3GPP TSG-CN1 Meeting #36 **Tdoc NP-040618**
Seoul, Korea, 15-19 November 2004

Source: CN1

Title: WID - Protocol impact from providing IMS services via fixed broadband

Agenda item: 10.1

Document for: APPROVAL

Work Item Description

Title: Protocol impact from providing IMS services via fixed broadband

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

- Stage-2: System enhancements for fixed broadband access to the IMS (32074)
- QoS Improvements (32016)
- FS on Dynamic Policy control enhancements for end-to-end QoS (32017)
- WLAN - UMTS Interworking (32018)
- QoS Improvements
  - Gq interface specification for Dynamic Policy control enhancements (13016)
- Interworking aspects and migration scenarios for IPv4 based IMS Implementations (32062)
- Interoperability and Commonality between IMS using different "IP-connectivity Networksì (32061)
- IP flow based bearer level charging (32030)

3 Justification

The standardization of the Next Generation Network (NGN) is addressed by a number of SDOs, e.g. ETSI and ITU-T.

3GPP recognises that external standards organisations are in the process of defining NGN session control using IMS as a platform. This will embed IMS as the framework for advanced services for many types of operators. It is expected that some enhancements of the 3GPP specifications will be needed for IMS to meet the NGN requirements.

This work item studies and intends to implement the necessary enhancements to IMS within 3GPP for NGN as seen appropriate from a 3GPP system perspective. 3GPP will evaluate whether those enhancements are expected to be generally useful to IMS when deciding to incorporate them.

4 Objective

This work item provides for possible enhancements of protocols used in the IMS in order to support a NGN. Guided by a 3GPP system perspective 3GPP intends to develop specifications, changes or addenda to specifications to meet the NGN requirements.

The following issues may require protocol enhancements:

- Simulation of existing PSTN/ISDN services
  This item is to provide any SIP and SDP (or other protocol) specification necessary to provide PSTN/ISDN services in the IMS. Service interaction aspects shall be taken into account.

- NGN QoS requirements
  This item is to provide enhancements to the Go/Gq interfaces to enable control of bearer resources in the NGN.

- NGN security requirements
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to provide secure access to the IMS from NGN terminals.

- NGN charging requirements
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to provide for transport of NGN specific charging information in the IMS.

- NGN architectural requirements
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to cope with NGN specific architecture aspects.

- non 3GPP access networks
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to provide access to the IMS through NGN access technologies.

Duplication of work should be avoided. Where appropriate changes should be integrated in appropriate existing works items, e.g. WLAN Interworking, IMS Commonality.

5 Service Aspects

None within the context of this work item.
NGN requirements impacting 3GPP service requirements will be analyzed in the context of the corresponding SA2 work item.
SA1 and SA2 will be involved to ensure consistent stage 1, 2, 3, and to ensure there are no conflicting requirements.

6 MMI-Aspects

No MMI aspects are expected in the context of this WI.

7 Charging Aspects

None within the context of this work item.
Impact on 3GPP system will analyzed in the context of the corresponding SA2 work item

8 Security Aspects

None within the context of this work item.
Impact on 3GPP system will be analyzed in the context of corresponding SA2 work item.

9 Impacts

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

NOTE: No impacts are envisaged on 3GPP IMS UE, however the work item includes the specification and requirements for the NGN IMS UE with regards to the usage of SIP and SDP.

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
TR	Protocol impact from providing IMS services via fixed broadband	CN1		CN#28	CN#28	Contributions under the new WI shall be written against this TR initially. The TR will be used as a holding place until the material has reached stability.

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
24.229		Changes to fulfil NGN requirements	CN#28	
29.163		Changes to fulfil NGN requirements	CN#28	
29.209		Changes to fulfil NGN requirements on Gq	CN#28	
29.229		Changes to fulfil NGN requirements	CN#28	
		Other specs may be identified as work progresses, e.g. 24.141 for presence	CN#28	

11 Work item rapporteurs

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12 Work item leadership

CN 1

13 Supporting Companies

Siemens, Orange, France TÈlÈcom, Lucent Technologies, Nortel Networks, GET, Alcatel, Ericsson, T-Mobile, TeliaSonera

14 Classification of the WI (if known)

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

14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

Stage-2: System impact from providing IMS services via fixed broadband

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

(one Work Item identified as a building block)

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	Services

2 Linked work items

- Stage-2: System ~~impact from providing IMS services via~~enhancements for fixed broadband ~~(to be drafted)~~access to the IMS (32074)
- QoS Improvements (32016)
- FS on Dynamic Policy control enhancements for end-to-end QoS (32017)
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3 Justification

The standardization of the Next Generation Network (NGN) is addressed by a number of SDOs, e.g. ETSI and ITU-T.

3GPP recognises that external standards organisations are in the process of defining ~~During the joint 3GPP/TISPAN workshop it was agreed that ETSI/TISPAN will define~~ NGN session control using IMS as a platform. This will embed IMS as the framework for advanced services for many types of operators. It is expected that some enhancements of the 3GPP specifications will be needed for IMS to meet the NGN requirements.

This work item studies and intends to implement the necessary enhancements to IMS within 3GPP for NGN as seen appropriate from a 3GPP system perspective. 3GPP will evaluate whether those enhancements are expected to be generally useful to IMS when deciding to incorporate them.

4 Objective

This work item provides for possible enhancements of protocols used in the IMS in order to support a NGN ~~based on IMS in ETSI TISPAN release 1~~. Guided by a 3GPP system perspective 3GPP intends to develop specifications, changes or addenda to specifications to meet the NGN requirements.

~~Additional input received from other 3GPP OPs and MRPs shall be considered as well to study the impacts on IMS.~~

The following issues may require protocol enhancements:

- Simulation of existing PSTN/ISDN services
  This item is to provide any SIP and SDP (or other protocol) specification necessary to provide PSTN/ISDN services in the IMS. Service interaction aspects shall be taken into account.

~~•Presence extension~~

- NGN QoS requirements
  This item is to provide enhancements to the Go/Gq interfaces to enable control of bearer resources in the NGN.

- NGN security requirements
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to provide secure access to the IMS from NGN terminals.

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- NGN architectural requirements
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~~•NGN service requirements~~

- non 3GPP access networks
  This item is to provide any SIP and SDP (or other SIP message body) specification necessary to provide access to the IMS through NGN access technologies.

Duplication of work should be avoided. Where appropriate changes should be integrated in appropriate existing works items, e.g. WLAN Interworking, IMS Commonality.

5 Service Aspects

None within the context of this work item.
NGN requirements impacting 3GPP service requirements will be analyzed in the context of the corresponding SA2 work item.
SA1 and SA2 will be involved to ensure consistent stage 1, 2, 3, and to ensure there are no conflicting requirements.

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TR	Protocol impact from providing IMS services via fixed broadband	CN1		CN#~~26~~27~~27~~28	CN#~~27~~28	Contributions under the new WI shall be written against this TR initially. The TR will be used as a holding place until the material has reached stability. ~~The TR will be approved 03/05, with CRs to existing specs being implemented until 06/05~~

Affected existing specifications				
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29.229		Changes to fulfil NGN requirements	CN#28	
		Other specs may be identified as work progresses, e.g. 24.141 for presence	CN#28	~~06/05, in line with TISPAN Rel 1 time frame~~

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