**3GPP TSG-CT WG1 Meeting #141-eC1-232090**

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

|  |
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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.581** | **CR** | **0095** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  |
| *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 MCVideo 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 MCVideo media plane. |
|  |  |
| ***Summary of change:*** | 1. Add necessary references.
2. Add necessary abbreviations.
3. Add subtype and name in clause 9.1.2.
4. Add new messages for 5G MBS in clause 9.X.
 |
|  |  |
| ***Consequences if not approved:*** | 5G MBS in MCVedio media plane is not supported. |
|  |  |
| ***Clauses affected:*** | 2, 3.3, 9.1.2, 9.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 24.281:"Mission Critical Video (MCVideo) call control; Protocol specification".

[3] IETF RFC 3550: "RTP: A Transport Protocol for Real-Time Applications".

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

[5] 3GPP TS 24.481: "Mission Critical Services (MCS) group management Protocol specification".

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

[7] 3GPP TS 24.484: "Mission Critical Services (MCS) configuration management protocol specification".

[8] 3GPP TS 33.180: "Security of the mission critical service".

[9] IETF RFC 3830: "MIKEY: Multimedia Internet KEYing".

[10] IETF RFC 6509: "MIKEY-SAKKE: Sakai-Kashar Key Encryption in Multimedia Internet KEYing (MIKEY)".

[11] 3GPP TS 23.281: "Functional architecture and information flows to support Mission Critical Video (MCVideo); Stage 2".

[12] 3GPP TS 23.280: "Common functional architecture to support mission critical services; Stage 2".

[13] 3GPP TS 26.346: " Multimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".

[r24008] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[r29468] 3GPP TS 29.468: "Group Communication System Enablers for LTE (GCSE\_LTE); MB2 Reference Point; Stage 3".

[16] 3GPP TS 24.501: " Technical Specification Group Core Network and Terminals; Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

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

## 3.3 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].

AS Application Server

D2D Device to Device

DL Downlink

GCS AS Group Communication Service Application Server

GMK Group Management Key

GMS Group Management Server

GUK-ID Group User Key Identifier

IP Internet Protocol

MBMS Multimedia Broadcast and Multicast Service

MBS Multicast/Broadcast ServiceMCVideo Mission Critical Video

MKI Master Key Identifier

PCK Private Call Key

PCK-ID Private Call Identifier

RFC Request For Comment

RTCP RTP Control Protocol

RTP Real-time Transport Protocol

SRTCP Secure RTCP

SRTP Secure RTP

SSRC Synchronization SouRCe

TEK Traffic-Encrypting Key

TMGI Temporary Mobile Group Identity

UE User Equipment

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

### 4.1.X MBS subchannel control

All steps of clause 4.1.2 apply also for MBS, with the clarification that terminology mapping specified in Annex X applies.

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

### 9.1.2 RTCP: APP message format

The definition of the fields in the RTCP APP packet is found in IETF RFC 3550 [3].

Table 9.1.2-1 shows the RTCP APP packet format.

Table 9.1.2-1: RTCP: APP 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:**

Dependent upon the relevant set of media plane control messages, as identified by the Name field, the possible Subtype values are defined in the following tables:

- Name field = "MCV0" (i.e. Transmission control messages sent by the transmission control participant to the transmission control server): Table 9.2.2.1-1;

- Name field = "MCV1" (i.e. Transmission control messages sent by the transmission control server and transmission control participant): Table 9.2.2.1-2;

- Name field = "MCV2" (i.e. Transmission control messages sent by transmission control participant to the transmission control server and by the transmission control server to the transmission control participant): Table 9.2.2.1-3; and

- Name field= "MCV3" (i.e. MBMS subchannel control): Table 9.3.2-1

- Name field= "MCV4" (i.e. Notification control): Table 9.4.2-1.

- Name field= "MCV5" (i.e. MBS subchannel control): Table 9.X.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 transmission control message separately.

**Name**

The 4-byte ASCII string in the RTCP header is used to define the set of media plane control messages to be unique with respect to other APP packets that the media plane might receive.

The present document specified the use of the following names:

1. For the transmission control protocol messages sent by the client to the server specified in the present document the ASCII name string is: MCV0;

 2. For the transmission control protocol messages sent by the server to the client specified in the present document the ASCII name string is: MCV1; and

3. For the transmission control protocol messages sent by both the client to the server and the server to the client specified in the present document the ASCII name string is: MCV2; and

4. For the MBMS subchannel control protocol specified in the present document the ASCII name string is: MCV3.

5. For the Notification control protocol specified in the present document the ASCII name string is: MCV4.

6. For the MBS subchannel control protocol specified in the present document the ASCII name string is: MCV5.

**Application-dependent data**

The application-dependent data contains zero or more application specific data fields is specified in clause 9.1.3.

This part is encrypted if SRTCP is used.

**Secure RTCP message part**

The content of the secure RTCP message part is in specified in clause x and in IETF RFC 3711 [4].

\* \* \* 5th Change \* \* \* \*

## 9.X MBS subchannel control

### 9.X.1 Introduction

The MBS subchannel control messages shall be coded as described in clause 9.X.2 where the MBS subchannel control message is part of the application-dependent data.

For the MBS subchannel control protocol the ASCII name string shall be: MCV5.

The list of MBS subchannel control messages can be found in the clause 9.X.2.

The MBS subchannel control specific fields are specified in clause 9.X.3.

### 9.X.2 MBS subchannel control messages

Table 9.X.2-1 provides a list of MBS subchannel control protocol messages.

Table 9.X.2-1: MBS subchannel control protocol messages

| Message name | Subtype | Reference | Direction |
| --- | --- | --- | --- |
| MapGroupToSessionStream | 00000 | clause 9.X.4 | Server 🡪 client |
| UnMapGroupFromSessionStream | 00001 | clause 9.X.5 | Server 🡪 client |
| MBS Application Paging | 00010 | clause 9.X.6 | Server 🡪 client |
| Session Announcement | a | clause 9.X.7 | Server 🡪 client |
| NOTE: The participating MCVideo function is the server and the MCVideo client is the client. |

### 9.X.3 MBS subchannel control specific fields

#### 9.X.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 9.1.3.

Table 9.X.3.1-1 lists the available fields including the assigned Field ID.

Table 9.X.3.1-1: MBS subchannel control specific data fields

| Field name | Field ID | Description |
| --- | --- | --- |
| Decimal | Binary |
| MBS Subchannel | 000 | 00000000 | Clause 9.X.3.3 |
| MBS Session ID | 001 | 00000001 | Clause 9.X.3.4. |
| MCVideo Group ID | 002 | 00000010 | Clause 9.X.3.2 |
| Monitoring State | b | b | Clause 9.X.3.5 |

#### 9.X.3.2 MCVideo Group ID field

The MCVideo Group ID field contains a URI identifying the MCVideo group for which media and transmission control messages are going to be broadcasted over a MBS subchannel.

The MCVideo Group ID field is coded as the MCVideo Group Identity field specified in clause 9.2.3.20.

#### 9.X.3.3 MBS Subchannel field

The MBMS Subchannel field describes which MBMS subchannel to use for media and for transmission control.

Table 9.X.3.3-1 describes the coding of the MBS Subchannel field.

Table 9.X.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|Video |Audio |Control|FEC |

|field ID |length |m-line |m-line |m-line |m-line |

| | |Number |Number |Number |Number |

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

| IP | Spare |

|Version| |

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

| Transmission control Port Number |­

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

| Video Media Port Number |

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

| Audio Media Port Number |

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

| FEC Port Number |

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

: IP Address :

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

The <MBS Subchannel field ID> value is a binary value and shall be set according to table 9.3.3.3-1.

The <MBS Subchannel length> value is a binary value indicating the total length in octets of the <Video m-line Number> value, <Audio m-line Number> value, <Audio m-line Number> value, <Control m-line Number> value, <FEC m-line Number> value, <IP Version> value, spare, port number values and <IP address> items.

The <Video m-line Number> value shall consist of 4 bit parameter giving the number of the" m=video" m-line in the SIP MESSAGE request announcing the MBS session described in 3GPP TS 24.281 [2].

The <Audio m-line Number> value shall consist of 4 bit parameter giving the number of the" m=audio" m-line in the SIP MESSAGE request announcing the MBS seesion described in 3GPP TS 24.281 [2]. The <Audio m-line Number> value is set to "0" when audio is combined with video.

The <Control 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 24.281 [2].

The <FEC 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 bearer described in 3GPP TS 24.281 [2]. The <FEC m-line Number> value is set to "0" when the media is not protected by FEC.

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 <Transmission Control Port Number> value is a 32-bit binary value giving the port to be used if the<Control m-line Number> value is greater than '0'. If the <Control m-line Number> value is equal to '0', the < Transmission Control Port Number> value is not included in the MBS Subchannel field.

The <Video Media Port Number> value is a 32-bit binary value giving the port to be used.

The <Audio Media Port Number> value is a 32-bit binary value giving the port to be used. If the <Audio m-line Number> value is equal to '0', the < Audio Port Number> value is not included in the MBS Subchannel field.

.The <FEC Port Number> value is a 32-bit binary value giving the port to be used. If the <FEC m-line Number> value is equal to '0', the < FEC Port Number> value is not included 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.

#### 9.X.3.4 MBS Session ID field

Table 9.X.3.4-1 describes the coding of the MBS Session ID field.

Table 9.X.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 9.X.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 [16] 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.

#### 9.X.3.5 Monitoring state

Clause 9.3.3.5 apply also for MBS.

### 9.X.4 MapGroupToSessionStream message

The MapGroupToSessionStream message is sent by the participating function when a conversation is started.

Table 9.X.4-1 shows the content of the MapGroupToSessionStream message.

Table 9.X.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 MCVideo function |

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

| name=MCV5 |

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

| MCVideo Group ID field |

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

| MBS Sesson ID field |

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

| MBMS Subchannel field |

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

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

**Subtype:**

The subtype shall be coded according to table 9.X.2-1.

**Length:**

The length shall be coded as specified in clause 9.1.2.

**SSRC:**

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

The SSRC field shall be coded as specified in IETF RFC 3550 [3].

**MCVideo Group ID:**

The MCVideo Group ID field is coded as described in clause 9.X.3.2.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 9.X.3.4.

**MBS Subchannel:**

The MBS Subchannel field is coded as described in clause 9.X.3.3.

### 9.X.5 UnMapGroupFromSessionStream message

The UnMapGroupFromSessionStream message is sent by the participating function when a conversation is ended.

Table 9.X.5-1 shows the content of the UnMapGroupFromSessionStream message.

Table 9.X.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 MCVideo function |

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

| name=MCV5 |

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

| MCVideo Group ID field |

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

| MBS Sesson ID field |

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

| MBMS Subchannel field |

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

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

**Subtype:**

The subtype shall be coded according to table 9.X.2-1.

**Length:**

The length shall be coded as specified in clause 9.1.2.

**SSRC:**

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

The SSRC field shall be coded as specified in IETF RFC 3550 [3].

**MCVideo Group ID:**

The MCVideo Group ID field is coded as described in clause 9.X.3.2.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 9.X.3.4.

**MBS Subchannel:**

The MBS Subchannel field is coded as described in clause 9.X.3.3.

### 9.X.6 MBS Application Paging message

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

Table 9.X.5-1 shows the content of the MBS Application Paging message.

Table 9.X.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=3 |

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

| SSRC of participating MCVideo function |

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

| name=MCV5 |

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

| MCVideo 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 9.X.2-1.

**Length:**

The length shall be coded as specified in clause 8.1.2.

**SSRC:**

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

The SSRC field shall be coded as specified in IETF RFC 3550 [3].

**MCVideo Group ID:**

The MCVideo Group ID field is coded as described in clause 9.X.3.2.

### 9.X.7 Session Announcement 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 9.X.7-1 shows the content of the Session Announcement message.

Table 9.X.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=MCV5 |

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

| 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 TMGI field and the Alternative TMGI fields, the order of the fields is irrelevant.

**Subtype:**

The subtype shall be coded according to table 9.X.2-1.

**Length:**

The length shall be coded as specified in clause 8.1.2.

**MBS Session ID:**

The MBS Session ID field is coded as described in clause 9.X.3.4. This field is mandatory.

**TMGI:**

The TMGI field is coded as described in clause 8.4.3.4. This field is mandatory.

**Alternative TMGI:**

Zero or more alternative TMGI fields are coded as described in clause 8.4.3.4. This field is coded immediately after the TMGI field.

**Monitoring State:**

The monitoring state field is coded as described in clause 9.X.3.5.

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

# 10X Media plane handling for MBS

All steps of clause 10 apply also for MBS, with the clarification that terminology mapping specified in Annex X applies.

\* \* \* 7th 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\* \* \*