3GPP TSG CN Plenary Meeting #15 **NP-020062**
6th – 8th March 2002. Jeju, Korea.

Source:	CN4
Title:	Work Item Description for the Sh Interface
Agenda item:	9.1
Document for:	Information/Approval

Work Item Description

Title: Sh interface (AS-HSS) **XXXX**

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

Related WIs are:

1. *Provisioning of IP-based Multimedia services (1273-SA1)*
2. *Call Control and Roaming to support IMS in UMTS (1274-SA2)*
3. *Call Control and Roaming to support IMS in UMTS - Stage 1 (1633-SA1)*
4. *Call Control and Roaming to support IMS in UMTS - Stage 2 (Architecture and Main Flows) (1514-SA2)*
5. *SIP Call Control protocol for the IM Subsystem (2233-CN1)*
6. *IMS Signalling Flows (TS 24.228) (1998-CN1)*
7. *IMS Session Handling; stage 2 (TS 23.218) (2255-CN1)*
8. *Support of VHE/OSA by the IMS (1310-CN5)*
9. *Generic user profile (31008-SA1)*
10. *Support of Presence Capability, stage 2 (2502-SA2)*

3 Justification

The IP Multimedia (IM) Subsystem identified new Core Network entities and interfaces for the purpose of supporting multimedia sessions and services. The specification of the Sh interface is an important element of the IP Multimedia Subsystem. The Sh interface is the l interface

- between the Home Subscriber Server (HSS) and the SIP Application Server (SIP-AS), and
- between the Home Subscriber Server (HSS) and the OSA Service Capability Server (OSA SCS).

It may be used for example for transferring User Profile information, for obtaining the address of the S-CSCF that serves the subscriber or the implicitly registered public user identities associated with the registered public user identity of the subscriber.

The Home Subscriber Server (HSS) is the master database for a given user containing the subscription-related information to support the network entities actually handling calls/sessions.

The HSS consists of the following functionality:

- User control functions required by the IM CN subsystem.
- The subset of the HLR functionality required by the PS-Domain.
- And the CS part of the HLR, if it is desired to enable subscriber access to the CS-Domain or to support roaming to legacy GSM/UMTS CS-Domain networks

4 Objective

The objectives of this WI are:

- To specify the protocol data structures and information flows of the Sh interface. The output will be the Technical Specifications containing the Stage 2 and Stage 3 specification of procedures relevant to the Sh interface, such as for transferring User Profile information, for supporting OSA Service Capability Features (OSA SCF), for obtaining the address of the S-CSCF that serves the subscriber or the implicitly registered public user identities associated with the registered public user identity
- To select a protocol, which provides the identified functionality of the Sh interface to meet the requirements identified in TS 23.228 and TS 23.218.
- To describe the subscription related data structures relevant for storing subscriber related data (transparent or otherwise) required by Application Servers. The output of the Work Item 'Generic User Profile' (see linked WI list) should be considered for an input for this part.

5 Service Aspects

3GPP is no longer standardising services, but service capabilities, which has an impact on the contents of the user profile for example the requirement to store transparent service related data.

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

Sh is an intra-operator interface, and will be protected by the NDS/IP security mechanisms specified in TS 33.210.

9 Impacts

Affects:	USIM	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						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
29.ABC	IP Multimedia Subsystem Sh Interface Signalling Flows and Message Contents	CN4		CN#16	CN#16	Functional classification of procedures and message parameters on the Sh reference point.
29.DEF	Sh Interface based on the Diameter protocol	CN4		CN#16	CN#16	Stage 3 specifying the extension to Diameter for Sh interface

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
23.008		Organization of subscriber data	CN#16	This specification may need to be extended with the new NEs and the subscription information that they contain, or alternatively subscriber data for the IM domain may be captured elsewhere (decision to be made when stage 2 becomes stable).
23.016		Subscriber Data Management	CN#16	This specification may need to be extended with the subscriber data for the IM domain.
29.229		Cx Interface based on the Diameter protocol; protocol details	CN#16	Stage 3 specifying the UMTS protocol impacts on the Cx reference point based on Diameter (I-CSCF/S-CSCF and HSS).
-	-	To be determined	CN#16	Other Stage 2 and Stage 3 specifications may be impacted as a result of this Work Item
Affected existing and new IETF specifications				
draft-johansson-aaa-diameter-mm-app.txt		Diameter Multimedia Application		Approval dates not known
Draft-calhoun-sip-aaa-reqs-03-.txt		AAA Requirements for IP Telephony/Multimedia		Approval dates not known

11 Work item raporteurs

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12 Work item leadership

CN4

13 Supporting Companies

Lucent, dynamicsoft, Ericsson, Nokia, Siemens

14 Classification of the WI (if known)

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

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

Stage 3 description of IMS interfaces *(10001-CN)*