**3GPP TSG-SA4 Meeting #121 *S4-221286***

 **Toulouse, FR, November 14-18, 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **TS 26.346** | **CR** | **0667** | **rev** | **0** | **Current version:** | **17.1.0** |  |
|  |
| *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** |

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| ***Title:***  | TS 26.346 Changes regarding ROM SACH |
|  |  |
| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** | S4 |
|  |  |
| ***Work item code:*** | AE\_enTV-S4 |  | ***Date:*** | 2022-11-07 |
|  |  |  |  |  |
| ***Category:*** | A |  | ***Release:*** | Rel-17 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Existing text in TS 26.346 regarding the Receive-Only-Mode (ROM) Service Announcement service, a.k.a.ROM SACH (Service Announcement Channel) contains a number of bugs and also incomplete specification text with regards to session parameters of the ROM SACH. These include incorrect and missing information on the associated IPv4 and IPv6 multicast addresses as well as UDP destination port number registration with IANA. These need to be fixed.  |
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| ***Summary of change:*** | Changes to the following clauses of TS 26.532:* Clause 5.2.3.1.1: Modification of description regarding IANA registration of UDP destination port associated with the IPv4 or IPv6 multicast address as part of the ROM SACH session parameters.
* Clause C.17 of Annex C regarding IANA registration of IPv6 multicast address as session parameter of ROM SACH.
* Clause C.18 of Annex C regarding IANA registration of IPv4 multicast address as session parameter of ROM SACH.
* Deletion of clause C.19 of Annex C regarding IANA registration of UDP destination port number as session parameter of ROM SACH.
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| ***Consequences if not approved:*** | Incorrect and incomplete specification. |
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| ***Clauses affected:*** | 5.2.3.1.1, C.17, C.18 and C.19 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

FIRST CHANGE

# 2 References

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

(SNIPPED)

[152] IETF RFC 6335: "Internet Assigned Numbers Authority (IANA) Procedures for the Management of the Service Name and Transport Protocol Port Number Registry".

[153] IANA (Internet Assigned Numbers Authority): "IPv4 Multicast Address Space Registry", <https://www.iana.org/assignments/multicast-addresses/multicast-addresses.xhtml>.

[154] IANA (Internet Assigned Numbers Authority): "IPv6 Multicast Address Space Registry", <https://www.iana.org/assignments/ipv6-multicast-addresses/ipv6-multicast-addresses.xhtml>.

NEXT CHANGE

##### 5.2.3.1.1 Service Announcement for Receive-Only-Mode Services

Receive-Only-Mode (ROM) services may be described by Service Announcement User Services whose TMGIs correspond to a reserved range of values as defined in TS 24.116 [131], and broadcast to UEs according to a defined schedule. Such Service Announcement service is named the ROM SACH (Service Announcement CHannel). One of those reserved TMGI values, along with pre-defined multicast IP address, destination port number, and TSI value of the MBMS download session carrying the ROM SACH, represent the session parameters for an instance of the ROM SACH. Although delivery of the ROM SACH employs source-specific multicast (SSM) destination addressing, a UE configured in Receive Only Mode shall promiscuously acquire this service without filtering on the source IP address in the associated FLUTE packets. Therefore, source IP address need not be pre-stored in, or provisioned to, such UE.

The aforementioned session parameters may be either pre-stored in, or provisioned to UEs configured in Receive Only Mode by the TV service configuration Management Object (MO) as defined in TS 24.117 [132]. In the case of pre-storage, all of the TMGI values in the reserved range for ROM SACHs shall be stored in the UE. The values of the multicast IP address, in IPv4 and IPv6 forms, are defined in Annex C.17 and Annex C.18, respectively. The value of the UDP destination port number shall be set to '55555', a 3GPP-designated value for the ROM SACH and chosen from the "Dynamic Ports" range defined in RFC 6553 [137] and which are not assigned by IANA. The minimum set of Service Announcement information contained in the MO shall comprise:

- The USBD fragment containing exactly one instance of the *userServiceDescription* element, which in turn contains exactly one instance of the *deliveryMethod* element. The *deliveryMethod* element shall contain a reference to a Session Description fragment which provides the download delivery session parameters for acquisition of the Service Announcement User Service;

- The Session Description fragment containing at least the following parameters (whose values are indicated above) that describe the MBMS download session/FLUTE channel:

- IP Multicast address (IPv4 or IPv6);

- Destination UDP port;

- Transport Session Identifier (TSI);

- The Schedule Description fragment (referenced by the *userServiceDescription* element in the USBD fragment) that specifies the time periods during which the Service Announcement service will be broadcast, as given by the session schedule (via the *sessionSchedule* element).

It should be noted that a UE configured in Receive Only Mode may be able to acquire ROM services from an MBMS network which does not provide the ROM SACH. The TV service configuration Management Object as defined in TS 24.117 [132] may include the session parameters for FLUTE sessions that carry ROM services. Therefore, it is not strictly necessary for the UE to acquire the ROM SACH in order to discover and acquire ROM services. A UE configured in Receive Only Mode cannot access a SACH whose TMGI is not in the reserved range as defined in TS 24.116 [131].

NEXT CHANGE

# C.17 Registration of IPv4 Multicast Address as session parameter of Service Announcement service which indicates availability of ROM service

The registered IPv4 multicast address '224.0.0.120', with the allocation name "3GPP MBMS SACH" as specified in IANA’s IPv4 Multicast Address Space Registry [138] and described below is used in conjunction with other pre-defined session parameters to enable the discovery and acquisition of a Service Announcement service which in turn indicates the availability of ROM service(s).

(Requester) Full Name: Charles Lo

(Requester) E-Mail: clo@qti.qualcomm.com

Globally unique: Yes

GLOP: No

RFC 6034: No

Source-specific Multicast: No

Assignment Block: Local Network Control Block

Link Local Usage: Yes

Global Usage: Yes

Network Protocol:

FLUTE/UDP/IP

Message Composition:

Functions:

 FLUTE protocol is used for IP multicast delivery of 3GPP MBMS services from cellular network to receiving devices.

Application:

 Broadcast-specific application content is delivered as MBMS services over FLUTE from cellular network to receiving devices.

Previous requests: Yes (See NOTE below)

Period of Use: Indefinite

Specification:

 3GPP Technical Specification TS 26.346, "Multimedia Broadcast/Multicast Service; Protocols and codecs", available at https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=1452

Number of Addresses:

One

Allocation name:

3GPP MBMS SACH

Additional Information:

NOTE: Application for assignment of this IPv4 multicast address was previously submitted to IANA during Release 14 in 2017. However, that application was not completed and was closed by IANA. Considering the history and the likelihood that Release 16 or later versions of this specification would be referenced in the initial (future) commercial deployments of MBMS ROM services and associated service announcement, the new registration and assignment of IPv4 multicast address is described in this clause.

# C.18 Registration of IPv6 Multicast Address as session parameter of Service Announcement service which indicates availability of ROM service

The registered IPv6 multicast address 'FF0X:0:0:0:0:0:0:177', with the allocation name "3GPP MBMS SACH" as specified in IANA’s IPv6 Multicast Address Space Registry [139] and described below, and the specific value 'FF02:0:0:0:0:0:0:177' is assigned by this specification for use in conjunction with other pre-defined session parameters to enable the discovery and acquisition of a Service Announcement service which in turn indicates the availability of ROM service(s).

(Requester) Full Name: Charles Lo

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Local Scope: No

Permanence: Yes

Unicast Prefix-based Multicast: No

Source-specific Multicast: No

Assignment Block: Link-Local Scope

Link Local Usage: Yes

Global Usage: Yes

Network Protocol:

FLUTE/UDP/IP

Message Composition:

Functions:

 FLUTE protocol is used for IP multicast delivery of 3GPP MBMS services from cellular network to receiving devices.

Application:

 Broadcast-specific application content is delivered as MBMS services over FLUTE from cellular network to receiving devices.

Previous requests: Yes (See NOTE below)

Period of Use: Indefinite

Specification:

 3GPP Technical Specification TS 26.346, "Multimedia Broadcast/Multicast Service; Protocols and codecs", available at https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=1452

Allocation name:

3GPP MBMS SACH

Additional Information:

NOTE: Application for assignment of this IPv6 multicast address was previously submitted to IANA during Release 14 in 2017. However, that application was not completed and was closed by IANA. Considering the history and the likelihood that Release 16 or later versions of this specification would be referenced in likely initial (future) commercial deployments of MBMS ROM services and associated service announcement, the new registration of IPv6 multicast address is described in this clause.

END OF CHANGES