RTP: A Transport Protocol for Real-Time Applications".

[17] IETF RFC 3711 (March 2004): "The Secure Real-time Transport Protocol (SRTP)".

[18] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[19] IETF RFC 2784 (March 2000): "Generic Routing Encapsulation (GRE).

[20] IETF RFC 2790 (September2000): "Key and Sequence Number Extensions to GRE.

[21] IETF RFC 791 (September 1981) "INTERNET PROTOCOL".

[22] IETF RFC 8200 (July 2017) "Internet Protocol, Version 6 (IPv6) Specification".

[23] IETF RFC 8086 (March 2017) "GRE-in-UDP Encapsulation

[24] 3GPP TS 24.501: " Technical Specification Group Core Network and Terminals; Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

\* \* \* 2nd Change \* \* \* \*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

CSK Client-Server Key

CSK-ID Client-Server Key Identifier

DPCK MCData Payload Cipher Key

DPCK-ID MCData Payload Cipher Key Identifier

DPKK MCData Payload Protection Key

DPKK-ID MCData Payload Protection Key Identifier

FD File Distribution

GMK Group Master Key

GMK-ID Group Master Key Identifier

GRE Generic Routing Encapsulation

KMS Key Management Server

KPAK KMS Public Authentication Key

MBS Multicast/Broadcast Service

PCK Private Call Key

PCK-ID Private Call Key Identifier

PVT Public Validation Token

SDS Short Data Service

SPK Signalling Protection Key

SPK-ID Signalling Protection Key Identifier

SSK Secret Signing Key

\* \* \* 3rd Change \* \* \* \*

## 6.X SDS delivery using MBS

All steps of clause 6.5 apply also for MBS, with the clarification that terminology mapping specified in Annex X applies.

\* \* \* 4th Change \* \* \* \*

## 7.X FD using MBS delivery via MCData-FD interface

All steps of clause 7.4 apply also for MBS except different interfaces, with the clarification that terminology mapping specified in Annex X applies.\* \* \* 5th Change \* \* \* \*

# 11A Communication using MBS

## 11A.1 Control messages sent over MBS session

### 11A.1.1 General

All steps of clause 11.1.1 apply also for MBS, with the clarification that terminology mapping specified that references to 4G "MBMS" s corresponds to be references to 5G "MBS".

### 11A.1.2 SRTCP: APP format for control messages sent over MBS sessions

The definition of the fields in the SRTCP APP packet is found in IETF RFC 3550 [16] and IETF RFC 3711 [17].

Table 11A.1.2-1 shows the RTCP APP packet format used for control messages sent over MBS sessions.

Table 11A.1.2-1: MBS control message format

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype | PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| SSRC |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name (ASCII) |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| application-dependent data |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Secure RTCP message part |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

**P**

The padding bit P is set to '0'.

**Subtype:**

The Subtype values in use by MCData are defined in table 11A.2.2-1.

**length**

The length field in the RTCP header is the length of the packet in 32-bit words, not counting the first 32-bit word in which the length field resides.

NOTE: The length field can indicate message size longer than specified in this version of the protocol. This can be the case e.g., if message is of later version of this protocol.

**SSRC**

The content of this field is described for each MBS control message separately.

**Name**

The 4-byte ASCII string in the RTCP header is used to define the set of MBS control messages for MCData, to be unique with respect to other APP packets that may be sent over the MBS session. For MCData, the name string is "MCDS" (Mission Critical Data over MBS).

**Application-dependent data**

The application-dependent data contains zero or more application specific data fields. The format for these fields is described in clause 11A.1.3.

This part is encrypted if SRTCP is used.

**Secure RTCP message part**

The content of the secure RTCP message part is the "tail" appended to the RTCP packet per IETF RFC 3711 [17].

### 11A.1.3 Application specific data field

All steps of clause 11.1.3 apply also for MBS.

## 11.2A MBS Subchannel Control

### 11A.2.1 General

The MBS subchannel control messages shall be coded as described in clause 11A.1.2.

For the MBS subchannel control protocol used for MCData the ASCII name string shall be: "MCDS".

The list of MBS subchannel control messages can be found in the clause 11A.2.2.

The MBS subchannel control specific fields are specified in clause 11A.2.3.

### 11A.2.2 MBS subchannel control messages

Table 11A.2.2-1 provides a list of MBS subchannel control protocol messages.

Table 11A.2.2-1: MBS subchannel control protocol messages

| Message name | Subtype | Reference | Direction |
| --- | --- | --- | --- |
| MapGroupToSessionStream  | 00000 | clause 11A.2.4 | Server 🡪 client |
| UnMapGroupToSessionStream | 00001 | clause 11A.2.5 | Server 🡪 client |
| MBS Application Paging | 00010 | clause 11A.2.6 | Server 🡪 client |
| Session Announcement | 00011 | clause 11A.2.7 | Server 🡪 client |
| NOTE: The participating MCData function is the server and the MCData client is the client. |

### 11A.2.3 MBS subchannel control specific fields

#### 11A.2.3.1 Introduction

This clause describes the MBS subchannel control specific data fields.

The MBS subchannel control specific data fields are contained in the application-dependent data of the MBS subchannel control message. The MBS subchannel control specific data fields follow the syntax specified in clause 11A.1.3.

Table 11A.2.3.1-1 lists the available fields including the assigned Field ID.

Table 11A.2.3.1-1: MBS subchannel control specific data fields

| Field name | Field ID | Description |
| --- | --- | --- |
| Decimal | Binary |
| MBS Subchannel | 000 | 00000000 | Clause 11A.2.3.3 |
| MBS Session ID | 001 | 00000001 | Clause 11A.2.3.4. |
| MCData Group ID | 002 | 00000010 | Clause 11A.2.3.2 |
| Monitoring State | 003 | 00000011 | Subcaluse 11A.2.3.5 |

#### 11A.2.3.2 MCData Group ID field

The MCData Group ID field contains a SIP URI identifying the MCData group to which the MBS subchannel control messages applies.

Table 11A.2.3.2-1 describes the coding of the MCData Group Identity field.

Table 11A.2.3.2-1: MCData Group Identity field coding

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|MCData Group |MCData Group |MCData Group Identity |

|Identity field |Identity | |

|ID |length | |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+ :

: (Padding) :

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

The <MCData Group Identity field ID> value is a binary value and shall be set according to table 11A.2.3.1-1.

The <MCData Group Identity length> value is a binary value indicating the length in octets of the <MCData Group Identity> value item except padding.

<MCData Group Identity> value contains the MCData group identity as defined in 3GPP TS 24.282 [8] and is in URI format (ASCII string).

If the length of the <MCData Group Identity> value is not (2 + multiple of 4) bytes, the <MCData Group Identity> value shall be padded to (2 + multiple of 4) bytes. The value of the padding bytes should be set to zero. The padding bytes shall be ignored.

#### 11A.2.3.3 MBS Subchannel field

The MBS Subchannel field identifies the MBS subchannel to use.

Table 11A.2.3.3-1 describes the coding of the MBS Subchannel field.

Table 11A.2.3.3-1: MBS Subchannel field coding

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|MBS Subchannel|MBS Subchannel|Appl. |reser- |IP | spare |

|field ID |length |m-line |ved |Version| |

| | |Number | | | |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Media Port Number |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

: IP Address :

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

The <MBS Subchannel field ID> value is a binary value and shall be set according to table 11A.2.3.1-1.

The <MBS Subchannel length> value is a binary value indicating the total length in octets of the <Appl. m-line Number> value, reserved, <IP Version> value, spare, <Media Port Number> value and <IP address> items.

The <Appl. m-line Number> value shall consist of 4 bit parameter giving the number of the "m=application" m-line in the SIP MESSAGE request announcing the MBS session described in 3GPP TS 24.282 [8].

The "reserved" 4 bits shall be set to "0000".

The <IP version> value indicates the IP version:

'0' IP version 4

'1' IP version 6

All other values are reserved for future use.

The "spare" 4 bits shall be set to "0000".

The <Port Number> value is a 32-bit binary value giving the port to be used. The <Media Port Number> value is always present in the MBS Subchannel field.

The <IP Address> value is:

1. a 32 bit binary value containing the IP v4 address if the <IP version> indicates that the <IP Address> value is a IP v4 Address; or

2. four 32-bit words that together forms a 128 bit binary value representing the IP v6 address, if the <IP version> indicates that the <IP Address> value is a IP v6 Address.

#### 11A.2.3.4 MBS Session ID field

Table 11A.2.3.4-1 describes the coding of the MBS Session ID field.

Table 11A.2.3.4-1: MBS Session ID field coding

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|MBS Session ID |MBS Session ID |MBS Session ID |

|field ID |length | |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+ :

: (Padding) :

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

The <MBS Session ID field ID> value is a binary value and shall be set according to table 11A.2.3.1-1.

The <MBS Session ID length> value is a binary value indicating the length in octets of the <MBS Session ID> value item except padding.

The <MBS Session ID> value is coded as described in 3GPP TS 24.501 [24] clause 10.5.6.1 figure 9.11.4.30.2.

If the length of the <MBS Session ID> value is not (2 + multiple of 4) bytes, the <MBS Session ID> value shall be padded to (2 + multiple of 4) bytes. The value of the padding bytes should be set to zero. The padding bytes shall be ignored.

#### 11A.2.3.5 Monitoring state

Clause 11.2.3.5 apply also for MBS.

### 11A.2.4 MapGroupToSessionStream message

The MapGroupToSessionStream message is sent by the participating function when the media associated with the group starts being transmitted on the MBS session and, potentially, multiple times while the transmission is ongoing.

Table 11A.2.4-1 shows the content of the MapGroupToSessionStream message.

Table 11A.2.4-1: MapGroupToSessionStream message

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype| PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| SSRC of participating MCData function |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name=MCDS |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MCData Group ID field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MBS Session ID field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MBS Subchannel field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

With the exception of the three first 32-bit words, the order of the fields are irrelevant.

**Subtype:**

The Subtype shall be set according to table 11A.2.3.1-1.

**length:**

The length shall be set to the total number of 32-bit words in the message minus one.

**SSRC:**

The SSRC field shall carry the SSRC of the participating MCData function.

The SSRC field shall be coded as specified in IETF RFC 3550 [16].

**MCData Group ID:**

The MCData Group ID field is coded as described in clause 11A.2.3.2.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 11A.2.3.4.

**MBS Subchannel:**

The MBS Subchannel field is coded as described in clause 11A.2.3.3.

### 11A.2.5 UnMapGroupFromSessionStream message

The UnMapGroupFromSessionStream message is sent by the participating function when media associated with the group stops being sended on the session. The message may be repeated several times immediately after.

Table 11A.2.5-1 shows the content of the UnMapGroupFromSessionStream message.

Table 11A.2.5-1: UnMapGroupFromSessionStream message

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype | PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| SSRC of participating MCData function |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name=MCDS |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MCData Group ID field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MBS Session ID field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MBS Subchannel field |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

With the exception of the three first 32-bit words, the order of the fields are irrelevant. MCData Group ID field is mandatory. Including the MBS Session ID field and the MBS Subchannel field is optional, but if one of those fields is included the other one also needs to be included.

**Subtype:**

The Subtype shall be coded according to table 11A.2.3.1-1.

**length:**

The length shall be set to the total number of 32-bit words in the message minus one.

**SSRC:**

The SSRC field shall carry the SSRC of the participating MCData function.

The SSRC field shall be coded as specified in IETF RFC 3550 [16].

**MCData Group ID:**

The MCData Group ID field is coded as described in clause 11A.2.3.2.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 11A.2.3.4.

**MBS Subchannel:**

The MBS Subchannel field is coded as described in clause 11A.2.3.3.

### 11A.2.6 MBS Application Paging message

The MBS Application Paging message is sent by the participating function when an existing media transmission is to be switched to unicast sessions or when a new media transmission is to be started on unicast sessions.

Table 11A.2.6-1 shows the content of the MBS Application Paging message.

Table 11A.2.6-1: MBS Application Paging message

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype | PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| SSRC of participating MCData function |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name=MCDS |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MCData Group ID |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

With the exception of the three first 32-bit words, the order of the fields is irrelevant.

**Subtype:**

The Subtype shall be coded according to table 11A.2.2-1.

**length:**

The length shall be set to the total number of 32-bit words in the message minus one.

**SSRC:**

The SSRC field shall carry the SSRC of the participating MCData function.

The SSRC field shall be coded as specified in IETF RFC 3550 [16].

**MCData Group ID:**

The MCData Group ID field is coded as described in clause 11A.2.3.2.

### 11A.2.7 SessionAnnouncement message

The Session Announcement message is sent by the participating function on an MBS session for application control messages. It may be sent by the participating function in order to achieve a faster setup of the MBS session.

Table 11A.2.7-1 shows the content of the Session Announcement message.

Table 11A.2.7-1: Session Announcement message

0 1 2 3

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

|V=2|P| Subtype | PT=APP=204 | length |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| name=MCDS |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| MBS Session ID |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| TMGI |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Alternative TMGI fields |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

| Monitoring State |

+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

With the exception of the three first 32-bit words and the internal order of the MBS Session ID field and the Alternative MBS Session ID fields, the order of the fields is irrelevant.

**Subtype:**

The subtype shall be coded according to table 11A.2.3.1-1.

**length:**

The length shall be set to the total number of 32-bit words in the message minus one.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 11A.2.3.4. This field is mandatory.

**TMGI:**

The TMGI field is coded as described in clause 11.2.3.4. This field is mandatory.

**Alternative TMGI:**

Zero or more alternative TMGI fields are coded as described in clause 11.2.3.4. This field is coded immediately after the TMGI field.

**Monitoring State:**

The monitoring state field is coded as described in clause 11A.2.3.5.

### 11A.2.8 Handling of unknown messages and fields

When an RTCP APP message is received, the receiver shall:

1) ignore the whole message, if the combination of name and subtype is unknown;

2) ignore the whole message if it is too short or has errors in the mandatory fields;

3) ignore the unspecified fields in the message (e.g. specified in future version of the protocol); and

4) ignore the syntactically incorrect optional fields.

\* \* \* 6th Change \* \* \* \*

Annex X (Informative):
Mapping of MBMS terms to MBS

In the EPS, using the MBMS procedures, in the 5GS or MBMS and 5G MBS co- existence, using the MBS procedures;

- in the MBS procedures, references to 4G "MBMS" is understood to be references to 5G "MBS";

- in the MBS procedures, "MBS session ID" corresponds to the "TMGI" in MBMS;

- in the MBS procedures, "Map Group To Session Stream" corresponds to the "Map Group To Bearer" in MBMS; and

- in the MBS procedures, "UnMap Group From Session Stream" corresponds to the "UnMap Group To Bearer" in MBMS.

\* \* \* End Change\* \* \*