

Technical Specification Group Services and System Aspects **TSGS#12(01)0343**  
Meeting #12, Stockholm, Sweden, 18-21 June 2001

**Source:** TSG SA WG2  
**Title:** WID for End to End QoS Concept and Architecture for PS Domain (including IM subsystem)  
**Agenda Item:** 7.2.3

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This contribution proposes the Work Item End to End QoS Concept and Architecture for PS Domain for Release 5.

The restructuring of the QoS work "Ensure reliable QoS for PS domain" was endorsed at TSG SA#11 into UMTS QoS only, for Release 4 and End to End QoS for Release 5. SA and MCC realized there was no official QoS WI for R5, even though, the stage 2 works has been in progress for the last 6 months. Hence, Motorola took an initiative to generate this WI. The plan is to have this WI approved at the SA2#18 meeting and generate a Liaison Statement to the impacted WGs with the approve WI. Then, submitted the approved WI to TSG-SA#12 meeting.

This WI was improved and modified with CN3 comments at the S2 QoS Ad Hoc and N3, CN4 joint meeting on May 14, 2001.

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## Work Item Description

### End-to-End QoS for PS Domain

**1                    3GPP Work Area**

X	Radio Access
X	Core Network
	Services

**2                    Linked work items**

End to End QoS Stage 3 WI expected to be approved at TSG-CN#12

**3                    Justification**

As IP Multimedia services are expected to generate considerable revenue streams for operators it is necessary to provide reliable E2E QoS architecture and define mechanisms for the Packet Switch domain as requested by the IM subsystem.

**4                    Objective**

As UMTS QoS is already available in PS domain the objective of this WI is to provide a QoS Framework that complements TS23.107 and define the End to End QoS Concept and Architecture involving GPRS network. In addition QoS Management and QoS Charging aspects shall be specified.

**5                    Service Aspects**

Yes, the new service aspects are being defined in SA1.

**6                    MMI-Aspects**

Yes

**7                    Charging Aspects**

Yes

**8                    Security Aspects**

Yes

**9                    Impacts**

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X	X	
<b>No</b>					X
<b>Don't know</b>	X				

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.207	E2E QoS Concept and Architecture	TSG- SA2	TSG- CN3		TSG SA#12	
29.xxx	E2E QoS interworking	TSG- CN3		TSG CN#13	TSG CN#14	
32.xxx	QoS Management (Provisioning and Monitoring)	TSG- SA5		TSG SA#14	TSG SA#15	The need for this specification, or possibly integration into existent specifications, will be evaluated by SA5
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
23.060						GPRS stage 2
23.107						UMTS QoS
23.228						IMS stage 2
24.008						QoS IE
24.228						SIP QoS Session call flow
24.229						SIP QoS Protocols
25.413						RAB QoS Negotiation, Renegotiation and Negotiation at Relocation
25.946						RAB QoS Negotiation
25.851						RAB QoS renegotiation
29.060						GTP protocols
29.061						Interworking between PLMN and PDN
32.101						Overview of QoS Management
32.104						Support for QoS Monitoring (related Measurement Definition and Collection).
32.105						QoS Aspects of 3G Call Event Charging
32.106						QoS Provisioning
32.111						Support for QoS Alarm Monitoring

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**Work item rapporteurs**

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**Work item leadership**

TSG-SA2

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**Supporting Companies**

Motorola, Ericsson, Nortel Networks, CommWorks, Siemens, Cisco, Alcatel, Nokia,  
ATT Wireless, Lucent, France Telecom, Interdigital

**14 Classification of the WI (for TSG-SA1)**

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

End to End QoS for PS Domain

End-to-End QoS Requirements (SA1)

End-to-End QoS Architecture (SA2)

End-to-End QoS Security Aspect (SA3)

End to End Stage 3 (CN3)

End-to-End QoS Interwork with External Networks (CN3)

RAB QoS negotiation and re-negotiation (RAN3)

14b The WI is a Building Block: parent Feature

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