

3GPP TSG-CN WG1 SIP ad hoc meeting #1
17.-19. Oct. 2000, Sophia Antipolis, France

(Sophia0010.rtf)

Tdoc N1-001047

Documents for CN1 SIP ad hoc meeting #1, Sophia Antipolis, France						Cyan cells indicate an allocated but not available tdoc	Yellow cells indicate an available but not yet treated tdoc
Agenda item	Agenda item title	Tdoc 3GPP N1-00	Title	Spec.	Source	Result	
1	Opening tuesday 17.10.2000	1051	Make calls for IPRs		TSG-CN #9	The meeting was opened on tuesday the 17 th of October at 9:30 Disclosure of IPRs is done by reference to the plenary document NP-000531 = N1-001051 No IPR declarations were made.	
2	Agenda & Report tuesday 17.10.2000 Only SIP related issues from the plenary. Only SIP related issues from the SA plenary.	1047 1048 1049	Agenda TSG CN #9 meeting report TSG SA #9 meeting report		N1 Chairman MCC MCC	Agreed. Noted. <ul style="list-style-type: none"> Only IM subsystem related issues were presented. CN1 SIP WI description was approved, this is provided for information in N1-001065 Noted. <ul style="list-style-type: none"> It was agreed to change from annual releases to sequential release numbering. The schedule for Rel 4 approval is 3/2001 at TSG #11. A workshop to agree the division of former R00 work items to Rel 4 and Rel 5 will be held during October 2000. 	
3	Input Liaison statements tuesday 17.10.2000	1055	Only SIP & IM subsystem related LSs are provided for this ad hoc meeting Ungraceful session termination in the IM domain		TSG SA WG2	New LS template contains WI field. Please use the new template and indicate the work item on all new outgoing liaisons. Proposed reply LS in N1-001100 <ul style="list-style-type: none"> Session timer to control the termination of session which has been pending for (too) long time due to loss of radio connection. The meeting agreed that an error handling mechanism for the described case is needed The proposed mechanism could not be agreed as it introduces more signalling on the radio interface The existing SIP session timer mechanism and other 	

					possibilities should be studied to decide which method to choose.
4	SIP Work Plan for TSGN WG1 for 2000	1052	<ul style="list-style-type: none"> • nomination of IETF rapporteurs <ul style="list-style-type: none"> • reporting to/from IETF? • attending IETF meetings? • taking 3GPP proposals to IETF? • future ad hoc meeting dates <p>Possible goals for SA2 – CN1 joint meeting on SIP:</p> <ul style="list-style-type: none"> • CN1 asking for guidance in LS (which topic,?) • Specification structure, particularly stage 2 and call flows • Alternatively some SA2 delegates could participate CN1 and vice versa to make sure that the comments and questions listed by CN1 before the SA2 meeting will be understood correctly and responded to. • Can it be a call flow drafting session? • Decision on whether S-CSCF or P-CSCF should store the call path for subsequent call modifications and call clearing. -> this will impact 23.228 and CN1 specs. • SA2 originated document 1094 presents several technical topics for CN1 to decide upon. Is SA2 guidance needed? 	MCC	<p>2000:</p> <p>CN1 SIP ad-hoc 17.-19.10.2000 (Sophia Antipolis)</p> <p>TSGN1 #14 20.11 – 24.11.2000 (Cardiff, UK/Lucent)</p> <p>CN1-SA2 SIP ad hoc meeting can be arranged 28.-29.11.2000 in New Jersey / US – any support? The goal of the meeting?</p> <p>TSGN#10 6.-8.12.2000</p> <p>2001:</p> <p>CN1 #15 15.-19.1.2001 (Host needed) (N4 is at the same time)</p> <p>CN1 #16 27.2.-1.3.2001 (Host needed) (N4 is at the same time)</p> <p>CN #11 14.-16.3.2001 (US)</p> <p>CN1 #17 14.-18.5.2001 (Host needed) (N4 is at the same time)</p> <p>CN #12 13.-15.6.2001 (Europe)</p> <p>CN1 #18 27.-31.8.2001 (Host needed)</p> <p>CN #13 19.-21.9.2001 (China)</p> <p>CN1 #19 22.-26.10.2001 (Host needed)</p> <p>CN1 #20 20.-23.11.2001 (Host needed)</p> <p>CN #14 12.-14.12.2001 (Japan)</p> <p>Hannu to propose new SIP ad hoc meetings, preferable to coincide with S2, Jan-Feb and April 2001.</p> <p>The following comments need to be brought to the next version of the document by Ban:</p> <ul style="list-style-type: none"> • ID 1998: the title should be that of 24.228 • ID 1278: the title should be that of 24.229 • ID 1804 and 1651: CN1 is not aware of any service requirements. SA1 need to clarify these. (the tasks look like CN1 but we do not know what is being expected from us) • ID 1321: a copy of this WT must be added under PS emergency calls BB

					<ul style="list-style-type: none"> • ID 1315: the tile to be changed to detailed call flows for SIP emergency calls and a note about 24.228 to be added • ID 1646: A note about 24.229 to be added • ID 1317: this is a CN1 task • ID 1408 and 1412: CN1 has not done anything and would like to know what is being expected from us. • ID 892: this is not a WT. Delete it but keep 1656 • ID 1656 and 1657: link these two with a note in both as one common set of codec negotiation procedures will be specified. • ID 1180: check if this WT complies with the notation adopted for the document • ID 1659 and 1545: The note from 1551 to be duplicated to these WTs as it applies to all of them. • ID 1661: this is 100% complete
		1053	Drafting Rules TR 21.801 v4.0.0	MCC	Noted.
		1054	Working Methods, 21.900 v3.4.0	MCC	Noted.
		1062	Stage 2 work on IM subsystem in working groups SA2 and CN1	Lucent Technologies/ Keith Drage	Noted.
		1066	Allocation of IM work to CN WGs	TSG-CN #9	Linked with N1-001097
		1097	Stage 2 work on IM subsystem in working groups SA2 and CN1	Lucent Technologies / Drage	Noted. Summary of the TSGN #9 decisions regarding SIP work allocation within CN. The meeting agreed that: <ul style="list-style-type: none"> • The detailed signalling flows will be collected in one CN1 specification • These can not be radio protocol independent so it must be considered whether this document can be called "stage 2" • Stage 3 will define <ul style="list-style-type: none"> • interfaces between SIP and the 3GPP radio protocols • Additions and enhancements to IETF SIP
5	Technical issues				Linked with N1-001062
5.1	Specifications & TRs				

for CN1 review	1050	WID-SIP Call Control protocol over Gm reference point (CSCF – UE)	TSG-CN #9	Withdrawn, this is an old version. The latest version is available in N1-001065
	1061	Summary of current IETF documents on SIP	Lucent Technologies/ Keith Drage TSG-SA WG2	Revised to 1096
	1063	3GPP TS 23.228 IP Multimedia (IM) Subsystem - Stage 2 V 1.0.0	TSG-SA WG2	Withdrawn V. 1.1.0 was been distributed on the S2 mailing list 16.10.2000.
	1064	Service requirements for the IP Multimedia Core Network Subsystem (Stage 1) V 1.0.0	TSG-SA WG1	Noted. IP multimedia stage 1 22.228 V.1.0.0
	1065	SIP Call Control protocol for the IM Subsystem	TSG-CN #9	<p>Noted.</p> <p>This is the revised SIP work item description that was approved in TSGN #9 with the following changes to the CN1 proposal:</p> <ul style="list-style-type: none"> • 3GPP SIP extensions should be avoided whenever possible in order to keep compliant with mainstream IETF SIP. • Target dates for stage 2: TSGN #12 for information and TSGN #14 for approval. stage 3: TSGN #13 for information and TSGN #14 for approval. • The work tasks have been clarified and the work has been split for the WGs based on the protocols rather than reference points. • The schedule has been changed according to the rapporteurs estimates • More supporting companies were added
	1067	TS 22.101:Service aspects;Service principles (R4=V4.1.0/ and R5=V5.0.0)	TSG-SA #9	The meeting studied briefly the Rel 4 and Rel 5 emergency call requirements. The support of emergency calls is mandatory if speech calls are supported just as it was before. But whether it is acceptable for a VoIP capable mobile to support only CS emergency calls was not clear. Hannu to provoke a clarification CR to remove the ambiguity from 22.101 V.5.0.0 subclause 10.4.
	1068	WID-Support of IP multimedia services	TSG-SA#8/ TSG-SA-WG1	<p>LS to SA1 in N1-001106</p> <ul style="list-style-type: none"> • The meeting proposes that SA1 should revise as follows the WI they have originated: <ul style="list-style-type: none"> • The linked CN1 WI to be added to section (SIP call control protocol for the IM subsystem) • R00 does not exist any more – is the completion

			of the WI scheduled for Rel 5?
			<ul style="list-style-type: none"> • Stage 2 and 3 milestones to be added to section 10 • 22.228 and 22.101 changes should be indicated in section 10 • The WI is a feature
1069	WID-An architecture for Call control and roaming to support IP-based multimedia services in UMTS	TSG-SA#8/ TSG-SA-WG2	Noted.
1070	WID-PS based Emergency Call in R00	TSG-CN#8/ TSG-CN-WG1	The WI was originally approved as CN1 WT but the project plan has been revised in the plenary to make this a BB. A revised WI description will be provided by the rapporteur to reflect this.
1071	RFC 2543 (SIP: Session Initiation Protocol)	Lucent Technologies/ Keith Drage	Noted.
1072	draft-dcsgroup-sip-call-auth-02	Lucent Technologies/ Keith Drage	Noted.
1073	draft-dcsgroup-sip-privacy-02	Lucent Technologies/ Keith Drage	Noted.
1074	draft-dcsgroup-sip-state-02	Lucent Technologies/ Keith Drage	Noted.
1075	draft-ietf-sip-100rel-02	Lucent Technologies/ Keith Drage	Noted.
1076	draft-ietf-sip-183-00	Lucent Technologies/ Keith Drage	Noted.
1077	draft-ietf-sip-callerprefs-02	Lucent Technologies/ Keith Drage	Noted.
1078	draft-ietf-sip-call-flows-01	Lucent Technologies/ Keith Drage	Noted.
1079	draft-ietf-sip-cc-transfer-01	Lucent Technologies/ Keith Drage	Noted.
1080	draft-ietf-sip-dhcp-01	Lucent Technologies/ Keith Drage	Noted.
1081	draft-ietf-sip-guidelines-00	Lucent	Noted.

1082	draft-ietf-sip-info-method-05	Technologies/ Keith Drage Lucent	Noted.
1083	draft-ietf-sip-isup-mime-04	Technologies/ Keith Drage Lucent	Noted.
1084	draft-ietf-sip-mib-01	Technologies/ Keith Drage Lucent	Noted.
1085	draft-ietf-sip-rfc2543bis-01	Technologies/ Keith Drage Lucent	Noted.
1086	draft-ietf-sip-rfc2543bis-02	Technologies/ Keith Drage Lucent	Noted.
1087	draft-ietf-sip-serverfeatures-02	Technologies/ Keith Drage Lucent	Noted.
1088	draft-ietf-sip-session-timer-02	Technologies/ Keith Drage Lucent	Noted.
1089	draft-manyfolks-sip-resource-01	Technologies/ Keith Drage Lucent	Noted.
1090	RFC 2327: SDP: Session Description Protocol	MCC/Lucent Technologies/ Keith Drage	Noted.
1091	RFC 2326: Real Time Streaming Protocol (RTSP)	MCC/Lucent Technologies/ Keith Drage	Noted.
1092	RFC 1889: RTP: A Transport Protocol for Real-Time Applications	Lucent Technologies/ Keith Drage	Noted.
1093	RFC 2806: URLs for Telephone Calls	Lucent Technologies/ Keith Drage	Noted.
1095	SIP Tutorial	AT&T/Bill Marshall	Noted. Not presented but the delegates were invited to study the document and to come to the originator with their

		1096	Summary of current IETF documents on SIP		Lucent Technologies / Drage	<p>questions if any. Noted.</p> <ul style="list-style-type: none"> • Overview of IETF standardisation process • The IETF documents are not available in 3GPP server, so this document provides a summary of the IETF SIP documents which are provided for information • The official IETF website to look for the latest SIP documents is http://www.ietf.org.
		1098	3GPP TS 23.228 IP Multimedia (IM) Subsystem - Stage 2 V 1.1.0		Lucent Technologies / Drage	<p>Revision of N1-001061 Noted.</p> <ul style="list-style-type: none"> • It was explained that once the contents of Annex B stabilises it will be moved to the section 5 as an integral part of the specification. • Comment that the service requirement for both early and late assignment do exist and proposal that these should be also documented in 23.228.
		1099	End-to-End QoS Concept and Architecture		Lucent Technologies / Drage	<p>Noted. CN1 and CN3 will need to agree how to share the stage 3 maintenance responsibility which will result from this stage 2.</p>
		1102	SIP standards summary		Motorola	Noted.
		1105	Revised proposed work item description for interworking between IM CN subsystem and IP networks		TSGN#9/ N3	<p>Proposed LS to CN3 in N1-001107 N3 are asked to revise their WI as follows:</p> <ul style="list-style-type: none"> • SIP protocol enhancements were agreed to be the responsibility of CN1 whereas the requirements at e.g. Mm reference point are within the CN3 remit. Thus the SIP at Mm reference point needs to be done in co-operation between CN1 and CN3 (objectives). • The ME will be impacted due to end-to-end QoS negotiation.
5.2	SIP REGISTER related call flows	1056	Proposal to maintain S-CSCF in Call Path		Lucent Technologies/ Stinson Mathai	<p>Noted. Presented for discussion with the aim of getting feedback to prepare an internet draft to the CN1 meeting.</p> <ul style="list-style-type: none"> • It was commented by the originator that record-route actually has been defined for REGISTER method in the in SIP protocol.

		1057	Detailed Call flows for Registration	Lucent Technologies/ Stinson Mathai	<ul style="list-style-type: none"> • Even though record-route does exist in REGISTER the current usage of it is different from what is being proposed and choosing this alternative does also involve a change to SIP specification because of a procedural change • The decision is between amendment of existing SIP procedure vs. addition of a new procedure (header type) - which one is better solution considering that we want to keep the SIP changes at the minimum? <p>Noted.</p> <ul style="list-style-type: none"> • Two alternatives for P-CSCF implementation are presented, one where REGISTER messages are intercepted and modified by P-CSCF and another where the P-CSCF initiates a new registration procedure towards the S-CSCF upon reception of a REGISTER from the UE. • Questions about the timer supervision of the SIP sessions, end-to-end encryption and the applicability of the presented concepts to other methods than REGISTER. • It was agreed as a working assumption that no matter which way is chosen the header fields which are meaningful to any CSCF can not be subject to end-to-end encryption. • Integrity checking must also be considered as that will inhibit modification of the message information between the terminating entities.
		1103	Stage 2 <u>Registration Procedures</u>	Ericsson/ Sean Olson	<p>Noted.</p> <p>Presented for information and discussion.</p> <ul style="list-style-type: none"> • Comment that not just the contents of the fields is not enough but stage 2 and 3 specifications must also explain where and how are the contents of the fields drawn when a message is encoded.
5.3	SIP INVITE related call flows	1101	Routing of SIP requests in call flows	Nokia/Janne Muhonen	<p>Noted.</p> <ul style="list-style-type: none"> • The meeting agreed that the UE should not store the call path for subsequent call modification or clearing but this will need to be the task of either P-CSCF or S-CSCF.

					<ul style="list-style-type: none"> • Why is the reply path stored in S-CSCF rather than P-CSCF? A: keeping P-CSCF as simple as possible. • It was pointed out that this may be irrelevant as P-CSCF may well have to be a stateful proxy. • Which CSCF stores the call path is an architectural issue that needs to be decided by SA2 first. • This decision can not be separated from a larger context covering also registration signalling.
5.4	Other call flows				
5.5	Specification structure		New CN1 specification has been proposed. If we confirm that now then we need to assign spec number and nominate rapporteur to provide V.0.0.0		<p>The meeting decided that</p> <ul style="list-style-type: none"> • An extension agreed in CN1 SIP ad hoc needs to be approved in regular CN1 meeting but this can happen via correspondence on the mailing list. • No TR to log all SIP extensions proposed by 3GPP is needed. Instead of that all proposals will be first written in an informational annex of CN1 stage 3 TS and then the more stable extensions are moved to the normative part of the text later. • A clearly 3GPP related contributor name will be used when presenting joint proposals to IETF. • The usual CN1 requirements on email approval will be followed. Hannu to check the ToR and ensure that it works with this part of the process. • The delegates should follow the IETF mailing list for comments on SIP proposals. • Based on discussion on N1-001058 and N1-1104 two new stage 3 TSs will be started by CN1. <ul style="list-style-type: none"> • Detailed IP multimedia signalling flows, proposed specification number 24.228 • "Stage 3 for the multimedia call control based on SIP" with proposed specification number 24.2xx. • It was foreseen that the 24.228 becomes too large for one person to handle so additional rapporteurs by section are invited. • Proposed scope and contents for these are presented in N1-001108 and N1-001109 • Even though not under formal version control yet a method of formal contributions complying with the drafting rules will be applied when changes are

1058	Proposed documentation in N1 for SIP work item	Lucent Technologies/ Keith Drage	<p>proposed.</p> <ul style="list-style-type: none"> Hannu to present these decisions for CN1 #14 to endorse. Cardiff meeting will need to have SIP issues on the agenda but due to several open items between CN1 and SA2 all 24.228 and 24.229 related items will be deferred to the joint CN1-SA2 the week after CN1 #14. <p>The decision on each proposed document is as follows: 4 different documents, 3 TS and 1 TR is proposed</p> <ul style="list-style-type: none"> Stage 2 detailed information flows. Stage 3 protocol. -> 24.229 Stage 3 signalling flows. -> 24.228 Stage 3 call model. -> call model document to specify the support of CAP IF to the CSCF under CN1 control will be needed. The scope proposed for the specification in this document under paragraph 4 was not approved as the scope of the new specification. The interested delegations are invited to bring their proposals to the originator.
1059	Proposed scope and contents for IP multimedia subsystem stage 2	Lucent Technologies/ Keith Drage	<p>Revised to N1-001108</p> <ul style="list-style-type: none"> Are there any documents from this meeting which should already go to stage 2 or 3?
1060	Proposed scope and contents for IP multimedia subsystem stage 3	Lucent Technologies/ Keith Drage	<p>Revised to N1-001109</p> <p>The following comments were made during the discussion:</p> <ul style="list-style-type: none"> The interfaces that are covered to be added to scope. SDP to be brought in the title, scope and the table of contents of the specification. Enhancements and exceptions to standard IETF SIP are within the scope of the document. Session and stateful / - less proxy definition to be added to definitions
1104	Documentation of SIP works in <u>TSG-CN WG1</u>	Ericsson/ Rouzbeh Farhoumand	<p>Noted.</p> <ul style="list-style-type: none"> Rough categorisation of stage 2 and stage 3 issues is proposed No CN1 TS but TR is being proposed at this stage.
1108	Proposed scope and contents for IP subsystem signalling flows	Lucent Technologies/ Keith Drage	<p>Revised to N1-001114</p> <ul style="list-style-type: none"> Informative annex to be added to hold the less stable parts of the document The editing process of 24.228 and 24.2xx will be the

					<p>same</p> <ul style="list-style-type: none"> The UE requirements need to be clearly indicated There should be only one set of requirements for a procedure as seen by the UE (e.g. 8.1.1, 8.1.2, 8.1.3) even though the behaviour of the network entities may vary depending on where the control is. Additionally to the behaviour of IP protocol related entities defined in 23.228 also the interaction with GPRS needs to be covered. New main section for user plane attachment needs to be added. The register flows need to be aligned with the way they are presented in 23.228. The sentence within brackets in the title is true but it should be moved to the scope of the document. To be named 24.228 <p>Revision of N1-001059 Revised to N1-001115</p> <ul style="list-style-type: none"> The last sentence of the editor's note in 10.2 to be deleted. To be named 24.229 <p>Revision of N1-001060</p>
		1109	Proposed scope and contents for IP multimedia subsystem stage 3	Lucent Technologies/ Keith Drage	
		1114	Proposed scope and contents for IP subsystem signalling flows	Lucent Technologies/ Keith Drage	Agreed. Revision of N1-001108
		1115	Proposed scope and contents for IP multimedia subsystem stage 3	Lucent Technologies/ Keith Drage	Agreed. Revision of N1-001109
5.6	Other technical issues	1094	Tradeoffs between CSCF Storage and SIP Message Size	AT&T/Bill Marshall	<ul style="list-style-type: none"> Set of questions which have been discussed in SA2 and forwarded to CN1 It was agreed that the proposed scenarios are valid and they should be covered in the specification. The appropriate place for the decisions on the technical questions presented in the document will be 24.228. Some questions could involve SA2 also
6	Output Liaison Statements				All agreed LS are subject to CN1 approval with Ban as the mediator.

	thursday 19.10.2000	1100	Response to LS on ungraceful session termination in the IM domain.		Nedko	Revised to N1-001111
		1106	WID support of multimedia services		Andrew	Reply to LS in N1-001055
		1107	Interworking between IM subsystem and IP networks		Sunil	Revised to N1-001112
		1110	LS to N3 on RTCP responsibility		Andrew	Related WI description in N1-001068
		1111	Response to LS on ungraceful session termination in the IM domain.		Janne	Agreed.
		1112	WID support of multimedia services		Andrew	Related WI description in N1-001105
		1113	LS to N3 on RTCP responsibility		Andrew	Revised to N1-001113
						Agreed.
						Reply to LS in N1-001055
						Revision of N1-001100
						Agreed.
						Related WI description in N1-001068
						Revision of N1-001106
						Agreed.
						Revision of N1-001110
7	A.O.B. thursday 19.10.2000					



Report of the
3GPP TSG-N WG1 SIP Ad-hoc Meeting #1
17-19 October 2000
Sophia Antipolis/ France

Chairman: Hannu Hietalahti (Nokia), Hannu.hietalahti@nokia.com
Secretary: Ban Al-Bakri (3GPP-support/ETSI) Ban.albakri@etsi.fr
Host: ETSI

Report of the Chairman ftp://ftp.3gpp.org/TSG_CN/WG1_mm-cc-sm/SIP-Adhoc_meetings/SIP_Ad-hoc_1/Reports/Chairman_report-Sophia0010.zip

Documents could be found on: ftp://ftp.3gpp.org/TSG_CN/WG1_mm-cc-sm/SIP-Adhoc_meetings/SIP_Ad-hoc_1/Documents/

Table of contents

0	Administrative Issues and meeting's highlights	3
1	Opening of the meeting.....	3
1.1	IPRs Disclosure.....	3
2	Approval of the agenda; document allocation and Reports	3
3	Input Liaison statements	4
4	SIP Work Plan for TSGN WG1 for 2000	4
5	Technical issues.....	7
5.1	Specifications & TRs for CN1 review	7
5.2	SIP REGISTER related call flows	9
5.3	SIP INVITE related call flows	11
5.4	Other call flows.....	12
5.5	Specification structure	12
5.6	Other technical issues	15
6	Output Liaison Statements.....	16
7	Any other business.....	17
	Annex A: List of documents.....	18
	Annex B: Participants	18
	Annex C: Decision of CN1 SIP Ad-hoc#1	18
	Annex D Status of CRs	18
	Annex E: Liaison Statements from CN1 SIP Ad-hoc#1	18
	Annex F: Specifications for approval / information for TGN#10.....	18

0 Administrative Issues and meeting's highlights

- New documents are introduced to the meeting 24.228 and 24.229. Both are stage 3 specifications.
- Contributions to 24.228 and 24.229 should be accompanied with related changes to other specifications like 24.008 and 23.060,..etc.
- A second SIP Ad-hoc meeting #2, is proposed together with S2, 28-29 November, 2000. To be confirmed by the chairman
- Future meetings for next year: Another SIP Ad-hoc could be after CN1 #15, late Jan early Feb is foreseen. April is another proposal for SIP Ad-hoc meeting.
- Lses agreed in this meeting will be CN1 approved by correspondence. They will be approved by e-mail on the TSG-CN WG1, giving a week time for commenting, then distributed to the related groups.

1 Opening of the meeting

The chairman opened the meeting and welcomed the delegates. The SIP WI is a new WI which demands lots of work, therefore it needs Ad-hoc meetings where there is not enough time in the regular N1 meetings to finish the SIP related issues. We need to plan some more meetings for this work item.

1.1 IPRs Disclosure

N1-001051 Make calls for IPRs/ TSG-CN #9, presented by the chairman.

Presentation: Under Article 3.1 of the Third Generation Partnership Project, the Organizational Partners undertook to encourage that their IPR Policies are respected by their members and that their respective members declare their willingness to grant licences on fair, reasonable terms and conditions on a non discriminatory basis, and consistent with their IPR Policies.
Please refer to the document.

Discussion: The call does not change any of the liability but reminds us of the 3GPP agreements.

Conclusion: No IPR declaration was made.

2 Approval of the agenda; document allocation and Reports

Agenda: **N1-001047** was discussed and approved.

- 1 Opening of the meeting
- 1.1 IPRs Disclosure?
- 2 Approval of the agenda, reports and documents allocation and Reports
- 3 Input Liaison statements
- 4 SIP Work Plan for TSGN WG1 for 2000
- 5 Technical issues
- 5.1 Specifications & TRs for CN1 review
- 5.2 SIP REGISTER related call flows
- 5.3 SIP INVITE related call flows
- 5.4 Other call flows
- 5.5 Specification structure
- 5.6 Other technical issues
- 6 Output Liaison Statements
- 7 Any other business

N1-001048 TSG-CN #9 draft meeting report/ TSGN#9 - MCC

Presentation: SIP / IM CN SS related issues presented by the chairman, please refer to the document.

Discussion: No comments.

Conclusion: Noted.

N1-001049 TSG-SA #9 Draft meeting report V0.0.5/ MCC

Presentation: SIP / IM CN SS related issues presented by the MCC support, please refer to the document

Discussion: None

Conclusion: Noted.

3 Input Liaison statements

N1-001055 Ungraceful session termination in the IM domain/ TSG SA WG2

Presentation: 3GPP TSG SA WG2 has identified the need for the S-CSCF to have a mechanism to detect ungraceful session termination :

“If an ungraceful session termination occurs (e.g. flat battery or mobile leaves coverage) when a stateful proxy server such as the S-CSCF is involved in a session memory leaks and eventually server failure can occur due to hanging state machines. To ensure stable S-CSCF operation and carrier grade service, a mechanism to handle the ungraceful session termination issue is required. This mechanism should be at the SIP protocol level in order to guarantee access independence for the IM domain.”

TSG SA2 has briefly looked at the mechanism defined by the IETF to handle this issue, the SIP Session Timer , and would like to ask TSG CN1 to study this further.

Discussion: We need to find a solution to the problem, which also limits the number of messages on the Air interface.

There is a suggestion to solve this issue on the lower layer, so more time is required to evaluate different solutions.

What happens if the MS detaches from the network? and other error cases which needs more study.

It seems more companies agree for the more time required investigating this issue.

Conclusion: The solution could not be easily agreed. LS out in N1-001100 by Netko/ Nokia.

4 SIP Work Plan for TSGN WG1 for 2000

SIP-Ad-hoc meeting dates.

Meetings in year 2000:

CN1 SIP ad-hoc 17.-19.10.2000 (Sophia Antipolis)

TSGN1 #14 20.11 – 24.11.2000 (Cardiff, UK/Lucent)

CN1-SA2 SIP ad hoc meeting can be arranged

28.-29.11.2000 in New Jersey / US was proposed by SA2 and supported by CN1 ad-hoc.

TSGN#10 6.-8.12.2000

The chairman to propose new SIP ad hoc meetings, preferable to coincide with S2, Jan-Feb and April 2001.

Possible goals for SA2 – CN1 joint meeting on SIP, by the chairman:

- CN1 asking for guidance in LS (which topic,?)
- Specification structure, particularly stage 2 and call flows
- Alternatively some SA2 delegates could participate CN1 and vice versa to make sure that the comments and questions listed by CN1 before the SA2 meeting will be understood correctly and responded to.
- Can it be a call flow drafting session?
- Decision on whether S-CSCF or P-CSCF should store the call path for subsequent call modifications and call clearing. -> this will impact 23.228 and CN1 specs.

SA2 originated document N1-001094 presents several technical topics for CN1 to decide upon. Is SA2 guidance needed?

Conclusion: Open issues after Cardiff meeting allows good chance to answer these issues.

N1-001052 Work_Plan_3GPP_001011/ MCC

Presentation: Presented by the chairman.

Discussion: QoS is also an Issue to be studied by N1, also UE-CN QoS channel is needed to be studied. Emergency call enhancement- Packet based: Extension of date agreed in TSGN#9 to make it as the end of the multimedia WI where it is not possible to have the EMC before the basic call!

Changes agreed by the meeting:

- ID 1998 it is changing the title and to Signalling flows and add the specification number 3GPP TS 24.228
- ID 1278 needs to be named the title of 3GPP TS 24.229 and add the spec number.
- ID 1804 and ID 1651 is under N1 responsibility but we need feed back from S1 for the requirements.
- ID 1281 dates? Ban
- ID 1321 add the work task "Emergency call recalling capability enhancement" to PS ECE- BB
- ID 1315 add a comment will not cause to create a new specification as such , it will be covered in CN1 multimedia specifications (24.228 and 24.229). Detailed CLFWS for EMC in 24.228
- ID 1646 will be covered by 24.228 and 24.229. Change the titles to "Stage 3 for emergency calls and packet emergency calls 24.229". 3 different work task for this issue should be aligned with the Multimedia work task , the third is for 23.228/ S2!!
- ID 1408, ID 1412 neither is clear, CN1 would like to know what we are expected to do. We have not done anything yet!
- ID 892 is questionable, delete and keep 1656
- ID 1656 and 1657: link these two with a note in both as one common set of codec negotiation procedures will be specified.
- ID 1180 , ID 526, ID 527 check how they related, the notation..
- ID 1659 and 1545: The note from 1551 to be duplicated to these WTs as it applies to all of them.
- ID 1661 is to be marked 100%
- UE triggered re-authentication is missing . Suppose to be S3, if something is expected from CN1 they need to say that.

Conclusion: Changes are to be incorporated in the new version of the work plan. Duncan Mills is to clarify the "UE triggered re-authentication" issue.

N1-001053 Drafting Rules TR 21.801 v4.0.0/ MCC

Presentation: Please refer to the document.

Discussion: It is useful for editing Technical specifications, Technical reports and CRs.

Conclusion: Noted.

N1-001054 Working Methods TR 21.900 v3.4.0/ MCC

Presentation: Presented by the chairman, please refer to the document. Please study the CR categories and all other issues carefully.

Discussion: No comments.

Conclusion: Noted.

N1-001062 Stage 2 work on IM subsystem in working groups SA2 and CN1 Lucent Technologies

Presentation: Presented Keith Drage

This document examines the methodology of various flow proposals in terms of stage 2 and stage 3, and therefore attempts to propose a work split between working groups SA2 and CN1.

This contribution is being presented to the ad-hoc groups of SA2 and CN1. The document, as agreed by SA2 drafting group, is presented in N1-001097. This version of document was presented to the meeting to identify in particular the characteristics of a stage 2 description.

Please refer to the document.

Discussion: In case of GPRS involvement, it is in the lower layers, which is not the intention of the proposal in this document.

Conclusion: Noted and see N1-001097.

N1-001097 Stage 2 work on IM subsystem in working groups SA2 and CN1/ Lucent Technologies

Presentation: Presented Keith Drage

This document examines the methodology of various flow proposals in terms of stage 2 and stage 3, and therefore attempts to propose a work split between working groups SA2 and CN1.

This contribution is agreed by the drafting groups of SA2.

Please refer to the document

Discussion: Linked with N1-001062.

We need the detailed call flows.

The second bullet needs a work method.

Protocol definition will be description of headers, related to IETF. The proposed spec is not something to implement, but gives you the procedure for the signalling flows and how it works.

Stage 2 describes how to get to stage 3, this is why we need the signalling flows in between the 2 levels.

Because we interact with IETF we need these documents. If the details of the protocol is in IETF, then what is going to be covered in Stage3?, it is which options we are going to implement, areas to write specifications to our own right which is not covered in IETF till it takes its time and meet the publications time it needs.

BT has concerns that we need a document describing interaction with lower layers.

We are going to draw Call flows to describe the details of interaction with the lower layers.

WE need to be careful before allocating the number and title of needed documents.

Conclusion: From the chairman's report:

The meeting agreed that:

- The detailed signalling flows will be collected in one CN1 specification
- These can not be radio protocol independent so it must be considered whether this document can be called "stage 2"
- Stage 3 will define
 - interfaces between SIP and the 3GPP radio protocols
 - Additions and enhancements to IETF SIP

N1-001066 Allocation of IM work to CN WGs/ TSGN#9

Presentation: Please refer to the document

Discussion: For information. Summary of the TSGN #9 decisions regarding SIP work allocation within CN.

Conclusion: Noted

5 Technical issues

SDP came into discussion and one delegate meant that it is a separate protocol another said it is part of SIP, which is carried and ~~imbedded~~~~embedded~~ in SIP. New WID for SDP is questioned if necessary. The result is, we will deal with the same documentation as for SIP.

We do not need to distinguish the CRs of SDP and SIP, as long as they will be in the same WID. So the conclusion we need to deal with them together. The WID proposal of SIP is to be revised to include SDP requirements. Proposals could be collected and updated WID is to be presented in CN1#14 and to TSGN#10.

QoS WI is missing at ~~all~~~~completely~~. This ~~could~~~~could~~ be proposed by S2.

5.1 Specifications & TRs for CN1 review

N1-001065 SIP Call Control protocol for the IM Subsystem/ TSGN#9

Presentation: Presented by Lucent Technologies-Keith Drage

Discussion: Updates done in TSGN#9 were presented.

Allocation of work by TSG-CN is by protocols rather than interface.

SDP will be carried in the SIP body messages.

3GPP specific extensions should be avoided within this WI.

Conclusion: Noted.

N1-001096 Summary of current IETF documents on SIP/ Lucent Technologies

Presentation: Presented by Lucent Technologies-Keith Drage

This contribution summarises the current SIP documentation within IETF that deal with SIP

SIP is defined in one completed RFC, and is currently being revised. A number of extensions are also in process of definition. The documentation structure is getting very complex.

Please refer to the document.

Discussion: draft-ietf-sip-rfc2543bis-01.txt makes updates to RFC2543

These drafts might be in different states where it is not sure if they will be approved as RFCs or not.

Conclusion: This document is for information and should therefore be noted.

Please refer to WWW.IETF.ORG, where you can find the official source of documents. RFCs and IDs are found there.

There is another site where ~~it is before~~ material may be gathered before issuing it on the IETF - IDs
<http://www.cs.columbia.edu/~hgs/sip>.

N1-001102 SIP Standards Summary/ Motorola Inc

Presentation: Presented by Andrew Allen

You could find some guidelines on how to get information about SIP.

Please refer to the document.

Discussion: -

Conclusion: Noted

N1-001071 to N1-001093 are all noted for information.

N1-001095 SIP Tutorial/ AT&T

Presentation: By Bill Marshall.

Discussion: Delegates are invited to study it and feed back to the originator.

Conclusion: Noted.

N1-001068 Support of IP multimedia services/ SA1

Presentation: Presented by the chairman.

The work item describes the work to be done – from a services point of view – on R00 IP Multimedia service requirements.

Discussion: We could revise the document and send the updates to S1 or just note it, where it is a general one and has been already approved in TSGSA#8. the document should include 22.228 as well.

Notes by the chairman:

- The meeting proposes that SA1 should revise as follows the WI they have originated:
 - The linked CN1 WI to be added to section (SIP call control protocol for the IM subsystem)
 - R00 does not exist any more – is the completion of the WI scheduled for Rel 5?
 - Stage 2 and 3 milestones to be added to section 10
 - 22.228 and 22.101 changes should be indicated in section 10
 - The WI is a feature

Conclusion: Make a proposal for the originators by revising the WI to CN1 related issues. LS out in N1-001106 by Motorola.

N1-001069 WID- An architecture for Call control and roaming to support IP-based multimedia services in UMTS

Presentation: Presented by the chairman.

The work item describes the ongoing architectural work in 3GPP for R00, which has been initially tasked by SA to S2 under the "all-IP option" by SA#4 (6/99).

Discussion: S2 knows what to do, to change R4 and R5 instead R00.

Conclusion: Noted.

N1-001070 WID-PS based Emergency Call in R00/ Ericsson -Rouzbeh

Presentation: It shall be possible to establish an emergency call via the PS domain. Emergency calls will be routed to the emergency services in accordance with national regulations. This may be based upon one or more default numbers stored in the ME and/or USIM. It shall be allowed to establish a PS emergency call without the need to dial a dedicated number to avoid the mis-connection in roaming case, such as menu, or a linkage to a car air bag control. This functionality shall be supported by the UE without a SIM/USIM being present. No other type than Emergency calls shall be accepted without a SIM/USIM.

It shall be possible for the called emergency instance to recall the emergency caller, if the call is interrupted. However, loss of radio contact is out of scope of this requirement. This functionality shall be supported with and without a USIM being present in the UE.

Discussion: Should be BB level, also support the new work plan.

Conclusion: To be updated and prepared for the next N1 meeting.

N1-001105 Revised proposed work item description for interworking between IM CN subsystem and IP networks/ BT

Presentation: IP based multimedia services are a required feature of UMTS Release 2000, which will include IP telephony and real time service support with end to end QoS negotiation.

The Release 2000 architecture interworks with the wider IP networks through the GGSN and Gi reference point. This work item will define the solutions required to implement U plane and control plane interworking over this reference point. The interworking requirement may be especially true for IP based networks that do not support potential U Plane aspects which are specific for the mobile networks (e.g. those selected for radio resource optimisation reasons).

Discussion: If there is any comment from N1 concerning the UE. This is sent back to N3 for review and updated according to received comments in TSGN#8.

Mm is SIP so it is assigned to N1 not to N3! But the N1 is responsible for the SIP layer, what about the lower layers which is not part of the SIP? why it is said to be N1 responsible for the whole Mm reference point?

The MS should be effected because of End to End QoS negotiation.

23.228 says the reference points have SIP as CC protocol what about interworking with H.323?

Conclusion: Ls out to N3 in N1-001107 by BT.

N1-001064 Service requirements for the IP Multimedia Core Network Subsystem (Stage 1) 22.228 V 1.0.0/ SA1

Presentation: No one is familiar with this document.

Discussion: No discussion.

Conclusion: Noted.

N1-001067 TS 22.101: Service aspects; Service principles (R4=V4.1.0/ and R5=V5.0.0)/ SA1

Presentation: Please refer to the document.

Discussion: Emergency call for Multimedia should be categorised under R5. In R5 they added the same text there!

By the chairman:

The meeting studied briefly the Rel 4 and Rel 5 emergency call requirements. The support of emergency calls is mandatory if speech calls are supported just as it was before. But whether it is acceptable for a VoIP capable mobile to support only CS emergency calls was not clear.

The chairman to provoke a clarification CR to remove the ambiguity from 22.101 V.5.0.0 subclause 10.4.

Conclusion: Noted. The chairman will contact the S1 vice chair and inform him about the comments.

N1-001098 3GPP TS 23.228 IP Multimedia (IM) Subsystem - Stage 2 V 1.1.0/ SA2

Presentation: Presented by more than one delegate.

Discussion: This version is under review by S2.

Interaction between QoS and IM -SS is still under discussion.

Annex contents will be moved to the document / section 5 when ready.

Assigning a channel before alerting might be waste of resources. Is it considered? Also a requirement should be made possible for an Operator to assign a bearer channel before progressing the call control outside the CSCF, like asking the user to insert money on a prepaid card!

GGSN should be in the home network in case of not roaming, if roaming then you can use the GGSN of the visited network.

Conclusion: Bill will get the message to S2 as other delegates to incorporate the necessary changes in 23.228.

N1-001099 End-to-End QoS Concept and Architecture/ Lucent Technologies

Presentation: This is a S2 TS.

Discussion: Split of work between CN1 and CN3 is required, therefore it should be studied. The QoS allocation is in N3 as decided in TSG#9, where N1 is involved too.

Conclusion: Noted. CN1 and CN3 will need to agree how to share the stage 3 maintenance responsibility, which will result from this stage 2.

5.2 SIP REGISTER related call flows

N1-001056 Proposal to maintain S-CSCF in Call Path/ Lucent Technologies

Presentation: Presented by Min Huang,

This contribution addresses the issue of maintaining the *S-CSCF* in the call path. According to 23.228 V1.0.0 the P-CSCF is required to remember the next hop during registration procedure for the purpose of forwarding subsequent Mobile Originated SIP requests. The next hop may differ if the UE is in the home network, or if the UE is in the visited network with home control.

Proposal: During the Registration procedure the P-CSCF need to be told the address of the next hop that it should take for the subsequent mobile Originated request. This can be done in a couple of a ways. Each of these solutions is a SIP extension. SIP as a protocol, allows for extensions to be built on top of the basic protocol. A number of SIP extensions are in existence today.

Please refer to the document for details.

Discussion: The mobile stores only P-CSCF and not need to know the S-CSCF.

It was decided in S2 why to have more than one CSCF, this is basically for ~~Roaming-roaming, optionally to~~ hide the network configuration, and see ~~support more than one~~ servicing CSCF, but it is needed to be found out outside the meeting why S2 reached the design of having more than one CSCF.

It is not necessary to make header extension for SIP as long as it covers the mechanism, where the extension means new procedures!

What will the an old SIP implementation ~~does do on~~ receiving a message from the one with the extension, the CSCF will be different than the SIP server.

De-registration is a state held in I-CSCF and S-CSCF which has binding IDs to identify it.

We need to identify if each of the presented methods work technically.

Take it to IETF and see how it works. The chairman prefers to have a 3GPP proposal even if is taken by individual companies.

Conclusion: Noted presented for discussion, with the aim of getting feedback to prepare an internet draft to be reviewed at the CN1 meeting.

Delegates are to make up their minds about to which proposal they fervours. Lucent will present the IETF draft to CN1#14. By Nov.17 is the deadline for submitting documents for the next IETF meeting. "3 weeks deadline" and therefore the draft will miss this meeting.

N1-001057 Detailed Call flows for Registration/ Lucent Technologies

Presentation: The document was presented by Stenson Mathai.

This paper presents detailed SIP registration call flows for the UE roaming with home control scenario. High level flows and the CSCF requirements are defined by S2 WG. The definitions require both P-CSCF and S-CSCF to be call state-full SIP servers, meaning that both P-CSCF and S-CSCF have to be in the path for all Mobile Originated and Mobile Terminated transactions for this user. The flows presented in this contribution address the issues of having the P-CSCF in the path for future requests. Two solutions are presented. One way of achieving this is to have the P-CSCF intercept the SIP register message and insert itself as the contact point for this user at the home registrar before forwarding the REGISTER message to the S-CSCF. The second solution is to have P-CSCF terminate the UE originated registration, and start a new request, on behalf of the user, to the S-CSCF using itself as the contact for the user. The details of the call flows using these two solutions are discussed in this paper.

Please refer to the document for details.

Discussion:

Some discussions went on the UE functionality within these Call flows questioning what happens in the UE and what happens in the network.

UE implementation will be the same as in CSCF, the impact will be only in P-CSCF.

Timer value between the Register message and the SIP 200 OK is not defined! It is mentioned in the RFC that the Timer could be 500ms for congestion issues.

The reason for encryption is not clear in the document, where there is already encryption supported in UMTS on the air.

~~End-End-to-to-End~~ encryption need to be studied. Certain header fields could not be encrypted. Reasonable requirements need to be defined for that. Like each header, the address an entity should not be encrypted.

The P-CSCF will behave as Proxy towards the UE and not an Agent.

Comments written by the chairman:

- Two alternatives for P-CSCF implementation are presented, one where REGISTER messages are intercepted and modified by P-CSCF and another where the P-CSCF initiates a new registration procedure towards the S-CSCF upon reception of a REGISTER from the UE.
- Questions about the timer supervision of the SIP sessions, end-to-end encryption and the applicability of the presented concepts to other methods than REGISTER.
- It was agreed as a working assumption that no matter which way is chosen the header fields, which are meaningful to any CSCF, can not be subject to end-to-end encryption.

Integrity checking must also be considered, as that will inhibit modification of the message information between the terminating entities.

Conclusion: Noted.

N1-001103 Stage 2 Registration Procedures/ Ericsson

Presentation: This contribution is a proposal for the appropriate level of detail for a stage 2 call flow. It is based on the registration procedures currently incorporated in the S2 TS 23.228. Included are the actual SIP messages exchanged for registration. Not shown in the proxy-CSCF discovery process during which the UE becomes aware of the proxy-CSCF that it is to use for its IM subsystem session signalling. Also not shown, are the details of the Cx interface since protocols have not been decided yet for this interface. The purpose of this contribution is to show the relevant SIP message details for a stage 2 call flow. It is not suggested that these message flows serve as the basis for the actual stage 2 registration procedures.

This contribution also provides an approach as to how the information flow elements shown in the registration procedures of 23.228 are mapped to the protocol information elements in SIP.

Please refer to the document for more details.

Discussion: What kind of SIP related parameters are required to activate a PDP context, etc.? The GPRS parameters and procedures used for this application in this case to initiate the lower layers. Link between SM in GPRS and SIP and their interaction to the GPRS documentation need clarification. Interaction between upper and lower layers needs to be shown in the requirements and documentation. Node functionality is also to be described in Stage 2 including the new entities.

Generic call flows was supported and its interaction with 3GPP networks is to be provided but not all error cases, which are already covered in IETF.

Conclusion: Noted. Presented for information and discussion.

5.3 SIP INVITE related call flows

N1-001101 Routing of SIP requests in call flows/ Nokia

Presentation: The Initiation process and the Call/Session Complete process of the call/session establishment procedure of the IM Subsystem have been agreed upon, and described to a certain level of detail in Tdoc S2-001636 [1]. This certain level of detail mainly comprises the description of the route that the session initiation request, and the subsequent call/session complete request and response(s) take.

This contribution addresses the issue of needing to store the signaling path that was determined during the call/session initiation request in order to route the subsequent call/session modification and termination requests through this determined path. This is needed in order to route these call/session modification/termination requests through certain nodes, e.g. the ones performing Service Control. We propose hereby to store a certain part of the signaling path that is determined during call/session initiation in each S-CSCF.

We propose to store a certain part of the signaling path that is determined during call/session initiation in each S-CSCF, as described in the previous chapter. The following text is proposed to be adopted as a new subsection 5.5.X entitled "Storing of call path" in the document 23.228.

There is a need to store the call path that is determined during the call/session initiation request in order to route the subsequent call/session modification and termination requests through this determined path. This is needed in order to route these call/session modification/termination requests through certain nodes, e.g. the ones performing Service Control. Certain part of the call path is stored in the S-CSCFs:

1. In the S-CSCF of UE(B) the call path (Record-Route headers) between UE(A) and this S-CSCF is stored when the initial INVITE request is conveyed. This will enable routing the call/session modification / termination requests sent by UE(B) on the same path that was determined during call/session initiation.
2. In the S-CSCF of UE(A) the call path (Record-Route headers) between UE(B) and this S-CSCF is stored when the 200 OK response for the initial INVITE request is conveyed. This will enable routing the call/session modification / termination requests sent by UE(A) on the same path that was determined during call/session initiation.

For more details please refer to the document.

Discussion: P-CSCF has to have a state call machine function, which is missing in this paper.

There are different types of state machines. There is a transaction state machine and call state machine.

There is also a state machine above the transaction state.

Information on P-CSCF is discussed.

QoS on user Plain level, what happens in that level with firewalls and P-CSCF. S2 has a work assumption whether it will be in the P-CSCF or S-CSCF, and it needs to be endorsed to consider it. This could be CN1 decision as well. The delegates will communicate this issue with S2.

The information not needed to be stored in UE need to be deleted from the CN but which information and at which stage, this need to be described. This issue need to be discussed at the latest in the S2-N1 joint meeting.

Comments written by the chairman:

- The meeting agreed that the UE should not store the call path for subsequent call modification or clearing but this will need to be the task of either P-CSCF or S-CSCF.
- Why is the reply path stored in S-CSCF rather than P-CSCF? A: keeping P-CSCF as simple as possible.
- It was pointed out that this may be irrelevant as P-CSCF may well have to be a state-full proxy.
- Which CSCF stores the call path is an architectural issue that needs to be decided by SA2 first.

This decision can not be separated from a larger context covering also registration signalling.

Conclusion: Noted

5.4 Other call flows

None

5.5 Specification structure

IETF COMMUNICATION

Discussion:

- It is better to take the proposals to the IETF and let the experts decide, or have an IETF - SIP expert in CN1 to make it easier to have a first step agreement on a proposal.
- We need a technical report under CN1 responsibility to list all our proposals so they do not get lost. We change it as much as we like before we have it TSG approved and under change control.
- Proposals should be documented till stage 2 level to collect all requirements, and proposals.
- Another proposal is to have an informative annex in stage 3 for the proposals, move it to normative part when approved. Another prefers it to be in Stage 2.
- We need the IETF feed back and our reaction to be recorded as well.
- A way to capture feed back from IETF is to assign to the IETF mailing list where the discussions are going on.
- The proposal is to write an Internet draft and see then document the response from IETF by following the IETF mailing list. The idea of the technical report is dropped and only fills in the extensions in the Stage 2 specifications.
- Level of approval in 3GPP to submit the contribution to IETF. We cannot wait to the Plenaries, this takes long time. Ex. write the IETF Draft and send it on CN1 mailing list then send it to IETF as individual contribution.
- Proposal to be presented to CN1#14:
- To have the proposals sent on CN1 via correspondence CN1 mailing list for agreement, five working days. Then send the contribution to IETF. Announce the results to the CN1 WG. **Endorsed by the meeting.**
- To get the feed back from IETF to CN1-WG could be achieved by 3GPP delegates assigning to IETF-SIP mailing list ex. from "Bell-labs" and feeding it back to the meeting.
- The chairman will bring the proposal to the next CN1 meeting in addition to updating the TOR if necessary.

Conclusions written by the chairman:

The meeting decided that

- An extension agreed in CN1 SIP ad hoc needs to be approved in regular CN1 meeting but this can happen via correspondence on the mailing list.
- No TR to log all SIP extensions proposed by 3GPP is needed. Instead of that all proposals will be first written in an informational annex of CN1 stage 3 TS and then the more stable extensions are moved to the normative part of the text later.

- A clearly 3GPP related contributor name will be used when presenting joint proposals to IETF.
- The usual CN1 requirements on email approval will be followed. The chairman to check the ToR and ensure that it works with this part of the process.
- The delegates should follow the IETF mailing list for comments on SIP proposals.
- Based on discussion on N1-001058 and N1-1104 two new stage 3 TSs will be started by CN1.
- Detailed IP multimedia signalling flows, proposed specification number 24.228
- "Stage 3 for the multimedia call control based on SIP" with proposed specification number 24.2xx.
- It was foreseen that the 24.228 becomes too large for one person to handle so additional rapporteurs by section are invited.
- Proposed scope and contents for these are presented in N1-001108 and N1-001109
- Even though not under formal version control yet a method of formal contributions complying with the drafting rules will be applied when changes are proposed.
- The chairman to present these decisions for CN1 #14 to endorse.

Cardiff meeting will need to have SIP issues on the agenda but due to several open items between CN1 and SA2 all 24.228 and 24.229 related items will be deferred to the joint CN1-SA2 the week after CN1 #14.

N1-001058 Proposed documentation in N1 for SIP work item/Lucent Technologies

Presentation: presented by Keith Drage

This document proposes a documentation structure for the IP multimedia subsystem work that should reside in WG CN1. Some of the proposed documents are dealt with in more detail in other contributions describing a full framework specification.

It is proposed that the potential documents in the discussion section should be agreed as 3GPP WG CN1 deliverables, and appropriate numbers allocated and editors appointed. Appropriate changes should be made to the work item sheet to include all proposed deliverables.

Based on the discussion earlier in the meeting, the presenter proposed that the two flow documents mentioned should be combined into a single document.

Please refer to the document for more details.

Discussion: the document shows a proposal of a Technical report containing informative call flows. Call flows are different than information flows!

Conclusion: Noted.

Some more clarification is presented later on.

Comments: We need a document to describe how to interact with camel and SIP and CN1 is the right group for it.

Conclusion: Call model specification is required. S2 made some studies in this area and we are not sure how it impacts N1. We could discuss this in the joint meeting. A separate stage 2 document for it is proposed rather than adding it to 23.018. CAP interface to the CSCF call model document needs to be supported

Conclusion written by the chairman:

The decision on each proposed document is as follows:

4 different documents, 3 TS and 1 TR is proposed

- Stage 2 detailed information flows.
- Stage 3 protocol. -> 24.229
- Stage 3 signalling flows. -> 24.228

Stage 3 call model. -> call model document to specify the support of CAP IF to the CSCF under CN1 control will be needed. The scope proposed for the specification in this document under paragraph 4 was not approved as the scope of the new specification. The interested delegations are invited to bring their proposals to the originator.

N1-001104 Documentation of SIP works in TSG-CN WG1/ Ericsson

Presentation: Presented by Rouzbeh

There are speculations on how the work on IM Subsystem protocols can begin and progress efficiently in CN1 based on the stage 2 IM Subsystem, TS 23.228.

Evidently the problem is that the stage 2 efforts are still ongoing in SA2, and obviously the specification is not stable yet. On the other hand, it is evident that the work in CN1 should not be detained until TS 23.228 can officially be handed over.

One approach being proposed is to have a detailed stage 2 specification to reside in CN1. This contribution discusses the very likely problems with this approach.

Discussion: We need to wait for Stage2 to be stable. Some questioned what is meant by unstable Architecture? What is the unstable part in 23.228? This means describing the functional entity and what we need is describing the detail aspects of the entities.

We need to have a Stage 2-TS describing how do the SIP make use of UE/SIM, SGSN, GGSN, RNC,.. etc including all information and data with the interaction including the error cases. It needs to be covering end to end in a document.

Conclusion written by the chairman:

- Rough categorisation of stage 2 and stage 3 issues is proposed

No CN1 TS but TR is being proposed at this stage.

Conclusion: Noted.

N1-001060 Proposed scope and contents for IP multimedia subsystem stage 3/ Lucent Technologies

Presentation: presented by Keith Drage

This document proposes a scope and outline for the IP multimedia subsystem stage 3, which is a document included in the work item for CN1.

Please refer to the document for more details.

Discussion: We need to know if this document covers other protocols like SDP.

Comments on Scope:

List of function entities, please add

Which interfaces are covered in this document?

RTP and RTCP are not part of our work

Table of context was discussed. Among the comments is to add the informative annex. The editor collected comments.

Some other editorials were fed back too.

Comments written by the chairman:

The following comments were made during the discussion:

- The interfaces that are covered to be added to scope.
- SDP to be brought in the title, scope and the table of contents of the specification.
- Enhancements and exceptions to standard IETF SIP are within the scope of the document.

Session and stateful / - less proxy definition to be added to definitions

Conclusion: Revised to N1-001109.

N1-001109. Changes were presented:

Discussion:

Codecs required in SDP need to be specified in the spec. Codec types might be specified in a separate chapter.

Adding "Protocol" in the title will help to identify its purpose.

This document will be numbered as 24.229.

If MS classmark change or similar changes are required then we need to present a CR to document the issue. The last sentence of the editor's note in 10.2 to be deleted.

Conclusion: It is revised to **N1-001115**, which is agreed for this meeting.

N1-001108 Proposed scope and contents for IP multimedia subsystem signalling flows/ Lucent

Presentation: This document proposes a scope and outline for the IP multimedia subsystem signalling flows.

Please refer to the document.

Discussion: Revision of 1059.

- Please read it at home and send comment to originator.
- Informative annex will be added to the table of contents and should be all moved by time of approval of the specification
- Divide the call flows to message initiation and others UE <-> P-CSCF, PCSCF<->S-CSCF,.etc.
- The requirement on the access network entities.

- Add UE requirements in the document. 23.228 there is not described, we need to know how the UE talks to GPRS and how.
- Main requirements are the MS requirement must be easily identifiable. It is necessary for manufacturer and operator.
- End to End procedures are already described.
- Which point of time does the user get allocated is not shown in 23.228, we need to describe it in 24.228.
- RLCP need to be shown as well.
- Entity behaviour will be in the other document. Error handling is referred to in this document. Binding with other layers is foreseen in this document.
- Failure cases are added in section 8
- Bearer QoS request and handling is a procedure issue and not error handling issue and it will be presented in the existing GPRS documentation, where it will provide it.
- Where is the functional requirement of CSCF entity and call model is described? A procedural level is to describe it in 24.008 for CS part, call model provided by N4 in 23.018.
- For Camel specific state machine there should be a separate specification. Linkage could be done between documents.
- Title to be modified.

Change Chapter 8 and 9 title.

Comments and Conclusion written by the chairman:

- Informative annex to be added to hold the less stable parts of the document
- The editing process of 24.228 and 24.2xx will be the same
- The UE requirements need to be clearly indicated
- There should be only one set of requirements for a procedure as seen by the UE (e.g. 8.1.1, 8.1.2, 8.1.3) even though the behaviour of the network entities may vary depending on where the control is.
- Additionally to the behaviour of IP protocol related entities defined in 23.228 also the interaction with GPRS needs to be covered.
- New main section for user plane attachment needs to be added.
- The register flows need to be aligned with the way they are presented in 23.228.
- The sentence within brackets in the title is true but it should be moved to the scope of the document.

To be named 24.228

▪

Conclusion: Will be updated for review in CN1#14 meeting. Use TSG-CN-WG1 mailing list for further discussion.

Revised to **N1-001114**, which is agreed for this meeting.

5.6 Other technical issues

N1-001094 Tradeoffs between CSCF storage and SIP message size/ AT&T

Presentation: Presented by bill Marshall

As a result of registration, certain information is noted as being stored in network elements. This contribution discusses alternative techniques that may be used to reduce that storage.

However, there is a tradeoff between reducing the storage requirements in the SIP elements, and the length of the SIP messages carried over the air interface.

These conflicting goals must be carefully weighed to determine the optimal system design.

S2 should do the analysis and pick one of the options cases mentioned in the document. Not all the options should be supported in release 2000 (Rel5)

For more details please refer to the document.

Discussion: S2 saw that this document is to be forwarded to CN1 and they do not see themselves responsible for it.

It was agreed in the Invite message discussion, that the least information to be stored on UE/SIM but in P-CSCF or S-CSCF should have the necessary information storage to save the air interface from signalling.

We need to identify additional changes to the register flows then to add the required changes to the Invite message.

It is a good document and should be included in the new specification 24.228.

Comments and conclusion by the chairman:

- Set of questions which have been discussed in SA2 and forwarded to CN1
- It was agreed that the proposed scenarios are valid and they should be covered in the specification.
- The appropriate place for the decisions on the technical questions presented in the document will be 24.228.

Some questions could involve SA2 also

Conclusion: Noted.

6 Output Liaison Statements

N1-001100 Proposed Response to LS on Ungraceful session termination in the IM domain/ Nokia

TSG CN WG1 SIP ad hoc #1 thanks the TSG SA WG2 for their LS (tdoc N1-001055/ S2-001603) on ungraceful session termination in the IM domain.

TSG CN WG1 SIP ad hoc #1 agree the problem analysis that SA2 has made. The problem needs to be solved.

However, it was found premature to commit to the proposed solution as an alternative way was seen by some delegations. The main concern regarding the TSG SA WG2 proposal was inefficiency of the procedure due to multiple retransmissions of INVITE messages over the radio interface, which is a limited resource in the wireless systems. Also, normal GPRS procedures leading to the same situation needs to be considered, for example, Network Initiated GPRS Detach or Routing Area Update refusal when the mobile roams to a restricted area. In case of lower layer failure (e.g. loss of radio connection) the information is available in the RNC and SGSN. How this information is made available to the SIP call control CSCF needs to be considered.

Therefore it is proposed that this issue should be investigated further considering other mechanisms as well. A possible solution would be to allow the lower layers to convey information of the loss of radio coverage to the SIP application layer

Discussion: There is another issue to use the timer, ex. failure, terminating of CSCF which means failure of the lower layers.

Conclusion: Revised to N1-001111, which is presented and agreed.

N1-001106 LS on WID-Support of IP multimedia services/ Motorola

Presentation: At the CN1 SIP ad hoc meeting in Sophia Antipolis, CN1 reviewed the Work Item Descriptions related to the IM subsystem.

As a result of reviewing the WID-Support of IP multimedia services, CN1 ask SA1 to consider revisions to this Work Item Description as follows:

- The linked CN1-WI *SIP call control protocol for the IM subsystem* should be added to the list in section 2
- Since release R00 is no longer valid – is the completion of this WI scheduled for Rel 4 or Rel 5? Could SA1 confirm that this WI is a Rel 5 feature.
- Stage 2 and 3 milestones should be added to section 10
- Changes to TS22.228 and TS22.101 should be indicated in section 10
- CN1 note that this WI is now a feature within the project plan

Discussion: Comment that it is a R5 in our WID.

The other comment is changes to the documentation by adding N1 and S2 specifications.

Conclusion: Revised to N1-001112, which was presented and agreed.

N1-001107 Comments to WI Description on “Interworking between IM CN subsystem and IP networks/ BT

Presentation: The CN1 SIP adhoc meeting has reviewed attached work item description (N1-001105) on Interworking between IM CN subsystem and IP networks, and would like to make the following comments:

- SIP protocol enhancements are agreed to be the responsibility of CN1 whereas the requirements at e.g. Mm reference point are within the CN3 remit. Thus any SIP protocol impacts at Mm reference point need to be done in co-operation between CN1 and CN3 (section 4: objectives).
 - The ME will be impacted due to end-to-end QoS negotiation (section 9: impacts).
- CN 3 is requested to reflect these comments when the work item description is updated.

Discussion: None

Conclusion: Agreed

N1-001110 LS on RTCP responsibility/ Motorola

Presentation: At the CN1 SIP ad hoc meeting in Sophia Antipolis, CN1 discussed their specification work responsibilities related to the IETF protocols associated with SIP including RTCP.

CN1 understand that any protocol specification work associated with RTCP, which is part of the RTP RFC 1889 will be part of the work to be performed by CN3 under the agreed work split. CN1 therefore do not plan on performing any required specification work associated with RTCP and will leave this to CN3.

CN1 requests CN3 to confirm that this is also their understanding of the work split responsibilities for the IM subsystem work.

Discussion: N1 does not intend to write specification on modification of RTCP protocol, we expect CN3 to write the modifications.

Conclusion: Revised to N1-001113, which was agreed.

7 Any other business

The chairman thanked the delegate for the interesting SIP Ad-hoc meeting, and also thank the MCC for supporting the meeting.

Annex A: List of documents

ftp://ftp.3gpp.org/TSG_CN/WG1_mm-cc-sm/SIP-Adhoc_meetings/SIP_Ad-hoc_1/Documents/CN1-Tdoclist-SIPAd-hoc_1.doc

Annex B: Participants

To be added.



3gppattendee.doc

Annex C: Decision of CN1 SIP Ad-hoc#1

See the report text.

Annex D Status of CRs

None.

Annex E: Liaison Statements from CN1 SIP Ad-hoc#1

3GPP	Title	WI	Attachments	To	Cc	Notes
N1-001107	Comments to WI Description on "Interworking between IM CN subsystem and IP networks"	Interworking between IM CN subsystem and IP networks	N1-001105	3GPP TSG CN WG 3	-	
N1-001111	Response to LS on Ungraceful session termination in the IM domain	SIP-CC	N1-001055	3GPP TSG SA WG2	-	
N1-001112	LS on WID-Support of IP multimedia services	Support of IP multimedia services		3GPP TSG SA WG 1	-	
N1-001113	LS on RTCP responsibility	SIP-CC		3GPP TSG CN WG 3	--	

Annex F: Specifications for approval / information for TGN#10

None.