
Source: SA5 (Telecom Management)
Title: Rel-6 BB-level Work Item Description on Trace Management
Document for: Approval
Agenda Item: 7.5.3

3GPP TSG-SA5 (Telecom Management)
Meeting #28, Sophia Antipolis, FRANCE, 20 - 24 May 2002

S5-028143

Work Item Description

Title: Rel6 - Trace Management

1 3GPP Work Area

X	Radio Access
X	Core Network
x	Services
	Terminals

2 Linked work items

- Rel6 Performance Management – Building Block led by SA5
- Rel6 Principles, High Level Requirements and Architecture – Building Block led by SA5
- Rel6 Network Infrastructure Management for possible File Transfer Management aspects – Building Block led by SA5

Also, potential work from 3GPP WGs other than SA5 has been identified according to the following list (corresponding Rel6 WIs to be identified):

- CN1 on trace activation/deactivation over SIP between IMS entities;
- CN4 on trace activation/deactivation over Mc;
- CN4 on trace activation/deactivation over Cx;
- SA3 for possible security impacts;
- GERAN for trace activation/deactivation over the BSS – CN interface and for availability of IMSI/IMEI in BSS;
- RAN3 for trace activation/deactivation over the RNS – CN interface and for availability of IMSI/IMEI in RNS;
- SA2 for possible LCS impacts;
- CN4 on trace activation/deactivation impacts to MAP;
- CN4 on trace activation/deactivation impacts to GTP (SGSN – GGSN).

3 Justification

Subscriber and Equipment Trace provide very detailed information at call level on one or more specific mobile(s). This data is an additional source of information to Performance Measurements and allows going further in monitoring and optimisation operations.

Contrary to Performance Measurements, which are a permanent source of information, Trace is activated on user demand for a limited period of time for specific analysis purposes.

Trace plays a major role in activities such as determination of the root cause of a malfunctioning mobile, advanced troubleshooting, optimisation of resource usage and quality, RF coverage control and capacity improvement, dropped call analysis, Core Network and UTRAN end-to-end UMTS procedure validation.

Subscriber and Equipment Trace is also available for GSM-only systems.

4 Objective

The main objective of this work item is to produce the Technical Specifications for Subscriber and Equipment Trace in 3GPP Release 6 according to the responsibilities of SA5 SWG-D pertaining to high-level concepts and requirements of trace, to Subscriber and UE activity trace data definition and management, to trace data collection control and configuration management, and to bulk interfaces for trace data transfer from the network to the network manager.

The Technical Specifications to be produced are:

- TS 32.421 “Trace Concepts and Requirements”;
- TS 32.422 “Trace Control and Configuration Management”;
- TS 32.423 “Trace Data Definition and Management”.

The contents will be aligned with the 3GPP SA5 management principles and architecture.

Additionally, the objective is to maintain the GSM-only specification(s) for Subscriber and Equipment Trace. For this purpose, the Technical Specifications to be produced in Release 6 are:

- TS 52.008 “GSM Subscriber and Equipment Trace”.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

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

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.421	Trace Concepts and Requirements	SA5		TSG#16 (06/02)	TSG#17 (09/02)	
32.422	Trace Control and Configuration Management	SA5		TSG#19 (03/03)	TSG#20 (06/03)	
32.423	Trace Data Definition and Management	SA5		TSG#19 (03/03)	TSG#20 (06/03)	
52.008	GSM Subscriber and Equipment Trace	SA5			TSG#20 (06/03)	Technically identical to GSM 12.08
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.101		Principles and High-level Requirements				

11 Work item rapporteur

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12 Work item leadership

SA5

13 Supporting Companies

Lucent Technologies, Motorola, Nokia, Nortel Networks, Orange

14 Classification of the WI (if known)

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

14b The WI is a **Building Block**: parent **Feature**

Charging and OAM&P – Feature led by SA5

15 Work Tasks under this Building Block

Building Block	Work Task Title	Description	WI Description of the WT in Tdoc#
Rel6 – Trace Management	Trace Concepts and Requirements	the scope of the trace specifications, the concepts of trace and the high level requirements for it, including requirements for trace activation, trace deactivation, trace data and trace reporting	S5-028131
	Trace Control and Configuration Management	the mechanisms that need to be specified for trace activation and deactivation, the parameters that the operator can use to control trace invocations and to define the configuration of trace invocations	S5-028132
	Trace Data Definition and Management	the detailed contents of trace records, the criteria for the creation of them, the behaviour with their transfer to the NM, the conventions and formats of trace record files, and the procedures needed for the transfer of trace records	S5-028133
	Trace Impacts on Network Signalling Interfaces	impacts of trace on any signalling interfaces outside the scope of SA5	S5-028134
	GSM Subscriber and Equipment Trace	the maintenance of GSM-only specifications(s) for trace	S5-028136