TSG-SA WG5
(Telecom Management)
Status Report

Reported by

Albert H. Yuhan
TSG-SA WG5 Chair

3GPP SA5 Officers

- **Chair** – since 03/99, re-elected 02/2001

  Albert H. YUHAN (VoiceStream Wireless)

- **Vice Chair** – since 06/99, re-elected 02/2001

  Michael TRUSS (Motorola Ltd)

- **Three (3) SWGs created (provisional names given)**
  - SWG_A: Telecom Management Architecture and Requirements

    Michael TRUSS (Motorola Ltd) – Chair since 09/2001
  - SWG_B: Telecom Management Data Definition

    Karl-Heinz NENNER (T-Mobil) – Chair since 09/2001
  - SWG_C: Telecom Management Solutions

    Thomas TOVINGER (Ericsson L.M.) – Chair since 09/2001
    Joerg SCHMIDT (Motorola Inc.) – Vice Chair since 09/2001

- **MCC Support** – since 01/2000

  Adrian ZOICAS (MCC)

New SWG structure

SWGs **Area of Responsibility (in today's terms)**

SWG_A Telecom Management Architecture and Requirements

WIs/task: AR (32.101), PR (32.102), SuM (32.140), UOAM (32.800), UEM (32.80x)

Liaison: T2 (MExE, UEM, SyncML)

TMF MMC

ITU-T SG4 (Architecture and conformance issues)

SWG_B Telecom Management Data Definition

WIs/task: Charging (32.20x), Subscriber and user equipment tracing ("GSM 12.08")

PM (measurements, concepts, definition and requirements portion) (32.40x)

Liaison: ITU-T SG4 (IMT2000 Management)

T2 (MMS billing)

CN5 (OSA)

IETF-AAA (Diameter)

GSM Association (BARG, IREG, SERG)

SWG_C Telecom Management Solutions

RGs: CM, FM, PM (IRP portion) – 32.1xx, 32.3xx, 32.4xx, 32.6xx

WIs/task: IRPs to support products of SWG_A and SWG_B

Liaison: ITU-T SG 4 (CORBA, tML/XML)

T1M1 (CORBA, TML)

3GPP2

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Meetings

- **SA5 #21**
  - **16 – 20 July 2001 in Naperville, IL, USA hosted by Lucent Attended by 58 delegates**
  - **Full report in S5-010500**

- **Joint SA2/SA5/SA1 meeting on IMS Charging** (during SA2#19)
  - **30 Aug 2001 in Sophia Antipolis, France - hosted by ETSI Attended by around 100 delegates**

- **SA5 #21bis on Rel-5 Charging**
  - **31 Aug 2001 in Sophia Antipolis, France - hosted by ETSI Attended by 10+ delegates**

- **SA5 #22**
  - **3 – 7 Sep 2001 in Paris, France hosted by Alcatel Attended by 52 delegates**
  - **Draft report in S5-010587**

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Activity Highlights

- **Release 4**

Feature: Charging and OAM&P (OAM)
- – **Completion status at SA#13 is   100% (if SA5 input approved)**

Feature: UTRAN Operations and Maintenance procedures **(UOAM)**
- – **Completed at SA#12   100%**

- **Release 5**

Feature: Charging and OAM&P
- – **Completion status at SA#13 is   25%**

Feature: Subscription Management (SM)
- – **Completion status at SA#13 is   50%**

Feature: User Equipment Management (UEM) **-** *Feasibility Study*
- – **Completion status at SA#13 is   10%**

- **Intra-3GPP coordination/communication** (SA1/2, CN5, T2)

- **Interaction with external bodies** (3GPP2 S2, GSMA BARG, IETF-AAA, ITU-T SG4, T1M1, TMF MMC)

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Inter-Organizational (cont.)

Communication with:

SA1, SA2, CN4, T2 on Subscription Management

- LS, Draft 32.140, SA5 delegate sent to SA1 User Profile meeting (09/01)

SA2 on IMS

- QoS Presentation from SA2 during SA5#21 (07/01)
- Joint SA2/SA5/SA1 meeting on IMS Charging (08/01)
- Joint drafting meeting in Cancun (11/01) on SA2's TR23.xyz: Charging Implications of IMS architecture – for info see SA2's WID in SP-010519)
- Subsequently, SA5 will do the Stage 1-3 Charging specifications (TSs)

SA2 on IETF DIAMETER protocol

- DIAMETER Presentation from SA2 during SA5#21 (07/01)

Inter-Organizational *(cont.)*

Communication with:

CN5 on potential work overlap/gap on Charging

- OSA Presentation from CN5 during SA5#22 (09/01)
- Joint meeting on Charging to be arranged in Cancun (11/01)

T2 on User Equipment Management (UEM) – Feasibility study

- SA5 chair presented Draft TR 32.802 V0.0.2 to TSG-T#13 (09/01)
- Joint meeting on UEM being arranged in Cancun (11/01)

RAN4 on UTRA Wideband Distribution Subsystems (WDS)

T2 on MMS charging

Inter-Organizational *(cont.)*

Co-operation with:

ITU-T SG4 & T1M1 on CORBA framework and XML/TML standardization

- Further co-operation is under investigation (Feasibility Study in Rel-5)

TMF MMC on 3G-mobile Management standards

- SA5 will continue to monitor TMF MMC (Mobile Marketing Centre)
- Joint meeting planned at SA5#26 in Miami/ FL (02/02)

Inter-Organizational *(cont.)*

Co-operation with:

3GPP2 S2 on Management standards

- 3GPP2 S2 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)

OSS/J

- Presentation received on OSS through Java Initiative "A new breed of OSS solutions powered by Java Technology" during SA5#21 (07/01)

Technical, Work Planning

Feature: Charging and OAM&P (Rel- 4)

Contains Five SA5 Building Blocks (SA#10 approved):

1 Principles, high-level requirements and architecture (OAM-AR)

   100% completed at TSG#12

2 Configuration Management (OAM-CM)

   100% completed at TSG#12

3 Fault Management (OAM-FM)

   remaining 5% for TSG#13 approval (32.111- 4)

   (Rel4, 100% complete)

4 Performance Management (OAM-PM)

   remaining 15% for TSG#13 approval (32.401, 32.402)

   (Rel4, 100% complete)

5 Charging Management (OAM-CH)

   remaining 20% for TSG#13 approval (32.200, 32.205, 32.215, 32.235)

   (Rel4, 100% complete)

TSG Approval Targets:

   10% of Rel4 – 09/01 (if SA5 input approved =>100% completed at TSG#13) 10

Technical, **Work Planning** (cont.)
Feature: Charging and OAM&P (Rel-5)

Contains Five SA5 Building Blocks:

1   Principles, high-level requirements and architecture (OAM-AR)

0% **for Approval TSG#13 (Rel5, 45% complete)**

2   Charging Management for IMS (OAM-CH/IP)

0% **for Approval TSG#13 (Rel5, 25% complete)**

3   Charging Management (OAM-CH)

0% **for Approval TSG#13 (Rel5, 15% complete)**

4   Performance Management (OAM-PM)

0% **for Approval TSG#13 (Rel5, 15% complete)**

5   Network Infrastructure Management (OAM-NIM)
(combined Configuration-, Fault- and Performance-Management (IRP part))

0% **for Approval TSG#13 (Rel5, 25% complete)**

–   Completion status at SA#13 is   25%

TSG Approval Targets:

0% **of Rel5 – 09/01 (TSG#13)**   **100%** **of Rel5 – 03/02 (TSG#15)**   **11**

Technical, Work Planning (cont.)

Feature: Subscription Management (Rel-5)
- (SA#10 approved)

Operational Requirements and Specifications (32.140).

– Subscription Management is a feature that permits operators to provision services for a specific customer subscription (i.e. to create, amend and delete subscriber subscription data).

0% for Approval TSG#13 (Rel5, 50% complete)

Requirements completed - 09/01

Co-ordination ongoing with other 3GPP WGs on e.g.:

– VHE Enhancements & User Profile (SA1), HSS Interface (CN4). Awaiting feedback from SA1, CN4.

– UE Management (SA5) on terminology relating to actors and roles.

TSG Approval Target: - remains 12/01 (TSG#14)

Technical, *Work Planning (cont.)*
Feature: User Equipment Management (Rel-5
Feasibility Study – SA#12 approved WID in SP-010286)

Background:

UE Management is a collection of functions and applications, which allow Operators/ Service Providers to remotely manage UE.
Flexible management infrastructure supporting end-customers, service providers, network operators and manufacturers are required. UE Management could be used by the network operator and manufacturer to extend service and network management, fault isolation and resolution to the remote UE.

Status:

- 10% complete at SA#13 (32.802)

- Draft TR 32.802 V0.0.2 presented to TSG-T#13 (09/01).

- Joint SA5-T2 leadership of the WI progressing with a joint meeting in Cancun (11/01) & the TR brought by the SA5 chair to T#13 in Beijing.

- Co-operation with Subscription Management (SA5) on terminology relating to actors and roles.

- TMF MTEM (Mobile Terminal Equipment Management) activities noted.

TSG Approval Target: 03/02 (TSG#15)

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Technical, Release-99

SA approval is requested for

- 3 CRs to 32.005   (SP-010462)
- 4 CRs to 32.015   (SP-010463)
- 1 CR to 32.106-6   (SP-010473)

Technical, Release 4

SA approval is requested for

- 1 CR to 32.101 (SP-010465)

- 1 CR to 32.102 (SP-010466)

- 1 CR to 52.071 (SP-010472) - withdrawal from Rel-4 of LCS OAM

Technical, Release 4 (cont.)

SA approval is requested for

Charging Management

- all 4 draft V2.0.0 specifications 32.200, 32.205, 32.215 and 32.235 (SP-010464)

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                        │      32.200          │
                        │    Charging          │
                        │    Principles        │
                        │ (charging Stage 2)   │
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32.200 Charging Principles (charging Stage 2)

32.205 Stage 3 CS-domain	32.215 Stage 3 PS-domain	32.225 Stage 3 IMS-domain (Rel5)	32.235 Stage 3 Service-domain (Rel4: MMS service)

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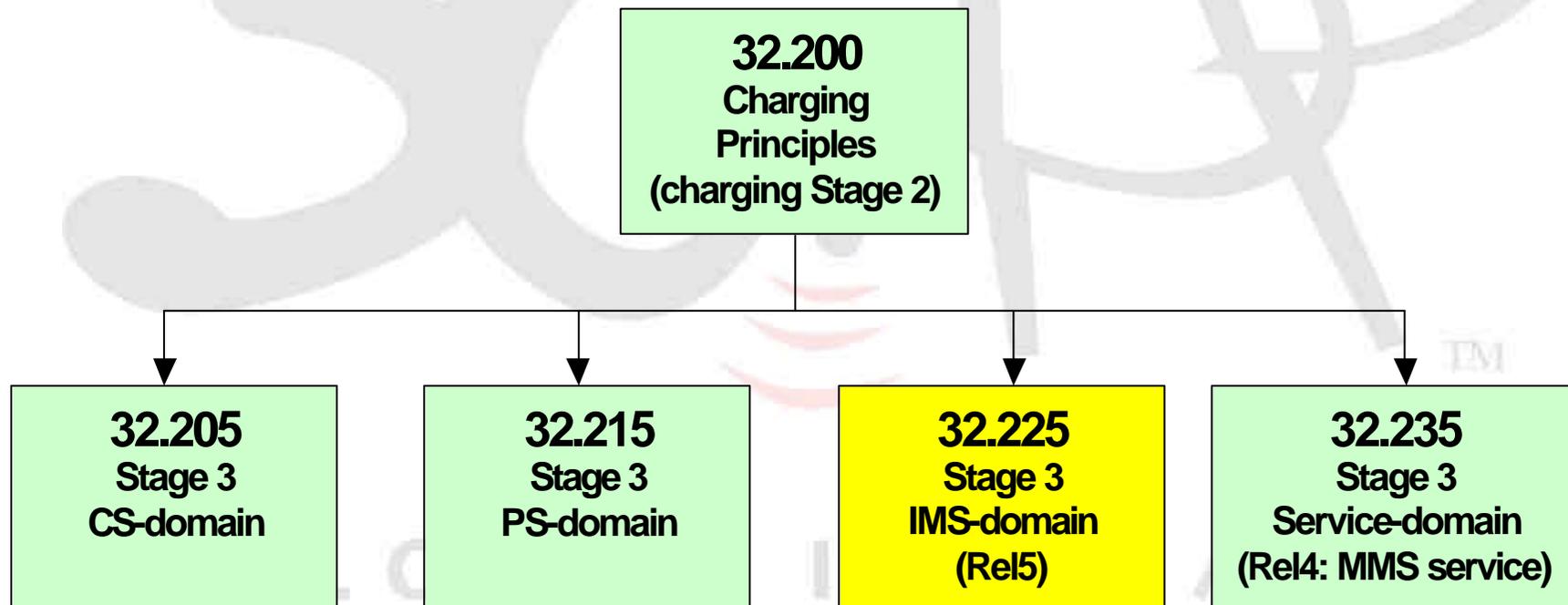
Technical, Release 4 (cont.)

SA approval is requested for

Performance Management (PM)

- the remaining 2 out of 3 draft V2.0.0 TSs (SP-010467):

  32.401   **Performance Management Concept and Requirements**
  32.402   **Performance Measurements – GSM**

- 1 CR to 32.403   **Performance Measurements – UMTS and combined UMTS/GSM** (SP-010468)

Technical, Release 4 (cont.)

SA approval is requested for

Configuration Management (CM)

- 6 CRs to 32.600-series (SP-010479)
- 3 CRs to 32.602, 32.603, 32.604 (SP-010476)
- 2 CRs to 32.652, 32.654 (SP-010477)
- 6 CRs to 32.6x4 (SP-010478)

Technical, Release 4 (cont.)

SA approval is requested for

Fault Management (FM)

- 1 CR to 32.111-3 (SP-010469)
- 2 CRs to 32.111-2, 32.111-3 (SP-010474)
- 3 CRs to 32.102, 32.111-2, 32.303 (SP-010522)
- 3 CRs to 32.304 (SP-010471)

For upgrading 32.111-4 (CMIP SS) to Rel-4, one CR was submitted to SA#12 for Information in SP-010282.
This CR evolved and is submitted to SA#13 for Approval:

- 1 CR to 32.111-4 (SP-010470)

Technical, Release-5

SA approval is requested for

3 Work Item Descriptions (SP-010461)

- **Charging and Operations, Administration, Maintenance & Provisioning (Feature: OAM)**
  - Principles, high level Requirements and Architecture (BB: OAM-AR)
  - Network Infrastructure Management (BB: OAM-NIM)

Note the other BB WIDs under the OAM Feature:

- **Performance Management (BB: OAM-AR) - SA#12 approved (SP-010238)**
- **Charging Management (BB: OAM-CH) - SA#10 approved (SP-000524)**
- **Charging Management for IMS (BB: OAM-CH-IP) - SA#10 approved (SP-000524)**

Future SA5 Meetings

Meeting	Date	Location	Host
SA5#23	15 -19 Oct 2001	Sundsvall, Sweden	Telia
SA5#24	26 – 30 Nov 2001	Cancun, Mexico	NA friends
TSG#14	11 - 20 Dec 2001	Kyoto, Japan	ARIB/TTC
SA5#25	14-18 Jan 2002	Sophia Antipolis,	ETSI
SA5#26	25 Feb - 1 Mar 2002	Miami, FL / USA	NA Friends
TSG#15	5 - 14 March 2002	TBD, Korea	TTA
SA5#27	2-5 Apr 2002	Cork, Ireland	Motorola
SA5#28	13-17 May 2002	Kawasaki, Japan	Fujitsu
TSG#16	4 - 13 June 2002	Marco Island, FL, USA	Motorola
SA5#29	24-28 Jun 2002	TBD	TBD
SA5#30	19-23 Aug 2002	TBD	TBD
TSG#17	3 - 12 September 2002	TBD, France	Alcatel
SA5#31	7-11 Oct 2002	Phoenix, AZ, USA	NA Friends
SA5#32	18-22 Nov 2002	TBD	TBD
TSG#18	3 - 12 December 2002	TBD, North America	NA friends

Charging Management

GSM

12.05	Subscriber Related Call and Event Data	R98	7.0.1
12.15	GPRS Charging	R98	7.6.0

3GPP R99

32.005	Call and event data for the CS domain
32.015	Call and event data for the PS domain

3GPP Rel-4

32.200	**Charging Principles**
32.205	**Charging data description for the CS domain**
32.215	**Charging data description for the PS domain**
32.235	**Charging data description for application services**

3GPP Rel-5

32.200	Charging Principles
32.205	Charging data description for the CS domain
32.215	Charging data description for the PS domain
32.225	**Charging data description for the IMS domain**
32.235	Charging data description for application services

Fault Management

GSM

12.11	Fault management of the BSS	R97	6.3.0

3GPP R99

32.111-1	Fault Management requirements
32.111-2	FM; Part 2: Alarm IRP; IS
32.111-3	FM; Part 3: Alarm IRP; CORBA
32.111-4	FM; Part 4: Alarm IRP; CMIP SS

3GPP Rel-4

32.111-1	**Fault Management**
32.111-2	**FM; Part 2: Alarm IRP; IS**
32.111-3	**FM; Part 3: Alarm IRP; CORBA**
32.111-4	**FM; Part 4: Alarm IRP; CMIP SS**
32.311	**Generic IRP management; Requirements**
32.312	**Generic IRP management; IS**

3GPP Rel-5

Note: in Rel-5
FM + CM = NIM
Network Infrastructure
Management

32.111-1	Fault Management requirements
32.111-2	FM; Part 2: Alarm IRP; IS
32.111-3	FM; Part 3: Alarm IRP; CORBA
32.111-4	FM; Part 4: Alarm IRP; CMIP SS
32.311	Generic IRP management; Requirements
32.312	Generic IRP management; IS

Performance Management

GSM	12.04	Performance Management and Measurements for a GSM PLMN	R99	8.0.0

3GPP R99	32.104	Performance Management

3GPP Rel-4	**32.401**	**Performance Management; Concept and requirements**
	32.402	**Performance measurements - GSM**
	32.403	**Performance measurements - UMTS and combined UMTS/GSM**

3GPP Rel-5	32.401	Performance Management; Concept and requirements
	32.402	Performance measurements - GSM
	32.403	Performance measurements - UMTS and combined UMTS/GSM

Configuration Management

GSM {

12.06	Network Configuration Management and Administration	Ph2	4.1.1

3GPP R99 {

32.106-1	Configuration Management; Concept and requirements
32.106-2	CM; Part 2: Notification IRP IS
32.106-3	CM; Part 3: Notification IRP; CORBA SS
32.106-4	CM; Part 4: Notification IRP; CMIP SS
32.106-5	CM; Part 5: Basic CM IRP information model (including NRM)
32.106-6	CM; Part 6: Basic CM IRP CORBA SS
32.106-7	CM; Part 7: Basic CM IRP CMIP SS
32.106-8	CM; Part 8: Name convention for Managed Objects

3GPP Rel-4   **- see next slide**

Configuration Management

3GPP Rel-4 & Rel-5

32.600	Configuration Management; Concept and main requirements
32.601	Basic CM IRP: requirements
32.602	Basic CM IRP information model
32.603	Basic CM IRP: CORBA SS
32.604	Basic CM IRP CMIP SS
32.611	Bulk CM IRP requirements
32.612	Bulk CM IRP: IS
32.613	Bulk CM IRP: CORBA SS
32.614	Bulk CM IRP: CMIP SS
32.615	Bulk CM IRP: XML file format definition
32.621	Generic network resources IRP: requirements
32.622	Generic NR IRP: NRM
32.623	Generic NR IRP: CORBA SS
32.624	Generic NR: IRP CMIP SS
32.631	Core NR IRP: requirements
32.632	Core NR IRP: NRM
32.633	Core NR IRP: CORBA SS
32.634	Core NR IRP: CMIP SS
32.641	UTRAN NR IRP: requirements
32.642	UTRAN NR IRP: NRM
32.643	UTRAN NR IRP: CORBA SS
32.644	UTRAN NR IRP: CMIP SS
32.651	GERAN NR IRP: requirements
32.652	GERAN NR IRP: NRM
32.653	GERAN NR IRP: CORBA SS
32.654	GERAN NR IRP: CMIP SS

A GLOBAL INITIATIVE

NR	TITLE
460	Status report from SA WG5 to SA#13
461	Rel-5 WI Descriptions for Charging and OAM&P (Operations, Administration, Maintenance & Provisioning) (Feature: OAM and 5 Building Blocks)
462	R99 CR32.005 (Telecommunications Management; Charging and billing; 3G call and event data for the Circuit Switched (CS) domain)
463	R99 CR32.015 (Telecommunications Management; Charging and billing; 3G call and event data for the Packet Switched (PS) domain)
464	Rel-4 Charging: delivery of all 4 draft V2.0.0 specifications for approval (32.200, 32.205, 32.215 and 32.235)
465	Rel-4 CR32.101 (3G Telecom Management principles and high level requirements)
466	Rel-4 CR32.102 (3G Telecom Management Architecture)
467	Rel-4 Performance Management (PM): delivery of the remaining 2 out of 3 draft V2.0.0 specifications for approval (32.401, 32.402)
468	Rel-4 CR32.403 (Telecommunication Management; Performance Measurements; UMTS and combined UMTS/GSM)
469	Rel-4 CR32.111-3 (Telecommunication Management; Fault Management; Part 3: Alarm Integration Reference Point: CORBA Solution Set
470	Rel-4 CR32.111-4 for upgrading R99 to Rel-4 (Telecommunication Management; Fault Management; Part 4: Alarm Integration Reference Point: CMIP Solution Set Version 1:1)
471	Rel-4 CR32.304 (Telecommunication Management; Notification Integration Reference Point: CMIP Solution Set)
472	Rel-4 CR52.071 Withdrawal from Rel-4 of 52.071 (Location Services (LCS); Location services management)
473	R99 CR32.106-6 (Basic Configuration Management IRP: CORBA Solution Set Version 1:1)
474	Rel-4 CR32.111-2 & 32.111-3 on thresholdInfo in Alarm IRP
476	Rel-4 CR32.602, 32.603 & 32.604 on Correction of invokeIdentifier usage
477	Rel-4 CR32.652 & 32.654 on Adding mcc and mnc in the object model of GERAN (NRM)
478	Rel-4 CR32.6x4 (IRP: CMIP SS) on Corrections due to specifications renumbering
479	Rel-4 CR32.600-series Corrections
522	Rel-4 CR32.102, 32.111-2 & 32.303 on Rule for IDL file names