TSGS#14(01)0631

Source:	**SA5 (Telecom Management)**
Title:	**2 Rel-5 BB-level WI Descriptions for Charging Management and Performance Management under the OAM&P Feature**
Document for:	**Decision**
Agenda Item:	**7.5.3**

The Release 5 Building Blocks "Charging Management" and "Performance Management" can be found in S5-010744 (OAM-PM) and SA5-010747 (OAM-CH) respectively. Note that the WT descriptions are included in the ZIP-Files containing the BBs.

1   Charging Management (S5-010747)

- The two (2) separate Rel-4 BBs (SA#10 approved) have been combined into one BB for Rel-5 (i.e. combined with IMS charging).
- Rel-5 will cover only IMS off-line Charging Aspects (define the charging interfaces; identify CDRs and CM issues).
- On-line charging will **NOT** be included in Release 5 as the basis for work is not yet available from SA2.

2   Performance Management (S5-010744)

- This Rel-5 BB has been approved already at SA#12.
- This revised version is **adding** a new WT to produce the 3G-equivalent of GSM 12.08 on Subscriber and Equipment Trace (32.108).

The Approval target date for all Rel-5 deliverables is shifted from March to **June 2002 (TSG#16)**.

Attachments:

S5_24	S5-010744	B 5.2	WID	Draft revision of Work Item Description: Rel5 Performance and Trace Management (Building Block: OAM-PM)	SWG_B (PM)	SA5 approved
S5_24	S5-010747	B 5.2	WID	Draft Work Item Description: Charging Management (Building Block: OAM-CH)	SWG_B (CB)	SA5 approved

3GPP TSG-SA5 (Telecom Management)　　　　　　　**Tdoc S5B010647 bis**
Meeting #24, Cancun, Mexico, 26 Nov - 30 Nov 2001

Title:	Work Item Description: WI type: Work Task WI: title: **Measurement definition for GSM systems (Release 5)**
Source:	Nortel Networks (toche@nortelnetworks.com)
Agenda item:	
Document for:	Discussion and approval

Work Item Description

Title:　　**Measurement definition for GSM systems (Release 5)**

1　　　　3GPP Work Area

X	Radio Access
X	Core Network
X	Services (specifically OAM&P, SA5 Feature)

2　　　　Linked work items

The following PM work item is linked to this work item:

- File format and measurement template enhancement (PM CR rapporteur group)

3　　　　Justification

In Release 99, a common file format has been specified to transport measurement results from the network to a network management system, also termed the Network Manager (NM). Therefore, a NM can interpret measurement result files originating from any compliant system by supporting just this one single file format.

In Release 4, UMTS and combined GSM/UMTS measurements have been specified in the UMTS TS 32.403 for a subset of the 3G network elements. As a result, these network elements from different vendors will generate the same performance indicators using the same triggers. Consequently, operation of a multi-vendor network is made possible for these network elements.

It is therefore necessary to integrate also 2G network elements measurement types to deliver the same network performance information across any mixed GSM and UMTS system regardless of the manufacturer.

As a secondary benefit, the list of measurement types to be specified under this work item will help vendors and operators alike by providing guidance to decide what should be required from, and implemented in, the GSM and UMTS products.

4　　　　Objective

The group should analyse the currently defined GSM measurements in TS 52.402. The measurements which are also applicable to UMTS will be duplicated into the TS 32.403 "UMTS and combined GSM/UMTS measurements" and the pure GSM measurements will remain unchanged in TS 52.402.

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

10   Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	**Title**	**Prime resp. WG**	**2ndary resp. WG(s)**	**Presented for information at plenary#**	**Approved at plenary#**	**Comments**

Affected existing specifications					
Spec No.	**CR**	**Subject**	**Approved at plenary#**	**Comments**	
52.402		Measurement analysis	TSG#15 (03/02)	PM enhancements for Release 5	
32.403		Combined GSM/UMTS measurements	TSG#15 (03/02)	PM enhancements for Release 5	

11   Work item raporteurs

Christian TOCHE, Nortel Networks (toche@nortelnetworks.com)

12   Work item leadership

SWG-B PM MD rapporteur group

13   Supporting Companies

T-Mobil, France Telecom, ADC, Motorola, Ericsson, Nortel Networks

14   Classification of the WI (if known)

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

14c   The WI is a <mark>Work Task</mark>: parent Building Block

Performance Management

Agenda Item: **5.2**

Source: **SA5 SWG-B**

Title: **Work Item Description: Rel5 Performance and Trace Management (Building Block: OAM-PM)**

Work Item Description

Title: **Performance Management** (Building Block: **OAM-PM**)

1   3GPP Work Area

	Radio Access
	Core Network
X	Services (specifically, 3G Telecom Management: OAM&P)
	Terminals

2   Linked work items

- OAM&P (Operations, Administration, Maintenance & Provisioning) Enhancements (SA5 Feature)

3   Justification

During the lifetime of a UMTS network, its logical and physical configuration will undergo changes of varying degrees and frequencies in order to optimise the utilisation of the network resources. These changes will be executed through network configuration management activities and/or network engineering, see 3GPP TS 32.300 and 32.600 series.

Many of the activities involved in the daily operation and future network planning of a UMTS network require data on which to base decisions. This data refers to the load carried by the network and the grade of service offered. In order to produce this data performance measurements are executed in the NEs, which comprise the network. The data can then be transferred to an external system, e.g. an Operations System (OS) in TMN terminology, for further evaluation. It is necessary to describe the mechanisms involved in the collection of the data and the definition of the data itself.

As the reference model evolves and the functionalities as well as the architecture in 3GPP Rel5 networks become more and more complicated, a need for a suitable method and necessary procedures for subscriber and equipment trace becomes evident.

This building block is aiming at the addition of functionality, as specified in the list of "children" Work Tasks below.

4   Objective

The objective of this building block is to provide the following functionality:

- PM monitoring
- File format enhancement
- Measurement definitions
- PM result file management
- 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

10　　　　**Expected Output and Time scale (to be updated at each plenary)**

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TS 32.108	Subscriber and Equipment Trace	SA5		TSG#15 (03/02)	TSG#16 (06/02)	
xx.yyy		SA5		TSG#15 (03/02)	TSG#16 (06/02)	one or more TR(s) or TS(s), tbd PM result file management, PM IRP
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.401				TSG#16 (06/02)	PM Monitoring and File Format Enhancements for Release 5	
32.403				TSG#16 (06/02)	Measurement Definitions for Release 5 (UMTS/combined)	
52.402				TSG#16 (06/02)	Measurement Definitions for Release 5 (GSM)	

11　　　　**Work item rapporteurs**
　　　　Karl-Heinz NENNER (T-Mobil) karl-heinz.nenner@t-mobil.de

12　　　　**Work item leadership**
　　　　SA5

13　　　　**Supporting Companies**
　　　　Ericsson, Motorola, Nortel, Siemens, T-Mobil

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**:

- OAM&P (Operations, Administration, Maintenance & Provisioning) Enhancements (SA5)

15　　　Work Tasks under this Building Block

PM	Performance monitoring	Define the control and configuration of performance thresholds; Specify usage of the Alarm IRP to transmit PM threshold alarms.	Release 5
	File format and measurement template enhancement	Analyse impact of non-3G-standard measurements on the measurement definition template and the PM result file format.	Release 5
	PM result file management	Ability to select measurement results that are included in the PM files; Control of the transfer of PM result files from the network to the NM.	Release 5
	Measurement definitions for UMTS and combined GSM and UMTS systems	Definition of the standard measurement set for UMTS and combined UMTS/GSM systems.	Release 5
	Measurement definitions for GSM systems	Definition of the standard measurement set for GSM only systems	Release 5
	Trace Management	Specify the network/resource usage records for the purpose of tracing subscriber and UE activity; Define the scenarios for trace activation and deactivation; Specify the file format for the transfer of trace records to the NM.	Release 5

Agenda Item:	**5.2**
Source:	**SA5 SWG-B Chairman**
Title:	**Charging Management (Building Block: OAM-CH)**
Document for:	**Approval**

Work Item Description

Title: **Charging Management** (Building Block: **OAM-CH**)

1   3GPP Work Area

	Radio Access
	Core Network
X	Services (specifically, 3G Telecom Management: Charging Management)
	Terminals

2   Linked work items

- (1273)   Provisioning of IP-based multimedia services (SA1 Feature)
- (1367)   VHE enhancements (SA1 Feature)
- (1637)   OSA enhancements (SA1 Feature)
- (2062)   Wideband Telephony Service - AMR (SA4 Feature)
- (1536)   Location Services enhancements (SA2 Feature)
- (2464)   MExE enhancements (T2 Feature)
- (2546)   UMTS QoS Architecture for PS Domain (SA2 Feature)
- (2556)   End to End QoS for PS Domain including IMS (SA2 Feature)
- (1142)   Charging and OAM&P (SA5 Feature)

3   Justification

Currently (i.e. in 3GPP release 4), only the charging functionality for the Circuit Switched (CS) and Packet Switched (PS) domains and for the MMS, are standardised. More advanced features, such as the IMS, or to provide service-related charging information for other new services, are not specified. Therefore, the specification and standardisation of more sophisticated functionality is proposed for these areas. Functional enhancements to the existing Release 4 charging specifications (e.g. MMS) are also being considered.

As more services, such as the ESS and Presence Service, are standardised in 3GPP, it is necessary to provide a mechanism for operators to charge for these advanced services based on information gathered in the service nodes and/or the core network nodes that are involved in providing transport capacities for the delivery of the service.

The IMS subsystem, currently being defined, will avail new services from which significant benefits are accruable for operators. This new subsystem will require a specification and standardisation of charging functionality that has not here-to-for been specified for UMTS.

Also required by these new charging features are considerations of architectural implications, the management of charging as new services are defined, and the method of defining the information model, as well as the impacts on the existing charging specifications, i.e. the charging principles and the CS and PS domains. Also, the addition of more sophisticated functionality is planned in certain areas in the existing specifications, such as the charging characteristics.

Finally, charging functionality for LCS needs to be provided. This entails addition of functionality to the PS and CS nodes that collect CDRs, as well as the specification of charging functionality for the LCS nodes.

4   Objective
The objective of this work item is:
- to accommodate the charging requirements of the features listed above
- To provide charging functionality for the new services, such as Presence, ESS
- To specify the charging functionality for the IMS

- To upgrade the existing charging specifications as appropriate in order to incorporate changes and additions necessary for the above functionalities and services
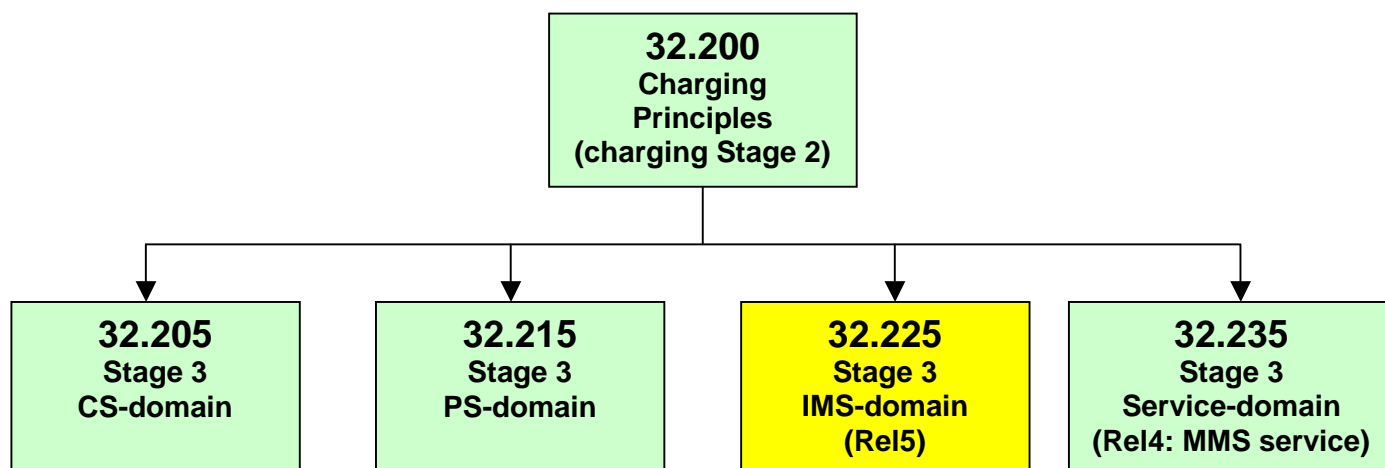
5 Service Aspects

Appropriate network nodes will need to collect and forward service related charging data.

6 MMI-Aspects

None

7 Charging Aspects

Charging Management - 32.200-series

```
                        ┌──────────────────────┐
                        │      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) |

The new structure of the SA5.CB charging specifications (TSs) comprises:
1) a set of Implementers' Guides and
2) an "umbrella" specification (TS 32.200) that applies to all of the Implementers' Guides.
   TS 32.200 is a tutorial to the charging systems to which the TSs apply and describes charging principles, architecture, and requirements.

The Implementers' Guides are specialised according to several criteria. Operating domains is one criterion. Hence, Implementers' Guide exists for the CS Domain (TS 32.205) and for the PS domain (TS 32.215). Because of its significant feature enhancements, the IMS (subsystem) of the PS domain has its own Implementers' Guide (TS 32.225).

Another implementers' guide (TS 32.335) has been created to expeditiously deal with charging for special types of advanced services that cross the boundaries of the guides cited above. For Release 4, TS 32.235 has only addressed MMS charging. In Release 5, it will address MMS enhancements, ESS, Presence and LCS, as far as the required stage1 and stage2 documents are available from SA1 and SA2.

The table below summarises the new structure of the SA5.CB charging TSs:

TS #	Tentative Title	Release	Editor
32.200	Charging principles	4 & 5	Ericsson (AHLBÄCK Hans)
32.205	Charging data description for the Circuit Switched (CS) domain	4 & 5	Nortel (BENDER, James)
32.215	Charging data description for the Packet Switched (PS) domain	4 & 5	Alcatel (LEHNERT Matthias)
32.225	Charging data description for IMS subsystem	5	Lucent (SHARON, Ariel)
32.235	Charging data description for application services	4 & 5	Siemens (GOERMER, Gerald)

8 Security Aspects

None

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.225	Charging data description for IMS subsystem	SA5		TSG#15 (03/02)	TSG#16 (06/02)	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.200				TSG#16 (06/02)	SA1/SA2 have secondary responsibility	
32.205				TSG#16 (06/02)		
32.215				TSG#16 (06/02)		
32.235				TSG#16 (06/02)		

11   Work item rapporteur

Karl-Heinz NENNER (T-Mobil) Karl-Heinz.Nenner@T-Mobil.de

HYPERLINK**12   Work item leadership**

SA5

13   Supporting Companies

Alcatel, Ericsson, Lucent, Nokia, Nortel, Siemens, T-Mobil

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(s):**
- (1273)   Provisioning of IP-based multimedia services (SA1 Feature)
- (1367)   VHE enhancements (SA1 Feature)
- (1637)   OSA enhancements (SA1 Feature)
- (2062)   Wideband Telephony Service - AMR (SA4 Feature)
- (1536)   Location Services enhancements (SA2 Feature)
- (2546)   UMTS QoS Architecture for PS Domain (SA2 Feature)
- (2556)   End to End QoS for PS Domain including IMS (SA2 Feature)
- (1142)   Charging and OAM&P (SA5 Feature)

15   Work Tasks under this Building Block

Building Block	Work Task	Description	Release
Charging Management	Charging Principles	Provide (enhancements of) charging principles for the Circuit Switched and Packet Switched domains, the IMS subsystem and services (e.g. MMS and LCS),	Release 5
	Circuit Switched Charging	Define enhancements to existing Charging Data Records (CDRs) or new CDRs as needed to support both circuit-switch network evolution and new services.	Release 5
	Charging evolutions Packet switched domain	Interworking/alignment with other domains and services. Enhancements for the Charging Characteristics	Release 5
	IMS off-line Charging Aspects	Define the charging interfaces; identify CDRs and CM issues. On-line charging will NOT be included in Release 5 as the basis for work is not yet available from SA2.	Release 5
	Service related charging	MMS enhancements, LCS, Presence Service, ESS.	Release 5

Title:	Work Item Description: WI type: Work Task WI: title: **IMS Offline Charging Aspects (Rel. 5)**
Source:	**Lucent Technologies** (Ariel Sharon, asharon@lucent.com, +1-630-979-1983)
Agenda item:	
Document for:	Discussion on this Draft and preliminary approval by SA5 CB participants.

Work Item Description

Title

IMS Offline Charging Aspects (Rel. 5)

1   Objectives

The main objective of this Work Item is to define the charging data descriptions for IMS. Being the first work task on IMS it covers only off-line charging principles, architecture and the specification of offline charging method. These specifications need to identify the CDRs types that need to be generated by the different IMS entities, the format of the CDRs and their transport.

2   Justification

Charging and Billing are important aspects of the IMS since it represents the revenue stream of the operators from the network deployment and from the offered services.

3   Linked Charging management Building Block Work Items

This task is concerned with the main R5 technical specification on charging data descriptions for IMS. As such it concentrates only with offline charging. A parallel charging task, involving charging principles, covers the definitions of terms, requirements and scenarios, including sub-tasks associated with IMS.   The charging principles task will produce the R5 version of 32.200.

- Off-line IMS charging architecture (high);
- CDR identifications and definitions;
- Interface specifications;
- Configuration Management (e.g., administrations of session correlations);

4   Related Technical Specifications

This task will relay on the following main references:

- IMS Architecture: TS 22.228 and TS 23.228
- Charging Implication of IMS architecture TR 23.815
- Charging Principles TS 32.200.
- C&B requirements for all IP network: S5B010017

5   Expected Milestones and Their Timetable

The following table lists the planned milestones for this work item.

No.	Milestone	Description	Completion

No.	Milestone	Description	Completion
1.	Purpose and content determination	Determine the purpose and content of all subtasks and documents that are involved and need to be developed. Outline a clear plan with timelines and milestones.	October 2001
2.	Examination IMS logical architecture for offline charging	Participate jointly with SA2 in developing a Technical Report on the Charging Implications of IMS Architecture (TR 23.815)	November 2001
3.	Provide an outline of 32.225	Provide and approve a table of content for TS 32.225	November 2001
4.	Provide CR for 32.200 to generate a R5 version [*]	Create the first TS 32.200 for R5	November 2001
5.	Define the charging interfaces; identify CDRs and CM issues.	Complete all the subtasks associated with offline charging	January 2002
6.	Complete a draft of 32.225 for information	Provide a complete draft of 32.225 for information	February 2002
7.	Complete a draft of TS 32.200 for Information [*]	Provide a complete draft of 32.200 Rel. 5 for information	February 2002
8.	Provide TS 32.225 for SA approval	Submit 32.225 for SA approval	May 2002
9.	Provide TS 32.200 for SA approval [*]	Submit 32.200 R5 for SA approval	May 2002

[*] This milestone belongs to the Charging Principles RG and is provided here only to indicate the overall IMS charging activities.

6 Work Item Owner

Ariel Sharon (Lucent)

7 Supporting Companies

All participants supporting the SA5 meetings and the building blocks.

Source:	**Ericsson (Hans Ahlbäck,** <u>hans.ahlback@ericsson.fi</u>**, +358 40 748 2180)**
Title:	**Work Item Description: Charging Principles** **WI type: Work Task**
Document for:	Information, Decision (SA5 agreement for submission to SA for approval)
Agenda Item:	

Work Item Description

Title:

Charging Principles

1   3GPP Work Area

	Radio Access
x	Core Network
x	Services
	Terminals

2   Linked work items

- Circuit Switched Charging

- Charging evolutions Packet switched domain (R5)

- IMS off-line charging aspects (Release 5)

- Service Related Charging

3   Justification

Charging and Billing are important aspects of a mobile network, since it represents the revenue stream of the operators from the network deployment and from the offered services. But as the network architecture gets more complicated and charging information is produced in network nodes belonging to various domains, there is a need to coordinate the charging functionality provided by various parts of the network. This will make it possible for the users of the charging information (ie. network operators, service providers etc.) to use the provided data in the most efficient way.

4   Objective

The objective of this Work Task is to:

- provide charging principles for the Circuit Switched and Packet Switched domains, the IMS subsystem and services (e.g. MMS and LCS), meaning that the following issues needs to be considered in each case:

    ❑ list relevant charging requirements e.g. from TS 22.115

    ❑ describe the applicable charging architecture ie. which nodes and interfaces are involved

    ❑ describe relevant charging scenarios

5   Service Aspects

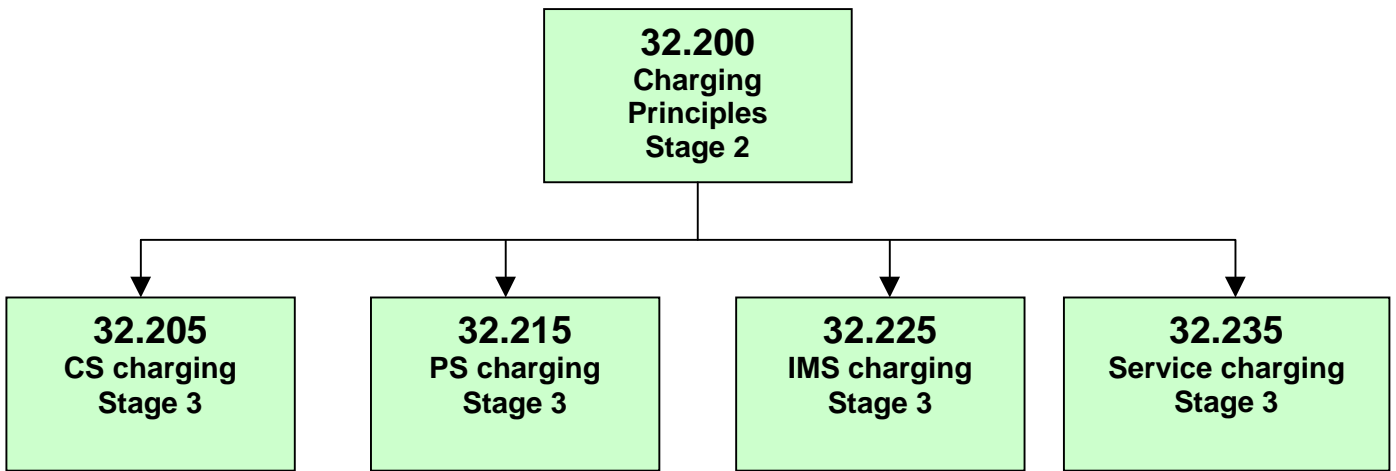The work item covers charging for the following service nodes:

- MMS R/S

- GMLC

If new services are introduced later, these need also to be considered.

6   MMI-Aspects

None

7   Charging Aspects

TS 32.200 'Charging Principles' is an 'umbrella' document, providing a stage 2 charging architecture description for the Stage 3 charging data descriptions maintained by SA5/SWG-B according to the following figure:

```
                            ┌─────────────────┐
                            │     32.200      │
                            │    Charging     │
                            │   Principles    │
                            │    Stage 2      │
                            └────────┬────────┘
        ┌────────────────┬──────────┼──────────┬────────────────┐
        ▼                ▼                      ▼                ▼
┌───────────────┐ ┌───────────────┐   ┌───────────────┐ ┌───────────────┐
│    32.205     │ │    32.215     │   │    32.225     │ │    32.235     │
│  CS charging  │ │  PS charging  │   │  IMS charging │ │Service charging│
│    Stage 3    │ │    Stage 3    │   │    Stage 3    │ │    Stage 3    │
└───────────────┘ └───────────────┘   └───────────────┘ └───────────────┘
```

8   Security Aspects

None

9   Impacts

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

10   Expected Output and Time scale (to be updated at each plenary)

Affected existing specifications				
Spec No.	**CR**	**Subject**	**Approved at plenary#**	**Comments**
32.200		Charging Principles	TSG#16 (06/02)	

The following table lists the planned milestones for this work item

No.	Milestone	Description	Completion
1.	Purpose and content determination	Determine the purpose and content of all subtasks and documents that are involved and need to be developed.	SA5#24 (11/01)
2.	Examination IMS logical architecture for	Participate jointly with SA2 in developing a Technical Report on the Charging Implications of IMS Architecture (TR 23.815)	SA5#24 (11/01)

No.	Milestone	Description	Completion
	offline charging		
3.	Provide CR for 32.200 to generate a R5 version	Create the first TS 32.200 for R5	SA5#24 (11/01)
4	Provide an updated version of 32.200	Provide a draft of 32.200 for information, including IMS charging functionality.	SA5#25 (01/02)
5.	Complete a draft of TS 32.200 for Information	Provide a complete draft of 32.200 Rel. 5 for information	SA5#26 (02/02)
6.	Provide TS 32.200 for SA approval	Submit 32.200 R5 for SA approval	SA5#28 (05/02)

11   Work item raporteurs

Hans Ahlbäck (Ericsson), hans.ahlback@ericsson.fi

12   Work item leadership

Charging Principles rapporteur group of SWG-B, SA5

13   Supporting Companies

Ericsson, Siemens, Alcatel, Nokia, T-Mobil, Lucent, Nortel, France Telecom

14   Classification of the WI (if known)

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

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

- Charging Management (OAM-CH)

Source:	Alcatel (mailto:M.Lehnert@alcatel.de)
Title:	**Work Item Description: [WI: title: Charging evolutions Packet switched domain (R5)]** **WI type: [<mark>Work Task</mark>]**
Document for:	Information, Decision (SA5 agreement for submission to SA for approval)
Agenda Item:	

Work Item Description

Title:

Charging evolutions Packet switched domain (R5)

1   3GPP Work Area

-	Radio Access
X	Core Network
-	Services
-	Terminals

2   Linked work items

- ♦ Charging and OAM&P (SA5 Feature)
- ♦ IMS off-line charging aspects
- ♦ Service Related Charging

3   Justification

Charging in the PS domain is essential for the PS GPRS services itself and services added beyond the PS domain and as such relying on this domain (such as the IMS domain). It enables an operator to bill a subscriber for pure GPRS services (offered solely via the PS domain). Moreover it assists to the billing of services offered beyond the PS domain (such as the IMS domain).

4   Objective

The objective of this Work Item is to cover the charging evolutions needed for the PS domain in the scope of R5. Such evolution comprises:

❑ Inter-working with other domains/services:

    ▪ Inter-working with the IMS which is offered beyond the PS domain. As such the exchange of "IMS charging data correlation identifiers" needs to be addressed and taken into account from a PS domain perspective.

    ▪ Inter-working with various services introduced in the context of R5 and making usage of the PS domain (such as the extended streaming service, Location service, etc.). Inter-working in this context means that PS Charging Data Records may need to be extended to hold appropriate data items identifying/describing the usage of such a service (to be elaborated per applicable service). As off November 2001 following services are known to be addressed and elaborated by the SA5 SWG-B PS rapporteur group:
-     - Extended streaming service
-     - Location service
-     - Presence service
-     - Multimedia Messaging Service

    Additionally inter-working with other services may need to be considered.

❑ Enhancements for the Charging Characteristics selection mechanism:

■ PLMN groups need to be considered during the Charging Characteristics selection mechanism

❑ Alignment with "CAMEL phase 4" (R5):

■ "CAMEL phase 4" requires additional parameters to be logged into the SMS-MT CDRs (refer to N2-010440 and N2-010446)

5 Service Aspects

Inter-working with various services has to be taken into account (see also section 4)

6 MMI-Aspects

None

7 Charging Aspects

This is a charging work item.

8 Security Aspects

None

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

Affected existing specifications				
Spec No.	**CR**	**Subject**	**Approved at plenary#**	**Comments**
32.200		Charging Principles	TSG#16 (06/02)	
32.215		Charging data description for Packet Switched (PS) domain	TSG#16 (06/02)	

The following table lists the planned milestones for this work item.

No.	Milestone	Description	Completion
1.	Purpose and content determination	Discuss the purpose and content of the subtasks and documents that are involved and need to be developed.	November 2001
2.	Identification of services impacting the PS domain	The "charging for services" Rapporteur Group is in charge to examine the various services introduced with R5 and to identify potential impact on the PS domain.	November 2001
3.	Identify extensions necessary for PS CDRs	Identification of impacts for the PS CDRs	November 2001
4.	Charging characteristics selection mechanism	Proposal for the refined charging characteristics selection mechanism	January 2002
5.	Alignments with "CAMEL phase 4"	Incorporation of additional "CAMEL phase 4" data items into the SMS CDRs	January 2002
6.	CRs for TS 32.215 / TS 32.200 R5 generation	CRs have to be submitted in the scope of R5 to incorporate the appropriate additions/changes into TS 32.215 respectively TS 32.200	January – May 2002

11   Work item raporteurs

Matthias Lehnert (Alcatel), mailto:M.Lehnert@alcatel.de

12   Work item leadership

Packet Switched (PS) Rapporteur Group

13   Supporting Companies

Alcatel, Cingular Wireless, Ericsson, France Telecom, Lucent, Nokia, Nortel, Siemens, T-Mobil, XACCT

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**

         -

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

         -

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

Charging Management (OAM-CH)

Source:	**T-Mobil (**mailto:karl-heinz.nenner@t-mobil.de**)**
Title:	**Work Item Description: [WI: title: PM Monitoring (R5)]** **WI type: [Work Task]**
Document for:	Information, Decision (SWG-B agreement for submission to SA5 for approval)
Agenda Item:	

Work Item Description

Title: PM Monitoring

1   3GPP Work Area

	Radio Access
	Core Network
X	Services (Specifically OAM&P, SA5 Feature)

2   Linked work items

- PM CR WT "PM result file management"
- SWG-C WT 18 "Performance Management"

3   Justification

The work task PM Monitoring refers to the control and configuration of performance thresholds for generation of performance alarms. It also refers to the forwarding of such alarms using the Alarm IRP.

4   Objectives

- Describe functional requirements for the control and configuration of performance thresholds:
  - On EM level
  - On NM level

- Specify the details for the forwarding of performance alarms via the Alarm IRP

- Define an Itf-N component for the management of PM alarm thresholds

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

10 Expected Output and Time scale (to be updated as required)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.xyz		SA5				To be aligned with the intended output of the WT "PM result file management"

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
32.401		PM Monitoring	TSG#15 (03/02)	PM enhancements for Release 5

11 Work item rapporteurs

Karl-Heinz NENNER (T-Mobil) [karl-heinz.nenner@t-mobil.de]

12 Work item leadership

SWG-B PM CR rapporteur group

13 Supporting Companies

ADC, Ericsson, Motorola, Nortel, T-Mobil

14 Classification of the WI (if known)

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

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

Performance Management

Source:	**Trace RG**
Title:	**Trace RG Work Plan**
Document for:	**SWG-B Approval**
Agenda Item:	**9.2 (SWG-B Trace)**
Category:	**Work Plan**
Work Item ID:	**OAM-PM (Trace)**
Doc Summary:	**This document contains the work plan for subscriber and equipment trace as approved by the Trace RG at SA5#23.**
Specs involved:	**32.108 Subscriber and Equipment Trace (Release 5)**

1   Justification

As the reference model evolves and the functionalities as well as the architecture in 3GPP Rel5 networks become more and more complicated, a need for a suitable method and necessary procedures for subscriber and equipment trace becomes evident. The specification for subscriber and equipment trace has not been updated since Release 96.

2   Objectives

The main objective of this work task is to produce TS 32.108 (Subscriber and Equipment Trace) for 3GPP Release 5 according to the responsibilities of SA5 SWG-B pertaining to network/resource usage records for the purpose of tracing subscriber and UE activity.

3   Main tasks

The existing trace specification (GSM 12.08) will be used as the basis. The main tasks for trace RG are

1   To identify the portions of text in 12.08 that can be re-used as such

2   To identify the impact of those architectural elements that have changed or did not exist in 12.08

3   To update the information from 12.08 according to those impacts

4   Deliverables

New specifications						
Spec No.	**Title**	**Prime resp. WG**	**2ndary resp. WG(s)**	**Presented for information at plenary#**	**Approved at plenary#**	**Comments**
32.108	Subscriber and Equipment Trace	SA5		TSG#15 (03/02)	TSG#16 (06/02)	Release 5
Affected existing specifications						
Spec No.	**CR**	**Subject**		**Approved at plenary#**		**Comments**
32.101				TSG#15 (03/02)		
32.102				TSG#15 (03/02)		

5   Related Technical Specifications

Technical specifications 32.101 and 32.102 will need to be updated to cover trace. Some impact to notification IRP can be expected.

6 Expected Milestones and Their Timetable

The timetable will be checked and updated at each ensuing SA5 Trace RG meeting.

No.	Milestone	Description	Completion
1	Purpose and content determination	Determine the purpose and content of this work item.	Completed
2	Overview update	Update the general description parts (Ch 4 of 12.08) to include all NEs and interfaces relevant to Rel5	Completed.
3	Identification of IMS effects	Identify the effects that the IMS will add to this TS	Completed.
4	Scenario update	Update the trace scenarios for trace activation and deactivation (Ch 5 of 12.08) to Rel5 level (including new NEs and interfaces)	Completed.
5	Compose TS template	Compose the very first draft for the TS by including all issues that were agreed on in SA5#23 into the template	Completed
6	Trace type check	Check the trace types (Ch 6 of 12.08) and update to Rel5 level	SA5#25 (January 2002)
7	Trace record contents	Check and update the trace record contents (Ch 7 of 12.08) to include all relevant NEs	SA5#25 (January 2002).
8	Trace record transfer	Check and update the trace record transfer parts (Ch 9 of 12.08) to Rel5 level, according to Rel5 architecture	SA5#25 (January 2002)
9	Final specification of IMS parts	Specify the IMS related parts of the TS, according to the final Rel5 architecture	SA5#25 (January 2002)
10	Object Model and Abstract Syntax Specification	Conversion of the Managed Object Model (Ch 10 of 12.08) to functional requirements and the Abstract Syntax definition (Ch 11 of 12.08)	SA5#25 (January 2002)
11	First complete version	Compose suitable entries to this TS based on the above achievements. Present it to be sent for information to SA.	SA5#26 (February 2002)
12	Finalisation	Finalise the TS to be sent for approval to SA.	SA5#28 (May 2002)

Title:	Work Item Description:
	WI type: Work Task
	WI: title: **File Format and measurement template enhancement**
Source:	Nortel Networks (toche@nortelnetworks.com**)**
Agenda item:	
Document for:	Discussion and approval

Work Item Description

Title: **File format and measurement template enhancement**

1   3GPP Work Area

	Radio Access
	Core Network
X	Services (specifically OAM&P, SA5 Feature)

2   Linked work items

The following PM work item is linked to this work item:

- Measurement definitions for UMTS and combined GSM and UMTS systems (PM MD)

3   Justification

It has to be investigated :

- whether some extensions of the release 4 PM result file format would be necessary to allow the transfer of results of non-UMTS measurements in the files, as required by the release 4 TS 32.401.

- whether some enhancements of the measurement template described in release 4 TS 32.403 might also be required to allow the management of non-UMTS measurements.

4   Objective

Depending on the outcome of the above investigation, this WI encompasses the functionality that would enable any kind of measurement to be transported in the measurement file. Additional fields or enhanced structures may be needed to accommodate for the transfer of e.g. :

- non-UMTS measurements

- monitoring data

- 'meta' data

- special measurement types

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

10   Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
32.401		File format enhancement		TSG#15 (03/02)		PM enhancements for Release 5
32.403		Measurement template enhancement		TSG#15 (03/02)		PM enhancements for Release 5

11   Work item raporteurs

Christian TOCHE (Nortel Networks)

12   Work item leadership

SWG-B PM CR rapporteur group

13   Supporting Companies

ADC, Motorola, T-Mobil, Ericsson, Nortel Networks

14   Classification of the WI (if known)

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

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

Performance Management

Source:	**Siemens AG** (gerald.goermer@icn.siemens.de)
Title:	**Work Item Description: [WI: title: Service Related Charging]** **WI type: [Work Task]**
Document for:	Information, Decision (SA5 agreement for submission to SA for approval)
Agenda Item:	

Work Item Description

Title:

Service Related Charging

1   3GPP Work Area

-	Radio Access
X	Core Network
X	Services
-	Terminals

2   Linked work items

-
- Charging Principles
- Circuit Switched Charging (not yet defined)
- Charging evolutions Packet switched domain (R5)
- Off-line IMS charging architecture
- Location Services enhancements (SA2 Feature)
- MMS enhancements(T2)
- Present Service
- Extended Streaming Service

3   Justification

Services defined in Rel.4 and Rel.5 require charging functions (offline charging) to collect particular information and deliver CDRs for billing purposes. Services under consideration are LCS and MMS specified in Rel.4. For LCS no charging function is defined up to now, MMS is basically standardised in Rel.4 but may need enhancements. The charging concept for Rel.5 should maintain backward compatibility to Rel.4 charging.

The relevance of other REL-5 services for which actual no charging function exist has to be investigated.

4   Objective

The charging function required for the new NE comprise: subscriber related collection and transmission of charging data, identification and subscriber related transactions (service request/traffic announced, service answered/traffic enabled, service intermediate/traffic continued and service release/traffic disabled) and reaction on errors for the access and bearer.

These adaptations require enhancements of the existing charging specification. Charging principles and architecture is established in the stage 2 specification and the data and protocol description in stage 3 charging specification.

The introduction of Location Services (LCS) requires changes to TS 32.235 (Service Charging), TS 32.200 (Principles), 32.205 (CS Charging) and TS32.215 (PS Charging).

All other services which requires changes to the affected Charging Specification should be contributed latest six month after delivery of the related specification on architecture for these services.

5 Service Aspects

The WI covers charging for GMLC, MMS Relay/Server and other potential service notes.

6 MMI-Aspects

None

7 Charging Aspects

This is a charging WI.

8 Security Aspects

None

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
32.200		Charging Principles	TSG#16 (06/02)	
32.205		Charging data description for Circuit Switched (CS) domain services	TSG#16 (06/02)	
32.215		Charging data description for Packet Switched (CS) domain services	TSG#16 (06/02)	
32.235		Charging data description for Application Services	TSG#16 (06/02)	

The following table lists the planned milestones for this work item.

No.	Milestone	Description	Completion
1	Purpose and content determination	Determine the purpose and content of this work item.	SA5#23 (10/01)
2	Examination of the LCS	Preparation of a contribution on LCS oriented charging and separation into part of principles description and part for data and parameter definition	SA5#24 (11/01)
3	Contribute of CDR description for	Compose the data definition for CS	SA5#24 (11/01)

	the circuit switched domain	based LCS to TS 32.205	
4	Contribute of CDR description for the packet switched domain	Compose the data definition for PS based LCS to TS 32.215	SA5#24 (11/01)
5	Contribute of CDR description for the Application Service	Compose the data definition for the Application Service to TS 32.235	SA5#25 (01/02)
6	Examination of procedures/interfaces of the new services for delivering of chargeable information.	Compose LCS charging principles to TS 32.200, based on the above achievements.	SA5#25 (01/02)
7	Identification of services impacts	Examine the affected services introduced with REL-5 and to identify potential impacts.	SA5#26 (03/02)
8	Finalisation	Finalise all affected TSs to be sent for approval to SA	SA5#28 (05/02)

11   Work item raporteurs

Gerald Görmer (Siemens AG) Gerald.Goermer@ICN.Siemens.de

12   Work item leadership

Service Charging RG

13   Supporting Companies

AT&T Wireless, Alcatel, Ericsson, Lucent, Nokia, Nortel, Siemens, T-Mobile, NEC, Xacct, France Telecom, Cingular

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**

Charging Management (OAM-CH)

Title:	Work Item Description:
	WI type: Work Task
	WI: title: **Measurement definition for UMTS and combined GSM and UMTS systems (Release 5)**
Source:	Nortel Networks (toche@nortelnetworks.com)
Agenda item:	
Document for:	Discussion and approval

Work Item Description

Title: **Measurement definition for UMTS and combined GSM and UMTS systems (Release 5)**

1   3GPP Work Area

X	Radio Access
X	Core Network
X	Services (specifically OAM&P, SA5 Feature)

2   Linked work items

The following PM work item is linked to this work item:

-    File format and measurement template enhancement (PM CR rapporteur group)

3   Justification

In Release 99, a common file format has been specified to transport measurement results from the network to a network management system, also termed the Network Manager (NM). Therefore, a NM can interpret measurement result files originating from any compliant system by supporting just this one single file format.

In Release 4, UMTS and combined GSM/UMTS measurements have been specified in the UMTS TS 32.403 for a subset of the 3G network elements. As a result, these network elements from different vendors will generate the same performance indicators using the same triggers. Consequently, operation of a multi-vendor network is made possible for these network elements.

It is therefore necessary to specify a comprehensive set of measurement types for all network elements to deliver the same network performance information across any UMTS system regardless of the manufacturer.

As a secondary benefit, the list of measurement types to be specified under this work item will help vendors and operators alike by providing guidance to decide what should be required from, and implemented in, the UMTS products.

4   Objective

For Release 5, this WI encompasses the necessary additions to the standard measurement set for UMTS and combined GSM/UMTS. This includes a subset of the measurements proposed in Release 4 that have not yet been discussed and decided on by the RG. This may also include measurements on NEs or services (e.g. QoS, TMF Wireless Service Measurements) not currently covered by the TS.

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

10   Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
32.403		New measurement definitions	TSG#15 (03/02)	PM enhancements for Release 5

11   Work item raporteurs

Christian TOCHE, Nortel Networks (toche@nortelnetworks.com)

12   Work item leadership

SWG-B PM MD rapporteur group

13   Supporting Companies

T-Mobil, France Telecom, ADC, Motorola, Ericsson, Nortel Networks

14   Classification of the WI (if known)

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

14c   The WI is a <mark>Work Task</mark>: parent Building Block

Performance Management