**3GPP TSG-CT WG1 Meeting #134-eC1-221828**

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

|  |  |  |  |  |  |  |  |  |
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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.008** | **CR** | **3303** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Call-pull-initiated indication | | | | | | | | | |
|  |  | | | | | | | | | |
| ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | An access attempt occurred to pull a call from another federated UE, should not be barred because the call has already passed a barring check (i.e., double barring should be avoided). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The IMS client provides a call-pull-initiated indication to the NAS sublayer when call pull is initiated so that the NAS can recognize that an access attempt is for call pull and map it to MT. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | An access attempt for call pull can be barred due to access control. In that case, the user needs to keep an ongoing call in a less desired device. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, L.1, Q | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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] Void.

[2] Void.

[2a] 3GPP TR 21.905 "Vocabulary for 3GPP Specifications"

[3] 3GPP TS 22.002: "Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)".

[4] 3GPP TS 22.003: "Teleservices supported by a Public Land Mobile Network (PLMN)".

[5] 3GPP TS 42.009, Release 4: "Security aspects".

[5a] 3GPP TS 33.102: "3G security; Security architecture".

[6] Void.

[7] 3GPP TS 42.017, Release 4: "Subscriber Identity Modules (SIM); Functional characteristics".

[8] 3GPP TS 22.101: "Service aspects; Service principles".

[8a] 3GPP TS 22.001: "Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".

[8b] 3GPP TS 23.038: "Alphabets and language-specific information".

[9] Void.

[9a] 3GPP TS 23.108: "Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)".

[10] 3GPP TS 23.003: "Numbering, addressing and identification".

[11] Void.

[12] 3GPP TS 23.014: "Support of Dual Tone Multi-Frequency (DTMF) signalling".

[12a] ETSI ES 201 235-2, v1.2.1: "Specification of Dual Tone Multi-Frequency (DTMF); Transmitters and Receivers; Part 2: Transmitters".

[13] 3GPP TS 43.020: "Security-related network functions".

[14] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".

[15] 3GPP TS 24.002: "GSM-UMTS Public Land Mobile Network (PLMN) access reference configuration".

[16] 3GPP TS 44.003: "Mobile Station - Base Station System (MS - BSS) interface; Channel structures and access capabilities".

[17] Void.

[18] 3GPP TS 44.005: "Data Link (DL) layer; General aspects".

[19] 3GPP TS 44.006: "Mobile Station - Base Station System (MS - BSS) interface; Data Link (DL) layer specification".

[19a] 3GPP TS 25.321: "Medium Access Control (MAC) protocol specification".

[19b] 3GPP TS 25.322: "Radio Link Control (RLC) protocol specification".

[19c] 3GPP TS 25.413: "UTRAN Iu interface Radio Access Network Application Part (RANAP) signalling".

[20] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".

[21] 3GPP TS 24.010: "Mobile radio interface layer 3; Supplementary services specification; General aspects".

[22] 3GPP TS 24.011: "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".

[23] 3GPP TS 24.012: "Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".

[23a] 3GPP TS 44.071: "Location Services (LCS); Mobile radio interface layer 3 specification."

[23b] 3GPP TS 44.031 "Location Services LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC); Radio Resource LCS Protocol (RRLP)".

[23c] 3GPP TS 25.331: "Radio Resource Control (RRC) protocol specification"

[24] 3GPP TS 24.080: "Mobile radio Layer 3 supplementary service specification; Formats and coding".

[25] 3GPP TS 24.081: "Line identification supplementary services; Stage 3".

[26] Void.

[27] 3GPP TS 24.083: "Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 3".

[28] 3GPP TS 24.084: "MultiParty (MPTY) supplementary services; Stage 3".

[29] Void.

[30] Void.

[31] Void.

[32] 3GPP TS 45.002: "Multiplexing and multiple access on the radio path".

[33] 3GPP TS 45.005: "Radio transmission and reception".

[34] 3GPP TS 45.008: "Radio subsystem link control".

[35] Void.

[36] 3GPP TS 27.001: "General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)".

[36a] 3GPP TS 27.060: "Mobile Station (MS) supporting Packet Switched Services ".

[37] 3GPP TS 29.002: "Mobile Application Part (MAP) specification".

[38] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".

[39] 3GPP TS 51.010: "Mobile Station (MS) conformance specification".

[40] Void.

[41] ISO/IEC 646 (1991): "Information technology - ISO 7-bit coded character set for information interchange".

[42] ISO/IEC 6429: "Information technology - Control functions for coded character sets".

[43] ISO 8348 (1987): "Information technology -- Open Systems Interconnection -- Network Service Definition".

[44] ITU-T Recommendation E.163: "Numbering plan for the international telephone service".

[45] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[46] ITU-T Recommendation E.212: "The international identification plan for mobile terminals and mobile users".

[47] ITU-T Recommendation F.69 (1993): "The international telex service - Service and operational provisions of telex destination codes and telex network identification codes".

[48] ITU-T Recommendation I.330: "ISDN numbering and addressing principles".

[49] ITU-T Recommendation Q.920 (1993): "ISDN user-network interface data link layer - General aspects".

[50] ITU-T Recommendation Q.930 (1993): "ISDN user-network interface layer 3 - General aspects".

[51] ITU-T Recommendation I.500 (1993): "General structure of the ISDN interworking recommendations".

[52] ITU-T Recommendation T.50: "International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) - Information technology - 7-bit coded character set for information interchange".

[53] ITU Recommendation Q.931: "ISDN user-network interface layer 3 specification for basic control".

[54] ITU-T Recommendation V.21: "300 bits per second duplex modem standardized for use in the general switched telephone network".

[55] ITU-T Recommendation V.22: "1200 bits per second duplex modem standardized for use in the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits".

[56] ITU-T Recommendation V.22bis: "2400 bits per second duplex modem using the frequency division technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits".

[57] Void.

[58] ITU-T Recommendation V.26ter: "2400 bits per second duplex modem using the echo cancellation technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits".

[59] ITU-T Recommendation V.32: "A family of 2-wire, duplex modems operating at data signalling rates of up to 9600 bit/s for use on the general switched telephone network and on leased telephone-type circuits".

[60] ITU-T Recommendation V.110: "Support by an ISDN of data terminal equipments with V-Series type interfaces".

[61] ITU-T Recommendation V.120: "Support by an ISDN of data terminal equipment with V-Series type interfaces with provision for statistical multiplexing".

[62] ITU-T Recommendation X.21: "Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for synchronous operation on public data networks".

[63] Void.

[64] Void.

[65] ITU-T Recommendation X.30: "Support of X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)".

[66] ITU-T Recommendation X.31: "Support of packet mode terminal equipment by an ISDN".

[67] Void.

[68] Void.

[69] ITU-T Recommendation X.121: "International numbering plan for public data networks".

[70] ETSI ETS 300 102-1: "Integrated Services Digital Network (ISDN); User-network interface layer 3; Specifications for basic call control".

[71] Void.

[72] ISO/IEC 10646: "Information technology -- Universal Multiple-Octet Coded Character Set (UCS)".

[73] 3GPP TS 22.060: "General Packet Radio Service (GPRS); Service Description; Stage 1".

[74] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service Description; Stage 2".

[75] Void.

[75a] 3GPP TS 43.318: "Generic Access Network (GAN); Stage 2".

[76] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[76b] 3GPP TS 44.318: "Generic Access Network (GAN); Mobile GAN interface layer 3 specification; Stage 3".

[77] Void.

[78] 3GPP TS 44.065: "Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)".

[78a] 3GPP TS 44.064: "Mobile Station - Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) Layer Specification".

[79] ITU Recommendation I.460: "Multiplexing, rate adaption and support of existing interfaces".

[80] 3GPP TS 26.111: "Codec for Circuit Switched Multimedia Telephony Service; Modifications to H.324".

[81] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[82] 3GPP TS 43.022: "Functions related to Mobile Station (MS) in idle mode and group receive mode".

[83] 3GPP TS 26.103: "Speech Codec List for GSM and UMTS".

[84] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[85] 3GPP TS 48.008: "Mobile-services Switching Centre – Base Station System (MSC – BSS) interface; layer 3 specification".

[86] 3GPP TS 48.018: "General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN); BSS GPRS Protocol (BSSGP)".

[87] 3GPP TS 43.055: "Dual Transfer Mode (DTM); Stage 2".

[88] 3GPP TS 23.067: "enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 2".

[88a] 3GPP TS 23.093: "Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2".

[89] 3GPP TS 22.042: "Network Identity and Time Zone (NITZ), Stage 1".

[90] 3GPP TS 23.040: "Technical realization of Short Message Service (SMS)".

[91] 3GPP TS 44.056: "GSM Cordless Telephony System (CTS), (Phase 1) CTS Radio Interface Layer 3 Specification".

[92] 3GPP TS 23.226: "Global Text Telephony; Stage 2"

[93] 3GPP TS 26.226: "Cellular Text Telephone Modem (CTM), General Description"

[94] 3GPP TS 23.236: "Intra Domain Connection of RAN Nodes to Multiple CN Nodes"

[95] 3GPP TS 24.229: "IP Multimedia Call Control Protocol based on SIP and SDP"

[96] 3GPP TS 23.205: "Bearer-independent circuit-switched core network; Stage 2".

[97] 3GPP TS 23.172: "UDI/RDI Fallback and Service Modification; Stage 2".

[98] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode"

[99] IETF RFC 4291 (February 2006): "Internet Protocol Version 6 (IPv6) Addressing Architecture".

[100] 3GPP TS 29.207, Release 6: "Policy control over Go interface".

[101] 3GPP TS 21.111: "USIM and IC card requirements".

[102] IETF RFC 1661 (July 1994): "The Point-to-Point Protocol (PPP)".

[103] IETF RFC 3232 (January 2002): "Assigned Numbers: RFC 1700 is Replaced by an On-line Database".

[179][180][181][104] 3GPP TS 23.034: "High Speed Circuit Switched Data (HSCSD) – Stage 2".

[105] 3GPP TS 23.271: "Functional stage 2 description of Location Services (LCS)".

[106] 3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and Functional Description".

[107] IETF RFC 3376 (October 2002): "Internet Group Management Protocol, Version 3".

[108] IETF RFC 2710 (October 1999): "Multicast Listener Discovery (MLD) for IPv6".

[109] 3GPP TS 23.251: "Network Sharing; Architecture and Functional Description".

[110] 3GPP TS 25.346: "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network"

[111] 3GPP TS 44.118, Release 11: "Radio Resource Control (RRC) protocol; Iu mode".

[112] 3GPP TS 31.102: "Characteristics of the USIM Application".

[113] 3GPP TS 43.129: "Packet-switched handover for GERAN A/Gb mode; Stage 2".

[114] 3GPP TS 23.009: "Handover procedures".

[115] 3GPP TR 23.903: "Redial solution for voice-video switching".

[116] 3GPP TS 24.279: "Combining Circuit Switched (CS) and IP Multimedia Subsystem (IMS) services, stage 3"

[117] ITU-T Recommendation H.324 Amendment 1: "New Annex K "Media Oriented Negotiation Acceleration Procedure" and associated changes to Annex".

[118] ITU-T Recommendation H.324 Amendment 2: "New Annex L on text conversation and associated changes; corrections and clarifications to Annex K".

[119] ITU-T Recommendation H.245: "Control protocol for multimedia communication"

[120] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[121] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode".

[122] 3GPP TS 23.401: "GPRS enhancements for E-UTRAN access".

[123] 3GPP TS 33.401: "3GPP System Architecture Evolution; Security architecture".

[124] 3GPP TS 24.303: "Mobility management based on Dual-Stack Mobile IPv6; Stage 3".

[125] 3GPP TS 24.327: "Mobility between 3GPP WLAN Interworking and 3GPP systems; GPRS and 3GPP I-WLAN aspects; Stage 3".

[126] 3GPP TS 23.216: "Single Radio Voice Call Continuity (SRVCC); Stage 2".

[127] 3GPP TS 23.002: "Network architecture".

[128] 3GPP TS 25.301: "Radio interface protocol architecture".

[129] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification".

[130] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[131] 3GPP TS 23.221: "Architectural requirements".

[132] 3GPP TS 23.090: "Unstructured Supplementary Service Data (USSD); Stage 2".

[133] 3GPP TS 23.272: "Circuit Switched Fallback in Evolved Packet System; Stage 2".

[133A] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[134] 3GPP TS 24.167: "3GPP IMS Management Object (MO); Stage 3".

[135] 3GPP TS 24.368: "Non-Access Stratum (NAS) configuration Management Object (MO)".

[136] 3GPP TS 24.237: "IP Multimedia Subsystem (IMS) Service Continuity; Stage 3".

[137] IETF RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[138] 3GPP TS 22.011: "Service accessibility".

[139] IETF RFC 3633 (December 2003): "IPv6 Prefix Options for Dynamic Host Configuration Protocol (DHCP) version 6".

[140] 3GPP TS 23.012: "Location management procedures".

[141] 3GPP TS 24.022: "Radio Link Protocol (RLP) for circuit switched bearer and teleservices".

[142] ITU-T Recommendation X.1: "International user classes of service in, and categories of access to, public data networks and Integrated Services Digital Networks (ISDNs)".

[143] ITU-T Recommendation X.25: "Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit".

[144] ITU-T Recommendation X.213: "Information technology – Open Systems Interconnection – Network service definition".

[145] ITU-T Recommendation I.334: "Principles relating ISDN numbers/sub-addresses to the OSI reference model network layer addresses".

[146] ITU-T Recommendation H.223: "Multiplexing protocol for low bit rate multimedia communication".

[147] ITU-T Recommendation V.34: "A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits".

[148] IETF RFC 3810 (June 2004): "Multicast Listener Discovery Version 2 (MLDv2) for IPv6".

[149] 3GPP TS 29.018: "General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) - Visitors Location Register (VLR); Gs interface layer 3 specification".

[150] 3GPP TS 29.272: "Evolved Packet System (EPS); Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol".

[151] 3GPP TS 45.008: "Radio subsystem link control".

[152] 3GPP TS 29.010: "Information element mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MSC); Signalling Procedures and the Mobile Application Part (MAP)".

[153] 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".

[154] 3GPP TS 24.105: "Application specific Congestion control for Data Communication (ACDC) Management Object (MO)".

[155] 3GPP TS 23.161: "Network-Based IP Flow Mobility (NBIFOM); Stage 2".

[156] 3GPP TS 24.302: "Access to the 3GPP Evolved Packet Core (EPC) via non-3GPP access networks; Stage 3".

[157] 3GPP TS 45.001: "Physical layer on the radio path; General description".

[158] 3GPP TS 24.161: " Network-Based IP Flow Mobility (NBIFOM); Stage 3".

[159] 3GPP TS 43.064: "Overall description of the GPRS Radio Interface; Stage 2".

[160] 3GPP TS 23.167: "IP Multimedia Subsystem (IMS) emergency sessions".

[161] 3GPP TS 26.267: "eCall Data Transfer; In-band modem solution; General description".

[162] 3GPP TS 24.250: "Protocol for Reliable Data Service; Stage 3".

[163] 3GPP TS 24.292: "IP Multimedia (IM) Core Network (CN) subsystem; Centralized Services (ICS); Stage 3".

[164] 3GPP TS 29.292: "Interworking between the IP Multimedia (IM) Core Network (CN) Subsystem (IMS) and MSC Server for IMS Centralized Services (ICS)".

[165] 3GPP TS 49.031: "Location Services (LCS); Base Station System Application Part LCS Extension (BSSAP-LE)".

[166] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[167] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[168] IETF RFC 3629 (November 2003): "UTF-8, a transformation format of ISO 10646".

[169] IETF RFC 5905 (June 2010): "Network Time Protocol Version 4: Protocol and Algorithms Specification".

[170] 3GPP TS 33.501: "Security architecture and procedures for 5G System".

[171] 3GPP TS 24.193: "Access Traffic Steering, Switching and Splitting; Stage 3".

[172] IETF RFC 7858 (May 2016): "Specification for DNS over Transport Layer Security (TLS)".

[173] IETF RFC 8094 (February 2017): "DNS over Datagram Transport Layer Security (DTLS)".

[174] IET RFC 6056 (January 2011): "Recommendations for Transport-Protocol Port Randomization".

[175] IETF RFC 1035 (November 1987):"DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION".

[176] IETF RFC 7469 (April 2015):"Public Key Pinning Extension for HTTP".

[177] ITU-T Recommendation X.690 (2002) | ISO/IEC 8825-1:2002,  
Information technology - ASN.1 encoding rules:  
Specification of Basic Encoding Rules (BER), Canonical  
Encoding Rules (CER) and Distinguished Encoding Rules  
(DER).

[178] 3GPP TS 24.502: "Access to the 3GPP 5G System (5GS) via non-3GPP access networks; Stage 3".

[179] IETF RFC 1334 (October 1992): "PPP Authentication Protocols".

[180] IETF RFC 1994 (August 1996): "PPP Challenge Handshake Authentication Protocol (CHAP)".

[181] IETF RFC 1332 (May 1992): "The PPP Internet Protocol Control Protocol (IPCP)".

[182] 3GPP TS 23.548: "5G System Enhancements for Edge Computing; Stage 2".

[183] 3GPP TS 38.304: "NR; User Equipment (UE) procedures in Idle mode and RRC Inactive state".

[184] 3GPP TS 23.558: "Architecture for enabling Edge Applications; Stage 2".

[xxx] 3GPP TS 24.174: "Support of multi-device and multi-identity in the IP Multimedia Subsystem (IMS); Stage 3".

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

# L.1 Mapping of NAS procedure to RRC establishment cause(Iu mode only)

When MM requests the establishment of an RR connection, the RRC establishment cause used by the MS shall be selected according to the CS NAS procedure as specified in table L.1.1.

Table L.1.1/3GPP TS 24.008: Mapping of CS NAS procedure to establishment cause

|  |  |
| --- | --- |
| **CS NAS procedure** | **RRC Establishment cause (according 3GPP TS 25.331 [23c]**) |
| Originating CS speech call | Originating Conversational Call |
| Originating CS data call | Originating Conversational Call |
| CS Emergency call | Emergency call |
| Call re-establishment | Call re-establishment |
| Location update | Registration |
| IMSI Detach | Detach |
| MO SMS via CS domain | Originating Low Priority Signalling |
| Supplementary Services | Originating High Priority Signalling |
| Answer to circuit switched paging | Set equal to the value of the paging cause used in the reception of paging in the RRC layer |
| Answer to paging for CS fallback | Terminating Conversational Call |
| Terminating High Priority Signalling, if in the E-UTRAN, the RRC connection is released with cause CS Fallback High Priority. |
| SS part of Location services | Originating High Priority Signalling |
| Any CS NAS procedure where the initiating uplink signalling message has the Device properties IE with low priority indicator set to "MS is configured for NAS signalling low priority" | Delay tolerant |

When MM requests the establishment of an RR connection, if the MS is configured for EAB (see the "ExtendedAccessBarring" leaf of the NAS configuration MO in 3GPP TS 24.368 [135] or 3GPP TS 31.102 [112]), the MS is not an MS configured to use AC11 – 15 in selected PLMN, the MS is not answering to paging and the RRC Establishment cause is not set to "Emergency call", then the MM shall indicate to the lower layer for the purpose of access control that EAB applies for this request.

NOTE 1: void.

NOTE 2: EAB override is not supported in the CS domain.

When GMM requests the establishment of a PS signalling connection, the RRC establishment cause used by the MS shall be selected according to the PS NAS procedure as specified in Table L.1.2.

Table L.1.2/3GPP TS 24.008: Mapping of PS NAS procedure to establishment cause

|  |  |
| --- | --- |
| **PS NAS procedure** | **RRC Establishment cause (according 3GPP TS 25.331 [23c]**) |
| GPRS Attach | If the ATTACH REQUEST has Attach type not set to "Emergency attach", the RRC establishment cause shall be set to Registration except when the MS initiates attach procedure to establish emergency bearer services. |
| If the ATTACH REQUEST has Attach type set to "Emergency attach" or if the ATTACH REQUEST has Attach type not set to "Emergency attach" but the MS initiates the attach procedure on receiving request from upper layer to establish emergency bearer services, the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| Routing Area Update – for the case of 'Directed Signalling Connection Re-Establishment (see chapter 4.7.2.5.) | If the MS does not have a PDN connection established for emergency bearer services, the RRC establishment cause shall be set to Call Re-Establishment. |
| If the MS has a PDN connection established for emergency bearer services, the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| Routing area Update – all cases other than 'Directed Signalling Connection Re-Establishment or answer to packet paging | If the MS does not have a PDN connection established for emergency bearer services, the RRC establishment cause shall be set to Registration. |
| If the MS has a PDN connection established for emergency bearer services, or is initiating a PDP CONTEXT ACTIVATION that has request type set to "emergency", the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| GPRS Detach | Detach |
| Request to re-establish RABs | If the request is not to re-establish RABs for emergency bearer services, the RRC establishment cause shall be set to either 'Originating Conversational Call’ or 'Originating Streaming Call’ or 'Originating Interactive Call’ or 'Originating Background Call ' – depending on the Traffic Class in QoS of the "most demanding" Traffic Class, considering all active PDP contexts. (see Note 1) |
| If the request is to re-establish RABs for emergency bearer services, the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| Request to establish a PS signalling connection for MBMS | MBMS reception or MBMS p-t-p RB request |
| Activate PDP Context | If the ACTIVATE PDP CONTEXT REQUEST has the Request Type not set to "emergency", the RRC establishment cause shall be set to either 'Originating Conversational Call’ or 'Originating Streaming Call’ or 'Originating Interactive Call’ or 'Originating Background Call ' – depending on the Traffic Class in QoS of the "most demanding" Traffic Class, considering all active PDP contexts together with the PDP context to be activated. (see Note 1) – If Traffic Class in QoS is not 'Conversational Class’ or 'Streaming Class’ or 'Interactive Class’ or 'Background Class’ but is 'Subscribed Traffic Class’, then 'Originating Subscribed traffic Call’ shall be used. |
| If the ACTIVATE PDP CONTEXT REQUEST has the Request Type set to "emergency", the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| Modify PDP Context | Originating High Priority Signalling |
| Deactivate PDP Context | Originating High Priority Signalling |
| MO SMS via PS domain | Originating Low Priority Signalling |
| SS part of Location services | Originating High Priority Signalling |
| Answer to packet paging or receipt of a "call-pull-initiated" indication form the upper layer (see3GPP TS 24.174 [xxx]) | If the MS does not have a PDN connection established for emergency bearer services, the RRC establishment cause shall be set equal to the value of the paging cause used in the reception of paging in the RRC layer. |
| If the MS has a PDN connection established for emergency bearer services, the RRC establishment cause shall be set to Emergency call. (See Note 2) |
| Any PS NAS procedure where the initiating uplink signalling message has the Device propertiesIE with low priority indicator set to "MS is configured for NAS signalling low priority" | Delay tolerant |
| NOTE 1: For classification of "most demanding" Traffic Class the following ranking order applies: "Conversational" followed by "Streaming" followed by "Interactive" followed by "Background", where "Conversational" is the most demanding Traffic class in terms of being delay sensitive.  NOTE 2: The emergency bearer services are only supported in UTRAN Iu mode. | |

NOTE 3: The RRC establishment cause can be used by the network to prioritise the connection establishment request from the MS at high load situations in the network.

When GMM requests the establishment of a PS signalling connection, if the MS is configured for EAB (see the "ExtendedAccessBarring" leaf of the NAS configuration MO as specified in 3GPP TS 24.368 [135] or 3GPP TS 31.102 [112]), the GMM shall indicate to the lower layer for the purpose of access control that EAB applies for this request except for the following cases:

- the MS is an MS configured to use AC11 – 15 in selected PLMN;

- the MS is answering to paging or a "call-pull-initiated" indication is received from the upper layer (see 3GPP TS 24.174 [xxx]);

- the RRC Establishment cause is set to "Emergency call";

- the MS is configured to allow overriding EAB (see the "Override\_ExtendedAccessBarring" leaf of the NAS configuration MO as specified in 3GPP TS 24.368 [135] or 3GPP TS 31.102 [112]) and receives an indication from the upper layers to override EAB; or

- the MS is configured to allow overriding EAB (see the "Override\_ExtendedAccessBarring" leaf of the NAS configuration MO as specified in 3GPP TS 24.368 [135] or 3GPP TS 31.102 [112]) and already has a PDN connection that was established with EAB override.

NOTE 4: void.

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

Annex Q (normative):  
Application specific Congestion control for Data Communication (ACDC) (Iu mode only)

The MS may support the procedures in this annex.

When GMM requests the establishment of a PS signalling connection, if the MS supports ACDC, the GMM layer shall determine the ACDC category applicable to the request based on the application identifier received from the upper layers and the configuration information in the "ACDCConf" leaf of ACDC MO as specified in 3GPP TS 24.105 [154] or in the USIM EFACDC as specified in 3GPP TS 31.102 [112].

NOTE 1: As an implementation option, the upper layers can determine the ACDC category and send it to the GMM layer. Then the GMM layer need not read the ACDC MO or USIM to determine the ACDC category.

The GMM sublayer shall indicate to the lower layers, for the purpose of access control:

- the ACDC category that applies to this request if only one ACDC category is applicable;

- the highest ranked ACDC category among the ACDC categories that applies to this request if multiple ACDC categories are applicable; or

- this request is for an uncategorized application if an application identifier received from the upper layers is not mapped to any ACDC category,

except for the following cases:

- the MS is a MS configured to use AC11 – 15 in selected PLMN;

- the MS is answering to paging;

- the RRC Establishment cause is set to "Emergency call";

- if conditions MO MMTEL voice call is started or MO MMTEL video call is started or MO SMSoIP is started, is satisfied; or

- if a "call-pull-initiated" indication is received from the upper layer (see 3GPP TS 24.174 [xxx]).

NOTE 2: The request from the GMM sublayer refers to either a request to establish an initial NAS signalling connection or a request to re-establish a NAS signalling connection.

If the MS supports ACDC and access is barred because of ACDC, the GMM layer shall keep track of the ACDC category for which access is barred and it shall not send a request for the same ACDC category or a lower ACDC category until access is granted.

If the MS supports ACDC and access is barred because of ACDC, the GMM layer shall not send a request for any uncategorized application until access is granted.