3GPP TSG-CN Meeting #25 **NP-040381**
8th – 10th September 2004. Palm Springs, USA.

Source: **TSG CN WG1**

Title: **CR on Rel-6 WI IMS2 towards TS 24.229**

Agenda item: **9.1**

Document for: **APPROVAL**

This document contains **16 CRs on Rel-6 Work Item "IMS2"**, that have been agreed by TSG CN WG1 CN#35 meeting and forwarded to TSG CN Plenary meeting #25 for approval.

TDoc #	Tdoc Title	Spec	CR #	Rev	CAT	Current version	WI	Rel
N1-041639	NOTIFY requests	24.229	701		F	5.9.0	IMS	Rel-5
N1-041586	NOTIFY requests	24.229	666	1	F	6.3.0	IMS2	Rel-6
N1-041315	Callee capabilities and Registration	24.229	654	4	F	6.3.0	IMS2	Rel-6
N1-041614	Network deregistration	24.229	668	2	F	6.3.0	IMS2	Rel-6
N1-041592	SDP parameters received by the S-CSCF and the P-CSCF in the 200 OK message	24.229	682	1	F	6.3.0	IMS2	Rel-6
N1-041589	Call Release	24.229	661	1	F	6.3.0	IMS2	Rel-6
N1-041350	Multiple public ID registration	24.229	659		F	6.3.0	IMS2	Rel-6
N1-041351	Standalone transactions	24.229	660		F	6.3.0	IMS2	Rel-6
N1-041354	Unprotected REGISTER	24.229	663		F	6.3.0	IMS2	Rel-6
N1-041590	Session timer	24.229	662	1	F	6.3.0	IMS2	Rel-6
N1-041372	Contact in SUBSCRIBE request	24.229	665		F	6.3.0	IMS2	Rel-6
N1-041391	Support of draft-ietf-sip-replaces	24.229	650	2	B	6.3.0	IMS2	Rel-6
N1-041393	Support of draft-ietf-sip-join	24.229	657	1	B	6.3.0	IMS2	Rel-6
N1-041263	Support of draft-ietf-sip-referredby	24.229	656	1	B	6.3.0	IMS2	Rel-6
N1-041462	Support of TLS	24.229	678		D	6.3.0	IMS2	Rel-6
N1-041641	Filtering of the P-Access-Network-Info header by the S-CSCF and privacy rules	24.229	688	2	C	6.3.0	IMS2	Rel-6

3GPP TSG-CN1 Meeting #34bis **Tdoc N1-041263**
Helsinki, Finland 15 – 18 June 2004

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 656** ⌘**rev** **1** ⌘ Current version: **6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME ☒ Radio Access Network □ Core Network ☒

Title:	⌘	Support of draft-ietf-sip-referredby		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	08/06/2004
Category:	⌘	**B**	***Release:*** ⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The approved 3GPP TS 29.847 and current draft 3GPP 24.147 make support of the Referred-By header mandatory for both conference participant and conference focus and therefore support of this header is necessary for these entities. As this header is documented in the extension draft-ietf-sip-referredby support of that extension needs to be built into the profile in 3GPP TS 24.229.
Summary of change:	⌘	The extension is optional, but mandatory when conferencing is supported. A new status code 429 is added. The Referred-By header is added to all requests except ACK and CANCEL.. Additionally an incorrect clause number is corrected.
Consequences if not approved:	⌘	A mandatory extension will not be documented in the profile.

Clauses affected:	⌘	2, A.2.1.2, A.2.1.4.1, A.2.1.4.3, A.2.1.4.7, A.2.1.4.7A, A.2.1.4.8, A.2.1.4.9, A.2.1.4.10, A.2.1.4.10A, A.2.1.4.11, A.2.1.4.12, A.2.1.4.13, A.2.1.4.14, A.2.2.2, A.2.2.4.1, A.2.2.4.3, A.2.2.4.7, A.2.2.4.7A, A.2.2.4.8, A.2.2.4.9, A.2.2.4.10, A.2.2.4.10A, A.2.2.4.11, A.2.2.4.12, A.2.2.4.13, A.2.2.4.14,

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

PROPOSED CHANGE

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.002: "Network architecture".

[3] 3GPP TS 23.003: "Numbering, addressing and identification".

[4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[4A] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[5] 3GPP TS 23.218: "IP Multimedia (IM) Session Handling; IM call model".

[6] 3GPP TS 23.221: "Architectural requirements".

[7] 3GPP TS 23.228: "IP multimedia subsystem; Stage 2".

[8] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network protocols; Stage 3".

[8A] 3GPP TS 24.141: "Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[8B] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[9A] 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol Specification".

[10] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs".

[10A] 3GPP TS 27.060: "Mobile Station (MS) supporting Packet Switched Services".

[11] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN)".

[12] 3GPP TS 29.207: "Policy control over Go interface".

[13] 3GPP TS 29.208: "End to end Quality of Service (QoS) signalling flows".

[13A] 3GPP TS 29.209: "Policy control over Gq interface".

[14] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents".

[15] 3GPP TS 29.229: "Cx and Dx Interfaces based on the Diameter protocol, Protocol details".

[16] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[17] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[18] 3GPP TS 33.102: "3G Security; Security architecture".

[19] 3GPP TS 33.203: "Access security for IP based services".

[19A] 3GPP TS 33.210: "IP Network Layer Security".

[20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[20A] RFC 2401 (November 1998): "Security Architecture for the Internet Protocol".

[20B] RFC 1594 (March 1994): "FYI on Questions and Answers to Commonly asked "New Internet User" Questions".

[20C] RFC 2403 (November 1998) "The Use of HMAC-MD5-96 within ESP and AH".

[20D] RFC 2404 (November 1998) "The Use of HMAC-SHA-1-96 within ESP and AH".

[20E] RFC 2462 (November 1998): "IPv6 Address Autoconfiguration".

[21] RFC 2617 (June 1999): "HTTP Authentication: Basic and Digest Access Authentication".

[22] RFC 2806 (April 2000): "URLs for Telephone Calls".

[23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".

[24] RFC 2916 (September 2000): "E.164 number and DNS".

[25] RFC 2976 (October 2000): "The SIP INFO method".

[25A] RFC 3041 (January 2001): "Privacy Extensions for Stateless Address Autoconfiguration in IPv6".

[26] RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[27] RFC 3262 (June 2002): "Reliability of provisional responses in Session Initiation Protocol (SIP)".

[28] RFC 3265 (June 2002): "Session Initiation Protocol (SIP) Specific Event Notification".

[29] RFC 3311 (September 2002): "The Session Initiation Protocol (SIP) UPDATE method".

[30] RFC 3312 (October 2002): "Integration of resource management and Session Initiation Protocol (SIP)".

[31] RFC 3313 (January 2003): "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".

[32] RFC 3320 (March 2002): "Signaling Compression (SigComp)".

[33] RFC 3323 (November 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[34] RFC 3325 (November 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[34A] RFC 3326 (December 2002): "The Reason Header Field for the Session Initiation Protocol (SIP)".

[35] RFC 3327 (December 2002): "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".

[36] RFC 3515 (April 2003): "The Session Initiation Protocol (SIP) REFER method".

[37] RFC 3420 (November 2002): "Internet Media Type message/sipfrag".

[38] RFC 3608 (October 2003): "Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration".

[39] draft-ietf-mmusic-sdp-new-13 (May 2003): "SDP: Session Description Protocol".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[40] RFC 3315 (July 2003): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

[41] RFC 3319 (July 2003): "Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers".

[42] RFC 3485 (February 2003): "The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)".

[43] RFC 3680 (March 2004): "A Session Initiation Protocol (SIP) Event Package for Registrations".

[44] Void.

[45] Void.

[46] Void.

[47] Void.

[48] RFC 3329 (January 2003): "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".

[49] RFC 3310 (September 2002): "Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)".

[50] RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[51] Void.

[52] RFC 3455 (January 2003): "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)".

[53] RFC 3388 (December 2002): "Grouping of Media Lines in Session Description Protocol".

[54] RFC 3524 (April 2003): "Mapping of Media Streams to Resource Reservation Flows".

[55] RFC 3486 (February 2003): "Compressing the Session Initiation Protocol (SIP)".

[56] RFC 3556 (July 2003): "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".

[56A] RFC 3581 (August 2003): "An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing".

[56B] draft-ietf-sip-callerprefs-10 (October 2003): "Caller Preferences for the Session Initiation Protocol (SIP)"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[57] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[58] draft-ietf-sip-session-timer-13 (January 2004): "Session Timers in the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[59] draft-ietf-sip-referredby-05 (March 2004): "The SIP Referred-By Mechanism".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[70] draft-ietf-sip-publish-02 (January 2004): "Session Initiation Protocol (SIP) Extension for Presence Publication".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[71] draft-niemi-sipping-event-throttle-00 (October 2003): "Session Initiation Protocol (SIP) Event Notification Throttles".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[72] draft-ietf-simple-winfo-package-05 (January 2003): "A Session Initiation Protocol (SIP) Event Template-Package for Watcher Information".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[74] draft-ietf-simple-presence-10 (January 2003): "A Presence Event Package for the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[75] draft-ietf-simple-event-list-04 (June 2003): "A Session Initiation Protocol (SIP) Event Notification Extension for Collections".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[77] draft-ietf-simple-xcap-package-01 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Modification Events for the Extensible Markup Language (XML) Configuration Access Protocol (XCAP) Managed Documents".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[78] draft-ietf-sipping-conference-package-03 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Conference State"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

PROPOSED CHANGE

A.2.1.2 Major capabilities

Table A.4: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
1	client behaviour for registration?	[26] subclause 10.2	o	c3
2	registrar?	[26] subclause 10.3	o	c4
2A	registration of multiple contacts for a single address of record	[26] 10.2.1.2, 16.6	o	o
2B	initiating a session?	[26] subclause 13	o	o
3	client behaviour for INVITE requests?	[26] subclause 13.2	c18	c18
4	server behaviour for INVITE requests?	[26] subclause 13.3	c18	c18
5	session release?	[26] subclause 15.1	c18	c18
6	timestamping of requests?	[26] subclause 8.2.6.1	o	o
7	authentication between UA and UA?	[26] subclause 22.2	o	o
8	authentication between UA and registrar?	[26] subclause 22.2	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	o
9	server handling of merged requests due to forking?	[26] 8.2.2.2	m	m
10	client handling of multiple responses due to forking?	[26] 13.2.2.4	m	m
11	insertion of date in requests and responses?	[26] subclause 20.17	o	o
12	downloading of alerting information?	[26] subclause 20.4	o	o
	Extensions			
13	the SIP INFO method?	[25]	o	n/a
14	reliability of provisional responses in SIP?	[27]	c19	c18
15	the REFER method?	[36]	o	c33
16	integration of resource management and SIP?	[30]	c19	c18
17	the SIP UPDATE method?	[29]	c5	c18
19	SIP extensions for media authorization?	[31]	o	c14
20	SIP specific event notification?	[28]	o	c13
21	the use of NOTIFY to establish a dialog?	[28] 4.2	o	n/a
22	acting as the notifier of event information?	[28]	c2	c15
23	acting as the subscriber to event information?	[28]	c2	c16
24	session initiation protocol extension header field for registering non-adjacent contacts?	[35]	o	c6
25	private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks?	[34]	o	m
26	a privacy mechanism for the Session Initiation Protocol (SIP)?	[33]	o	m
26A	request of privacy by the inclusion of a Privacy header indicating any privacy option?	[33]	c9	c11
26B	application of privacy based on the received Privacy header?	[33]	c9	n/a
26C	passing on of the Privacy header transparently?	[33]	c9	c12
26D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the	[33] 5.1	c10	c27

	assistance of intermediaries are obscured?			
26E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	c10	c27
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	c27
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20
38	the Reason header field for the session initiation protocol?	[34A]	o	o (note 1)
39	an extension to the session initiation protocol for symmetric response routeing?	[56A]	o	x
40	caller preferences for the session initiation protocol?	[56B]	C29	c29
40A	the proxy-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40B	the cancel-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40C	the fork-directive within caller-preferences?	[56B] 9.1	o.5	c28
40D	the recurse-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40E	the parallel-directive within caller-preferences?	[56B] 9.1	o.5	c28
40F	the queue-directive within caller-preferences?	[56B] 9.1	o.5	o.5
41	an event state publication extension to the session initiation protocol?	[70]	o	c30
42	SIP session timer?	[58]	c19	c19
43	the SIP Referred-By mechanism?	[59]	o	c33

c2: IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.
c3: IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.
c4: IF A.3/4 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - S-CSCF or AS functional entity.
c5: IF A.4/16 THEN m ELSE o - - integration of resource management and SIP extension.
c6: IF A.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.
c7: IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D THEN m ELSE n/a - - UA or S-CSCF or AS acting as terminating UA or AS acting as originating UA or AS performing 3^{rd} party call control.
c8: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c9: IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.
c11: IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.
c12: IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.
c13: IF A.3/1 OR A.3/2 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.
c14: IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.
c15: IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.
c16: IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.
c17: IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.
c18: IF A.4/2B THEN m ELSE n/a - - initiating sessions.
c19: IF A.4/2B THEN o ELSE n/a - - initiating sessions.
c20: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c21: IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).
c22: IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.
c23: IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.
c24: IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.
c25: IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.
c26: IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.
c27: IF A.3/7D THEN o ELSE x - - AS performing 3rd party call control.
c28: IF A.3/1 THEN m ELSE o.5 - - UE.
c29: IF A.4/40A OR A.4/40B OR A.4/40C OR A.4/40D OR A.4/40E OR A.4/40F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.
c30: IF A.3A/1 OR A.3A/2 THEN m ELSE IF A.3/1 THEN o ELSE n/a - - presence server, presence user agent, UE, AS.
c33: IF A.3/11 OR A.3/12 THEN m ELSE o - - conference focus or conference participant.
o.1: At least one of these capabilities is supported.
o.2: At least one of these capabilities is supported.
o.3: At least one of these capabilities is supported.
o.4: At least one of these capabilities is supported.
o.5: At least one of these capabilities is supported.

NOTE 1: At the MGCF, the interworking specifications do not support a handling of the header associated with this extension.

Prerequisite A.5/20 - - SIP specific event notification

Table A.4A: Supported event packages

Item	Does the implementation support	Subscriber			Notifier		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	reg event package?	[43]	c1	c3	[43]	c2	c4
2	refer package?	[36] 3	c13	c13	[36] 3	c13	c13
3	presence package?	[74] 6	c1	c5	[74] 6	c2	c6
4	eventlist with underlying presence package?	[75], [74] 6	c1	c7	[75], [74] 6	c2	c8
5	presence.winfo template-package?	[72] 4	c1	c9	[72] 4	c2	c10
6	xcap-change package?	[77] 2	c1	c11	[77] 2	c2	c12
7	conference package?	[78] 3	c1	c21	[78] 3	c1	c22

c1: IF A.4/23 THEN o ELSE n/a - - acting as the subscriber to event information.

c2: IF A.4/22 THEN o ELSE n/a - - acting as the notifier of event information.

c3: IF A.3/1 OR A.3/2 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - UE, P-CSCF, AS.

c4: IF A.3/4 THEN m ELSE n/a - - S-CSCF.

c5: IF A.3A/3 OR A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - resource list server or watcher, acting as the subscriber to event information.

c6: IF A.3A/1 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - watcher, acting as the notifier of event information.

c7: IF A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - watcher, acting as the subscriber to event information.

c8: IF A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - resource list server, acting as the notifier of event information.

c9: IF A.3A/1 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - presence user agent, acting as the subscriber to event information.

c10: IF A.3A/2 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server, acting as the notifier of event information.

c11: IF A.3A/2 OR A.3A/4 THEN o ELSE IF A.4/23 THEN o ELSE n/a - - watcher or presence user agent, acting as the subscriber to event information.

c12: IF A.3A/1 OR A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server or resource list server, acting as the notifier of event information.

c13: IF A.4/15 THEN m ELSE n/a - - the REFER method.

c21: IF A.3A/12 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - conference participant or acting as the subscriber to event information.

c22: IF A.3A/11 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - conference focus or acting as the notifier of event information.

PROPOSED CHANGE

A.2.1.4.1 Status-codes

Table A.6: Supported status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	n/a	n/a	[26] 21.1.1	m	m
2	180 (Ringing)	[26] 21.1.2	c2	c2	[26] 21.1.2	c1	c1
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c2	c2	[26] 21.1.3	c1	c1
4	182 (Queued)	[26] 21.1.4	c2	c2	[26] 21.1.4	c1	c1
5	183 (Session Progress)	[26] 21.1.5	c1	c1	[26] 21.1.5	c1	c1
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c3	c3	[28] 8.3.1	c3	c3
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1			[26] 21.4.1		
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26] 21.4.16			[26] 21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c7	c7	[58] 6	c7	c7
29	423 (Interval Too Brief)	[26] 21.4.17	c4	c4	[26] 21.4.17	m	m
29A	429 (Provide Referrer Identity)	[59] 5	c8	c8	[59] 5	c9	c9
30	480 (Temporarily Unavailable)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call/Transaction Does Not Exist)	[26] 21.4.19			[26] 21.4.19		
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26			[26] 21.4.26		
39	489 (Bad Event)	[28] 7.3.2	c3	c3	[28] 7.3.2	c3	c3
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
41A	494 (Security Agreement Required)	[48] 2	c5	c5	[48] 2	c6	c6
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2			[26] 21.6.2		
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

c1: IF A.5/9 THEN m ELSE n/a - - INVITE response.
c2: IF A.5/9 THEN o ELSE n/a - - INVITE response.
c3: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c4: IF A.5/19 OR A.5/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.
c5: IF A.4/37 AND A.4/2 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol and registrar.
c6: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c7: IF A.4/42 AND (A.5/9 OR A.5/23) THEN m ELSE n/a - - the SIP session timer AND (INVITE response OR UPDATE response).
c8: IF A.4/43 AND A.5/17 THEN o ELSE n/a - - the SIP Referred-By mechanism and REFER response.
c9: IF A.4/43 AND A.5/17 THEN m ELSE n/a - - the SIP Referred-By mechanism and REFER response.
c20: IF A.4/41 THEN m ELSE n/a

PROPOSED CHANGE

A.2.1.4.3 BYE method

Prerequisite A.5/2 - - BYE request

Table A.9: Supported headers within the BYE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c18	c18	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
5	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
8	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
9	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
16	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
16A	P-Access-Network-Info	[52] 4.4	c9	c10	[52] 4.4	c9	c11
16B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c6	c6
16C	P-Charging-Function-Addresses	[52] 4.5	c13	c14	[52] 4.5	c13	c14
16D	P-Charging-Vector	[52] 4.6	c12	n/a	[52] 4.6	c12	n/a
16E	P-Preferred-Identity	[34] 9.2	c6	x	[34] 9.2	n/a	n/a
16F	Privacy	[33] 4.2	c7	n/a	[33] 4.2	c7	c7
17	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
18	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
18A	Reason	[34A] 2	c17	c17	[34A] 2	c17	c17
19	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
19A	Referred-By	[59] 3	c19	c19	[59] 3	c20	c20
19B~~A~~	Reject-Contact	[56B] 9.2	c18	c18	[56B] 9.2	n/a	n/a
19C~~B~~	Request-Disposition	[56B] 9.1	c18	c18	[56B] 9.1	n/a	n/a
20	Require	[26] 20.32	o	o	[26] 20.32	m	m
21	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
21A	Security-Client	[48] 2.3.1	c15	c15	[48] 2.3.1	n/a	n/a
21B	Security-Verify	[48] 2.3.1	c16	c16	[48] 2.3.1	n/a	n/a
22	Supported	[26] 20.37	o	o	[26] 20.37	m	m
23	Timestamp	[26] 20.38	c8	c8	[26] 20.38	m	m
24	To	[26] 20.39	m	m	[26] 20.39	m	m
25	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
26	Via	[26] 20.42	m	m	[20] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c7: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c8: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c9: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c10: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c11: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c12: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c13: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c14: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c15: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note).
c16: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c17: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c18: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c19: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c20: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/2 - - BYE request

Table A.10: Supported message bodies within the BYE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.11: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/3 - - BYE response

Table A.12: Supported headers within the BYE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c6
10B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
10C	P-Charging-Function-Addresses	[52] 4.5	c9	c10	[52] 4.5	c9	c10
10D	P-Charging-Vector	[52] 4.6	c8	n/a	[52] 4.6	c8	n/a
10E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
10F	Privacy	[33] 4.2	c4	n/a	[33] 4.2	c4	c4
10G	Require	[26] 20.32	m	m	[26] 20.32	m	m
10H	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c10: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/6 - - 2xx

Table A.13: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

c1: IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.
c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.14: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
0B	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.15: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.16: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.17: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/19 - - 407 (Proxy Authentication Required)

Table A.18: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/3 - - BYE response

Prerequisite A.6/25 - - 415 (Unsupported Media Type)

Table A.19: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.20: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.20A: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.21: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/3 - - BYE response

Table A.22: Supported message bodies within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.7 INVITE method

Prerequisite A.5/8 - - INVITE request

Table A.46: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
4	Alert-Info	[26] 20.4	o	o	[26] 20.4	c1	c1
5	Allow	[26] 20.5, [26] 5.1	o (note 1)	o	[26] 20.5, [26] 5.1	m	m
6	Allow-Events	[28] 7.2.2	c2	c2	[28] 7.2.2	c2	c2
8	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
11	Contact	[26] 20.10	m	m	[26] 20.10	m	m
12	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
13	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
14	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
19	Expires	[26] 20.19	o	o	[26] 20.19	o	o
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	o	o	[26] 20.21	o	o
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
23	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
23A	Min-SE	[58] 5	c26	c26	[58] 5	c25	c25
24	Organization	[26] 20.25	o	o	[26] 20.25	o	o
24A	P-Access-Network-Info	[52] 4.4	c15	c16	[52] 4.4	c15	c17
24B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c7	c7
24C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c13	c13
24D	P-Charging-Function-Addresses	[52] 4.5	c20	c21	[52] 4.5	c20	c21
24E	P-Charging-Vector	[52] 4.6	c18	c19	[52] 4.6	c18	c19
25	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
25A	P-Preferred-Identity	[34] 9.2	c7	c5	[34] 9.2	n/a	n/a
25B	P-Visited-Network-ID	[52] 4.3	x (note 3)	x	[52] 4.3	c14	n/a
26	Priority	[26] 20.26	o	o	[26] 20.26	o	o
26A	Privacy	[33] 4.2	c9	c9	[33] 4.2	c9	c9
27	Proxy-Authorization	[26] 20.28	c6	c6	[26] 20.28	n/a	n/a
28	Proxy-Require	[26] 20.29	o (note 2)	o (note 2)	[26] 20.29	n/a	n/a
28A	Reason	[34A] 2	c8	c8	[34A] 2	c8	c8
29	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
30	Referred-By	[59] 3	c27	c27	[59] 3	c28	c28
~~31~~	~~Reply-To~~	~~[26] 20.31~~	~~o~~	~~o~~	~~[26] 20.31~~	~~o~~	~~o~~
31~~A~~	Reject-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
31A	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
31B	Request-Disposition	[56B] 9.1	c24	c24	[56B] 9.1	n/a	n/a
32	Require	[26] 20.32	o	m	[26] 20.32	m	m
33	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
33A	Security-Client	[48] 2.3.1	c22	c22	[48] 2.3.1	n/a	n/a
33B	Security-Verify	[48] 2.3.1	c23	c23	[48] 2.3.1	n/a	n/a
33C	Session-Expires	[58] 4	c25	c25	[58] 4	c25	c25
34	Subject	[26] 20.36	o	o	[26] 20.36	o	o

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
35	Supported	[26] 20.37	c8	m	[26] 20.37	m	m
36	Timestamp	[26] 20.38	c10	c10	[26] 20.38	m	m
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
39	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.4/12 THEN m ELSE n/a - - downloading of alerting information.						
c2:	IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.						
c3:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						
c4:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c5:	IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c6:	IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.						
c7:	IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c8:	IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.						
c9:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c10:	IF A.4/6 THEN o ELSE n/a - - timestamping of requests.						
c11:	IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.						
c12:	IF A.3/1 THEN m ELSE n/a - - UE.						
c13:	IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.						
c14:	IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.						
c15:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c16:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c17:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c18:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c19:	IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.						
c20:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c21:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c22:	IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 4).						
c23:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						
c24:	IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.						
c25:	IF A.4/42 THEN m ELSE n/a - - the SIP session timer.						
c26:	IF A.4/42 THEN o ELSE n/a - - the SIP session timer.						
c27:	IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.						
c28:	IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.						
o.1:	At least one of these shall be supported.						
NOTE 1:	The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.						
NOTE 2:	No distinction has been made in these tables between first use of a request on a From/To/Call-ID combination, and the usage in a subsequent one. Therefore the use of "o" etc. above has been included from a viewpoint of first usage.						
NOTE 3:	The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.						
NOTE 4:	Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].						

Prerequisite A.5/8 - - INVITE request

Table A.47: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.48: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/9 - - INVITE response

Table A.49: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
11	Organization	[26] 20.25	o	o	[26] 20.25	o	o
11A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
11B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
11C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c11	c11
11D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
11E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
11F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
11G	Require	[26] 20.32	m	m	[26] 20.32	m	m
11H	Server	[26] 20.35	o	o	[26] 20.35	o	o
12	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c4:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c5:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c6:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c7:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c8:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c9:	IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.						
c10:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c11:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
NOTE:	For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/2 OR A.6/3 OR A.6/4 OR A.6/5 - - 1xx

Table A.50: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o	m	[26] 20.10	m	m
6	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Rseq	[27] 7.1	c2	m	[27] 7.1	c3	m
11	Supported	[26] 20.37	o	o	[26] 20.37	m	m
c2:	IF A.4/14 THEN o ELSE n/a - - reliability of provisional responses in SIP.						
c3:	IF A.4/14 THEN m ELSE n/a - - reliability of provisional responses in SIP.						
c11:	IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.						
c12:	IF A.3/1 THEN m ELSE n/a - - UE.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/6 - - 2xx

Table A.51: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
1B	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
2	Allow	[26] 20.5	o (note 1)	o	[26] 20.5	m	m
4	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
6	Contact	[26] 20.10	m	m	[26] 20.10	m	m
8	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
10	Session-Expires	[58] 4	c13	c13	[58] 4	c13	c13
13	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						
c11:	IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.						
c12:	IF A.3/1 THEN m ELSE n/a - - UE.						
c13:	IF A.4/42 THEN m ELSE n/a - - the SIP session timer.						
NOTE 1:	The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.52: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o (note 1)	o	[26] 20.10	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.53: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	c3	c3	[26] 20.27	c3	c3
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
13	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 600, 603

Table A.54: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.55: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.56: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.57: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
11	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.58: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.58A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28A - - 422 (Session Interval Too Small)

Table A.58B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.4/42 THEN o ELSE n/a - - the SIP session timer.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.59: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/42 - - 500 (Server Internal Error)

Table A.60: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	m	m	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/45 - - 503 (Service Unavailable)

Table A.61: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Table A.62: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.7A MESSAGE method

Prerequisite A.5/9A - - MESSAGE request

Table A.62A: Supported headers within the MESSAGE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
1A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
3	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
4	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
5	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
6	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
7	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
8	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 29.15	m	m
11	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
12	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
13	Expires	[26] 20.19	o	o	[26] 20.19	o	o
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	In-Reply-To	[26] 20.21	o	o	[26] 20.21	o	o
16	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
17	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
18	Organization	[26] 20.25	o	o	[26] 20.25	o	o
18A	P-Access-Network-Info	[52] 4.4	c15	c16	[52] 4.4	c15	c16
18B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c11	c11
18C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c13	c13
18D	P-Charging-Function-Addresses	[52] 4.5	c20	c21	[52] 4.5	c20	c21
18E	P-Charging-Vector	[52] 4.6	c18	c19	[52] 4.6	c18	c19
18F	P-Preferred-Identity	[34] 9.2	c11	c7	[34] 9.2	n/a	n/a
18G	P-Visited-Network-ID	[52] 4.3	x (note 1)	x	[52] 4.3	c14	n/a
19	Priority	[26] 20.26	o	o	[26] 20.26	o	o
19A	Privacy	[33] 4.2	c12	c12	[33] 4.2	c12	c12
20	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
21	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
21A	Reason	[34A] 2	c6	c6	[34A] 2	c6	c6
22	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
22A	Referred-By	[59] 3	c25	c25	[59] 3	c26	c26
~~23~~	~~Reply-To~~	~~[26] 20.31~~	~~o~~	~~o~~	~~[26] 20.31~~	~~o~~	~~o~~
23~~A~~	Reject-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
23A	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
23B	Request-Disposition	[56B] 9.1	c24	c24	[56B] 9.1	n/a	n/a
24	Require	[26] 20.32	c8	o	[26] 20.32	m	m
25	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
25A	Security-Client	[48] 2.3.1	c22	c22	[48] 2.3.1	n/a	n/a
25B	Security-Verify	[48] 2.3.1	c23	c23	[48] 2.3.1	n/a	n/a
26	Subject	[26] 20.35	o	o	[26] 20.36	o	o
27	Supported	[26] 20.37	c9	m	[26] 20.37	m	m
28	Timestamp	[26] 20.38	c10	c10	[26] 20.38	m	m
29	To	[26] 20.39	m	m	[26] 20.39	m	m
30	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
31	Via	[26] 20.42	m	m	[26] 20.42	m	m

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
c1:	IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.						
c2:	IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.						
c3:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						
c4:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c5:	IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.						
c6:	IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.						
c7:	IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c8:	IF A.4/14 THEN o.1 ELSE o - - Reliable transport.						
c9:	IF IF A.4/14 THEN o.1 ELSE o - - support of reliable transport.						
c10:	IF A.4/6 THEN o ELSE n/a - - timestamping of requests.						
c11:	IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c12:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c13:	IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.						
c14:	IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.						
c15:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c16:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c17:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c18:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c19:	IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.						
c20:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c21:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c22:	IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 2).						
c23:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						
c24:	IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.						
c25:	IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.						
c26:	IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.						
NOTE 1:	The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.						
NOTE 2:	Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].						

Prerequisite A.5/9A - - MESSAGE request

Table A.62B: Supported message bodies within the MESSAGE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/9B - - MESSAGE response

Table A.62C: Supported headers within the MESSAGE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
3	Content-Disposition	[26] 20.11	o (note 2)	o (note 2)	[26] 20.11	m (note 2)	m (note 2)
4	Content-Encoding	[26] 20.12	o (note 2)	o (note 2)	[26] 20.12	m (note 2)	m (note 2)
5	Content-Language	[26] 20.13	o (note 2)	o (note 2)	[26] 20.13	m (note 2)	m (note 2)
6	Content-Length	[26] 20.14	m (note 2)	m (note 2)	[26] 20.14	m (note 2)	m (note 2)
7	Content-Type	[26] 20.15	m (note 2)	m (note 2)	[26] 20.15	m (note 2)	m (note 2)
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
10	From	[26] 20.20	m	m	[26] 20.20	m	m
11	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
12	Organization	[26] 20.25	o	o	[26] 20.25	o	o
12A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
12B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
12C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c10	c11
12D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
12E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
12F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
12G	Require	[26] 20.32	o	o	[26] 20.32	m	m
13	Server	[26] 20.35	o	o	[26] 20.35	o	o
14	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
15	To	[26] 20.39	m	m	[26] 20.39	m	m
16	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
17	Via	[26] 20.42	m	m	[26] 20.42	m	m
18	Warning	[26] 20.43	o	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE 1: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.
NOTE 2: RFC 3428 [50] clause 7 states that all 2xx class responses to a MESSAGE request must not include any body, therefore for 2xx responses to the MESSAGE request the values on Sending side for "RFC status" and "Profile status" are "x", the values for Receiving side for "RFC status" and "Profile Status" are "n/a". RFC 3261 [26] subclause 7.4 states that all responses may contain bodies, therefore for all responses to the MESSAGE request other than 2xx responses, the values on Sending side for "RFC status" and "Profile status" are "o", the values for Receiving side for "RFC status" and "Profile Status" are "m".

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/6 - - 2xx

Table A.62D: Supported headers within the MESSAGE response

Item	Header	Sending	Receiving

		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
4	Supported	[26] 20.37	o	o	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.62E: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.62F: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.62G: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.62H: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.62I: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.62J: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.62K: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.62L: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/9B - - MESSAGE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.62M: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9B - - MESSAGE response

Table A.62N: Supported message bodies within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.8 NOTIFY method

Prerequisite A.5/10 - - NOTIFY request

Table A.63: Supported headers within the NOTIFY request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c19	c19	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
5	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6A	Contact	[26] 20.10	m	m	[26] 20.10	m	m
7	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
8	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
9	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
14	Event	[28] 7.2.1	m	m	[28] 7.2.1	m	m
15	From	[26] 20.20	m	m	[26] 20.20	m	m
16	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
17	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
17A	P-Access-Network-Info	[52] 4.4	c10	c11	[52] 4.4	c10	c12
17B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c6	c6
17C	P-Charging-Function-Addresses	[52] 4.5	c14	c15	[52] 4.5	c14	c15
17D	P-Charging-Vector	[52] 4.6	c13	n/a	[52] 4.6	c13	n/a
17E	P-Preferred-Identity	[34] 9.2	c6	x	[34] 9.2	n/a	n/a
17F	Privacy	[33] 4.2	c7	n/a	[33] 4.2	c7	c7
18	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
19	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
19A	Reason	[34A] 2	c18	c18	[34A] 2	c18	c18
20	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	c9	c9
20A	Referred-By	[59] 3	c20	c20	[59] 3	c21	c21
20B~~A~~	Reject-Contact	[56B] 9.2	c19	c19	[56B] 9.2	n/a	n/a
20C~~B~~	Request-Disposition	[56B] 9.1	c19	c19	[56B] 9.1	n/a	n/a
21	Require	[26] 20.32	o	o	[26] 20.32	m	m
22A	Security-Client	[48] 2.3.1	c16	c16	[48] 2.3.1	n/a	n/a
22B	Security-Verify	[48] 2.3.1	c17	c17	[48] 2.3.1	n/a	n/a
22	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
23	Subscription-State	[28] 8.2.3	m	m	[28] 8.2.3	m	m
24	Supported	[26] 20.37	o	o	[26] 20.37	m	m
25	Timestamp	[26] 20.38	c8	c8	[26] 20.38	m	m
26	To	[26] 20.39	m	m	[26] 20.39	m	m
27	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
28	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c7: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c8: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c9: IF A.4/15 OR A.4/20 THEN m ELSE n/a - - the REFER method extension or SIP specific event notification extension.
c10: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c11: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c12: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c13: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c14: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c15: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c16: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note).
c17: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c18: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c19: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c20: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c21: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/10 - - NOTIFY request

Table A.64: Supported message bodies within the NOTIFY request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	sipfrag	[37] 2	c1	c1	[37]	c1	c1

c1: IF A.4/15 THEN m ELSE o - - the REFER method extension

Prerequisite A.5/11 - - NOTIFY response

Table A.65: Supported headers within the NOTIFY response - all status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
10B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
10C	P-Charging-Function-Addresses	[52] 4.5	c9	c10	[52] 4.5	c9	c10
10D	P-Charging-Vector	[52] 4.6	c8	n/a	[52] 4.6	c8	n/a
10E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
10F	Privacy	[33] 4.2	c4	n/a	[33] 4.2	c4	c4
10G	Require	[26] 20.32	m	m	[26] 20.32	m	m
10H	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c10: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/6 and A.6/7 - - 2xx

Table A.66: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
1A	Contact	[26] 20.10	m	m	[26] 20.10	m	m
2	Record-Route	[26] 20.30	c3	c3	[26] 20.30	c3	c3
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

c1: IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.
c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c3: IF A.4/15 OR A.4/20 THEN m ELSE n/a - - the REFER method extension or SIP specific event notification extension.

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.67: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Contact	[26] 20.10	m (note)	m	[26] 20.10	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than MANDATORY for a 485 response.						

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.68: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.69: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/18 -- 405 (Method Not Allowed)

Table A.70: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.71: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c3	c3	[26] 20.27	c3	c3
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c3:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/11 - - NOTIFY response

Prerequisite A.6/25 - - 415 (Unsupported Media Type)

Table A.72: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.73: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.73A: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.74: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/11 - - NOTIFY response

Prerequisite: A.6/39 - - 489 (Bad Event)

Table A.75: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o

Prerequisite A.5/11 - - NOTIFY response

Table A.76: Supported message bodies within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.9 OPTIONS method

Prerequisite A.5/12 - - OPTIONS request

Table A.77: Supported headers within the OPTIONS request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c21	c21	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	c2	c2	[26] 20.7	c2	c2
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
8	Contact	[26] 20.10	o	o	[26] 20.10	o	o
9	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
10	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
11	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
12	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
13	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
14	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
15	Date	[26] 20.17	c3	c3	[26] 20.17	m	m
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
18	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
19	Organization	[26] 20.25	o	o	[26] 20.25	o	o
19A	P-Access-Network-Info	[52] 4.4	c11	c12	[52] 4.4	c11	c13
19B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c6	c6
19C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c9	c9
19D	P-Charging-Function-Addresses	[52] 4.5	c16	c17	[52] 4.5	c16	c17
19E	P-Charging-Vector	[52] 4.6	c14	c15	[52] 4.6	c14	c15
19F	P-Preferred-Identity	[34] 9.2	c6	c4	[34] 9.2	n/a	n/a
19G	P-Visited-Network-ID	[52] 4.3	x (note 2)	x	[52] 4.3	c10	n/a
19H	Privacy	[33] 4.2	c8	c8	[33] 4.2	c8	c8
20	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
21	Proxy-Require	[26] 20.29	o	o (note 1)	[26] 20.29	n/a	n/a
21A	Reason	[34A] 2	c20	c20	[34A] 2	c20	c20
22	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
22A	Referred-By	[59] 3	c22	c22	[59] 3	c23	c23
22B~~A~~	Reject-Contact	[56B] 9.2	c21	c21	[56B] 9.2	n/a	n/a
22C~~B~~	Request-Disposition	[56B] 9.1	c21	c21	[56B] 9.1	n/a	n/a
23	Require	[26] 20.32	o	o	[26] 20.32	m	m
24	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
24A	Security-Client	[48] 2.3.1	c18	c18	[48] 2.3.1	n/a	n/a
24B	Security-Verify	[48] 2.3.1	c19	c19	[48] 2.3.1	n/a	n/a
25	Supported	[26] 20.37	c6	c6	[26] 20.37	m	m
26	Timestamp	[26] 20.38	c7	c7	[26] 20.38	m	m
27	To	[26] 20.39	m	m	[26] 20.39	m	m
28	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
29	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c3: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c4: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c7: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c8: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c9: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c10: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c11: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c12: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c13: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c14: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c15: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c17: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 3).
c19: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c20: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c21: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c22: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c23: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE 1: No distinction has been made in these tables between first use of a request on a From/To/Call-ID combination, and the usage in a subsequent one. Therefore the use of "o" etc. above has been included from a viewpoint of first usage.
NOTE 2: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 3: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/12 - - OPTIONS request

Table A.78: Supported message bodies within the OPTIONS request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.79: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/13 - - OPTIONS response

Table A.80: Supported headers within the OPTIONS response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
11	Organization	[26] 20.25	o	o	[26] 20.25	o	o
11A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
11B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
11C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c10	c11
11D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
11E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
11F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
11G	Require	[26] 20.32	m	m	[26] 20.32	m	m
12	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/6 - - 2xx

Table A.81: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	m	m
2	Allow	[26] 20.5	o (note 1)	o	[26] 20.5	m	m
3	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
5	Contact	[26] 20.10	o		[26] 20.10	o	
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m

c1: IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.
c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.

NOTE 1: The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.82: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.83: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.84: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.85: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.86: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.87: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.88: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.88A: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/13 - - OPTIONS response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.89: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/13 - - OPTIONS response

Table A.90: Supported message bodies within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4~~3~~.10 PRACK method

Prerequisite A.5/14 - - PRACK request

Table A.91: Supported headers within the PRACK request

Item	Header	Sending			Receiving		
		Ref.	**RFC status**	**Profile status**	**Ref.**	**RFC status**	**Profile status**
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c15	c15	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
5	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
8	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
9	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
16	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
16A	P-Access-Network-Info	[52] 4.4	c9	c10	[52] 4.4	c9	c11
16B	P-Charging-Function-Addresses	[52] 4.5	c13	c14	[52] 4.5	c13	c14
16C	P-Charging-Vector	[52] 4.6	c12	n/a	[52] 4.6	c12	n/a
16D	Privacy	[33] 4.2	c6	n/a	[33] 4.2	c6	n/a
17	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
18	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
19	Rack	[27] 7.2	m	m	[27] 7.2	m	m
19A	Reason	[34A] 2	c7	c7	[34A] 2	c7	c7
20	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
20A	Referred-By	[59] 3	c16	c16	[59] 3	c17	c17
20B~~A~~	Reject-Contact	[56B] 9.2	c15	c15	[56B] 9.2	n/a	n/a
20C~~B~~	Request-Disposition	[56B] 9.1	c15	c15	[56B] 9.1	n/a	n/a
21	Require	[26] 20.32	o	o	[26] 20.32	m	m
22	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
23	Supported	[26] 20.37	o	o	[26] 20.37	m	m
24	Timestamp	[26] 20.38	c8	c8	[26] 20.38	m	m
25	To	[26] 20.39	m	m	[26] 20.39	m	m
26	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
27	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c7: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c8: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c9: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c10: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c11: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c12: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c13: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c14: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c15: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c16: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c17: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

Prerequisite A.5/14 - - PRACK request

Table A.92: Supported message bodies within the PRACK request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.93: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/15 - - PRACK response

Table A.94: Supported headers within the PRACK response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10A	P-Access-Network-Info	[52] 4.4	c3	c4	[52] 4.4	c3	c5
10B	P-Charging-Function-Addresses	[52] 4.5	c7	c8	[52] 4.5	c7	c8
10C	P-Charging-Vector	[52] 4.6	c6	n/a	[52] 4.6	c6	n/a
10D	Privacy	[33] 4.2	c2	n/a	[33] 4.2	c2	n/a
10E	Require	[26] 20.32	o	o	[26] 20.32	m	m
10F	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c3:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c4:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c5:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c6:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c7:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c8:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
NOTE:	For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/6 - - 2xx

Table A.95: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
0B	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.96: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.97: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.98: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.99: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.100: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.101: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.102: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.102A: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/15 - - PRACK response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.103: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15 - - PRACK response

Table A.104: Supported message bodies within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.10A PUBLISH method

Editor's note: The base draft does not yet contain an analysis of header usage within this method, and therefore this clause will have to be reviewed and completed when such an analysis is available.

Prerequisite A.5/15A – PUBLISH request

Table A.104A: Supported headers within the PUBLISH request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
2	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Allow-Events	[26] 7.2.2	c1	c1	[26] 7.2.2	c2	c2
4	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
5	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
7	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
8	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
9	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
14	Event	[28] 8.2.1	m	m	[28] 8.2.1	m	m
15	Expires	[26] 20.19, [70] 7.1.1	o (note 1)	o (note 1)	[26] 20.19, [70] 7.1.1	m	m
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	In-Reply-To	[26] 20.21	o	o	[26] 20.21	o	o
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
19	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
20	Organization	[26] 20.25	o	o	[26] 20.25	o	o
21	P-Access-Network-Info	[52] 4.4	c15	c16	[52] 4.4	c15	c17
22	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c11	c11
23	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c13	c13
24	P-Charging-Function-Addresses	[52] 4.5	c20	c21	[52] 4.5	c20	c21
25	P-Charging-Vector	[52] 4.6	c18	c19	[52] 4.6	c18	c19
26	P-Preferred-Identity	[34] 9.2	c11	c7	[34] 9.2	n/a	n/a
27	P-Visited-Network-ID	[52] 4.3	x (note 3)	x	[52] 4.3	c14	n/a
28	Priorità	[26] 20.26	o	o	[26] 20.26	o	o
29	Privacy	[33] 4.2	c12	c12	[33] 4.2	c12	c12
30	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
31	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
32	Reason	[34A] 2	c8	c8	[34A] 2	c8	c8
33	Reject-Contact	[56B] 9.2	c22	c22	[56B] 9.2	n/a	n/a
33A	Referred-By	[59] 3	c25	c25	[59] 3	c26	c26
34	Request-Disposition	[56B] 9.1	c22	c22	[56B] 9.1	n/a	n/a
35	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
36	Require	[26] 20.32	o	o	[26] 20.32	m	m
37	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
38	Security-Client	[48] 2.3.1	c9	c9	[48] 2.3.1	n/a	n/a
39	Security-Verify	[48] 2.3.1	c10	c10	[48] 2.3.1	n/a	n/a
40	SIP-If-Match	[70] 7.3.2	o	o	[70] 7.3.2	m	m
41	Subject	[26] 20.36	o	o	[26] 20.36	o	o
42	Supported	[26] 20.37, [26] 7.1	o	o	[26] 20.37, [26] 7.1	m	m
43	Timestamp	[26] 20.38	c6	c6	[26] 20.38	m	m
44	To	[26] 20.39	m	m	[26] 20.39	m	m
45	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
46	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c7: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c8: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c9: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 2).
c10: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c11: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c12: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c13: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c14: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c15: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c16: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c17: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c18: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c19: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c20: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c21: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c22: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c24: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c25: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c26: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE 1: The strength of this requirement is RECOMMENDED rather than OPTIONAL.
NOTE 2: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented.
NOTE 3: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.

Prerequisite A.5/15A - - PUBLISH request

Table A.104B: Supported message bodies within the PUBLISH request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/15B - - PUBLISH response

Table A.104C: Supported headers within the PUBLISH response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Call-Info	[26] 24.9	o	o	[26] 24.9	m	m
3	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
4	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
5	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
6	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
7	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
10	From	[26] 20.20	m	m	[26] 20.20	m	m
11	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
12	Organization	[26] 20.25	o	o	[26] 20.25	o	o
13	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
14	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
15	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c10	c11
16	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
17	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
18	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
19	Require	[26] 20.32	m	m	[26] 20.32	m	m
20	Server	[26] 20.35	o	o	[26] 20.35	o	o
21	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
22	To	[26] 20.39	m	m	[26] 20.39	m	m
23	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
24	Via	[26] 20.42	m	m	[26] 20.42	m	m
25	Warning	[26] 20.43	o	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/7 - - 200 (OK)

Table A.104D: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
3	Expires	[26] 20.19, [70] 7.1.1	m	m	[26] 20.19, [70] 7.1.1	m	m
4	SIP-Etag	[70] 7.3.1	m	m	[70] 7.3.1	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.104E: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11OR A.6/12 – 401 (Unauthorized)

Table A.104F: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.104G: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.104H: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.104I: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.104J: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.104K: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
4	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.104L: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/29 - - 423 (Interval Too Brief)

Table A.104M: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Min-Expires	[26] 20.23, [70] 6	m	m	[26] 20.23, [70] 6	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.104N: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/15B - - PUBLISH response

Prerequisite: A.6/39 - - 489 (Bad Event)

Table A.104O: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o

Prerequisite A.5/15B - - PUBLISH response

Table A.104P: Supported message bodies within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.11 REFER method

Prerequisite A.5/16 - - REFER request

Table A.105: Supported headers within the REFER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Accept	[26] 20.1	o	o	[26] 20.1	m	m
0B	Accept-Contact	[56B] 9.2	c22	c22	[56B] 9.2	n/a	n/a
0C	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
1	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
1A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
3	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
4	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
5	Contact	[26] 20.10	m	m	[26] 20.10	m	m
5A	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
5B	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
5C	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
6	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
7	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
10	Expires	[26] 20.19	o	o	[26] 20.19	o	o
11	From	[26] 20.20	m	m	[26] 20.20	m	m
12	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
13	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
14	Organization	[26] 20.25	o	o	[26] 20.25	o	o
14A	P-Access-Network-Info	[52] 4.4	c12	c13	[52] 4.4	c12	c14
14B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c8	c8
14C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c10	c10
14D	P-Charging-Function-Addresses	[52] 4.5	c17	c18	[52] 4.5	c17	c18
14E	P-Charging-Vector	[52] 4.6	c15	c16	[52] 4.6	c15	c16
14F	P-Preferred-Identity	[34] 9.2	c8	c7	[34] 9.2	n/a	n/a
14G	P-Visited-Network-ID	[52] 4.3	x (note 1)	x	[52] 4.3	c11	n/a
14H	Privacy	[33] 4.2	c9	c9	[33] 4.2	c9	c9
15	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
16	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
16A	Reason	[34A] 2	c21	c21	[34A] 2	c21	c21
17	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
18	Refer-To	[36] 3	m	m	[36] 3	m	m
18A	Referred-By	[59] 3	c23	c23	[59] 3	c23	c23
18B~~A~~	Reject-Contact	[56B] 9.2	c22	c22	[56B] 9.2	n/a	n/a
18C~~B~~	Request-Disposition	[56B] 9.1	c22	c22	[56B] 9.1	n/a	n/a
19	Require	[26] 20.32	o	o	[26] 20.32	m	m
20	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
20A	Security-Client	[48] 2.3.1	c19	c19	[48] 2.3.1	n/a	n/a
20B	Security-Verify	[48] 2.3.1	c20	c20	[48] 2.3.1	n/a	n/a
20C	Subject	[26] 20.36	o	o	[26] 20.36	o	o
21	Supported	[26] 20.37, [26] 7.1	o	o	[26] 20.37, [26] 7.1	m	m
22	Timestamp	[26] 20.38	c6	c6	[26] 20.38	m	m
23	To	[26] 20.39	m	m	[26] 20.39	m	m
24	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
25	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c7: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c8: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c9: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c11: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c12: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c13: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c14: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c15: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c17: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c19: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 2).
c20: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c21: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c22: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c23: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By Mechanism.

NOTE 1: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 2: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/16 - - REFER request

Table A.106: Supported message bodies within the REFER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.107: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/17 - - REFER response

Table A.108: Supported headers within the REFER response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
2	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
3	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
4	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
5	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
6	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
7	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
8	From	[26] 20.20	m	m	[26] 20.20	m	m
9	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10	Organization	[26] 20.25	o	o	[26] 20.25	o	o
10A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
10B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
10C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c10	c11
10D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
10E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
10F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
10G	Require	[26] 20.32	m	m	[26] 20.32	m	m
10H	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c4:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c5:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c6:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c7:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c8:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c9:	IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.						
c10:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c11:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
NOTE:	For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/7 - - 202 (Accepted)

Table A.109: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
3	Contact	[26] 20.10	m	m	[26] 20.10	m	m
5	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.110: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.111: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.112: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.113: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.114: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.115: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.116: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.116A: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/17 - - REFER response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.117: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/17 - - REFER response

Table A.118: Supported message bodies within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.12 REGISTER method

Prerequisite A.5/18 - - REGISTER request

Table A.119: Supported headers within the REGISTER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7, [49]	c2	o	[26] 20.7, [49]	m	c22
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
8	Contact	[26] 20.10	o	o	[26] 20.10	m	m
9	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
10	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
11	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
12	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
13	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
14	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
15	Date	[26] 20.17	c3	c3	[26] 20.17	m	m
16	Expires	[26] 20.19	o	o	[26] 20.19	m	m
17	From	[26] 20.20	m	m	[26] 20.20	m	m
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
19	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
20	Organization	[26] 20.25	o	o	[26] 20.25	o	o
20A	P-Access-Network-Info	[52] 4.4	c12	c13	[52] 4.4	c12	c14
20B	P-Charging-Function-Addresses	[52] 4.5	c17	c18	[52] 4.5	c17	c18
20C	P-Charging-Vector	[52] 4.6	c15	c16	[52] 4.6	c15	c16
20D	P-Visited-Network-ID	[52] 4.3	x (note 2)	x	[52] 4.3	c10	c11
20E	Path	[35] 4	c4	c5	[35] 4	m	c6
20F	Privacy	[33] 4.2	c9	n/a	[33] 4.2	c9	n/a
21	Proxy-Authorization	[26] 20.28	c8	c8	[26] 20.28	n/a	n/a
22	Proxy-Require	[26] 20.29	o	o (note 1)	[26] 20.29	n/a	n/a
22A	Reason	[34A] 2	c23	c23	[34A] 2	c23	c23
22B	Referred-By	[59] 3	c25	c25	[59] 3	c26	c26
22C~~B~~	Request-Disposition	[56B] 9.1	c24	c24	[56B] 9.1	n/a	n/a
23	Require	[26] 20.32	o	o	[26] 20.32	m	m
24	Route	[26] 20.34	o	n/a	[26] 20.34	n/a	n/a
24A	Security-Client	[48] 2.3.1	c19	c20	[48] 2.3.1	n/a	n/a
24B	Security-Verify	[48] 2.3.1	c20	c20	[48] 2.3.1	c21	n/a
25	Supported	[26] 20.37	o	o	[26] 20.37	m	m
26	Timestamp	[26] 20.38	m	m	[26] 20.38	c7	c7
27	To	[26] 20.39	m	m	[26] 20.39	m	m
28	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
29	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/8 THEN m ELSE n/a - - authentication between UA and registrar.
c3: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c4: IF A.4/24 THEN o ELSE n/a - - session initiation protocol extension header field for registering non-adjacent contacts.
c5: IF A.4/24 THEN x ELSE n/a - - session initiation protocol extension header field for registering non-adjacent contacts.
c6: IF A.3/4 THEN m ELSE n/a. - - S-CSCF.
c7: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c8: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c9: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c11: IF A.4/33 THEN m ELSE n/a - - the P-Visited-Network-ID extension.
c12: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c13: IF A.4/34 AND (A.3/1 OR A.3/4) THEN o ELSE n/a - - the P-Access-Network-Info header extension and UE or S-CSCF (note 4).
c14: IF A.4/34 AND (A.3/4 OR A.3/7A) THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF or AS acting as terminating UA.
c15: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.4/36 OR A.3/4 THEN m ELSE n/a - - the P-Charging-Vector header extension (including S-CSCF as registrar).
c17: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.4/35 OR A.3/4 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension (including S-CSCF as registrar).
c19: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 3).
c20: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c21: IF A.4/37 AND A.4/2 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol and registrar.
c22: IF A.3/4 THEN m ELSE n/a - - S-CSCF.
c23: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c24: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c25: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c26: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE 1: No distinction has been made in these tables between first use of a request on a From/To/Call-ID combination, and the usage in a subsequent one. Therefore the use of "o" etc. above has been included from a viewpoint of first usage.
NOTE 2: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 3: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented.
NOTE 4: Refere to subclause 5.1.1.2 for information on when the UE sets the P-Access-Network-Info header.

Prerequisite A.5/18 - - REGISTER request

Table A.120: Supported message bodies within the REGISTER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.121: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/19 - - REGISTER response

Table A.122: Supported headers within the REGISTER response - all status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
11	Organization	[26] 20.25	o	o	[26] 20.25	o	o
11A	P-Access-Network-Info	[52] 4.4	c3	n/a	[52] 4.4	c3	n/a
11B	P-Charging-Function-Addresses	[52] 4.5	c6	c7	[52] 4.5	c6	c7
11C	P-Charging-Vector	[52] 4.6	c4	c5	[52] 4.6	c4	c5
11D	Privacy	[33] 4.2	c2	n/a	[33] 4.2	c2	n/a
11E	Require	[26] 20.32	m	m	[26] 20.32	m	m
11F	Server	[26] 20.35	o	o	[26] 20.35	o	o
12	Timestamp	[26] 20.38	c2	c2	[26] 20.38	m	m
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c3:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c4:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c5:	IF A.4/36 OR A.3/4 THEN m ELSE n/a - - the P-Charging-Vector header extension (including S-CSCF as registrar).						
c6:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c7:	IF A.4/35 OR A.3/4 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension (including S-CSCF as registrar).						
NOTE:	For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/6 - - 2xx

Table A.123: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o		[26] 20.1	o	
1A	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
1B	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
2	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Authentication-Info	[26] 20.6	c6	c6	[26] 20.6	c7	c7
5	Contact	[26] 20.10	o	o	[26] 20.10	m	m
5A	P-Associated-URI	[52] 4.1	c8	c9	[52] 4.1	c10	c11
6	Path	[35] 4	c3	c3	[35] 4	c4	c4
8	Service-Route	[38] 5	c5	c5	[38] 5	c5	c5
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1: IF (A.3/4 AND A.4/2) THEN m ELSE n/a. - - S-CSCF acting as registrar. c2: IF A.3/4 OR A.3/1THEN m ELSE n/a. - - S-CSCF or UE. c3: IF A.4/24 THEN m ELSE n/a - - session initiation protocol extension header field for registering non-adjacent contacts. c4: IF A.4/24 THEN o ELSE n/a - - session initiation protocol extension header field for registering non-adjacent contacts. c5: IF A.4/28 THEN m ELSE n/a - - session initiation protocol extension header field for service route discovery during registration. c6: IF A.4/8 THEN o ELSE n/a - - authentication between UA and registrar. c7: IF A.4/8 THEN m ELSE n/a - - authentication between UA and registrar. c8: IF A.4/2 AND A.4/31 THEN m ELSE n/a - - P-Assocated-URI header extension and registrar. c9: IF A.3/1 AND A.4/31 THEN m ELSE n/a - - P-Assocated-URI header extension and S-CSCF. c10: IF A.4/31 THEN o ELSE n/a - - P-Assocated-URI header extension. c11: IF A.4/31 AND A.3/1 THEN m ELSE n/a - - P-Assocated-URI header extension and UE.							

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.124: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE: The strength of this requirement is RECOMMENDED rather than OPTIONAL.							

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.125: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	x	[26] 20.27	c1	x
6	Security-Server	[48] 2	x	x	[48] 2	n/a	c2
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/8 THEN m ELSE n/a - - support of authentication between UA and UA.						
c2:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.126: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.127: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.128: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Proxy-Authenticate	[26] 20.27	c1	x	[26] 20.27	c1	x
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/8 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.129: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.130: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.130A: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c2	c2	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1: c2:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol. IF A.4/37 AND A.4/2 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol and registrar.						

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/29 - - 423 (Interval Too Brief)

Table A.131: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o		[26] 20.18	o	
5	Min-Expires	[26] 20.23	m	m	[26] 20.23	m	m
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/19 - - REGISTER response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.132: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/19 - - REGISTER response

Table A.133: Supported message bodies within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.13 SUBSCRIBE method

Prerequisite A.5/20 - - SUBSCRIBE request

Table A.134: Supported headers within the SUBSCRIBE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c22	c22	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Allow-Events	[28] 7.2.2	c1	c1	[28] 7.2.2	c2	c2
5	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6A	Contact	[26] 20.10	m	m	[26] 20.10	m	m
7	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
8	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
9	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
14	Event	[28] 7.2.1	m	m	[28] 7.2.1	m	m
15	Expires	[26] 20.19	o (note 1)	o (note 1)	[26] 20.19	m	m
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
18	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
18A	Organization	[26] 20.25	o	o	[26] 20.25	o	o
18B	P-Access-Network-Info	[52] 4.4	c12	c13	[52] 4.4	c12	c14
18C	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c6	c6
18D	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c10	c10
18E	P-Charging-Function-Addresses	[52] 4.5	c17	c18	[52] 4.5	c17	c18
18F	P-Charging-Vector	[52] 4.6	c15	c16	[52] 4.6	c15	c16
18G	P-Preferred-Identity	[34] 9.2	c6	c7	[34] 9.2	n/a	n/a
18H	P-Visited-Network-ID	[52] 4.3	x (note 2)	x	[52] 4.3	c11	n/a
18I	Privacy	[33] 4.2	c9	c9	[33] 4.2	c9	c9
19	Proxy-Authorization	[26] 20.28	c5	c5	[26] 20.28	n/a	n/a
20	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
20A	Reason	[34A] 2	c21	c21	[34A] 2	c21	c21
21	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
21A	Referred-By	[59] 3	c23	c23	[59] 3	c24	c24
21B~~A~~	Reject-Contact	[56B] 9.2	c22	c22	[56B] 9.2	n/a	n/a
21C~~B~~	Request-Disposition	[56B] 9.1	c22	c22	[56B] 9.1	n/a	n/a
22	Require	[26] 20.32	o	o	[26] 20.32	m	m
23	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
23A	Security-Client	[48] 2.3.1	c19	c19	[48] 2.3.1	n/a	n/a
23B	Security-Verify	[48] 2.3.1	c20	c20	[48] 2.3.1	n/a	n/a
24	Supported	[26] 20.37	o	o	[26] 20.37	m	m
25	Timestamp	[26] 20.38	c8	c8	[26] 20.38	m	m
26	To	[26] 20.39	m	m	[26] 20.39	m	m
27	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
28	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c6: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c7: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c8: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c9: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c11: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c12: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c13: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c14: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c15: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c17: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c19: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 3).
c20: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c21: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c22: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c23: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c24: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE 1: The strength of this requirement is RECOMMENDED rather than OPTIONAL.
NOTE 2: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 3: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/20 - - SUBSCRIBE request

Table A.135: Supported message bodies within the SUBSCRIBE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/21 - - SUBSCRIBE response

Table A.136: Supported headers within the SUBSCRIBE response - all status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10A	Organization	[26] 20.25	o	o	[26] 20.25	o	o
10B	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
10C	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
10D	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c10	c11
10E	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
10F	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
10G	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
10H	Require	[26] 20.32	m	m	[26] 20.32	m	m
10I	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/6 and A.6/7 - - 2xx

Table A.137: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
1A	Contact	[26] 20.10	m	m	[26] 20.10	m	m
2	Expires	[26] 20.19	m	m	[26] 20.19	m	m
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m

c1: IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.
c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.138: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Contact	[26] 20.10	m (note)	m	[26] 20.10	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than MANDATORY for a 485 response.						

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.139: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 600, 603

Table A.140: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o		[26] 20.33	o	
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.141: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.142: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite A.6/25 - - 415 (Unsupported Media Type)

Table A.143: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
6	Server	[26] 20.35	o	o	[26] 20.35	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.144: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.144A: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/29 - - 423 (Interval Too Brief)

Table A.145: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Min-Expires	[26] 20.23	m	m	[26] 20.23	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.146: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/39 - - 489 (Bad Event)

Table A.147: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o

Prerequisite A.5/21 - - SUBSCRIBE response

Prerequisite: A.6/45 - - 503 (Service Unavailable)

Table A.148: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/21 - - SUBSCRIBE response

Table A.149: Supported message bodies within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.1.4.14 UPDATE method

Prerequisite A.5/22 - - UPDATE request

Table A.150: Supported headers within the UPDATE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c20	c20	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
5	Allow-Events	[28] 7.2.2	c2	c2	[28] 7.2.2	c3	c3
6	Authorization	[26] 20.7	c4	c4	[26] 20.7	c4	c4
7	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
8	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
9	Contact	[26] 20.10	m	m	[26] 20.10	m	m
10	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
11	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
12	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
13	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
14	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
15	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
16	Date	[26] 20.17	c5	c5	[26] 20.17	m	m
17	From	[26] 20.20	m	m	[26] 20.20	m	m
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
19	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
19A	Min-SE	[58] 5	c21	c21	[58] 5	c21	c21
20	Organization	[26] 20.25	o	o	[26] 20.25	o	o
20A	P-Access-Network-Info	[52] 4.4	c11	c12	[52] 4.4	c11	c13
20B	P-Charging-Function-Addresses	[52] 4.5	c16	c17	[52] 4.5	c16	c17
20C	P-Charging-Vector	[52] 4.6	c14	c15	[52] 4.6	c14	c15
20D	Privacy	[33] 4.2	c6	n/a	[33] 4.2	c6	n/a
21	Proxy-Authorization	[26] 20.28	c10	c10	[26] 20.28	n/a	n/a
22	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
22A	Reason	[34A] 2	c8	c8	[34A] 2	c8	c8
23	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
23A	Referred-By	[59] 3	c22	c22	[59] 3	c23	c23
23B~~A~~	Reject-Contact	[56B] 9.2	c20	c20	[56B] 9.2	n/a	n/a
23C~~B~~	Request-Disposition	[56B] 9.1	c20	c20	[56B] 9.1	n/a	n/a
24	Require	[26] 20.32	o	o	[26] 20.32	m	m
25	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
25A	Security-Client	[48] 2.3.1	c18	c18	[48] 2.3.1	n/a	n/a
25B	Security-Verify	[48] 2.3.1	c19	c19	[48] 2.3.1	n/a	n/a
25C	Session-Expires	[58] 4	c21	c21	[58] 4	c21	c21
26	Supported	[26] 20.37	o	o	[26] 20.37	m	m
27	Timestamp	[26] 20.38	c9	c9	[26] 20.38	m	m
28	To	[26] 20.39	m	m	[26] 20.39	m	m
29	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
30	Via	[26] 20.42	m	m	[26] 20.42	m	m

c2: IF A.4/20 THEN o ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c4: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c5: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c6: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c8: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c9: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c10: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c11: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c12: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c13: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c14: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c15: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c17: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note).
c19: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c20: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c21: IF A.4/42 THEN m ELSE n/a - - the SIP session timer.
c22: IF A.4/43 THEN m ELSE n/a - - the SIP Referred-By mechanism.
c23: IF A.4/43 THEN o ELSE n/a - - the SIP Referred-By mechanism.

NOTE: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/22 - - UPDATE request

Table A.151: Supported message bodies within the UPDATE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/23 - - UPDATE response

Table A.152: Supported headers within the UPDATE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
10A	Organization	[26] 20.25	o	o	[26] 20.25	o	o
10B	P-Access-Network-Info	[52] 4.4	c4	c5	[52] 4.4	c4	c6
10C	P-Charging-Function-Addresses	[52] 4.5	c9	c10	[52] 4.5	c9	c10
10D	P-Charging-Vector	[52] 4.6	c7	c8	[52] 4.6	c7	c8
10E	Privacy	[33] 4.2	c3	n/a	[33] 4.2	c3	n/a
10F	Require	[26] 20.31	m	m	[26] 20.31	m	m
10G	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses. c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests. c3: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP). c4: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension. c5: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE. c6: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller. c7: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension. c8: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension. c9: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension. c10: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.							
NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.							

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/6 - - 2xx

Table A.153: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Accept	[26] 20.1	o	o	[26] 20.1	m	m
0B	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
0C	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
3	Contact	[26] 20.10	m	m	[26] 20.10	m	m
4	Session-Expires	[58]	c3	c3	[58]	c3	c3
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1: IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA. c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA. c3: IF A.4/42 THEN m ELSE n/a - - the SIP session timer							

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 - - 3xx

Table A.154: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Contact	[26] 20.10	o	o	[26] 20.10	o	o
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.154A: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/42 OR A.6/45 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.155: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.156: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.157: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	c1	c1	[26] 20.27	c1	c1
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.158: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
4	Allow	[26] 20.5	o	o	[26] 20.5	m	m
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.159: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.159A: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/35 - - 485 (Ambiguous)

Prerequisite A.5/23 - - UPDATE response

Prerequisite: A.6/28A - - 422 (Session Interval Too Small)

Table A.159B: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.4/42 THEN m ELSE n/a - - the SIP session timer.						

Table A.160: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Contact	[26] 20.10	o (note)	o	[26] 20.10	m	m
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/23 - - UPDATE response

Table A.161: Supported message bodies within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.2 Major capabilities

Table A.162: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
3	initiate session release?	[26] 16	x	c27
4	stateless proxy behaviour?	[26] 16.11	o.1	c28
5	stateful proxy behaviour?	[26] 16.2	o.1	c29
6	forking of initial requests?	[26] 16.1	c1	c31
7	support of TLS connections on the upstream side?	[26] 16.7	o	n/a
8	support of TLS connections on the downstream side?	[26] 16.7	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	x
9	insertion of date in requests and responses?	[26] 20.17	o	o
10	suppression or modification of alerting information data?	[26] 20.4	o	o
11	reading the contents of the Require header before proxying the request or response?	[26] 20.32	o	o
12	adding or modifying the contents of the Require header before proxying the REGISTER request or response	[26] 20.32	o	m
13	adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER?	[26] 20.32	o	o
14	being able to insert itself in the subsequent transactions in a dialog (record-routing)?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing?	[26] 16.7	c3	c3
16	reading the contents of the Supported header before proxying the response?	[26] 20.37	o	o
17	reading the contents of the Unsupported header before proxying the 420 response to a REGISTER?	[26] 20.40	o	m
18	reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER?	[26] 20.40	o	o
19	the inclusion of the Error-Info header in 3xx - 6xx responses?	[26] 20.18	o	o
19A	reading the contents of the Organization header before proxying the request or response?	[26] 20.25	o	o
19B	adding or concatenating the Organization header before proxying the request or response?	[26] 20.25	o	o
19C	reading the contents of the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19D	adding or concatenating the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19E	delete Contact headers from 3xx responses prior to relaying the	[26] 20	o	o

	response?			
	Extensions			
20	the SIP INFO method?	[25]	o	o
21	reliability of provisional responses in SIP?	[27]	o	i
22	the REFER method?	[36]	o	o
23	integration of resource management and SIP?	[30]	o	i
24	the SIP UPDATE method?	[29]	c4	i
26	SIP extensions for media authorization?	[31]	o	c7
27	SIP specific event notification	[28]	o	i
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	[35]	o	c6
30	extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks	[34]	o	m
30A	act as first entity within the trust domain for asserted identity	[34]	c5	c8
30B	act as subsequent entity within trust network that can route outside the trust network	[34]	c5	c9
31	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
31A	request of privacy by the inclusion of a Privacy header	[33]	n/a	n/a
31B	application of privacy based on the received Privacy header	[33]	c10	c12
31C	passing on of the Privacy header transparently	[33]	c10	c13
31D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	x	x
31E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	n/a	n/a
31F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	n/a	n/a
31G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c11	c12
32	Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration	[38]	o	c30
33	a messaging mechanism for the Session Initiation Protocol (SIP)	[50]	o	m
34	Compressing the Session Initiation Protocol	[55]	o	c7
35	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
36	the P-Associated-URI header extension?	[52] 4.1	c14	c15
37	the P-Called-Party-ID header extension?	[52] 4.2	c14	c16
38	the P-Visited-Network-ID header extension?	[52] 4.3	c14	c17
39	reading, or deleting the P-Visited-Network-ID header before proxying the	[52] 4.3	c18	n/a

	request or response?			
41	the P-Access-Network-Info header extension?	[52] 4.4	c14	c19
42	act as first entity within the trust domain for access network information?	[52] 4.4	c20	c21
43	act as subsequent entity within trust network for access network information that can route outside the trust network?	[52] 4.4	c20	c22
44	the P-Charging-Function-Addresses header extension?	[52] 4.5	c14	m
44A	adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response?	[52] 4.6	c25	c26
45	the P-Charging-Vector header extension?	[52] 4.6	c14	m
46	adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response?	[52] 4.6	c23	c24
47	security mechanism agreement for the session initiation protocol?	[48]	o	c7
48	the Reason header field for the session initiation protocol	[34A]	o	o
49	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x
50	caller preferences for the session initiation protocol?	[56B]	c33	c33
50A	the proxy-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50B	the cancel-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50C	the fork-directive within caller-preferences?	[56B] 9.1	o.4	c32
50D	the recurse-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50E	the parallel-directive within caller-preferences?	[56B] 9.1	o.4	c32
50F	the queue-directive within caller-preferences?	[56B] 9.1	o.4	o.4
51	an event state publication extension to the session initiation protocol?	[70]	o	m
52	SIP session timer?	[58]	o	o
53	the SIP Referred-By mechanism?	[59]	o	o

c1: IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour.

c2: IF A.3/2 OR A.3/3A OR A.3/4 THEN m ELSE o - - P-CSCF, I-CSCF(THIG) or S-CSCF.

c3: IF (A.162/7 AND NOT A.162/8) OR (NOT A.162/7 AND A.162/8) THEN m ELSE IF A.162/14 THEN o ELSE n/a - - TLS interworking with non-TLS else proxy insertion.

c4: IF A.162/23 THEN m ELSE o - - integration of resource management and SIP.

c5: IF A.162/30 THEN o ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).

c7: IF A.3/2 THEN m ELSE n/a - - P-CSCF.

c8: IF A.3/2 AND A.162/30 THEN m ELSE n/a - - P-CSCF and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c9: IF A.3/2 AND A.162/30 THEN m ELSE IF A.3/7C AND A.162/30 THEN o ELSE n/a - - S-CSCF or AS acting as proxy and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks (NOTE).

c10: IF A.162/31 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c11: IF A.162/31B THEN o ELSE x - - application of privacy based on the received Privacy header.

c12: IF A.162/31 AND A.3/4 THEN m ELSE n/a - - S-CSCF.

c13: IF A.162/31 AND (A.3/2 OR A.3/3 OR A.3/7C) THEN m ELSE n/a - - P-CSCF OR I-CSCF OR AS acting as a SIP proxy.

c14: IF A.162/35 THEN o.3 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c15: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c16: IF A.162/35 AND (A.3/2 OR A.3/3 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF or S-CSCF.

c17: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c18: IF A.162/38 THEN o ELSE n/a - - the P-Visited-Network-ID header extension.

c19: IF A.162/35 AND (A.3/2 OR A.3.3 OR A.3/4 OR A.3/7 THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF, I-CSCF, S-CSCF, AS acting as a proxy.

c20: IF A.162/41 THEN o ELSE n/a - - the P-Access-Network-Info header extension.

c21: IF A.162/41 AND A.3/2 THEN m ELSE n/a - - the P-Access-Network-Info header extension and P-CSCF.

c22: IF A.162/41 AND A.3/4 THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF.

c23: IF A.162/45 THEN o ELSE n/a - - the P-Charging-Vector header extension.

c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c25: IF A.162/44 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.

c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function Addresses header extension.

c27: IF A.3/2 OR A.3/4 THEN m ELSE x - - P-CSCF or S-CSCF.

c28: IF A.3/2 OR A.3/4 OR A.3/6 then m ELSE o - - P-CSCF or S-CSCF of MGCF.

c29: IF A.3/2 OR A.3/4 OR A.3/6 then o ELSE m - - P-CSCF or S-CSCF of MGCF.

c30: IF A.3/2 o ELSE i - - P-CSCF.

c31: IF A.3/4 THEN m ELSE x - - S-CSCF.

c32: IF A.3/4 THEN m ELSE o.4 - - S-CSCF.

c33: IF A.162/50A OR A.162/50B OR A.162/50C OR A.162/50D OR A.162/50E OR A.162/50F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

o.1: It is mandatory to support at least one of these items.

o.2: It is mandatory to support at least one of these items.

o.3: It is mandatory to support at least one of these items.

o.4 At least one of these capabilities is supported.

NOTE: An AS acting as a proxy may be outside the trust domain, and therefore not able to support the capability for that reason; in this case it is perfectly reasonable for the header to be passed on transparently, as specified in the PDU parts of the profile.

PROPOSED CHANGE

A.2.2.4.1 Status-codes

Table A.164: Supported-status codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	c1	c1	[26] 21.1.1	c2	c2
2	180 (Ringing)	[26] 21.1.2	c3	c3	[26] 21.1.2	c3	c3
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c3	c3	[26] 21.1.3	c3	c3
4	182 (Queued)	[26] 21.1.4	c3	c3	[26] 21.1.4	c3	c3
5	183 (Session Progress)	[26] 21.1.5	c3	c3	[26] 21.1.5	c3	c3
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c4	c4	[28] 8.3.1	c4	c4
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1			[26] 21.4.1		
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26]			[26]		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
		21.4.16			21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c8	c8	[58] 6	c8	c8
29	423 (Interval Too Brief)	[26] 21.4.17	c5	c5	[26] 21.4.17	c6	c6
29A	429 (Provide Referrer Identity)	[59] 5	c8	c8	[59] 5	c8	c8
30	480 (Temporarily not available)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call /Transaction Does Not Exist)	[26] 21.4.19			[26] 21.4.19		
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26			[26] 21.4.26		
39	489 (Bad Event)	[28] 7.3.2	c4	c4	[28] 7.3.2	c4	c4
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		
41A	494 (Security Agreement Required)	[48] 2	c7	c7	[48] 2	n/a	n/a
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2			[26] 21.6.2		
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
c1:	IF A.162/15 THEN m ELSE n/a - - stateful proxy.						
c2:	IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						
c3:	IF A.163/9 THEN m ELSE n/a - - INVITE response.						
c4:	IF A.162/27 THEN m ELSE n/a - - SIP specific event notification.						
c5:	IF A.163/19 OR A.163/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.						
c6:	IF A.163/19 OR A.163/21 THEN i ELSE n/a - - REGISTER response or SUBSCRIBE response.						
c7:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						
c8:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						
c9:	IF A.162/53 AND A.163/17 THEN m ELSE n/a - - the SIP Referred-By mechanism and REFER response.						
c20:	IF A.4/51 THEN m ELSE n/a						

PROPOSED CHANGE

A.2.2.4.3 BYE method

Prerequisite A.163/2 - - BYE request

Table A.167: Supported headers within the BYE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c22	c22	[56B] 9.2	c23	c23
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
8	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
9	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
16	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
16A	P-Access-Network-Info	[52] 4.4	c13	c13	[52] 4.4	c14	c14
16B	P-Asserted-Identity	[34] 9.1	c9	c9	[34] 9.1	c10	c10
16C	P-Charging-Function-Addresses	[52] 4.5	c17	c17	[52] 4.5	c18	c18
16D	P-Charging-Vector	[52] 4.6	c15	n/a	[52] 4.6	c16	n/a
16E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c8	n/a
16F	Privacy	[33] 4.2	c11	c11	[33] 4.2	c12	c12
17	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c4	c4
18	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
18A	Reason	[34A] 2	c20	c20	[34A] 2	c21	c21
19	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
19A	Referred-By	[59] 3	c24	c24	[59] 3	c25	c25
19B~~A~~	Reject-Contact	[56B] 9.2	c22	c22	[56B] 9.2	c23	c23
19C~~B~~	Request-Disposition	[56B] 9.1	c22	c22	[56B] 9.1	c23	c23
20	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
21	Route	[26] 20.34	m	m	[26] 20.34	m	m
21A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c19	c19
21B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c19	c19
22	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
23	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
24	To	[26] 20.39	m	m	[26] 20.39	m	m
25	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
26	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c4: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c7: IF A.162/14 THEN o ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c8: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c9: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c10: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c11: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c12: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c13: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c14: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c15: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c16: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c17: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c18: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c19: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c20: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c21: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c22: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c23: IF A.162/50 THEN i ELSE n/a - - caller preferences for the session initiation protocol.
c24: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c25: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/2 - - BYE request

Table A.168: Supported message bodies within the BYE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.169: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.						

Prerequisite A.163/3 - - BYE response

Table A.170: Supported headers within the BYE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c2
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c2
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c2
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c2
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c2
10A	P-Access-Network-Info	[52] 4.4	c12	c12	[52] 4.4	c13	c13
10B	P-Asserted-Identity	[34] 9.1	c4	c4	[34] 9.1	c5	c5
10C	P-Charging-Function-Addresses	[52] 4.5	c10	c10	[52] 4.5	c11	c11
10D	P-Charging-Vector	[52] 4.6	c8	n/a	[52] 4.6	c9	n/a
10E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c3	n/a
10F	Privacy	[33] 4.2	c6	c6	[33] 4.2	c7	c7
10G	Require	[26] 20.32	m	m	[26] 20.32	c14	c14
10H	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c2: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c3: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c4: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c5: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c6: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c7: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c8: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c10: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c12: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c13: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c14: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/6 - - 2xx

Table A.171: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
2	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN o ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/3 - BYE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.172: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.173: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.174: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.175: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.176: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.177: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.178: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.178A: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/3 - - BYE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.179: Supported headers within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/3 - - BYE response

Table A.180: Supported message bodies within the BYE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.7 INVITE method

Prerequisite A.163/8 - - INVITE request

Table A.204: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Alert-Info	[26] 20.4	c2	c2	[26] 20.4	c3	c3
5	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
8	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	m	m	[26] 20.9	c12	c12
11	Contact	[26] 20.10	m	m	[26] 20.10	i	i
12	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c6
13	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c6
14	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c6
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c6
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	m	m	[26] 20.17	c4	c4
19	Expires	[26] 20.19	m	m	[26] 20.19	i	i
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	m	m	[26] 20.21	i	i
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
23	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c6
23A	Min-SE	[58] 5	o	o	[58] 5	o	o
24	Organization	[26] 20.25	m	m	[26] 20.25	c5	c5
24A	P-Access-Network-Info	[52] 4.4	c28	c28	[52] 4.4	c29	c30
24B	P-Asserted-Identity	[34] 9.1	c15	c15	[34] 9.1	c16	c16
24C	P-Called-Party-ID	[52] 4.2	c19	c19	[52] 4.2	c20	c21
24D	P-Charging-Function-Addresses	[52] 4.5	c26	c27	[52] 4.5	c26	c27
24E	P-Charging-Vector	[52] 4.6	c24	c24	[52] 4.6	c25	c25
25	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
25A	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c14	c14
25B	P-Visited-Network-ID	[52] 4.3	c22	n/a	[52] 4.3	c23	n/a
26	Priority	[26] 20.26	m	m	[26] 20.26	i	i
26A	Privacy	[33] 4.2	c17	c17	[33] 4.2	c18	c18
27	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c13	c13
28	Proxy-Require	[26] 20.29, [34] 4	m	m	[26] 20.29, [34] 4	m	m
28A	Reason	[34A] 2	c32	c32	[34A] 2	c33	c33
29	Record-Route	[26] 20.30	m	m	[26] 20.30	c11	c11
30	Referred-By	[59] 3	c37	c37	[59] 3	c38	c38
~~31~~	~~Reply-To~~	~~[26] 20.31~~	~~m~~	~~m~~	~~[26] 20.31~~	~~i~~	~~i~~
31~~A~~	Reject-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
31A	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
31B	Request-Disposition	[56B] 9.1	c34	c34	[56B] 9.1	c34	c34
32	Require	[26] 20.32	m	m	[26] 20.32	c7	c7
33	Route	[26] 20.34	m	m	[26] 20.34	m	m
33A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33C	Session-Expires	[58] 4	c36	c36	[58] 4	c36	c36

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
34	Subject	[26] 20.36	m	m	[26] 20.36	i	i
35	Supported	[26] 20.37	m	m	[26] 20.37	c8	c8
36	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
39	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/10 THEN n/a ELSE m - - suppression or modification of alerting information data.
c3: IF A.162/10 THEN m ELSE i - - suppression or modification of alerting information data.
c4: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c5: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c6: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c7: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c8: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c9: IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.
c10: IF A.3/2 THEN m ELSE n/a - - P-CSCF.
c11: IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c12: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c13: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c14: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c15: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c16: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c17: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c18: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c19: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.
c20: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.
c21: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.
c22: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.
c23: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.
c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c25: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c27: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c28: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c29: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c30: IF A.162/43 OR (A.162/41 AND A.3/2) THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension (with or without P-CSCF).
c31: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c32: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c33: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c34: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c35: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.
c36: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c37: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c38: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.						

Prerequisite A.163/8 - - INVITE request

Table A.205: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.206: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	c1	c1	[26] 20.17	c2	c2
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1: c2:	IF (A.162/9 AND A.162/5) OR A.162/4 THEN m ELSE n/a - - stateful proxy behaviour that inserts date, or stateless proxies. IF A.162/4 THEN i ELSE m - - Stateless proxy passes on.						

Prerequisite A.163/9 - - INVITE response

Table A.207: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
11	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
11A	P-Access-Network-Info	[52] 4.4	c14	c14	[52] 4.4	c15	c15
11B	P-Asserted-Identity	[34] 9.1	c6	c6	[34] 9.1	c7	c7
11C	P-Charging-Function-Addresses	[52] 4.5	c12	c12	[52] 4.5	c13	c13
11D	P-Charging-Vector	[52] 4.6	c10	c10	[52] 4.6	c11	c11
11E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c5	n/a
11F	Privacy	[33] 4.2	c8	c8	[33] 4.2	c9	c9
11G	Require	[26] 20.32	m	m	[26] 20.32	c16	c16
11H	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.

c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c5: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c6: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c7: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c8: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c9: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c10: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c11: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c12: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c13: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c14: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c16: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/2 OR A.164/3 OR A.164/4 OR A.164/5 - - 1xx

Table A.208: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	i	i
6	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Rseq	[27] 7.1	m	m	[27] 7.1	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/6 - - 2xx

Table A.209: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
1B	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
6	Contact	[26] 20.10	m	m	[26] 20.10	i	i
8	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
10	Session-Expires	[58] 4	c11	c11	[58] 4	c11	c11
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.						
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						
c11:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.210: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.211: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
15	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 600, 603

Table A.212: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
12	Via	[26] 20.42	m	m	[26] 20.42	m	m

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.213: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m		[26] 20.5	m/o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.214: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.215: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.216: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.216A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.16/9 - - INVITE response

Prerequisite: A.164/28A - - 422 (Session Interval Too Small)

Table A.216B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.217: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/42 - - 500 (Server Internal Error)

Table A.217A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/45 - - 503 (Service Unavailable)

Table A.217B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Table A.218: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.7A MESSAGE method

Prerequisite A.163/9A - - MESSAGE request

Table A.218A: Supported headers within the MESSAGE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept-Contact	[56B] 9.2	c28	c28	[56B] 9.2	c28	c29
1A	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
3	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
4	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
5	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
6	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
7	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
8	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
11	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
12	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
13	Expires	[26] 20.19	m	m	[26] 20.19	I	i
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	In-Reply-To	[26] 20.21	m	m	[50] 10	i	i
16	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
17	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
18	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
18A	P-Access-Network-Info	[52] 4.4	c23	c23	[52] 4.4	c24	c24
18B	P-Asserted-Identity	[34] 9.1	c10	c10	[34] 9.1	c11	c11
18C	P-Called-Party-ID	[52] 4.2	c14	c14	[52] 4.2	c15	c16
18D	P-Charging-Function-Addresses	[52] 4.5	c21	c21	[52] 4.5	c22	c22
18E	P-Charging-Vector	[52] 4.6	c19	c19	[52] 4.6	c20	c20
18F	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c9	c9
18G	P-Visited-Network-ID	[52] 4.3	c17	n/a	[52] 4.3	c18	n/a
19	Priority	[26] 20.26	m	m	[26] 20.26	i	i
19A	Privacy	[33] 4.2	c12	c12	[33] 4.2	c13	c13
20	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c8	c8
21	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
21A	Reason	[34A] 2	c26	c26	[34A] 2	c27	c27
22	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
22A	Referred-By	[59] 3	c30	c30	[59] 3	c31	c31
~~23~~	~~Reply-To~~	~~[26] 20.31~~	~~m~~	~~m~~	~~[26] 20.31~~	~~i~~	~~i~~
23~~A~~	Reject-Contact	[56B] 9.2	c28	c28	[56B] 9.2	c28	c29
23A	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
23B	Request-Disposition	[56B] 9.1	c28	c28	[56B] 9.1	c28	c28
24	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
25	Route	[26] 20.34	m	m	[26] 20.34	m	m
25A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c25	c25
25B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c25	c25
26	Subject	[26] 20.36	m	m	[26] 20.36	i	i
27	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
28	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
29	To	[26] 20.39	m	m	[26] 20.39	m	m
30	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
31	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.

c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.

c7: IF A.162/14 THEN o ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.

c8: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.

c9: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c10: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c11: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c12: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c13: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c14: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.

c15: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.

c16: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.

c17: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.

c18: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.

c19: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c20: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c21: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c22: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c23: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c24: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c25: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.

c26: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.

c27: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.

c28: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.

c29: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.

c30: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.

c31: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/9A - - MESSAGE request

Table A.218B: Supported message bodies within the MESSAGE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/9B - - MESSAGE response

Table A.218C: Supported headers within the MESSAGE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Call-Info	[26] 20.9	m	m	[26] 20.9	c3	c3
3	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
4	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
5	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
6	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
7	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
10	From	[26] 20.20	m	m	[26] 20.20	m	m
11	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
12	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
12A	P-Access-Network-Info	[52] 4.4	c13	c13	[52] 4.4	c14	c14
12B	P-Asserted-Identity	[34] 9.1	c5	c5	[34] 9.1	c6	c6
12C	P-Charging-Function-Addresses	[52] 4.5	c11	c11	[52] 4.5	c12	c12
12D	P-Charging-Vector	[52] 4.6	c9	n/a	[52] 4.6	c10	n/a
12E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c4	n/a
12F	Privacy	[33] 4.2	c7	c7	[33] 4.2	c8	c8
12G	Require	[26] 20.32	m	m	[26] 20.32	c15	c15
13	Server	[26] 20.35	m	m	[26] 20.35	i	i
14	Timestamp	[26] 20.38	i	i	[26] 20.38	i	i
15	To	[26] 20.39	m	m	[26] 20.39	m	m
16	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
17	Via	[26] 20.42	m	m	[26] 20.42	m	m
18	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c4: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c5: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c7: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c8: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c9: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c10: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c11: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c12: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c13: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c14: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/6 - - 2xx

Table A.218D: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
4	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN o ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.218E: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.218F: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.218G: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.218H: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.218I: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.218J: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[50] 10	i	i
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.218K: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.218L: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/9B - - MESSAGE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.218M: Supported headers within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[50] 10	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9B - - MESSAGE response

Table A.218N: Supported message bodies within the MESSAGE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.8 NOTIFY method

Prerequisite A.163/10 - - NOTIFY request

Table A.219: Supported headers within the NOTIFY request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c21	c21	[56B] 9.2	c22	c22
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6A	Contact	[26] 20.10	m	m	[26] 20.10	i	i
7	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
8	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
9	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
14	Event	[28] 7.2.1	m	m	[28] 7.2.1	m	m
15	From	[26] 20.20	m	m	[26] 20.20	m	m
16	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
17	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
17A	P-Access-Network-Info	[52] 4.4	c16	c16	[52] 4.4	c17	c17
17B	P-Asserted-Identity	[34] 9.1	c8	c8	[34] 9.1	c9	c9
17C	P-Charging-Function-Addresses	[52] 4.5	c14	c14	[52] 4.5	c15	c15
17D	P-Charging-Vector	[52] 4.6	c12	n/a	[52] 4.6	c13	n/a
17E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c3	n/a
17F	Privacy	[33] 4.2	c10	c10	[33] 4.2	c11	c11
18	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c4	c4
19	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
19A	Reason	[34A] 2	c19	c19	[34A] 2	c20	c20
20	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
20A	Referred-By	[59] 3	c23	c23	[59] 3	c24	c24
20B~~A~~	Reject-Contact	[56B] 9.2	c21	c21	[56B] 9.2	c22	c22
20C~~B~~	Request-Disposition	[56B] 9.1	c21	c21	[56B] 9.1	c22	c22
21	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
22	Route	[26] 20.34	m	m	[26] 20.34	m	m
22A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
22B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
23	Subscription-State	[28] 8.2.3	m	m	[28] 8.2.3	i	i
24	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
25	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
26	To	[26] 20.39	m	m	[26] 20.39	m	m
27	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
28	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1:	IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2:	IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c3:	IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c4:	IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c5:	IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c6:	IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c7:	IF A.162/14 THEN (IF A.162/22 OR A.162/27 THEN m ELSE o) ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog or (the REFER method or SIP specific event notification).
c8:	IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c9:	IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c10:	IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c11:	IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c12:	IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c13:	IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c14:	IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c15:	IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c16:	IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c17:	IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c18:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c19:	IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c20:	IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c21:	IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c22:	IF A.162/50 THEN i ELSE n/a - - caller preferences for the session initiation protocol.
c23:	IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c24:	IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/10 - - NOTIFY request

Table A.220: Supported message bodies within the NOTIFY request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	sipfrag	[37] 2	m	m	[37] 2	i	i

Prerequisite A.163/11 - - NOTIFY response

Table A.221: Supported headers within the NOTIFY response - all status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
10A	P-Access-Network-Info	[52] 4.4	c11	c11	[52] 4.4	c12	c12
10B	P-Asserted-Identity	[34] 9.1	c3	c3	[34] 9.1	c4	c4
10C	P-Charging-Function-Addresses	[52] 4.5	c9	c9	[52] 4.5	c10	c10
10D	P-Charging-Vector	[52] 4.6	c7	n/a	[52] 4.6	c8	n/a
10E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c2	n/a
10F	Privacy	[33] 4.2	c5	c5	[33] 4.2	c6	c6
10G	Require	[26] 20.32	m	m	[26] 20.32	c13	c13
10H	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c3: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c4: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c5: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c6: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c7: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c8: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c9: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c10: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c11: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c12: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c13: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/6 AND A.164/7 - - 2xx

Table A.222: Supported headers within the NOTIFY response

Item	Header	Sending	Receiving

		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
1A	Contact	[26] 20.10	m	m	[26] 20.10	i	i
2	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.223: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.224: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.225: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.226: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.227: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.228: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.229: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.229A: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.230: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/11 - - NOTIFY response

Prerequisite: A.164/39 - - 489 (Bad Event)

Table A.231: Supported headers within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
c1:	IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.						
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.						

Prerequisite A.163/11 - - NOTIFY response

Table A.232: Supported message bodies within the NOTIFY response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.9 OPTIONS method

Prerequisite A.163/12 - - OPTIONS request

Table A.233: Supported headers within the OPTIONS request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c28	c28	[56B] 9.2	c28	c29
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
8	Contact	[26] 20.10	m	m	[26] 20.10	i	i
9	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
10	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
11	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
12	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
13	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
14	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
15	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
18	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
19	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
19A	P-Access-Network-Info	[52] 4.4	c23	c23	[52] 4.4	c24	c24
19B	P-Asserted-Identity	[34] 9.1	c10	c10	[34] 9.1	c11	c11
19C	P-Called-Party-ID	[52] 4.2	c14	c14	[52] 4.2	c15	c16
19D	P-Charging-Function-Addresses	[52] 4.5	c21	c21	[52] 4.5	c22	c22
19E	P-Charging-Vector	[52] 4.6	c19	c19	[52] 4.6	c20	c20
19F	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c9	c9
19G	P-Visited-Network-ID	[52] 4.3	c17	n/a	[52] 4.3	c18	n/a
19H	Privacy	[33] 4.2	c12	c12	[33] 4.2	c13	c13
20	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c8	c8
21	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
21A	Reason	[34A] 2	c26	c26	[34A] 2	c27	c27
22	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
22A	Referred-By	[59] 3	c30	c30	[59] 3	c31	c31
22B~~A~~	Reject-Contact	[56B] 9.2	c28	c28	[56B] 9.2	c28	c29
22C~~B~~	Request-Disposition	[56B] 9.1	c28	c28	[56B] 9.1	c28	c28
23	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
24	Route	[26] 20.34	m	m	[26] 20.34	m	m
24A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c25	c25
24B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c25	c25
25	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
26	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
27	To	[26] 20.39	m	m	[26] 20.39	m	m
28	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
29	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c7: IF A.162/14 THEN o ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c8: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c9: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c10: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c11: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c12: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c13: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c14: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.
c15: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.
c16: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.
c17: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.
c18: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.
c19: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c20: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c21: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c22: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c23: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c24: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c25: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c26: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c27: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c28: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c29: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.
c30: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c31: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/12 - - OPTIONS request

Table A.234: Supported message bodies within the OPTIONS request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.235: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.						

Prerequisite A.163/13 - - OPTIONS response

Table A.236: Supported headers within the OPTIONS response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c3	c3
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
11	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
11A	P-Access-Network-Info	[52] 4.4	c13	c13	[52] 4.4	c14	c14
11B	P-Asserted-Identity	[34] 9.1	c5	c5	[34] 9.1	c6	c6
11C	P-Charging-Function-Addresses	[52] 4.5	c11	c11	[52] 4.5	c12	c12
11D	P-Charging-Vector	[52] 4.6	c9	c9	[52] 4.6	c10	c10
11E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c4	n/a
11F	Privacy	[33] 4.2	c7	c7	[33] 4.2	c8	c8
11G	Require	[26] 20.32	m	m	[26] 20.32	c15	c15
11H	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c4: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c5: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c7: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c8: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c9: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c10: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c11: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c12: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c13: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c14: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/6 - - 2xx

Table A.237: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
5	Contact	[26] 20.10	m	m	[26] 20.10	i	i
9	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
12	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN o ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.238: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.239: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.240: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.241: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.242: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.243: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.244: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
7	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.244A: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/13 - - OPTIONS response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.245: Supported headers within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/13 - - OPTIONS response

Table A.246: Supported message bodies within the OPTIONS response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.10 PRACK method

Prerequisite A.163/14 - - PRACK request

Table A.247: Supported headers within the PRACK request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c18	c18	[56B] 9.2	c19	c19
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
8	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
9	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
16	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
16A	P-Access-Network-Info	[52] 4.4	c14	c14	[52] 4.4	c15	c15
16B	P-Charging-Function-Addresses	[52] 4.5	c12	c12	[52] 4.5	c13	c13
16C	P-Charging-Vector	[52] 4.6	c10	n/a	[52] 4.6	c11	n/a
16D	Privacy	[33] 4.2	c8	c8	[33] 4.2	c9	c9
17	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c4	c4
18	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
19	Rack	[27] 7.2	m	m	[27] 7.2	i	i
19A	Reason	[34A] 2	c16	c16	[34A] 2	c17	c17
20	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
20A	Referred-By	[59] 3	c20	c20	[59] 3	c21	c21
20B~~A~~	Reject-Contact	[56B] 9.2	c18	c18	[56B] 9.2	c19	c19
20C~~B~~	Request-Disposition	[56B] 9.1	c18	c18	[56B] 9.1	c19	c19
21	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
22	Route	[26] 20.34	m	m	[26] 20.34	m	m
23	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
24	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
25	To	[26] 20.39	m	m	[26] 20.39	m	m
26	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
27	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.

c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.

c4: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.

c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.

c7: IF A.162/14 THEN 0 ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.

c8: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c9: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c10: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c11: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c12: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c13: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c14: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c16: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.

c17: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.

c18: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.

c19: IF A.162/50 THEN i ELSE n/a - - caller preferences for the session initiation protocol.

c20: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.

c21: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/14 - - PRACK request

Table A.248: Supported message bodies within the PRACK request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.249: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.						

Prerequisite A.163/15 - - PRACK response

Table A.250: Supported headers within the PRACK response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c2
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c2
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c2
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c2
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c2
10A	P-Access-Network-Info	[52] 4.4	c9	c9	[52] 4.4	c10	c10
10B	P-Charging-Function-Addresses	[52] 4.5	c7	c7	[52] 4.5	c8	c8
10C	P-Charging-Vector	[52] 4.6	c5	n/a	[52] 4.6	c6	n/a
10D	Privacy	[33] 4.2	c3	c3	[33] 4.2	c4	c4
10E	Require	[26] 20.32	m	m	[26] 20.32	c11	c11
10F	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.

c3: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c4: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c5: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c6: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c7: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c8: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c9: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c10: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c11: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/6 - - 2xx

Table A.251: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
0B	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
1	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

c3:	IF A.162/15 THEN o ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.252: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.253: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.254: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.255: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.256: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.257: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.258: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.258A: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/15 - - PRACK response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.259: Supported headers within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15 - - PRACK response

Table A.260: Supported message bodies within the PRACK response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.10A PUBLISH method

Editor's note: The base draft does not yet contain an analysis of header usage within this method, and therefore this clause will have to be reviewed and completed when such an analysis is available.

Prerequisite A.163/15A - - PUBLISH request

Table A.260A: Supported headers within the PUBLISH request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept-Contact	[56B] 9.2	c28	c28	[56B] 9.2	c28	c29
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c29	c29
4	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
5	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6	Call-Info	[26] 24.9	m	m	[26] 24.9	c4	c4
7	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
8	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
9	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
14	Event	[70] 3.6	m	m	[70] 3.6	m	m
15	Expires	[26] 20.19, [70] 7.1.1	m	m	[26] 20.19, [70] 7.1.1	i	i
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	In-Reply-To	[26] 20.21	m	m	[26] 20.21	i	i
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
19	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
20	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
21	P-Access-Network-Info	[52] 4.4	c23	c23	[52] 4.4	c24	c24
22	P-Asserted-Identity	[34] 9.1	c10	c10	[34] 9.1	c11	c11

23	P-Called-Party-ID	[52] 4.2	c14	c14	[52] 4.2	c15	c16
24	P-Charging-Function-Addresses	[52] 4.5	c21	c21	[52] 4.5	c22	c22
25	P-Charging-Vector	[52] 4.6	c19	c19	[52] 4.6	c20	c20
26	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c9	c9

27	P-Visited-Network-ID	[52] 4.3	c17	n/a	[52] 4.3	c18	n/a
28	Priorità	[26] 20.26	m	m	[26] 20.26	i	i
29	Privacy	[33] 4.2	c12	c12	[33] 4.2	c13	c13
30	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c7	c7
31	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
32	Reason	[34A] 2	c8	c8	[34A] 2	c1	c1
33	Referred-By	[59] 3	c30	c30	[59] 3	c31	c31
~~33~~	~~Reply-To~~	~~[26] 20.31~~	~~m~~	~~m~~	~~[26] 20.31~~	~~i~~	~~i~~
34	Reject-Contact	[56B] 9.2	c27	c27	[56B] 9.2	c27	c28
34A	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
35	Request-Disposition	[56B] 9.1	c27	c27	[56B] 9.1	c27	c27
36	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
37	Route	[26] 20.34	m	m	[26] 20.34	m	m
38	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c25	c25
39	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c26	c26
40	SIP-If-Match	[70] 7.3.2	m	m	[70] 7.3.2	i	i
41	Subject	[26] 20.36	m	m	[26] 20.36	i	i
42	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
43	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
44	To	[26] 20.39	m	m	[26] 20.39	m	m
45	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
46	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c7: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c8: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c9: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c10: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c11: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c12: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c13: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c14: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.
c15: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.
c16: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.
c17: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.
c18: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.
c19: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c20: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c21: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c22: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c23: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c24: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c25: IF A.162/47 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 1).
c26: IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c27: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c28: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.
c29: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension (note 2).
c30: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c31: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE 1: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented.
NOTE 2: c29 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/15A - - PUBLISH request

Table A.260B: Supported message bodies within the PUBLISH request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/15B - - PUBLISH response

Table A.260C: Supported headers within the PUBLISH response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Call-Info	[26] 24.9	m	m	[26] 24.9	c3	c3
3	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
4	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
5	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
6	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
7	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
10	From	[26] 20.20	m	m	[26] 20.20	m	m
11	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
12	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
13	P-Access-Network-Info	[52] 4.4	c13	c13	[52] 4.4	c14	c14
14	P-Asserted-Identity	[34] 9.1	c5	c5	[34] 9.1	c6	c6
15	P-Charging-Function-Addresses	[52] 4.5	c11	c11	[52] 4.5	c12	c12
16	P-Charging-Vector	[52] 4.6	c9	n/a	[52] 4.6	c10	n/a
17	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c4	n/a
18	Privacy	[33] 4.2	c7	c7	[33] 4.2	c8	c8
19	Require	[26] 20.32	m	m	[26] 20.32	c15	c15
20	Server	[26] 20.35	m	m	[26] 20.35	i	i
21	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
22	To	[26] 20.39	m	m	[26] 20.39	m	m
23	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
24	Via	[26] 20.42	m	m	[26] 20.42	m	m
25	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c3: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c4: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c5: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c6: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c7: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c8: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c9: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c11: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c12: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c13: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c14: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c15: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/7 - - 200 (OK)

Table A.260D: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
3	Expires	[26] 20.19, [70] 7.1.1	m	m	[26] 20.19, [70] 7.1.1	i	i
4	SIP-Etag	[70] 7.3.1	m	m	[70] 7.3.1	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.260E: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 - - 401 (Unauthorized)

Table A.260F: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.260G: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/18 -- 405 (Method Not Allowed)

Table A.260H: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.260I: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/25 -- 415 (Unsupported Media Type)

Table A.260J: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.260K: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Supported	[26] 20.37	m	m	[26] 20.37	i	i
4	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.260L: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/29 - - 423 (Interval Too Brief)

Table A.260M: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	o		[26] 20.18	o	
3	Min-Expires	[26] 20.23, [70] 6	m	m	[26] 20.23, [70] 6	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.260N: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/15B - - PUBLISH response

Prerequisite: A.164/39 - - 489

Table A.260O: Supported headers within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i

Prerequisite A.163/17 - - PUBLISH response

Table A.260P: Supported message bodies within the PUBLISH response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.11 REFER method

Prerequisite A.163/16 - - REFER request

Table A.261: Supported headers within the REFER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Accept	[26] 20.1	m	m	[26] 20.1	i	i
0B	Accept-Contact	[56B] 9.2	c27	c27	[56B] 9.2	c27	c28
0C	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
1	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
1A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
3	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
4	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
5	Contact	[26] 20.10	m	m	[26] 20.10	i	i
5A	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
5B	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
5C	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
6	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
7	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
8	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
9	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
10	Expires	[26] 20.19	m	m	[26] 20.19	i	i
11	From	[26] 20.20	m	m	[26] 20.20	m	m
12	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
13	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
14	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
14A	P-Access-Network-Info	[52] 4.4	c22	c22	[52] 4.4	c23	c23
14B	P-Asserted-Identity	[34] 9.1	c9	c9	[34] 9.1	c10	c10
14C	P-Called-Party-ID	[52] 4.2	c13	c13	[52] 4.2	c14	c15
14D	P-Charging-Function-Addresses	[52] 4.5	c20	c20	[52] 4.5	c21	c21
14E	P-Charging-Vector	[52] 4.6	c18	c18	[52] 4.6	c19	c19
14F	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c8	c8
14G	P-Visited-Network-ID	[52] 4.3	c16	n/a	[52] 4.3	c17	n/a
14H	Privacy	[33] 4.2	c11	c11	[33] 4.2	c12	c12
15	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c4	c4
16	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
16A	Reason	[34A] 2	c25	c25	[34A] 2	c26	c26
17	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
18	Refer-To	[36] 3	c3	c3	[36] 3	c4	c4
18A	Referred-By	[59] 3	c29	c29	[59] 3	c30	c30
18B~~A~~	Reject-Contact	[56B] 9.2	c27	c27	[56B] 9.2	c27	c28
18C~~B~~	Request-Disposition	[56B] 9.1	c27	c27	[56B] 9.1	c27	c27
19	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
20	Route	[26] 20.34	m	m	[26] 20.34	m	m
20A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c24	c24
20B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c24	c24
20C	Subject	[26] 20.36	m	m	[26] 20.36	i	i
21	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
22	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
23	To	[26] 20.39	m	m	[26] 20.39	m	m
24	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
25	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.

c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c4: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.

c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.

c7: IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.

c8: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c9: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c10: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c11: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c12: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c13: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.

c14: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.

c15: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.

c16: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.

c17: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.

c18: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c19: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c20: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c21: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c22: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c23: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c24: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.

c25: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.

c26: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.

c27: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.

c28: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.

c29: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.

c30: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/16 - - REFER request

Table A.262: Supported message bodies within the REFER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.263: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.						

Prerequisite A.163/17 - - REFER response

Table A.264: Supported headers within the REFER response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
2	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
3	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
4	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
5	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
6	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
7	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
8	From	[26] 20.20	m	m	[26] 20.20	m	m
9	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
10	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
10A	P-Access-Network-Info	[52] 4.4	c12	c12	[52] 4.4	c13	c13
10B	P-Asserted-Identity	[34] 9.1	c4	c4	[34] 9.1	c5	c5
10C	P-Charging-Function-Addresses	[52] 4.5	c10	c10	[52] 4.5	c11	c11
10D	P-Charging-Vector	[52] 4.6	c8	c8	[52] 4.6	c9	c9
10E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c3	n/a
10F	Privacy	[33] 4.2	c6	c6	[33] 4.2	c7	c7
10G	Require	[26] 20.32	m	m	[26] 20.32	c14	c14
10H	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c4: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c5: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c6: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c7: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c8: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c9: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c10: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c11: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c12: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c13: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c14: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/7 - - 202 (Accepted)

Table A.265: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
3	Contact	[26] 20.10	m	m	[26] 20.10	i	i
5	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.266: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 - - 401 (Unauthorized)

Table A.267: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.268: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.269: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.270: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.271: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.272: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.272A: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/17 - - REFER response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.273: Supported headers within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/17 - - REFER response

Table A.274: Supported message bodies within the REFER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.12 REGISTER method

Prerequisite A.163/18 - - REGISTER request

Table A.275: Supported headers within the REGISTER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7, [49]	m	m	[26] 20.7, [49]	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Call-Info	[26] 20.9	m	m	[26] 20.9	c2	c2
8	Contact	[26] 20.10	m	m	[26] 20.10	i	i
9	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
10	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
11	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
12	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
13	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
14	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
15	Date	[26] 20.17	m	m	[26] 20.17	m	m
16	Expires	[26] 20.19	m	m	[26] 20.19	i	i
17	From	[26] 20.20	m	m	[26] 20.20	m	m
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
19	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
20	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
20A	P-Access-Network-Info	[52] 4.4	c16	c16	[52] 4.4	c17	c17
20B	P-Charging-Function-Addresses	[52] 4.5	c14	c14	[52] 4.5	c15	c15
20C	P-Charging-Vector	[52] 4.6	c12	c12	[52] 4.6	c13	c13
20D	P-Visited-Network-ID	[52] 4.3	c10	c10	[52] 4.3	c11	c11
20E	Path	[35] 4.2	c6	c6	[35] 4.2	c6	c6
20F	Privacy	[33] 4.2	c8	c8	[33] 4.2	c9	c9
21	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c7	c7
22	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
22A	Reason	[34A] 2	c19	c19	[34A] 2	c20	c20
22B	Referred-By	[59] 3	c22	c22	[59] 3	c23	c23
22C~~B~~	Request-Disposition	[56B] 9.1	c21	c21	[56B] 9.1	c21	c21
23	Require	[26] 20.32	m	m	[26] 20.32	c4	c4
24	Route	[26] 20.34	m	m	[26] 20.34	m	m
24A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
24B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
25	Supported	[26] 20.37	m	m	[26] 20.37	c5	c5
26	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
27	To	[26] 20.39	m	m	[26] 20.39	m	m
28	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
29	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.

c2: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c4: IF A.162/11 OR A.162/12 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

c5: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.

c6: IF A.162/29 THEN m ELSE n/a - - PATH header support.

c7: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.

c8: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c9: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c10: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.

c11: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.

c12: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c13: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c14: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c15: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c16: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c17: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c18: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.

c19: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.

c20: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.

c21: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.

c22: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.

c23: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/18 - - REGISTER request

Table A.276: Supported message bodies within the REGISTER request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.277: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	m	m	[26] 20.17	m	m
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m

Prerequisite A.163/19 - - REGISTER response

Table A.278: Supported headers within the REGISTER response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c2	c2
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
11	Organization	[26] 20.25	m	m	[26] 20.25	c1	c1
11A	P-Access-Network-Info	[52] 4.4	c9	c9	[52] 4.4	c10	c10
11B	P-Charging-Function-Addresses	[52] 4.5	c7	c7	[52] 4.5	c8	c8
11C	P-Charging-Vector	[52] 4.6	c5	c5	[52] 4.6	c6	c6
11D	Privacy	[33] 4.2	c3	c3	[33] 4.2	c4	c4
11E	Require	[26] 20.32	m	m	[26] 20.32	c11	c11
11F	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c2: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c3: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c4: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c5: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c6: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c7: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c8: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c9: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c10: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c11: IF A.162/11 OR A.162/12 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/6 - - 2xx

Table A.279: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
1B	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
5	Contact	[26] 20.10	m	m	[26] 20.10	i	i
5A	P-Associated-URI	[52] 4.1	c8	c8	[52] 4.1	c9	c10
6	Path	[35] 4.2	c3	c3	[35] 4.2	c4	c4
8	Service-Route	[38] 5	c5	c5	[38] 5	c6	c7
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i

c2: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).
c3: IF A.162/29 THEN m ELSE n/a - - Path extension support.
c4: IF A.162/29 THEN i ELSE n/a - - Path extension support.
c5: IF A.162/32 THEN m ELSE n/a - - Service-Route extension support.
c6: IF A.162/32 THEN i ELSE n/a - - Service-Route extension support.
c7: IF A.162/32 THEN (IF A.3/2 THEN m ELSE i) ELSE n/a - - Service-Route extension and P-CSCF.
c8: IF A.162/36 THEN m ELSE n/a - - the P-Associated-URI extension.
c9: IF A.162/36 THEN i ELSE n/a - - the P-Associated-URI extension.
c10: IF A.162/36 AND A.3/2 THEN m ELSE IF A.162/36 AND A.3/3 THEN i ELSE n/a - - the P-Associated-URI extension and P-CSCF or I-CSCF.

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.280: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Contact	[26] 20.10	m	m	[26] 20.10	c2	c2
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

c2: IF A.162/19E THEN m ELSE i - - deleting Contact headers.

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.281: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
6	Security-Server	[48] 2	x	c1	[48] 2	n/a	n/a
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

c1: IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.282: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.283: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.284: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.285: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.286: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/17 THEN m ELSE.i						

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.286A: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/29 - - 423 (Interval Too Brief)

Table A.287: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	o		[26] 20.18	o	
5	Min-Expires	[26] 20.23	m	m	[26] 20.23	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/19 - - REGISTER response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.288: Supported headers within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/19 - - REGISTER response

Table A.289: Supported message bodies within the REGISTER response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.13 SUBSCRIBE method

Prerequisite A.163/20 - - SUBSCRIBE request

Table A.290: Supported headers within the SUBSCRIBE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c27	c27	[56B] 9.2	c27	c28
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
6A	Contact	[26] 20.10	m	m	[26] 20.10	i	i
7	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
8	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
9	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
10	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
11	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
12	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
13	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
14	Event	[28] 7.2.1	m	m	[28] 7.2.1	m	m
15	Expires	[26] 20.19	m	m	[26] 20.19	i	i
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
18	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
18A	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
18B	P-Access-Network-Info	[52] 4.4	c22	c22	[52] 4.4	c23	c23
18C	P-Asserted-Identity	[34] 9.1	c9	c9	[34] 9.1	c10	c10
18D	P-Called-Party-ID	[52] 4.2	c13	c13	[52] 4.2	c14	c15
18E	P-Charging-Function-Addresses	[52] 4.5	c20	c20	[52] 4.5	c21	c21
18F	P-Charging-Vector	[52] 4.6	c18	c18	[52] 4.6	c19	c19
18G	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c8	c8
18H	P-Visited-Network-ID	[52] 4.3	c16	n/a	[52] 4.3	c17	n/a
18I	Privacy	[33] 4.2	c11	c11	[33] 4.2	c12	c12
19	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c4	c4
20	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
20A	Reason	[34A] 2	c25	c25	[34A] 2	c26	c26
21	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
21A	Referred-By	[59] 3	c29	c29	[59] 3	c30	c30
21B~~A~~	Reject-Contact	[56B] 9.2	c27	c27	[56B] 9.2	c27	c28
21C~~B~~	Request-Disposition	[56B] 9.1	c27	c27	[56B] 9.1	c27	c27
22	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
23	Route	[26] 20.34	m	m	[26] 20.34	m	m
23A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c24	c24
23B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c24	c24
24	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
25	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
26	To	[26] 20.39	m	m	[26] 20.39	m	m
27	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
28	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.

c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c4: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.

c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.

c7: IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.

c8: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c9: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c10: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c11: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c12: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c13: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.

c14: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.

c15: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.

c16: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.

c17: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.

c18: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c19: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c20: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c21: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c22: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c23: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c24: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.

c25: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.

c26: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.

c27: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.

c28: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.

c29: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.

c30: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/20 - - SUBSCRIBE request

Table A.291: Supported message bodies within the SUBSCRIBE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/21 - - SUBSCRIBE response

Table A.292: Supported headers within the SUBSCRIBE response - all status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	i
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	i
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	i
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	i
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	i
10A	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
10B	P-Access-Network-Info	[52] 4.4	c12	c12	[52] 4.4	c13	c13
10C	P-Asserted-Identity	[34] 9.1	c4	c4	[34] 9.1	c5	c5
10D	P-Charging-Function-Addresses	[52] 4.5	c10	c10	[52] 4.5	c11	c11
10E	P-Charging-Vector	[52] 4.6	c8	c8	[52] 4.6	c9	c9
10F	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c3	n/a
10G	Privacy	[33] 4.2	c6	c6	[33] 4.2	c7	c7
10H	Require	[26] 20.32	m	m	[26] 20.32	c14	c14
10I	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c3: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c4: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c5: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c6: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c7: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c8: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c10: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c12: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c13: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c14: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/6 AND A.164/7 - - 2xx

Table A.293: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
1A	Contact	[26] 20.10	m	m	[26] 20.10	i	i
2	Expires	[26] 20.19	m	m	[26] 20.19	i	i
3	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.						

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.294: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.295: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 600, 603

Table A.296: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.297: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.298: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.299: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.300: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.300A: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/29 - - 423 (Interval Too Brief)

Table A.301: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Min-Expires	[26] 20.23	m	m	[26] 20.23	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.302: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/39 - - 489 (Bad Event)

Table A.303: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
c1:	IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.						
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.						

Prerequisite A.163/21 - - SUBSCRIBE response

Prerequisite: A.164/45 - - 503 (Service Unavailable)

Table A.303A: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/21 - - SUBSCRIBE response

Table A.304: Supported message bodies within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.4.14 UPDATE method

Prerequisite A.163/22 - - UPDATE request

Table A.305: Supported headers within the UPDATE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c21	c21	[56B] 9.2	c22	c22
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
5	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
6	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
7	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
8	Call-Info	[26] 20.9	m	m	[26] 20.9	c8	c8
9	Contact	[26] 20.10	m	m	[26] 20.10	i	i
10	Content-Disposition	[26] 20.11	m	m	[26] 20.11	c4	c4
11	Content-Encoding	[26] 20.12	m	m	[26] 20.12	c4	c4
12	Content-Language	[26] 20.13	m	m	[26] 20.13	c4	c4
13	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
14	Content-Type	[26] 20.15	m	m	[26] 20.15	c4	c4
15	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
16	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
17	From	[26] 20.20	m	m	[26] 20.20	m	m
18	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
19	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c4
19A	Min-SE	[58] 5	c23	c23	[58] 5	c23	c23
20	Organization	[26] 20.25	m	m	[26] 20.25	c3	c3
20A	P-Access-Network-Info	[52] 4.4	c16	c16	[52] 4.4	c17	c17
20B	P-Charging-Function-Addresses	[52] 4.5	c14	c14	[52] 4.5	c15	c15
20C	P-Charging-Vector	[52] 4.6	c12	c12	[52] 4.6	c13	c13
20D	Privacy	[33] 4.2	c10	c10	[33] 4.2	c11	c11
21	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c9	c9
22	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
22A	Reason	[34A] 2	c19	c19	[34A] 2	c20	c20
23	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
23A	Referred-By	[59] 3	c24	c24	[59] 3	c25	c25
23B~~A~~	Reject-Contact	[56B] 9.2	c21	c21	[56B] 9.2	c22	c22
23C~~B~~	Request-Disposition	[56B] 9.1	c21	c21	[56B] 9.1	c22	c22
24	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
25	Route	[26] 20.34	m	m	[26] 20.34	m	m
25A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
25B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c18	c18
25C	Session-Expires	[58] 4	c23	c23	[58] 4	c23	c23
26	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
27	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
28	To	[26] 20.39	m	m	[26] 20.39	m	m
29	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
30	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c3: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c4: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c5: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c7: IF A.162/14 THEN o ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c8: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c9: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c10: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c11: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c12: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c13: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c14: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c15: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c16: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c17: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c18: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c19: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c20: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c21: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c22: IF A.162/50 THEN i ELSE n/a - - caller preferences for the session initiation protocol.
c23: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c24: IF A.162/53 THEN i ELSE n/a - - the SIP Referred-By mechanism.
c25: IF A.162/53 THEN m ELSE n/a - - the SIP Referred-By mechanism.

NOTE: c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.

Prerequisite A.163/22 - - UPDATE request

Table A.306: Supported message bodies within the UPDATE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/22 - - UPDATE response

Table A.307: Supported headers within the UPDATE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
10A	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
10B	P-Access-Network-Info	[52] 4.4	c11	c11	[52] 4.4	c12	c12
10C	P-Charging-Function-Addresses	[52] 4.5	c9	c9	[52] 4.5	c10	c10
10D	P-Charging-Vector	[52] 4.6	c7	n/a	[52] 4.6	c8	n/a
10E	Privacy	[33] 4.2	c5	c5	[33] 4.2	c6	c6
10F	Require	[26] 20.32	m	m	[26] 20.32	c13	c13
10G	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
12A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
14	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c5: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c6: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c7: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c8: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c9: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c10: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c11: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c12: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c13: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/6 - - 2xx

Table A.308: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
0A	Accept	[26] 20.1	m	m	[26] 20.1	i	i

0B	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
0C	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
3	Contact	[26] 20.10	m	m	[26] 20.10	i	i
4	Session-Expires	[58] 4	c4	c4	[58] 4	c4	c4
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3: c4:	IF A.162/15 THEN o ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing. IF A.162/52 THEN m ELSE n/a - - the SIP session timer						

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 - - 3xx

Table A.309: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.309A: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/42 OR A.164/45 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 500, 503, 600, 603

Table A.310: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.311: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.312: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.313: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.314: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
7	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.314A: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/28A - - 422 (Session Interval Too Small)

Table A.314B: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/23 - - UPDATE response

Prerequisite: A.164/35 - - 485 (Ambiguous)

Table A.315: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
2	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/23 - - UPDATE response

Table A.316: Supported message bodies within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

3GPP TSG-CN1 Meeting #34bis **Tdoc N1-041315**
Helsinki, Finland 15 – 18 June 2004

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 654** ⌘**rev 4** ⌘ Current version: **6.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME ☒ Radio Access Network □ Core Network ☒

Title:	⌘	Callee capabilities and Registration			
Source:	⌘	RIM, Fujitsu			
Work item code:	⌘	IMS2	***Date:***	⌘	08/06/2004
Category:	⌘	**F**	***Release:***	⌘	*Rel-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	SA2 have agreed that the callee capabilities delivered in the Register request may be obtained by an AS using the Registration Event Notification mechanism. SA2 also agreed the S-CSCF shall perform any filtering for ISC interaction before performing other routing procedures towards the terminating user
Summary of change:	⌘	Clarifications of how Filter Criteria is used with the callee capabilities of the UE
Consequences if not approved:	⌘	Misalignment with TS 23.228

Clauses affected:	⌘	2, 5.4.1.2.2, 5.4.2.1.2. 5.4.3.3. A.1, A.2

Other specs affected: ⌘

Y	N		
	X	Other core specifications	⌘
	X	Test specifications	
	X	O&M Specifications	

Other comments: ⌘

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

*********Change*********

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.002: "Network architecture".

[3] 3GPP TS 23.003: "Numbering, addressing and identification".

[4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[4A] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[5] 3GPP TS 23.218: "IP Multimedia (IM) Session Handling; IM call model".

[6] 3GPP TS 23.221: "Architectural requirements".

[7] 3GPP TS 23.228: "IP multimedia subsystem; Stage 2".

[8] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network protocols; Stage 3".

[8A] 3GPP TS 24.141: "Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[8B] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[9A] 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol Specification".

[10] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs".

[10A] 3GPP TS 27.060: "Mobile Station (MS) supporting Packet Switched Services".

[11] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN)".

[12] 3GPP TS 29.207: "Policy control over Go interface".

[13] 3GPP TS 29.208: "End to end Quality of Service (QoS) signalling flows".

[13A] 3GPP TS 29.209: "Policy control over Gq interface".

[14] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents".

[15] 3GPP TS 29.229: "Cx and Dx Interfaces based on the Diameter protocol, Protocol details".

[16] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[17] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[18] 3GPP TS 33.102: "3G Security; Security architecture".

[19] 3GPP TS 33.203: "Access security for IP based services".

[19A] 3GPP TS 33.210: "IP Network Layer Security".

[20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[20A] RFC 2401 (November 1998): "Security Architecture for the Internet Protocol".

[20B] RFC 1594 (March 1994): "FYI on Questions and Answers to Commonly asked "New Internet User" Questions".

[20C] RFC 2403 (November 1998) "The Use of HMAC-MD5-96 within ESP and AH".

[20D] RFC 2404 (November 1998) "The Use of HMAC-SHA-1-96 within ESP and AH".

[20E] RFC 2462 (November 1998): "IPv6 Address Autoconfiguration".

[21] RFC 2617 (June 1999): "HTTP Authentication: Basic and Digest Access Authentication".

[22] RFC 2806 (April 2000): "URLs for Telephone Calls".

[23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".

[24] RFC 2916 (September 2000): "E.164 number and DNS".

[25] RFC 2976 (October 2000): "The SIP INFO method".

[25A] RFC 3041 (January 2001): "Privacy Extensions for Stateless Address Autoconfiguration in IPv6".

[26] RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[27] RFC 3262 (June 2002): "Reliability of provisional responses in Session Initiation Protocol (SIP)".

[28] RFC 3265 (June 2002): "Session Initiation Protocol (SIP) Specific Event Notification".

[29] RFC 3311 (September 2002): "The Session Initiation Protocol (SIP) UPDATE method".

[30] RFC 3312 (October 2002): "Integration of resource management and Session Initiation Protocol (SIP)".

[31] RFC 3313 (January 2003): "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".

[32] RFC 3320 (March 2002): "Signaling Compression (SigComp)".

[33] RFC 3323 (November 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[34] RFC 3325 (November 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[34A] RFC 3326 (December 2002): "The Reason Header Field for the Session Initiation Protocol (SIP)".

[35] RFC 3327 (December 2002): "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".

[36] RFC 3515 (April 2003): "The Session Initiation Protocol (SIP) REFER method".

[37] RFC 3420 (November 2002): "Internet Media Type message/sipfrag".

[38] RFC 3608 (October 2003): "Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration".

[39] draft-ietf-mmusic-sdp-new-13 (May 2003): "SDP: Session Description Protocol".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[40] RFC 3315 (July 2003): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

[41] RFC 3319 (July 2003): "Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers".

[42] RFC 3485 (February 2003): "The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)".

[43] RFC 3680 (March 2004): "A Session Initiation Protocol (SIP) Event Package for Registrations".

[44] Void.

[45] Void.

[46] Void.

[47] Void.

[48] RFC 3329 (January 2003): "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".

[49] RFC 3310 (September 2002): "Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)".

[50] RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[51] Void.

[52] RFC 3455 (January 2003): "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)".

[53] RFC 3388 (December 2002): "Grouping of Media Lines in Session Description Protocol".

[54] RFC 3524 (April 2003): "Mapping of Media Streams to Resource Reservation Flows".

[55] RFC 3486 (February 2003): "Compressing the Session Initiation Protocol (SIP)".

[56] RFC 3556 (July 2003): "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".

[56A] RFC 3581 (August 2003): "An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing".

[56B] draft-ietf-sip-callerprefs-10 (October 2003): "Caller Preferences for the Session Initiation Protocol (SIP)"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[57] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[58] draft-ietf-sip-session-timer-13 (January 2004): "Session Timers in the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[70] draft-ietf-sip-publish-02 (January 2004): "Session Initiation Protocol (SIP) Extension for Presence Publication".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[71] draft-niemi-sipping-event-throttle-00 (October 2003): "Session Initiation Protocol (SIP) Event Notification Throttles".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[72] draft-ietf-simple-winfo-package-05 (January 2003): "A Session Initiation Protocol (SIP) Event Template-Package for Watcher Information".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[74] draft-ietf-simple-presence-10 (January 2003): "A Presence Event Package for the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[75] draft-ietf-simple-event-list-04 (June 2003): "A Session Initiation Protocol (SIP) Event Notification Extension for Collections".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[77] draft-ietf-simple-xcap-package-01 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Modification Events for the Extensible Markup Language (XML) Configuration Access Protocol (XCAP) Managed Documents".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[78] draft-ietf-sipping-conference-package-03 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Conference State"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[79] draft-ietf-sip-callee-caps-03 (December 2003): "Indicating User Agent Capabilities in the Session Initiation Protocol (SIP)"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

*********Change*********

5.4 Procedures at the S-CSCF

5.4.1.2.2 Protected REGISTER

Upon receipt of a REGISTER request with the "integrity-protected" parameter in the Authorization header set to "yes", the S-CSCF shall identify the user by the public user identity as received in the To header and the private user identity as received in the Authorization header of the REGISTER request, and:

In the case that there is no authentication currently ongoing for this user (i.e. no timer reg-await-auth is running):

1) check if the user needs to be reauthenticated.

   The S-CSCF may require authentication of the user for any REGISTER request, and shall always require authentication for REGISTER requests received without the "integrity-protected" parameter in the Authorization header set to "yes".

   If the user needs to be reauthenticated, the S-CSCF shall proceed with the procedures as described for the initial REGISTER in subclause 5.4.1.2.1, beginning with step 4). If the user does not need to be reauthenticated, the S-CSCF shall proceed with the following steps in this paragraph; and

2) check whether an Expires timer is included in the REGISTER request and its value. If the Expires header indicates a zero value, the S-CSCF shall perform the deregistration procedures as described in subclause 5.4.1.4. If the Expires header does not indicate zero, the S-CSCF shall check whether the public user identity received in the To header is already registered. If it is not registered, the S-CSCF shall proceed beginning with step 5 below. Otherwise, the S-CSCF shall proceed beginning with step 6 below.

In the case that a timer reg-await-auth is running for this user the S-CSCF shall:

1) check if the Call-ID of the request matches with the Call-ID of the 401 (Unauthorized) response which carried the last challenge. The S-CSCF shall only proceed further if the Call-IDs match.

2) stop timer reg-await-auth;

3) check whether an Authorization header is included, containing:

   a) the private user identity of the user in the username field;

   b) the algorithm which is AKAv1-MD5 in the algorithm field; and

   c) the authentication challenge response needed for the authentication procedure in the response field.

   The S-CSCF shall only proceed with the following steps in this paragraph if the authentication challenge response was included;

4) check whether the received authentication challenge response and the expected authentication challenge response (calculated by the S-CSCF using XRES and other parameters as described in RFC 3310 [49]) match. The XRES parameter was received from the HSS as part of the Authentication Vector. The S-CSCF shall only proceed with the following steps if the challenge response received from the UE and the expected response calculated by the S-CSCF match;

5) after performing the Cx Server Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], store the following information in the local data:

   a) the list of public user identities associated to the user, including the own public user identity under registration and the implicitly registered due to the received REGISTER request. Each public user identity is identified as either barred or non-barred; and,

   b) all the service profile(s) corresponding to the public user identities being registered (explicitly or implicitly), including initial Filter Criteria;

NOTE 1: There might be more than one set of initial Filter Criteria received because some implicitly registered public user identities that are part of the same user's subscription may belong to different service profiles.

6) bind to each non-barred registered public user identity all registered contact information including all header parameters contained in the Contact header and all associated URI parameters and store ~~the related method tag values from the Contact header~~information for future use;

NOTE 2: There might be more then one contact information available for one public user identity.

NOTE 3: The barred public user identities are not bound to the contact information.

7) check whether a Path header was included in the REGISTER request and construct a list of preloaded Route headers from the list of entries in the Path header. The S-CSCF shall preserve the order of the preloaded Route headers and bind them to the contact information that was received in the REGISTER message;

NOTE 4: If this registration is a reregistration, then a list of pre-loaded Route headers will already exist. The new list replaces the old list.

8) determine the duration of the registration by checking the value of the Expires header in the received REGISTER request. The S-CSCF may reduce the duration of the registration due to local policy or send back a 423 (Interval Too Brief) response specifying the minimum allowed time for registration;

9) store the icid parameter received in the P-Charging-Vector header;

10) create a 200 (OK) response for the REGISTER request, including:

a) the list of received Path headers;

b) a P-Associated-URI header containing the list of public user identities that the user is authorized to use. The first URI in the list of public user identities supplied by the HSS to the S-CSCF will indicate the default public user identity to be used by the S-CSCF. The public user identity indicated as the default public user identity must be an already registered public user identity. The S-CSCF shall place the default public user identity as a first entry in the list of URIs present in the P-Associated-URI header. The default public user identity will be used by the P-CSCF in conjunction with the procedures for the P-Asserted-Identity header, as described in subclause 5.2.6.3. The S-CSCF shall not add a barred public user identity to the list of URIs in the P-Associated-URI header;

c) a Service-Route header containing:

- the SIP URI identifying the S-CSCF containing an indication that requests routed via the service route (i.e. from the P-CSCF to the S-CSCF) are treated as for the mobile-originating case. This indication may e.g. be in a URI parameter, a character string in the user part of the URI or be a port number in the URI; and,

- if network topology hiding is required a SIP URI identifying an I-CSCF(THIG) as the topmost entry; and

d) a P-Charging-Function-Addresses header containing the values received from the HSS if the P-CSCF is in the same network as the S-CSCF. It can be determined if the P-CSCF is in the same network as the S-CSCF by the contents of the P-Visited-Network-ID header field included in the REGISTER request;

11) send the so created 200 (OK) response to the UE;

12) send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event; and,

NOTE 5: If this registration is a reregistration, the Filter Criteria already exists in the local data.

13) handle the user as registered for the duration indicated in the Expires header.

*********Change*********

5.4.2 Subscription and notification

5.4.2.1 Subscriptions to S-CSCF events

5.4.2.1.2 Notification about registration state

For each NOTIFY request on all dialogs which have been established due to subscription to the reg event package of that user, the S-CSCF shall:

1) set the Request-URI and Route header to the saved route information during subscription;

2) set the Event header to the "reg" value;

3) in the body of the NOTIFY request, include as many <registration> elements as many public user identities the S-CSCF is aware of the user owns;

4) set the aor attribute within each <registration> element to one public user identity:

a) set the <uri> sub-element inside each <contact> sub-element of the <registration> element to the contact address provided by the respective UE; and

b) if the public user identity:

I) has been deregistered (i.e. no active contact left) then:

- set the state attribute within the <registration> element to "terminated";
- set the state attribute within each <contact> element to "terminated"; and
- set the event attribute within each <contact> element to "deactivated", "expired", "unregistered" or "probation" according RFC 3680 [43]; or

II) has been registered then:

- set the <unknown-param> element to any additional header parameters contained in the contact header of the REGISTER request according to RFC 3680 [43];
- set the state attribute within the <registration> element to "active", if not already set to "active", otherwise leave it unchanged; and either:
- for the contact address to be registered: set the state attribute within the <contact> element to "active"; and set the event attribute within the <contact> element to "registered"; or
- for the contact address which remain unchanged, if any, leave the <contact> element unmodified;

III) has been automatically registered, and have not been previously automatically registered:

- set the <unknown-param> element to any additional header parameters contained in the contact header of the originsl REGISTER request according to RFC 3680 [43];
- set the state attribute within the <registration> element to "active";
- set the state attribute within the <contact> element to "active"; and
- set the event attribute within the <contact> element to "created"; and

5) set the P-Charging-Vector header with the icid parameter populated as specified in 3GPP TS 32.260 [17].

The S-CSCF shall only include the non-barred public user identities in the NOTIFY request.

EXAMPLE: If sip:user1_public1@home1.net is registered, the public user identity sip:user1_public2@home1.net can automatically be registered. Therefore the entries in the body of the NOTIFY request look like:

```
<?xml version="1.0"?>
<reginfo xmlns="urn:ietf:params:xml:ns:reginfo"
             version="0" state="full">
  <registration aor="sip:user1_public1@home1.net" id="as9"
                 state="active">
    <contact id="76" state="active" event="registered">
          <uri>sip:[5555::aaa:bbb:ccc:ddd]</uri>
          <unknown-param name="audio"/>
    </contact>
  </registration>
  <registration aor="sip:user1_public2@home1.net" id="as10"
                 state="active">
    <contact id="86" state="active" event="created">
          <uri>sip:[5555::aaa:bbb:ccc:ddd]</uri>
          <unknown-param name="audio"/>
    </contact>
  </registration>
</reginfo>
```

When sending a final NOTIFY request with all <registration> element(s) having their state attribute set to "terminated" (i.e. all public user identities have been deregistered or expired), the S-CSCF shall also terminate the subscription to the registration event package by setting the Subscription-State header to the value of "terminated".

When all UE's contact addresses have been deregistered (i.e.there is no <contact> element set to "active" for this UE), the S-CSCF shall consider subscription to the reg event package belonging to the UE cancelled (i.e. as if the UE had sent a SUBSCRIBE request with an Expires header containing a value of zero).

The S-CSCF shall only include the non-barred public user identities in the NOTIFY request.

*********Change*********

5.4.3.3 Requests terminated at the served user

When the S-CSCF receives, destined for a statically pre-configured PSI or a registered served user, an initial request for a dialog or a request for a standalone transaction, prior to forwarding the request, the S-CSCF shall:

1) determine whether the request contains a barred public user identity in the Request-URI of the request or not. In case the Request URI contains a barred public user identity for the user, then the S-CSCF shall reject the request by generating a 404 (Not Found) response. Otherwise, continue with the rest of the steps;

2) remove its own URI from the topmost Route header;

3) check if an original dialog identifier that the S-CSCF previously placed in a Route header is present in the topmost Route header of the incoming request.

   - If present, it indicates an association with an existing dialog, the request has been sent from an AS in response to a previously sent request.

   - If not present, it indicates that the request is visiting the S-CSCF for the first time, and in this case the S-CSCF shall save the Request-URI from the request;

4) check whether the initial request matches the next unexecuted initial filter criteria in the priority order and apply the filter criteria on the SIP method as described in 3GPP TS 23.218 [5] subclause 6.5. If there is a match, then insert the AS URI to be contacted into the Route header as the topmost entry followed by its own URI populated as specified in the subclause 5.4.3.4;

NOTE 1: Depending on the result of the previous process, the S-CSCF may contact one or more AS(s) before processing the outgoing Request-URI.

5) insert a P-Charging-Function-Addresses header field, if not present, populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards AS;

6) store the value of the icid parameter received in the P-Charging-Vector header and retain the icid parameter in the P-Charging-Vector header;

7) store the value of the orig-ioi parameter received in the P-Charging-Vector header, if present. The orig-ioi parameter identifies the sending network of the request message. The orig-ioi parameter shall only be retained in the P-Charging-Vector header if the next hop is to an AS;

8) if necessary perform the caller preferences to callee capabilities matching ~~with the feature parameters stored from the registration and take appropriate action~~ according to draft-ietf-sip-caller-preferences[79];

9~~8~~) check whether the Request-URI equals to the saved value of the Request-URI. If there is no match, then:

   a) if the request is an INVITE request, save the Contact, CSeq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed; and

   b) forward the request based on the Request-URI and skip the following steps;

   If there is a match, then continue with the further steps;

10~~9~~) in case there are no Route headers in the request, then determine, from the destination public user identity, the list of preloaded routes saved during registration or re-registration, as described in subclause 5.4.1.2. Furthermore, the S-CSCF shall:

   a) build the Route header field with the values determined in the previous step;

   b) determine, from the destination public user identity, the saved Contact URI where the user is reachable saved at registration or reregistration, as described in subclause 5.4.1.2. If there is more than one contact address saved for the destination public user identity, the S-CSCF shall:

- if the fork directive in the Request Disposition header was set to "no-fork", forward the request to the contact with the highest qvalue parameter. In case no qvalue parameters were provided, the S-CSCF shall decide locally how to forward the request; otherwise

- fork the request or perform sequential search based on the relative preference indicated by the qvalue parameter of the Contact header in the original REGISTER request, as described in RFC3261 [26]. In case no qvalue parameters were provided, then the S-CSCF shall forward the request as directed by the Request Disposition header as described in draft-ietf-sip-callerprefs-10 [56B]. If the Request-Disposition header is not present, the S-CSCF shall decide locally whether to fork or perform sequential search among the contact addresses;

c) build a Request-URI with the contents of the saved Contact URI determined in the previous step; and

d) insert a P-Called-Party-ID SIP header field including the Request-URI received in the INVITE;

11~~0~~) if the request is an INVITE request, save the Contact, CSeq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed;

12~~1~~) optionally, apply any privacy required by RFC 3323 [33] to the P-Asserted-Identity header;

NOTE 2: The optional procedure above is in addition to any procedure for the application of privacy at the edge of the trust domain specified by RFC 3323 [33].

13~~2~~) in case of an initial request for a dialog, either:

- if the request is routed to an AS which is part of the trust domain, the S-CSCF can decide whether to record-route or not. The decision is configured in the S-CSCF using any information in the received request that may otherwise be used for the initial filter criteria. If the request is record-routed the S-CSCF shall create a Record-Route header containing its own SIP URI; or

- if the request is routed elsewhere, create a Record-Route header containing its own SIP URI; and

14~~3~~) forward the request based on the topmost Route header.

When the S-CSCF receives, destined for an unregistered user, an initial request for a dialog or a request for a standalone transaction, the S-CSCF shall:

1) execute the procedures described in the steps 1, 2 and 3 in the above paragraph (when the S-CSCF receives, destined for the registered served user, an initial request for a dialog or a request for a standalone transaction);

2) if the S-CSCF does not have the user profile, then initiate the S-CSCF Registration/deregistration notification with the purpose of downloading the relevant user profile (i.e. for unregistered user) and informing the HSS that the user is unregistered, but this S-CSCF will assess triggering of services for the unregistered user, as described in 3GPP TS 29.228 [14]; and

3) execute the procedure described in step 4, 5, 6, 7, 8, 9, 10, 12~~1~~ and 13~~2~~ in the above paragraph (when the S-CSCF receives, destined for the registered served user, an initial request for a dialog or a request for a standalone transaction).

   In case that no AS needs to be contacted, then S-CSCF shall return an appropriate unsuccessful SIP response. This response may be a 480 (Temporarily unavailable) and terminate these procedures.

When the S-CSCF receives a 1xx or 2xx response to the initial request for a dialog (whether the user is registered or not), it shall:

1) if the response corresponds to an INVITE request, save the Contact and Record-Route header field values in the response such that the S-CSCF is able to release the session if needed;

2) in the case where the S-CSCF has knowledge of an associated tel-URL for a SIP URI contained in the received P-Asserted-Identity header, the S-CSCF shall add a second P-Asserted-Identity header containing this tel-URL; and

3) in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header.

When the S-CSCF receives a response to a request for a standalone transaction (whether the user is registered or not), in the case where the S-CSCF has knowledge of an associated tel-URL for a SIP URI contained in the received P-Asserted-Identity header, the S-CSCF shall add a second P-Asserted-Identity header containing this tel-URL. In case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header.

When the S-CSCF receives the 200 (OK) response for a standalone transaction request, the S-CSCF shall insert a P-Charging-Function-Addresses header populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards an AS.

When the S-CSCF receives, destined for a served user, a target refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

1) remove its own URI from the topmost Route header;

2) if the request is an INVITE request, save the Contact, Cseq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed;

3) create a Record-Route header containing its own SIP URI; and

4) forward the request based on the topmost Route header.

When the S-CSCF receives a 1xx or 2xx response to the target refresh request for a dialog (whether the user is registered or not), the S-CSCF shall:

1) if the response corresponds to an INVITE request, save the Record-Route and Contact header field values in the response such that the S-CSCF is able to release the session if needed; and

2) in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header.

When the S-CSCF receives, destined for the served user, a subsequent request other than target refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

1) remove its own URI from the topmost Route header; and

2) forward the request based on the topmost Route header.

When the S-CSCF receives a response to a a subsequent request other than target refresh request for a dialog, in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header.

A.1.3 Roles

Table A.2: Roles

Item	Roles	Reference	RFC status	Profile status
1	User agent	[26]	o.1	o.1
2	Proxy	[26]	o.1	o.1
o.1: It is mandatory to support exactly one of these items.				
NOTE: For the purposes of the present document it has been chosen to keep the specification simple by the tables specifying only one role at a time. This does not preclude implementations providing two roles, but an entirely separate assessment of the tables shall be made for each role.				

Table A.3: Roles specific to this profile

Item	Roles	Reference	RFC status	Profile status
1	UE	5.1	n/a	o.1
2	P-CSCF	5.2	n/a	o.1
3	I-CSCF	5.3	n/a	o.1
3A	I-CSCF (THIG)	5.3	n/a	c1
4	S-CSCF	5.4	n/a	o.1
5	BGCF	5.6	n/a	o.1
6	MGCF	5.5	n/a	o.1
7	AS	5.7	n/a	o.1
7A	AS acting as terminating UA, or redirect server	5.7.2	n/a	c2
7B	AS acting as originating UA	5.7.3	n/a	c2
7C	AS acting as a SIP proxy	5.7.4	n/a	c2
7D	AS performing 3rd party call control	5.7.5	n/a	c2
8	MRFC	5.8	n/a	o.1

c1: IF A.3/3 THEN o ELSE x - - I-CSCF.
c2: IF A.3/7 THEN o.2 ELSE n/a - - AS.
o.1: It is mandatory to support exactly one of these items.
o.2: It is mandatory to support at least one of these items.

NOTE: For the purposes of the present document it has been chosen to keep the specification simple by the tables specifying only one role at a time. This does not preclude implementations providing two roles, but an entirely separate assessment of the tables shall be made for each role.

Table A.3A: Roles specific to additional capabilities

Item	Roles	Reference	RFC status	Profile status
1	Presence server	3GPP TS 24.141 [8A]	n/a	c1
2	Presence user agent	3GPP TS 24.141 [8A]	n/a	c2
3	Resource list server	3GPP TS 24.141 [8A]	n/a	c3
4	Watcher	3GPP TS 24.141 [8A]	n/a	c4
11	Conference focus	3GPP TS 24.147 [8B]	n/a	c5
12	Conference participant	3GPP TS 24.147 [8B]	n/a	c6

c1: IF A.3/7A AND A.3/7B THEN o ELSE n/a - - AS acting as terminating UA, or redirect server and AS acting as originating UA.
c2: IF A.3/1 THEN o ELSE n/a - - UE.
c3: IF A.3/7A THEN o ELSE n/a - - AS acting as terminating UA, or redirect server.
c4: IF A.3/1 OR A.3/7B THEN o ELSE n/a - - UE or AS acting as originating UA.
c5: IF A.3/7D AND A.3/4 AND A.3/8 THEN o ELSE n/a - - AS performing 3rd party call control and S-CSCF and MRFC (note 2).
c6: IF A.3/1 OR A.3A/11 THEN o ELSE n/a - - UE or conference focus.

NOTE 1: For the purposes of the present document it has been chosen to keep the specification simple by the tables specifying only one role at a time. This does not preclude implementations providing two roles, but an entirely separate assessment of the tables shall be made for each role.

NOTE 2: The functional split between the MRFC and the conferencing AS is out of scope of this document and they are assumed to be collocated.

A.2 Profile definition for the Session Initiation Protocol as used in the present document

A.2.1 User agent role

A.2.1.1 Introduction

This subclause contains the ICS proforma tables related to the user role. They need to be completed only for UA implementations:

Prerequisite: A.2/1 - - user agent role.

A.2.1.2 Major capabilities

Table A.4: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
1	client behaviour for registration?	[26] subclause 10.2	o	c3
2	registrar?	[26] subclause 10.3	o	c4
2A	registration of multiple contacts for a single address of record	[26] 10.2.1.2, 16.6	o	o
2B	initiating a session?	[26] subclause 13	o	o
3	client behaviour for INVITE requests?	[26] subclause 13.2	c18	c18
4	server behaviour for INVITE requests?	[26] subclause 13.3	c18	c18
5	session release?	[26] subclause 15.1	c18	c18
6	timestamping of requests?	[26] subclause 8.2.6.1	o	o
7	authentication between UA and UA?	[26] subclause 22.2	o	o
8	authentication between UA and registrar?	[26] subclause 22.2	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	o
9	server handling of merged requests due to forking?	[26] 8.2.2.2	m	m
10	client handling of multiple responses due to forking?	[26] 13.2.2.4	m	m
11	insertion of date in requests and responses?	[26] subclause 20.17	o	o
12	downloading of alerting information?	[26] subclause 20.4	o	o
	Extensions			
13	the SIP INFO method?	[25]	o	n/a
14	reliability of provisional responses in SIP?	[27]	c19	c18
15	the REFER method?	[36]	o	c33
16	integration of resource management and SIP?	[30]	c19	c18
17	the SIP UPDATE method?	[29]	c5	c18
19	SIP extensions for media authorization?	[31]	o	c14
20	SIP specific event notification?	[28]	o	c13
21	the use of NOTIFY to establish a dialog?	[28] 4.2	o	n/a
22	acting as the notifier of event information?	[28]	c2	c15
23	acting as the subscriber to event information?	[28]	c2	c16
24	session initiation protocol extension header field for registering non-adjacent contacts?	[35]	o	c6
25	private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks?	[34]	o	m
26	a privacy mechanism for the Session Initiation Protocol (SIP)?	[33]	o	m
26A	request of privacy by the inclusion of a Privacy header indicating any privacy option?	[33]	c9	c11
26B	application of privacy based on the received Privacy header?	[33]	c9	n/a
26C	passing on of the Privacy header transparently?	[33]	c9	c12
26D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	c10	c27
26E	application of the privacy option "session" such that anonymization for	[33] 5.2	c10	c27

	the session(s) initiated by this message occurs?			
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	c27
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20
38	the Reason header field for the session initiation protocol?	[34A]	o	o (note 1)
39	an extension to the session initiation protocol for symmetric response routeing?	[56A]	o	x
40	caller preferences for the session initiation protocol?	[56B]	C29	c29
40A	the proxy-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40B	the cancel-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40C	the fork-directive within caller-preferences?	[56B] 9.1	o.5	c28
40D	the recurse-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40E	the parallel-directive within caller-preferences?	[56B] 9.1	o.5	c28
40F	the queue-directive within caller-preferences?	[56B] 9.1	o.5	o.5
41	an event state publication extension to the session initiation protocol?	[70]	o	c30
42	SIP session timer?	[58]	c19	c19
43	the callee capabilities?	[79]	o	c34

c2: IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.
c3: IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.
c4: IF A.3/4 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - S-CSCF or AS functional entity.
c5: IF A.4/16 THEN m ELSE o - - integration of resource management and SIP extension.
c6: IF A.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.
c7: IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D THEN m ELSE n/a - - UA or S-CSCF or AS acting as terminating UA or AS acting as originating UA or AS performing 3rd party call control.
c8: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c9: IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.
c11: IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.
c12: IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.
c13: IF A.3/1 OR A.3/2 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.
c14: IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.
c15: IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.
c16: IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.
c17: IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.
c18: IF A.4/2B THEN m ELSE n/a - - initiating sessions.
c19: IF A.4/2B THEN o ELSE n/a - - initiating sessions.
c20: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c21: IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).
c22: IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.
c23: IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.
c24: IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.
c25: IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.
c26: IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.
c27: IF A.3/7D THEN o ELSE x - - AS performing 3rd party call control.
c28: IF A.3/1 THEN m ELSE o.5 - - UE.
c29: IF A.4/40A OR A.4/40B OR A.4/40C OR A.4/40D OR A.4/40E OR A.4/40F OR A.4/43 THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.
c30: IF A.3A/1 OR A.3A/2 THEN m ELSE IF A.3/1 THEN o ELSE n/a - - presence server, presence user agent, UE, AS.
c33: IF A.3/11 OR A.3/12 THEN m ELSE o - - conference focus or conference participant.
c34: IF A.3/4 THEN m ELSE IF (A.3/1 OR A.3/6 OR A.3/7 OR A.3/8) THEN o ELSE n/a - - UE, MGCF, AS MRFC or S-CSCF functional entity.
o.1: At least one of these capabilities is supported.
o.2: At least one of these capabilities is supported.
o.3: At least one of these capabilities is supported.
o.4: At least one of these capabilities is supported.
o.5: At least one of these capabilities is supported.

NOTE 1: At the MGCF, the interworking specifications do not support a handling of the header associated with this extension.

A.2.2 Proxy role

A.2.2.1 Introduction

This subclause contains the ICS proforma tables related to the proxy role. They need to be completed only for proxy implementations.

Prerequisite: A.2/2 - - proxy role

A.2.2.2 Major capabilities

Table A.162: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
3	initiate session release?	[26] 16	x	c27
4	stateless proxy behaviour?	[26] 16.11	o.1	c28
5	stateful proxy behaviour?	[26] 16.2	o.1	c29
6	forking of initial requests?	[26] 16.1	c1	c31
7	support of TLS connections on the upstream side?	[26] 16.7	o	n/a
8	support of TLS connections on the downstream side?	[26] 16.7	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	x
9	insertion of date in requests and responses?	[26] 20.17	o	o
10	suppression or modification of alerting information data?	[26] 20.4	o	o
11	reading the contents of the Require header before proxying the request or response?	[26] 20.32	o	o
12	adding or modifying the contents of the Require header before proxying the REGISTER request or response	[26] 20.32	o	m
13	adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER?	[26] 20.32	o	o
14	being able to insert itself in the subsequent transactions in a dialog (record-routing)?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing?	[26] 16.7	c3	c3
16	reading the contents of the Supported header before proxying the response?	[26] 20.37	o	o
17	reading the contents of the Unsupported header before proxying the 420 response to a REGISTER?	[26] 20.40	o	m
18	reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER?	[26] 20.40	o	o
19	the inclusion of the Error-Info header in 3xx - 6xx responses?	[26] 20.18	o	o
19A	reading the contents of the Organization header before proxying the request or response?	[26] 20.25	o	o
19B	adding or concatenating the Organization header before proxying the request or response?	[26] 20.25	o	o
19C	reading the contents of the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19D	adding or concatenating the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19E	delete Contact headers from 3xx responses prior to relaying the response?	[26] 20	o	o
	Extensions			
20	the SIP INFO method?	[25]	o	o
21	reliability of provisional responses in	[27]	o	i

	SIP?			
22	the REFER method?	[36]	o	o
23	integration of resource management and SIP?	[30]	o	i
24	the SIP UPDATE method?	[29]	c4	i
26	SIP extensions for media authorization?	[31]	o	c7
27	SIP specific event notification	[28]	o	i
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	[35]	o	c6
30	extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks	[34]	o	m
30A	act as first entity within the trust domain for asserted identity	[34]	c5	c8
30B	act as subsequent entity within trust network that can route outside the trust network	[34]	c5	c9
31	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
31A	request of privacy by the inclusion of a Privacy header	[33]	n/a	n/a
31B	application of privacy based on the received Privacy header	[33]	c10	c12
31C	passing on of the Privacy header transparently	[33]	c10	c13
31D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	x	x
31E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	n/a	n/a
31F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	n/a	n/a
31G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c11	c12
32	Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration	[38]	o	c30
33	a messaging mechanism for the Session Initiation Protocol (SIP)	[50]	o	m
34	Compressing the Session Initiation Protocol	[55]	o	c7
35	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
36	the P-Associated-URI header extension?	[52] 4.1	c14	c15
37	the P-Called-Party-ID header extension?	[52] 4.2	c14	c16
38	the P-Visited-Network-ID header extension?	[52] 4.3	c14	c17
39	reading, or deleting the P-Visited-Network-ID header before proxying the request or response?	[52] 4.3	c18	n/a
41	the P-Access-Network-Info header extension?	[52] 4.4	c14	c19
42	act as first entity within the trust domain	[52] 4.4	c20	c21

	for access network information?			
43	act as subsequent entity within trust network for access network information that can route outside the trust network?	[52] 4.4	c20	c22
44	the P-Charging-Function-Addresses header extension?	[52] 4.5	c14	m
44A	adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response?	[52] 4.6	c25	c26
45	the P-Charging-Vector header extension?	[52] 4.6	c14	m
46	adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response?	[52] 4.6	c23	c24
47	security mechanism agreement for the session initiation protocol?	[48]	o	c7
48	the Reason header field for the session initiation protocol	[34A]	o	o
49	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x
50	caller preferences for the session initiation protocol?	[56B]	c33	c33
50A	the proxy-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50B	the cancel-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50C	the fork-directive within caller-preferences?	[56B] 9.1	o.4	c32
50D	the recurse-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50E	the parallel-directive within caller-preferences?	[56B] 9.1	o.4	c32
50F	the queue-directive within caller-preferences?	[56B] 9.1	o.4	o.4
51	an event state publication extension to the session initiation protocol?	[70]	o	m
52	SIP session timer?	[58]	o	o
53	the callee capabillities?	[79]	o	o

c1: IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour.

c2: IF A.3/2 OR A.3/3A OR A.3/4 THEN m ELSE o - - P-CSCF, I-CSCF(THIG) or S-CSCF.

c3: IF (A.162/7 AND NOT A.162/8) OR (NOT A.162/7 AND A.162/8) THEN m ELSE IF A.162/14 THEN o ELSE n/a - - TLS interworking with non-TLS else proxy insertion.

c4: IF A.162/23 THEN m ELSE o - - integration of resource management and SIP.

c5: IF A.162/30 THEN o ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).

c7: IF A.3/2 THEN m ELSE n/a - - P-CSCF.

c8: IF A.3/2 AND A.162/30 THEN m ELSE n/a - - P-CSCF and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c9: IF A.3/2 AND A.162/30 THEN m ELSE IF A.3/7C AND A.162/30 THEN o ELSE n/a - - S-CSCF or AS acting as proxy and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks (NOTE).

c10: IF A.162/31 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c11: IF A.162/31B THEN o ELSE x - - application of privacy based on the received Privacy header.

c12: IF A.162/31 AND A.3/4 THEN m ELSE n/a - - S-CSCF.

c13: IF A.162/31 AND (A.3/2 OR A.3/3 OR A.3/7C) THEN m ELSE n/a - - P-CSCF OR I-CSCF OR AS acting as a SIP proxy.

c14: IF A.162/35 THEN o.3 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c15: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c16: IF A.162/35 AND (A.3/2 OR A.3/3 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF or S-CSCF.

c17: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c18: IF A.162/38 THEN o ELSE n/a - - the P-Visited-Network-ID header extension.

c19: IF A.162/35 AND (A.3/2 OR A.3.3 OR A.3/4 OR A.3/7 THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF, I-CSCF, S-CSCF, AS acting as a proxy.

c20: IF A.162/41 THEN o ELSE n/a - - the P-Access-Network-Info header extension.

c21: IF A.162/41 AND A.3/2 THEN m ELSE n/a - - the P-Access-Network-Info header extension and P-CSCF.

c22: IF A.162/41 AND A.3/4 THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF.

c23: IF A.162/45 THEN o ELSE n/a - - the P-Charging-Vector header extension.

c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c25: IF A.162/44 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.

c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function Addresses header extension.

c27: IF A.3/2 OR A.3/4 THEN m ELSE x - - P-CSCF or S-CSCF.

c28: IF A.3/2 OR A.3/4 OR A.3/6 then m ELSE o - - P-CSCF or S-CSCF of MGCF.

c29: IF A.3/2 OR A.3/4 OR A.3/6 then o ELSE m - - P-CSCF or S-CSCF of MGCF.

c30: IF A.3/2 o ELSE i - - P-CSCF.

c31: IF A.3/4 THEN m ELSE x - - S-CSCF.

c32: IF A.3/4 THEN m ELSE o.4 - - S-CSCF.

c33: IF A.162/50A OR A.162/50B OR A.162/50C OR A.162/50D OR A.162/50E OR A.162/50F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

o.1: It is mandatory to support at least one of these items.

o.2: It is mandatory to support at least one of these items.

o.3: It is mandatory to support at least one of these items.

o.4 At least one of these capabilities is supported.

NOTE: An AS acting as a proxy may be outside the trust domain, and therefore not able to support the capability for that reason; in this case it is perfectly reasonable for the header to be passed on transparently, as specified in the PDU parts of the profile.

3GPP TSG-CN1 Meeting #35 **Tdoc N1-041350**
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**659**	⌘**rev**	**-**	⌘	Current version:	**6.3.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Multiple public ID registration		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	07/08/2004
Category:	⌘	**F** *Use one of the following categories:* ***F** (correction)* ***A** (corresponds to a correction in an earlier release)* ***B** (addition of feature),* ***C** (functional modification of feature)* ***D** (editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.	***Release:*** ⌘	*Rel-6* *Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	Public User Identities may be shared across multiple UEs. Hence, a particular Public User Identity may be simultaneously registered from multiple UEs that use different Private User Identities and different contact addresses. Hence, a given Public User Identity may be deregistered from this UE, while still be registered from another UE.
Summary of change:	⌘	Correct text provided.
Consequences if not approved:	⌘	Incorrect and incomplete specification.

Clauses affected:	⌘	5.2.4				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.2.4 Registration of multiple public user identities

Upon receipt of a 2xx response to the SUBSCRIBE request the P-CSCF shall maintain the generated dialog (identified by the values of the Call-ID, To and From headers).

Upon receipt of a NOTIFY request on the dialog which was generated during subscription to the reg event package of the user~~-~~, the P-CSCF shall perform the following actions:

1)~~-~~ for each public user identity~~if a~~ whose state attribute in the <registration> element is set to "active", i.e. registered;~~,~~ and

- the state attribute within the <contact> sub-element is set to "active"; and ~~is received for one or more public user identities,~~

- the value of the <uri> sub-element inside the <contact> sub-element is set to the contact address of the user's UE; and

- the event attribute of that <contact> sub-element(s) is set to " registered" or "created ";

the P-CSCF shall bind the indicated public user identitiy~~es~~ as registered to the contact information of the respective user;

2) for each public user identity whose state attribute in the <registration> element is set to "active", i.e. registered; and

- the state attribute within the <contact> sub-element is set to " terminated ";

- the value of the <uri> sub-element inside the <contact> sub-element is set to the contact address of the user's UE; and

- the event attribute of that <contact> sub-element(s) is set to "deactivated", "expired", "probation", "unregistered", or "rejected";

the P-CSCF shall consider the indicated public user identitiy as deregistered for this user, and shall release all stored information for the public user identity bound to the respective user; and

3)~~-~~ for each public user identity~~if a~~ whose state attribute in the <registration> element is set to "terminated", i.e. deregistered~~,~~; and

- the value of the <uri> sub-element inside the <contact> sub-element is set to the contact address of the user's UE; and

- the event attribute of that <contact> sub-element(s) is set to "deactivated", "expired", "probation", "unregistered", or "rejected";~~is received for one or more public user identities,~~

the P-CSCF shall consider the indicated public user identitiy as deregistered for this UE, and shall release all stored information for these public user identity~~ies~~ bound to the respective user.

If all public user identities, that were registered by the user using its private user identity, have been deregistered, the P-CSCF may either unsubscribe to the reg event package of the user or let the subscription expire.

NOTE: There may be public user identities which are implicitly registered within the registrar (S-CSCF) of the user upon registration of one public user identity. The procedures in this subclause provide a mechanism to inform the P-CSCF about these implicitly registered public user identities.

3GPP TSG-CN1 Meeting #35 **Tdoc N1-041351**
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **24.229** **CR** **660** ⌘**rev** **-** ⌘ Current version: **6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title: ⌘	Standalone transactions		
Source: ⌘	Lucent Technologies		
Work item code: ⌘	IMS2	***Date:*** ⌘	07/08/2004
Category: ⌘	**F**	***Release:*** ⌘	*Rel-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘	The UE builds a list of Route header values utilizing the P-CSCF URI and the values received in the Service-Route header saved from the 200 (OK) response to the last registration or re-registration. The UE preloads Route header value to all requests for a new dialogs and standalone transactions.
Summary of change: ⌘	The following text added: " and standalone transactions".
Consequences if not approved: ⌘	Incomplete specification.

Clauses affected: ⌘	5.1.1.2 and 5.1.1.4			
	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	
Other comments: ⌘				

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

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downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.1.1.2 Initial registration

The UE can register a public user identity with its contact address at any time after it has aquired an IP address, discovered a P-CSCF, and established an IP-CAN bearer that can be used for SIP signalling. However, the UE shall only initiate a new registration procedure when it has received a final response from the registrar for the ongoing registration, or the previous REGISTER request has timed out.

A REGISTER request may be protected using a security association, see 3GPP TS 33.203 [19], established as a result of an earlier registration.

The UE shall extract or derive a public user identity, the private user identity, and the domain name to be used in the Request-URI in the registration, according to the procedures described in subclause 5.1.1.1A. A public user identity may be input by the end user.

On sending a REGISTER request, the UE shall populate the header fields as follows:

a) the Authorization header, with the username field, set to the value of the private user identity;

b) the From header set to the SIP URI that contains the public user identity to be registered;

c) the To header set to the SIP URI that contains the public user identity to be registered;

d) the Contact header set to include SIP URI(s) containing the IP address of the UE in the hostport parameter or FQDN. If the REGISTER request is protected by a security association, the UE shall also include the protected server port value in the hostport parameter;

NOTE 1: If the UE specifies its FQDN in the host parameter in the Contact header, then it has to ensure that the given FQDN will resolve (e.g., by reverse DNS lookup) to the IP address that is bound to the security association.

NOTE 2: The UE associates two ports, a protected client port and a protected server port, with each pair of security association. For details on the selection of the protected port value see 3GPP TS 33.203 [19].

e) the Expires header, or the expires parameter within the Contact header, set to the value of 600 000 seconds as the value desired for the duration of the registration;

NOTE 3: The registrar (S-CSCF) might decrease the duration of the registration in accordance with network policy. Registration attempts with a registration period of less than a predefined minimum value defined in the registrar will be rejected with a 423 (Interval Too Brief) response.

f) a Request-URI set to the SIP URI of the domain name of the home network;

g) the Security-Client header field set to specify the security mechanism the UE supports, the IPsec layer algorithms the UE supports and the parameters needed for the security association setup. The UE shall support the setup of two pairs of security associations as defined in 3GPP TS 33.203 [19]. The syntax of the parameters needed for the security association setup is specified in Annex H of 3GPP TS 33.203 [19]. The UE shall support the "ipsec-3gpp" security mechanism, as specified in RFC 3329 [48]. The UE shall support the HMAC-MD5-96 (RFC 2403 [20C]) and HMAC-SHA-1-96 (RFC 2404 [20D]) IPsec layer algorithms, and shall announce support for them according to the procedures defined in RFC 3329 [48];

h) the Supported header containing the option tag "path"; and

i) if a security association exists, a P-Access-Network-Info header set as specified for the access network technology (for GPRS see subclause B.3).

On receiving the 200 (OK) response to the REGISTER request, the UE shall:

a) store the expiration time of the registration for the public user identities found in the To header value;

b) store the list of URIs contained in the P-Associated-URI header value. This list contains the URIs that are associated to the registered public user identity;

c) store as the default public user identity the first URI on the list of URIs present in the P-Associated-URI header;

d) treat the identity under registration as a barred public user identity, if it is not included in the P-Associated-URI header;

e) store the list of Service-Route headers contained in the Service-Route header, in order to build a proper preloaded Route header value for new dialogs and standalone transactions; and

f) set the security association lifetime to the longest of either the previously existing security association lifetime (if available), or the lifetime of the just completed registration plus 30 seconds.

When a 401 (Unauthorized) response to a REGISTER is received the UE shall behave as described in subclause 5.1.1.5.1.

On receiving a 423 (Interval Too Brief) too brief response to the REGISTER request, the UE shall:

- send another REGISTER request populating the Expires header or the expires parameter with an expiration timer of at least the value received in the Min-Expires header of the 423 (Interval Too Brief) response.

5.1.1.4 User-initiated re-registration

The UE can reregister a previously registered public user identity with its contact address at any time.

Unless either the user or the application within the UE has determined that a continued registration is not required the UE shall reregister the public user identity either 600 seconds before the expiration time if the initial registration was for greater than 1200 seconds, or when half of the time has expired if the initial registration was for 1200 seconds or less.

The UE shall protect the REGISTER request using a security association, see 3GPP TS 33.203 [19], established as a result of an earlier registration, if IK is available.

The UE shall extract or derive a public user identity, the private user identity, and the domain name to be used in the Request-URI in the registration, according to the procedures described in subclause 5.1.1.1A.

On sending a REGISTER request that does not contain a challenge response, the UE shall populate the header fields as follows:

a) an Authorization header, with the username field set to the value of the private user identity;

b) a From header set to the SIP URI that contains the public user identity to be registered;

c) a To header set to the SIP URI that contains the public user identity to be registered;

d) a Contact header set to include SIP URI(s) that contain(s) in the hostport parameter the IP address of the UE or FQDN and protected server port value bound to the security association;

NOTE 1: If the UE specifies its FQDN in the host parameter in the Contact header, then it has to ensure that the given FQDN will resolve (e.g., by reverse DNS lookup) to the IP address that is bound to the security association.

NOTE 2: The UE associates two ports, a protected client port and a protected server port, with each pair of security associations. For details on the selection of the protected port value see 3GPP TS 33.203 [19].

e) an Expires header, or an expires parameter within the Contact header, set to 600 000 seconds as the value desired for the duration of the registration;

NOTE 3: The registrar (S-CSCF) might decrease the duration of the registration in accordance with network policy. Registration attempts with a registration period of less than a predefined minimum value defined in the registrar will be rejected with a 423 (Interval Too Brief) response.

f) a Request-URI set to the SIP URI of the domain name of the home network;

g) a Security-Client header field, set to specify the security mechanism it supports, the IPsec layer algorithms it supports and the new parameter values needed for the setup of two new pairs of security associations. For further details see 3GPP TS 33.203 [19] and RFC 3329 [48];

h) a Security-Verify header that contains the content of the Security-Server header received in the 401 (Unauthorized) response of the last successful authentication;

i) the Supported header containing the option tag "path"; and

j) the P-Access-Network-Info header set as specified for the access network technology (for GPRS see subclause B.3).

On receiving the 200 (OK) response to the REGISTER request, the UE shall:

a) store the new expiration time of the registration for this public user identity found in the To header value;

b) store the list of URIs contained in the P-Associated-URI header value. This list contains the URIs that are associated to the registered public user identity;

c) store the list of Service-Route headers contained in the Service-Route header, in order to build a proper preloaded Route header value for new dialogs and standalone transactions; and

d) set the security association lifetime to the longest of either the previously existing security association lifetime, or the lifetime of the just completed registration plus 30 seconds.

When a 401 (Unauthorized) response to a REGISTER is received the UE shall behave as described in subclause 5.1.1.5.1.

On receiving a 423 (Interval Too Brief) response to the REGISTER request, the UE shall:

- send another REGISTER request populating the Expires header or the expires parameter with an expiration timer of at least the value received in the Min-Expires header of the 423 (Interval Too Brief) response.

When the timer F expires at the UE, the UE shall:

1) stop processing of all ongoing dialogs and transactions and silently discard them locally; and

2) after releasing all IP-CAN bearers used for the transport of media according to the procedures in subclause 9.2.2, the UE may:

    a) select a different P-CSCF address from the list of P-CSCF addresses discovered during the procedures described in subclause 9.2.1;

    b) if no response has been received when attempting to contact all P-CSCFs known by the UE, the UE may get a new set of P-CSCF-addresses as described in subclause 9.2.1; and

    c) perform the procedures for initial registration as described in subclause 5.1.1.2.

NOTE 4: It is an implementation option whether these actions are also triggered by other means than expiration of timer F, e.g. based on ICMP messages.

After a maximum of 5 consecutive initial registration attempts, the UE shall not automatically attempt any further initial registration for an implementation dependant time of at least 30 minutes.

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041354

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**663**	⌘**rev**	**-**	⌘ Current version:	**6.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Unprotected REGISTER		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	07/08/2004
Category:	⌘	**F**	***Release:*** ⌘	*Rel-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Subclause 5.3.2.1 states: "When the I-CSCF receives an initial request for a dialog or standalone transaction, that does not contain a Route header, the I-CSCF shall start the user location query procedure to the HSS as specified in 3GPP TS 29.228 [14] for the called user, indicated in the Request-URI." Subsequent request destined for the UE will include Route header. Furthermore, the document does not specify which protocol and port the I-CSCF may use when forwarding an initial request for a dialog or standalone transaction.
Summary of change:	⌘	Existing text corrected and Note added.
Consequences if not approved:	⌘	Incorrect and incomplete specification.

Clauses affected:	⌘	5.4.1.2.1				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4.1.2.1 Unprotected REGISTER

NOTE 1: Any REGISTER request sent unprotected by the UE is considered to be an initial registration. A 200 (OK) final response to such a request will only be sent back after the S-CSCF receives a correct authentication challenge response in a REGISTER request that is sent integrity protected.

NOTE 2: A REGISTER with Expires header value equal to zero should always be received protected. However, it is possible that in error conditions a REGISTER with Expires header value equal to zero may be received unprotected. In that instance the procedures below will be applied.

Upon receipt of a REGISTER request without an "integrity-protected" parameter, or with the "integrity-protected" parameter in the Authorization header set to "no", the S-CSCF shall:

1) identify the user by the public user identity as received in the To header and the private user identity as received in the username field in the Authorization header of the REGISTER request;

2) check if the P-Visited-Network header is included in the REGISTER request, and if it is included identify the visited network by the value of this header;

3) select an authentication vector for the user. If no authentication vector for this user is available, after the S-CSCF has performed the Cx Multimedia Authentication procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall select an authentication vector as described in 3GPP TS 33.203 [19].

   Prior to performing Cx Multimedia Authentication procedure with the HSS, the S-CSCF decides which HSS to query, possibly as a result of a query to the Subscription Locator Functional (SLF) entity as specified in 3GPP TS 29.228 [14];

NOTE 3: At this point the S-CSCF informs the HSS, that the user currently registering will be served by the S-CSCF by passing its SIP URI to the HSS. This will be indicated by the HSS for all further incoming initial requests for a dialog or standalone transactions destined for~~to~~ this user, in order to direct all these requests ~~directly~~ to this S-CSCF.

NOTE 4: When passing its SIP URI to the HSS, the S-CSCF may include in its SIP URI the transport protocol and the port number where it wants to be contacted.

4) store the icid parameter received in the P-Charging-Vector header;

5) challenge the user by generating a 401 (Unauthorized) response for the received REGISTER request, including a WWW-Authenticate header which transports:

   - the home network identification in the realm field;

   - the RAND and AUTN parameters and optional server specific data for the UE in the nonce field;

   - the security mechanism, which is AKAv1-MD5, in the algorithm field;

   - the IK (Integrity Key) parameter for the P-CSCF in the ik field (see subclause 7.2A.1); and

   - the CK (Cipher Key) parameter for the P-CSCF in the ck field (see subclause 7.2A.1);

6) store the RAND parameter used in the 401 (Unathorized) response for future use in case of a resynchronisation. If a stored RAND already exists in the S-CSCF, the S-CSCF shall overwrite the stored RAND with the RAND used in the most recent 401 (Unauthorized) response;

7) send the so generated 401 (Unauthorized) response towards the UE; and,

8) start timer reg-await-auth which guards the receipt of the next REGISTER request.

If the received REGISTER request indicates that the challenge sent previously by the S-CSCF to the UE was deemed to be invalid by the UE, the S-CSCF shall stop the timer reg-await-auth and proceed as described in the subclause 5.4.1.2.3.

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041372

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**665**	⌘ **rev**	**-**	⌘	Current version: **6.3.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME ☒ Radio Access Network □ Core Network □

Title:	⌘	Contact in SUBSCRIBE request		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	07/08/2004
Category:	⌘	**F**	***Release:*** ⌘	*Rel-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	A particular public user identity may be registered from multiple UEs that use different private user identities and different contact addresses. When two UE subscribe to the reg event package for the common public user identity [since they don't provide the private user identity], the contact address is the parameter that will distinguish them. Hence the contact address is used to enable the S-CSCF to bind a given registration to the proper dialog [created by SUBSCRIBE request].
Summary of change:	⌘	Proposed to explicitly specify the value in the Contact header.
Consequences if not approved:	⌘	Incomplete specification.

Clauses affected:	⌘	5.1.1.3				
		Y	**N**			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:
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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.1.1.3 Initial subscription to the registration-state event package

Upon receipt of a 2xx response to the initial registration, the UE shall subscribe to the reg event package for the public user identity registered at the users registrar (S-CSCF) as described in RFC 3680 [43].

The UE shall use the default public user identiy for subscription to the registration-state event package, if the public user identity that was used for initial registration is a barred public user identity. The UE may use either the default public user identity or the public user identity used for initial registration for the subscription to the registration-state event package, if the initial public user identity that was used for initiaial registratioin is not barred.

On sending a SUBSCRIBE request, the UE shall populate the header fields as follows:

a) a Request URI set to the resource to which the UE wants to be subscribed to, i.e. to a SIP URI that contains the public user identity used for subscription;

b) a From header set to a SIP URI that contains the public user identity used for subscription;

c) a To header set to a SIP URI that contains the public user identity used for subscription;

d) an Event header set to the "reg" event package;

e) an Expires header set to 600 000 seconds as the value desired for the duration of the subscription; and

f) a P-Access-Network-Info header set as specified for the access network technology (for GPRS see subclause B.3).

g) Contact header that contains the same IP address or FQDN, and the protected server port value as in the initial registration;

Upon receipt of a 2xx response to the SUBSCRIBE request, the UE shall store the information for the established dialog and the expiration time as indicated in the Expires header of the received response.

If continued subscription is required the UE shall automatically refresh the subscription by the reg event package, for a previously registered public user identity, either 600 seconds before the expiration time if the initial subscription was for greater than 1200 seconds, or when half of the time has expired if the initial subscription was for 1200 seconds or less.

3GPP TSG-CN1 Meeting #35 Tdoc N1-041391
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**650**	⌘ **rev**	**2**	⌘	Current version:	**6.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME ☒ Radio Access Network □ Core Network ☒

Title:	⌘	Support of draft-ietf-sip-replaces		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	09/06/2004
Category:	⌘	**B**	***Release:*** ⌘	Rel-6
		Use <u>one</u> of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use <u>one</u> of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	Discussions on IETF dependencies within 3GPP CN1 make support of the Replaces header nice to have in the future. As this header is documented in the extension draft-ietf-sip-replaces support of that extension needs to be built into the profile in 3GPP TS 24.229.
Summary of change:	⌘	• A new major capabilities item is added detailing support of the header extension. • The condition for support of the REFER method extension and the Referred-By header extension is changed to be mandatory on support of this extension. • The entries for status-codes 400, 481 and 603, which are specifically mentioned by the text for this extension, are completed in the profile. • Support of the header is added to the INVITE request.
Consequences if not approved:	⌘	A supported extension will not be documented in the profile.

Clauses affected:	⌘	2, A.2.1.2, A.2.1.4.1, A.2.1.4.7, A.2.2.2, A.2.2.4.1, A.2.2.4.7				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘	Approval of this CR is dependent on approval of CR656 to 24.229. In implementing the change to table A.4 the new c34 for CR657 and the c34 for CR650 need to be combined to a single condition as follows: "c34:IF A.4/44 OR				

	A.4/45 THEN m ELSE n/a - - the Session Initiation Protocol (SIP) "Replaces" header or the Session Inititation Protocol (SIP) "Join" header."

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

PROPOSED CHANGE

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.002: "Network architecture".

[3] 3GPP TS 23.003: "Numbering, addressing and identification".

[4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[4A] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[5] 3GPP TS 23.218: "IP Multimedia (IM) Session Handling; IM call model".

[6] 3GPP TS 23.221: "Architectural requirements".

[7] 3GPP TS 23.228: "IP multimedia subsystem; Stage 2".

[8] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network protocols; Stage 3".

[8A] 3GPP TS 24.141: "Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[8B] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[9A] 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol Specification".

[10] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs".

[10A] 3GPP TS 27.060: "Mobile Station (MS) supporting Packet Switched Services".

[11] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN)".

[12] 3GPP TS 29.207: "Policy control over Go interface".

[13] 3GPP TS 29.208: "End to end Quality of Service (QoS) signalling flows".

[13A] 3GPP TS 29.209: "Policy control over Gq interface".

[14] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents".

[15] 3GPP TS 29.229: "Cx and Dx Interfaces based on the Diameter protocol, Protocol details".

[16] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[17] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[18] 3GPP TS 33.102: "3G Security; Security architecture".

[19] 3GPP TS 33.203: "Access security for IP based services".

[19A] 3GPP TS 33.210: "IP Network Layer Security".

[20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[20A] RFC 2401 (November 1998): "Security Architecture for the Internet Protocol".

[20B] RFC 1594 (March 1994): "FYI on Questions and Answers to Commonly asked "New Internet User" Questions".

[20C] RFC 2403 (November 1998) "The Use of HMAC-MD5-96 within ESP and AH".

[20D] RFC 2404 (November 1998) "The Use of HMAC-SHA-1-96 within ESP and AH".

[20E] RFC 2462 (November 1998): "IPv6 Address Autoconfiguration".

[21] RFC 2617 (June 1999): "HTTP Authentication: Basic and Digest Access Authentication".

[22] RFC 2806 (April 2000): "URLs for Telephone Calls".

[23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".

[24] RFC 2916 (September 2000): "E.164 number and DNS".

[25] RFC 2976 (October 2000): "The SIP INFO method".

[25A] RFC 3041 (January 2001): "Privacy Extensions for Stateless Address Autoconfiguration in IPv6".

[26] RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[27] RFC 3262 (June 2002): "Reliability of provisional responses in Session Initiation Protocol (SIP)".

[28] RFC 3265 (June 2002): "Session Initiation Protocol (SIP) Specific Event Notification".

[29] RFC 3311 (September 2002): "The Session Initiation Protocol (SIP) UPDATE method".

[30] RFC 3312 (October 2002): "Integration of resource management and Session Initiation Protocol (SIP)".

[31] RFC 3313 (January 2003): "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".

[32] RFC 3320 (March 2002): "Signaling Compression (SigComp)".

[33] RFC 3323 (November 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[34] RFC 3325 (November 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[34A] RFC 3326 (December 2002): "The Reason Header Field for the Session Initiation Protocol (SIP)".

[35] RFC 3327 (December 2002): "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".

[36] RFC 3515 (April 2003): "The Session Initiation Protocol (SIP) REFER method".

[37] RFC 3420 (November 2002): "Internet Media Type message/sipfrag".

[38] RFC 3608 (October 2003): "Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration".

[39] draft-ietf-mmusic-sdp-new-13 (May 2003): "SDP: Session Description Protocol".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[40] RFC 3315 (July 2003): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

[41] RFC 3319 (July 2003): "Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers".

[42] RFC 3485 (February 2003): "The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)".

[43] RFC 3680 (March 2004): "A Session Initiation Protocol (SIP) Event Package for Registrations".

[44] Void.

[45] Void.

[46] Void.

[47] Void.

[48] RFC 3329 (January 2003): "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".

[49] RFC 3310 (September 2002): "Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)".

[50] RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[51] Void.

[52] RFC 3455 (January 2003): "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)".

[53] RFC 3388 (December 2002): "Grouping of Media Lines in Session Description Protocol".

[54] RFC 3524 (April 2003): "Mapping of Media Streams to Resource Reservation Flows".

[55] RFC 3486 (February 2003): "Compressing the Session Initiation Protocol (SIP)".

[56] RFC 3556 (July 2003): "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".

[56A] RFC 3581 (August 2003): "An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing".

[56B] draft-ietf-sip-callerprefs-10 (October 2003): "Caller Preferences for the Session Initiation Protocol (SIP)"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[57] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[58] draft-ietf-sip-session-timer-13 (January 2004): "Session Timers in the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[60] draft-ietf-sip-replaces-05 (February 2004): "The Session Inititation Protocol (SIP) "Replaces" Header".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[70] draft-ietf-sip-publish-02 (January 2004): "Session Initiation Protocol (SIP) Extension for Presence Publication".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[71] draft-niemi-sipping-event-throttle-00 (October 2003): "Session Initiation Protocol (SIP) Event Notification Throttles".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[72] draft-ietf-simple-winfo-package-05 (January 2003): "A Session Initiation Protocol (SIP) Event Template-Package for Watcher Information".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[74] draft-ietf-simple-presence-10 (January 2003): "A Presence Event Package for the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[75] draft-ietf-simple-event-list-04 (June 2003): "A Session Initiation Protocol (SIP) Event Notification Extension for Collections".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[77] draft-ietf-simple-xcap-package-01 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Modification Events for the Extensible Markup Language (XML) Configuration Access Protocol (XCAP) Managed Documents".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[78] draft-ietf-sipping-conference-package-03 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Conference State"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

PROPOSED CHANGE

A.2.1.2 Major capabilities

Table A.4: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
1	client behaviour for registration?	[26] subclause 10.2	o	c3
2	registrar?	[26] subclause 10.3	o	c4
2A	registration of multiple contacts for a single address of record	[26] 10.2.1.2, 16.6	o	o
2B	initiating a session?	[26] subclause 13	o	o
3	client behaviour for INVITE requests?	[26] subclause 13.2	c18	c18
4	server behaviour for INVITE requests?	[26] subclause 13.3	c18	c18
5	session release?	[26] subclause 15.1	c18	c18
6	timestamping of requests?	[26] subclause 8.2.6.1	o	o
7	authentication between UA and UA?	[26] subclause 22.2	c34~~o~~	~~o~~c34
8	authentication between UA and registrar?	[26] subclause 22.2	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	o
9	server handling of merged requests due to forking?	[26] 8.2.2.2	m	m
10	client handling of multiple responses due to forking?	[26] 13.2.2.4	m	m
11	insertion of date in requests and responses?	[26] subclause 20.17	o	o
12	downloading of alerting information?	[26] subclause 20.4	o	o
	Extensions			
13	the SIP INFO method?	[25]	o	n/a
14	reliability of provisional responses in SIP?	[27]	c19	c18
15	the REFER method?	[36]	o	c33
16	integration of resource management and SIP?	[30]	c19	c18
17	the SIP UPDATE method?	[29]	c5	c18
19	SIP extensions for media authorization?	[31]	o	c14
20	SIP specific event notification?	[28]	o	c13
21	the use of NOTIFY to establish a dialog?	[28] 4.2	o	n/a
22	acting as the notifier of event information?	[28]	c2	c15
23	acting as the subscriber to event information?	[28]	c2	c16
24	session initiation protocol extension header field for registering non-adjacent contacts?	[35]	o	c6
25	private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks?	[34]	o	m
26	a privacy mechanism for the Session Initiation Protocol (SIP)?	[33]	o	m
26A	request of privacy by the inclusion of a Privacy header indicating any privacy option?	[33]	c9	c11
26B	application of privacy based on the received Privacy header?	[33]	c9	n/a
26C	passing on of the Privacy header transparently?	[33]	c9	c12
26D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the	[33] 5.1	c10	c27

	assistance of intermediaries are obscured?			
26E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	c10	c27
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	c27
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20
38	the Reason header field for the session initiation protocol?	[34A]	o	o (note 1)
39	an extension to the session initiation protocol for symmetric response routeing?	[56A]	o	x
40	caller preferences for the session initiation protocol?	[56B]	C29	c29
40A	the proxy-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40B	the cancel-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40C	the fork-directive within caller-preferences?	[56B] 9.1	o.5	c28
40D	the recurse-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40E	the parallel-directive within caller-preferences?	[56B] 9.1	o.5	c28
40F	the queue-directive within caller-preferences?	[56B] 9.1	o.5	o.5
41	an event state publication extension to the session initiation protocol?	[70]	o	c30
42	SIP session timer?	[58]	c19	c19
44	the Session Inititation Protocol (SIP) "Replaces" header?	[60]	c19	c19 (note 1)

c2: IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.
c3: IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.
c4: IF A.3/4 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - S-CSCF or AS functional entity.
c5: IF A.4/16 THEN m ELSE o - - integration of resource management and SIP extension.
c6: IF A.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.
c7: IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D THEN m ELSE n/a - - UA or S-CSCF or AS acting as terminating UA or AS acting as originating UA or AS performing 3rd party call control.
c8: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c9: IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.
c11: IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.
c12: IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.
c13: IF A.3/1 OR A.3/2 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.
c14: IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.
c15: IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.
c16: IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.
c17: IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.
c18: IF A.4/2B THEN m ELSE n/a - - initiating sessions.
c19: IF A.4/2B THEN o ELSE n/a - - initiating sessions.
c20: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c21: IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).
c22: IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.
c23: IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.
c24: IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.
c25: IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.
c26: IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.
c27: IF A.3/7D THEN o ELSE x - - AS performing 3rd party call control.
c28: IF A.3/1 THEN m ELSE o.5 - - UE.
c29: IF A.4/40A OR A.4/40B OR A.4/40C OR A.4/40D OR A.4/40E OR A.4/40F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.
c30: IF A.3A/1 OR A.3A/2 THEN m ELSE IF A.3/1 THEN o ELSE n/a - - presence server, presence user agent, UE, AS.
c33: IF A.3/11 OR A.3/12 OR A.4/44 THEN m ELSE o - - conference focus or conference participant or the Session Initiation Protocol (SIP) "Replaces" header.
c34: IF A.4/44 THEN m ELSE n/a - - the Session Initiation Protocol (SIP) "Replaces" header.
o.1: At least one of these capabilities is supported.
o.2: At least one of these capabilities is supported.
o.3: At least one of these capabilities is supported.
o.4: At least one of these capabilities is supported.
o.5: At least one of these capabilities is supported.

NOTE 1: At the MGCF, the interworking specifications do not support a handling of the header associated with this extension.

Prerequisite A.5/20 - - SIP specific event notification

Table A.4A: Supported event packages

Item	Does the implementation support	Subscriber			Notifier		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	reg event package?	[43]	c1	c3	[43]	c2	c4
2	refer package?	[36] 3	c13	c13	[36] 3	c13	c13
3	presence package?	[74] 6	c1	c5	[74] 6	c2	c6
4	eventlist with underlying presence package?	[75], [74] 6	c1	c7	[75], [74] 6	c2	c8
5	presence.winfo template-package?	[72] 4	c1	c9	[72] 4	c2	c10
6	xcap-change package?	[77] 2	c1	c11	[77] 2	c2	c12
7	conference package?	[78] 3	c1	c21	[78] 3	c1	c22

c1: IF A.4/23 THEN o ELSE n/a - - acting as the subscriber to event information.
c2: IF A.4/22 THEN o ELSE n/a - - acting as the notifier of event information.
c3: IF A.3/1 OR A.3/2 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - UE, P-CSCF, AS.
c4: IF A.3/4 THEN m ELSE n/a - - S-CSCF.
c5: IF A.3A/3 OR A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - resource list server or watcher, acting as the subscriber to event information.
c6: IF A.3A/1 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - watcher, acting as the notifier of event information.
c7: IF A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - watcher, acting as the subscriber to event information.
c8: IF A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - resource list server, acting as the notifier of event information.
c9: IF A.3A/1 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - presence user agent, acting as the subscriber to event information.
c10: IF A.3A/2 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server, acting as the notifier of event information.
c11: IF A.3A/2 OR A.3A/4 THEN o ELSE IF A.4/23 THEN o ELSE n/a - - watcher or presence user agent, acting as the subscriber to event information.
c12: IF A.3A/1 OR A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server or resource list server, acting as the notifier of event information.
c13: IF A.4/15 THEN m ELSE n/a - - the REFER method.
c21: IF A.3A/12 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - conference participant or acting as the subscriber to event information.
c22: IF A.3A/11 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - conference focus or acting as the notifier of event information.

PROPOSED CHANGE

A.2.1.4.1 Status-codes

Table A.6: Supported status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	n/a	n/a	[26] 21.1.1	m	m
2	180 (Ringing)	[26] 21.1.2	c2	c2	[26] 21.1.2	c1	c1
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c2	c2	[26] 21.1.3	c1	c1
4	182 (Queued)	[26] 21.1.4	c2	c2	[26] 21.1.4	c1	c1
5	183 (Session Progress)	[26] 21.1.5	c1	c1	[26] 21.1.5	c1	c1
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c3	c3	[28] 8.3.1	c3	c3
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1	m	m	[26] 21.4.1	m	m
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26] 21.4.16			[26] 21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c7	c7	[58] 6	c7	c7
29	423 (Interval Too Brief)	[26] 21.4.17	c4	c4	[26] 21.4.17	m	m
30	480 (Temporarily Unavailable)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call/Transaction Does Not Exist)	[26] 21.4.19	m	m	[26] 21.4.19	m	m
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26			[26] 21.4.26		
39	489 (Bad Event)	[28] 7.3.2	c3	c3	[28] 7.3.2	c3	c3
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		
41A	494 (Security Agreement Required)	[48] 2	c5	c5	[48] 2	c6	c6

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2	c8	c8	[26] 21.6.2	m	m
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

c1: IF A.5/9 THEN m ELSE n/a - - INVITE response.
c2: IF A.5/9 THEN o ELSE n/a - - INVITE response.
c3: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c4: IF A.5/19 OR A.5/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.
c5: IF A.4/37 AND A.4/2 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol and registrar.
c6: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c7: IF A.4/42 AND (A.5/9 OR A.5/23) THEN m ELSE n/a - - the SIP session timer AND (INVITE response OR UPDATE response).
c8: IF A.4/44 THEN m ELSE o - - the Session Inititation Protocol (SIP) "Replaces" header.
c20: IF A.4/41 THEN m ELSE n/a

PROPOSED CHANGE

A.2.1.4.7 INVITE method

Prerequisite A.5/8 - - INVITE request

Table A.46: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
4	Alert-Info	[26] 20.4	o	o	[26] 20.4	c1	c1
5	Allow	[26] 20.5, [26] 5.1	o (note 1)	o	[26] 20.5, [26] 5.1	m	m
6	Allow-Events	[28] 7.2.2	c2	c2	[28] 7.2.2	c2	c2
8	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
11	Contact	[26] 20.10	m	m	[26] 20.10	m	m
12	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
13	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
14	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
19	Expires	[26] 20.19	o	o	[26] 20.19	o	o
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	o	o	[26] 20.21	o	o
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
23	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
23A	Min-SE	[58] 5	c26	c26	[58] 5	c25	c25
24	Organization	[26] 20.25	o	o	[26] 20.25	o	o
24A	P-Access-Network-Info	[52] 4.4	c15	c16	[52] 4.4	c15	c17
24B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c7	c7
24C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c13	c13
24D	P-Charging-Function-Addresses	[52] 4.5	c20	c21	[52] 4.5	c20	c21
24E	P-Charging-Vector	[52] 4.6	c18	c19	[52] 4.6	c18	c19
25	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
25A	P-Preferred-Identity	[34] 9.2	c7	c5	[34] 9.2	n/a	n/a
25B	P-Visited-Network-ID	[52] 4.3	x (note 3)	x	[52] 4.3	c14	n/a
26	Priority	[26] 20.26	o	o	[26] 20.26	o	o
26A	Privacy	[33] 4.2	c9	c9	[33] 4.2	c9	c9
27	Proxy-Authorization	[26] 20.28	c6	c6	[26] 20.28	n/a	n/a
28	Proxy-Require	[26] 20.29	o (note 2)	o (note 2)	[26] 20.29	n/a	n/a
28A	Reason	[34A] 2	c8	c8	[34A] 2	c8	c8
29	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
30	Replaces	[60] 6.1	c27	c27	[60] 6.1	c27	c27
31	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
31A	Reject-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
31B	Request-Disposition	[56B] 9.1	c24	c24	[56B] 9.1	n/a	n/a
32	Require	[26] 20.32	o	m	[26] 20.32	m	m
33	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
33A	Security-Client	[48] 2.3.1	c22	c22	[48] 2.3.1	n/a	n/a
33B	Security-Verify	[48] 2.3.1	c23	c23	[48] 2.3.1	n/a	n/a
33C	Session-Expires	[58] 4	c25	c25	[58] 4	c25	c25
34	Subject	[26] 20.36	o	o	[26] 20.36	o	o
35	Supported	[26] 20.37	c8	m	[26] 20.37	m	m

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
36	Timestamp	[26] 20.38	c10	c10	[26] 20.38	m	m
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
39	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/12 THEN m ELSE n/a - - downloading of alerting information.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c6: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c7: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c8: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c9: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c11: IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.
c12: IF A.3/1 THEN m ELSE n/a - - UE.
c13: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c14: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c15: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c16: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c17: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c18: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c19: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c20: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c21: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c22: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 4).
c23: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c24: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c25: IF A.4/42 THEN m ELSE n/a - - the SIP session timer.
c26: IF A.4/42 THEN o ELSE n/a - - the SIP session timer.
c27: IF A.4/44 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Replaces" header.
o.1: At least one of these shall be supported.

NOTE 1: The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.
NOTE 2: No distinction has been made in these tables between first use of a request on a From/To/Call-ID combination, and the usage in a subsequent one. Therefore the use of "o" etc. above has been included from a viewpoint of first usage.
NOTE 3: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 4: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/8 - - INVITE request

Table A.47: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.48: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/9 - - INVITE response

Table A.49: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
11	Organization	[26] 20.25	o	o	[26] 20.25	o	o
11A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
11B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
11C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c11	c11
11D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
11E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
11F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
11G	Require	[26] 20.32	m	m	[26] 20.32	m	m
11H	Server	[26] 20.35	o	o	[26] 20.35	o	o
12	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.						
c4:	IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).						
c5:	IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.						
c6:	IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.						
c7:	IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.						
c8:	IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.						
c9:	IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.						
c10:	IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.						
c11:	IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.						
NOTE:	For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/2 OR A.6/3 OR A.6/4 OR A.6/5 - - 1xx

Table A.50: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o	m	[26] 20.10	m	m
6	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Rseq	[27] 7.1	c2	m	[27] 7.1	c3	m
11	Supported	[26] 20.37	o	o	[26] 20.37	m	m
c2:	IF A.4/14 THEN o ELSE n/a - - reliability of provisional responses in SIP. c3: IF A.4/14 THEN m ELSE n/a - - reliability of provisional responses in SIP. c11: IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization. c12: IF A.3/1 THEN m ELSE n/a - - UE.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/6 - - 2xx

Table A.51: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
1B	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
2	Allow	[26] 20.5	o (note 1)	o	[26] 20.5	m	m
4	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
6	Contact	[26] 20.10	m	m	[26] 20.10	m	m
8	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
10	Session-Expires	[58] 4	c13	c13	[58] 4	c13	c13
13	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA. c2: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA. c11: IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization. c12: IF A.3/1 THEN m ELSE n/a - - UE. c13: IF A.4/42 THEN m ELSE n/a - - the SIP session timer.						
NOTE 1:	The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.52: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o (note 1)	o	[26] 20.10	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.53: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	c3	c3	[26] 20.27	c3	c3
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
13	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 600, 603

Table A.54: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.55: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.56: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.57: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
11	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.58: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.58A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28A - - 422 (Session Interval Too Small)

Table A.58B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.4/42 THEN o ELSE n/a - - the SIP session timer.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.59: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/42 - - 500 (Server Internal Error)

Table A.60: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	m	m	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/45 - - 503 (Service Unavailable)

Table A.61: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Table A.62: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.2 Major capabilities

Table A.162: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
3	initiate session release?	[26] 16	x	c27
4	stateless proxy behaviour?	[26] 16.11	o.1	c28
5	stateful proxy behaviour?	[26] 16.2	o.1	c29
6	forking of initial requests?	[26] 16.1	c1	c31
7	support of TLS connections on the upstream side?	[26] 16.7	o	n/a
8	support of TLS connections on the downstream side?	[26] 16.7	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	x
9	insertion of date in requests and responses?	[26] 20.17	o	o
10	suppression or modification of alerting information data?	[26] 20.4	o	o
11	reading the contents of the Require header before proxying the request or response?	[26] 20.32	o	o
12	adding or modifying the contents of the Require header before proxying the REGISTER request or response	[26] 20.32	o	m
13	adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER?	[26] 20.32	o	o
14	being able to insert itself in the subsequent transactions in a dialog (record-routing)?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing?	[26] 16.7	c3	c3
16	reading the contents of the Supported header before proxying the response?	[26] 20.37	o	o
17	reading the contents of the Unsupported header before proxying the 420 response to a REGISTER?	[26] 20.40	o	m
18	reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER?	[26] 20.40	o	o
19	the inclusion of the Error-Info header in 3xx - 6xx responses?	[26] 20.18	o	o
19A	reading the contents of the Organization header before proxying the request or response?	[26] 20.25	o	o
19B	adding or concatenating the Organization header before proxying the request or response?	[26] 20.25	o	o
19C	reading the contents of the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19D	adding or concatenating the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19E	delete Contact headers from 3xx responses prior to relaying the	[26] 20	o	o

	response?			
	Extensions			
20	the SIP INFO method?	[25]	o	o
21	reliability of provisional responses in SIP?	[27]	o	i
22	the REFER method?	[36]	o	o
23	integration of resource management and SIP?	[30]	o	i
24	the SIP UPDATE method?	[29]	c4	i
26	SIP extensions for media authorization?	[31]	o	c7
27	SIP specific event notification	[28]	o	i
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	[35]	o	c6
30	extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks	[34]	o	m
30A	act as first entity within the trust domain for asserted identity	[34]	c5	c8
30B	act as subsequent entity within trust network that can route outside the trust network	[34]	c5	c9
31	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
31A	request of privacy by the inclusion of a Privacy header	[33]	n/a	n/a
31B	application of privacy based on the received Privacy header	[33]	c10	c12
31C	passing on of the Privacy header transparently	[33]	c10	c13
31D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	x	x
31E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	n/a	n/a
31F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	n/a	n/a
31G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c11	c12
32	Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration	[38]	o	c30
33	a messaging mechanism for the Session Initiation Protocol (SIP)	[50]	o	m
34	Compressing the Session Initiation Protocol	[55]	o	c7
35	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
36	the P-Associated-URI header extension?	[52] 4.1	c14	c15
37	the P-Called-Party-ID header extension?	[52] 4.2	c14	c16
38	the P-Visited-Network-ID header extension?	[52] 4.3	c14	c17
39	reading, or deleting the P-Visited-Network-ID header before proxying the	[52] 4.3	c18	n/a

	request or response?			
41	the P-Access-Network-Info header extension?	[52] 4.4	c14	c19
42	act as first entity within the trust domain for access network information?	[52] 4.4	c20	c21
43	act as subsequent entity within trust network for access network information that can route outside the trust network?	[52] 4.4	c20	c22
44	the P-Charging-Function-Addresses header extension?	[52] 4.5	c14	m
44A	adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response?	[52] 4.6	c25	c26
45	the P-Charging-Vector header extension?	[52] 4.6	c14	m
46	adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response?	[52] 4.6	c23	c24
47	security mechanism agreement for the session initiation protocol?	[48]	o	c7
48	the Reason header field for the session initiation protocol	[34A]	o	o
49	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x
50	caller preferences for the session initiation protocol?	[56B]	c33	c33
50A	the proxy-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50B	the cancel-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50C	the fork-directive within caller-preferences?	[56B] 9.1	o.4	c32
50D	the recurse-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50E	the parallel-directive within caller-preferences?	[56B] 9.1	o.4	c32
50F	the queue-directive within caller-preferences?	[56B] 9.1	o.4	o.4
51	an event state publication extension to the session initiation protocol?	[70]	o	m
52	SIP session timer?	[58]	o	o
54	the Session Inititation Protocol (SIP) "Replaces" header?	[60]	o	o

c1: IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour.

c2: IF A.3/2 OR A.3/3A OR A.3/4 THEN m ELSE o - - P-CSCF, I-CSCF(THIG) or S-CSCF.

c3: IF (A.162/7 AND NOT A.162/8) OR (NOT A.162/7 AND A.162/8) THEN m ELSE IF A.162/14 THEN o ELSE n/a - - TLS interworking with non-TLS else proxy insertion.

c4: IF A.162/23 THEN m ELSE o - - integration of resource management and SIP.

c5: IF A.162/30 THEN o ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).

c7: IF A.3/2 THEN m ELSE n/a - - P-CSCF.

c8: IF A.3/2 AND A.162/30 THEN m ELSE n/a - - P-CSCF and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c9: IF A.3/2 AND A.162/30 THEN m ELSE IF A.3/7C AND A.162/30 THEN o ELSE n/a - - S-CSCF or AS acting as proxy and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks (NOTE).

c10: IF A.162/31 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c11: IF A.162/31B THEN o ELSE x - - application of privacy based on the received Privacy header.

c12: IF A.162/31 AND A.3/4 THEN m ELSE n/a - - S-CSCF.

c13: IF A.162/31 AND (A.3/2 OR A.3/3 OR A.3/7C) THEN m ELSE n/a - - P-CSCF OR I-CSCF OR AS acting as a SIP proxy.

c14: IF A.162/35 THEN o.3 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c15: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c16: IF A.162/35 AND (A.3/2 OR A.3/3 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF or S-CSCF.

c17: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c18: IF A.162/38 THEN o ELSE n/a - - the P-Visited-Network-ID header extension.

c19: IF A.162/35 AND (A.3/2 OR A.3.3 OR A.3/4 OR A.3/7 THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF, I-CSCF, S-CSCF, AS acting as a proxy.

c20: IF A.162/41 THEN o ELSE n/a - - the P-Access-Network-Info header extension.

c21: IF A.162/41 AND A.3/2 THEN m ELSE n/a - - the P-Access-Network-Info header extension and P-CSCF.

c22: IF A.162/41 AND A.3/4 THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF.

c23: IF A.162/45 THEN o ELSE n/a - - the P-Charging-Vector header extension.

c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c25: IF A.162/44 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.

c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function Addresses header extension.

c27: IF A.3/2 OR A.3/4 THEN m ELSE x - - P-CSCF or S-CSCF.

c28: IF A.3/2 OR A.3/4 OR A.3/6 then m ELSE o - - P-CSCF or S-CSCF of MGCF.

c29: IF A.3/2 OR A.3/4 OR A.3/6 then o ELSE m - - P-CSCF or S-CSCF of MGCF.

c30: IF A.3/2 o ELSE i - - P-CSCF.

c31: IF A.3/4 THEN m ELSE x - - S-CSCF.

c32: IF A.3/4 THEN m ELSE o.4 - - S-CSCF.

c33: IF A.162/50A OR A.162/50B OR A.162/50C OR A.162/50D OR A.162/50E OR A.162/50F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

o.1: It is mandatory to support at least one of these items.

o.2: It is mandatory to support at least one of these items.

o.3: It is mandatory to support at least one of these items.

o.4 At least one of these capabilities is supported.

NOTE: An AS acting as a proxy may be outside the trust domain, and therefore not able to support the capability for that reason; in this case it is perfectly reasonable for the header to be passed on transparently, as specified in the PDU parts of the profile.

PROPOSED CHANGE

A.2.2.4.1 Status-codes

Table A.164: Supported-status codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	c1	c1	[26] 21.1.1	c2	c2
2	180 (Ringing)	[26] 21.1.2	c3	c3	[26] 21.1.2	c3	c3
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c3	c3	[26] 21.1.3	c3	c3
4	182 (Queued)	[26] 21.1.4	c3	c3	[26] 21.1.4	c3	c3
5	183 (Session Progress)	[26] 21.1.5	c3	c3	[26] 21.1.5	c3	c3
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c4	c4	[28] 8.3.1	c4	c4
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1	m	m	[26] 21.4.1	i	i
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26]			[26]		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
		21.4.16			21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c8	c8	[58] 6	c8	c8
29	423 (Interval Too Brief)	[26] 21.4.17	c5	c5	[26] 21.4.17	c6	c6
30	480 (Temporarily not available)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call /Transaction Does Not Exist)	[26] 21.4.19	m	m	[26] 21.4.19	i	i
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26			[26] 21.4.26		
39	489 (Bad Event)	[28] 7.3.2	c4	c4	[28] 7.3.2	c4	c4
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		
41A	494 (Security Agreement Required)	[48] 2	c7	c7	[48] 2	n/a	n/a
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2	m	m	[26] 21.6.2	i	i
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

c1: IF A.162/15 THEN m ELSE n/a - - stateful proxy.
c2: IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.
c3: IF A.163/9 THEN m ELSE n/a - - INVITE response.
c4: IF A.162/27 THEN m ELSE n/a - - SIP specific event notification.
c5: IF A.163/19 OR A.163/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.
c6: IF A.163/19 OR A.163/21 THEN i ELSE n/a - - REGISTER response or SUBSCRIBE response.
c7: IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c8: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c20: IF A.4/51 THEN m ELSE n/a

PROPOSED CHANGE

A.2.2.4.7 INVITE method

Prerequisite A.163/8 - - INVITE request

Table A.204: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	**RFC status**	**Profile status**	**Ref.**	**RFC status**	**Profile status**
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Alert-Info	[26] 20.4	c2	c2	[26] 20.4	c3	c3
5	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
8	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	m	m	[26] 20.9	c12	c12
11	Contact	[26] 20.10	m	m	[26] 20.10	i	i
12	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c6
13	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c6
14	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c6
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c6
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	m	m	[26] 20.17	c4	c4
19	Expires	[26] 20.19	m	m	[26] 20.19	i	i
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	m	m	[26] 20.21	i	i
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
23	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c6
23A	Min-SE	[58] 5	o	o	[58] 5	o	o
24	Organization	[26] 20.25	m	m	[26] 20.25	c5	c5
24A	P-Access-Network-Info	[52] 4.4	c28	c28	[52] 4.4	c29	c30
24B	P-Asserted-Identity	[34] 9.1	c15	c15	[34] 9.1	c16	c16
24C	P-Called-Party-ID	[52] 4.2	c19	c19	[52] 4.2	c20	c21
24D	P-Charging-Function-Addresses	[52] 4.5	c26	c27	[52] 4.5	c26	c27
24E	P-Charging-Vector	[52] 4.6	c24	c24	[52] 4.6	c25	c25
25	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
25A	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c14	c14
25B	P-Visited-Network-ID	[52] 4.3	c22	n/a	[52] 4.3	c23	n/a
26	Priority	[26] 20.26	m	m	[26] 20.26	i	i
26A	Privacy	[33] 4.2	c17	c17	[33] 4.2	c18	c18
27	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c13	c13
28	Proxy-Require	[26] 20.29, [34] 4	m	m	[26] 20.29, [34] 4	m	m
28A	Reason	[34A] 2	c32	c32	[34A] 2	c33	c33
29	Record-Route	[26] 20.30	m	m	[26] 20.30	c11	c11
30	Replaces	[60] 6.1	c39	c39	[60] 6.1	c40	c40
31	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
31A	Reject-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
31B	Request-Disposition	[56B] 9.1	c34	c34	[56B] 9.1	c34	c34
32	Require	[26] 20.32	m	m	[26] 20.32	c7	c7
33	Route	[26] 20.34	m	m	[26] 20.34	m	m
33A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33C	Session-Expires	[58] 4	c36	c36	[58] 4	c36	c36
34	Subject	[26] 20.36	m	m	[26] 20.36	i	i

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
35	Supported	[26] 20.37	m	m	[26] 20.37	c8	c8
36	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
39	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/10 THEN n/a ELSE m - - suppression or modification of alerting information data.
c3: IF A.162/10 THEN m ELSE i - - suppression or modification of alerting information data.
c4: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c5: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c6: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c7: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c8: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c9: IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.
c10: IF A.3/2 THEN m ELSE n/a - - P-CSCF.
c11: IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c12: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c13: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c14: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c15: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c16: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c17: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c18: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c19: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.
c20: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.
c21: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.
c22: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.
c23: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.
c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c25: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c27: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c28: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c29: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c30: IF A.162/43 OR (A.162/41 AND A.3/2) THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension (with or without P-CSCF).
c31: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c32: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c33: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c34: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c35: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.
c36: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c39: IF A.162/54 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Replaces" header.
c40: IF A.162/54 THEN i ELSE n/a - - the Session Inititation Protocol (SIP) "Replaces" header.

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.						

Prerequisite A.163/8 - - INVITE request

Table A.205: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.206: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	c1	c1	[26] 20.17	c2	c2
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1: c2:	IF (A.162/9 AND A.162/5) OR A.162/4 THEN m ELSE n/a - - stateful proxy behaviour that inserts date, or stateless proxies. IF A.162/4 THEN i ELSE m - - Stateless proxy passes on.						

Prerequisite A.163/9 - - INVITE response

Table A.207: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
11	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
11A	P-Access-Network-Info	[52] 4.4	c14	c14	[52] 4.4	c15	c15
11B	P-Asserted-Identity	[34] 9.1	c6	c6	[34] 9.1	c7	c7
11C	P-Charging-Function-Addresses	[52] 4.5	c12	c12	[52] 4.5	c13	c13
11D	P-Charging-Vector	[52] 4.6	c10	c10	[52] 4.6	c11	c11
11E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c5	n/a
11F	Privacy	[33] 4.2	c8	c8	[33] 4.2	c9	c9
11G	Require	[26] 20.32	m	m	[26] 20.32	c16	c16
11H	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.

c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c5: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c6: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c7: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c8: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c9: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c10: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c11: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c12: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c13: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c14: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c16: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/2 OR A.164/3 OR A.164/4 OR A.164/5 - - 1xx

Table A.208: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	i	i
6	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Rseq	[27] 7.1	m	m	[27] 7.1	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/6 - - 2xx

Table A.209: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
1B	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
6	Contact	[26] 20.10	m	m	[26] 20.10	i	i
8	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
10	Session-Expires	[58] 4	c11	c11	[58] 4	c11	c11
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.						
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						
c11:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.210: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.211: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
15	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 600, 603

Table A.212: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
12	Via	[26] 20.42	m	m	[26] 20.42	m	m

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.213: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m		[26] 20.5	m/o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.214: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.215: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.216: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.216A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.16/9 - - INVITE response

Prerequisite: A.164/28A - - 422 (Session Interval Too Small)

Table A.216B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.217: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/42 - - 500 (Server Internal Error)

Table A.217A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/45 - - 503 (Service Unavailable)

Table A.217B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Table A.218: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041393

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**657**	⌘**rev**	**1**	⌘	Current version:	**6.3.0**	⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☒

Title:	⌘	Support of draft-ietf-sip-join		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	09/06/2004
Category:	⌘	**B** *Use one of the following categories:* ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.	***Release:*** ⌘	Rel-6 *Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	Discussions on IETF dependencies within 3GPP CN1 make support of the Join header nice to have in the future. As this header is documented in the extension draft-ietf-sip-join support of that extension needs to be built into the profile in 3GPP TS 24.229.
Summary of change:	⌘	• A new major capabilities item is added detailing support of the header extension. • The condition for support of the REFER method extension and the Referred-By header extension is changed to be mandatory on support of this extension. • The entries for status-codes 488, which are specifically mentioned by the text for this extension, are completed in the profile. • Support of the header is added to the INVITE request.
Consequences if not approved:	⌘	A supported extension will not be documented in the profile.

Clauses affected:	⌘	2, A.2.1.2, A.2.1.4.1, A.2.1.4.7, A.2.2.2, A.2.2.4.1, A.2.2.4.7				
		Y	**N**			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘	Approval of this CR is dependent on approval of CR656 to 24.229. In implementing the change to table A.4 the new c34 for CR657 and the c34 for CR650 need to be combined to a single condition as follows: "c34:IF A.4/44 OR				

	A.4/45 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Replaces" header or the Session Inititation Protocol (SIP) "Join" header."

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

PROPOSED CHANGE

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.002: "Network architecture".

[3] 3GPP TS 23.003: "Numbering, addressing and identification".

[4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[4A] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[5] 3GPP TS 23.218: "IP Multimedia (IM) Session Handling; IM call model".

[6] 3GPP TS 23.221: "Architectural requirements".

[7] 3GPP TS 23.228: "IP multimedia subsystem; Stage 2".

[8] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network protocols; Stage 3".

[8A] 3GPP TS 24.141: "Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[8B] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".

[9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[9A] 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol Specification".

[10] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs".

[10A] 3GPP TS 27.060: "Mobile Station (MS) supporting Packet Switched Services".

[11] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN)".

[12] 3GPP TS 29.207: "Policy control over Go interface".

[13] 3GPP TS 29.208: "End to end Quality of Service (QoS) signalling flows".

[13A] 3GPP TS 29.209: "Policy control over Gq interface".

[14] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents".

[15] 3GPP TS 29.229: "Cx and Dx Interfaces based on the Diameter protocol, Protocol details".

[16] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[17] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[18] 3GPP TS 33.102: "3G Security; Security architecture".

[19] 3GPP TS 33.203: "Access security for IP based services".

[19A] 3GPP TS 33.210: "IP Network Layer Security".

[20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[20A] RFC 2401 (November 1998): "Security Architecture for the Internet Protocol".

[20B] RFC 1594 (March 1994): "FYI on Questions and Answers to Commonly asked "New Internet User" Questions".

[20C] RFC 2403 (November 1998) "The Use of HMAC-MD5-96 within ESP and AH".

[20D] RFC 2404 (November 1998) "The Use of HMAC-SHA-1-96 within ESP and AH".

[20E] RFC 2462 (November 1998): "IPv6 Address Autoconfiguration".

[21] RFC 2617 (June 1999): "HTTP Authentication: Basic and Digest Access Authentication".

[22] RFC 2806 (April 2000): "URLs for Telephone Calls".

[23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".

[24] RFC 2916 (September 2000): "E.164 number and DNS".

[25] RFC 2976 (October 2000): "The SIP INFO method".

[25A] RFC 3041 (January 2001): "Privacy Extensions for Stateless Address Autoconfiguration in IPv6".

[26] RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[27] RFC 3262 (June 2002): "Reliability of provisional responses in Session Initiation Protocol (SIP)".

[28] RFC 3265 (June 2002): "Session Initiation Protocol (SIP) Specific Event Notification".

[29] RFC 3311 (September 2002): "The Session Initiation Protocol (SIP) UPDATE method".

[30] RFC 3312 (October 2002): "Integration of resource management and Session Initiation Protocol (SIP)".

[31] RFC 3313 (January 2003): "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".

[32] RFC 3320 (March 2002): "Signaling Compression (SigComp)".

[33] RFC 3323 (November 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[34] RFC 3325 (November 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[34A] RFC 3326 (December 2002): "The Reason Header Field for the Session Initiation Protocol (SIP)".

[35] RFC 3327 (December 2002): "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".

[36] RFC 3515 (April 2003): "The Session Initiation Protocol (SIP) REFER method".

[37] RFC 3420 (November 2002): "Internet Media Type message/sipfrag".

[38] RFC 3608 (October 2003): "Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration".

[39] draft-ietf-mmusic-sdp-new-13 (May 2003): "SDP: Session Description Protocol".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[40] RFC 3315 (July 2003): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

[41] RFC 3319 (July 2003): "Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers".

[42] RFC 3485 (February 2003): "The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)".

[43] RFC 3680 (March 2004): "A Session Initiation Protocol (SIP) Event Package for Registrations".

[44] Void.

[45] Void.

[46] Void.

[47] Void.

[48] RFC 3329 (January 2003): "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".

[49] RFC 3310 (September 2002): "Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)".

[50] RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[51] Void.

[52] RFC 3455 (January 2003): "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)".

[53] RFC 3388 (December 2002): "Grouping of Media Lines in Session Description Protocol".

[54] RFC 3524 (April 2003): "Mapping of Media Streams to Resource Reservation Flows".

[55] RFC 3486 (February 2003): "Compressing the Session Initiation Protocol (SIP)".

[56] RFC 3556 (July 2003): "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".

[56A] RFC 3581 (August 2003): "An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing".

[56B] draft-ietf-sip-callerprefs-10 (October 2003): "Caller Preferences for the Session Initiation Protocol (SIP)"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[57] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[58] draft-ietf-sip-session-timer-13 (January 2004): "Session Timers in the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[61] draft-ietf-sip-join-03 (February 2004): "The Session Inititation Protocol (SIP) "Join" Header".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[70] draft-ietf-sip-publish-02 (January 2004): "Session Initiation Protocol (SIP) Extension for Presence Publication".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[71] draft-niemi-sipping-event-throttle-00 (October 2003): "Session Initiation Protocol (SIP) Event Notification Throttles".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[72] draft-ietf-simple-winfo-package-05 (January 2003): "A Session Initiation Protocol (SIP) Event Template-Package for Watcher Information".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[74] draft-ietf-simple-presence-10 (January 2003): "A Presence Event Package for the Session Initiation Protocol (SIP)".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[75] draft-ietf-simple-event-list-04 (June 2003): "A Session Initiation Protocol (SIP) Event Notification Extension for Collections".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[77] draft-ietf-simple-xcap-package-01 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Modification Events for the Extensible Markup Language (XML) Configuration Access Protocol (XCAP) Managed Documents".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[78] draft-ietf-sipping-conference-package-03 (February 2004): "A Session Initiation Protocol (SIP) Event Package for Conference State"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

PROPOSED CHANGE

A.2.1.2 Major capabilities

Table A.4: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
1	client behaviour for registration?	[26] subclause 10.2	o	c3
2	registrar?	[26] subclause 10.3	o	c4
2A	registration of multiple contacts for a single address of record	[26] 10.2.1.2, 16.6	o	o
2B	initiating a session?	[26] subclause 13	o	o
3	client behaviour for INVITE requests?	[26] subclause 13.2	c18	c18
4	server behaviour for INVITE requests?	[26] subclause 13.3	c18	c18
5	session release?	[26] subclause 15.1	c18	c18
6	timestamping of requests?	[26] subclause 8.2.6.1	o	o
7	authentication between UA and UA?	[26] subclause 22.2	c34~~o~~	~~o~~c34
8	authentication between UA and registrar?	[26] subclause 22.2	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	o
9	server handling of merged requests due to forking?	[26] 8.2.2.2	m	m
10	client handling of multiple responses due to forking?	[26] 13.2.2.4	m	m
11	insertion of date in requests and responses?	[26] subclause 20.17	o	o
12	downloading of alerting information?	[26] subclause 20.4	o	o
	Extensions			
13	the SIP INFO method?	[25]	o	n/a
14	reliability of provisional responses in SIP?	[27]	c19	c18
15	the REFER method?	[36]	o	c33
16	integration of resource management and SIP?	[30]	c19	c18
17	the SIP UPDATE method?	[29]	c5	c18
19	SIP extensions for media authorization?	[31]	o	c14
20	SIP specific event notification?	[28]	o	c13
21	the use of NOTIFY to establish a dialog?	[28] 4.2	o	n/a
22	acting as the notifier of event information?	[28]	c2	c15
23	acting as the subscriber to event information?	[28]	c2	c16
24	session initiation protocol extension header field for registering non-adjacent contacts?	[35]	o	c6
25	private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks?	[34]	o	m
26	a privacy mechanism for the Session Initiation Protocol (SIP)?	[33]	o	m
26A	request of privacy by the inclusion of a Privacy header indicating any privacy option?	[33]	c9	c11
26B	application of privacy based on the received Privacy header?	[33]	c9	n/a
26C	passing on of the Privacy header transparently?	[33]	c9	c12
26D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the	[33] 5.1	c10	c27

	assistance of intermediaries are obscured?			
26E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	c10	c27
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	c27
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20
38	the Reason header field for the session initiation protocol?	[34A]	o	o (note 1)
39	an extension to the session initiation protocol for symmetric response routeing?	[56A]	o	x
40	caller preferences for the session initiation protocol?	[56B]	C29	c29
40A	the proxy-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40B	the cancel-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40C	the fork-directive within caller-preferences?	[56B] 9.1	o.5	c28
40D	the recurse-directive within caller-preferences?	[56B] 9.1	o.5	o.5
40E	the parallel-directive within caller-preferences?	[56B] 9.1	o.5	c28
40F	the queue-directive within caller-preferences?	[56B] 9.1	o.5	o.5
41	an event state publication extension to the session initiation protocol?	[70]	o	c30
42	SIP session timer?	[58]	c19	c19
45	the Session Inititation Protocol (SIP) "Join" header?	[61]	c19	c19 (note 1)

c2: IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.

c3: IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.

c4: IF A.3/4 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - S-CSCF or AS functional entity.

c5: IF A.4/16 THEN m ELSE o - - integration of resource management and SIP extension.

c6: IF A.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.

c7: IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D THEN m ELSE n/a - - UA or S-CSCF or AS acting as terminating UA or AS acting as originating UA or AS performing 3rd party call control.

c8: IF A.3/1 THEN m ELSE n/a - - UE behaviour.

c9: IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c10: IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.

c11: IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.

c12: IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.

c13: IF A.3/1 OR A.3/2 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.

c14: IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.

c15: IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.

c16: IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.

c17: IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.

c18: IF A.4/2B THEN m ELSE n/a - - initiating sessions.

c19: IF A.4/2B THEN o ELSE n/a - - initiating sessions.

c20: IF A.3/1 THEN m ELSE n/a - - UE behaviour.

c21: IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c22: IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.

c23: IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.

c24: IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.

c25: IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.

c26: IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.

c27: IF A.3/7D THEN o ELSE x - - AS performing 3rd party call control.

c28: IF A.3/1 THEN m ELSE o.5 - - UE.

c29: IF A.4/40A OR A.4/40B OR A.4/40C OR A.4/40D OR A.4/40E OR A.4/40F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

c30: IF A.3A/1 OR A.3A/2 THEN m ELSE IF A.3/1 THEN o ELSE n/a - - presence server, presence user agent, UE, AS.

c33: IF A.3/11 OR A.3/12 OR A.4/44 THEN m ELSE o - - conference focus or conference participant or the Session Initiation Protocol (SIP) "Replaces" header.

c34: IF A.4/45 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Join" header.

o.1: At least one of these capabilities is supported.

o.2: At least one of these capabilities is supported.

o.3: At least one of these capabilities is supported.

o.4: At least one of these capabilities is supported.

o.5: At least one of these capabilities is supported.

NOTE 1: At the MGCF, the interworking specifications do not support a handling of the header associated with this extension.

Prerequisite A.5/20 - - SIP specific event notification

Table A.4A: Supported event packages

Item	Does the implementation support	Subscriber			Notifier		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	reg event package?	[43]	c1	c3	[43]	c2	c4
2	refer package?	[36] 3	c13	c13	[36] 3	c13	c13
3	presence package?	[74] 6	c1	c5	[74] 6	c2	c6
4	eventlist with underlying presence package?	[75], [74] 6	c1	c7	[75], [74] 6	c2	c8
5	presence.winfo template-package?	[72] 4	c1	c9	[72] 4	c2	c10
6	xcap-change package?	[77] 2	c1	c11	[77] 2	c2	c12
7	conference package?	[78] 3	c1	c21	[78] 3	c1	c22

c1: IF A.4/23 THEN o ELSE n/a - - acting as the subscriber to event information.

c2: IF A.4/22 THEN o ELSE n/a - - acting as the notifier of event information.

c3: IF A.3/1 OR A.3/2 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - UE, P-CSCF, AS.

c4: IF A.3/4 THEN m ELSE n/a - - S-CSCF.

c5: IF A.3A/3 OR A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - resource list server or watcher, acting as the subscriber to event information.

c6: IF A.3A/1 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - watcher, acting as the notifier of event information.

c7: IF A.3A/4 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - watcher, acting as the subscriber to event information.

c8: IF A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - resource list server, acting as the notifier of event information.

c9: IF A.3A/1 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - presence user agent, acting as the subscriber to event information.

c10: IF A.3A/2 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server, acting as the notifier of event information.

c11: IF A.3A/2 OR A.3A/4 THEN o ELSE IF A.4/23 THEN o ELSE n/a - - watcher or presence user agent, acting as the subscriber to event information.

c12: IF A.3A/1 OR A.3A/3 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - presence server or resource list server, acting as the notifier of event information.

c13: IF A.4/15 THEN m ELSE n/a - - the REFER method.

c21: IF A.3A/12 THEN m ELSE IF A.4/23 THEN o ELSE n/a - - conference participant or acting as the subscriber to event information.

c22: IF A.3A/11 THEN m ELSE IF A.4/22 THEN o ELSE n/a - - conference focus or acting as the notifier of event information.

PROPOSED CHANGE

A.2.1.4.1 Status-codes

Table A.6: Supported status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	n/a	n/a	[26] 21.1.1	m	m
2	180 (Ringing)	[26] 21.1.2	c2	c2	[26] 21.1.2	c1	c1
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c2	c2	[26] 21.1.3	c1	c1
4	182 (Queued)	[26] 21.1.4	c2	c2	[26] 21.1.4	c1	c1
5	183 (Session Progress)	[26] 21.1.5	c1	c1	[26] 21.1.5	c1	c1
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c3	c3	[28] 8.3.1	c3	c3
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1			[26] 21.4.1		
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26] 21.4.16			[26] 21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c7	c7	[58] 6	c7	c7
29	423 (Interval Too Brief)	[26] 21.4.17	c4	c4	[26] 21.4.17	m	m
30	480 (Temporarily Unavailable)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call/Transaction Does Not Exist)	[26] 21.4.19			[26] 21.4.19		
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26	m	m	[26] 21.4.26	m	m
39	489 (Bad Event)	[28] 7.3.2	c3	c3	[28] 7.3.2	c3	c3
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		
41A	494 (Security Agreement Required)	[48] 2	c5	c5	[48] 2	c6	c6

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2			[26] 21.6.2		
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

c1: IF A.5/9 THEN m ELSE n/a - - INVITE response.
c2: IF A.5/9 THEN o ELSE n/a - - INVITE response.
c3: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c4: IF A.5/19 OR A.5/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.
c5: IF A.4/37 AND A.4/2 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol and registrar.
c6: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c7: IF A.4/42 AND (A.5/9 OR A.5/23) THEN m ELSE n/a - - the SIP session timer AND (INVITE response OR UPDATE response).
c20: IF A.4/41 THEN m ELSE n/a

PROPOSED CHANGE

A.2.1.4.7 INVITE method

Prerequisite A.5/8 - - INVITE request

Table A.46: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
2	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
4	Alert-Info	[26] 20.4	o	o	[26] 20.4	c1	c1
5	Allow	[26] 20.5, [26] 5.1	o (note 1)	o	[26] 20.5, [26] 5.1	m	m
6	Allow-Events	[28] 7.2.2	c2	c2	[28] 7.2.2	c2	c2
8	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
11	Contact	[26] 20.10	m	m	[26] 20.10	m	m
12	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
13	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
14	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
19	Expires	[26] 20.19	o	o	[26] 20.19	o	o
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	o	o	[26] 20.21	o	o
21A	Join	[61] 7.1	c28	c28	[61] 7.1	c28	c28
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	n/a	n/a
23	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
23A	Min-SE	[58] 5	c26	c26	[58] 5	c25	c25
24	Organization	[26] 20.25	o	o	[26] 20.25	o	o
24A	P-Access-Network-Info	[52] 4.4	c15	c16	[52] 4.4	c15	c17
24B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c7	c7
24C	P-Called-Party-ID	[52] 4.2	x	x	[52] 4.2	c13	c13
24D	P-Charging-Function-Addresses	[52] 4.5	c20	c21	[52] 4.5	c20	c21
24E	P-Charging-Vector	[52] 4.6	c18	c19	[52] 4.6	c18	c19
25	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
25A	P-Preferred-Identity	[34] 9.2	c7	c5	[34] 9.2	n/a	n/a
25B	P-Visited-Network-ID	[52] 4.3	x (note 3)	x	[52] 4.3	c14	n/a
26	Priority	[26] 20.26	o	o	[26] 20.26	o	o
26A	Privacy	[33] 4.2	c9	c9	[33] 4.2	c9	c9
27	Proxy-Authorization	[26] 20.28	c6	c6	[26] 20.28	n/a	n/a
28	Proxy-Require	[26] 20.29	o (note 2)	o (note 2)	[26] 20.29	n/a	n/a
28A	Reason	[34A] 2	c8	c8	[34A] 2	c8	c8
29	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
31	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
31A	Reject-Contact	[56B] 9.2	c24	c24	[56B] 9.2	n/a	n/a
31B	Request-Disposition	[56B] 9.1	c24	c24	[56B] 9.1	n/a	n/a
32	Require	[26] 20.32	o	m	[26] 20.32	m	m
33	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
33A	Security-Client	[48] 2.3.1	c22	c22	[48] 2.3.1	n/a	n/a
33B	Security-Verify	[48] 2.3.1	c23	c23	[48] 2.3.1	n/a	n/a
33C	Session-Expires	[58] 4	c25	c25	[58] 4	c25	c25
34	Subject	[26] 20.36	o	o	[26] 20.36	o	o
35	Supported	[26] 20.37	c8	m	[26] 20.37	m	m

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
36	Timestamp	[26] 20.38	c10	c10	[26] 20.38	m	m
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
39	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/12 THEN m ELSE n/a - - downloading of alerting information.
c2: IF A.4/20 THEN m ELSE n/a - - SIP specific event notification extension.
c3: IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.
c4: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c5: IF A.3/1 AND A.4/25 THEN o ELSE n/a - - UE and private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c6: IF A.4/8A THEN m ELSE n/a - - authentication between UA and proxy.
c7: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c8: IF A.4/38 THEN o ELSE n/a - - the Reason header field for the session initiation protocol.
c9: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/6 THEN o ELSE n/a - - timestamping of requests.
c11: IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.
c12: IF A.3/1 THEN m ELSE n/a - - UE.
c13: IF A.4/32 THEN o ELSE n/a - - the P-Called-Party-ID extension.
c14: IF A.4/33 THEN o ELSE n/a - - the P-Visited-Network-ID extension.
c15: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c16: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c17: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c18: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c19: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c20: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c21: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c22: IF A.4/37 THEN o ELSE n/a - - security mechanism agreement for the session initiation protocol (note 4).
c23: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c24: IF A.4/40 THEN o ELSE n/a - - caller preferences for the session initiation protocol.
c25: IF A.4/42 THEN m ELSE n/a - - the SIP session timer.
c26: IF A.4/42 THEN o ELSE n/a - - the SIP session timer.
c28: IF A.4/45 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Join" header.
o.1: At least one of these shall be supported.

NOTE 1: The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.
NOTE 2: No distinction has been made in these tables between first use of a request on a From/To/Call-ID combination, and the usage in a subsequent one. Therefore the use of "o" etc. above has been included from a viewpoint of first usage.
NOTE 3: The strength of this requirement in RFC 3455 [52] is SHOULD NOT, rather than MUST NOT.
NOTE 4: Support of this header in this method is dependent on the security mechanism and the security architecture which is implemented. Use of this header in this method is not appropriate to the security mechanism defined by 3GPP TS 33.203 [19].

Prerequisite A.5/8 - - INVITE request

Table A.47: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/1 - - 100 (Trying)

Table A.48: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	n/a	n/a	[26] 20.8	m	m
2	Content-Length	[26] 20.14	n/a	n/a	[26] 20.14	m	m
3	Cseq	[26] 20.16	n/a	n/a	[26] 20.16	m	m
4	Date	[26] 20.17	n/a	n/a	[26] 20.17	m	m
5	From	[26] 20.20	n/a	n/a	[26] 20.20	m	m
6	To	[26] 20.39	n/a	n/a	[26] 20.39	m	m
7	Via	[26] 20.42	n/a	n/a	[26] 20.42	m	m

Prerequisite A.5/9 - - INVITE response

Table A.49: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	o	o	[26] 20.9	o	o
2	Content-Disposition	[26] 20.11	o	o	[26] 20.11	m	m
3	Content-Encoding	[26] 20.12	o	o	[26] 20.12	m	m
4	Content-Language	[26] 20.13	o	o	[26] 20.13	m	m
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	o	o	[26] 20.24	m	m
11	Organization	[26] 20.25	o	o	[26] 20.25	o	o
11A	P-Access-Network-Info	[52] 4.4	c5	c6	[52] 4.4	c5	c7
11B	P-Asserted-Identity	[34] 9.1	n/a	n/a	[34] 9.1	c3	c3
11C	P-Charging-Function-Addresses	[52] 4.5	c10	c11	[52] 4.5	c11	c11
11D	P-Charging-Vector	[52] 4.6	c8	c9	[52] 4.6	c8	c9
11E	P-Preferred-Identity	[34] 9.2	c3	x	[34] 9.2	n/a	n/a
11F	Privacy	[33] 4.2	c4	c4	[33] 4.2	c4	c4
11G	Require	[26] 20.32	m	m	[26] 20.32	m	m
11H	Server	[26] 20.35	o	o	[26] 20.35	o	o
12	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	o	o	[26] 20.41	o	o
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	o (note)	o	[26] 20.43	o	o

c1: IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.
c2: IF A.4/6 THEN m ELSE n/a - - timestamping of requests.
c3: IF A.4/25 THEN o ELSE n/a - - private extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c4: IF A.4/26 THEN o ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c5: IF A.4/34 THEN o ELSE n/a - - the P-Access-Network-Info header extension.
c6: IF A.4/34 AND A.3/1 THEN m ELSE n/a - - the P-Access-Network-Info header extension and UE.
c7: IF A.4/34 AND (A.3/7A OR A.3/7D) THEN m ELSE n/a - - the P-Access-Network-Info header extension and AS acting as terminating UA or AS acting as third-party call controller.
c8: IF A.4/36 THEN o ELSE n/a - - the P-Charging-Vector header extension.
c9: IF A.4/36 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c10: IF A.4/35 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.
c11: IF A.4/35 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

NOTE: For a 606 (Not Acceptable Here) response, this status is RECOMMENDED rather than OPTIONAL.

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/2 OR A.6/3 OR A.6/4 OR A.6/5 - - 1xx

Table A.50: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o	m	[26] 20.10	m	m
6	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Rseq	[27] 7.1	c2	m	[27] 7.1	c3	m
11	Supported	[26] 20.37	o	o	[26] 20.37	m	m
c2:	IF A.4/14 THEN o ELSE n/a - - reliability of provisional responses in SIP.						
c3:	IF A.4/14 THEN m ELSE n/a - - reliability of provisional responses in SIP.						
c11:	IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.						
c12:	IF A.3/1 THEN m ELSE n/a - - UE.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/6 - - 2xx

Table A.51: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o	o	[26] 20.1	m	m
1A	Accept-Encoding	[26] 20.2	o	o	[26] 20.2	m	m
1B	Accept-Language	[26] 20.3	o	o	[26] 20.3	m	m
2	Allow	[26] 20.5	o (note 1)	o	[26] 20.5	m	m
4	Authentication-Info	[26] 20.6	c1	c1	[26] 20.6	c2	c2
6	Contact	[26] 20.10	m	m	[26] 20.10	m	m
8	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
9	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
10	Session-Expires	[58] 4	c13	c13	[58] 4	c13	c13
13	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/7 THEN o ELSE n/a - - authentication between UA and UA.						
c2:	IF A.4/7 THEN m ELSE n/a - - authentication between UA and UA.						
c11:	IF A.4/19 THEN m ELSE n/a - - SIP extensions for media authorization.						
c12:	IF A.3/1 THEN m ELSE n/a - - UE.						
c13:	IF A.4/42 THEN m ELSE n/a - - the SIP session timer.						
NOTE 1:	The strength of this requirement in RFC 3261 [26] is RECOMMENDED, rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/35 - - 3xx or 485 (Ambiguous)

Table A.52: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Contact	[26] 20.10	o (note 1)	o	[26] 20.10	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
NOTE:	The strength of this requirement is RECOMMENDED rather than OPTIONAL.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/14 - - 401 (Unauthorized)

Table A.53: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	c3	c3	[26] 20.27	c3	c3
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
13	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	m	m
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						
c2:	IF A.4/6 THEN m ELSE n/a - - timestamping of requests.						
c3:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/17 OR A.6/23 OR A.6/30 OR A.6/36 OR A.6/50 OR A.6/51 - - 404, 413, 480, 486, 600, 603

Table A.54: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/18 - - 405 (Method Not Allowed)

Table A.55: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/20 - - 407 (Proxy Authentication Required)

Table A.56: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	WWW-Authenticate	[26] 20.44	o	o	[26] 20.44	o	o
c1:	IF A.5/7 THEN m ELSE n/a - - support of authentication between UA and UA.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/25 - - 415 (Unsupported Media Type)

Table A.57: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o.1	o.1	[26] 20.1	m	m
2	Accept-Encoding	[26] 20.2	o.1	o.1	[26] 20.2	m	m
3	Accept-Language	[26] 20.3	o.1	o.1	[26] 20.3	m	m
3A	Allow	[26] 20.5	o	o	[26] 20.5	m	m
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
11	Supported	[26] 20.37	m	m	[26] 20.37	m	m
o.1	At least one of these capabilities is supported.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/27 - - 420 (Bad Extension)

Table A.58: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28 OR A.6/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.58A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	x	x	[48] 2	c1	c1
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/28A - - 422 (Session Interval Too Small)

Table A.58B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.4/42 THEN o ELSE n/a - - the SIP session timer.						

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/34 - - 484 (Address Incomplete)

Table A.59: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/42 - - 500 (Server Internal Error)

Table A.60: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	m	m	[26] 20.33	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Prerequisite: A.6/45 - - 503 (Service Unavailable)

Table A.61: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m

Prerequisite A.5/9 - - INVITE response

Table A.62: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

PROPOSED CHANGE

A.2.2.2 Major capabilities

Table A.162: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
3	initiate session release?	[26] 16	x	c27
4	stateless proxy behaviour?	[26] 16.11	o.1	c28
5	stateful proxy behaviour?	[26] 16.2	o.1	c29
6	forking of initial requests?	[26] 16.1	c1	c31
7	support of TLS connections on the upstream side?	[26] 16.7	o	n/a
8	support of TLS connections on the downstream side?	[26] 16.7	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	x
9	insertion of date in requests and responses?	[26] 20.17	o	o
10	suppression or modification of alerting information data?	[26] 20.4	o	o
11	reading the contents of the Require header before proxying the request or response?	[26] 20.32	o	o
12	adding or modifying the contents of the Require header before proxying the REGISTER request or response	[26] 20.32	o	m
13	adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER?	[26] 20.32	o	o
14	being able to insert itself in the subsequent transactions in a dialog (record-routing)?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing?	[26] 16.7	c3	c3
16	reading the contents of the Supported header before proxying the response?	[26] 20.37	o	o
17	reading the contents of the Unsupported header before proxying the 420 response to a REGISTER?	[26] 20.40	o	m
18	reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER?	[26] 20.40	o	o
19	the inclusion of the Error-Info header in 3xx - 6xx responses?	[26] 20.18	o	o
19A	reading the contents of the Organization header before proxying the request or response?	[26] 20.25	o	o
19B	adding or concatenating the Organization header before proxying the request or response?	[26] 20.25	o	o
19C	reading the contents of the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19D	adding or concatenating the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19E	delete Contact headers from 3xx responses prior to relaying the	[26] 20	o	o

	response?			
	Extensions			
20	the SIP INFO method?	[25]	o	o
21	reliability of provisional responses in SIP?	[27]	o	i
22	the REFER method?	[36]	o	o
23	integration of resource management and SIP?	[30]	o	i
24	the SIP UPDATE method?	[29]	c4	i
26	SIP extensions for media authorization?	[31]	o	c7
27	SIP specific event notification	[28]	o	i
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	[35]	o	c6
30	extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks	[34]	o	m
30A	act as first entity within the trust domain for asserted identity	[34]	c5	c8
30B	act as subsequent entity within trust network that can route outside the trust network	[34]	c5	c9
31	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
31A	request of privacy by the inclusion of a Privacy header	[33]	n/a	n/a
31B	application of privacy based on the received Privacy header	[33]	c10	c12
31C	passing on of the Privacy header transparently	[33]	c10	c13
31D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	x	x
31E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	n/a	n/a
31F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	n/a	n/a
31G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c11	c12
32	Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration	[38]	o	c30
33	a messaging mechanism for the Session Initiation Protocol (SIP)	[50]	o	m
34	Compressing the Session Initiation Protocol	[55]	o	c7
35	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
36	the P-Associated-URI header extension?	[52] 4.1	c14	c15
37	the P-Called-Party-ID header extension?	[52] 4.2	c14	c16
38	the P-Visited-Network-ID header extension?	[52] 4.3	c14	c17
39	reading, or deleting the P-Visited-Network-ID header before proxying the	[52] 4.3	c18	n/a

	request or response?			
41	the P-Access-Network-Info header extension?	[52] 4.4	c14	c19
42	act as first entity within the trust domain for access network information?	[52] 4.4	c20	c21
43	act as subsequent entity within trust network for access network information that can route outside the trust network?	[52] 4.4	c20	c22
44	the P-Charging-Function-Addresses header extension?	[52] 4.5	c14	m
44A	adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response?	[52] 4.6	c25	c26
45	the P-Charging-Vector header extension?	[52] 4.6	c14	m
46	adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response?	[52] 4.6	c23	c24
47	security mechanism agreement for the session initiation protocol?	[48]	o	c7
48	the Reason header field for the session initiation protocol	[34A]	o	o
49	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x
50	caller preferences for the session initiation protocol?	[56B]	c33	c33
50A	the proxy-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50B	the cancel-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50C	the fork-directive within caller-preferences?	[56B] 9.1	o.4	c32
50D	the recurse-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50E	the parallel-directive within caller-preferences?	[56B] 9.1	o.4	c32
50F	the queue-directive within caller-preferences?	[56B] 9.1	o.4	o.4
51	an event state publication extension to the session initiation protocol?	[70]	o	m
52	SIP session timer?	[58]	o	o
55	the Session Inititation Protocol (SIP) "Join" header?	[61]	o	o

c1: IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour.

c2: IF A.3/2 OR A.3/3A OR A.3/4 THEN m ELSE o - - P-CSCF, I-CSCF(THIG) or S-CSCF.

c3: IF (A.162/7 AND NOT A.162/8) OR (NOT A.162/7 AND A.162/8) THEN m ELSE IF A.162/14 THEN o ELSE n/a - - TLS interworking with non-TLS else proxy insertion.

c4: IF A.162/23 THEN m ELSE o - - integration of resource management and SIP.

c5: IF A.162/30 THEN o ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).

c7: IF A.3/2 THEN m ELSE n/a - - P-CSCF.

c8: IF A.3/2 AND A.162/30 THEN m ELSE n/a - - P-CSCF and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c9: IF A.3/2 AND A.162/30 THEN m ELSE IF A.3/7C AND A.162/30 THEN o ELSE n/a - - S-CSCF or AS acting as proxy and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks (NOTE).

c10: IF A.162/31 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c11: IF A.162/31B THEN o ELSE x - - application of privacy based on the received Privacy header.

c12: IF A.162/31 AND A.3/4 THEN m ELSE n/a - - S-CSCF.

c13: IF A.162/31 AND (A.3/2 OR A.3/3 OR A.3/7C) THEN m ELSE n/a - - P-CSCF OR I-CSCF OR AS acting as a SIP proxy.

c14: IF A.162/35 THEN o.3 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c15: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c16: IF A.162/35 AND (A.3/2 OR A.3/3 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF or S-CSCF.

c17: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c18: IF A.162/38 THEN o ELSE n/a - - the P-Visited-Network-ID header extension.

c19: IF A.162/35 AND (A.3/2 OR A.3.3 OR A.3/4 OR A.3/7 THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF, I-CSCF, S-CSCF, AS acting as a proxy.

c20: IF A.162/41 THEN o ELSE n/a - - the P-Access-Network-Info header extension.

c21: IF A.162/41 AND A.3/2 THEN m ELSE n/a - - the P-Access-Network-Info header extension and P-CSCF.

c22: IF A.162/41 AND A.3/4 THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF.

c23: IF A.162/45 THEN o ELSE n/a - - the P-Charging-Vector header extension.

c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c25: IF A.162/44 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.

c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function Addresses header extension.

c27: IF A.3/2 OR A.3/4 THEN m ELSE x - - P-CSCF or S-CSCF.

c28: IF A.3/2 OR A.3/4 OR A.3/6 then m ELSE o - - P-CSCF or S-CSCF of MGCF.

c29: IF A.3/2 OR A.3/4 OR A.3/6 then o ELSE m - - P-CSCF or S-CSCF of MGCF.

c30: IF A.3/2 o ELSE i - - P-CSCF.

c31: IF A.3/4 THEN m ELSE x - - S-CSCF.

c32: IF A.3/4 THEN m ELSE o.4 - - S-CSCF.

c33: IF A.162/50A OR A.162/50B OR A.162/50C OR A.162/50D OR A.162/50E OR A.162/50F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

o.1: It is mandatory to support at least one of these items.

o.2: It is mandatory to support at least one of these items.

o.3: It is mandatory to support at least one of these items.

o.4 At least one of these capabilities is supported.

NOTE: An AS acting as a proxy may be outside the trust domain, and therefore not able to support the capability for that reason; in this case it is perfectly reasonable for the header to be passed on transparently, as specified in the PDU parts of the profile.

PROPOSED CHANGE

A.2.2.4.1 Status-codes

Table A.164: Supported-status codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	100 (Trying)	[26] 21.1.1	c1	c1	[26] 21.1.1	c2	c2
2	180 (Ringing)	[26] 21.1.2	c3	c3	[26] 21.1.2	c3	c3
3	181 (Call Is Being Forwarded)	[26] 21.1.3	c3	c3	[26] 21.1.3	c3	c3
4	182 (Queued)	[26] 21.1.4	c3	c3	[26] 21.1.4	c3	c3
5	183 (Session Progress)	[26] 21.1.5	c3	c3	[26] 21.1.5	c3	c3
6	200 (OK)	[26] 21.2.1			[26] 21.2.1		
7	202 (Accepted)	[28] 8.3.1	c4	c4	[28] 8.3.1	c4	c4
8	300 (Multiple Choices)	[26] 21.3.1			[26] 21.3.1		
9	301 (Moved Permanently)	[26] 21.3.2			[26] 21.3.2		
10	302 (Moved Temporarily)	[26] 21.3.3			[26] 21.3.3		
11	305 (Use Proxy)	[26] 21.3.4			[26] 21.3.4		
12	380 (Alternative Service)	[26] 21.3.5			[26] 21.3.5		
13	400 (Bad Request)	[26] 21.4.1			[26] 21.4.1		
14	401 (Unauthorized)	[26] 21.4.2			[26] 21.4.2		
15	402 (Payment Required)	[26] 21.4.3			[26] 21.4.3		
16	403 (Forbidden)	[26] 21.4.4			[26] 21.4.4		
17	404 (Not Found)	[26] 21.4.5			[26] 21.4.5		
18	405 (Method Not Allowed)	[26] 21.4.6			[26] 21.4.6		
19	406 (Not Acceptable)	[26] 21.4.7			[26] 21.4.7		
20	407 (Proxy Authentication Required)	[26] 21.4.8			[26] 21.4.8		
21	408 (Request Timeout)	[26] 21.4.9			[26] 21.4.9		
22	410 (Gone)	[26] 21.4.10			[26] 21.4.10		
22A	412 (Precondition Failed)	[70] 7.2.1	c20	c20	[70] 7.2.1	c20	c20
23	413 (Request Entity Too Large)	[26] 21.4.11			[26] 21.4.11		
24	414 (Request-URI Too Large)	[26] 21.4.12			[26] 21.4.12		
25	415 (Unsupported Media Type)	[26] 21.4.13			[26] 21.4.13		
26	416 (Unsupported URI Scheme)	[26] 21.4.14			[26] 21.4.14		
27	420 (Bad Extension)	[26] 21.4.15			[26] 21.4.15		
28	421 (Extension Required)	[26]			[26]		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
		21.4.16			21.4.16		
28A	422 (Session Interval Too Small)	[58] 6	c8	c8	[58] 6	c8	c8
29	423 (Interval Too Brief)	[26] 21.4.17	c5	c5	[26] 21.4.17	c6	c6
30	480 (Temporarily not available)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call /Transaction Does Not Exist)	[26] 21.4.19			[26] 21.4.19		
32	482 (Loop Detected)	[26] 21.4.20			[26] 21.4.20		
33	483 (Too Many Hops)	[26] 21.4.21			[26] 21.4.21		
34	484 (Address Incomplete)	[26] 21.4.22			[26] 21.4.22		
35	485 (Ambiguous)	[26] 21.4.23			[26] 21.4.23		
36	486 (Busy Here)	[26] 21.4.24			[26] 21.4.24		
37	487 (Request Terminated)	[26] 21.4.25			[26] 21.4.25		
38	488 (Not Acceptable Here)	[26] 21.4.26	m	m	[26] 21.4.26	i	i
39	489 (Bad Event)	[28] 7.3.2	c4	c4	[28] 7.3.2	c4	c4
40	491 (Request Pending)	[26] 21.4.27			[26] 21.4.27		
41	493 (Undecipherable)	[26] 21.4.28			[26] 21.4.28		
41A	494 (Security Agreement Required)	[48] 2	c7	c7	[48] 2	n/a	n/a
42	500 (Internal Server Error)	[26] 21.5.1			[26] 21.5.1		
43	501 (Not Implemented)	[26] 21.5.2			[26] 21.5.2		
44	502 (Bad Gateway)	[26] 21.5.3			[26] 21.5.3		
45	503 (Service Unavailable)	[26] 21.5.4			[26] 21.5.4		
46	504 (Server Time-out)	[26] 21.5.5			[26] 21.5.5		
47	505 (Version not supported)	[26] 21.5.6			[26] 21.5.6		
48	513 (Message Too Large)	[26] 21.5.7			[26] 21.5.7		
49	580 (Precondition Failure)	[30] 8			[30] 8		
50	600 (Busy Everywhere)	[26] 21.6.1			[26] 21.6.1		
51	603 (Decline)	[26] 21.6.2			[26] 21.6.2		
52	604 (Does Not Exist Anywhere)	[26] 21.6.3			[26] 21.6.3		
53	606 (Not Acceptable)	[26] 21.6.4			[26] 21.6.4		

c1: IF A.162/15 THEN m ELSE n/a - - stateful proxy.
c2: IF A.162/15 THEN m ELSE i - - the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing.
c3: IF A.163/9 THEN m ELSE n/a - - INVITE response.
c4: IF A.162/27 THEN m ELSE n/a - - SIP specific event notification.
c5: IF A.163/19 OR A.163/21 THEN m ELSE n/a - - REGISTER response or SUBSCRIBE response.
c6: IF A.163/19 OR A.163/21 THEN i ELSE n/a - - REGISTER response or SUBSCRIBE response.
c7: IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c8: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c20: IF A.4/51 THEN m ELSE n/a

PROPOSED CHANGE

A.2.2.4.7 INVITE method

Prerequisite A.163/8 - - INVITE request

Table A.204: Supported headers within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
4	Alert-Info	[26] 20.4	c2	c2	[26] 20.4	c3	c3
5	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Allow-Events	[28] 7.2.2	m	m	[28] 7.2.2	c1	c1
8	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
9	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
10	Call-Info	[26] 20.9	m	m	[26] 20.9	c12	c12
11	Contact	[26] 20.10	m	m	[26] 20.10	i	i
12	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c6
13	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c6
14	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c6
15	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
16	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c6
17	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
18	Date	[26] 20.17	m	m	[26] 20.17	c4	c4
19	Expires	[26] 20.19	m	m	[26] 20.19	i	i
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 20.21	m	m	[26] 20.21	i	i
21A	Replaces	[61] 7.1	c41	c41	[61] 7.1	c42	c42
22	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
23	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c6
23A	Min-SE	[58] 5	o	o	[58] 5	o	o
24	Organization	[26] 20.25	m	m	[26] 20.25	c5	c5
24A	P-Access-Network-Info	[52] 4.4	c28	c28	[52] 4.4	c29	c30
24B	P-Asserted-Identity	[34] 9.1	c15	c15	[34] 9.1	c16	c16
24C	P-Called-Party-ID	[52] 4.2	c19	c19	[52] 4.2	c20	c21
24D	P-Charging-Function-Addresses	[52] 4.5	c26	c27	[52] 4.5	c26	c27
24E	P-Charging-Vector	[52] 4.6	c24	c24	[52] 4.6	c25	c25
25	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
25A	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c14	c14
25B	P-Visited-Network-ID	[52] 4.3	c22	n/a	[52] 4.3	c23	n/a
26	Priority	[26] 20.26	m	m	[26] 20.26	i	i
26A	Privacy	[33] 4.2	c17	c17	[33] 4.2	c18	c18
27	Proxy-Authorization	[26] 20.28	m	m	[26] 20.28	c13	c13
28	Proxy-Require	[26] 20.29, [34] 4	m	m	[26] 20.29, [34] 4	m	m
28A	Reason	[34A] 2	c32	c32	[34A] 2	c33	c33
29	Record-Route	[26] 20.30	m	m	[26] 20.30	c11	c11
31	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
31A	Reject-Contact	[56B] 9.2	c34	c34	[56B] 9.2	c34	c35
31B	Request-Disposition	[56B] 9.1	c34	c34	[56B] 9.1	c34	c34
32	Require	[26] 20.32	m	m	[26] 20.32	c7	c7
33	Route	[26] 20.34	m	m	[26] 20.34	m	m
33A	Security-Client	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33B	Security-Verify	[48] 2.3.1	x	x	[48] 2.3.1	c31	c31
33C	Session-Expires	[58] 4	c36	c36	[58] 4	c36	c36
34	Subject	[26] 20.36	m	m	[26] 20.36	i	i

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
35	Supported	[26] 20.37	m	m	[26] 20.37	c8	c8
36	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
37	To	[26] 20.39	m	m	[26] 20.39	m	m
38	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
39	Via	[26] 20.42	m	m	[26] 20.42	m	m

c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.
c2: IF A.162/10 THEN n/a ELSE m - - suppression or modification of alerting information data.
c3: IF A.162/10 THEN m ELSE i - - suppression or modification of alerting information data.
c4: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.
c5: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.
c6: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.
c7: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.
c8: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.
c9: IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.
c10: IF A.3/2 THEN m ELSE n/a - - P-CSCF.
c11: IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.
c12: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.
c13: IF A.162/8A THEN m ELSE i - - authentication between UA and proxy.
c14: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.
c15: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.
c16: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.
c17: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c18: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.
c19: IF A.162/37 THEN m ELSE n/a - - the P-Called-Party-ID header extension.
c20: IF A.162/37 THEN i ELSE n/a - - the P-Called-Party-ID header extension.
c21: IF A.162/37 AND A.3/2 THEN m ELSE IF A.162/37 AND A.3/3 THEN i ELSE n/a - - the P-Called-Party-ID header extension and P-CSCF or I-CSCF.
c22: IF A.162/38 THEN m ELSE n/a - - the P-Visited-Network-ID header extension.
c23: IF A.162/39 THEN m ELSE i - - reading, or deleting the P-Visited-Network-ID header before proxying the request or response.
c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.
c25: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.
c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.
c27: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.
c28: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c29: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.
c30: IF A.162/43 OR (A.162/41 AND A.3/2) THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension (with or without P-CSCF).
c31: IF A.4/37 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.
c32: IF A.162/48 THEN m ELSE n/a - - the Reason header field for the session initiation protocol.
c33: IF A.162/48 THEN i ELSE n/a - - the Reason header field for the session initiation protocol.
c34: IF A.162/50 THEN m ELSE n/a - - caller preferences for the session initiation protocol.
c35: IF A.162/50 AND A.4/3 THEN m ELSE IF A.162/50 AND NOT A.4/3 THEN i ELSE n/a - - caller preferences for the session initiation protocol, and S-CSCF.
c36: IF A.162/52 THEN m ELSE n/a - - the SIP session timer.
c41: IF A.162/55 THEN m ELSE n/a - - the Session Inititation Protocol (SIP) "Join" header.
c42: IF A.162/55 THEN i ELSE n/a - - the Session Inititation Protocol (SIP) "Join" header.

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
NOTE:	c1 refers to the UA role major capability as this is the case of a proxy that also acts as a UA specifically for SUBSCRIBE and NOTIFY.						

Prerequisite A.163/8 - - INVITE request

Table A.205: Supported message bodies within the INVITE request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/1 - - 100 (Trying)

Table A.206: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
2	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
4	Date	[26] 20.17	c1	c1	[26] 20.17	c2	c2
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	To	[26] 20.39	m	m	[26] 20.39	m	m
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1: c2:	IF (A.162/9 AND A.162/5) OR A.162/4 THEN m ELSE n/a - - stateful proxy behaviour that inserts date, or stateless proxies. IF A.162/4 THEN i ELSE m - - Stateless proxy passes on.						

Prerequisite A.163/9 - - INVITE response

Table A.207: Supported headers within the INVITE response - all remaining status-codes

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
1A	Call-Info	[26] 20.9	m	m	[26] 20.9	c4	c4
2	Content-Disposition	[26] 20.11	m	m	[26] 20.11	i	c3
3	Content-Encoding	[26] 20.12	m	m	[26] 20.12	i	c3
4	Content-Language	[26] 20.13	m	m	[26] 20.13	i	c3
5	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
6	Content-Type	[26] 20.15	m	m	[26] 20.15	i	c3
7	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
8	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
9	From	[26] 20.20	m	m	[26] 20.20	m	m
10	MIME-Version	[26] 20.24	m	m	[26] 20.24	i	c3
11	Organization	[26] 20.25	m	m	[26] 20.25	c2	c2
11A	P-Access-Network-Info	[52] 4.4	c14	c14	[52] 4.4	c15	c15
11B	P-Asserted-Identity	[34] 9.1	c6	c6	[34] 9.1	c7	c7
11C	P-Charging-Function-Addresses	[52] 4.5	c12	c12	[52] 4.5	c13	c13
11D	P-Charging-Vector	[52] 4.6	c10	c10	[52] 4.6	c11	c11
11E	P-Preferred-Identity	[34] 9.2	x	x	[34] 9.2	c5	n/a
11F	Privacy	[33] 4.2	c8	c8	[33] 4.2	c9	c9
11G	Require	[26] 20.32	m	m	[26] 20.32	c16	c16
11H	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
13A	User-Agent	[26] 20.41	m	m	[26] 20.41	i	i
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
15	Warning	[26] 20.43	m	m	[26] 20.43	i	i

c1: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.

c2: IF A.162/19A OR A.162/19B THEN m ELSE i - - reading, adding or concatenating the Organization header.

c3: IF A.3/2 OR A.3/4 THEN m ELSE i - - P-CSCF or S-CSCF.

c4: IF A.162/19C OR A.162/19D THEN m ELSE i - - reading, adding or concatenating the Call-Info header.

c5: IF A.162/30A THEN m ELSE n/a - - act as first entity within the trust domain for asserted identity.

c6: IF A.162/30 THEN m ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c7: IF A.162/30A or A.162/30B THEN m ELSE i - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks or subsequent entity within trust network that can route outside the trust network.

c8: IF A.162/31 THEN m ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c9: IF A.162/31D OR A.162/31G THEN m ELSE IF A.162/31C THEN i ELSE n/a - - application of the privacy option "header" or application of the privacy option "id" or passing on of the Privacy header transparently.

c10: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c11: IF A.162/46 THEN m ELSE IF A.162/45 THEN i ELSE n/a - - adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response or the P-Charging-Vector header extension.

c12: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function-Addresses header extension.

c13: IF A.162/44A THEN m ELSE IF A.162/44 THEN i ELSE n/a - - adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response, or the P-Charging-Function-Addresses header extension.

c14: IF A.162/43 THEN x ELSE IF A.162/41 THEN m ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c15: IF A.162/43 THEN m ELSE IF A.162/41 THEN i ELSE n/a - - act as subsequent entity within trust network for access network information that can route outside the trust network, the P-Access-Network-Info header extension.

c16: IF A.162/11 OR A.162/13 THEN m ELSE i - - reading the contents of the Require header before proxying the request or response or adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER.

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/2 OR A.164/3 OR A.164/4 OR A.164/5 - - 1xx

Table A.208: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	i	i
6	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Rseq	[27] 7.1	m	m	[27] 7.1	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/6 - - 2xx

Table A.209: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
1A	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
1B	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
2	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Authentication-Info	[26] 20.6	m	m	[26] 20.6	i	i
6	Contact	[26] 20.10	m	m	[26] 20.10	i	i
8	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
9	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
10	Session-Expires	[58] 4	c11	c11	[58] 4	c11	c11
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c3:	IF A.162/14 THEN m ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.						
c9:	IF A.162/26 THEN m ELSE n/a - - SIP extensions for media authorization.						
c10:	IF A.3/2 THEN m ELSE n/a - - P-CSCF.						
c11:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 OR A.164/35 - - 3xx or 485 (Ambiguous)

Table A.210: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Contact	[26] 20.10	m	m	[26] 20.10	c1	c1
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
c1:	IF A.162/19E THEN m ELSE i - - deleting Contact headers.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/14 - - 401 (Unauthorized)

Table A.211: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
15	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/17 OR A.164/23 OR A.164/30 OR A.164/36 OR A.164/50 OR A.164/51 - - 404, 413, 480, 486, 600, 603

Table A.212: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
12	Via	[26] 20.42	m	m	[26] 20.42	m	m

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/18 - - 405 (Method Not Allowed)

Table A.213: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
2	Allow	[26] 20.5	m		[26] 20.5	m/o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/20 - - 407 (Proxy Authentication Required)

Table A.214: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Proxy-Authenticate	[26] 20.27	m	m	[26] 20.27	m	m
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	WWW-Authenticate	[26] 20.44	m	m	[26] 20.44	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/25 - - 415 (Unsupported Media Type)

Table A.215: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	m	m	[26] 20.1	i	i
2	Accept-Encoding	[26] 20.2	m	m	[26] 20.2	i	i
3	Accept-Language	[26] 20.3	m	m	[26] 20.3	i	i
3A	Allow	[26] 20.5	m	m	[26] 20.5	i	i
6	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/27 - - 420 (Bad Extension)

Table A.216: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
c3:	IF A.162/18 THEN m ELSE i - - reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/28 OR A.164/41A - - 421 (Extension Required), 494 (Security Agreement Required)

Table A.216A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o	o	[26] 20.5	m	m
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Security-Server	[48] 2	c1	c1	[48] 2	n/a	n/a
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
c1:	IF A.162/47 THEN m ELSE n/a - - security mechanism agreement for the session initiation protocol.						

Prerequisite A.16/9 - - INVITE response

Prerequisite: A.164/28A - - 422 (Session Interval Too Small)

Table A.216B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Min-SE	[58] 5	c1	c1	[58] 5	c1	c1
c1:	IF A.162/52 THEN m ELSE n/a - - the SIP session timer.						

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/34 - - 484 (Address Incomplete)

Table A.217: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/42 - - 500 (Server Internal Error)

Table A.217A: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Prerequisite: A.164/45 - - 503 (Service Unavailable)

Table A.217B: Supported headers within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m	m	[26] 20.5	i	i
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i

Prerequisite A.163/9 - - INVITE response

Table A.218: Supported message bodies within the INVITE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1							

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041462

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**678**	⌘**rev**	**-**	⌘	Current version:	**6.3.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Support of TLS		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	28/07/2004
Category:	⌘	**D**	***Release:*** ⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Some questions have been raised on the support of TLS in 24.229 at both Release 5 and Release 6. This is apparently caused by the wording in the profile of items 7 and 8 of Table A.162 (the proxy major capabilities table).
Summary of change:	⌘	It is proposed to modify A.162/7 and A.162.8 to make clear that they only refer to the option on Record-Route. No other changes are proposed.
Consequences if not approved:	⌘	It is possible that implementations will misunderstand the profile, and not support TLS.

Clauses affected:	⌘	A.2.2.2				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

A.2.2.2 Major capabilities

Table A.162: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
3	initiate session release?	[26] 16	x	c27
4	stateless proxy behaviour?	[26] 16.11	o.1	c28
5	stateful proxy behaviour?	[26] 16.2	o.1	c29
6	forking of initial requests?	[26] 16.1	c1	c31
7	support of indication of TLS connections in the Record-Route header on the upstream side?	[26] 16.7	o	n/a
8	support of indication of TLS connections in the Record-Route header on the downstream side?	[26] 16.7	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	x
9	insertion of date in requests and responses?	[26] 20.17	o	o
10	suppression or modification of alerting information data?	[26] 20.4	o	o
11	reading the contents of the Require header before proxying the request or response?	[26] 20.32	o	o
12	adding or modifying the contents of the Require header before proxying the REGISTER request or response	[26] 20.32	o	m
13	adding or modifying the contents of the Require header before proxying the request or response for methods other than REGISTER?	[26] 20.32	o	o
14	being able to insert itself in the subsequent transactions in a dialog (record-routing)?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routeing?	[26] 16.7	c3	c3
16	reading the contents of the Supported header before proxying the response?	[26] 20.37	o	o
17	reading the contents of the Unsupported header before proxying the 420 response to a REGISTER?	[26] 20.40	o	m
18	reading the contents of the Unsupported header before proxying the 420 response to a method other than REGISTER?	[26] 20.40	o	o
19	the inclusion of the Error-Info header in 3xx - 6xx responses?	[26] 20.18	o	o
19A	reading the contents of the Organization header before proxying the request or response?	[26] 20.25	o	o
19B	adding or concatenating the Organization header before proxying the request or response?	[26] 20.25	o	o
19C	reading the contents of the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19D	adding or concatenating the Call-Info header before proxying the request or response?	[26] 20.25	o	o
19E	delete Contact headers from 3xx responses prior to relaying the response?	[26] 20	o	o
	Extensions			

20	the SIP INFO method?	[25]	o	o
21	reliability of provisional responses in SIP?	[27]	o	i
22	the REFER method?	[36]	o	o
23	integration of resource management and SIP?	[30]	o	i
24	the SIP UPDATE method?	[29]	c4	i
26	SIP extensions for media authorization?	[31]	o	c7
27	SIP specific event notification	[28]	o	i
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	[35]	o	c6
30	extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks	[34]	o	m
30A	act as first entity within the trust domain for asserted identity	[34]	c5	c8
30B	act as subsequent entity within trust network that can route outside the trust network	[34]	c5	c9
31	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
31A	request of privacy by the inclusion of a Privacy header	[33]	n/a	n/a
31B	application of privacy based on the received Privacy header	[33]	c10	c12
31C	passing on of the Privacy header transparently	[33]	c10	c13
31D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	x	x
31E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	n/a	n/a
31F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	n/a	n/a
31G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c11	c12
32	Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration	[38]	o	c30
33	a messaging mechanism for the Session Initiation Protocol (SIP)	[50]	o	m
34	Compressing the Session Initiation Protocol	[55]	o	c7
35	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
36	the P-Associated-URI header extension?	[52] 4.1	c14	c15
37	the P-Called-Party-ID header extension?	[52] 4.2	c14	c16
38	the P-Visited-Network-ID header extension?	[52] 4.3	c14	c17
39	reading, or deleting the P-Visited-Network-ID header before proxying the request or response?	[52] 4.3	c18	n/a
41	the P-Access-Network-Info header	[52] 4.4	c14	c19

	extension?			
42	act as first entity within the trust domain for access network information?	[52] 4.4	c20	c21
43	act as subsequent entity within trust network for access network information that can route outside the trust network?	[52] 4.4	c20	c22
44	the P-Charging-Function-Addresses header extension?	[52] 4.5	c14	m
44A	adding, deleting or reading the P-Charging-Function-Addresses header before proxying the request or response?	[52] 4.6	c25	c26
45	the P-Charging-Vector header extension?	[52] 4.6	c14	m
46	adding, deleting, reading or modifying the P-Charging-Vector header before proxying the request or response?	[52] 4.6	c23	c24
47	security mechanism agreement for the session initiation protocol?	[48]	o	c7
48	the Reason header field for the session initiation protocol	[34A]	o	o
49	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x
50	caller preferences for the session initiation protocol?	[56B]	c33	c33
50A	the proxy-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50B	the cancel-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50C	the fork-directive within caller-preferences?	[56B] 9.1	o.4	c32
50D	the recurse-directive within caller-preferences?	[56B] 9.1	o.4	o.4
50E	the parallel-directive within caller-preferences?	[56B] 9.1	o.4	c32
50F	the queue-directive within caller-preferences?	[56B] 9.1	o.4	o.4
51	an event state publication extension to the session initiation protocol?	[70]	o	m
52	SIP session timer?	[58]	o	o

c1: IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour.

c2: IF A.3/2 OR A.3/3A OR A.3/4 THEN m ELSE o - - P-CSCF, I-CSCF(THIG) or S-CSCF.

c3: IF (A.162/7 AND NOT A.162/8) OR (NOT A.162/7 AND A.162/8) THEN m ELSE IF A.162/14 THEN o ELSE n/a - - TLS interworking with non-TLS else proxy insertion.

c4: IF A.162/23 THEN m ELSE o - - integration of resource management and SIP.

c5: IF A.162/30 THEN o ELSE n/a - - extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c6: IF A.3/2 OR A.3/3A THEN m ELSE n/a - - P-CSCF or I-CSCF (THIG).

c7: IF A.3/2 THEN m ELSE n/a - - P-CSCF.

c8: IF A.3/2 AND A.162/30 THEN m ELSE n/a - - P-CSCF and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks.

c9: IF A.3/2 AND A.162/30 THEN m ELSE IF A.3/7C AND A.162/30 THEN o ELSE n/a - - S-CSCF or AS acting as proxy and extensions to the Session Initiation Protocol (SIP) for asserted identity within trusted networks (NOTE).

c10: IF A.162/31 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).

c11: IF A.162/31B THEN o ELSE x - - application of privacy based on the received Privacy header.

c12: IF A.162/31 AND A.3/4 THEN m ELSE n/a - - S-CSCF.

c13: IF A.162/31 AND (A.3/2 OR A.3/3 OR A.3/7C) THEN m ELSE n/a - - P-CSCF OR I-CSCF OR AS acting as a SIP proxy.

c14: IF A.162/35 THEN o.3 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).

c15: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c16: IF A.162/35 AND (A.3/2 OR A.3/3 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF or S-CSCF.

c17: IF A.162/35 AND (A.3/2 OR A.3/3) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF or I-CSCF.

c18: IF A.162/38 THEN o ELSE n/a - - the P-Visited-Network-ID header extension.

c19: IF A.162/35 AND (A.3/2 OR A.3.3 OR A.3/4 OR A.3/7 THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and P-CSCF, I-CSCF, S-CSCF, AS acting as a proxy.

c20: IF A.162/41 THEN o ELSE n/a - - the P-Access-Network-Info header extension.

c21: IF A.162/41 AND A.3/2 THEN m ELSE n/a - - the P-Access-Network-Info header extension and P-CSCF.

c22: IF A.162/41 AND A.3/4 THEN m ELSE n/a - - the P-Access-Network-Info header extension and S-CSCF.

c23: IF A.162/45 THEN o ELSE n/a - - the P-Charging-Vector header extension.

c24: IF A.162/45 THEN m ELSE n/a - - the P-Charging-Vector header extension.

c25: IF A.162/44 THEN o ELSE n/a - - the P-Charging-Function-Addresses header extension.

c26: IF A.162/44 THEN m ELSE n/a - - the P-Charging-Function Addresses header extension.

c27: IF A.3/2 OR A.3/4 THEN m ELSE x - - P-CSCF or S-CSCF.

c28: IF A.3/2 OR A.3/4 OR A.3/6 then m ELSE o - - P-CSCF or S-CSCF of MGCF.

c29: IF A.3/2 OR A.3/4 OR A.3/6 then o ELSE m - - P-CSCF or S-CSCF of MGCF.

c30: IF A.3/2 o ELSE i - - P-CSCF.

c31: IF A.3/4 THEN m ELSE x - - S-CSCF.

c32: IF A.3/4 THEN m ELSE o.4 - - S-CSCF.

c33: IF A.162/50A OR A.162/50B OR A.162/50C OR A.162/50D OR A.162/50E OR A.162/50F THEN m ELSE n/a - - support of any directives within caller preferences for the session initiation protocol.

o.1: It is mandatory to support at least one of these items.

o.2: It is mandatory to support at least one of these items.

o.3: It is mandatory to support at least one of these items.

o.4 At least one of these capabilities is supported.

NOTE: An AS acting as a proxy may be outside the trust domain, and therefore not able to support the capability for that reason; in this case it is perfectly reasonable for the header to be passed on transparently, as specified in the PDU parts of the profile.

3GPP TSG-CN1 Meeting #35 **Tdoc N1-041586**
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**666**	⌘**rev**	**1**	⌘	Current version:	**6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects:	UICC apps⌘ ☐	ME ☐	Radio Access Network ☐	Core Network ☒

Title:	⌘	NOTIFY requests			
Source:	⌘	Lucent Technologies, Nokia			
Work item code:	⌘	IMS2	***Date:***	⌘	07/08/2004
Category:	⌘	**F**	***Release:***	⌘	*Rel-6*
		Use *one* *of the following categories:* ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.	*Use* *one* *of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*		

Reason for change:	⌘	The document 29.229 subclause 5.4.1.5 specifies: "When a network-initiated deregistration event occurs for one or more public user identity, the S-CSCF shall send a NOTIFY request to the UE on the dialog which was generated by the UE subscribing to the reg event package. When the S-CSCF receives a final response to the NOTIFY request or upon a timeout, the S-CSCF shall release all remaining dialogs related to the public user identity being deregistered and shall generate a NOTIFY request on all remaining dialogs which have been established due to subscription to the reg event package of that user." However, the Release 6 allows that the public user identities may be shared across multiple UEs. Hence, a particular public user identity may be simultaneously registered from multiple UEs. One way of informing the proper UE, is to send the NOTIFY request to all UEs, and in the body of the NOTIFY request indicate to which UE the NOTIFY request pertains to.
Summary of change:	⌘	Text corrected.
Consequences if not approved:	⌘	Incorrect and incomplete specification.

Clauses affected:	⌘	5.4.1.5 and 5.4.2.1.1			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

How to create CRs using this form:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4.1.5 Network-initiated deregistration

Prior to initiating the network-initiated deregistration for the only public user identity currently registered with its associated set of implicitly registered public user identities (i.e. no other is registered) while there are still active multimedia sessions belonging to this UE, the S-CSCF shall release all multimedia sessions belonging to this user as described in subclause 5.4.5.1.

When a network-initiated deregistration event occurs for one or more public user identities~~y~~ that are bound to one or more contacts~~were registered by this UE~~, the S-CSCF shall send a NOTIFY request to all subscribers that have subscribed ~~the UE on the dialog which was generated by the UE subscribing~~ to the respective reg event package.~~ When the S-CSCF receives a final response to the NOTIFY request or upon a timeout,~~ Prior to sending the NOTIFY request, the S-CSCF may release all sessions~~remaining dialogs~~ related to the contacts that will be deregistered.~~public user identity being deregistered and shall generate a NOTIFY request on all remaining dialogs which have been established due to subscription to the reg event package of that user.~~ For each NOTIFY request, the S-CSCF shall:

1) set the Request-URI and Route header to the saved route information during subscription;

2) set the Event header to the "reg" value;

3) in the body of the NOTIFY request, include as many <registration> elements as many public user identities the S-CSCF is aware of the user owns;

4) set the aor attribute within each <registration> element to one public user identity:

   a) set the <uri> sub-element inside the <contact> sub-element of each <registration> element to the contact address provided by the UE;

   b) if the public user identity:

      i) has been deregistered then:

         - set the state attribute within the <registration> element to "terminated";

         - set the state attribute within the <contact> element to "terminated"; and

         - set the event attribute within the <contact> element to "deactivated" if the S-CSCF expects the UE to reregister or "rejected" if the S-CSCF does not expect the UE to reregister; or

      ii) has been kept registered then:

         I) set the state attribute within the <registration> element to "active";

         II) set the state attribute within the <contact> element to:

            - for the contact address to be removed set the state attribute within the <contact> element to "terminated", and event attribute element to "deactivated" if the S-CSCF expects the UE to reregister or "rejected" if the S-CSCF does not expect the UE to reregister; or

            - for the contact address which remain unchanged, if any, leave the <contact> element unmodified; and

NOTE 1: There might be more then one contact information available for one public user identity. When deregistering this UE, the S-CSCF will only modify the <contact> elements that were originally registered by this UE using its private user identity. The <contact> elements of the same public user identitity, if registered by another UE using different private user identities remain unchanged.

5) add a P-Charging-Vector header with the icid parameter populated as specified in 3GPP TS 32.260 [17].

The S-CSCF shall only include the non-barred public user identities in the NOTIFY request.

Also, the S-CSCF shall send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event.

On completion of the above procedures for one or more public user identities, the S-CSCF shall deregister those public user identities and the associated implicitly registered public user identities. On completion of the Cx Server Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall update or remove those public user identities, their registration state and the associated service profiles from the local data (based on operators' policy the S-CSCF can request of the HSS to either be kept or cleared as the S-CSCF allocated to this subscriber).

5.4.2.1.1 Subscription to the event providing registration state

When an incoming SUBSCRIBE request addressed to S-CSCF arrives containing the Event header with the reg event package, the S-CSCF shall:

1) check if, based on the local policy, the request was generated by a subscriber who is authorised to subscribe to the registration state of this particular user. The authorized subscribers include:

   - all public user identities this particular user owns, that the S-CSCF is aware of, and which are not-barred;

   - all the entities identified by the Path header (i.e. the P-CSCF to which this user is attached to); and

   - all the ASs listed in the initial filter criteria and not belonging to third-party providers.

NOTE: The S-CSCF finds the identity for authentication of the subscription ~~of the originator of~~ in the P-Asserted-Identity header received in the SUBSCRIBE request~~ in the P-Asserted-Identity header~~.

2) generate a 2xx response acknowledging the SUBSCRIBE request and indicating that the authorised subscription was successful as described in RFC 3680 [43]. The S-CSCF shall populate the header fields as follows:

   - an Expires header, set to either the same or a decreased value as the Expires header in SUBSCRIBE request; and

   - a Contact header, set to is an identifier generated within the S-CSCF that will help to correlate refreshes for the SUBSCRIBE.

Afterwards the S-CSCF shall perform the procedures for notification about registration state as described in subclause 5.4.2.1.2.

3GPP TSG-CN1 Meeting #35 **Tdoc N1-041589**
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**661**	⌘**rev**	**1**	⌘	Current version:	**6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Call Release		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	07/08/2004
Category:	⌘	**F**	***Release:*** ⌘	*Rel-6*
		Use one of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	A particular public user identity may be simultaneously registered by multiple users that use different private user identities and different contact addresses. When the network initiates the deregistration procedure for a given public user identities, there may be multiple sessions for the same public user identities that were set up by different users. The network should terminate only the sessions belonging to the user being deregistered. The sessions belonging to other users should be left intact.
Summary of change:	⌘	Existing text corrected.
Consequences if not approved:	⌘	Incorrect and incomplete specification.

Clauses affected:	⌘	5.4.1.5				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4.1.5 Network-initiated deregistration

Prior to initiating the network-initiated deregistration for the only currently registered public user identity and ~~currently registered~~ ~~with~~ its associated set of implicitly registered public user identities that have been registered ~~by the user using its private user identity~~with the same contact (i.e. no other public user identity is registered with this contact~~for this user~~) while there are still active multimedia sessions belonging to this ~~user~~contact, the S-CSCF shall release only the~~all~~ multimedia sessions belonging to this contact~~user~~ as described in subclause 5.4.5.1. The multimedia sessions for the same public user identitity, if registered with another contact remain unchanged.

When a network-initiated deregistration event occurs for one or more public user identity that were registered by this UE, the S-CSCF shall send a NOTIFY request to the UE on the dialog which was generated by the UE subscribing to the reg event package. When the S-CSCF receives a final response to the NOTIFY request or upon a timeout, the S-CSCF may release all remaining dialogs related to the public user identity being deregistered and shall generate a NOTIFY request on all remaining dialogs which have been established due to subscription to the reg event package of that user. For each NOTIFY request, the S-CSCF shall:

1) set the Request-URI and Route header to the saved route information during subscription;

2) set the Event header to the "reg" value;

3) in the body of the NOTIFY request, include as many <registration> elements as many public user identities the S-CSCF is aware of the user owns;

4) set the aor attribute within each <registration> element to one public user identity:

   a) set the <uri> sub-element inside the <contact> sub-element of each <registration> element to the contact address provided by the UE;

   b) if the public user identity:

      i) has been deregistered then:

         - set the state attribute within the <registration> element to "terminated";

         - set the state attribute within the <contact> element to "terminated"; and

         - set the event attribute within the <contact> element to "deactivated" if the S-CSCF expects the UE to reregister or "rejected" if the S-CSCF does not expect the UE to reregister; or

      ii) has been kept registered then:

         I) set the state attribute within the <registration> element to "active";

         II) set the state attribute within the <contact> element to:

            - for the contact address to be removed set the state attribute within the <contact> element to "terminated", and event attribute element to "deactivated" if the S-CSCF expects the UE to reregister or "rejected" if the S-CSCF does not expect the UE to reregister; or

            - for the contact address which remain unchanged, if any, leave the <contact> element unmodified; and

NOTE 1: There might be more then one contact information available for one public user identity. When deregistering this UE, the S-CSCF will only modify the <contact> elements that were originally registered by this UE using its private user identity. The <contact> elements of the same public user identitity, if registered by another UE using different private user identities remain unchanged.

5) add a P-Charging-Vector header with the icid parameter populated as specified in 3GPP TS 32.260 [17].

The S-CSCF shall only include the non-barred public user identities in the NOTIFY request.

Also, the S-CSCF shall send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event.

On completion of the above procedures for one or more public user identities, the S-CSCF shall deregister those public user identities and the associated implicitly registered public user identities. On completion of the Cx Server

Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall update or remove those public user identities, their registration state and the associated service profiles from the local data (based on operators' policy the S-CSCF can request of the HSS to either be kept or cleared as the S-CSCF allocated to this subscriber).

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041~~353~~590

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**662**	⌘ **rev**	**1~~-~~** ⌘	Current version:	**6.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Session timer		
Source:	⌘	Lucent Technologies		
Work item code:	⌘	IMS2	***Date:*** ⌘	07/08/2004
Category:	⌘	**F**	***Release:*** ⌘	*Rel-6*
		Use one of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	The P-CSCF may require the periodic refreshment of the session to avoid hung states in the P-CSCF. When the P-CSCF detects that the session is in the hung state, it will delete all stored information related to the dialog. The P-CSCF should also indicate to the IP-CAN, via the Go/Gq interface, that all bearer resources associated with this dialog should be released.
Summary of change:	⌘	Note added.
Consequences if not approved:	⌘	Incorrect and incomplete specification.

Clauses affected:	⌘	5.2.8.3.				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.2.8.3 Session expiration

If the P-CSCF requested the session to be refreshed periodically, and the P-CSCF got the indication that the session will be refreshed, when the session timer expires, the P-CSCF shall delete all the stored information related to the dialog.

NOTE: The P-CSCF will also indicate to the IP-CAN, via the Gq interface, that the session has terminated.

3GPP TSG–CN1 Meeting #35
Sophia Antipolis, France, 16th to 20th August 2004

***Tdoc* ⌘N1-041592**

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**682**	⌘ **rev**	**1**	⌘ Current version:	**6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	SDP parameters received by the S-CSCF and the P-CSCF in the 200 OK message
Source:	⌘	Orange
Work item code:	⌘	IMS2
Date:	⌘	09/08/04
Category:	⌘	**F**
Release:	⌘	Rel-6

Use *one* *of the following categories:*
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use *one* *of the following releases:*

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	At CN1#34, CN1 received an LS (Tdoc N1-040916) from SA2 indicating that, in order to cover the case where an INVITE request can be sent without SDP (this is allowed from Rel-6) which implies that SDP can be sent in 200 OK, the CSCF can terminate the session with a BYE request in the case the media of the session violates the operator policy.
Summary of change:	⌘	It is added that P-CSCF and S-CSCF can examine the SDP parameters received in 200 OK message in order to check if any parameter is not allowed by local policy (P-CSCF and S-CSCF) or by the user subscription (S-CSCF). It is also corrected that section 6.3 applies to S-CSCF (whereas P-CSCF is used in some places).
Consequences if not approved:	⌘	TS24.229 will not fill in requirements to check that a session does not break local policy or user subscription. Moreover, decision from SA2 will not be implemented.

Clauses affected:	⌘	6.2, 6.3				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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FIRST CHANGE

6.2 Procedures at the P-CSCF

When the P-CSCF receives any SIP request containing an SDP offer, the P-CSCF shall examine the media parameters in the received SDP. If the P-CSCF finds any media parameters which are not allowed on the network by local policy, the P-CSCF shall return a 488 (Not Acceptable Here) response containing SDP payload. This SDP payload contains either all the media types, codecs and other SDP parameters which are allowed according to the local policy, or, based on configuration by the operator of the P-CSCF, a subset of these allowed parameters. This subset may depend on the content of the received SIP request. The P-CSCF shall build the SDP payload in the 488 (Not Acceptable Here) response in the same manner as a UAS builds the SDP in a 488 (Not Acceptable Here) response as specifed in RFC 3261 [26]. The P-CSCF shall order the SDP payload with the most preferred codec listed first.

When the P-CSCF receives a SIP response different from 200 (OK) response containing SDP offer, the P-CSCF shall not examine the media parameters in the received SDP offer, but the P-CSCF shall rather check the succeeding request containing the SDP answer for this offer, and if necessary (i.e. the SDP answer reduced by the UE still breaches local policy), the P-CSCF shall return a 488 (Not Acceptable Here) response containing the local policy allowed SDP payload.

When the P-CSCF receives a 200 (OK) response containing SDP offer, the P-CSCF shall examine the media parameters in the received SDP. If the P-CSCF finds any media parameters which are not allowed on the network by local policy, the P-CSCF shall forward the 200 OK and on the receipt of the ACK message, it shall immediately terminate the session as described in subclause 5.2.8.1.2.

When the P-CSCF receives an initial INVITE request for a terminating session setup or a 183 (Session Progress) response to an INVITE request for an originating session setup, the P-CSCF may modify the SDP according to RFC 3524 [54] to indicate to the UE that particular media stream(s) is grouped according to a local policy. The policy is used to determine whether the P-CSCF will request the UE to keep media stream(s) grouped in different IP-CAN bearers and identify the relation between different media streams and IP-CAN bearers (see subclause B.2.2.5 for IP-CAN implemented using GPRS).

The P-CSCF shall apply and maintain the same policy within the SDP from the initial request or response containing SDP and throughout the complete SIP session. If a media stream is added and grouping apply to the session, the P-CSCF shall modify the SDP according to RFC 3524 [54] to indicate to the UE that the added media stream(s) will be grouped into either a new group or into one of the existing groups. The P-CSCF shall not indicate re-grouping of media stream(s) within the SDP.

The P-CSCF shall not apply RFC 3524 [54] to the SDP for additional media stream(s), if grouping of media stream(s) was not indicated in the initial INVITE request or 183 (Session Progress) response.

The P-CSCF may inspect, if present, the "b=RS" and "b=RR" lines in order to find out the bandwidth allocation requirements for RTCP.

NEXT CHANGES

6.3 Procedures at the S-CSCF

When the S-CSCF receives any SIP request containing an SDP offer, the S-CSCF shall examine the media parameters in the received SDP. If the S-CSCF finds any media parameters which are not allowed based on either local policy or the subscription, the S-CSCF shall return a 488 (Not Acceptable Here) response containing SDP payload. This SDP payload contains either all the media types, codecs and other SDP parameters which are allowed according to the local policy and users subscription or, based on configuration by the operator of the S-CSCF, a subset of these allowed parameters. This subset may depend on the content of the received SIP request. The S-CSCF shall build the SDP payload in the 488 (Not Acceptable Here) response in the same manner as a UAS builds the SDP in a 488 (Not Acceptable Here) response as specified in RFC 3261 [26].

When the S-CSCF receives a SIP response different from 200 (OK) response containing SDP offer, the S~~P~~-CSCF shall not examine the media parameters in the received SDP offer, but the S~~P~~-CSCFshall rather check the succeeding request containing the SDP answer for this offer, and if necessary (i.e. the SDP answer reduced by the UE still breaches local policy), the S~~P~~-CSCF shall return a 488 (Not Acceptable Here) response containing the local policy allowed SDP payload.

When the S-CSCF receives a 200 (OK) response containing SDP offer, the S-CSCF shall examine the media parameters in the received SDP. If the S-CSCF finds any media parameters which are not allowed based on either local policy or the subscription, the S-CSCF shall forward the 200 OK and on the receipt of the ACK message, it shall immediately terminate the session as described described in subclause 5.4.5.1.2.

END of CHANGES*************************************

3GPP TSG-CN1 Meeting #35 **Tdoc N1-041614**
Sophia Antipolis, France, 16-20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **24.229** **CR** **668** ⌘**rev** **2** ⌘ Current version: **6.3.0** ⌘

For ***HELP*** *on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Network deregistration	
Source:	⌘	Lucent Technologies	
Work item code:	⌘	IMS2	***Date:*** ⌘ 07/08/2004
Category:	⌘	**F**	***Release:*** ⌘ *Rel-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The P-CSCF shall delete the security associations towards the UE when all public user identities of the user have been deregistered, in spite of the same public user identities being still registered by another user from different UE.
Summary of change:	⌘	Redundant text removed.
Consequences if not approved:	⌘	Incomplete specification.

Clauses affected:	⌘	5.2.5.2

Other specs affected: ⌘

Y	N		
	X	Other core specifications	⌘
	X	Test specifications	
	X	O&M Specifications	

Other comments: ⌘

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.2.5.2 Network-initiated deregistration

Upon receipt of a NOTIFY request on the dialog which was generated during subscription to the reg event package of the UE, as described in subclause 5.2.3, including one or more <registration> element(s) which were registered by the UE with either:

- the state attribute set to "terminated"; or
- the state attribute set to "active" and the state attribute within the <contact> sub-element belonging to this UE set to "terminated", and associated event attribute element to "rejected" or "deactivated";

the P-CSCF shall remove all stored information for these public user identities for this UE.

Upon receipt of a NOTIFY request with all <registration> element(s) having their state attribute set to "terminated" (i.e. all public user identities are deregistered) and the Subscription-State header set to "terminated"~~,~~ or when all public user identities of the UE have been deregistered, the P-CSCF shall shorten~~delete~~ the security associations towards the UE.

NOTE 1: ~~When the P-CSCF has removed t~~The security association ~~established~~ between the P-CSCF and the UE~~,~~ is shortened to a duration that will allow~~further SIP signalling (e.g.~~ the NOTIFY request containing the deregistration event~~) will not~~ to reach the UE.

NOTE 2: When the P-CSCF receives the NOTIFY request with Subscription-State header containing the value of "terminated", the P-CSCF considers the subscription to the reg event package terminated (i.e. as if the P-CSCF had sent a SUBSCRIBE request to the S-CSCF with an Expires header containing a value of zero).

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041639

CR-Form-v7

CHANGE REQUEST

⌘ **24.229** **CR** **701** ⌘ **rev** ⌘ Current version: **5.9.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	NOTIFY requests		
Source:	⌘	Lucent Technologies, Nokia		
Work item code:	⌘	IMS	***Date:*** ⌘	07/08/2004
Category:	⌘	**F**	***Release:*** ⌘	***Rel-5***

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ The document 29.229 subclause 5.4.1.5 specifies:

"When a network-initiated deregistration event occurs for one or more public user identity, the S-CSCF shall send a NOTIFY request to the UE on the dialog which was generated by the UE subscribing to the reg event package. When the S-CSCF receives a final response to the NOTIFY request or upon a timeout, the S-CSCF shall release all remaining dialogs related to the public user identity being deregistered and shall generate a NOTIFY request on all remaining dialogs which have been established due to subscription to the reg event package of that user."

However, the Release 6 allows that the public user identities may be shared across multiple UEs. Hence, a particular public user identity may be simultaneously registered from multiple UEs. One way of informing the proper UE, is to send the NOTIFY request to all UEs, and in the body of the NOTIFY request indicate to which UE the NOTIFY request pertains to.

Summary of change: ⌘ Text corrected.

Consequences if not approved: ⌘ Incorrect and incomplete specification.

Clauses affected: ⌘ 5.4.1.5 and 5.4.2.1.1

Other specs affected: ⌘

Y	N		
	X	Other core specifications	⌘
	X	Test specifications	
	X	O&M Specifications	

Other comments:	⌘	**The CN1 WG requested that the same changes that were made to Release 6 [CR 666] tdoc N1-041586 should be also made in Release 5 [alocated tdoc N1-041587 which was revised to N1-041639]**

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4.1.5 Network-initiated deregistration

Prior to initiating the network-initiated deregistration for the only public user identity currently registered with its associated set of implicitly registered public user identities (i.e. no other is registered) while there are still active multimedia sessions belonging to this user, the S-CSCF shall release all multimedia sessions belonging to this user as described in subclause 5.4.5.1.

When a network-initiated deregistration event occurs for one or more public user identity, the S-CSCF shall send a NOTIFY request to all subscribers that have subscribed~~the UE on the dialog which was generated by the UE subscribing~~ to the respective reg event package.~~ When the S-CSCF receives a final response to the NOTIFY request or upon a timeout,~~ Prior to sending the NOTIFY request, the S-CSCF shall release all ~~remaining dialogs~~sessions related to the public user identity being deregistered, if any. ~~and shall generate a NOTIFY request on all remaining dialogs which have been established due to subscription to the reg event package of that user.~~ For each NOTIFY request, the S-CSCF shall:

1) set the Request-URI and Route header to the saved route information during subscription;

2) set the Event header to the "reg" value;

3) in the body of the NOTIFY request, include as many <registration> elements as many public user identities the S-CSCF is aware of the user owns;

4) set the aor attribute within each <registration> element to one public user identity:

   a) set the <contact> sub-element of each <registration> element to the contact address provided by the UE;

   b) if the public user identity:

      i) has been deregistered then:

         - set the state attribute within the <registration> element to "terminated";

         - set the state attribute within the <contact> element to "terminated"; and

         - set the event attribute within the <contact> element to "deactivated" if the S-CSCF expects the UE to reregister or "rejected" if the S-CSCF does not expect the UE to reregister; or

      ii) has been kept registered then:

         - set the state attribute within the <registration> element to "active"; and

         - set the state attribute within the <contact> element to "active"; and

5) add a P-Charging-Vector header with the icid parameter populated as specified in 3GPP TS 32.225 [17].

The S-CSCF shall only include the non-barred public user identities in the NOTIFY request.

Also, the S-CSCF shall send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event.

On completion of the above procedures in this subclause for one or more public user identities, the S-CSCF shall deregister those public user identities and the associated implicitly registered public user identities. On completion of the Cx Server Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall update or remove those public user identities, their registration state and the associated service profiles from the local data (based on operators' policy the S-CSCF can request of the HSS to either be kept or cleared as the S-CSCF allocated to this subscriber).

5.2.5.2 Network-initiated deregistration

Upon receipt of a NOTIFY request on the dialog which was generated during subscription to the reg event package as described in subclause 5.2.3, including one or more <registration> element(s) with the state attribute set to "terminated" the P-CSCF shall remove all stored information for these public user identities.

Upon receipt of a NOTIFY request with all <registration> element(s) having their state attribute set to "terminated" (i.e. all public user identities are deregistered) and the Subscription-State header set to "terminated", the P-CSCF shall shorten ~~delete~~ the security associations towards the UE.

NOTE 1: ~~When the P-CSCF has removed~~ T~~t~~he security association ~~established~~ between the P-CSCF and the UE is shortened to a duration that will allow~~, further SIP signalling (e.g.~~ the NOTIFY request containing the deregistration event~~) will not~~ to reach the UE.

NOTE 2: When the P-CSCF receives the NOTIFY request with Subscription-State header containing the value of "terminated", the P-CSCF considers the subscription to the reg event package terminated (i.e. as if the P-CSCF had sent a SUBSCRIBE request to the S-CSCF with an Expires header containing a value of zero).

3GPP TSG-CN1 Meeting #35
Sophia Antipolis, France, 16-20 August 2004

Tdoc N1-041641

CR-Form-v7

CHANGE REQUEST

⌘	**24.229**	**CR**	**688**	⌘**rev**	**2**	⌘	Current version: **6.3.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ □ ME □ Radio Access Network □ Core Network ☒

Title:	⌘	Filtering of the P-Access-Network-Info header by the S-CSCF and privacy rules.		
Source:	⌘	France Telecom, Orange		
Work item code:	⌘	IMS-2	***Date:*** ⌘	09/08/2004
Category:	⌘	**C**	***Release:*** ⌘	Rel-6
		Use one of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

Reason for change:	⌘	- Calling party’s access network information shall be made available to certain Application Servers triggered at the called party’s side. - Called party’s access network information shall be made available to certain Application Servers triggered at the calling party’s side. - Calling party’s location information shall be made available to emergency services located beyond the S-CSCF.
Summary of change:	⌘	Modify the S-CSCF procedures so that filtering of the P-Access-Network-Info header (prior to forwarding a message) depends on local policy rules (e.g. based on destination) and privacy.
Consequences if not approved:	⌘	A - Services triggered at the called party’s side cannot be optimized, based on calling party’s access network information. B- - Services triggered at the calling party’s side cannot be optimized, based on called party’s access network information. C - Location information not available for emergency services (until appropriate SIP extension is defined for conveying coordinate-based location information).

Clauses affected:	⌘	5.4.3				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		

☐ ☒ O&M Specifications

Other comments: ⌘

First proposed change

5.4.3 General treatment for all dialogs and standalone transactions excluding requests terminated by the S-CSCF

5.4.3.1 Determination of mobile-originated or mobile-terminated case

Upon receipt of an initial request or a target refresh request or a stand-alone transaction, the S-CSCF shall:

- perform the procedures for the mobile-originating case as described in subclause 5.4.3.2 if the request makes use of the information for mobile-originating calls, which was added to the Service-Route header entry of the S-CSCF during registration (see subclause 5.4.1.2), e.g. the message is received at a certain port or the topmost Route header contains a specific user part or parameter; or,
- perform the procedures for the mobile-originating case as described in subclause 5.4.3.2 if the topmost Route header of the request contains the "orig" parameter. The S-CSCF shall remove the "orig" parameter from the topmost Route header; or,
- perform the procedures for the mobile-terminating case as described in subclause 5.4.3.3 if this information is not used by the request.

5.4.3.2 Requests initiated by the served user

When the S-CSCF receives from the served user or from a PSI an initial request for a dialog or a request for a standalone transaction, prior to forwarding the request, the S-CSCF shall:

Editor's Note: It needs to be stated, that the S-CSCF will only perform the following steps if the request was received from a trusted entity, e.g. an entity within the trust domain.

1) determine whether the request contains a barred public user identity in the P-Asserted-Identity header field of the request or not. In case the said header field contains a barred public user identity for the user, then the S-CSCF shall reject the request by generating a 403 (Forbidden) response. The response may include a Warning header containing the warn-code 399. Otherwise, continue with the rest of the steps;

NOTE 1: If the P-Asserted-Identity header field contains a barred public user identity, then the message has been received, either directly or indirectly, from a non-compliant entity which should have had generated the content with a non-barred public user identity.

2) remove its own SIP URI from the topmost Route header;

3) check if an original dialog identifier that the S-CSCF previously placed in a Route header is present in the topmost Route header of the incoming request. If present, it indicates an association with an existing dialog, the request has been sent from an AS in response to a previously sent request;

4) check whether the initial request matches the initial filter criteria based on a public user identity in the P-Asserted-Identity header, and if it does, forward this request to that AS, then check for matching of the next following filter criteria of lower priority, and apply the filter criteria on the SIP method received from the previously contacted AS as described in 3GPP TS 23.218 [5] subclause 6.4. Depending on the result of the previous process, the S-CSCF may contact one or more AS(s) before processing the outgoing Request-URI. In case of contacting one or more AS(s) the S-CSCF shall:

   a) insert the AS URI to be contacted into the Route header as the topmost entry followed by its own URI populated as specified in the subclause 5.4.3.4; and

   b) if the AS is located outside the trust domain then the S-CSCF shall remove the P-Access-Network-Info header field and its values in the request; if the AS is located within the trust domain, then the S-CSCF shall retain the P-Access-Network-Info header field and its values in the request that is forwarded to the AS;

5) store the value of the icid parameter received in the P-Charging-Vector header and retain the icid parameter in the P-Charging-Vector header. Optionally, the S-CSCF may generate a new, globally unique icid and insert the new value in the icid parameter of the P-Charging-Vector header when forwarding the message. If the S-CSCF creates a new icid, then it is responsible for maintaining the two icid values in the subsequent messaging;

6) insert an orig-ioi parameter into the P-Charging-Vector header. The S-CSCF shall set the orig-ioi parameter to a value that identifies the sending network. The S-CSCF shall not include the term-ioi parameter;

7) insert a P-Charging-Function-Addresses header populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards AS;

8) in the case where the S-CSCF has knowledge of an associated tel-URI for a SIP URI contained in the received P-Asserted-Identity header, add a second P-Asserted-Identity header containing this tel-URI;

9) if the outgoing Request-URI is a TEL URL, the S-CSCF shall translate the E.164 address (see RFC 2806 [22]) to a globally routeable SIP URI using an ENUM/DNS translation mechanism with the format specified in RFC 2916 [24]. Databases aspects of ENUM are outside the scope of the present document. If this translation fails, the request may be forwarded to a BGCF or any other appropriate entity (e.g a MRFC to play an announcement) in the originator's home network or the S-CSCF may send an appropriate SIP response to the originator;

10) determine the destination address (e.g. DNS access) using the URI placed in the topmost Route header if present, otherwise based on the Request-URI;

11) if network hiding is needed due to local policy, put the address of the I-CSCF(THIG) to the topmost route header;

12) in case of an initial request for a dialog originated from a served user, either:

- if the request is routed to an AS which is part of the trust domain, the S-CSCF can decide whether to record-route or not. The decision is configured in the S-CSCF using any information in the received request that may otherwise be used for the initial filter criteria. If the request is record-routed the S-CSCF shall create a Record-Route header containing its own SIP URI; or

- if the request is routed elsewhere, create a Record-Route header containing its own SIP URI;

NOTE 2: For requests originated from a PSI the S-CSCF can decide whether to record-route or not.

Editor's Note: It needs to be clarified how the S-CSCF decides whether to put its address into the Record-Route header in the case of handling a request that originates from a PSI. It might be part of the operators policy.

13) based on local policy rules and the destination user (Request-URI), remove the P-Access-Network-Info header prior to forwarding the message~~ based on the destination user (Request-URI)~~;

14) route the request based on SIP routeing procedures; and

15) if the request is an INVITE request, save the Contact, Cseq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed.

When the S-CSCF receives any response to the above request, the S-CSCF may:

1) ~~1)~~ apply any privacy required by ~~RFC 3323 [33]~~ RFC 3325 [34] to the P-Asserted-Identity header;

2) apply the same privacy mechanism to the P-Access-Network-Info header, if present.

NOTE 3: The P-Asserted-Identity~~is~~ header would normally only be expected in 1xx or 2xx responses.

NOTE 4: The optional procedures above are~~is~~ in addition to any procedure for the application of privacy at the edge of the trust domain specified by RFC 3323 [33].

When the S-CSCF receives a 1xx or 2xx response to the initial request for a dialog, if the response corresponds to an INVITE request, the S-CSCF shall save the Contact and Record-Route header field values in the response in order to be able to release the session if needed.

When the S-CSCF receives from the served user a target refresh request for a dialog, prior to forwarding the request the S-CSCF shall:

1) remove its own URI from the topmost Route header;

2) create a Record-Route header containing its own SIP URI;

3) if the request is an INVITE request, save the Contact, Cseq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed;

4) in case the request is routed to an AS located outside the trust domain, remove the P-Access-Network-Info header;

~~4~~5) in case the request is routed towards the destination user (Request-URI)~~or is routed to an AS located outside the trust domain~~, based on local policy rules and the destination user (Request-URI), remove the P-Access-Network-Info header; and

~~5~~6) route the request based on the topmost Route header.

When the S-CSCF receives a 1xx or 2xx response to the target refresh request for a dialog, if the response corresponds to an INVITE request, the S-CSCF shall save the Contact and Record-Route header field values in the response such that the S-CSCF is able to release the session if needed.

When the S-CSCF receives from the served user a subsequent request other than a target refresh request for a dialog, prior to forwarding the request the S-CSCF shall:

1) remove its own URI from the topmost Route header;

2) in case the request is routed to an AS located outside the trust domain, remove the P-Access-Network-Info header; and

3~~2~~) in case the request is routed towards the destination user (Request-URI)~~or is routed to an AS located outside the trust domain~~, based on local policy rules and the destination user (Request-URI), remove the P-access-network-info header; and

4~~3~~) route the request based on the topmost Route header.

5.4.3.3 Requests terminated at the served user

When the S-CSCF receives, destined for a statically pre-configured PSI or a registered served user, an initial request for a dialog or a request for a standalone transaction, prior to forwarding the request, the S-CSCF shall:

1) determine whether the request contains a barred public user identity in the Request-URI of the request or not. In case the Request URI contains a barred public user identity for the user, then the S-CSCF shall reject the request by generating a 404 (Not Found) response. Otherwise, continue with the rest of the steps;

2) remove its own URI from the topmost Route header;

3) check if an original dialog identifier that the S-CSCF previously placed in a Route header is present in the topmost Route header of the incoming request.

   - If present, it indicates an association with an existing dialog, the request has been sent from an AS in response to a previously sent request.

   - If not present, it indicates that the request is visiting the S-CSCF for the first time, and in this case the S-CSCF shall save the Request-URI from the request;

4) check whether the initial request matches the next unexecuted initial filter criteria in the priority order and apply the filter criteria on the SIP method as described in 3GPP TS 23.218 [5] subclause 6.5. If there is a match, then insert the AS URI to be contacted into the Route header as the topmost entry followed by its own URI populated as specified in the subclause 5.4.3.4;

NOTE 1: Depending on the result of the previous process, the S-CSCF may contact one or more AS(s) before processing the outgoing Request-URI.

5) insert a P-Charging-Function-Addresses header field, if not present, populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards AS;

6) store the value of the icid parameter received in the P-Charging-Vector header and retain the icid parameter in the P-Charging-Vector header;

7) store the value of the orig-ioi parameter received in the P-Charging-Vector header, if present. The orig-ioi parameter identifies the sending network of the request message. The orig-ioi parameter shall only be retained in the P-Charging-Vector header if the next hop is to an AS;

8) check whether the Request-URI equals to the saved value of the Request-URI. If there is no match, then:

    a) if the request is an INVITE request, save the Contact, CSeq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed; and

    b) forward the request based on the Request-URI and skip the following steps;

    If there is a match, then continue with the further steps;

9) in case there are no Route headers in the request, then determine, from the destination public user identity, the list of preloaded routes saved during registration or re-registration, as described in subclause 5.4.1.2. Furthermore, the S-CSCF shall:

    a) build the Route header field with the values determined in the previous step;

    b) determine, from the destination public user identity, the saved Contact URI where the user is reachable saved at registration or reregistration, as described in subclause 5.4.1.2. If there is more than one contact address saved for the destination public user identity, the S-CSCF shall:

        - if the fork directive in the Request Disposition header was set to "no-fork", forward the request to the contact with the highest qvalue parameter. In case no qvalue parameters were provided, the S-CSCF shall decide locally how to forward the request; otherwise

        - fork the request or perform sequential search based on the relative preference indicated by the qvalue parameter of the Contact header in the original REGISTER request, as described in RFC3261 [26]. In case no qvalue parameters were provided, then the S-CSCF shall forward the request as directed by the Request Disposition header as described in draft-ietf-sip-callerprefs-10 [56B]. If the Request-Disposition header is not present, the S-CSCF shall decide locally whether to fork or perform sequential search among the contact addresses;

    c) build a Request-URI with the contents of the saved Contact URI determined in the previous step; and

    d) insert a P-Called-Party-ID SIP header field including the Request-URI received in the INVITE;

10) if the request is an INVITE request, save the Contact, CSeq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed;

11) optionally, apply any privacy required by ~~RFC 3323 [33]~~ RFC 3325 [34] to the P-Asserted-Identity header and apply the same privacy mechanism to the P-Access-Network-Info header;

NOTE 2: The optional procedure above is in addition to any procedure for the application of privacy at the edge of the trust domain specified by RFC 3323 [33].

12) in case of an initial request for a dialog, either:

    - if the request is routed to an AS which is part of the trust domain, the S-CSCF can decide whether to record-route or not. The decision is configured in the S-CSCF using any information in the received request that may otherwise be used for the initial filter criteria. If the request is record-routed the S-CSCF shall create a Record-Route header containing its own SIP URI; or

    - if the request is routed elsewhere, create a Record-Route header containing its own SIP URI; and

13) forward the request based on the topmost Route header.

When the S-CSCF receives, destined for an unregistered user, an initial request for a dialog or a request for a standalone transaction, the S-CSCF shall:

1) execute the procedures described in the steps 1, 2 and 3 in the above paragraph (when the S-CSCF receives, destined for the registered served user, an initial request for a dialog or a request for a standalone transaction);

2) if the S-CSCF does not have the user profile, then initiate the S-CSCF Registration/deregistration notification with the purpose of downloading the relevant user profile (i.e. for unregistered user) and informing the HSS that the user is unregistered, but this S-CSCF will assess triggering of services for the unregistered user, as described in 3GPP TS 29.228 [14]; and

3) execute the procedure described in step 4, 5, 6, 7, 8, 9, 11 and 12 in the above paragraph (when the S-CSCF receives, destined for the registered served user, an initial request for a dialog or a request for a standalone transaction).

   In case that no AS needs to be contacted, then S-CSCF shall return an appropriate unsuccessful SIP response. This response may be a 480 (Temporarily unavailable) and terminate these procedures.

When the S-CSCF receives a 1xx or 2xx response to the initial request for a dialog (whether the user is registered or not), it shall:

1) if the response corresponds to an INVITE request, save the Contact and Record-Route header field values in the response such that the S-CSCF is able to release the session if needed;

2) in the case where the S-CSCF has knowledge of an associated tel-URL for a SIP URI contained in the received P-Asserted-Identity header, the S-CSCF shall add a second P-Asserted-Identity header containing this tel-URL; and

3) in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header.

4) in case the response is sent towards the terminating user, the S-CSCF may remove the P-Access-Network-Info header based on local policy rules and the destination user (Request-URI).

When the S-CSCF receives a response to a request for a standalone transaction (whether the user is registered or not), in the case where the S-CSCF has knowledge of an associated tel-URL for a SIP URI contained in the received P-Asserted-Identity header, the S-CSCF shall add a second P-Asserted-Identity header containing this tel-URL. In case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header. In case the response is sent towards the terminating user, the S-CSCF may remove the header based on local policy rules and the destination user (Request-URI).

When the S-CSCF receives the 200 (OK) response for a standalone transaction request, the S-CSCF shall insert a P-Charging-Function-Addresses header populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards an AS.

When the S-CSCF receives, destined for a served user, a target refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

1) remove its own URI from the topmost Route header;

2) if the request is an INVITE request, save the Contact, Cseq and Record-Route header field values received in the request such that the S-CSCF is able to release the session if needed;

3) create a Record-Route header containing its own SIP URI; and

4) forward the request based on the topmost Route header.

When the S-CSCF receives a 1xx or 2xx response to the target refresh request for a dialog (whether the user is registered or not), the S-CSCF shall:

1) if the response corresponds to an INVITE request, save the Record-Route and Contact header field values in the response such that the S-CSCF is able to release the session if needed; and

2) in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header. In case the response is sent towards the terminating user, the S-CSCF may remove the header based on local policy rules and the destination user (Request-URI).

When the S-CSCF receives, destined for the served user, a subsequent request other than target refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

1) remove its own URI from the topmost Route header; and

2) forward the request based on the topmost Route header.

When the S-CSCF receives a response to a a subsequent request other than target refresh request for a dialog, in case the response is forwarded to an AS that is located within the trust domain, the S-CSCF shall retain the P-Access-Network-Info header; otherwise, the S-CSCF shall remove the P-Access-Network-Info header. In case the response is sent towards the terminating user, the S-CSCF may remove the header based on local policy rules and the destination user (Request-URI).