

3GPP TR 30.820 V10.0.0 (2011-09)

Technical Report

3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; Project scheduling and open issues for SA5, Release 10 (Release 10)



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Keywords

Telecom management, OAM&P, Charging

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1 Scope

The present document contains the up-to-date SA5 Work Item Descriptions (WIDs) and captures the status of all SA5 work items in the current Release.

This TR is used as a mean to provide input to the 3GPP work plan handled by MCC.

Status list of Work items can be found in Annex A of the present document.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] http://www.3gpp.org/ftp/Information/WORK_PLAN/

[2] http://www.3gpp.org/ftp/Information/WI_Sheet/

TSG SA Meeting #46
07 - 10 December 2009,
Sanya, China

SP-090761

3 Local IP Access and Selected Internet IP Traffic Offload UID_450035

TSG SA Meeting #51SP-110131
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111532
SA5#76, 28 Feb - 4 Mar 2011, San Diego, USA *revision of S5-111079*

3GPP TSG-SA5 (Telecom Management) MCC merger of S5-094347 and S5-0904339
Meeting SA5#68, 9 Nov-13 Nov 2009, Shanghai, China

TSG SA Meeting #45SP-090618
21 - 24 September 2009, Seville, Spain

3GPP TSG SA WG2 Meeting #75 TD S2-096108
31 August – 4 September, 2009, Kyoto, Japan

3.1 OAM&P for LIPA_SIPTO UID_450040

Clauses 3.1 and 3.2 share the same SA-wide WI description reported in 3.2.

3.2 Charging for LIPA_SIPTO UID_460039

Local IP Access and Selected IP Traffic Offload UID_LIPA_SIPTO

1 3GPP Work Area *

X	Radio Access
X	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
X	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
UID 400035	WID on Enhanced Home NodeB / eNodeB (EHNB)	This work Item formerly covered Local IP Access to Internet and Local access to Home Network from the Home NodeB/eNodeB – Features that are now covered by this Work Item

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
--	--	--

Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

In Release 8 and Release 9, 3GPP has specified functionalities for the support of Home Node B (HNB) and Home eNodeB (HeNB). This work item aims to build on these foundations and adds further functionalities that will enable the mobile operators to provide services in a more effective manner, as well as improving the user experience.

3GPP had requirements on Local IP Access to the home and Internet in TS 22.220 but those features were not completed as part of Release 9. However the interest for such features remains strong within the 3GPP operator community.

Additionally, due to the fact that 3GPP radio access technologies enable data transfer at higher data rates, the 3GPP operator community shows strong interest to offload selected IP traffic not only for the Home (e)NodeB Subsystem but also for the macro layer network, i.e. offload selected IP traffic from the cellular infrastructure and save transmission costs.

From a functional and architectural perspective, the issues to be addressed for selected IP traffic offload are similar for Home (e)NodeB Subsystem and for macro layer network and therefore are expected to lead to commonalities with regard to architecture decisions. To exploit the potential synergies between the solutions, it is seen appropriate to handle those use cases together within one single WID.

4 Objective *

This work item aims to specify the following functionalities:

Local IP access – LIPA – to residential/corporate local network for Home (e)NodeB Subsystem

Selected IP traffic offload – SIPTO– (e.g. Internet traffic) for Home (e)NodeB Subsystem

Selected IP traffic offload (internet traffic, corporate traffic, etc.) for the macro network (3G and LTE only)

SA1 will need to consider the service requirements for the above cases.

The service requirements for Local IP access to residential/corporate local network for Home (e)NodeB Subsystem are defined in TS 22.220 but these may be further refined/modified.

The service requirements for Selected IP traffic offload (e.g. internet traffic) for Home (e)NodeB Subsystem are defined in TS 22.220 but these may be further refined/modified.

The service requirements for Selected IP traffic offload (internet traffic, corporate traffic, etc.) for the macro network need to be developed, and this work will be focused on 3G and LTE only. Security, Charging and mobility aspects need to be considered.

SA5 will need to provide requirements and solutions for supporting the above LIPA functionalities from OAM aspect based on the architecture defined by SA2.

5 Service Aspects

Service requirements for Local IP access to residential/corporate local network and Selected IP traffic offload for Home (e)NodeB Subsystem are documented in TS 22.220 but these may be refined. Service requirements for Selected IP traffic offload need to be developed for the macro layer Network.

6 MMI-Aspects

None

7 Charging Aspects

Charging specifications will be affected if IP traffic for the functionalities listed in the Objective section is to be accounted for, or charged for.

8 Security Aspects

Lawful Interception architecture is to be considered for the functionalities listed in the Objective section of the WID.

Security aspects are also to be considered for the functionalities listed in the Objective section of the WID.

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#		Comments
22.220		Service requirements for Home NodeBs and Home eNodeBs		SA#47 (March 2010)		Current requirements may need further refinements
22.101		Service principles		SA#47 (March 2010)		Define requirements for Internet traffic offload
23.401				SA#49 (Sept 2010)		
23.060				SA#49 (Sept2010)		
33.107				SA#49		Possible work on Lawful Interception architecture for Local IP Access
33.108				SA#49		Possible work on Lawful Interception architecture for Local IP Access
33.102		3GPP Security Architecture		SA#49		Possible impact on UMTS security architecture
33.401		3GPP System Architecture Evolution (SAE):Security Architecture		SA#49		Possible work on LTE/SAE security architecture for LIPA
33.320		3GPP Security Aspect of Home NodeB and Home eNodeB		SA#49		Possible work on H(e)NB security architecture for LIPA
32.581		Home NodeB impacts Add LIPA management requirement		SA#51 Mar 2011		SA5 Concepts and requirements for Type 1 interface HNB to HNB Management System (HMS)
32.582		Home NodeB impacts Add LIPA management parameter definition		SA#51 Mar 2011		SA5 Information model for Type 1 interface HNB to HNB Management System (HMS)
32.584		Home NodeB impacts Add LIPA access management XML element		SA#51 Mar 2011		SA5 XML definitions for Type 1 interface HNB to HNB Management System (HMS)
32.591		Home eNodeB impacts Add LIPA management requirement		SA#51 Mar 2011		SA5 Concepts and requirements for Type 1 interface HeNB to HeNB Management System (HeMS)
32.592		Home eNodeB impacts Add LIPA management parameter definition		SA #51 Mar 2011		SA5 Information model for Type 1 interface HeNB to HeNB Management System (HeMS)
32.642	0060	Add siptoSupported attribute to RNCFunction		SA#50 Dec 2010		SA5 Macro NodeB: UTRAN Network Resource Model
32.646	0007	Add siptoSupported attribute to RNCFunction - Align with 32.642 IS		SA#50 Dec 2010		SA5 Macro NodeB: UTRAN Network Resource Model Solution Set (SS) definitions
32.772		Home NodeB Subsystem impacts Add localGWFunction IOC		SA#51 Mar 2011		SA5 Home NodeB Subsystem Network Resource Model
32.782		Home eNodeB Subsystem impacts Add localGWFunction IOC		SA#51 Mar 2011		SA5 Home eNodeB Subsystem Network Resource Model

32.251		Impact on EPC Charging Enhancements to PDN-GW Charging	SA#51 Mar 2011	SA5 Packet Switched (PS) domain charging
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The above affected existing specifications are given in this version of the document for information, and responsible working groups are expected to review this WID and amend impacts on their technical specifications.

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12 Work item leadership *

SA2

13 Supporting Individual Members *

Supporting IM name
Vodafone
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China Mobile
AT&T
Huawei
Qualcomm Europe
Alcatel-Lucent
NEC
Starent Networks
Samsung
Cisco
Airvana
LG Electronics
Panasonic
Toshiba
ZTE
BT
TeliaSonera
Juniper Networks
Motorola
SoftBank Mobile
Thomson
ip.access

4 IP Flow Mobility and seamless WLAN offload

UID_450041

Technical Specification Group Services and System Aspects **TSGS#47(10)0089**
Meeting #47; Vienna, Austria; 22-25 March 2010

3GPP TSG-SA5 (Telecom Management) **S5-101018**
Meeting SA5#70, 01 - 05 Mar 2010, Xiamen, China

3GPP TSG-SA5 (Telecom Management) **S5-100484**
Meeting SA5#69, 18 - 22 Jan 2010, Valencia, Spain *revision of S5-100190*

TSG SA Meeting #46 **SP-090804**
07 - 10 December 2009,
Sanya, China

Title: Updated Feature WID: IP Flow Mobility and seamless WLAN offload
Source: SA WG2
Agenda Item: 11.10

TSG SA WG2 Meeting #76 **S2-097477**
16-20 November, 2009, San Jose del Cabo, Mexico

This is a proposed update of the IFOM WID to:

- add that system description for non-seamless WLAN offload will be specified in TS 23.402.
- update the reference and title of the new TS created by this work
- add more supporting companies.

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

4.1 Charging for IFOM UID_470021

1 3GPP Work Area *

	Radio Access
X	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
X	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
410043	Study on Multi Access PDN connectivity and IP flow mobility	This Study Item covered the IP flow mobility and evaluated different alternative solutions. The conclusion of the study item clarifies the way forward which is captured in this WID.

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
X	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

The increased data demand, caused by the increased use of 3rd party applications and Internet browsing is creating interest for new operator tools to lower the cost on providing data access. The increased availability of WLAN radio in many terminals and the increasing availability of WLAN access networks in many geographical locations provide means to achieve this goal.

When the subscriber happens to be under WLAN coverage, it is beneficial for the operator to offload some traffic (e.g. best effort) to the WLAN access. At the same time it may be beneficial to still keep some traffic (e.g. VoIP flow) in the cellular access. With this IP flow mobility solution the operator can lower its data access costs while the subscriber just experiences maximised bandwidth without any service disruption or interruption.

It is therefore of interest to 3GPP community to specify a solution for operators for a seamless WLAN offload via IP flow mobility. Based on this solution, operators can use WLAN as a seamless extension of their cellular access and thus increase the overall system capacity while minimising the access cost.

The MAPIM Study Item documented in TR 23.861 provides a technical solution for seamless WLAN offload which is mature enough to specify this capability as part of 3GPP normative specification.

Additionally it is possible to provide a limited non-seamless WLAN offload as done in current deployments via a transient IP connection via WLAN (referred also as Direct IP Access in I-WLAN). This implies that the UE uses the WLAN IP address and no IP address preservation is provided between WLAN and 3GPP accesses. While most details of this scenario are outside the scope of 3GPP as they are confined into the non-3GPP access, it is useful to define operator's policies in 3GPP to guide the behaviour of the UE.

4 Objective *

This work item aims to specify seamless WLAN offload via the following functionalities:

IP flow mobility based on the solution described in section 7.1.1 in TR 23.861

Simultaneous connectivity to the same PDN via different accesses for S2c and H1 reference points.

Routing of different IP flows of the same PDN connection via different accesses for S2c and H1 reference points.

Movement of IP flow(s) of the same PDN connection at any time from one access to another via S2c and H1 reference points.

Extensions to the ANDSF framework for

Provisioning of inter-system operator's policies for seamless WLAN offload with IP flow mobility based on the solution described in TR 23.861

Provisioning of operator's policies for usage of WLAN access to connect to the Internet without traversing operator's core network

5 Service Aspects

Service requirements for IP Flow Mobility are partially documented in TS 22.278 and additional aspects are captured in TR 23.861. TS 22.278 needs to be updated to capture the aspects currently only documented in TR 23.861.

6 MMI-Aspects

None

7 Charging Aspects

Based on the architecture defined by SA2, SA5 needs to consider charging aspects for IP Flow Mobility and WLAN offloading. Simultaneous accesses connectivity within the same PDN connection and mobility at IP flow level need to be considered for the charging solution.

8 Security Aspects

None.

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.240		Enhancements to Charging Architecture and Principles		SA#51	"Telecommunication management; Charging management; Charging Architecture and Principles"	
32.251		Enhancements to EPC Charging		SA#51	"Telecommunication management; Charging management; Packet Switched (PS) domain charging"	
32.252		Impact on WLAN Charging		SA#51	"Telecommunication management; Charging management; Wireless Local Area Network (WLAN) charging".	
32.298		Impact on EPC Charging Records		SA#51	"Telecommunication management; Charging management; Charging Data Record (CDR) parameter description"	
32.299		Additional Diameter AVPs		SA#51	"Telecommunication management; Charging management; Diameter charging application".	

The above affected existing specifications are given in this version of the document for information, and responsible working groups are expected to review this WID and amend impacts on their technical specifications.

11 Work item rapporteur(s) *

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12 Work item leadership *

Primary Responsibility: SA2

Secondary Responsibility: SA1, SA5

13 Supporting Individual Members *

Supporting IM name
Qualcomm Europe
Panasonic
Sharp
AT&T
Telecom Italia
Orange
Teliasonera
LGE
China Mobile
Deutsche Telekom
Interdigital
Telenor
BT
Alcatel-Lucent
Verizon
Cisco Systems
Telcordia
Toshiba

4A Optimal Media Routing UID_460028

TSG SA Meeting #50
13-15 Dec 2010, Istanbul, Turkey

SP-100772

3GPP TSG-SA5 (Telecom Management)
SA5#74-CH, 8-10 Nov 2010; Issy-les-Moulineaux, FRANCE

S5-102902
revision of S5-102895

4A.1 Charging for Optimal Media Routing UID_500013

New WID on Charging for Optimal Media Routeing

Document for: Approval

Agenda Item: 7.2

Work Item / Release: Optimal Media Routeing (OMR) / Rel-10

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

Title * : Charging for Optimal Media Routeing

Acronym * : OMR-CH

Unique identifier *

1 3GPP Work Area *

	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
X	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
460028	Optimal Media Routeing (OMR)	23.228

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

--	--	--

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS
460128	Stage 2 for Optimal Media Routeing	23.228

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks
29.079	Optimal Media Routeing within the IP Multimedia Subsystem; Stage 3	New TS for CT3 part of Stage 3 for Optimal Media Routeing (UID_480110)

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

International communications and terminal roaming introduce a number of scenarios where sessions may traverse multiple IMS networks. The use of Border Control Functions (BCF) makes both the signalling and bearer path traverse through the same networks and this could result in a non-optimal media path with a higher than optimal number of transition gateways inserted.

To ensure Quality of Service (QoS), minimal delay, and, in certain cases, minimal transport costs, there is a need to enable the routing of media traffic via an optimal path between those networks without including unnecessary parts of the path that the signalling flow needs to take.

The OMR algorithm also has the potential to reduce the number of calls where transcoding is applied and to reach a more optimal allocation of transcoding points.

SA2 have developed a feature called OMR which addresses this and other use cases, and associated charging requirements have been provided by 3GPP TS 23.228.

Charging description needs to include the charging requirements provided by 3GPP TS 23.228.

4 Objective *

The objective of this Work Item is to provide charging description associated to charging requirements provided by the OMR feature in the 3GPP TS 23.228.

The description of charging information from the IMS nodes involved will be enhanced for incorporating media rerouting result due to OMR.

- 5 Service Aspects
None
- 6 MMI-Aspects
None
- 7 Charging Aspects
This is a charging work item.
- 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 *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.260		Impacts on Online/offline Charging description		SA#52	Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) Charging	
32.299		Impacts on AVPs description for online/offline Charging		SA#52	Telecommunication management; Charging management; Diameter charging application	
32.298		Impacts on CDRs description		SA#52	Telecommunication management; Charging management; Charging Data Record (CDR) parameter description	

- 11 Work item rapporteur(s) *
Maryse Gardella (Alcatel-Lucent): maryse.gardella <at> alcatel-lucent <dot> com
- 12 Work item leadership *

SA5

Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
AT&T
Orange
Nokia Siemens Networks
ZTE Cooperation

5 OAM&P 10 UID_460031

5.1 Network Infrastructure Management UID_460032

Technical Specification Group Services and System Aspects TSGS#48(10)0293
 Meeting #48; Seoul, Republic of Korea; 07-10 June 2010
 3GPP TSG-SA5 (Telecom Management) S5-101530
 Meeting SA5#71, 10-14 May 2010, Montreal, Canada revision of SP-090758

TSG SA Meeting #46 SP-090758
 07 - 10 December 2009,
 Sanya, China

5.1.1 Common RAT Network Resource Model (NRM) - RAT_NRM_common – UID_460033

1 3GPP Work Area *

x	Radio Access
	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
x	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
4600xy	Network Infrastructure Management	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

Many operators are using more than one RAT. To decrease costs, some equipment can be shared between several RATs, e.g. RET, TMA and repeaters. With the existing modelling, it is very difficult for an operator to see that several cells are affected when an antenna tilt is changed etc.

4 Objective *

To study how a common modelling can be achieved, affecting GERAN, UTRAN and E-UTRAN NRMs on an acceptable level.

To introduce Common RAT Network Resource Model specifications that allows an easy navigation when equipment is shared between different cells. To not force old deployments in UTRAN, GERAN and E-UTRAN to be changed the new modelling is an alternative to the existing modelling.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts *

Affects:	UICC	ME	AN	CN	Others
-----------------	------	----	----	----	--------

	apps				
Yes			X		
No	x	x		x	
Don't know					x

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.791	Common RAT NRM; Requirements	SA5		TSG SA#50 Dec 2010	TSG SA#51 Mar 2011	
32.792	Common RAT NRM, IS	SA5		TSG SA#51 Mar 2010	TSG SA#52 Jun 2011	
32.796	Common RAT NRM; CORBA SS	SA5		TSG SA#51 Mar 2010	TSG SA#52 Jun 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.642		Equipment sharing		TSG SA#51 March 2011		
32.646		Equipment sharing		TSG SA#51 March 2011		
32.652		Equipment sharing		TSG SA#51 March 2011		
32.656		Equipment sharing		TSG SA#51 March 2011		
32.616		Include XML name space		TSG SA#51 March 2011		
32.762		Equipment sharing		TSG SA#51 March 2011		
32.766		Equipment sharing		TSG SA#51 March 2011		
32.692				TSG SA#52 June 2011		
32.696				TSG SA#52 June 2011		

11 Work item rapporteur(s) *

Robert Petersen, Ericsson

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Ericsson
Orange
ZTE
NSN

TSG SA Meeting #50
13-15 Dec 2010, Istanbul, Turkey

SP-100774

3GPP TSG-SA5 (Telecom Management)
Meeting SA5#74-OAM, 15-19 November 2010, Jacksonville, USA

S5-103200
revision of S5-10xyzw

Technical Specification Group Services and System Aspects
Meeting #48; Seoul, Republic of Korea; 07-10 June 2010

TSGS#48(10)0294

3GPP TSG-SA5 (Telecom Management)
Meeting SA5#71, 10-14 May 2010, Montreal, Canada

S5-101571
revision of S5-101503

Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010

TSGS#47(10)0079

3GPP TSG-SA5 (Telecom Management)

S5-101026

Meeting SA5#70, 01-05 March 2010, Xiamen, P.R.China

revision of S5-100490

5.1.2 IRP Solution Set Specification Organisation Improvements (OAM-IRP-SS) UID_470035

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
460032	Network Infrastructure Management	

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification

TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
	OAM-??	

3 Justification *

In S5-094089 presented in SA5 #68 (Nov 2011), several issues were discussed relating to the legacy of IRP Solution Sets (CORBA, CMIP), and the evolution of Notification Log IRP XML specifications and their subsequent re-use in SOAP Solution Sets. Some inconsistencies in the specifications were identified, and also some inefficiencies in the ways of working in SA5 due to the multiplicity of related specifications leading to inconsistent and divergent specifications. Of the 5 potential solutions proposed, alternative 5 **“Move all SS (CORBA and SOAP) and XML definitions into a 32.xx6. Keep RS and IS as is.”** was selected.

4 Objective *

The objective is to reorganise the Interface IRP Solution Set specifications, such that the CORBA SS (32.xx3), XML Definitions (32.XX5), and SOAP SS (32.XX7) are merged into a single Solution Set document, tentatively proposed as 32.XX6. The 32.XX3, 32.XX5, and 32.XX7 specs for Interface IRPs shall be withdrawn and replaced by 32.XX6

5 Service Aspects

-

6 MMI-Aspects

-

7 Charging Aspects

-

8 Security Aspects

-

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
(If Study Item, one TR is anticipated)						
Spec No	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved plenary#	Comments
32.111-6	Telecommunication management; Fault Management; Part 6: Alarm Integration Reference Point (IRP): Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged.
32.126	Telecommunication management; Advanced Alarm Management (AAM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.176	Telecommunication management; Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.306	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.316	Telecommunication management; Generic Integration Reference Point (IRP) management; Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.326	Telecommunication management; Test management Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.336	Telecommunication management; Notification Log (NL) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.346	Telecommunication management; File Transfer (FT) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.356	Telecommunication management; Communication Surveillance (CS) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.366	Telecommunication management; Entry Point (EP) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.376	Telecommunication management; Security services for Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.386	Telecommunication management; Partial Suspension of IIS-N Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.396	Telecommunication management; Delta synchronization Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.416	Telecommunication management; Performance Management (PM) Integration Reference Point (IRP): Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.446	Telecommunication management; Trace Management Integration Reference Point (IRP): Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.506	Telecommunication management; Self-Configuration of Network Elements Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.526	Telecommunication management; Self-Organizing Networks (SON); Policy Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.536	Telecommunication management; Software management Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.606	Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.616	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.626	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.636	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.646	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged

32.656	Telecommunication management; Configuration Management (CM); GERAN network resources Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.666	Telecommunication management; Configuration Management (CM); Kernel CM Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.676	Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.696	Telecommunication management; Inventory Management (IM) network resources Integration Reference Point (IRP); Bulk Configuration Management (CM) eXtensible Markup Language (XML) file format definition	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.716	Telecommunication management; Configuration Management (CM); Transport Network (TN) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.726	Telecommunication management; Configuration Management (CM); Repeater network resources Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.736	Telecommunication management; IP Multimedia Subsystem (IMS) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#50 Dec. 2010	SA#50 Dec. 2010	No new functionality. Only existing specs are merged
32.746	Telecommunication management; Configuration Management (CM); Signalling Transport Network (STN) interface Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.756	Telecommunication management; Evolved Packet Core (EPC) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.766	Telecommunication management; Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.776	Telecommunication management; Home Node B (HNB) access network Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged
32.786	Telecommunication management; Home eNode B (HeNB) access network Integration Reference Point (IRP); Solution Sets (SS)	SA5		SA#48 Jun. 2010	SA#48 Jun. 2010	No new functionality. Only existing specs are merged

Affected existing specifications *				
[None in the case of Study Items]				
Spec No.	CR	Subject	Approved at plenary#	Comments
32.153		Update the SS templates to give guidance to the merged SS's	SA#51 Mar 2011	Update the templates to align with the agreement and guide the specification work.
32.111-3		Withdraw Specification		
32.111-5		Withdraw Specification		
32.111-7		Withdraw Specification		
32.123		Withdraw Specification		
32.125		Withdraw Specification		
32.127		Withdraw Specification		
32.175		Withdraw Specification		
32.303		Withdraw Specification		
32.305		Withdraw Specification		
32.307		Withdraw Specification		
32.313		Withdraw Specification		
32.317		Withdraw Specification		
32.323		Withdraw Specification		
32.325		Withdraw Specification		
32.327		Withdraw Specification		
32.333		Withdraw Specification		
32.335		Withdraw Specification		
32.337		Withdraw Specification		
32.343		Withdraw Specification		
32.345		Withdraw Specification		
32.347		Withdraw Specification		
32.353		Withdraw Specification		
32.355		Withdraw Specification		
32.357		Withdraw Specification		
32.363		Withdraw Specification		
32.365		Withdraw Specification		
32.367		Withdraw Specification		
32.373		Withdraw Specification		
32.375		Withdraw Specification		
32.383		Withdraw Specification		
32.385		Withdraw Specification		
32.387		Withdraw Specification		
32.393		Withdraw Specification		
32.395		Withdraw Specification		
32.397		Withdraw Specification		
32.413		Withdraw Specification		
32.415		Withdraw Specification		
32.417		Withdraw Specification		
32.443		Withdraw Specification		
32.445		Withdraw Specification		
32.447		Withdraw Specification		
32.503		Withdraw Specification		
32.505		Withdraw Specification		
32.507		Withdraw Specification		
32.523		Withdraw Specification		
32.525		Withdraw Specification		
32.533		Withdraw Specification		
32.535		Withdraw Specification		
32.537		Withdraw Specification		
32.603		Withdraw Specification		
32.607		Withdraw Specification		
32.613		Withdraw Specification		
32.615		Withdraw Specification		
32.617		Withdraw Specification		
32.623		Withdraw Specification		
32.625		Withdraw Specification		
32.633		Withdraw Specification		
32.635		Withdraw Specification		
32.643		Withdraw Specification		
32.645		Withdraw Specification		
32.653		Withdraw Specification		
32.655		Withdraw Specification		
32.663		Withdraw Specification		
32.665		Withdraw Specification		
32.667		Withdraw Specification		
32.673		Withdraw Specification		
32.675		Withdraw Specification		

32.695		Withdraw Specification		
32.713		Withdraw Specification		
32.715		Withdraw Specification		
32.723		Withdraw Specification		
32.725		Withdraw Specification		
32.733		Withdraw Specification		
32.735		Withdraw Specification		
32.743		Withdraw Specification		
32.745		Withdraw Specification		
32.753		Withdraw Specification		
32.755		Withdraw Specification		
32.763		Withdraw Specification		
32.765		Withdraw Specification		
32.773		Withdraw Specification		
32.775		Withdraw Specification		
32.783		Withdraw Specification		
32.785		Withdraw Specification		

11 Work item rapporteur(s) *
 Jörg Schmidt, Nokia Siemens Networks
 Zou Lan, Huawei Technologies.

12 Work item leadership *
 SA5

13 Supporting Individual Members *

Supporting IM name
Ericsson
Nokia Siemens Networks
Huawei
Alcatel-Lucent
ZTE

5.1.3 Service Oriented Architecture (SOA) for IRP; continuation (OAM-SOA-IRP) UID_470036

Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010

TSGS#47(10)0076

3GPP TSG-SA5 (Telecom Management)

S5-100890

Meeting SA5#70, 1-5 March 2010, Xiamen, China

revision of S5-100603

1 3GPP Work Area *

x	Radio Access
x	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
x	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
460032	Network Infrastructure Management	

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

Service Oriented Architecture (SOA) is gaining acceptance in the IS/IT industry. It promises to manage change [1], automate and simplify IT processes [1], optimize implementation [2], maximize (implementation) flexibility and scalability [3], facilitate integration beyond the enterprise (between companies, between partners and customers) [4], simplify development [5] and maintenance; etc.

We have noted that the principles of SOA are currently being applied to the field of network management [8,9].

IRP (Integration Reference Point) is the predominant standard for wireless network management since 2000. 3GPP developed it with 3GPP2 close collaboration. IRP architecture follows closely with that defined by ITU-T TMN work [6]. Besides publishing the IRP specifications, 3GPP also publishes its IRP methodology (e.g., the guidelines, templates on how to develop, maintain and publish IRP specifications). Today, the IRP specification methodology is being shared and jointly evolved and maintained by consortium of SDO's, such as ITU-T.

Based on the above, SA5 have submitted for SA#44 Information + Approval TR 32.824 (Study Ion SOA IRP [7]).

The purpose of that SI was to analyse the IRP architecture and to provide a "gap analysis" on what enhancement would be needed for the current set of IRP specifications such that it could claim to have the full set of characteristics of SOA. These enhancements addressed three main areas:

SOA Architecture

SOA-supporting Solution Set

SOA conforming Registration & Discovery capabilities

Resulting from the aforementioned study SA5 had a R9 WI "Service Oriented Architecture (SOA) for IRP", covering "SOA Architecture" and "SOA-supporting Solution Set" [10], while this work item intends to address the remaining aspect "SOA conforming Registration & Discovery capabilities"

References:

[1] [SOA Management and Security](#)

- [2] [IBM CICS Service Flow Feature enables composition of CICS applications to create CICS business services](#)
- [3] [SOA/Web services-based applications](#)
- [4] [Extending the Benefits of SOA beyond the Enterprise, TIBCO](#)
- [5] [BEA Announces WebLogic 9.2; Award-Winning Family Raises the Bar on SOA Enablement](#)
- [6] ITU-T TMN
- [7] TR 32.824: Study on SOA compliant need and additional capabilities for existing/currently planned Interface IRPs
- [8] TS 188 001 NGN Management OSS Architecture, ETSI
- [9] M.3060 Principles for the Management of Next Generation Networks, ITU-T
- [10] 3GPP TS 32.101 Telecommunication management; Principles and high level requirements.
- [11] 3GPP TS 32.102 Telecommunication management; Architecture
- [22] 3GPP TS 32.150 Telecommunication management; Integration Reference Point (IRP) Concept and definitions

4 Objective *

SOA provides methods for systems development and integration where systems group functionality around business processes and packages these as interoperable services. An SOA infrastructure allows different applications to exchange data with one another as they participate in business processes.

The IRP's approach is well suited for operating within an SOA environment (see Section 6 of [7]). In operator's environment, the FCAPS types of service, supported by the various IRPs such as AlarmIRP, PMIRP, are one of many key inputs to the aforementioned business processes.

The various IRPs will be evolved further, modified in such that they can fit even better into an SOA infrastructure.

During R9 (WI "Service Oriented Architecture (SOA) for IRP"), SA5 already completed relevant specification work on "SOA Architecture" and "SOA-supporting Solution Set" [10], while this work item intends to continue this work, and to specifically address the aspect of "SOA conforming Registration & Discovery capabilities". This Work Item would:

Enhance 32.101 [10] to high level SOA Registration and Discovery concepts and high level SOA Registration and Discovery requirements.

Enhance 32.150 [12] to include the overall concepts of SOA Registration and Discovery and its relationship to IRP's.

Enhance the relevant Interface IRPs (for example Entry Point IRP if needed) in areas that require amendments for its implementations to improve participation in an SOA infrastructure environment.

5 Service Aspects

N/A

6 MMI-Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications * [If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications * [None in the case of Study Items]						
Spec No.	CR	Subject	Approved at plenary#	Comments		
32.101		High level SOA Registration and Discovery concepts and high level SOA Registration and Discovery requirements shall be listed in this document.	SA#51 Mar 2011	Telecommunication management; Principles and high level requirements		
32.150		The overall concepts of SOA Registration and Discovery and its relationship to IRP's shall be described in this document.	SA#51 Mar 2011	Telecommunication management; Integration Reference Point (IRP) Concept and definitions		

11 Work item rapporteur(s) *

Jörg Schmidt, Nokia Siemens Networks

Edwin Tse, Ericsson

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Ericsson
Nokia Siemens Networks
Huawei Technologies
Orange
Vodafone
TeliaSonera
Alcatel Lucent
Motorola
Deutsche Telecom

5.1.4 IRP Overview, Profiles & Usage Guide (OAM-NIM-IRP_OPU) UID_480042

3GPP TSG SA Meeting #52 SP-110277
Bratislava, Slovakia, 06 – 08 June, 2011

3GPP TSG-SA5 (Telecom Management) S5-112084
SA5#77, 09 May – 13 May 2011; Shenzhen, China *revision of SP-100777*

TSG SA Meeting #50 SP-100777
13-15 Dec 2010, Istanbul, Turkey

*Technical Specification Group Services and System Aspects TSGS#48(10)0388
Meeting #48; Seoul, Republic of Korea; 07-10 June 2010
3GPP TSG-SA5 (Telecom Management) S5-101421
Meeting SA5#71, 10-14 May 2010, Montreal, CANADA *revision of S5-101400**

1 3GPP Work Area *

x	Radio Access
x	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
x	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
460032	Network Infrastructure Management	OAM10-NIM

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

SA5's IRP Framework and its embedded IRP Interface & NRM definitions have advanced considerably since its inception during R99. Currently there are 15 approved 3GPP NRM IRP specifications as well as 18 approved 3GPP Interface IRP specifications, providing a complex set of network management capabilities for the monitoring and provisioning of various network and service technologies. In addition, other organizations have adopted the IRP Framework and developed their own, technology specific resource models (NRM IRP's).

Interface IRP are not only designed in a network technology neutral manner and to be SOA conformant, but also with a high degree of flexibility - to allow applicability towards management of a wide range of current and future equipment and systems. NRM IRP's on the other side are defined to enable management of specific network technologies and systems, and allow extensibility to support competitive differentiations.

To enable the industry (3GPP members as well as other industry organization), to more easily adopt the IRP Framework and applicable Interface & NRM definitions for its management needs, SA5 needs an additional specification covering:

- General Overview about the IRP Framework, and its Interface IRP's & NRM IRP's
- Overview about the dependencies between IRP's, to ensure relationships between IRP's are well understood
- IRP Usage guidelines, to ensure proper implementations

- Recommendations and Guidelines for the usage of the IRP Framework outside of 3GPP, to enable easier adoption by external organizations

4 Objective *

Develop an IRP Overview, Profiles & Usage Guide specification, covering the following:

- Provide IRP Overview and identify IRP Relationships
 - General Overview about the IRP Framework, and its IRP's
 - Overview about the dependencies between IRP's
 - Recommendations and Guidelines for the usage of the IRP Framework outside of 3GPP
- Provide IRP Profiles recommendations
 - IRP Usage guidelines

5 Service Aspects

N/A

6 MMI-Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.103	IRP Overview, Profiles & Usage Guide	SA5		SA#50 Dec 2010	SA#52 Jun 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No	CR	Subject	Approved at plenary#	Comments		

11 Work item rapporteur(s) *

Jörg Schmidt, Nokia Siemens Networks

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel Lucent
Ericsson
Huawei Technologies
Motorola
Nokia Siemens Networks
Orange
ZTE
Vodafone
NEC

5.1.5 Alarm correlation and root cause analysis (OAM-AC-RCA)

UID_510041

TSG SA Meeting #51SP-110137
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111498
SA5#76, 28 Feb - 4 Mar 2011; San Diego, USA *revision of S5-111(198,343)*

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
	Alarm correlation and root cause analysis	

This work item is ... *

X	Stage 1 (go to 2.3.1)
X	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
460032	Network Infrastructure Management	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

In a network, such as a fixed and mobile convergent (FMC) network, a single network fault (e.g. a network entity not performing at level expected by network operator) can result in the generation of multiple alarms from different networked entities, at different times. In a network, network management events, indicating changes in network configuration and/or performance, can be related to or causing network faults.

It is imperative that the network operator, the receiver of all the generated alarms and network events, be able to rapidly and accurately identify the causes of the alarms. Rapid and accurate root cause identification shortens the TTR (time to repair) and thus contribute to OPEX reduction.

It is imperative also that the network operator be able to identify network faults affecting its services and/or key customers. This ability directly contributes to the support of service contracts, between operators (providers of service) and service consumers.

The standardized capabilities supporting the operator's tasks mentioned above, are termed alarm correlation (AC) and root cause analysis (RCA).

Note that candidates subject of AC are not restricted to alarms. They can include network configuration changes, for example. Note that as well, the RCA may not always result in identifying an alarm but, depending on context and information available, may identify a network configuration change that is the root cause of the alarms.

Capabilities to correlate alarm and identify alarm root causes are considered as important features of FMC network management. See S5-101174 "Operator Common NGMN TOP10 Requirements".

This WI is based on the Recommendation of the Release 10 Study on Alarm Correlation and Alarm Root Cause Analysis (TR 32.823) and Release 10 Study on FM harmonization (TR 32.829).

4 Objective *

The objectives of this WI are to update specifications as follows:

The Requirements, benefits, context and use cases of AC and RCA;

Clarification of the semantics of the `correlatedNotification` attribute.

The `AlarmInformation` attributes that can report the result of AC and/or RCA or can assist the tasks of AC and/or RCA. Note that the `AlarmInformation` class is defined in TS 32.111-2, Alarm IRP IS.

An interface, packaged as additional functionalities to Alarm IRP, via which operator can receive the results of AC and RCA;

The context, such as location within the IRP Framework, in which the AC and RCA can be deployed.

Consider capabilities that were identified and recommended for implementation by Release 10 Study on FM harmonization (TR 32.829).

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	X	
No	X	X			X
Don't know					

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#		Comments
32.111-1		Alarm IRP Requirements		Sept 2011 SA-53		
32.111-2		Alarm IRP IS		June 2011 SA-52		
32.111-6		Alarm IRP SS definitions		June 2011 SA-52		

- 11 Work item rapporteur(s) *
Brendan Hassett, Ericsson

- 12 Work item leadership *
SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
CMCC
Ericsson
Huawei
NEC
Nokia Siemens Network
ZTE

5.1.6 Inventory Management Network Resource Model enhancements (OAM-IM-NMR) UID_510042

TSG SA Meeting #51SP-110141
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111493
SA5#76, 28 Feb - 4 Mar 2011; San Diego, USA *revision of S5-111346*

1 3GPP Work Area *

X	Radio Access
X	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any]		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
460032	Network Infrastructure Management (OAM10-NIM)	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

The scope of current inventory NRM is mainly hardware related. The output of the Alignment of 3GPP Generic NRM IRP and TMF Shared Information/Data (SID) Model study item, the inventory enhancement part in Rel-10 TR 32.828 (UID_460037), recommends to extend the scope of Inventory NRM. Additionally, NGMN has defined inventory enhancements as one of the top 10 priority items in their NGMN Top OPE Recommendations document (Version 1.0 - see S5-101174).

4 Objective *

The objective of this work item is to update in Rel-10 the 3GPP inventory NRM IRP based on findings and recommendations in Rel-10 TR 32.828. Such update will introduce a new inventory object model to capture inventory-type information for software, license, hardware and logical/physical resources, all related to resources under management. The inventory information is collected into inventory data files. File Transfer IRP is used for uploading the inventory data files to IRPManager.

5 Service Aspects

N/A

6 MMI-Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications *				
[None in the case of Study Items]				
Spec No.	CR	Subject	Approved at plenary#	Comments
32.690		Check and potential update	SA#52 June 2011	Inventory Management Requirements
32.691		Check and potential update	SA#52 June 2011	Inventory Management network resources IRP Requirements
32.692		Inclusion of new inventory objects	SA#52 June 2011	Inventory Management network resources IRP Network Resource Model
32.696		Inclusion of new inventory objects	SA#52 June 2011	Inventory Management NRM IRP; Solution Set definitions

11 Work item rapporteur(s) *

Olaf Pollakowski, Nokia Siemens Networks (olaf.pollakowski@nsn.com)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
China Mobile
Deutsche Telekom
Ericsson
Huawei
Nokia Siemens Networks
Vodafone
ZTE

5.2 Self-Organizing Networks OAM aspects (OAM-10-SON) UID_ 460034

TSG SA Meeting #51SP-110130
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111414
SA5#76, 28 Feb - 4 Mar 2011; San Diego, USA *revision of S5-111088*
TSG SA Meeting #51SP-110130
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111414
SA5#76, 28 Feb - 4 Mar 2011; San Diego, USA *revision of S5-111088*

TSG SA Meeting #46SP-090756
07 - 10 December 2009,
Sanya, China

3GPP TSG-SA5 (Telecom Management) S5-094092
Meeting SA5#68 09-13 Nov 2009, Shanghai, China

5.2.1 SON self-optimization management continuation - LTE-SON-OAM- SO UID_ 460035

1 3GPP Work Area *

X	Radio Access
	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any]		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

--	--	--

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
4600xy	Self-Organizing Networks (SON) - OAM aspects	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

Rel-9 SON self-optimization focused on the following use cases:

- 1) Load balancing
- 2) Handover Parameter optimization
- 3) Interference control
- 4) Capacity and coverage optimization
- 5) RACH optimization

The management aspects of "Load balancing" and "Handover Parameter optimization" have been fully discussed in Rel-9 while the management aspects of "Interference control", "RACH optimization" and "Capacity and coverage optimization" were not fully discussed due to the slower progress of the corresponding work in RAN.

Based on the situation at the end of Rel-9, it is required to continue the discussions on the management aspects of the following use cases:

- 1) Interference control
- 2) Capacity and coverage optimization
- 3) RACH optimization

Also, the management aspects of "Load balancing optimization" and "Handover parameter optimization" may need some enhancements considering the operators' new requirements.

Work has started in Rel-9 on the coordination functionality (e.g. turn on/off the automatic functions, coordination among the different targets in Handover Optimization use case etc.), but there is a need to extend this work to address the inclusion of additional optimization coordination.

- 1) Coordination between manual operations via ltf-N and automatic functionalities.
- 2) Coordination between self-optimization and other SON use cases.
- 3) Coordination between different self-optimization use cases.
- 4) Coordination between different targets within one self-optimization use case.

The discussion on coordination will include coordination of NRM defined parameters change, but will not be limited to the discussion of possible resolution of conflicting requests, regardless of the request source. Examples for such "conflicting request" are:

1. "ping-ponging" the value of an NRM defined parameter by two or more of the named requesting sources.
2. Overwriting an NRM defined parameter previously set by source B by source A.
3. Simultaneous requests by two or more sources to change an NRM defined parameter to different values.

The work item is not addressing resolution of conflicts between requests from different IRPManagers or conflicts resulting from requests via non-ltfN interfaces (e.g. craft terminals).

4 Objective *

a) Specify the management aspects of the following SON self-optimization use cases:

- 1) Interference control
- 2) Capacity and coverage optimization
- 3) RACH optimization
- 4) Load balancing optimization
- 5) Handover parameter optimization

Note: For "Load balancing optimization" and "Handover Parameter optimization" management, only some enhancements may be needed.

b) The solution for coordination related with the self-optimization on the following aspects:

- 1) Coordination of manual operations via ltf-N and automatic functionalities.
- 2) Coordination between self-optimization and other SON use cases.
- 3) Coordination between different self-optimization use cases.
- 4) Coordination between different targets within one self-optimization use case.

c) Update the existing SON self-optimization in TS 32.52x series specifications.

Existing SON self-optimization TSs will be impacted by this WI. Some existing specifications (i.e., NRM, PM, etc.) may also be impacted.

5 Service Aspects

N/A

6 MMI- Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject	Approved at plenary#	Comments		
32.521		self-optimization	SA#49 Sep 2010	Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Requirements		
32.522		self-optimization	SA#52 Jun 2011	Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)		
32.526		self-optimization	SA#52 Jun 2011	Self-Organizing Networks (SON); Policy Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions		
32.425		self-optimization	SA#52 Jun 2011	Performance Management (PM); Performance measurements E-UTRAN		

32.762	self-optimization	SA#52 Jun 2011	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)
32.766	self-optimization	SA#52 Jun 2011	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions

- 11 Work item rapporteur(s) *
Huawei Technologies (zlan@huawei.com)
- 12 Work item leadership *
- SA5
- 13 Supporting Individual Members *

Supporting IM name
Huawei Technologies
Vodafone
Deutsche Telekom
Motorola
Nokia Siemens Networks
Ericsson
NEC
Alcatel-Lucent
ZTE
China Telecom

5.2.2 SON self-healing management (LTE-SON-OAM-SH) UID_460036

TSG SA Meeting #51SP-110150
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-111524
SA5#76, 28 Feb - 4 Mar 2011; San Diego, USA *revision of SP-100776*

TSG SA Meeting #50SP-100776
13-15 Dec 2010, Istanbul, Turkey
3GPP TSG-SA5 (Telecom Management) S5-103369
SA5#74-OAM , 15 - 19 Nov 2010; Jacksonville, USA *revision of S5-10abcd*

TSG SA Meeting #46SP-090757
07 - 10 December 2009, Sanya, China
3GPP TSG-SA5 (Telecom Management) S5-094354
Meeting SA5#68 09-13 Nov 2009, Shanghai, China

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any]		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
4600xy	Self-Organizing Networks (SON) - OAM aspects	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

The target of Self-Healing (SH) is to recover from or mitigate errors in the network with a minimum of manual intervention from the operator.

Self-healing functionality will monitor and analyse relevant data like fault management data, alarms, notifications, and self-test results etc. and will automatically trigger or perform corrective actions on the affected network element(s) when necessary. This will significantly reduce manual interventions and replace them with automatically triggered re-optimizations, re-configurations, or software reloads/upgrades thereby helping to reduce operating expense.

4 Objective *

Collect and document Self-healing OAM requirements, stage 2 and stage 3 definitions.

Define – if needed in cooperation with RAN WGs - inputs to and outputs from the Self-Healing functions, its location in the management architecture, and the degree of standardisation of the associated algorithms.

Identify and document required Self-Healing related additions to the affected existing specifications.

Ensure that the OAM specifications support the management of the Self-Healing functionalities.

Based on the above, a set of new TSs should capture the SON Self-Healing OAM Requirements and solutions. Some existing specifications (i.e., NRM, PM, etc.) may need some modification according to the output of the work task.

5 Service Aspects

N/A

6 MMI-Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.541	Self-Organizing Networks (SON); Self-healing; Concepts and requirements	SA5		SA#45 Sep 2009	SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.522		self-healing management		SA#51 Mar 2011	Telecommunication management; Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)	
32.526		self-healing management		SA#51 Mar 2011	Telecommunication management; Self-Organizing Networks (SON); Policy Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions	
32.762		self-healing management		SA#50 Dec 2010	Telecommunication management; Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)	
32.766		self-healing management		SA#50 Dec 2010	Telecommunication management; Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions	

11 Work item rapporteur(s) *

ZTE (zhu.weihong@zte.com.cn)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
ZTE
Vodafone
China Mobile
Nokia Siemens Networks
Huawei Technologies.
Motorola
T-Mobile
Orange
Telecom Italia
Telefonica
TeliaSonera
China Telecom

5.2.3 OAM aspects of Energy Saving in Radio Networks (OAM10-ES) UID_470037

TSG SA Meeting #51SP-110128
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-110533
SA5#75, 24 - 28 Jan 2011; Sorrento, ITALY *revision of SP-110226*

Technical Specification Group Services and System Aspects TSGS#47(10)0226
Meeting #47; Vienna, Austria; 22-25 March 2010 *revision of SP-100077*
3GPP TSG-SA5 (Telecom Management) S5-100891
Meeting SA5#70, March 01-05 2010, Xiamen, China *revision of S5-10693*

Source: Nokia Siemens Networks, Vodafone, Huawei, NEC Corporation
Title: New WID on OAM aspects of Energy Saving in Radio Networks

1 3GPP Work Area *

X	Radio Access
	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
460034	Self-Organizing Networks (SON) - OAM aspects	

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks
TR 32.826		Triggered by Rel-10 TR 32.826 Study on Telecommunication Management; Energy Savings Management (FS_OAM_ESM) UID_430044

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

Energy efficiency is important both from a cost and an environment perspective. There are strong requirements from operators on the management and monitoring of energy saving functions and the evaluation of its impact on the network and service quality. Therefore an efficient and standardized Management of Energy Saving functionality is needed.

Coordination with other functionalities like load balancing and optimization functions is also required..

This work item is based on the outputs of the Energy Savings Management study item, which produced TR .32.826.

4 Objective *

The objectives of this work item are:

Define Energy Savings Management OAM requirements and solutions for the following use cases,

eNodeB Overlaid

Carrier restricted

Capacity Limited Network

Note: Some more Energy Saving use cases may be considered during the progress of the work

Define OAM requirements and solutions for coordination of ESM with other functions like

Self-Optimization

Self Healing

Traditional configuration management

Fault Management

Select existing measurements which can be used for assessing the impact and effect of Energy Saving actions corresponding to above Energy Saving use cases.

Define new measurements which are required for assessing the impact and effect of Energy Saving actions, including measurements of the energy consumption corresponding to above Energy Saving use cases.

For all the above existing standardized functionalities shall be reused as much as possible.

5 Service Aspects

N/A

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

N/A

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.551		SA5		SA#49 Sep 2010	SA#50 Dec 2010	Energy Saving Management (ESM); Concepts and requirements
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#		Comments
32.425		Inclusion of Energy consumption measurements		SA#51 Mar 2011		PM Performance measurements E-UTRAN
32.762		Inclusion of NRM elements for Energy Saving Management		SA#51 Mar 2011		E-UTRAN NRM IS
32.766		Inclusion of NRM elements for Energy Saving Management		SA#51 Mar 2011		E-UTRAN NRM IRP Solution Set definitions
32.522		Inclusion of policies for Energy Saving Management		SA#51 Mar 2011		SON Policy NRM IRP Information Service
32.526		Inclusion of policies for Energy Saving Management		SA#51 Mar 2011		SON Policy NRM IRP Solution Set definitions
32.626		Inclusion of policies for Energy Saving Management / Allow subnetworkwide Energy Savings policies		SA#51 Mar 2011		Configuration Management; Generic network resources IRP Solution Set definitions

*) Note: 32.es3/5/7 may be needed, if the decision is taken not to incorporate all NRM changes into 32.76n series.

11 Work item rapporteur(s) *

Clemens Suerbaum, Nokia Siemens Networks (clemens.suerbaum@nsn.com)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Vodafone
Nokia Siemens Networks
Huawei
NEC Corporation
Alcatel-Lucent
Orange
Motorola
ZTE
Deutsche Telekom
Qualcomm
Telecom Italia
Ericsson

5.3 Subscription Management (SuM) evolution OAM10-SuM UID_470038

Technical Specification Group Services and System Aspects TSGS#47(10)0086
Meeting #47; Vienna, Austria; 22-25 March 2010
3GPP TSG-SA5 (Telecom Management) S5-100709
Meeting SA5#70, 01-05 March 2010, Xiamen, P.R.China

Source: Ericsson, Verizon Wireless, Alcatel-Lucent, Nokia Siemens Networks
Title: New WID on Subscription Management (SuM) evolution
Document for: Approval
Agenda Item: 6.02 New OAM Work Item proposals

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification

This work item is a

	Study Item (go to 2.1)
	Feature (go to 2.2)
X	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
	OAM&P 10 (Acronym: OAM10)	

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks
TS 32.172 SuM NRM IRP IS		Within this stage, 1 document is to be updated as part

		of the work item.
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If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks
TS 32.175 SuM NRM IRP XML definition		Within this stage, 1 document is to be updated as part of the work item.

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

There is a need expressed from service providers and operators to provide a holistic and coherent view of customer/user/subscriber related information in the network, from the viewpoints of service and resource management layers as specified by the TeleManagement Forum's eTOM processes. The current version of the 3GPP SuM specifications covers the service management layer only to a very limited extent; instead, the focus has been on the resource layer and its management. There is a need to couple information models of the service layer with the information models of resource layer within the information domain related to customer/user/subscriber.

The current model is also inconsistent in its modelling of user identifiers. In general, a more coherent approach for modelling user's service data profiles is of interest.

SuM should offer a framework to enable rapid development of provisioning support for new services in a way conforming to a standard model.

Besides 3GPP's own interest in addressing the above mentioned concerns to support the 3GPP/LTE networks and services delivered on top of these networks, ETSI TISPAN has requested 3GPP to address these concerns so that they may re-use the evolved 3GPP SuM specifications as the basis for extensions to support the TISPAN NGN network.

4 Objective

This Work Item is a continuous one based on the previous one completed in SuM Rel 9.

The Work Item main objective is to provide an evolved SuM information model that offers loose coupling to service layer data and logic, as well as offering a generic framework for modelling of user's service data profiles.

With a generic framework for modelling, there shall be Guidelines and Rules for applied model talking about how to rapidly introduce an applied model and make it complaint with the generic framework for modelling as normative annex part.

In order to bring about a better understanding for the functioning of the SuM IM, guidelines for instantiation, including instantiation examples, are proposed to be included as an Informative annex of the 3GPP SuM NRM specification.

The current model is also inconsistent in its modelling of user identifiers. In general, a more coherent approach for modelling user's service data profiles is of interest.

Regarding the proposal from TISPAN about "connection points to external models" (i.e. Mapping between SA5 SuM IOCs and other SDO class definitions such as SID model construct), this work item will continue on investigating the necessity to introduce this model mapping into SA5 SuM standardization. If it's agreed within SA5 then it will be introduced as Informative annex part.

It has to consider backward compatibility with the existing SuM information model if it's feasible.

Consistency with information entities to be defined in the User Data Convergence baseline common information model shall be ensured.

5 Service Aspects

The WI aims to provide enhances management support for services.

6 MMI-Aspects

None.

7 Charging Aspects

None.

8 Security Aspects

No additional security aspects compared to existing SuM specifications.

9 Impacts *

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

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.172		Revised information model		SA#51	Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)	
32.175		Revised XML definitions		SA#51	Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): eXtensible Markup Language (XML) definition	

11 Work item rapporteur(s) *

Leo Yang (leo.yang@ericsson.com)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Ericsson
Verizon Wireless
Alcatel-Lucent
Deutsche Telekom
Nokia Siemens Networks

5.4 Performance Management (OAM10-PM) UID_470039

**Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010**

TSGS#47(10)0083

**3GPP TSG-SA5 (Telecom Management)
Meeting SA5#69, 18 - 22 Jan 2010, Valencia, Spain**

S5- 100340

revision of S5-10xyzw

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

5.4.1 Key Performance Indicators (KPIs) for IMS (OAM-PM-KPI_IMS) UID_470040

1 3GPP Work Area *

	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
460031	OAM&P 10	

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item

Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification

Performance management is important for operators to manage their networks. Key Performance Indicators (KPIs) and performance measurements are in the scope of network performance management. Currently performance measurements for IMS have been defined in TS 32.409. In order to monitor and evaluate the whole IMS network performance, it is necessary to define KPIs for IMS.

4 Objective

For evaluation of IMS Network performance, a set of Key Performance Indicators (KPIs) shall be defined based on well described use cases and be standardized with a formula. Classification and definitions template of KPIs refers to TS 32.410 and 32.450.

The following are examples of IMS KPI for standardization:

- Origination call setup success rate
- Termination call setup success rate
- Forward session success rate

- 5 Service Aspects
N/A
- 6 MMI-Aspects
N/A
- 7 Charging Aspects
N/A
- 8 Security Aspects
N/A
- 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 *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.454	Key Performance Indicators (KPI) for IMS	SA5		SA#50 Dec 2010	SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Li Jian , lijian@chinamobile.com , Liang Shuangchun, liangshuangchun@cmdi.chinamobile.com

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
China Mobile
Orange
Huawei
ZTE
Vodafone
Ericsson

Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010

TSGS#47(10)0084

3GPP TSG-SA5 (Telecom Management)

S5-100341

Meeting SA5#69, 18 - 22 Jan 2010, Valencia, Spain

revision of S5-10xyzw

5.4.2 Key Performance Indicators (KPIs) for EPC (OAM-PM-KPI_EPC)
UID_470041

1 3GPP Work Area *

	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
460031	OAM&P 10	

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification

TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

Performance management is important for operators to manage their networks. Key Performance Indicators (KPIs) and performance measurements are in the scope of network performance management. Currently performance measurements for EPC have been defined in TS 32.426. In order to monitor and evaluate the whole EPC network performance, it is necessary to define KPIs for EPC.

4 Objective

For evaluation of EPC Network performance, a set of Key Performance Indicators (KPIs) shall be defined based on well described use cases and be standardized with a formula. Classification and definitions template of KPIs refers to TS 32.410 and 32.450.

The following are examples of EPC KPI for standardization:

- Dedicated bearer activation success rate
- Attach success rate
- Inter-system handover success rate

- 5 Service Aspects
N/A
- 6 MMI-Aspects
N/A
- 7 Charging Aspects
N/A
- 8 Security Aspects
N/A
- 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 *

New specifications * [If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.xyz	Key Performance Indicators (KPI) for EPC	SA5		SA#50 Dec 2010	SA#51 Mar 2011	
Affected existing specifications * [None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Li Jian , lijian@chinamobile.com , Liang Shuangchun, liangshuangchun@cmdi.chinamobile.com

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
China Mobile
Alcatel-Lucent
Huawei
ZTE

TSG SA Meeting #49
20-23 Sep 2010, San Antonio, USA

SP-100612
revision of SP-100503

3GPP TSG-SA5 (Telecom Management)
Meeting SA5#73, 23 - 27 August 2010, New Delhi, India

S5-102570
revision of SP-100215

This is a revision of the WID UID_470042 (Management of UE based network performance measurements) in SP-100215, clarifying SA 5 outputs of the WI and identifying Stage 3 work to be performed by CT4, RAN2, and RAN3 WGs.

5.4.3 Management of UE based network performance measurements (OAM-PM-UE) UID_470042

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
460031	OAM&P 10	

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
X	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item

Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS
470039	OAM10-PM Performance Management	Note: this is a Rel-10 umbrella BB (no dedicated WID needed)

3 Justification *

The WI “Minimization of drive tests for E-UTRAN and UTRAN” was approved at TSG RAN#46 (RP-091423).

The RAN WI focuses on the control plane solution for the minimization of drive tests for E-UTRAN and UTRAN (MDT) and defines coverage optimization as the priority use case to be considered in Rel-10.

===== Start of extract from RP-091423 =====

“The objective of this work item is to define the solutions for minimization of drive tests (MDT) using a Control Plane Architecture (however, it is worth noting that the same information elements defined in the RRC specifications for providing information for UE to the E-UTRAN/UTRAN for the control plane MDT solution, can be utilised outside TSG RAN as the new MDT functionality will be captured to open 3GPP specifications available outside 3GPP.). The following prioritised use cases will be considered:

- *Coverage optimisation “*

Note: Solutions for the other MDT use cases identified in TR 36.805 are expected to be developed after completing the first prioritised use case based on operators’ priorities. New or updated work item to be agreed then.

The following principles should be followed when developing the MDT solutions based on Control Plane Architecture:

- *Both real time and non real time measurements will be considered.*
- *Measurements are configured to the UE by E-UTRAN/UTRAN by RRC signalling, based on Network management systems measurement definitions configured to E-UTRAN/UTRAN. Measurement may be triggered by various rules, for example based on radio conditions dependent thresholds*
- *Duplication of the existing functionality should be avoided.*
- *New measurement configurations and functionalities (e.g. UE measurements idle mode and during DRX operations and non-real time reporting, which includes storing some data in the UE memory) should be identified and specified for the prioritised MDT use cases.*
 - *End-user implications need to be kept acceptable (e.g. MDT solutions should be developed so that UE power consumption can be kept reasonable when MDT is deployed and used in the networks)*
 - *UE memory requirements for MDT support need to be carefully considered.*

- *The MDT measurements reporting are sent via RRC signalling to the E-UTRAN/UTRAN. RRC signalling to report measurements should also have the capability to include*
 - *Set of available location information*
 - *Time information*
- *The measurements from the UE can be combined/ processed with the network measurements already available in the E-UTRAN/ UTRAN and sent to the MDT-entity outside the E-UTRAN/UTRAN. E- Also basic measurement objects are to be identified, which may be added to the results such as Cell ID, time (if relevant) before being transferred onwards to the respective MDT-entity outside the E-UTRAN/UTRAN.*

===== End of extract from RP-091423 =====

Support of MDT RAN functionality is required on Itf-N to allow the operator to configure the policies in order to control MDT activation and MDT data collection. According to the policies configured by the operator, the MDT data is collected and transferred from eNodeB to IRP Manager via Itf-N.

In order to fulfill the coverage optimization use case, it will be necessary to be support on Itf-N::

- Operator selected area based MDT data collection
- Operator selected UE based MDT data collection.

The following functionalities are needed to operate MDT:

- Configuration on Itf-N of mechanisms to control and manage MDT function
- Availability of Itf-N operations to control and manage MDT data collection
- MDT data reporting format on Itf-N
- Procedures for propagation of MDT configuration data to concerned NEs

4 Objective

This WI specifies MDT OAM requirements and solutions for UMTS and LTE system in line with the RAN agreed control plane MDT WI.

The following aspects are required to be specified in this WI:

1. Management mechanisms which will be used by the operator to control MDT .

- ✓ Configuration of real time and non real time measurements
- ✓ Selection management mechanisms considering the impact on UE capabilities (e.g. power consumption, UE memory)
- ✓ Measurements reporting policies
- ✓ Operator selected UE based MDT data collection and operator selected area based MDT data collection
- ✓ Other, etc.

2. Operations to control and manage MDT data collection via Itf-N.

3. MDT data reporting format on Itf-N.

4. Procedures for MDT configuration data propagation to concerned NEs.

5. MDT related performance measurements

The operations for MDT management and procedures for MDT data propagation will make use of the existing SA5 solutions as much as possible (e.g. Trace functionalities, by extending the trace propagation to the UE and the trace reporting from the UE in SA5 Trace specifications).

It is also a target to provide stage 2 level requirements to 3GPP CT4 WG and RAN2, RAN3 WG for MDT configuration propagation over the following interfaces:

- Iu
- Iur
- S1
- X2
- D, Gr
- S6a
- E
- S10

The detailed stage 3 protocol specification is the responsibility of CT4, RAN2, and RAN3 WGs.

- 5 Service Aspects
N/A
6 MMI-Aspects
N/A
7 Charging Aspects
N/A
8 Security Aspects
N/A
9 Impacts

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

10 Expected Output and Time scale

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject	Approved at plenary#		Comments	
32.421		Subscriber and equipment trace; Trace concepts and requirements	SA#49 Sep 2010		OAM&P Stage 1	
32.422		Subscriber and equipment trace; Trace control and configuration management	SA#52 Jun 2011		OAM&P Stage 2	
32.423		Subscriber and equipment trace; Trace data definition and management	SA#52 Jun 2011		OAM&P Stage 3	
32.441		Trace Management Integration Reference Point (IRP): Requirements	SA#49 Sep 2010		OAM&P Stage 1	
32.442		Trace Management Integration Reference Point (IRP): Information Service (IS)	SA#52 Jun 2011		OAM&P Stage 2	
32.446		Trace Management Integration Reference Point (IRP): Solution Sets (SS)	SA#52 Jun 2011		OAM&P Stage 3	

11 Work item rapporteur(s) *

Zou Lan (zlan@huawei.com), Gyula Bodog (gyula.bodog@nsn.com), Ulf Hübinette (ulf.hubINETTE@ericsson.com)

12 Work item leadership *

Stage 1 and 2 for OAM&P: SA5

Stage 3 for OAM&P: SA 5

Stage 3 for Signalling Protocols: CT4, RAN2, RAN3

13 Supporting Individual Members

Supporting IM name
Huawei
Orange
AT&T
Vodafone
Deutsche Telekom
China Mobile
Telecom Italia
NEC
Alcatel-Lucent
Nokia Siemens Networks
Qualcomm
Ericsson
ZTE
Motorola

**Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010**

TSGS#47(10)0081

3GPP TSG-SA5 (Telecom Management)

S5-101059

Meeting SA5#70, 1-5 Mar 2010, Xiamen, P.R. China

revision of S5-100910

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

5.4.4 3G HNB and LTE HeNB Subsystem performance measurement (OAM-PM-HeNS) UID_470043

1 3GPP Work Area *

X	Radio Access
	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
X	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
460031	OAM&P 10	

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item

Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task

Parent Building Block		
Unique ID	Title	TS

3 Justification

The HNB-OAM_GW WI in R9 (UID 420036) is to standardize the North bound interface of H(e)NS. The original objectives of HNB-OAM_GW are targeting to specify H(e)NS NRM requirements, H(e)NS Information Service (IS), H(e)NS Solution Set (SS) and H(e)NS performance measurement (PM). However, there remain sufficient parts of H(e)NS PM need to be specified according to respective determinations in ongoing discussions of RAN2, RAN3 and SA2. As a result, the HNB-OAM_GW WI is still lacking HeNS PM specifications. In addition, HNB related performance data in HNS PM are still needed to be supplemented.

Therefore, it is proposed to analyze H(e)NS performance measurements to finalize uncompleted works in 32.452 and 32.453 in Rel-10.

4 Objective

In Rel-10, the new WI aims to complete the following works:

- Complement the performance data in 32.452 for HNS performance measurement;
- Specify the performance data in 32.453 for HeNS performance measurement depending on conclusions in RAN2, RAN3 and SA2;
- Coordinate the availability of performance data between Type 1 and Type 2 interfaces.

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	X	
No	X	X			X
Don't know					

10 Expected Output and Time scale

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TS 32.452	Performance Management (PM); Performance measurements Home Node B Subsystem (HNS)	SA5		SA#50 Dec 2010	SA#51 Mar 2011	
TS 32.453	Performance Management (PM); Performance measurements Home enhanced Node B Subsystem (HeNS)	SA5		SA#51 Mar 2011	SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.582		Telecommunications management; Home Node B (HNB) Operations, Administration, Maintenance and Provisioning (OAM&P); Information model for Type 1 interface HNB to HNB Management System (HMS)		SA#51 Mar 2011		
32.592		Telecommunication management; Home enhanced Node B (HeNB) Operations, Administration, Maintenance and Provisioning (OAM&P); Information model for Type 1 interface HeNB to HeNB Management System (HeMS)		SA#51 Mar 2011		

11 Work item rapporteur(s)

ChenGang (chengang@chinamobile.com)

12 Work item leadership

SA5

13 Supporting Individual Members

Supporting IM name
China Mobile
Huawei
Alcatel-Lucent
Nokia Siemens Networks
Qualcomm

6 Charging Management small Enhancements (CH10) UID_470044

Technical Specification Group Services and System Aspects TSGS#47(10)0090
Meeting #47; Vienna, Austria; 22-25 March 2010
3GPP TSG-SA5 (Telecom Management) S5-101075
Meeting SA5#70, 1-5 Mar 2010, Xiamen, P.R. China *revision of S5-100975*

Source: Orange
Title: WID Update: IWLAN Mobility charging
Document for: Approval
Agenda Item:

6.1 IWLAN mobility charging (IWLAN_Mob) UID_440063 Moved from Rel-9

1 3GPP Work Area *

	Radio Access
x	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
X	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
4700xy	Charging Management small Enhancements (CH10) - umbrella Feature to be created after SA#47	n/a

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item

Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS
370049	Mobility between 3GPP-WLAN Interworking and 3GPP Systems (IWLAN_Mob)	23.327

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification

The Stage 2 I-WLAN mobility Rel-8 specification (3GPP TS 23.327) indicates the charging requirements that should be met. The capability to differentiate charging based on Radio Access Type (RAT) is one of these requirements. Such a feature is required for operators and should support different operators' deployment options:

- Collocated GGSN/HA.
- Standalone HA.

Currently, only high-level information describes how the charging is supported for I-WLAN Mobility in S5-091885.

4 Objective

The Work Item proposes to create a framework to specify a solution meeting the stage 2 specification for I-WLAN Mobility. It is proposed to update the WLAN charging specification (TS 32.252). Additionally, other charging specifications shall be updated (TS 32.240, TS 32.298 and TS 32.299). Following aspects will be covered:

- Charging support for I-WLAN Mobility
- Charging differentiation on RAT support for I-WLAN Mobility

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

This is a charging work item.

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 *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No	CR	Subject	Approved at plenary#		Comments	
32.240		Charging architecture and principles	SA#51 Mar 2011			
32.252		Wireless Local Area Network (WLAN) charging	SA#51 Mar 2011			
32.298		Charging Data Record (CDR) parameter description	SA#51 Mar 2011			
32.299		Diameter charging applications	SA#51 Mar 2011			

11 Work item rapporteur(s) *

Jean-Luc GARCIA (ORANGE), jl <dot> garcia <at> orange-ftgroup <dot> com

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Orange
ZTE
Qualcomm Europe
China Mobile
Alcatel-Lucent
Huawei
Ericsson
Nokia Siemens Networks

Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010

TSGS#47(10)0078

3GPP TSG-SA5 (Telecom Management)
Meeting SA5#70, 1 - 5 Mar 2010, Xiamen, China

S5-100993
revision of S5-100822

Source: Nokia Siemens Networks
Title: WID to Add solutions for Rc (reference point within OCS)
Document for: Discussion and Approval
Agenda Item:

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

- 6.2 Add solutions for Rc (reference point within OCS) (CH-Rc)
UID_470045 **Moved to Rel-11**

7 Advice of Charge (AoC) service support enhancements (eAoC) UID_470046

**Technical Specification Group Services and System Aspects
Meeting #47; Vienna, Austria; 22-25 March 2010**

TSGS#47(10)0080

3GPP TSG-SA5 (Telecom Management)

S5-101030

Meeting SA5#70, 01 - 05 Mar 2010, Xiamen, China

revision of S5-100905

Source: Deutsche Telekom
Title: New WID proposal on Advice of Charge (AoC) service support enhancements
Document for: Approval
Agenda Item:

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

7.1 Advice of Charge (AoC) service support enhancements (eAoC) UID_470047

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
X	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship
380042	Rel-8 BB: Advice of Charge (AoC) support in IMS Charging	IMSTSS

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
X	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS
		Rel-10 SA1 TS 22.115 (Service aspects; Charging and billing)

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS
		Rel-9 CT4 TS 23.086 Advice of Charge (AoC) Supplementary Service; Stage 2

Else, corresponding stage 1 work item

Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

AoC service support in IMS is specified in the TS 32.280. Key parts are: AoC architecture, AoC Information Model and Data Model, AoC-related Ro interface and protocol mapping guidance between AoC information, and the related Stage 3 protocol specifications CT1 TS 24.647 (AOC information to the User Equipment) and CT3 TS 29.658 (Real Time Transfer of Tariff Information, RTTI). Additionally, AoC subscription and formatting parameters retrieved from HSS are reflected in the CT4 TS 29.364.

SA5 has identified a number of inconsistencies and protocol mapping issues between these specifications:

TS 24.647 contains several AoC protocol items not matching with 3GPP charging AVPs described in TS 32.280 and TS 32.299. Examples are Charged items, Charging Rate and Billing identification.

For transmission of AoC Cost Information to the UE, the existing protocol items in TS 24.647 are incomplete. Unlike the Ro interface (TS 32.280 and TS 32.229), TS 24.647 is currently not able to distinguish between accumulated cost information and incremental cost information.

The AoC information (TS 32.280, TS 32.299) and RTTI Specification (TS 29.658) are already able to distinguish between "current tariff" and "next tariff" and to transmit the whole tariff chain (current tariff + switchover time No. 1 + next tariff No. 1 + switchover time No. 2 + next tariff No. 2 + ...). But the AoC UNI information in TS 24.647 does not support fully the same information. Thus, the AoC-S information cannot transmit the whole tariff chain to the UE.

Some remaining mapping issues between AoC and Real-time Transfer of Tariff Information (RTTI, TS 29.658) need to be corrected as well.

Moreover, some operators require additional AoC features:

Support of IMS-based PSTN/ISDN Emulation (PES) as designed by ETSI TISPAN TS 183 043.

Support of the mobile-specific CAI format (Charge Advice Information).

Consider adding additional values for Charged Items, Charging Rate, and Unit Types other than time or money (e.g. charging by volume).

Add AoC-related information to Offline- and/or Online Charging (For example, AoC-related information in Offline Charging may be used by operators for statistic purposes).

Some of these additional AoC features are already supported by TS 32.280 and TS 32.299 but missing in the current Stage 3 Protocol Descriptions of the Advice of Charge (AOC) service in TS 24.647 and/or RTTI (TS 29.658).

4 Objective *

The work item proposes to correct inconsistencies, correct protocol mapping issues, add new features and harmonize the AoC-related specifications, i.e. SA5 TS 32.280, CT1 TS 24.647 and CT3 TS 29.658. Changes to TS 24.647 and TS 29.658 need to be coordinated with CT1 and CT3.

TS 32.280 needs to be corrected and enriched with regard to AoC Information Model, AoC Data Model and mapping guidance between AoC information and Stage 3 specifications of AoC UNI and RTTI.

New Offline- and/or Online Charging AVPs need to be aligned with TS 32.298 and TS 32.299. Additionally, the impact for AOC as a supplementary service for MMTel shall be reflected in the TS 32.275.

New or modified AoC Information having an impact on AoC subscription and formatting parameters needs to be aligned with CT4 TS 29.364 as well.

5 Service Aspects

- None
- 6 MMI-Aspects
- None
- 7 Charging Aspects
- This is a charging work item.
- 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 *

New specifications *					
[If Study Item, one TR is anticipated]					
Affected existing specifications *					
[None in the case of Study Items]					
Spec No.	CR	Subject	Approved at plenary#	Comments	
32.280		Align AoC Information and protocol mapping with Stage 3 specifications CT1 TS 24.647, CT3 TS 29.658 and CT4 TS 29.364. Enrich AoC Information to support AoC in an IMS-based PSTN/ISDN Emulation (PES) environment (ETSI TS 183 043). Enrich AoC Information to support additional values for Charged Items, Charging Rate and Unit Types. Add AoC-related information to Offline- and Online Charging.	SA#51 Mar 2011	"Telecommunication management; Charging management; Advice of Charge (AoC) service"	
32.275		Impact for AOC as a supplementary service for MMTel	SA#51 Mar 2011	"Telecommunication management; Charging management; MultiMedia Telephony (MMTel) charging"	
32.298		Align TS 32.298 with the changes to TS 32.280.	SA#51 Mar 2011	"Telecommunication management; Charging management; Charging Data Record (CDR) parameter description"	
32.299		Align TS 32.299 with the changes to TS 32.280.	SA#51 Mar 2011	"Telecommunication management; Charging management; Diameter charging application"	

- 11 Work item rapporteur(s) *
SA5: Matthias Seibel, Deutsche Telekom [matthias.seibel@telekom.de]
- 12 Work item leadership *
SA5
- Coordination needed with CT1, CT3 and possibly CT4.
- 13 Supporting Individual Members *

Supporting IM name
Deutsche Telekom
Nokia Siemens Networks
Alcatel Lucent
Ericsson
AT&T

8 Feasibility studies

Technical Specification Group Services and System Aspects
 Meeting #41, 15 - 18 September 2008,
 Kobe, Japan

TSGS#41(08)0464

Source: SA5
 Title: New SID on Rc Reference Point
 Document for: Approval
 Agenda Item: 12.18

3GPP TSG-SA5 (Telecom Management)
 Meeting SA5#60, 7 - 11 Jul 2008, Sophia Antipolis, FRANCE

S5-081204

Source: Huawei, China Mobile
 Title: New SID on Rc Reference Point
 Document for: Approval
 Agenda Item:

Study Item Description

8.1 Study on Rc Reference Point Functionalities and Message Flows UID_410044 – Moved from Rel-9

Is this Work Item a "Study Item"? (Yes / No): Yes

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

Release 8 Small charging enhancements

3 Justification

The purpose of this SID is to serve as a basis for detailed specification of OCS interfaces Rc in SA5. Under a comprehensive consideration of the status of OCS, it is proposed to start study of Rc reference point solution. It is therefore recommended to have a study item to guide further specification of the Rc reference point.

4 Objective

This Study Item aims to have a study report and recommendation for Rc Reference Point.

5 Service Aspects

None/Text

6 MMI-Aspects

None/Text

7 Charging Aspects

8 Security Aspects

None/Text

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 [If Study Item, one TR is anticipated]						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.825	Telecommunication management; Charging management; Rc Reference Point Study	SA5		SA#47 Mar 2010	SA#47 Mar 2010	
Affected existing specifications [None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

- 11 Work item rapporteur(s)**
Mingjun Shan, Huawei [shan.mingjun@huawei.com]
- 12 Work item leadership**
SA5
- 13 Supporting Companies**
Huawei, China Mobile, Orange, China Unicom, ZTE
- 14 Classification of the WI (if known)**

	Study Item (no further information required)
	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

Release 8 Small charging enhancements

Technical Specification Group Services and System Aspects

TSGS#43(09)0048

Meeting #43, 9 - 12 March 2009, Biarritz, France

3GPP TSG-SA5 (Telecom Management)**S5-091460**

Meeting SA5#63, 16-20 February 2009, Prague, Czech Republic

Source:	Alcatel-Lucent, China Mobile, Huawei, Orange, Telefonica, T-Mobile, Vodafone
Title:	Proposal for a new Study Item on Energy Savings Management
Document for:	Approval
Agenda Item:	6.02 – New OAM Work Item proposals

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

8.2 Telecommunication Management; Energy Savings Management (ESM) UID_430044 – Moved from Release 9

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification

This work item is a ...

X	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship
UID_4200 11	Self Organising Networks (SON)	Outputs and recommendations from the resulting TR may be used as source material for building block and work task level TSs under the Work Item itself.

Go to §3.

2.2 Feature

Related Study Item or Feature (if any)		
Unique ID	Title	Nature of relationship
NA		

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
NA		

This work item is ...

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any)		
Organization	Document	Remarks
NA		

Go to §3.

2.3.2 Stage 2

Corresponding stage 1 work item		
Unique ID	Title	TS
NA		

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify:

Go to §3.

2.3.3 Stage 3

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS
NA		

Else, corresponding stage 1 work item		
Unique ID	Title	TS
NA		

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify:

Go to §3.

2.3.4 Test spec

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification

Sustainable development is a long-term commitment in which all of us should take part. As part of sustainable development, our fight against global warming should be without respite. Our activities have a limited impact on environment: in 2007, the total footprint of the ICT sector was about 2% of the estimated total emissions from human activity and telecoms are only a part of ICT which represents no more than 25% of these 2%.

Nevertheless, most mobile network operators aim at reducing their greenhouse emissions, by several means such as limiting their networks' energy consumption.

In new generation Radio Access Networks such as LTE, Energy Savings Management function takes place especially when mobile network operators want e.g. to reduce Tx power, switch off/on cell, etc. based on measurements made in the network having shown that there is no need to maintain active the full set of NE capabilities.

By initiating this Work Item about Energy Savings Management, we hope to contribute to the protection of our environment and the environment of future generations.

4 Objective

The objective of this technical work is to study automated energy savings management features. Usage of existing IRPs is expected as much as possible, e.g. Configuration Management IRP, etc. However, this technical work may identify the need for defining a new IRP.

The following operations may be considered in this study item (but not necessarily limited to):

Retrieval of energy consumption measurements

Retrieval of traffic load measurements

Adjust Network Resources capabilities

Note that SA5 is willing to work in cooperation with RAN WGs that define e.g. eNodeB energy savings control mechanisms.

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	X	
No	X	X			X
Don't know					

10 Expected Output and Time scale

New specifications [If Study Item, one TR is anticipated]					
Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 32.xx1 Study on Energy Savings Management -Concepts and Requirements	SA5		SA#47 Mar 2010	SA#47 Mar 2010	The TR shall describe concepts and requirements for Energy Savings Management
Affected existing specifications [None in the case of Study Items]					
Spec No.	CR	Subject	Approved at plenary#	Comments	

- 11 Work item Rapporteur(s)
Orange, Jean-Michel Cornilly; Vodafone
- 12 Work item leadership
SA5
- 13 Supporting Individual Members

Supporting IM name
Alcatel-Lucent
China Mobile
Huawei Technologies
Orange SA
Telefonica
T-Mobile
Vodafone

Technical Specification Group Services and System Aspects **TSGS#47(10)0088**
Meeting #47; Vienna, Austria; 22-25 March 2010
3GPP TSG-SA5 (Telecom Management) **S5-101014**
Meeting SA5#70, 01 - 05 Mar 2010, Xiamen, China

TSG SA Meeting #44 **SP-090462**
01 - 04 June 2009,
Oranjestad, Aruba

3GPP TSG-SA5 (Telecom Management) **S5-092064**
Meeting #64 March 30 - April 3, 2009, Hangzhou, CHINA

Source: Motorola, Qualcomm Europe, Vodafone, T-Mobile, Telefonica, Telecom Italy, Orange
Title: New SID on Study on User Equipment Management (UEM)
Document for: Approval
Agenda Item: 6.x

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

8.3 Study on Integration of device management information with ltf-N (FS_UEM) UID_440069 – Moved from Release 9

1 3GPP Work Area *

X	Radio Access
	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

X	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship
	Minimization of drive-tests in next generation networks	It defines the UE measurements to be transferred over ltf-N

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
X	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

To achieve the objective of rapid deployment of radio technologies, network optimizations can be performed on the basis of measurements collected by the UE. UE measurements that can be useful for that purpose are currently under study in TSG RAN

To minimize complexity and cost of managing this information from the UE, integrated management capabilities towards the UE would be beneficial, e.g. a standard / common approach to manage the UEs under different DMS(Device Management Server)s"

It is noted that OMA has not yet defined an integration point for the DMS (Device Management Server) such as the ltf-N that 3GPP has defined for EMS systems. The lack of these interfaces makes the integration of DMS in a 3GPP network difficult. The Broadband Forum is in the process of defining a North Bound Interface for their TR-069 DMS, but it is still not completed yet.

4 Objective *

1) Study mechanisms for collection of UE measurements over ltf-N. This includes the mechanisms for Control Plane and User plane based solutions.

The mechanisms over ltf-N shall consider the capability to support the scalability and real time positive control required to manage large numbers of UE.

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			
Don't know	X			X	X

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

32.827	Telecommunication management; Study on Integration of device management information with lfn	SA5		SA#47 Mar 2010	SA#47 Mar 2010	
Affected existing specifications * [None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Yizhi Yao (zyao@motorola.com)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Motorola
Qualcomm Europe
Vodafone
Telecom Italia
T-Mobile
Telefonica
Orange

TSG SA Meeting #44
01 - 04 June 2009,
Oranjestad, Aruba

SP-090318

3GPP TSG-SA5 (Telecom Management)
Meeting SA5#64, 30 Mar – 3 Apr 2009 Hangzhou, CHINA

S5-092147*revision of S5-091xyw*

Source: SA5 (Telecom Management)
Title: New SID on Study on EPC Charging enhancement
Document for: Approval
Agenda Item: 7.02

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](#), article 39; and [3GPP TR 21.900](#).

8.4 Study on EPC Charging enhancement (FS_EPCcharg) UID_440050

Work stopped at SA#47.

It was deemed that the issue is sufficiently covered by Rel-10 UID_460039 Charging for LIPA_SIPTO and UID_4700xy Charging for IFOM.

TSG SA Meeting #46
07 - 10 December 2009,
Sanya, China
TSG SA5 Meeting #69

SP-090759

SP-094316

8.5 Study on Alignment of 3GPP Generic NRM IRP and TMF Shared Information Data (SID) model (FS_3GNRM_TMFSID) UID_460037

1 3GPP Work Area *

X	Radio Access
X	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

X	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

3GPP has developed and specified detailed Network Resource Models (NRMs) for the management of mobile networks, including a Generic Network Resource Model. TMF has done the same for the management of various kinds of fixed networks, as well as a Shared Information Data (SID) model providing common and generic definitions for network and service management aspects. Both sets of specifications have been developed independently. As a consequence the models are different.

Though there will always be a part in the NRMs and SID which are different due to the different network technologies modelled, there are numerous modelling aspects which do not have to be different between the two models for the different network technologies. Examples of these aspects are the top part of the NRMs and SID, modelling of resource inventory information, modelling of security aspects, modelling techniques and how vendor specific resource model extensions are managed using NRMs and SID.

Because both sets of specifications have been developed independently, the management of the mobile part and the fixed part is currently structured along silos with different management interfaces, resource models, management architectures, and management workflows. Aligned management interfaces, management models, management architectures, and management workflows would greatly benefit the industry. Advantages include CAPEX reduction (less development cost, less integration cost)

OPEX reduction (configuration and re-configuration of mobile and fixed networks can be handled in the same manner and with the same work flows)

enhanced management capabilities (e. g. consistent management of dependant configurations for mobile part and fixed part aspects)

4 Objective *

The goal is to allow the two organizations to evolve their respective NRMs and SID in a manner that they would become aligned to support consistent and integrated management of mobile and fixed networks. To this end the subject Study Item shall

identify the non-aligned, contradicting or overlapping parts of between NRMs and SID

identify the non-aligned, contradicting or overlapping parts regarding specification methodology;

propose possibilities to align the parts identified above.

ensure that the proposal allows usage of the 3GPP Generic NRM IRP independently of SID

ensure that the proposal allows usage of mobile specific NRMs be used as is

drive the alignment process with TMF

identify any required changes in the 3GPP specs

identify required changes in the TMF specifications and communicate them to the TMF

ensure that 3GPP remains full owner of the aligned part of the NRM specifications

define a procedure how aligned specifications can be maintained and updated in a consistent manner

Special emphasis shall be given to the borderline between generic and harmonized part and the network technology specific parts of the models. In case new requirements are identified during the alignment process, they may be taken into account as well.

It is not intended to add the mobile specific parts of the 3GPP Network Resource Models to the TMF SID. These model aspects shall be published by 3GPP only.

Interface aspects (e. g. the Alarm IRP) are outside of the scope of this Work Item.

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	X	
No					
Don't know					

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.828	TR on Study on Alignment of 3GPP Generic NRM IRP and TMF Shared Information Data (SID) model	SA5		TSG SA#48 June 2010	TSG SA# 51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Olaf Pollakowski, Nokia Siemens Networks

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Nokia Siemens Networks
Vodafone
Alcatel-Lucent
AT&T
Deutsche Telekom
ZTE
Ericsson

TSG SA Meeting #46 SP-090760
 07 - 10 December 2009,
 Sanya, China
 TSG SA WG5 Meeting #69S5-094317

8.6 Study on Harmonization of 3GPP Alarm IRP and TMF Interface Program (TIP) Fault Management (FS_3G_TMF_FM) UID_460038

1 3GPP Work Area *

X	Radio Access
X	Core Network
X	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

X	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

3GPP has developed and specified with the Alarm IRP an interface for Alarm Management. TMF has in MTOSI and OSSJ capabilities for Alarm Management as well. Currently TMF TIP studies how fault management can be aligned inside TMF.

However, there is no reason why fault management functions should be different, and an aligned management approach would greatly benefit the industry. An example of alignment within 3GPP SA5 IRP work is that multiple Solution Sets are aligned in that their supported management features are identical. Advantages of alignment include CAPEX reduction (less development cost, less integration cost) OPEX reduction (consistent handling of alarms)

4 Objective *

The goal is to provide a consistent and aligned management of alarms in 3GPP and TMF TIP. To this end the subject StudyItem shall

identify similarities and differences of the alarm management capabilities in 3GPP and TMF TIP FM

propose possibilities to align these capabilities (including the option of proposing the 3GPP Alarm IRP as TMF TIP FM solution)

drive the alignment process with TMF

identify any required changes in the 3GPP specs

identify required changes in the TMF specifications and communicate them to the TMF

define a procedure how aligned specifications can be maintained and updated in a consistent manner

Emphasis shall be given to IRP Methodology aspects, which are inherently important to the development of 3GPP management specifications. Backwards compatibility of the Alarm IRP shall be maintained as much as possible by re-using existing specifications to the maximum extent.

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	X	
No					
Don't know					

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.829	TR on Hamonization of 3GPP Alarm IRP and TMF Interface Program (TIP) Fault Management	SA5		TSG SA#48 June 2010	TSG SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Olaf Pollakowski, Nokia Siemens Networks
 Padmavathi (Padma) Sudarsan, Alcatel-Lucent

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Nokia Siemens Networks
Alcatel-Lucent
Vodafone
AT&T
Deutsche Telekom
ZTE
Ericsson

8.7 Study on version handling (FS_OAM_VH) UID_470050
Moved to Rel-11

TSG SA Meeting #50 SP-100775
13-15 Dec 2010, Istanbul, Turkey

3GPP TSG-SA5 (Telecom Management) S5-103349

SA5#74-OAM , 15 - 19 Nov 2010; Jacksonville, USA *revision of S5-103099*

Technical Specification Group Services and System Aspects TSGS#48(10)0376

Meeting #48; Seoul, Republic of Korea; 07-10 June 2010

3GPP TSG-SA5 (Telecom Management) S5-101566

Meeting SA5#71, 10-14 May 2010, Montreal, Canada revision of S5-101533

8.8 Study on Alarm Correlation and Alarm Root Cause Analysis (FS_AC_ARCA) UID_480045

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

x	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or	Clause	Remarks

CR(s)		

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

In a network, such as a convergent network, a single network fault (e.g. an entity under management is not performing at service level as expected by network operator) will result in the generation of multiple alarms from affected entities under management and management systems, over space and time. It is imperative that the network operator, the receiver of all the generated alarms, be able to evaluate the received alarms to identify the entity having the network fault.

Rapid and accurate determination of faulty entity will shorten the time to repair, and thus have direct positive impact in OPEX reduction and indirectly, facilitate the support of service contracts, between operators (providers of service) and service consumers.

It is noted that alarm correlation and alarm root cause are considered as important features of convergent network management, see S5-101174 "Operator Common NGMN TOP10 Requirements".

It is noted that candidates for alarm correlation are not restricted to alarms. Candidates may include network configuration information, e.g. from Notification Log and/or from notifications.

It is also noted that alarm root cause analysis may not always result in identifying an alarm but, depending on context and information given, may identify a network configuration change that is the root cause of the alarms.

4 Objective *

The objectives of the study are:

1. Identify and define the management services offered by alarm correlation (AC) process and alarm root cause analysis (ARCA) process;
2. Identify the benefits of the AC process and ARCA process from views of network operators.

- 3. Identify the possible locations of the AC and ARCA processes within the IRP framework.
- 4. Identify possible IRP standard solutions, including enhancement of existing IRP standard solutions, that can offer the services identified in bullet 1.

- 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	X	
No	X	X			X
Don't know					

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.832	Study on Alarm Correlation and Alarm Root Cause Analysis	SA5		SA#50 Dec 2010	SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *
Edwin Tse, Ericsson

12 Work item leadership *
SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
Deutsche Telekom
Ericsson
Nokia Siemens Networks
ZTE
Motorola
Huawei
Orange
Vodafone
China Mobile

Technical Specification Group Services and System Aspects TSGS#48(10)0291
 Meeting #48; Seoul, Republic of Korea; 07-10 June 2010

3GPP TSG-SA5 (Telecom Management) S5-101521
 Meeting SA5#71, 10-14 May 2010, Montreal, Canada revision of S5-101442

8.9 Study on Alignment of 3GPP PM IRP and TMF TIP PM (FS_3G_TMF_PM) UID_480046

1 3GPP Work Area *

X	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

X	Study Item (go to 2.1)
	Feature (go to 2.2)
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1 Study Item

Related Work Item(s) (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.2 Feature

Related Study Item or Feature (if any) *		
Unique ID	Title	Nature of relationship

Go to §3.

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1 Stage 1

Source of external requirements (if any) *		
Organization	Document	Remarks

Go to §3.

2.3.2 Stage 2 *

Corresponding stage 1 work item		
Unique ID	Title	TS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks

If no identified source of stage 1 information, justify: *

Go to §3.

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) Or external document	Clause	Remarks

If no identified source of stage 2 information, justify: *

Go to §3.

2.3.4 Test spec *

Related Work Item(s)		
Unique ID	Title	TS

Go to §3.

2.3.5 Other *

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

Go to §3.

2.4 Work task *

Parent Building Block		
Unique ID	Title	TS

3 Justification *

3GPP has developed and specified with the PM IRP an interface for Performance Management. TMF has in MTOSI and OSSJ capabilities for Performance Management as well. Currently TMF TIP studies how Performance management can be aligned inside TMF.

However, there is no reason why Performance management functions should be different, and an aligned management approach would greatly benefit the industry. An example of alignment within 3GPP SA 5 IRP work is that multiple Solution Sets are aligned in that their supported management features are identical. Advantages of alignment include

- CAPEX reduction (less development cost, less integration cost)
- OPEX reduction (consistent handling of performance measurements collection)

4 Objective *

The goal is to provide a consistent and aligned performance management and performance management interfaces in 3GPP and TMF. To this end the subject Work Item shall

- identify similarities and differences of the performance management capabilities in 3GPP and TMF TIP PM BA
- propose enhancements to 3GPP performance management solutions for converged networks and to satisfy TMF TIP PM BA requirements
- drive the alignment process with TMF
- identify any required changes in the 3GPP specs
- identify required changes in the TMF specifications and communicate them to TMF
- define a procedure how aligned specifications can be maintained and updated in a consistent manner

Emphasis shall be given to IRP Methodology aspects, which are inherently important to the development of 3GPP management specifications. Backwards compatibility of the PM IRP shall be maintained as much as possible by re-using existing specifications to the maximum extent.

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	X	
No	X	X			X
Don't know					

10 Expected Output and Time scale *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.831	TR on Alignment of 3GPP PM IRP and TMF TIP PM	SA5		TSG SA#51 Mar 2011	TSG SA#51 Mar 2011	
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s) *

Padmavathi (Padma) Sudarsan, Alcatel-Lucent

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
Ericsson
Huawei
Nokia Siemens Networks
Vodafone
Deutsche Telekom
Orange
ZTE
China Unicom

Technical Specification Group Services and System Aspects TSGS#48(10)0377
Meeting #48; Seoul, Republic of Korea; 07-10 June 2010
3GPP TSG-SA5 (Telecom Management) S5-101567
Meeting SA5#71, 10-14 May 2010, Montreal, Canada *revision of S5-101522*

- 8.10 Study on Management of Converged Networks
(FS_ManCon) UID_480047 Moved to Rel-11

- 8.11 Study on User Data Convergence (UDC) information model
handling and provisioning: Example Use Cases
(FS_UDC_AppUseCase) UID_490039 Moved to Rel-11

9 Network Improvements for Machine-Type Communications

9.1 Charging for Network Improvements for Machine-Type Communication (NIMTC-CH) UID_510040

TSG SA Meeting #51SP-110136
21 - 23 Mar 2011, Kansas City, USA

3GPP TSG-SA5 (Telecom Management) S5-110541
SA5#75, 24 - 28 Jan 2011; Sorrento, Italy *revision of S5-110499*

1 3GPP Work Area *

	Radio Access
X	Core Network
	Services

2 Classification of WI and linked work items

2.0 Primary classification *

This work item is a ... *

	Study Item (go to 2.1)
	Feature (go to 2.2)
X	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.3 Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS
410030	Network Improvements for Machine-Type Communications	-

This work item is ... *

	Stage 1 (go to 2.3.1)
	Stage 2 (go to 2.3.2)
X	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.3 Stage 3 *

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS
490037	Stage 2 for Network Improvements for Machine-Type Communications	23.060, 23.236, 23.401

3 Justification *

Excerpt from TR 22.868 on Machine-to-Machine communications:

"It appears that there is market potential for M2M beyond the current "premium M2M market segment" i.e. the market segments that are currently using M2M. In particular it is possible to identify potential applications for mass M2M service, e.g. consumer products manufacturers could keep in touch with their products after they are shipped – car manufacturers could serve as an example for that. Another example is in the home environment where remote maintenance of heating and air condition, alarm systems and other applications can also be identified."

The study on Machine-to-Machine communications indicated the potential for machine-type communications over mobile networks. However, for example wireless sensor networks (e.g. Zigbee) in combination with fixed network communications are also a contender for the implementation of such applications. For mobile networks to be competitive for mass machine-type applications, it is important to optimise their support for machine-type communications. The current mobile networks are optimally designed for Human-to-Human communications, but are less optimal for machine-to-machine, machine-to-human, or human-to-machine applications. It is also important to enable network operators to offer machine-type communication services at a low cost level, to match the expectations of mass-market machine-type services and applications.

4 Objective *

The objective is to enhance existing PS/EPS charging with Machine-Type Communications (MTC) information in alignment to the Rel-10 stage 2 description for MTC service support. Only Charging requirements specified in stage 1 TS 22.368 shall be addressed in this work item.

5 Service Aspects

Covered by the parent Feature

6 MMI-Aspects

Covered by the parent Feature

7 Charging Aspects

This is a Charging Work Item

8 Security Aspects

Covered by the parent Feature

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 *

New specifications *						
[If Study Item, one TR is anticipated]						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications *						
[None in the case of Study Items]						
Spec No.	CR	Subject		Approved at plenary#	Comments	
32.251		MTC charging enhancements		SA#51 Mar 2011	Charging Data Record (CDR) parameter description	
32.298		CDR enhancements for MTC		SA#51 Mar 2011	Packet Switched (PS) domain charging	
32.299		Diameter charging application enhancements for MTC		SA#51 Mar 2011	Diameter charging applications	

11 Work item rapporteur(s) *

Patrik Teppo (patrik.teppo@ericsson.com)

12 Work item leadership *

SA5

13 Supporting Individual Members *

Supporting IM name
Alcatel-Lucent
AT&T
Ericsson
Huawei
Nokia Siemens Networks
Orange
Vodafone
ZTE

Annex A: Status of SA5 Work Items

This list reflects work items **moved**, ongoing, **completed** or **stopped**.

510040	Charging for Network Improvements for Machine-Type Communication	NIMTC-CH
450035	Local IP Access and Selected Internet IP Traffic Offload	LIPA_SIPTO
450040	OAM&P for Local IP Access and Selected Internet IP Traffic Offload	LIPA_SIPTO
460039	Charging for Local IP Access and Selected Internet IP Traffic Offload	LIPA_SIPTO
450041	IP Flow Mobility and seamless WLAN offload	IFOM
470021	Charging for IP Flow Mobility and seamless WLAN offload	IFOM
460028	Optimal Media Routing	OMR
500013	Charging for Optimal Media Routing	OMR
460031	Rel-10 Operations, Administration, Maintenance and Provisioning (OAM&P)	OAM10
460032	Network Infrastructure Management	OAM10-NIM
460033	Common RAT Network Resource Model (NRM)	RAT_NRM_common
470035	IRP Solution Setspecification organisation improvements	OAM-IRP-SS
470036	Deleted - Service Oriented Architecture (SOA) for IRP continuation from Rel-9	OAM-SOA-IRP
480042	IRP Overview, Profiles & Usage Guide	OAM-NIM-IRP_OPU
510041	Alarm Correlation and Root Cause Analysis	OAM-AC-RCA
510042	Inventory Management Network Resource Model enhancements	OAM-IM-NMR
460034	Self-Organizing Networks (SON) - OAM aspects	OAM10-SON
460035	SON Self-optimization management continuation	LTE-SON-OAM_SO
460036	SON Self-healing management	LTE-SON-OAM_SH
470037	OAM aspects of Energy Saving in Radio Networks	OAM-ES
470038	Subscription Management (SuM) evolution	OAM10-SuM
470039	Performance Management	OAM10-PM
470040	Key Performance Indicators (KPIs) for IMS	OAM-PM-KPI_IMS
470041	Key Performance Indicators (KPIs) for EPC	OAM-PM-KPI_EPC
470042	Management of UE based network performance measurements	OAM-PM-UE
470142	Management of UE based network performance measurements	OAM-PM-UE
470043	3G HNB and LTE HeNB Subsystem performance measurements	OAM-PM-HeNS
470044	Rel-10 Charging Management small Enhancements	CH10
440063	IWLAN mobility charging	eIWLAN_Mob
470046	Advice of Charge (AoC) service support enhancements	eAoC
470047	SA5 part - AoC enhancements	eAoC
410044	Study on Rc Reference Point Functionalities and Message Flows	FS_OAM_Rc
430044	Study on Telecommunication Management; Energy Savings Management	FS_OAM_ESM
440069	Study on Integration of Device Management Information with Itf-N	FS_IDMI_Itf-N
460037	Study on Alignment of 3GPP Generic NRM IRP and TMF Shared Information Data (SID) model	FS_3GNRM_TMF SID
460038	Study on Harmonization of 3GPP Alarm IRP and TMF Interface Program (TIP) Fault Management	FS_3G_TMF_FM
480045	Study on Alarm Correlation and Alarm Root Cause Analysis	FS_AC_ARCA
480046	Study on Alignment of 3GPP PM IRP and TMF Interface Program (TIP) PM	FS_3G_TMF_PM
440050	Deleted - Study on EPC Charging enhancement	FS_EPCcharg

Annex B: Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Sep 2011	SP-53	SP-110516	--	--	Presentation to SA for information and approval	---	1.0.0
Sep 2011	--	--	--	--	Publication	1.0.0	10.0.0