**3GPP TSG-CT WG4 Meeting #106-eC4-215**

**E-Meeting, 11th – 15th October 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.244** | **CR** | **0578** | **rev** | **1** | **Current version:** | **17.2.1** |  |
|  |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Reference to UPF service specification |
|  |  |
| ***Source to WG:*** | China Mobile |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | eEDGE\_5GC |  | ***Date:*** | 2021-10-11 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***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)* |
|  |  |
| ***Reason for change:*** | The TS number for UPF service specification has been allocated, i.e. TS 29.564 |
|  |  |
| ***Summary of change:*** | Update corresponding reference in the spec. |
|  |  |
| ***Consequences if not approved:*** | Wrong reference |
|  |  |
| ***Clauses affected:*** | 2, 5.33.5 |
|  |  |
|  | **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:*** |  |

**\*\*\*\*\*\*\***

\* \* \* First 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 23.214: "Architecture enhancements for control and user plane separation of EPC nodes; Stage 2".

[3] 3GPP TS 29.281: "General Packet Radio System (GPRS) Tunnelling Protocol User Plane (GTPv1-U)".

[4] IETF RFC 768: "User Datagram Protocol".

[5] IETF RFC 791: "Internet Protocol".

[6] IETF RFC 2460: "Internet Protocol, Version 6 (IPv6) Specification".

[7] 3GPP TS 23.203: "Policy and charging control architecture; Stage 2".

[8] 3GPP TS 29.212: "Policy and Charging Control (PCC); Reference points".

[9] 3GPP TS 29.274: "3GPP Evolved Packet System. Evolved GPRS Tunnelling Protocol for EPS (GTPv2)".

[10] 3GPP TS 36.413: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)".

[11] 3GPP TS 29.213: "Policy and Charging Control signalling flows and Quality of Service (QoS) parameter mapping".

[12] IETF RFC 5905: "Network Time Protocol Version 4: Protocol and Algorithms Specification".

[13] IETF RFC 2474: "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[14] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[15] 3GPP TS 22.153: "Multimedia Priority Service".

[16] IETF RFC 4006: "Diameter Credit Control Application".

[17] 3GPP TS 32.251: "Telecommunication management; Charging management; Packet Switched (PS) domain charging".

[18] 3GPP TS 32.299: "Telecommunication management; Charging management; Diameter charging application".

[19] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[20] 3GPP TS 33.107: "3G security; Lawful interception architecture and functions".

[21] 3GPP TS 29.251: "Gw and Gwn reference points for sponsored data connectivity".

[22] IETF RFC 2474, "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[23] IETF RFC 7230: "Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing".

[24] 3GPP TS 23.007: "Restoration procedures".

[25] 3GPP TS 29.303: "Domain Name System Procedures; Stage 3"

[26] IETF RFC 5905: "Network Time Protocol Version 4: Protocol and Algorithms Specification".

[27] IETF RFC 1035: "Domain Names - Implementation and Specification".

[28] 3GPP TS 23.501:"System Architecture for the 5G System"

[29] 3GPP TS 23.502:"Procedures for the 5G System"

[30] IEEE 802.1Q: "Virtual Bridged Local Area Networks"

[31] IEEE 802.3: "IEEE Standard for Ethernet"

[32] IETF RFC 826: "An Ethernet Address Resolution Protocol or Converting Network Protocol Addresses".

[33] IETF RFC 4861: "Neighbor Discovery for IP version 6 (IPv6)". .

[34] 3GPP TS 38.415: "NG-RAN; PDU Session User Plane Protocol".

[35] 3GPP TS 32.422: "Telecommunication management; Subscriber and equipment trace; Trace control and configuration management".

[36] IETF RFC 4282: "The Network Access Identifier".

[37] IETF RFC 2865: "Remote Authentication Dial In User Service (RADIUS)".

[38] IETF RFC 3162: "RADIUS and IPv6".

[39] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[40] 3GPP TS 23.527: "5G System; Restoration procedures".

[41] 3GPP TS 29.512: "5G System; Session Management Policy Control Service; Stage 3".

[42] 3GPP TS 38.300: "NR; NR and NG-RAN Overall Description; Stage 2".

[43] 3GPP TS 29.510: "5G System; Network Function Repository Services; Stage 3".

[44] 3GPP TS 23.503:"Policy and Charging Control Framework for the 5G System".

[45] 3GPP TS 32.255: "Telecommunication management; Charging management; 5G data connectivity domain charging; Stage 2".

[46] 3GPP TS 29.512: "Session Management Policy Control Service, Stage 3".

[47] 3GPP TS 33.127: "Security; Lawful Interception (LI) architecture and functions".

[48] 3GPP TS 23.003: "Numbering, addressing and identification".

[49] 3GPP TS 29.561: "5G System; Interworking between 5G Network and external Data Networks; Stage 3".

[50] 3GPP TS 29.502: "5G System, Session Management Services; Stage 3".

[51] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS)".

[52] IETF RFC 2236: "Internet Group Management Protocol, Version 2".

[53] IETF RFC 3376: "Internet Group Management Protocol, Version 3".

[54] IETF RFC 4604: "Using Internet Group Management Protocol Version 3 (IGMPv3) and Multicast Listener Discovery Protocol Version 2 (MLDv2) for Source-Specific Multicast".

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

[56] Void

[57] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS)".

[58] IEEE Std 802.1AS-2020: "IEEE Standard for Local and metropolitan area networks--Timing and Synchronization for Time-Sensitive Applications".

[59] 3GPP TS 24.193: "Access Traffic Steering, Switching and Splitting; Stage 3".

[60] IETF RFC 8803: "0-RTT TCP Convert Protocol".

[61] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces; Stage 3".

[62] IETF RFC 8684: "TCP Extensions for Multipath Operation with Multiple Addresses".

[63] 3GPP TS 24.539: "5G System (5GS); Network to TSN translator (TT) protocol aspects; Stage 3".

[64] 3GPP TS 33.501: "Security architecture and procedures for 5G system".

[65] 3GPP TS 24.250: "Protocol for Reliable Data Service; Stage 3".

[66] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[67] IETF RFC 2661: Layer Two Tunneling Protocol "L2TP"

[68] IETF RFC 2868: RADIUS Attributes for Tunnel Protocol Support

[69] 3GPP TS 23.548: "5G System Enhancements for Edge Computing; Stage 2".

[70] ECMA-262: "ECMAScript® Language Specification", <https://www.ecma-international.org/ecma-262/5.1/>.

[71] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".

[72] 3GPP TS 23.247:" Architectural enhancements for 5G multicast-broadcast services; Stage 2".

[R29564] 3GPP TS 29.564: "5G System; User Plane Function Services; Stage 3".

\* \* \* Next Change \* \* \* \*

### 5.33.5 Direct Reporting of QoS monitoring events to Local NEF or AF

A UPF may be instructed to report QoS monitoring events directly to a local NEF or AF as specified in clause 6.4 of 3GPP TS 23.548 [69].

A UPF that supports this feature shall set the DRQOS (Direct Reporting of QoS monitoring events) flag in the UP Function Feature IE (see clause 8.2.25).

An SMF shall instruct an UPF that supports the DRQOS feature to report Per QoS Flow Per UE QoS Monitoring events directly to a local NEF or AF by applying the requirements specified in clauses 5.24.4 or 5.24.5.3, and by additionally including a Direct Reporting Information IE in the SRR as specified in clause 5.2.8.2.

The Direct Reporting Information shall include the Event Notification URI towards which events shall be sent, and if available, the Notification Correlation ID to be included in these events. If the events need to be sent both directly to the local NEF or AF and to the SMF, the Direct Reporting Information IE shall also include the Reporting Flags IE with the DUPL flag set to "1".

An UPF that supports this feature shall send the Per QoS Flow Per UE QoS Monitoring events to the SMF if the SRR does not contain the Direct Reporting Information IE, or directy to the Local NEF or AF using the notification URI received in the Direct Reporting Information IE, or both if the Direct Reporting Information IE is provided with the DUPL flag set to "1", as specified in clause 5.24.4.3.

The UPF shall report QoS monitoring events directly to the Local NEF or AF using the UPF Event Exposure service specified in 3GPP TS 29.564 [R29564].

\* \* \* End of Changes \* \* \* \*