

# ***TSG-SA WG5 (Telecom Management) Status Report***

Reported by

**Michael TRUSS**  
**TSG-SA WG5 Chair**

**Agenda Item: 7.5.3**

**Document for: Information**

# 3GPP SA5 Officers



- **Chair**  
**Michael TRUSS** (Motorola Ltd/ ETSI) – elected 04/2002
- **Vice Chair**  
**Thomas RICHTER** (Cingular Wireless LLC/ T1) – elected 04/2002  
**Christian TOCHE** (Nortel Networks/ ETSI) – elected 04/2002
- **MCC Support:** **Adrian ZOICAS (MCC)** – since 01/2000
- **Four (4) SWGs**  
**SWGA: Telecom Management - Architecture and Requirements**  
**SWGB: Charging Management**  
**SWGC: Telecom Network Infrastructure Management**  
**SWGD: Performance Management and Trace Management**

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# **SA5's Sub-WG structure (1/4)**



## **SWGA Telecom Management - Architecture and Requirements**

**Michael TRUSS** (Motorola Ltd/ ETSI) – Chair since 09/2001

**Tommy BERGGREN** (Telia/ ETSI) – Vice Chair since 01/2002

### **WI(spec):**

**OAM&P (Operations, Administration, Maintenance & Provisioning)**

**Architecture (32.101), Principles & Requirements (32.102),**

**User Equipment Management (UEM) (32.150, 32.802).**

**Subscription Management (SM) (32.140/1),**

**Liaison: ITU-T SG4 (Architecture / Conformance), T2 & OMA (UEM ),**

**TMF (MMC, Mobile Management Team, MTEM),**

**CN5 (OSA Management).**

**T2 (UEM)**

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# SA5's Sub-WG structure (2/4)



## SWGB Charging Management

**Karl-Heinz NENNER** (T-Mobile/ ETSI) – Chair since 09/2001

**WI(spec):**

**Charging Management (32.2xy, 32.005/015)**

**Liaison: GSM Association (BARG Charging Principles Working Party, IREG, SERG),  
3G.IP (IP/Charging requirements for IMS),  
T2 (MMS Charging),  
CN5 (OSA Charging),  
IETF-AAA/ 3GPP CN4 (Diameter),  
IPDR (Charging).**

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# SA5's Sub-WG structure (3/4)

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## SWG Telecom Network Infrastructure Management (TM Solutions)

**Thomas TOVINGER** (Ericsson/ ETSI) – Chair since 09/2001

**Joerg SCHMIDT** (Motorola/ T1) – Vice Chair since 09/2001

**Frédéric BONNEAU** (Nortel Networks/ ETSI) – Vice Chair since 10/01

### WI(spec):

**Configuration (32.106/32.6xy) & Fault Management (32.111/32.xy),  
Integration Reference Points (IRPs) to support products of SA5's SWGs.**

**Liaison: ITU-T SG 4 (CORBA, tML/XML),  
T1M1 (CORBA, tML),  
3GPP2 (Delta Specification).**

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# SA5's Sub-WG structure (4/4)



## SWG D Performance Management and Trace Management

**Christian TOCHE** (Nortel Networks/ ETSI) – Chair since 04/2002

**Ulf HUBINETTE** (Ericsson/ ETSI) – Vice Chair since 11/2002

**Kari RONKA** (Nokia/ ETSI) – Vice Chair since 11/2002

### WI(spec):

Performance Management: measurements, concepts, definition, requirements, PM IRP (32.41x-/52.402),

Subscriber and UE Tracing (32.42x, 52.008).

Liaison: ITU-T SG4 (IMT2000 Management),  
TMF (Wireless Service Measurement Team),  
CN1/4 , RAN 2/3, GERAN (Trace)

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# Meetings held



## SA5 #31

- 07-11 October 2002 in Atlanta, GA, USA, hosted by NAF
- Attended by 52 delegates
- Full report in S5-020700

## SA5 SWG meetings

- SA5#31 bis (SWG2) 13-15 Nov 2002 in Vienna , AUSTRIA (EF3)

## SA5 #32

- 18-22 November 2002 in Vienna, AUSTRIA, hosted by EF3
- Attended by 52 delegates
- Draft report in S5-020704

## Joint sessions during SA5#31 in Atlanta

- with T2 SWG2 on GUP Mgmt & Data Definition (follow-on tentative 02/03)
- with T2 SWG2 on Subscription Management (follow-on tentative 02/03)
- with T2 SWG2 on User Equipment Management (follow-on tentative 02/03)

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# *Inter-Organizational (1/2)*



## **Co-operation with:**

### **3GPP2 TSG-S on Management standards**

- 3GPP2 TSG-S is referencing SA5's TSs in its specification S.S0028 "OAM&P for cdma2000 (3GPP Delta Specification)", which also documents some exception areas (e.g. Network Resource Model for cdma2000)
- Co-located meeting planned (SA5#34bis, San Francisco, 14–18 Jul 2003)

### **ITU-T SG4 & T1M1 on CORBA framework and XML/tML standardization**

- Further co-operation is under investigation

### **TMF on 3G-mobile Management standards**

- with Wireless Service Measurement Team on PM BB

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# *Inter-Organizational (2/2)*



## **Co-operation with:**

### **Open Mobile Alliance (OMA)**

- with OMA Requirements on UEM

### **“CAUTION” project**

- presentation made by Cosmote, an ETSI member, on the results of an EU-funded project under the Information Society Technologies Programme (IST) called “CAUTION” (see below).
- It proposed that 3GPP should consider standardising an interface for “MSC Reporting for Real Time Monitoring”.
- SA5 felt it should further study the proposal and it was recommended that a Rel-6 Feasibility Study work task should be started in SA5’s SWGD.

<b>CAUTION</b>	IST-2000-25352
<b>Project Title:</b>	Capacity Utilization in cellular networks of present and future generATIOn
<b>Project URL:</b>	<a href="http://www.telecom.ece.ntua.gr/caution/">http://www.telecom.ece.ntua.gr/caution/</a>

# Overview of SA5's Rel-6 Work Items



**Feature: SM  
Subscription**

**Feature: OAM&P  
Operations,  
Administration,  
Maintenance &  
Provisioning**

**BB: OAM-AR Principles,  
high level Requirements  
and Architecture**

**BB: OAM-Trace  
Trace  
Management**

**BB: OAM-NIM  
Network  
Infrastructure  
Management**

**BB: OAM-UEM  
User  
Equipment  
Management**

**BB: OAM-PM  
Performance  
Management**

**Feature: CH  
Charging  
Management**

**BB: CH-BC  
Charging  
Management  
for Bearer  
level**

**BB: CH-IC  
Charging  
Management  
for IMS**

**BB: CH-SC  
Charging  
Management  
for Service  
domain**

# ***Status of Rel-6 Feature: Subscription Management***

Work done against WID in SP-020448 - approved at SA#17 (09/2002)

- **Subscription Management (SM) 30%**
  - 32.140 (stage 1), submitted to SA#15 for Information, is now re-submitted as v110 to SA#18 for Information (**SP-020728**)
  - 32.141 (stage 2/3) is 5% complete
  - SM is linked to GUP

# Status of Rel-6 Feature OAM&P (1/2)



Work done against WID in SP-020445 - approved at SA#17 (09/2002)

- Was previously (Rel-4/5) Feature “Charging and OAM&P”
- Split in Rel-6 in two separate Features “OAM&P” and “Charging Management”
- Rel-6 OAM&P
  - 22%
  - Principles, high level Requirements and Architecture 10%
  - Network Infrastructure Management 5%
  - Performance Management (32.41x, 52.402) 15%
  - Trace Management 50%
  - User Equipment Management 10%
- Rel-6 Charging Management – WID submitted to SA#18 for Approval (see Slides 13 on Work Progress and Slide 20 on SA5’s Requests for Approval)

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# Status of Rel-6 Feature OAM&P (2/2)



- **BB: User Equipment Management (impacts other TSGs & OMA) 10%**
  - Started 32.150 (SA5) UEM requirements and architecture; Stages 1 and 2
  - Awaiting start of 27.150 (T2) UEM protocol specification; Stage 3
  - Ongoing joint meetings with T2 SWG2
  - Liaison with the Open Mobile Alliance
- **BB: Trace Management (impacts other TSGs) 50%**
  - 32.421 Trace Concepts and Requirements – sent v200 to SA#18 for Approval (SP-020755); sent with LS to CN, GERAN, RAN, SA2 (SP-020756)
  - 32.422 Trace Control and Configuration Management enhancement (45% complete)
  - 32.423 Trace Data Definition and Management (30% complete)
  - Trace Impacts on Network Signalling Interfaces: 11/2002 sent requirements to RAN (JM with RAN2 & RAN3 required in Feb 2003) and will send requirements to CN/GERAN early 2003.
  - 52.008 GSM Subscriber and Equipment Trace (50% complete)

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# ***Status of Rel-6 Feature: Charging Management***



Work done against WID in SP-020729 – to be approved at SA#18 (12/2002)

- Future joint activities (GSMA on Service charging, SA2 on Bearer Level charging)
  - Rel-6 WIDs for Feature and 3 BBs sent to SA#18 for Approval:
    - Feature: Charging Management (CH) - **SP-020729**
    - BB: Charging Management for Bearer level (CH-BC) - **SP-020730**
    - BB: Charging Management for the IMS (CH-IC) - **SP-020731**
    - BB: Charging Management for the Service domain (CH-SC) - **SP-020732**
- Some Work Tasks:**
- Interfaces to Billing Domain
  - Alignment of existing charging specifications
  - Align PS domain online charging with WLAN
  - WLAN offline & online charging
  - Evolution of IMS charging to generic applications
  - Enhancements to IMS charging
  - Analysis of implications on IMS charging from service charging
  - Alignment of existing stage 2 charging specification
  - MMS enhancements
  - LCS Enhancements

# Future SA5 Meetings



Meeting	Date	Location	Host
<b>SA5#32bis (SWGs)</b>	<b>20-24 Jan 2003</b>	<b>Sophia Antipolis, FRANCE</b>	<b>ETSI</b>
<b>SA5#33</b>	<b>24-28 Feb 2003</b>	<b>Phoenix, AZ, USA</b>	<b>NAF</b>
TSG#19	11-21 Mar 2003	Birmingham, UK	EF3
<b>SA5#33bis (SWGs)</b>	<b>07-11 April 2003</b>	<b>Berlin, GERMANY</b>	<b>EF3</b>
<b>SA5#34</b>	<b>19-23 May 2003</b>	<b>Sophia Antipolis, FRANCE</b>	<b>ETSI</b>
TSG#20	10-19 Jun 2003	Hämeenlinna, FINLAND	Nokia
<b>SA5#34bis (SWGs)</b>	<b>14-18 Jul 2003</b>	<b>San Francisco, USA (co-locate with 3GPP2)</b>	<b>3GPP2</b>
<b>SA5#35</b>	<b>01-05 Sep 2003</b>	<b>Shanghai, CHINA</b>	<b>CMCC</b>
TSG#21	16-25 Sep 2003	Berlin, GERMANY	EF3
<b>SA5#35bis (SWGs)</b>	<b>06-10 Oct 2003</b>	<b>USA (TBD)</b>	<b>NAF</b>
<b>SA5#36</b>	<b>17-21 Nov 2003</b>	<b>Europe (but other than ETSI) or Asia (TBD)</b>	<b>TBD</b>
TSG#22	09-18 Dec 2003	Hawaii, USA	NAF

# Abbreviations commonly used in SA5



<b>BS</b>	<b>Billing System</b>
<b>CDR</b>	<b>Charging Data Record</b>
<b>CM</b>	<b>Configuration Management</b>
<b>CMIP</b>	<b>Common Management Information Protocol</b>
<b>COPS</b>	<b>Common Open Policy Service</b>
<b>CORBA</b>	<b>Common Object Request Broker Architecture</b>
<b>FM</b>	<b>Fault Management</b>
<b>GDMO</b>	<b>Guidelines for the Definition of Managed Objects</b>
<b>IDL</b>	<b>Interface Definition Language</b>
<b>IMS</b>	<b>IP Multimedia Subsystem (not defined yet in TS 21.905)</b>
<b>IRP</b>	<b>Integration Reference Point</b>
<b>IS</b>	<b>Information Service</b>
<b>MOC</b>	<b>Managed Object Class</b>
<b>NRM</b>	<b>Network Resource Model</b>
<b>OS</b>	<b>Operations System</b>
<b>OSS</b>	<b>Operations Support System</b>
<b>PDP</b>	<b>Policy Decision Point</b>
<b>PM</b>	<b>Performance Management</b>
<b>SNMP</b>	<b>Simple Network Management Protocol (IETF)</b>
<b>SOM</b>	<b>Service Operations Management</b>
<b>SS</b>	<b>Solution Set</b>
<b>TM</b>	<b>Telecom Management</b>
<b>TMF</b>	<b>TeleManagement Forum</b>
<b>TMN</b>	<b>Telecommunications Management Network (ITU-T)</b>
<b>TOM</b>	<b>Telecom Operations Map (TMF)</b>
<b>UML</b>	<b>Unified Modelling Language</b>
<b>WLAN</b>	<b>Wireless Local Area Network (not defined yet in TS 21.905)</b>



***Documents and issues for  
discussion, information  
and approval***

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## ***SA5 Documents provided to this Plenary***

SP-020725	Status report of SA5 to SA #18
SP-020726	2 Rel-5 CR 32.101/2 (Principles and high level requirements & Architecture) : Aligning IRP related terminology with SA5's SWGC IRP specifications
SP-020727	Rel 5 CRs 32.102 (Telecommunication management; Architecture) : Updates and corrections to Integration Reference Points (IRPs) Introduction
SP-020728	Rel-6 TS 32.140 v1.1.1 (Services operations management; Subscription management requirements)
SP-020729	Rel-6 Feature WID: Charging Management
SP-020730	Rel-6 BB (BB1) WID : Charging Management for Bearer level
SP-020731	Rel-6 BB (BB2) WID : Charging Management for the IM Subsystem
SP-020732	Rel-6 BB (BB3) WID : Charging Management for the Service domain
SP-020733	Rel-97/98/99 CRs 12.15/32.015 (PS Charging) : "Addition of SGSN's Mobile Country Code (MCC) and Mobile Network Code (MNC) on G-CDR"
SP-020734	4 Rel-4/5 CRs 32.205/32.215 (CS/PS Charging): "Corrections on parameter Destination Number"
SP-020735	2 Rel-4 CRs 32.215/32.200 (Bearer Charging): "Addition of SGSN's MNC and MCC in G-CDR" (Alignment with SA2/CN4/GSMA BARG)
SP-020736	4 Rel-4/5 CR 32.205/32.215 (CS/PS Charging): "Alignment of LCS"
SP-020737	Rel-5 CR 32.205 (CS Charging): "Charging for Mobile Number Portability (MNP)" - Alignment with 23.066
SP-020738	3 Rel-5 CRs 32.215 (PS Charging): various
SP-020739	3 Rel-5 CRs 32.225 (IMS Charging): various
SP-020740	2 Rel-4/5 CRs 32.200 (Service Charging): "Correction of interface descriptions"
SP-020741	Rel-4/5 CRs 32.200 (Service Charging): "Alignments on MMS charging CDRs plus addition in Rel-5 of the MMBBox"
SP-020742	Rel-4/5 CR 32.205/32.235 (Service Charging): "Corrections on MMS records ASN.1 definition"
SP-020743	new Rel-5 draft v200 Rel-5 TS 32664 Kernel CM IRP CMIP SS
SP-020744	2 Rel-4/5 CR 32.612 (Bulk CM IRP Information service) : Incomplete getSessionStatus
SP-020745	Rel-4 CR 32.613 (Bulk CM IRP CORBA solution set) : Removal of the Concurrency exception in getSessionLog
SP-020746	2 Rel-4/5 CRs 32.614 (Bulk CM IRP CMIP solution set)
SP-020747	2 Rel-5 CRs 32.632/32.633 (CN Resources IRP: Network Resource Model/ CORBA solution set) : Removal of faulty attribute uraList
SP-020748	Rel-5 CR 32.642 (UTRAN network resources IRP: Network Resource Model) : Inclusion of valid values and ranges for UTRAN Cell parameters
SP-020749	4 Rel-5 CRs 32.604/634/644/654 (CMIP SSs of Basic CM IRP/CN NRM/UTRAN NRM/GERAN NRM) : Alignment with 32.6x2
SP-020750	Rel-5 CR 32.661 (Kernel CM requirements) : Clarification regarding optionality of notifications
SP-020751	6 Rel-4/5 CR 32.111-2/3/4 (Alarm IRP: Information Service/CORBA & CMIP SSs) : Add additionalInformation parameter in notification
SP-020752	Rel-5 CR 32.111-3 (Alarm IRP: CORBA SS) : Add notifyPotentialFaultyAlarmList (align with 32.111-2 Alarm IRP: Information Service)
SP-020753	Rel-5 CR 32.111-4 (Alarm IRP: CMIP SS) : Addition of Security Alarm Support (align with 32.111-2 Alarm IRP: Information Service)
SP-020754	Updated Rel-6 WID BB OAM-NIM Network Infrastructure Management (32100-, 300-, 600-Series)
SP-020755	Rel-6 TS 32.421 v2.0.0 (Subscriber and equipment trace: Trace concepts and requirements)
SP-020756	LS reply from SA5 to RAN, RAN2, RAN3 (cc: CN1, CN4, GERAN, SA, SA2) on Subscriber and Equipment Trace Impacts

# ***BB: Principles, high level Requirements and Architecture (OAM-AR)***



**Work done against WID in SP-020446 - approved at SA#17 (09/2002)**

## **SA approval is requested for**

- SP-020726**      **2 Rel-5 CR 32.101/2 (Principles and high level requirements & Architecture) : Aligning IRP related terminology with SA5's SWGC IRP specifications (32.6xy)**
- SP-020727**      **Rel 5 CRs 32.102 (Telecommunication management; Architecture) : Updates and corrections to Integration Reference Points (IRPs)**

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# ***Feature: Subscription Management (SM)***



**Work done against WID in SP-020448 - approved at SA#17 (09/2002)**

**SA is invited to note**

**SP-020728**

**Rel-6 TS 32.140 v1.1.1 (Services operations management;  
Subscription management requirements)**

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## ***Feature: Charging Management (CH)***



### **SA approval is requested for**

- SP-020729** Rel-6 Feature WID: Charging Management
- SP-020730** Rel-6 BB (BB1) WID : Charging Management for Bearer level
- SP-020731** Rel-6 BB (BB2) WID : Charging Management for the IMS
- SP-020732** Rel-6 BB (BB3) WID : Charging Management for the Service domain
  
- SP-020733** Rel-97/98/99 CRs 12.15/32.015 (PS Charging)
- SP-020734** 4 Rel-4/5 CRs 32.205/32.215 (CS/PS Charging)
- SP-020735** 2 Rel-4 CRs 32.215/32.200 (Bearer Charging)
- SP-020736** 4 Rel-4/5 CR 32.205/32.215 (CS/PS Charging)
- SP-020737** Rel-5 CR 32.205 (CS Charging)
- SP-020738** 3 Rel-5 CRs 32.215 (PS Charging)
- SP-020739** 3 Rel-5 CRs 32.225 (IMS Charging)
- SP-020740** 2 Rel-4/5 CRs 32.200 (Service Charging)
- SP-020741** Rel-4/5 CRs 32.200 (Service Charging)
- SP-020742** Rel-4/5 CR 32.205/32.235 (Service Charging)

# **BB: Network Infrastructure Management (OAM-NIM)**



Work done against WID in SP-020452 - approved at SA#17

## **SA approval is requested for**

- SP-020743** new Rel-5 draft v200 Rel-5 TS 32664 Kernel CM IRP CMIP SS
- SP-020744** 2 Rel-4/5 CR 32.612 (Bulk CM IRP Information service)
- SP-020745** Rel-4 CR 32.613 (Bulk CM IRP CORBA solution set)
- SP-020746** 2 Rel-4/5 CRs 32.614 (Bulk CM IRP CMIP solution set)
- SP-020747** 2 Rel-5 CRs 32.632/32.633 (CN Resources IRP: NRM/ CORBA SS)
- SP-020748** Rel-5 CR 32.642 (UTRAN network resources IRP: NRM)
- SP-020749** 4 Rel-5 CRs 32.604/634/644/654 (CMIP SSs of Basic CM IRP/CN NRM/UTRAN NRM/GERAN NRM) : Alignment with 32.6x2
- SP-020750** Rel-5 CR 32.661 (Kernel CM requirements)
- SP-020751** 6 Rel-4/5 CR 32.111-2/3/4 (Alarm IRP: IS/CORBA & CMIP SSs)
- SP-020752** Rel-5 CR 32.111-3 (Alarm IRP: CORBA SS)
- SP-020753** Rel-5 CR 32.111-4 (Alarm IRP: CMIP SS)
  
- SP-020754** Updated Rel-6 WID BB OAM-NIM Network Infrastructure Management (32100-, 300-, 600-Series)

## ***BB: Trace Management (OAM-Trace)***

Work done against WID in SP-020332 - approved at SA#16

**SA approval is requested for**

**SP-020755** Rel-6 TS 32.421 v2.0.0 (Subscriber and equipment trace:  
Trace concepts and requirements)

**SA is invited to note**

**SP-020756** LS reply from SA5 to RAN, RAN2, RAN3 (cc: CN1, CN4,  
GERAN, SA, SA2) on Subscriber and Equipment Trace  
Impacts

***The End***

***See you next time !***

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