
Source: TSG SA WG2 (S2-042331)
Title: WID for E2E QoS Enhancements
Agenda Item: 7.2.3

Work Item Description

Title: E2E QoS Enhancements

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

QoS Improvements (32016)
E2E QoS Concept and Architecture (2557)

3 Justification

The mechanisms described in the QoS related 3GPP specifications, especially TS23.207, are not enough to achieve fully end-to-end QoS guarantees in case of an interworking with different IP network domains or backbone networks. So the ways to interwork QoS policies and control between different IP network domains may be needed.

Current solutions that guarantee QoS end-to-end rely on existing IP QoS models and networks that are controlled by the PLMN operators. Consequently, it will be not easy to achieve fully end-to-end QoS guarantees in case of interworking with different IP network domains or backbone networks.

For some important services with strict end-to-end QoS requirements, such as conversational speech or streaming video, the requirements may not be fully satisfied with existing models in case of an interworking with IP network domains or backbone networks that are not under the control of PLMN operators.

Mechanisms which are scalable and can take into account the overall end-to-end networks performance should be considered to enhance the current architecture, especially when the service traffic goes through different IP network domains or backbone networks.

4 Objective

The objective of this work item is to study different possible solutions to enhance the end-to-end QoS architecture specified in TS 23.207 to achieve improved end-to-end QoS also in case of an

interworking with IP network domains or backbone networks that are not under the control of PLMN operators.

Interaction with emerging standards for “Next Generation Networks” and the work of the ITU-T and the IETF NSIS working group must be taken into account.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

Yes

Charging according to QoS between different operators

8 Security Aspects

Yes

Prevent the embezzlements by un-authorized user in case of an interworking with non-managed networks.

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes				X	
No	X		X		
Don't know		X			X

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 23.8yz	Architectural enhancements for end-to-end QoS	SA2		SA#26	SA#27	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work Item Rapporteur
Robert Jaksa (Huawei Technologies Co., Ltd.)

12 Work Item Leadership
TSG SA WG2

13 Supporting Companies
Huawei Technologies
China Mobile

NTT DoCoMo
Siemens
Fujitsu
Cingular
HP
InterDigital
Nortel Networks

14 Classification of the WI (if known)

X	Feature (go to 14a)
	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

14c The WI is a Work Task: parent Building Block

(One Work Item identified as a building block)