3GPP TSG-T #14

Kyoto, Japan, 12-14 December, 2001

TP-010290

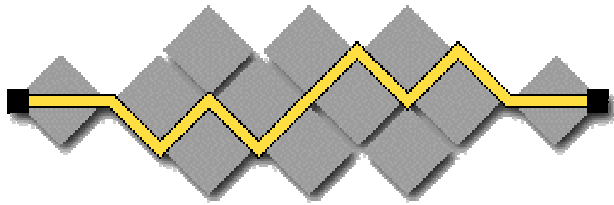# 3GPP-IETF Status Report

Source: Ileana Leuca, AT&T Wireless Services
3GPP-IETF Rapporteur

Outline

- **IEFT structure**

- **IETF standardization process**

- **3GPP dependencies**

I E T F

- **Primary Standards Body for Internet**
- **Read more at http://www.ietf.org/**

- **Many areas - Area Directors**
- **IETF chair – Harald Alvestrand**
- **Internet Engineering Steering Group (IESG)**
- **Different working groups**

IETF Structure

- **Areas**
  - **Transport services (tsv)**
    - **SIP – protocol and extension specs**
    - **SIPPING – requirements and usage**
    - **AVT – real time protocol (RTP, RTCP)**
    - **ROCH – compression (UDPCOMP)**
  - **Operations and Management (ops)**
    - **AAA Diameter protocol**
  - **Applications (app)**
    - **SIMPLE – Instant messaging and presence**
  - **Internet (int)**
    - **IPNG – IPv6**
 - **Routing (rtg), Security (sec), User services (usv)**

Working Groups

- **Charter**
  - **Narrow focus, published goals and milestones**
  - **Mailing list and chairs**
- **Working style**
  - **Mailing list and meetings**
  - **No formal voting, i.e. rough consensus and running code**

SIP & SIPPING

- Dividing the "Whys" and the "Hows" from the "Whats"
- Requirements for SIP
- Requirements for Interaction with Other Protocols
- Usage Guidelines
- IANA Registrations
- Detailed Charter being Negotiated with IESG. Process Started Last November . . .

Working Group Creation

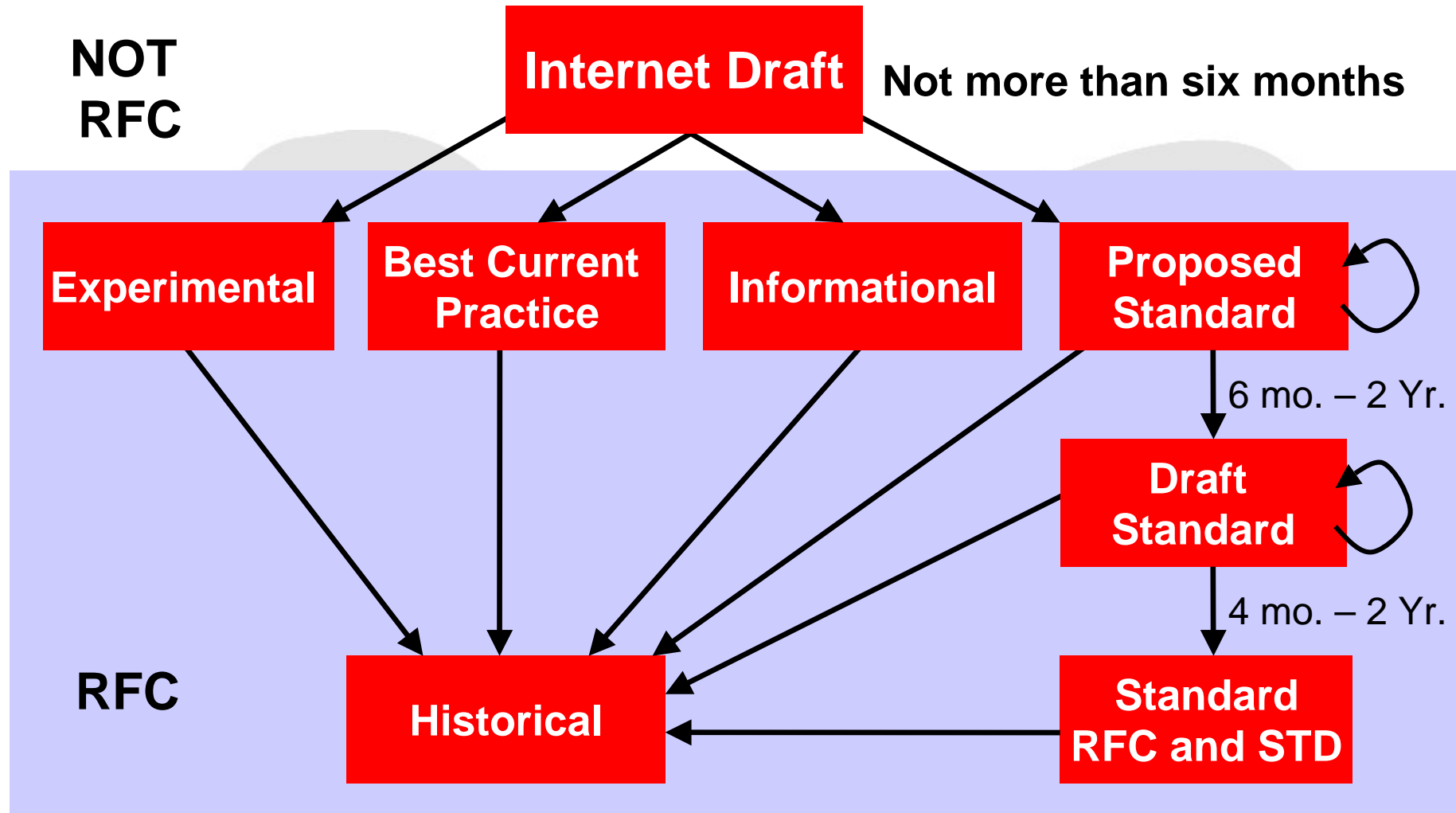BOF → Chair Description → Goals and milestones
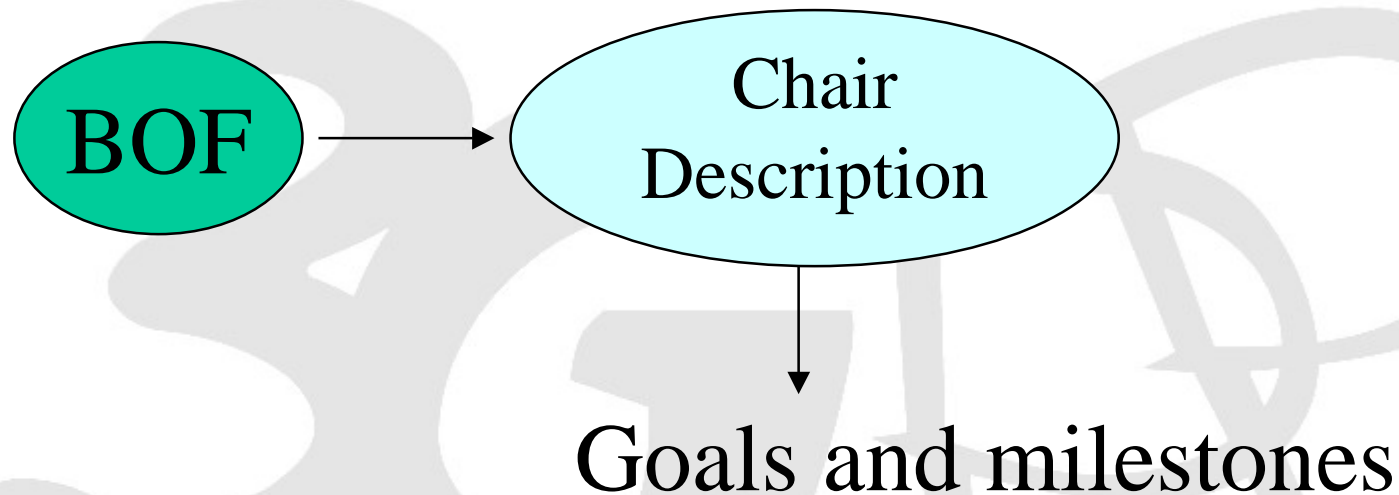
Approved by Area Director and IESG

Standardization Process

- **Internet Draft**
    - **Complete specification**
    - **Elevated, deprecated, recycled**
- **Draft standard**
    - **Multiple independent interoperability implementations**
    - **Limited operational experience**
- **Standard level**
    - **Operational stability**
    - **No expiration**

IETF Document Tracks

NOT RFC

RFC

Internet Draft

Not more than six months

Experimental

Best Current Practice

Informational

Proposed Standard

6 mo. – 2 Yr.

Draft Standard

4 mo. – 2 Yr.

Historical

Standard RFC and STD

Standardization Process

- **Proposed by**
  - **Working group**
  - **Individual**
  - **IESG, IAB**
- **Revision**
  - **Last Call Coordinator**
    - **NITS – draft meets IESG requirements**
  - **Working Group Last Call review (WGLC)**
    - **Content ready for submission to the IESG**
    - **3 primary reviewers comments to author**

SIP Working Group Current Efforts

- **Tracking 40+ Internet Drafts**
- **Twelve Formal Deliverables Outstanding**
- **Delivery Schedule Extending to Mid-2002**
- **Approximately 300 People Attend Working Group Meetings**

Who's Working on IETF?

- **Internet Engineering Task Force (IETF)**
- **3GPP**
- **3GPP2**
- **Packet Cable**
- **SIP Forum, IPv6 Forum**
- **International Telecommunications Union (ITU)**

- **……**

Critical Dependencies

- **sip-2543bis**
- **sip-100rel (Reliability of Provisional Responses in SIP)**
- **sip-manyfolks (Integration of Resource Management and SIP)**
- **sip-privacy**
- **sip-events (Specific Event Notification)**

3GPP IETF Dependencies and Priorities [NP-010681]

Notes:

a. This dependency and priority is based on the information available as of ~~November~~ December ~~21~~5, 2001

b. The 3GPP Requirement is that these IDs be stable and RFC numbers be available to allow 3GPP to reference them.

c. Where individual IDs are listed, there is a desire that an ID providing similar requirements or functionality be progessed within the working group.

d. The "Definite" column indicates how firm the 3GPP requirement for this ID is. Those listed as Possible are still under discussion (or in some cases not yet discussed in 3GPP).

e. The "3GPP Priority" column indicates whether this functionality is deemed essential for the functioning of IMS or some planned 3GPP feature. Desirable indicates that major functionality will be sacrificed if this ID is not ready.

f. Items with a high risk of not being complete in time are marked in red. Items with medium risk are in yellow.

g. Dependency information compiled by Stephen Hayes, 3GPP TSG-CN Chair (stephen.hayes@ericsson.com, +1 469 360 8500)

3GPP Dependency Table

0#	Title	Link	How definite?	3GPP Priority	3GPP Need	Consequences if not done	3GPP WG	3GPP Release	IETF WG	IETF Status	To IESG	RFC Ready	Risk
1	RTP payload format and file storage format for AMR and AMR-WB audio	http://www.ietf.org/internet-drafts/draft-ietf-avt-rtp-amr-10.txt	Definite	Critical	Needed for speech within Streaming and IMS appl	Copy is included in 3GPP specs. Increasing risk of divergence.	SA4	Rel 4	AVT	In AD Review		Dec01	Late

2	SS7 MTP3-User Adaptation Layer (M3UA)	http://www.ietf.org/internet-drafts/draft-ietf-sigtran-m3ua-09.txt	Definite	Critical	SS7/IP	Copy is included in 3GPP specs. Increasing risk of divergence	CN4 RAN3	Rel 4 (R'99 also)	SIGTRAN	WGLC complete	21Nov01	Jan02	Late
3	Differentiated Services Quality of Service Policy Information Base	http://www.ietf.org/internet-drafts/draft-ietf-diffserv-pib-05.txt	Definite	Desirable	Use of COPS for control of 3GPP resources	COPS cannot model diffserv control for COPS-PR	CN3	Rel 5	DIFFSERV	In WGLC. WGLC ends 26Nov01	Jan02	Apr02	High
4	CPIM Presence Information Data Format	http://www.ietf.org/internet-drafts/draft-ietf-impp-cpim-pidf-01.txt	Possible	Desirable	Used in registration to the network, to register multiple public IDs and get notifications when the network de-registers or request re-registration.	3GPP specific data structure used for handling registering of public IDs	CN1	Rel 5	IMPP	In Progress	No date	No date	High
5	Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	http://www.ietf.org/internet-drafts/draft-ietf-dhc-dhcpv6- 21.txt	Definite	Desirable	Use Ipv6 addr if DHCP used	Must rely on GPRS specific discovery mechanisms	SA2	Rel 5	IPNG	In progress	No date	No date	High
6	Minimum IPv6 Functionality for a Cellular Host	http://www.ietf.org/internet-drafts/draft-manyfolks-ipv6-cellular-host- 02.txt	Possible	Desirable	Consistency of IMS hosts	Inconsistency in Ipv6 stack supported by IMS terminals.	SA2 T2	Rel 5	IPNG	In progress	No date	No date	High

7	Recommendations for IPv6 in 3GPP Standards	http://www.ietf.org/internet-drafts/draft-wasserman-3gpp-advice-00.txt	Definite	Critical (needs stability, but not necessarily RFC status)	Determine if any holes in IPv6 usage	May be too late to fix any errors	CN1 CN3 CN4 SA2	Rel 5	IPNG	In progress	No date	No date	Medium
8	SDP: Session Description Protocol	http://www.ietf.org/internet-drafts/draft-ietf-mmusic-sdp-new-03.txt	Definite	Desirable	Make FQDN and tel/e-mail addr optional	Implementations more complicated than required	CN1	Rel 5	MMUSIC	In progress. Needs interoperability testing	No date	No date	High
9	Support for IPv6 in SDP	http://www.ietf.org/internet-drafts/draft-olson-sdp-ipv6-01.txt	Definite (Fallback containing essential IPv6 support if sdp-new does not reach RFC)	Critical	Carry Ipv6 addr in SDP	IMS Cannot use IPv6	CN1	Rel 5	MMUSIC	Nearing WGLC	Jan02	Mar02	Medium
10	COPS-PR for outsourcing in UMTS: UMTS Go PIB	http://www.ietf.org/internet-drafts/draft-hamer-rap-cops-umts-go-00.txt	Possible	Desirable	Use of COPS for control of 3GPP resources	COPS cannot use COPS-PR for policy control	CN3	Rel 5	RAP	Not chartered	No date	No date	High
11	Framework Policy Information Base	http://www.ietf.org/internet-drafts/draft-ietf-rap-frameworkpib-06.txt	Definite	Desirable	Use of COPS for control of 3GPP resources	COPS cannot use COPS-PR for policy control	CN3	Rel 5	RAP	In WGLC. WGLC ends 30Nov01	Jan02	Apr02	High
12	Signaling Compression (SigComp)	http://www.ietf.org/internet-drafts/draft-ietf-rohc-sigcomp-02.txt	Definite	Critical	SIP compression algorithm	Very inefficient use of bandwidth and long session establishment delays	CN1	Rel 5	ROHC	In progress	No date	No date	Low

13	Signaling Compression Requirements & Assumptions	http://www.ietf.org/internet-drafts/draft-ietf-rohc-signaling-req-assump-0203.txt	Definite	Critical	Define SIP compression requirements	Very inefficient use of bandwidth and long session establishment delays	CN1	Rel 5	ROHC	In progress	No date	No date	Low
14	SS7 SCCP-User Adaptation Layer (SUA)	http://www.ietf.org/internet-drafts/draft-ietf-sigtran-sua-08.txt	Possible (being discussed in 3GPP)	Desirable	SS7/IP	Cannot use SUA for SS7 transport	CN4 RAN3	Rel 5	SIGTRAN	WGLC complete	21Nov01	Jan02	High
15	??? SIP DHCP IPv6 extensions		Definite	Desirable	Use Ipv6 addr if DHCP used	Must rely on GPRS specific discovery mechanisms	CN1	Rel 5	SIP	Not started. Could be incorporated into draft-ietf-sip-dhcp	No date	No date	High
16	DHCP Option for SIP Servers	http://www.ietf.org/internet-drafts/draft-ietf-sip-dhcp-05.txt	Possible	Desirable	Allows laptop support (UE split)	SIP DHCP Ipv6 may need it.	CN1	Rel 5	SIP	IESG Review		No date	High
17	Integration of Resource Management and SIP	http://www.ietf.org/internet-drafts/draft-ietf-sip-manyfolks-resource-0203.txt	Definite	Critical	Need resource reservation	Used in base IMS flows. IMS not viable without it.	CN1	Rel 5	SIP	In progress	19Nov01	Feb02	Medium
18	Reliability of Provisional Responses in SIP	http://www.ietf.org/internet-drafts/draft-ietf-sip-100rel-04.txt	Definite	Critical	Need reliable response	Used in base IMS flows. IMS not viable without it.	CN1	Rel 5	SIP	In progress. Will probably be folded into 2543bis.	15 Jan02	15Feb02	High
19	SIP Extensions for Caller Identity and Privacy	http://www.ietf.org/internet-drafts/draft-ietf-sip-privacy-03.txt	Definite	Critical	Private identities to identify subscriber	Remote-Party-ID header used in base IMS flows. Anonymity not to be part of Release 5. IMS not viable without it.	CN1	Rel 5	SIP	In progress	15 Jan02	15Feb02	High

20	SIP Extensions for Media Authorization	http://www.ietf.org/internet-drafts/draft-ietf-sip-call-auth-03.txt	Definite	Critical	Needed for media auth for billing	No robust QoS based billing. Possibility for fraudulent use of QoS	CN1	Rel 5	SIP	In progress	07Dec01	15Feb02	High
21	SIP: Session Initiation Protocol	http://www.ietf.org/internet-drafts/draft-ietf-sip-rfc2543bis-05.txt	Definite	Critical	SIP baseline for IMS	No baseline	CN1	Rel 5	SIP	In progress	15 Jan02	15Feb02	High
22	SIP-Specific Event Notification	http://www.ietf.org/internet-drafts/draft-ietf-sip-events-01.txt	Definite	Critical	Needed for registration	Used in base IMS flows. IMS not viable without it.	CN1	Rel 5	SIP	In progress	15 Jan02	15Feb02	High
23	The Refer Method	http://www.ietf.org/internet-drafts/draft-ietf-sip-refer-02.txt	Definite	Desirable	Needed for 3rd parties	No call forwarding, conf calling	CN1	Rel 5	SIP	In progress	14Jan02	Apr02	High
24	The SIP Replaces Header	http://www.ietf.org/internet-drafts/draft-biggs-sip-replaces-01.txt	Definite	Desirable	Needed for transfers	Call transfer is less efficient	CN1	Rel 5	SIP	Not chartered	No date	No date	High
25	3GPP requirements on SIP	http://www.ietf.org/internet-drafts/draft-garcia-sipping-3gpp-reqs-02.txt	Definite	Critical (needs stability, but not necessarily RFC status)	Lists 3GPP Requirements	Cannot define any additional work that is needed for 3GPP IMS	CN1	Rel 5	SIPPING	In progress	Dec01	Feb02	Low
26	SIP-H.323 Interworking	http://www.ietf.org/internet-drafts/draft-agrawal-sip-h323-interworking-01.txt	DefinitePossible (may refer to ITU instead)	Nice to Have	Needed for interworking with H.323	Informational RFC – Needed for consistency in interworking with H.323	CN3	Rel 5	SIPPING	RFC Editor		No date	Low
27	SIP-H.323 Interworking Requirements	http://www.ietf.org/internet-drafts/draft-agrawal-sip-h323-interworking-reqs-02.txt	Possible (may refer to ITU instead)Definite	Nice to Have	Needed for interworking with H.323	Informational RFC – Needed for consistency in interworking with H.323	CN3	Rel 5	SIPPING	RFC Editor		No date	Low

28	The SIP Negotiate Method	http://www.ietf.org/internet-drafts/draft-spbs-sip-negotiate-00.txt	Possible (work based on requirements established in draft-garcia-sipping-3gpp-reqs)	Desirable	Ability to negotiate items spanning multiple sessions such as compression	Specific mechanism must be developed for each option that spans sessions	CN1	Rel 5 Late	SIPPING	Not chartered	No date	No date	High
29	UDP Lite draft	http://www.ietf.org/internet-drafts/draft-larzon-udplite-04.txtExpired individual draft	Possible	Desirable	UDP Lite transport protocol	Decreased performance for real-time IP services, unneccessary packet losses, especially for IPv6.	RAN3	Rel 5	TSV	IESG Review		No date	Medium
30	??? AAA application for 3GPP & 3GPP2 authorization & authentication		Definite (work based on requirements established in draft-calhoun-sip-aaa-reqs)	Critical	Authentication and Authorization of UEs	Cannot authenticate and authorize UEs.	CN4	Rel 5 Late	AAA	Not started	No date	No date	High
31	Diameter Base Protocol	http://www.ietf.org/internet-drafts/draft-ietf-aaa-diameter-0708.txt	Definite	Desirable	Authentication and Authorization	Only GPRS specific security provided	CN4 SA5	Rel 5 Late	AAA	Preparing for 2nd WGLC	Jan02	Apr02	Low
32	The MAP Security Domain of Interpretation for ISAKMP	http://www.ietf.org/internet-drafts/draft-arkko-map-doi-04.txt	Definite	Nice to Have	IKE for MAP	Informational RFC: Needed for consistency of applying IKE to secure GSM MAP and other GSM protocols.	SA3	Rel 5 Late	IPSEC	In progress	No date	No date	Low
33	EAP AKA Authentication	http://www.ietf.org/internet-drafts/draft-arkko-pppext-eap-aka-01.txt	Definite	Critical	AKA in EAP	Cannot use AKA authentication via EAP	CN1 CN4 SA3	Rel 5 Late	PPPEXT	Not chartered	No date	No date	High

34	Security Mechanism Agreement for SIP Connections	http://www.ietf.org/internet-drafts/draft-arkko-sip-sec-agree-01.txt	Possible (work based on requirements established in draft-garcia-sipping-3gpp-reqs)	Desirable	Security Mode Setup (SA3, CN1)	Difficult to add later due to possible "man in middle" attacks. Parts of path unprotected.	CN1 SA3	Rel 5 Late	SIP	Not chartered	No date	No date	High
35	AAA Requirements for IP Telephony/Multimedia	http://www.ietf.org/internet-drafts/draft-calhoun-sip-aaa-reqs-03.txt	Definite	Critical (needs stability, but not necessarily RFC status)	Lists 3GPP Requirements for AAA	3GPP Work in AAA may not be correct	CN4	Rel 5 Late	SIPPING	In progress	Jan02	Apr02	Low
36	HTTP Authentication with EAP	http://www.ietf.org/internet-drafts/draft-torvinen-http-eap-01.txt	Definite	Critical	EAP in SIP	Cannot authenticate and authorize Ues using IMS-AKA	CN1 SA3	Rel 5 Late	SIPPING	Not chartered	No date	No date	High
37	IP Multimedia Charging requirements on Diameter Accounting	http://www.ietf.org/internet-drafts/draft-olsson-ip-multimedia-charging-reqs-00.txt	Possible (under discussion in 3GPP)	Desirable	Charging info collection based upon services, resources, etc. (SA5)	Only GPRS based charging available (bytes, QoS, time).	SA5	Rel 5 Late	SIPPING	Not chartered	No date	No date	High
38	Single Hop Message Authentication in SIP	http://www.ietf.org/internet-drafts/draft-sen-sipping-onehop-digest-00.txt	Possible (work based on requirements established in draft-garcia-sipping-3gpp-reqs)	Desirable	Integrity Protection	Only GPRS specific integrity protection or use of IPsec	CN1 SA3	Rel 5 Late	SIPPING	Not chartered	No date	No date	High
39	Common Presence and Instant Messaging: Message Format	http://www.ietf.org/internet-drafts/draft-ietf-impp-cpim-msgfmt-04.txt	Possible	Desirable	IM	Instant Messaging not Available	CN1	Rel 6 (not decided)	IMPP	In Progress	No date	No date	Low

40	COPS Extensions for RSVP Receiver Proxy	http://www.ietf.org/internet-drafts/draft-nitsan-cops-rsvp-proxy-03.txt	Possible	Desirable	COPs use of RSVP	COPS cannot use RSVP for quality assurance	CN3	Rel 6 (not decided)	RAP	In progress	No date	No date	Low
41	A SIP Event Sub-Package for Watcher Information	http://www.ietf.org/internet-drafts/draft-ietf-simple-winfo-package-00.txt	Possible	Desirable	Presence	Presence Service not Available	CN1	Rel 6 (not decided)	SIMPLE	WGLC expected Dec01	No date	No date	Low
42	An XML Based Format for Watcher Information	http://www.ietf.org/internet-drafts/draft-ietf-simple-winfo-format-00.txt	Possible	Desirable	Presence	Presence Service not Available	CN1	Rel 6 (not decided)	SIMPLE	WGLC expected Dec01	No date	No date	Low
43	SDP Extensions for SIP Instant Message Sessions	http://www.ietf.org/internet-drafts/draft-ietf-simple-im-sdp-00.txt	Possible	Desirable	IM	Instant Messaging not Available	CN1	Rel 6 (not decided)	SIMPLE	WGLC expected Jan02	No date	No date	Low
44	SIP Extensions for Presence	http://www.ietf.org/internet-drafts/draft-ietf-simple-presence-0304.txt	Possible	Desirable	Presence	Presence Service not Available	CN1	Rel 6 (not decided)	SIMPLE	Passed WGLC	Dec02	Mar02	Low
45	SIP Instant Message Sessions	http://www.ietf.org/internet-drafts/draft-ietf-simple-im-session-00.txt	Possible	Desirable	IM	Instant Messaging not Available	CN1	Rel 6 (not decided)	SIMPLE	WGLC expected Jan02	No date	No date	Low
46	SIP Extensions for Instant Messaging	http://www.ietf.org/internet-drafts/draft-ietf-sip-message-00.txt	Possible	Desirable	IM	Instant Messaging not Available	CN1	Rel 6 (not decided)	SIP	Passed from SIMPLE, Work to begin in SIP	No date	No date	Low

A PDF version of this document is available here

The collaboration agreement between the 3GPP and IETF may be found here (http://www.ietf.org/rfc/rfc3113.txt?number=3113)

Please contact stephen.hayes@ericsson.com with any updates

Change Log

Date	Version	Description of Change
15-11-2001	0.0.1	Pre-publication version
21-11-2001	5.0.0	IETF Dependency draft

| 05-12-2001 | 5.0.1 | Clarified releationship of sdp-new and sdp-ipv6, updated completion dates of several SIP drafts, downgraded need for H.323. interworking, responsible groups updated, ID versions updated, fixed broken links |