3GPP TSG-CN1 Meeting #36   **Tdoc NP-040494**
Seoul, Korea, 15-19 November 2004

Source: CN1

Title: Revised IP Multimedia Core Network Subsystem WID

Agenda item: 9.1

Document for: APPROVAL

3GPP TSG-CN1 Meeting #36   **Tdoc N1-042029**
Seoul, Korea, 15-19 November 2004

Source: CN1

Title: Revised IP Multimedia Core Network Subsystem WID

Agenda item: 7.04

Document for: APPROVAL

This document revises NP-040034.

At the last CN meeting, it was reported that work relating to local services would not be completed in release 6, and therefore that this work should be removed from the current work item. This contribution addresses that change.

As emergency calls work has slipped to release 7, we have removed it from the list of linked work items.

We have also taken the opportunity to remove 24.228 from the list of affected specifications, as it is clear that CN1 will not be progressing a Rel-6 version of 24.228.

The date of the messaging TS for approval has been modified to be December 2004, as it was not sent for approval at the last meeting.

The work item has also been revised against the current WI template (this revision is not indicated by revision marks).

A new specification covering a terminal MIB are agreed, and that new specification and the associated work are added to this work item.

Work Item Description

Title

IMS Stage-3 Enhancements

1   3GPP Work Area

	Radio Access
X	Core Network
	Services

2   Linked work items

> Stage-2 of IMS Phase 2 (32027)
> Interworking between IMS and CS networks (2047)
> Interworking between IMS and IP networks (2048)
> Interoperability and Commonality between IP Multimedia Systems using different
>   "IP-connectivity Networks" (11032)

3   Justification

In Release 5, the IMS was defined to support IP Multimedia services. The feature set in Release 5 provides a basis for IP Multimedia support. For some capabilities already identified, Stage 2 was not completed as part of Release 5 and the need for other new capabilities is being identified.

4   Objective

The objectives of this work item are to finalise Stage 3 work on postponed Release 5 features and to refine and further develop support of the IP Multimedia services in a wireless network. The areas to be considered are:

1. IM CN subsystem Group management
   This item is to provide SIP and SDP (or other SIP message body) specification necessary to support the IM CN subsystem capabilities to facilitate group-enabled services (e.g., chat).

2. IM CN subsystem Conferencing
   This item is to provide any additional SIP and SDP (or other SIP message body) specification that may be necessary in support of conferencing services. Additionally this item is to provide data manipulation for conferencing (CPCP) in IMS.
   Note: There is ongoing work in IETF SIP and SIPPING groups that needs to be taken into account in conjunction with this area.

3. IM CN subsystem Messaging
   This item is to provide the SIP and SDP (or other SIP message body) support necessary to support the capabilities required for messaging services in the IM CN subsystem being defined by SA1.
   Note: This is subject to a feasibility study at stage 1, and work in this area should not commence until that stage 1 work has determined that this work area should proceed.

4. Additional SIP Capabilities Support
   This item is to provide any SIP and SDP (or other SIP message body) specification necessary to support desired SIP capabilities that are not covered in Release 5 (e.g., forking).
   Note: This work area needs to explicitly identify enhancements before they can be included in the expected output and timescale table.

5. End-to-end aspects for interworking with other IP networks
This item is to provide any SIP and SDP (or other SIP message body) specification necessary to support interworking with other IP networks. This may include changes to preconditions requirements, and other material to support interworking with Ipv4 networks

6. Definition of a mobile device 3GPP IMS Management Object.
The management object will be compatible with OMA Device Management protocol specifications and upwards, and defined using the OMA DM Device Description Framework. The 3GPP IMS Management Object consists of relevant parameters that can be managed for the IM CN Subsystem. This includes the basic framework defined in 3GPP TS 23.228 and 3GPP TS 24.229, and early IMS implementations as indicated by 3GPP TS 23.221.

These are based on stage 2 work performed under work item: "IMS Stage-2 Enhancements"

Additionally the following stage 3 specific area is covered by this work item:

7. Review of additional capabilities provided in SIP by IETF, and provide documentation as whether these capabilities are supported in the IM CN subsystem or not

In addition to the existing interfaces on IMS some of the listed areas e.g. conferencing, require work on data manipulation related signalling via the Ut interface.

5 Service Aspects

None. Service aspects are covered by other work item descriptions.

6 MMI-Aspects

None. MMI Aspects are covered by other work item descriptions.

7 Charging Aspects

None. Charging Aspects are covered by other work item descriptions. Within release 5 there are protocol mechanism providing in support of charging, and these may require enhancement by work areas described by this work item.

8 Security Aspects

None. Security Aspects are covered by other work item descriptions. Within release 5 there are protocol mechanism providing in support of security, and these may require enhancement by work areas described by this work item.

9 Impacts

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

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 29.847	Conferencing based on SIP, SDP and other protocols, Functional Models, information flows and protocol details (Release 6)	CN1		CN#21 (September 2003)	CN#25 (September 2004)	Includes SIP and SDP specific conferencing procedures and call flows for UE, AS and CSCFs. Includes signalling for conferencing specific data manipuliation over the Ut interface.
TS 24.147	Conferencing using the IM CN subsystem; Stage 3	CN1		CN#23 (March 2004)	CN#25 (September 2004)	Includes SIP and SDP specific conferencing procedures and call flows for UE and AS. Includes functional signalling for conferencing specific data manipulation over the Ut interface based on IETF solutions.
TS 24.247	Messaging service using the IM CN subsystem; Stage 3	CN1		CN#23 (March 2004)	CN#26 (December 2004)	Includes SIP specific messaging procedures and call flows for UE and AS.
TS 29.167	3GPP IMS Management Object (MO); Stage 3	CN1		CN#26 (December 2004)	CN#27 (March 2005)	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
23.218		Enhancements in support of IM CN subsystem Conferencing		CN#25		Incorporation of IETF work, possibly after submission of 3GPP requirements to IETF
24.229		Enhancements in support of IM CN subsystem Conferencing		CN#25		Incorporation of IETF work, possibly after submission of 3GPP requirements to IETF Conferencing specific procedures at CSCFs (if applicable) Messaging specific procedures at CSCFs (if applicable)
23.218		Enhancements in support of IM CN subsystem Messaging		CN#24		Incorporation of MESSAGE method, and also IETF solution for a session-based mechanism
24.229		Enhancements in support of IM CN subsystem Messaging		CN#24		Incorporation of MESSAGE method, and also IETF solution for a session-based mechanism

23.218		Enhancements in support of end-to-end aspects for interworking with other IP networks	CN#25	
24.229		Enhancements in support of end-to-end aspects for interworking with other IP networks	CN#25	
23.218		Review of additional capabilities provided in SIP by IETF, and provide documentation as whether these capabilities are supported in the IM CN subsystem or not	CN#25	Currently this includes session-timer, caller-preferences, callee-caps, referred-by, join, replaces
24.229		Review of additional capabilities provided in SIP by IETF, and provide documentation as whether these capabilities are supported in the IM CN subsystem or not	CN#25	Currently this includes session-timer, caller-preferences, callee-caps, referred-by, join, replaces

11   Work item rapporteur(s)

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12   Work item leadership
CN1

13   Supporting Companies

Lucent Technologies, Siemens, Qualcomm, Nokia

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

(list of Work Items identified as building blocks)

14b   The WI is a Building Block: parent Feature

IMS Phase 2 (unique id 32021)

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

(one Work Item identified as a building block)

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Agenda item:	7.04
Document for:	APPROVAL

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2   Linked work items

Stage-2 of IMS Phase 2 (32027)
~~Emergency Call Enhancements for IP & PS Based Calls – stage 3 (32045)~~
Interworking between IMS and CS networks (2047)
Interworking between IMS and IP networks (2048)

Interoperability and Commonality between IP Multimedia Systems using different "IP-connectivity Networks" (11032)

3   Justification

In Release 5, the IMS was defined to support IP Multimedia services. The feature set in Release 5 provides a basis for IP Multimedia support. For some capabilities already identified, Stage 2 was not completed as part of Release 5 and the need for other new capabilities is being identified.

4   Objective

The objectives of this work item are to finalise Stage 3 work on postponed Release 5 features and to refine and further develop support of the IP Multimedia services in a wireless network. The areas to be considered are:

1.IM CN subsystem local services
This item is to provide any additional SIP and SDP (or other SIP message body) work that may be necessary to support access to services in the local serving IM CN subsystem.
Note: It is not yet clear what work will be required in CN1 for this work item.

2.1. IM CN subsystem Group management
This item is to provide SIP and SDP (or other SIP message body) specification necessary to support the IM CN subsystem capabilities to facilitate group-enabled services (e.g., chat).

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Note: There is ongoing work in IETF SIP and SIPPING groups that needs to be taken into account in conjunction with this area.

4.3. IM CN subsystem Messaging
This item is to provide the SIP and SDP (or other SIP message body) support necessary to support the capabilities required for messaging services in the IM CN subsystem being defined by SA1.
Note: This is subject to a feasibility study at stage 1, and work in this area should not commence until that stage 1 work has determined that this work area should proceed.

5.4. Additional SIP Capabilities Support
This item is to provide any SIP and SDP (or other SIP message body) specification necessary to support desired SIP capabilities that are not covered in Release 5 (e.g., forking).
Note: This work area needs to explicitly identify enhancements before they can be included in the expected output and timescale table.

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These are based on stage 2 work performed under work item: "IMS Stage-2 Enhancements"

Additionally the following stage 3 specific area is covered by this work item:

6.7. Review of additional capabilities provided in SIP by IETF, and provide documentation as whether these capabilities are supported in the IM CN subsystem or not

In addition to the existing interfaces on IMS some of the listed areas e.g. conferencing, require work on data manipulation related signalling via the Ut interface.

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None. Service aspects are covered by other work item descriptions.

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(list of Work Items identified as building blocks)

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IMS Phase 2 (unique id 32021)

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

(one Work Item identified as a building block)