

**Source:** SA5 (Telecom Management)  
**Title:** WID WT Enhancement UTRAN performance measurements definition  
**Document for:** Approval  
**Agenda Item:** 7.5.3

**3GPP TSG-SA5 (Telecom Management)**  
**Meeting #42, Montreal, CANADA, 09 - 13 May 2005**

**S5-050294**

### Work Item Description

**Title:** Enhancement UTRAN performance measurements definition  
**Acronym:** OAM7-PM  
**Unique\_ID:** 35058

#### **1 3GPP Work Area**

X	Radio Access
	Core Network
	Services

#### **2 Linked work items**

*still to be defined:*

OAM&P (Operations, Administration, Maintenance & Provisioning) (Feature: OAM)

WI	Unique_ID
OAM7	35041

Performance Management (BB: OAM-PM)

WI	Unique_ID
OAM-PM	35043

#### **3 Justification**

Performance measurement data is important for operator to analyze network performance. Currently, Rel-6 and earlier versions of 32.403 define the necessary performance measurement data. (The latest) TS 32.403-650 covers measurements data related to RNC, SGSN, GGSN and MMS. For the CN PS, operators can use performance measurement data related to UTRAN defined in 32.403-650.

This WT proposes to enhance UTRAN performance measurements in the existing 32.403 and only produce CRs to existing specification.

#### **4 Objective**

Define more performance measurements, which apply to UTRAN of UMTS.

For the UTRAN part, the Release 6 3GPP TS 32.403 include measurement definitions for RNC RAB management, signalling connection, RRC connection, RLC connection, soft handover, radio link addition, hard handover, relocation, circuit switched inter-RAT handover, and Iu connection release.

For a good monitoring of the UTRAN, it is necessary to add new performance measurements and some examples are listed below:

- Inter-frequency and intra-frequency hard handovers for use in network optimization (currently only intra-cell, intra-NodeB, inter-NodeB, intra-RNC and inter-RNC hard handovers measurements)
- Inter-system HO measurements (UMTS->GSM, GSM->UMTS, UMTS ->GPRS, GPRS-> UMTS) to show the CS and PS domain hard handover stability and reliability
- RAB drop rate per service type to analyze quality of service
- IuCS, IuPS, Iur and Iub interface throughput measurements needed to reflect the interface load
- RNC resource usage measurements to reflect the equipment load
- Cell soft handover scale radio link measurements for network planning and optimization
- Cell paging measurements to reflect the paging channel resource usage
- RAB establishment measurements per cell to analyze service quality
- Cell frequency usage measurements to analyze service quality
- Cell code resource usage for use in network planning and optimization

**5 Service Aspects**

None

**6 MMI-Aspects**

None

**7 Charging Aspects**

None

**8 Security Aspects**

None

**9 Impacts**

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

**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
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.403				12/2005	Performance Management (PM); Performance measurements - UMTS and combined UMTS/GSM	

**11 Work item rapporteur(s)**

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**12 Work item leadership**

SA5

**13 Supporting Companies**

China Mobile, CATT, Huawei, ZTE,

**14 Classification of the WI (if known)**

	Feature (go to 14a)
	Building Block (go to 14b)
X	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  
(one Work Item identified as a feature)
- 14c The WI is a Work Task: parent Building Block  
(one Work Item identified as a building block)

*still to be defined:*

Performance Management (BB: OAM-PM)

WI	Unique_ID
OAM-PM	35043