**3GPP TSG-CT WG1 Meeting #134-eC1-22xxxx**

**E-meeting, 17-25 February 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.174** | **CR** | **0033** | **rev** | **1** | **Current version:** | **17.4.0** |  |
|  |
| *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 |  |

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| ***Title:***  | MO-MMTEL indications towards the lower layer for call pull |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MuDTran |  | ***Date:*** | 2022-02-22 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | According to C1-221192, the CR implements the alternative where an access attempt occurred due to a call pull is categorized to an MO MMTEL call. |
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| ***Summary of change:*** | The IMS client provides indications related to MO-MMTEL call to the NAS layer. |
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| ***Consequences if not approved:*** | It is not clear how an access attempt occurred due to a call pull is categorized. |
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| ***Clauses affected:*** | 2, X (new), X.1 (new), X.2 (new), X.2.1 (new), X.2.1.1 (new), X.2.1.1.1 (new), X.2.1.1.2 (new), Y (new), Y.1 (new), Y.2 (new), Y.2.1 (new), Y.2.1.1 (new), Y.2.1.1.1 (new), Y.2.1.1.2 (new), Z (new), Z.1 (new), Z.2 (new), Z.2.1 (new), Z.2.1.1 (new), Z.2.1.1.1 (new), Z.2.1.1.2 (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's revision history:*** |  |

# 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 22.173: "IP Multimedia Core Network Subsystem (IMS) Multimedia Telephony Service and supplementary services; Stage 1".

[3] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[4] 3GPP TS 24.607: "Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[5] IETF RFC 3323: "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[6] IETF RFC 3325: "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[7] 3GPP TS 24.623: "Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services".

[8] IETF RFC 8946: "Personal Assertion Token (PASSporT) Extension for Diverted Calls".

[9] OMA-TS-CPM\_Message\_Storage\_Using\_RESTFul\_API-V1\_0-20181025-D: "CPM Message Store using RESTFul API, Draft Version 1.0 – 25 Oct 2018",
<http://member.openmobilealliance.org/ftp/Public_documents/COM/COM-CPM/Permanent_documents/OMA-TS-Message_Storage_Using_RESTFul_API-V1_0-20181025-D.zip>.

[10] OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C: "RESTful Network API for Network Message Storage, Candidate Version 1.0 – 28 May 2019",
<http://member.openmobilealliance.org/ftp/Public_documents/ARCH/Permanent_documents/OMA-TS-REST_NetAPI_NMS-V1_0-20190528-C.zip>.

[11] 3GPP TS 24.629: "Explicit Communication Transfer (ECT) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[12] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[13] 3GPP TS 24.175: "Management Object (MO) for Multi-Device and Multi-Identity in IMS; Stage 3".

[14] 3GPP TS 23.003: "Numbering, addressing and identification".

[15] IETF RFC 3261: "SIP: Session Initiation Protocol".

[xx] 3GPP TS 24.173: "IMS Multimedia telephony communication service and supplementary services; Stage 3".

\*\*\*\*\* Next change \*\*\*\*\*

# Annex X (normative):IP-Connectivity Access Network specific concepts when using GPRS (Iu mode only) to access IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

## X.1 Scope

The present annex defines IP-CAN specific requirements for a multimedia telephony communication service and associated supplementary services in the IP Multimedia (IM) Core Network (CN) subsystem, where the IP-CAN is General Packet Radio Service (GPRS).

\*\*\*\*\* Next change \*\*\*\*\*

## X.2 GPRS aspects when connected to the IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

### X.2.1 Procedures at the UE

\*\*\*\*\* Next change \*\*\*\*\*

#### X.2.1.1 Service specific access control

\*\*\*\*\* Next change \*\*\*\*\*

##### X.2.1.1.1 General

This clause specifies service specific access control in addition to procedures as specified in annex K of 3GPP TS 24.173 [xx].

\*\*\*\*\* Next change \*\*\*\*\*

##### X.2.1.1.2 Call pull specific procedures

When the UE decides to pull a call from another federated UE, if:

1) only audio or only real-time text or only both audio and real-time text are offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, then the UE sends the MO-MMTEL-voice-started indication to the non-access stratum; or

2) video is offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering video exists, then the UE sends the MO-MMTEL-video-started indication to the non-access stratum.

The non-access stratum provides the barring result. If the barring result is:

1) "not-barred", the UE continues the call pull handling described in clause 4.5.3.1.2; or

2) "barred", the UE rejects the call pull and stops the call pull handling described in clause 4.5.3.1.2.

When the pulled call ends (e.g., a response to a BYE or a failure response to the initial INVITE request is transferred, the call is transferred to a different UE), if:

1) the UE sent the MO-MMTEL-voice-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, the UE sends the MO-MMTEL-voice-ended to the non-access stratum; or

2) the UE sent the MO-MMTEL-video-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering video exists, the UE sends the MO-MMTEL-video-ended indication to the non-access stratum.

\*\*\*\*\* Next change \*\*\*\*\*

# Annex Y (normative):IP-Connectivity Access Network specific concepts when using EPS to access IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

## Y.1 Scope

The present annex defines IP-CAN specific requirements for a multimedia telephony communication service and associated supplementary services in the IP Multimedia (IM) Core Network (CN) subsystem, where the IP-CAN is Evolved Packet System (EPS).

\*\*\*\*\* Next change \*\*\*\*\*

## Y.2 EPS aspects when connected to the IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

### Y.2.1 Procedures at the UE

\*\*\*\*\* Next change \*\*\*\*\*

#### Y.2.1.1 Service specific access control

\*\*\*\*\* Next change \*\*\*\*\*

##### Y.2.1.1.1 General

This clause specifies service specific access control in addition to procedures as specified in annex J of 3GPP TS 24.173 [xx].

\*\*\*\*\* Next change \*\*\*\*\*

##### Y.2.1.1.2 Call pull specific procedures

When the UE decides to pull a call from another federated UE, if:

1) only audio or only real-time text or only both audio and real-time text are offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, then the UE sends the MO-MMTEL-voice-started indication to the non-access stratum; or

2) video is offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering video exists, then the UE sends the MO-MMTEL-video-started indication to the non-access stratum.

The non-access stratum provides the barring result. If the barring result is:

1) "not-barred", the UE continues the call pull handling described in clause 4.5.3.1.2; or

2) "barred", the UE rejects the call pull and stops the call pull handling described in clause 4.5.3.1.2.

When the pulled call ends (e.g., a response to a BYE or a failure response to the initial INVITE request is transferred, the call is transferred to a different UE), if:

1) the UE sent the MO-MMTEL-voice-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, the UE sends the MO-MMTEL-voice-ended to the non-access stratum; or

2) the UE sent the MO-MMTEL-video-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering video exists, the UE sends the MO-MMTEL-video-ended indication to the non-access stratum.

\*\*\*\*\* Next change \*\*\*\*\*

# Annex Z (normative):IP-Connectivity Access Network specific concepts when using 5GS to access IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

## Z.1 Scope

The present annex defines IP-CAN specific requirements for a multimedia telephony communication service and associated supplementary services in the IP Multimedia (IM) Core Network (CN) subsystem, where the IP-CAN is 5G System (5GS).

\*\*\*\*\* Next change \*\*\*\*\*

## Z.2 5GS aspects when connected to the IM CN subsystem

\*\*\*\*\* Next change \*\*\*\*\*

### Z.2.1 Procedures at the UE

\*\*\*\*\* Next change \*\*\*\*\*

#### Z.2.1.1 Service specific access control

\*\*\*\*\* Next change \*\*\*\*\*

##### Z.2.1.1.1 General

This clause specifies service specific access control in addition to procedures as specified in annex M of 3GPP TS 24.173 [xx].

\*\*\*\*\* Next change \*\*\*\*\*

##### Z.2.1.1.2 Call pull specific procedures

When the UE decides to pull a call from another federated UE, if:

1) only audio or only real-time text or only both audio and real-time text are offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, then the UE sends the MO-MMTEL-voice-started indication to the non-access stratum; or

2) video is offered in the call to be pulled and no other originating multimedia telephony communication session initiated with offering video exists, then the UE sends the MO-MMTEL-video-started indication to the non-access stratum.

The non-access stratum provides the barring result. If the barring result is:

1) "not-barred", the UE continues the call pull handling described in clause 4.5.3.1.2; or

2) "barred", the UE rejects the call pull and stops the call pull handling described in clause 4.5.3.1.2.

When the pulled call ends (e.g., a response to a BYE or a failure response to the initial INVITE request is transferred, the call is transferred to a different UE), if:

1) the UE sent the MO-MMTEL-voice-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering only audio or only real-time text or only both audio and real-time text exists, the UE sends the MO-MMTEL-voice-ended to the non-access stratum; or

2) the UE sent the MO-MMTEL-video-started indication upon initiation of the call pull and no other originating multimedia telephony communication session initiated with offering video exists, the UE sends the MO-MMTEL-video-ended indication to the non-access stratum.