

Source: CN4  
Title: New Work Item Description on Enhancements to the CX and Sh interfaces for Release 6  
Agenda item: 9.1  
Document for: APPROVAL

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### Work Item Description

Title: Enhancements to the Cx and Sh interfaces - 14014

**1 3GPP Work Area**

	Radio Access
X	Core Network
	Services

**2 Linked work items**

*Related WIs are:*

1. IMS Phase 2 (32021)
2. IMS Stage-2 Enhancements (32027)
3. IMS Stage-3 Enhancements (11031)

**3 Justification**

The specification of the Cx and Sh interfaces are important elements of the IP Multimedia Subsystem.

The Cx interface is the interface:

- between the Home Subscriber Server (HSS) and the Call/Session Control Function (CSCF)

The Sh interface is the 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).

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.

During the specification of these interfaces for Rel-5 it was intended that a Diameter Multimedia Application would be utilised, however due to time constraints and resource limitations, this IETF specified application could not be used and the Cx and Sh specifications directly specified their immediate requirements. This was done with concessions from the IETF on the use of Diameter command codes. The intention with this work item is to enhance the Cx and Sh specifications to fulfil

the IMS Stage-2 and Stage-3 enhancement WIs and to be backwards compatible with the existing release 5 specifications.

**4 Objective**

The objective of this WI is to enhance the Cx and Sh specifications to fulfil the IMS Stage-2 and Stage-3 WIs and to guarantee the backwards compatibility with the existing release 5 specifications. The objective of this WI is also to be the basis for the new IETF work on a Diameter Multimedia Application.

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>				X	
<b>No</b>	X	X	X		X
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#	Comments	
29.228		IP Multimedia Subsystem Cx Interface Signalling Flows and Message Contents		CN#22	Functional classification of procedures and message parameters on the Cx reference point.	
29.229.		Cx Interface based on the Diameter protocol		CN#22	Stage 3 specifying the UMTS protocol impacts on the Cx reference point based on Diameter (I-CSCF/S-CSCF and HSS).	
29.328		IP Multimedia Subsystem Sh Interface Signalling Flows and Message Contents		CN#22	Functional classification of procedures and message parameters on the Sh reference point.	
29.329.		Sh Interface based on the Diameter protocol		CN#22	Stage 3 specifying the extension to Diameter for Sh interface	
<b>Affected existing and new IETF specifications</b>						
draft-belinchon-aaa-diameter-mm-app-00.txt		Diameter Multimedia Application			Approval dates not known	

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**Work item raporteurs**

Maria-Carmen Belinchon (Ericsson)

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**Work item leadership**

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**Supporting Companies**

Ericsson, Nokia, Lucent, Nortel

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**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

IMS Stage-2 Enhancements (32027)