**3GPP TSG-SA5 Meeting #130e *S5-202459d3***

**e-meeting 20-28 April 2020 revision of S5-202112**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.103** | **CR** | **0017** | **rev** | **3** | **Current version:** | **15.0.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Oy LM Ericsson AB | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | QOED | | | | |  | ***Date:*** | | | 2020-04-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | QoE Measurement Collection is missing in TS 32.103 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | QoE specifications added to cover QoE measurement collection; Concepts, use cases and requirements, Control and configuration, Information definition and transport | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | There will not be any QoE Measurment Collection in TS 32.103 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 7.X, 7.X.1, 7.X.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".

[3] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[4] 3GPP TS 28.624: "Telecommunication management; State management data definition Integration Reference Point (IRP); Requirements".

[5] 3GPP TS 28.625: "Telecommunication management; State management data definition Integration Reference Point (IRP); Information Service (IS)".

[6] 3GPP TS 28.626: "Telecommunication management; State management data definition Integration Reference Point (IRP); Solution Set (SS) definitions".

[7] 3GPP TS 32.601: "Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP); Requirements".

[8] 3GPP TS 32.602: "Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP); Information Service (IS)".

[9] 3GPP TS 32.603: "Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)".

[10] 3GPP TS 28.621: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Requirements".

[11] 3GPP TS 28.622: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".

[12] 3GPP TS 28.623: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions".

[13] Void

[14] Void

[15] 3GPP TS 32.153: "Telecommunication management; Integration Reference Point (IRP) technology specific templates, rules and guidelines".

[16] 3GPP TS 32.154: "Telecommunication management; Backward and Forward Compatibility (BFC); Concept and definitions".

[17] 3GPP TS 32.155: "Telecommunication management; Requirements template".

[18] 3GPP TS 32.156: "Telecommunication management; Fixed Mobile Convergence (FMC) model repertoire".

[19] 3GPP TS 32.157: "Telecommunication management; Integration Reference Point (IRP) Information Service (IS) template".

[20] 3GPP TS 32.102: "Telecommunication management; Architecture".

[21] 3GPP TS 32.107: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM)".

[22] 3GPP TS 32.111-1: "Telecommunication management; Fault Management; Part 1: 3G fault management requirements".

[23] 3GPP TS 32.140: "Telecommunication management; Subscription Management (SuM) requirements".

[24] 3GPP TS 32.141: "Telecommunication management; Subscription Management (SuM) architecture".

[25] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".

[26] 3GPP TS 32.401: "Telecommunication management; Performance Management (PM); Concept and requirements".

[27] 3GPP TS 32.500: "Telecommunication management; Self-Organizing Networks (SON); Concepts and requirements".

[28] 3GPP TS 32.511: "Telecommunication management; Automatic Neighbour Relation (ANR) management; Concepts and requirements".

[29] 3GPP TS 32.521: "Telecommunication management; Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Requirements".

[30] 3GPP TS 32.541: "Telecommunication management; Self-Organizing Networks (SON); Self-healing concepts and requirements".

[31] 3GPP TS 32.551: "Telecommunication management; Energy Saving Management (ESM); Concepts and requirements".

[32] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[33] 3GPP TR 32.854: "Telecommunication management; Fixed Mobile Convergence (FMC) 3GPP / TM Forum concrete model relationships and use cases".

[34] 3GPP TS 28.620: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM) Umbrella Information Model (UIM)".

[35] 3GPP TS 28.627: "Telecommunication management; Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Requirements".

[36] 3GPP TS 32.501: "Telecommunication management; Self-configuration of network elements; Concepts and requirements".

[37] 3GPP TS 32.421: "Telecommunication management; Subscriber and equipment trace; Trace concepts and requirements".

[38] 3GPP TS 32.441: "Telecommunication management; Trace Management Integration Reference Point (IRP); Requirements".

[39] 3GPP TS 28.404: "Telecommunication management; Quality of Experience (QoE) measurement collection; Concepts, use cases and requirements".

[40] 3GPP TS 28.404: "Management of Quality of Experience (QoE) measurement collection; Control and configuration".

[41] 3GPP TS 28.404: "Management of Quality of Experience (QoE) measurement collection; Information definition and transport".

***Next change***

## 7.x QoE measurements

### 7.X.1 Overview and relationships to QoE specifications



Figure 7.X.1-1: QoErelated Specifications

### 7.X.2 QoE specifications

**QoE measurement collection – Concepts, use cases and requirements – TS 28.404 [39]**

One main motivation of mobile network evolution is to improve the user experience why the evaluation of the user experience at the UE side is vital to network operators, especially when the operators provide some real-time services which require for example high date rate and low latency like streaming services (typically video services) , where even intermittent quality degradation is very annoying. Many of these streaming services are a significant part of the commercial traffic growth rate, therefore the focus is on the end users' experience.

Quality of Experience (QoE) information collection provides detailed information at call level on a number of UEs.

The capability to log information within a UE, and in particular the QoE of an end user service, initiated by an operator, provides the operator with QoE information. The collected information (specified in 3GPP TS 26.247 [2]) cannot be deduced from performance measurements in the mobile network.

The QoE information is information collected by the end user application in the UE.

The collected QoE information is collected by the management system for analysis and/or KPI calculations.

**QoE measurement collection – Control and Configuration – TS 28.405 [40]**

TS 28.405 [40] addresses the mechanisms used for the function Quality of Experience (QoE) measurement collection in UMTS and LTE. The measurements that are collected are DASH and MTSI measurements.

The function includes collecting QoE information from UEs frequenting a specified area or an individual UE for a specified end user service/end user service type. The document describes the activation and deactivation of a network request session, UE request session and recording session and also the reporting of recorded information.

**QoE measurement collection – Information definition and transport – TS 28.406 [41]**

TS 28.406 [41] describes Quality of Experience (QoE) measurement collection record content definition and management. It covers the Quality of Experience (QoE) measurement data content, their format and transfer across UMTS networks and LTE networks.

***End of changes***