

Source: TSG CN WG 1
Title: CRs to Rel-5 on Work Item IMS-CCR towards 24.229,- pack 1
Agenda item: 8.1
Document for: APPROVAL

Introduction:

This document contains 9 CRs, Rel-5 Work Item "IMS-CCR", that have been agreed by TSG CN WG1, and are forwarded to TSG CN Plenary meeting #18 for approval.

Spec	CR #	Rev	CAT	Rel	Tdoc Title	Meeting	TDoc #	C_Version
24.229	140	4	F	Rel-5	Support of non-IMS forking	N1-27	N1-022446	5.2.0
24.229	161	3	F	Rel-5	Clarifications and editorials to SIP profile	N1-27	N1-022412	5.2.0
24.229	175	5	F	Rel-5	Clarifications of the binding and media grouping	N1-27	N1-022494	5.2.0
24.229	179	2	F	Rel-5	Support of originating requests from Application Servers	N1-26	N1-022106	5.2.0
24.229	197		D	Rel-5	Wrong references in 4.1	N1-26	N1-021902	5.2.0
24.229	198		F	Rel-5	Alignment of the MGCF procedures to RFC 3312	N1-26	N1-021903	5.2.0
24.229	199	1	F	Rel-5	Service Route Header and Path Header interactions	N1-26	N1-022080	5.2.0
24.229	202		F	Rel-5	Addition of clause 6 though clause 9 references to conformance clause	N1-26	N1-021919	5.2.0
24.229	203	1	F	Rel-5	URL and address assignments	N1-26	N1-022115	5.2.0

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 140** ⌘ rev **4** ⌘ Current version: **5.2.0** ⌘

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 non-IMS forking		
Source:	⌘ Ericsson, Lucent Technologies		
Work item code:	⌘ IMS-CCR	Date:	⌘ 13/11/2002
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	⌘ Align with SA2 which documented in 23.228 how IMS should support forking done externally to the IMS network. In particular, then handling of the PDP contexts in this case is specified.
Summary of change:	⌘ Changes to UE and P-CSCF procedures to handle forking.
Consequences if not approved:	⌘ Misalignment with stage 2 specifications.

Clauses affected:	⌘ 4.1, 5.1.3, 5.1.4, 9.2.5, A.2.2.2										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications	⌘ 29.207, 27.060
	Y	N									
	X										
	X										
	X										
	Test specifications										
	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.

First proposed change

4.1 Conformance of IM CN subsystem entities to SIP

SIP defines a number of roles which entities can implement in order to support capabilities. These roles are defined in annex A.

Each IM CN subsystem functional entity using an interface at the Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point, the Mr reference point and the Mw reference point, and also using the IP multimedia Subsystem Service Control (ISC) Interface, shall implement SIP, as defined by the referenced specifications in Annex A, and in accordance with the constraints and provisions specified in annex A, according to the following roles.

The Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point and the Mw reference point are defined in 3GPP TS 23.002 [2].

The Mr reference point is defined in 3GPP TS 23.228 [7].

The ISC interface is defined in 3GPP TS 23.228 [7] subclause 4.2.4.

- The User Equipment (UE) shall provide the User Agent (UA) role with the exceptions and additional capabilities as described in subclause 5.1.
- The P-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.2. When acting as the subscriber to or the recipient of event information, the P-CSCF shall provide the UA role, again with the exceptions and additional capabilities as described in subclause 5.2.
- The I-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.3.
- The S-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.4. Under certain circumstances as described in subclause 5.4, the S-CSCF shall provide the UA role with the additional capabilities, as follows:
 - a) the S-CSCF shall also act as a registrar. When acting as a registrar, or for the purposes of executing a third-party registration, the S-CSCF shall provide the UA role;
 - b) as the notifier of event information the S-CSCF shall provide the UA role; and
 - c) when performing S-CSCF initiated release the S-CSCF shall provide the UA role, even when acting as a proxy for the remainder of the dialog.
- The BGCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.5.
- The MGCF shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.6.
- The AS, acting as terminating UA, or redirect server (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.1), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.2.
- The AS, acting as originating UA (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.2), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.3.

- The AS, acting as a SIP proxy (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.3), shall provided the proxy role, with the exceptions and additional capabilities as described in subclause 5.7.4.
- The AS, performing 3rd party call control (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.4), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.5.
- The AS, receiving third-party registration requests, shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.
- The MRFC shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.8.

NOTE 1: Annex A can change the status of requirements in referenced specifications. Particular attention is drawn to table A.4 and table A.162 for capabilities within referenced SIP specifications, and to table A.317 and table A.328 for capabilities within referenced SDP specifications. The remaining tables build on these initial tables.

NOTE 2: The allocated roles defined in this clause are the starting point of the requirements from the IETF SIP specifications, and are then the basis for the description of further requirements. Some of these extra requirements formally change the proxy role into a B2BUA. Thus, for example, a P-CSCF is a B2BUA in that it inspects and may modify SDP message bodies, and terminates Record-Route headers on behalf of the UA, but in all other respects other than those more completely described in subclause 5.2 it implements proxy requirements. Despite being a B2BUA a P-CSCF does not implement UA requirements from the IETF RFCs, except as indicated in this specification, e.g., relating to registration event subscription.

Next proposed change

5 Application usage of SIP

5.1 Procedures at the UE

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5.1.3 Call initiation - mobile originating case

5.1.3.1 Initial INVITE

Upon generating an initial INVITE request, the UE shall:

- indicate the support for reliable provisional responses and specify it using the Supported header mechanism;
- indicate the requirement of precondition and specify it using the Require header mechanism.

NOTE: Table A.4 specifies that UE support of forking is required in accordance with RFC 3261. While proxies in the IM CN subsystem do not fork requests, proxies external to the system may initiate forking, such that the UE is able to receive several forked provisional or final responses from different terminations. The UE may accept or reject any of the forked responses, for example, if the UE is capable of supporting a limited number of simultaneous transactions or early dialogs.

When a final answer is received for one of the early dialogues, the UE proceeds to set up the SIP session. The UE shall not progress any further early dialogues to established dialogs. Therefore, upon the reception of a subsequent final 200 (OK) response for an INVITE request, (e.g., due to forking), the UE shall:

- 1) acknowledge the response with an ACK request; and
- 2) send a BYE request to this dialog in order to terminate it

If the UA receives a 503 (Service Unavailable) response to an initial INVITE request containing a Retry-After header, then the UE shall not automatically reattempt the request until after the period indicated by the Retry-After header contents.

5.1.4 Call initiation - mobile terminating case

5.1.4.1 Initial INVITE

Upon receiving an initial INVITE request without containing either Supported: precondition or Require: precondition header values, the UE shall generate a 421 (Extension Required) response indicating the required extension in the Require header field.

Upon generating the first response to the initial INVITE request, the UE shall indicate the requirement for reliable provisional responses and specify it using the Require header mechanism. The UE shall send the 200 (OK) response to the initial INVITE request only after the local resource reservation has been completed.

NOTE: Table A.4 specifies that UE support of forking is required in accordance with RFC 3261. While proxy support of forking is precluded in the IM CN subsystem, proxies external to the system may initiate forking, such that the UE is able to receive several forked requests for the same transaction.

5.1.5 Call release

Void.

Next proposed change

9.2.5 PDP contexts for media

9.2.5.1 General requirements

During establishment of a session, the UE establishes data streams(s) for media related to the session. Such data stream(s) may result in activation of additional PDP context(s). Such additional PDP context(s) shall be established as secondary PDP contexts associated to the PDP context used for signalling.

The P-CSCF shall indicate to the UE in SIP/SDP if a separate PDP Context is required for a media component as per procedures defined in 3GPP TS 23.228 [7]. The UE shall establish an additional PDP context for a media component if so indicated by the P-CSCF.

The UE shall pass the authorisation token received from the P-CSCF in the 183 (Session Progress) response to an INVITE request at originating setup or in the INVITE request at terminating setup to the GGSN by inserting it within the Traffic Flow Template IE at PDP Context activation/modification.

In order to identify to the GGSN which flow(s) (identified by m-lines within the SDP) are to be transferred within a particular PDP context, the UE shall set the flow identifier(s) within the Traffic Flow Template IE at PDP Context activation/modification. Detailed description of how the flow identifiers are constructed is provided in 3GPP TS 29.207 [12].

Detailed description of how the authorization token and flow identifiers are carried in the Traffic Flow Template IE is provided in 3GPP TS 24.008 [8].

9.2.5.2 Special requirements applying to forked responses

Since the UE does not know that forking has occurred until a second, provisional response arrives, the UE sets up the PDP context(s) as required by the initial response received. If a subsequent provisional response is received, different alternative actions may be performed depending on the requirements in the SDP answer:

- 1) the bearer requirements of the subsequent SDP can be accommodated by the existing PDP context(s). The UE performs no activation or modification of PDP contexts.
- 2) the subsequent SDP introduces different QoS requirements or additional IP flows. The UE modifies the existing PDP context(s), if necessary, according to subclause 9.2.5.1
- 3) the subsequent SDP introduces one or more additional IP flows. The UE establishes additional PDP context(s) according to subclause 9.2.5.1.

NOTE 1: When several forked responses are received, the resources requested by the UE are the “logical OR” of the resources indicated in the multiple responses to avoid allocation of unnecessary resources. The UE does not request more resources than proposed in the original INVITE request.

NOTE 2: When service-based local policy is applied, the UE receives the same media authorization token for all forked requests/responses related to the same SIP session.

When a final answer is received for one of the early dialogues, the UE proceeds to set up the SIP session. The UE shall release all the unneeded radio/bearer resources. Therefore, upon the reception of a first final 200 (OK) response for the INVITE request (in addition to the procedures defined in RFC 3261 [26] clause 13.2.2.4), the UE shall:

- 1) in case PDP context(s) were established or modified as a consequence of the INVITE request and forked provisional responses that are not related to the accepted 200 (OK) response, delete the PDP context(s) or modify the PDP context(s) back to their original state.

Next 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			
1	client behaviour for session requests?	[26] 16	m	m
2	server behaviour for session requests?	[26] 16	m	m
3	session release?	[26] 16	m	m
4	Stateless proxy behaviour?	[26] 16.11	o.1	
5	Stateful proxy behaviour?	[26] 16.2	o.1	
6	forking of initial requests	[26] 16.1	c1	n/a _x
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
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	the requirement to be able to insert itself in the subsequent transactions in a dialog	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routing	[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
	Extensions			
20	The SIP INFO method?	[25]	o	o
21	Reliability of provisional responses in SIP?	[27]	o	m
22	the REFER method?	[36]	o	o
23	Integration of resource management and SIP?	[30]	o	m
24	the SIP UPDATE method	[29]	c4	m
25	SIP extensions for caller identity and privacy?	[34]	o	m
26	SIP extensions for media authorization?	[31]	o	m
27	SIP specific event notification	[28]	o	o
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	Path Extension Header for Establishing Service Route with SIP REGISTER	[35]	o	c5
30	extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks	[34]	o	m

31	a Privacy Mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
c1:	IF A.162/5 THEN o ELSE n/a			
c2:	IF A.3/4 OR A.3/7 THEN m ELSE IF A.3/3 THEN o ELSE n/a - - S-CSCF or AS else I-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.3/2 OR A.3/3 THEN m ELSE n/a. - - P-CSCF or I-CSCF.			
o.1:	It is mandatory to support at least one of these items.			

was Tdoc N1-021918, Tdoc N1-022056

CR-Form-v7
CHANGE REQUEST
⌘ 24.229 CR 161 ⌘ rev 3 ⌘ Current version: 5.2.0 ⌘

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Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Clarifications and editorials to SIP profile		
Source:	⌘ Lucent Technologies		
Work item code:	⌘ IMS-CCR	Date:	⌘ 09/09/2002
Category:	⌘ F 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 .	Release:	⌘ Rel-5 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:	⌘ To increase the clarity of the profile. Also a number of minor technical errors have crept in during the course of revision of the specification.
Summary of change:	⌘ Where they are missing, comments are added to prerequisite and conditional statements in order to give a shorthand understanding of the dependency that this specifies. In addition, minor corrections have been made to a small number of prerequisites, including the addition of some missing ones. Further correction of the prerequisites A number of RFC 3261 clause references for headers have been corrected. The timestamp header has been made consistent for proxy usage.
Consequences if not approved:	⌘ There are some minor corrections to prerequisites and some conditionals that have some technical impact, other than that all changes are for clarity.

Clauses affected:	⌘ A.2												
Other specs affected:	<table style="border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Y</td> <td style="border: 1px solid black; padding: 2px;">N</td> <td rowspan="3" style="padding-left: 10px;">Other core specifications</td> <td rowspan="3" style="padding-left: 20px;">⌘</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> <td>Test specifications</td> <td></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> <td>O&M Specifications</td> <td></td> </tr> </table>	Y	N	Other core specifications	⌘		X	Test specifications			X	O&M Specifications	
Y	N	Other core specifications	⌘										
	X					Test specifications							
	X			O&M Specifications									
Other comments:	⌘ Green highlight indicates changes from R1 of this CR. Cyan highlights changes from R2 of this CR												

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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.

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	m	c3
2	registrar?	[26] subclause 10.3	o	c4
3	client behaviour for session-INVITE requests?	[26] subclause 13.2	m	o
4	server behaviour for session-INVITE requests?	[26] subclause 13.3	m	o
5	session release?	[26] subclause 15.1	m	c1
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
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]	o	m
15	the REFER method?	[36]	o	o
16	Integration of resource management and SIP?	[30]	o	m
17	the SIP UPDATE method	[29]	c5	m
18	SIP extensions for caller identity and privacy?	[34]	e	m
19	SIP extensions for media authorization?	[31]	o	m
20	SIP specific event notification	[28]	o	o
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	c2
23	acting as the recipient of event information	[28]	c2	c2
24	SIP Extension Header Field for Registering Non-Adjacent Contacts Path Extension-Header-for Establishing Service-Route-with-SIP-REGISTER	[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
27	A messaging mechanism for the Session Initiation Protocol (SIP)	[48]	o	m
28	SIP Extension Header Field for Service Route Discovery During Registration	[38]	o	c6
c1:	IF A.4/3 OR A.4/4 THEN m ELSE o -- client behaviour or server behaviour for INVITE requests.			
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 -- UA or S-CSCF functional entity.			
c4:	IF A.3/4 OR A.3/7 THEN m 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.1503/A3.2.4 AND A.1504) THEN m ELSE n/a. -- S-CSCF acting as registrar.			
o.1:	At least one of these capabilities is supported.			

A.2.1.3 PDUs

Table A.5: Supported methods

Item	PDU	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	ACK request	[26] 13	m	m	[26] 13	m	m
2	BYE request	[26] 15.1	o		[26] 15.1	o	
3	BYE response	[26] 15.1	o		[26] 15.1	o	
4	CANCEL request	[26] 9	o		[26] 9	o	
5	CANCEL response	[26] 9	o		[26] 9	o	
6	INFO request	[25] 2	c2	n/a	[25] 2	c2	n/a
7	INFO response	[25] 2	c2	n/a	[25] 2	c2	n/a
8	INVITE request	[26] 13	m	m	[26] 13	m	m
9	INVITE response	[26] 13	m	m	[26] 13	m	m
9A	MESSAGE request	[48] 4	c7	c7	[48] 7	c7	c7
9B	MESSAGE response	[48] 4	c7	c7	[48] 7	c7	c7
10	NOTIFY request	[28] 8.1.2	c4	c4	[28] 8.1.2	c3	c3
11	NOTIFY response	[28] 8.1.2	c3	c3	[28] 8.1.2	c4	c4
12	OPTIONS request	[26] 11	m	m	[26] 11	m	m
13	OPTIONS response	[26] 11	m	m	[26] 11	m	m
14	PRACK request	[27] 6	c5	c5	[27] 6	c5	c5
15	PRACK response	[27] 6	c5	c5	[27] 6	c5	c5
16	REFER request	[36] 3	c1	c1	[36] 3	c1	c1
17	REFER response	[36] 3	c1	c1	[36] 3	c1	c1
18	REGISTER request	[26] 10	o		[26] 10	n/a	
19	REGISTER response	[26] 10	n/a		[26] 10	m	
20	SUBSCRIBE request	[28] 8.1.1	c3	c3	[28] 8.1.1	c4	c4
21	SUBSCRIBE response	[28] 8.1.1	c4	c4	[28] 8.1.1	c3	c3
22	UPDATE request	[30] 6.1	c6	c6	[30] 6.2	c6	c6
23	UPDATE response	[30] 6.2	c6	c6	[30] 6.1	c6	c6
c1:	IF A.4/15 THEN m ELSE n/a -- the REFER method extension .						
c2:	IF A.4/13 THEN m ELSE n/a -- the SIP INFO method extension .						
c3:	IF A.4/23 THEN m ELSE n/a -- recipient for event information .						
c4:	IF A.4/22 THEN m ELSE n/a -- notifier of event information .						
c5:	IF A.4/14 THEN m ELSE n/a -- reliability of provisional responses extension .						
c6:	IF A.4/17 THEN m ELSE n/a -- the SIP update method extension .						
c7:	IF A.4/27 THEN m ELSE n/a -- the SIP MESSAGE method.						

Editor's note: Optional status of BYE in RFC status is given because RFC states SHOULD (client and server).

Editor's note: Optional status of REGISTER in RFC status is given because RFC states RECOMMENDED (client); for the UAS, not statement is made, but it is assumed that this therefore means n/a.

A.2.1.4 PDU parameters

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		
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		
29	423 (Registration 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 Log/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 Cancelled/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/Events)	[28] 8.3.2 7.3.2	c3	c3	[28] 8.3.2 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)	[38] 3	c	n/a	[3] 3	c	m
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		

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
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 (SIP 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)						
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.						

A.2.1.4.2 ACK method

Prerequisite A.5/1 – ACK request

Table A.7: Supported headers within the ACK request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o		[26] 20.5	o	
2	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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	o		[26] 20.10	o	
6	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
7	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
8	Content-Language	[26] 20.13	o		[26] 20.13	o	
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 20.15	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	From	[26] 20.20	m	m	[26] 20.20	m	m
14	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
15	MIME-Version	[26] 20.24	o		[26] 20.24	o	
16	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
17	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
18	Require	[26] 20.32	o	o	[26] 20.32	m	m
19	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
20	Timestamp	[26] 20.38	c7	c7	[26] 20.38	m	m
21	To	[26] 20.39	m	m	[26] 20.39	m	m
22	User-Agent	[26] 20.41	o		[26] 20.41	o	
23	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 .						
c7:	IF A.4/6 THEN o ELSE n/a -- timestamping of requests .						

Editor's note: Is the following table a suitable way of showing the contents of message bodies.

Prerequisite A.5/1 – ACK request

Table A.8: Supported message bodies within the ACK request

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

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	o	o	[26] 20.22	n/a	n/a
16	MIME-Version	[26] 20.24	o		[26] 20.24	o	
17	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
18	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
19	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	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
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		[26] 20.41	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 .					
c8:		IF A.4/6 THEN o ELSE n/a -- timestamping of requests .					

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 [-- 400-Trying!00.\(Trying\)](#)

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		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	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
13	Via	[26] 20.42	m	m	[26] 20.42	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.					

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
1	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/3 - - BYE response

Prerequisite: A.6/143 - - 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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.5	m	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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							

A.2.1.4.4 CANCEL method

Prerequisite A.5/4 [--](#) CANCEL request

Table A.23: Supported headers within the CANCEL request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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-Language	[26] 20.13	o		[26] 20.13	o	
8	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
9	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
10	Date	[26] 20.17	c4	c4	[26] 20.17	m	m
11	From	[26] 20.20	m	m	[26] 20.20	m	m
12	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
13	MIME-Version	[26] 20.24	o		[26] 20.24	o	
14	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
15	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
16	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
17	Require	[26] 20.32	o	o	[26] 20.32	m	m
18	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
19	Supported	[26] 20.37	o	o	[26] 20.37	m	m
20	Timestamp	[26] 20.38	c8	c8	[26] 20.38	m	m
21	To	[26] 20.39	m	m	[26] 20.39	m	m
22	User-Agent	[26] 20.41	o		[26] 20.41	o	
23	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.						
c8:	IF A.4/6 THEN o ELSE n/a -- timestamping of requests.						

Prerequisite A.5/4 [--](#) CANCEL request

Table A.24: Supported message bodies within the CANCEL request

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

Prerequisite A.5/5 ~~---~~ CANCEL response

Table A.25: Supported headers within the CANCEL 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-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	m	m
5	From	[26] 20.20	m	m	[26] 20.20	m	m
6	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
7	To	[26] 20.39	m	m	[26] 20.39	m	m
8	Via	[26] 20.42	m	m	[26] 20.42	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.						

Prerequisite A.5/5 ~~---~~ CANCEL response

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

Table A.26: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	n/a	n/a
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/5 ~~---~~ CANCEL response

Prerequisite: A.6/143 ~~---~~ 401 (Unauthorized)

Table A.27: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

Prerequisite A.5/5 ~~---~~ CANCEL response

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

Table A.28: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/5 ~~---~~ CANCEL response

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

Table A.29: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/5 ~~---~~ CANCEL response

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

Table A.30: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/5 ~~---~~ CANCEL response

Table A.31: Supported message bodies within the CANCEL response

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

A.2.1.4.5 COMET method

Void

A.2.1.4.6 INFO method

Prerequisite A.5/6 [--](#) - INFO request

Table A.32: Supported headers within the INFO request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	c2	c2
5	Authorization	[26] 20.7	c3	c3	[26] 20.7	c3	c3
6	Call-ID	[26] 20.8	m		[26] 20.8	m	
7	Contact	[26] 20.10	o		[26] 20.10	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 20.15	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		[26] 20.19	o	
14	From	[26] 20.20	m	m	[26] 20.20	m	m
15	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
16	Organization	[26] 20.25	o		[26] 20.25	o	
17	Priority	[26] 20.26	o	o	[26] 20.26	o	o
18	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
19	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
20	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	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	Subject	[26] 24.38	o		[26] 24.38	o	
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		[26] 20.41	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 .					
c8:		IF A.4/6 THEN o ELSE n/a -- timestamping of requests .					

Prerequisite A.5/6 [--](#) - INFO request

Table A.33: Supported message bodies within the INFO request

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

Prerequisite A.5/7 [--](#) - INFO response

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

Table A.34: Supported headers within the INFO 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.5/7 [--](#) - INFO response

Table A.35: Supported headers within the INFO 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-Encoding	[26] 20.12	o		[26] 20.12	o	
3	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
4	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
5	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
6	Date	[26] 20.17	c1	c1	[26] 20.17	m	m
7	From	[26] 20.20	m	m	[26] 20.20	m	m
8	Organization	[26] 20.25	o		[26] 20.25	o	
9	Timestamp	[26] 20.38	m	m	[26] 20.38	c2	c2
10	To	[26] 20.39	m	m	[26] 20.39	m	m
11	Via	[26] 20.42	m	m	[26] 20.42	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.					

Prerequisite A.5/7 [--](#) - INFO response

Prerequisite: A.6/6 [--](#) - 2xx

Table A.36: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m		[26] 20.5	m	
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 [--](#) - INFO response

Prerequisite: A.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 [--](#) - 3xx

Table A.37: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 [--](#) - INFO response

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

Table A.38: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

Prerequisite A.5/7 [--](#) - INFO 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.39: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 ~~---~~ - INFO response

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

Table A.40: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m		[26] 20.5	m	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 ~~---~~ - INFO response

Prerequisite: A.6/25 ~~---~~ - "415" (Unsupported Media Type) ~~@@@combine~~

Table A.41: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 ~~---~~ - INFO response

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

Table A.42: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 - - INFO response

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

Table A.43: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 - - INFO response

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

Table A.44: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/7 - - INFO response

Table A.45: Supported message bodies within the INFO response

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

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Alert-Info	[26] 20.4	o	o	[26] 20.4	c1	c1
5	Allow	[26] 20.5, [26] 5.1	o		[26] 20.5, [26] 5.1	o	
6	Allow-Events	[28] 8.2.2	c2	c2	[28] 8.2.2	c2	c2
7	Anonymity	[34] 5.2	o		[34] 5.2		
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		[26] 20.9	o	
11	Contact	[26] 20.10	m		[26] 20.10	m	
12	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
13	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
14	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.19	o	
20	From	[26] 20.20	m	m	[26] 20.20	m	m
21	In-Reply-To	[26] 24 20.21	o	o	[26] 20 4.21	o	o
22	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
23	MIME-Version	[26] 20.24	o		[26] 20.24	o	
24	Organization	[26] 20.25	o		[26] 20.25	o	
25	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
26	Priority	[26] 20.26	o	o	[26] 20.26	o	o
27	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
28	Proxy-Require	[26] 20.29; [34] 4	e5 o (note)	e5 o (note)	[26] 20.29; [34] 4	n/a	n/a
29	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
30	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
31	Reply-To	[26] 20.31	o	o	[26] 20.31	o	o
32	Require	[26] 20.32	c8	o	[26] 20.32	m	m
33	Route	[26] 20.34	m	m	[26] 20.34	n/a	n/a
34	Subject	[26] 24.38	o		[26] 24.38	o	
35	Supported	[26] 20.37	e9 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		[26] 20.41	o	
39	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.4/12 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 .					
e5:	IF A.4/18 THEN m ELSE o	(note) .					
c8:	IF A.4/14 THEN o.1 ELSE o	-- Reliability of provisional responses in SIP Reliable transport .					
e9:	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.4/19 THEN m ELSE n/a	-- SIP extensions for media authorization .					
c12:	IF A.3/1 THEN m ELSE n/a	-- UE .					
o.1:	At least one of these shall be supported.						
NOTE:	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.						

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
2	Content-Disposition	[26] 20.11, [30] 8.3	o		[26] 20.11, [30] 8.3	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	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
14	Via	[26] 20.42	m	m	[26] 20.42	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.						

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2	o	
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Contact	[26] 20.10	o		[26] 20.10	o/m	
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	P-Media-Authorization	[31] 6.1	n/a	n/a	[31] 6.1	c11	c12
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Rseq	[27] 7.1	c2	m	[27] 7.1	c3	m
10	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Supported	[26] 20.37	m	m	[26] 20.37	m	m
12	User-Agent	[26] 20.41	o		[26] 20.41	o	
13	Warning	[26] 20.43	o		[26] 20.43	o	
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		[26] 20.1	o	
2	Allow	[26] 20.5	o		[26] 20.5	o	
3	Anonymity	[34] 5.2	o		[34] 5.2		
4	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
5	Call-Info	[26] 20.9	o		[26] 20.9	o	
6	Contact	[26] 20.10	m		[26] 20.10	m	
7	Expires	[26] 20.19	o		[26] 20.19	o	
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	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
11	Require	[26] 20.32	m	m	[26] 20.32	m	m
12	Server	[26] 20.35	o	o	[26] 20.35	o	o
13	Supported	[26] 20.37	m	m	[26] 20.37	m	m
14	User-Agent	[26] 20.41	o		[26] 20.41	o	
15	Warning	[26] 20.43	o		[26] 20.43	o	
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.6/8 OR A.6/9 OR A.6/10 OR A.6/11 OR A.6/12 OR A.6/34 ~~---~~ 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Contact	[26] 20.10	o		[26] 20.10	o/m	
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	
13	WWW-Authenticate	[26] 20.44	o		[26] 20.44	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.						

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m		[26] 20.5	m/o	
3	Anonymity	[34] 5.2	o		[34] 5.2	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Anonymity	[34] 5.2	o		[34] 5.2		
5	Call-Info	[26] 20.9	o		[26] 20.9	o	
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Expires	[26] 20.19	o		[26] 20.19	o	
8	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
9	Require	[26] 20.32	m	m	[26] 20.32	m	m
10	Server	[26] 20.35	o	o	[26] 20.35	o	o
11	Supported	[26] 20.37	m	m	[26] 20.37	m	m
12	User-Agent	[26] 20.41	o		[26] 20.41	o	
13	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Server	[26] 20.35	o	o	[26] 20.35	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
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Server	[26] 20.35	o	o	[26] 20.35	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Retry-After	[26] 20.33	m	m	[26] 20.33	o	o
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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							

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	[48] 10	m		[48] 10	m	
2	Accept-Encoding	[48] 10	m		[48] 10	m	
3	Accept-Language	[48] 10	m		[48] 10	m	
4	Alert-Info	[48] 10	-		[48] 10	-	
5	Allow	[48] 10	o		[48] 10	m	
6	Allow-Events	[48] 10	n/a		[48] 10	n/a	
7	Anonymity	[48] 10	n/a		[48] 10	n/a	
xxx	Authentication-Info	[48] 10	o		[48] 10	o	
8	Authorization	[48] 10	o		[48] 10	o	
9	Call-ID	[48] 10	m		[48] 10	m	
10	Call-Info	[48] 10	o		[48] 10	o	
11	Contact	[48] 10	o		[48] 10	o	
12	Content-Disposition	[48] 10	o		[48] 10	o	
13	Content-Encoding	[48] 10	o		[48] 10	o	
14	Content-Language	[48] 10	o		[48] 10	o	
15	Content-Length	[48] 10	t		[48] 10	t	
16	Content-Type	[48] 10	*		[48] 10	*	
17	Cseq	[48] 10	m		[48] 10	m	
18	Date	[48] 10	o		[48] 10	o	
19	Expires	[48] 10			[48] 10		
Xxx	Error-Info	[48] 10	o		[48] 10	o	
xxx	Expires	[48] 10	o		[48] 10	o	
20	From	[48] 10	m		[48] 10	m	

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
21	In-Reply-To	[48] 10	o		[48] 10	o	
22	Max-Forwards	[48] 10	m		[48] 10	m	
23	MIME-Version	[48] 10	-		[48] 10	-	
24	Organization	[48] 10	o		[48] 10	o	
25	P-Media-Authorization	[48] 10	n/a		[48] 10	n/a	
26	Priority	[48] 10	o		[48] 10	o	
27	Proxy-Authorization	[48] 10	o		[48] 10	o	
28	Proxy-Require	[48] 10	o		[48] 10	o	
29	Record-Route	[48] 10	-		[48] 10	-	
30	Remote-Party-ID	[48] 10	n/a		[48] 10	n/a	
31	Reply-To	[48] 10	o		[48] 10	o	
32	Require	[48] 10	c		[48] 10	c	
xxx	Retry-After	[48] 10	o		[48] 10	o	
33	Route	[48] 10	o		[48] 10	o	
xxx	Server	[48] 10	o		[48] 10	o	
34	Subject	[48] 10	o		[48] 10	o	
35	Supported	[48] 10	n/a		[48] 10	n/a	
36	Timestamp	[48] 10	o		[48] 10	o	
37	To	[48] 10	m		[48] 10	m	
xxx	Unsupported	[48] 10	o		[48] 10	o	
38	User-Agent	[48] 10	o		[48] 10	o	
39	Via	[48] 10	m		[48] 10	m	
xxx	Warning	[48] 10	m		[48] 10	m	
xxx	WWW-Authenticate	[48] 10	o		[48] 10	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	From	[26] 20.20	m	m	[26] 20.20	m	m
16	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
17	MIME-Version	[26] 20.24	o		[26] 20.24	o	
18	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
19	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
20	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	c9	c9
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	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		[26] 20.41	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 .					
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 .					

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-Length	[26] 20.14	m	m	[26] 20.14	m	m
3	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
4	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
5	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
6	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	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
13	Via	[26] 20.42	m	m	[26] 20.42	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.						

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
1	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
2	Record-Route	[26] 20.30	c3	c3	[26] 20.30	c3	c3
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.5	m	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
e1: IF A.4/11 THEN o ELSE n/a -- insertion of date in requests and responses. e2: IF A.4/6 THEN m ELSE n/a -- timestamping of requests.							

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	m	m
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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		[26] 20.9	o	
8	Contact	[26] 20.10	m		[26] 20.10	m	
9	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
10	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
11	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	o	o	[26] 20.22	n/a	n/a
18	MIME-Version	[26] 20.24	o		[26] 20.24	o	
19	Organization	[26] 20.25	o		[26] 20.25	o	
20	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
21	Proxy-Require	[26] 20.29	o	o (note)	[26] 20.29	n/a	n/a
22	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	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
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		[26] 20.41	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 .					
c7:		IF A.4/6 THEN o ELSE n/a -- timestamping of requests .					
NOTE:		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.					

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
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.					

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
2	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	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
14	Via	[26] 20.42	m	m	[26] 20.42	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.					

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	o		[26] 20.1	o	
2	Allow	[26] 20.5	o		[26] 20.5	o/m	
3	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Contact	[26] 20.10	o		[26] 20.10	o	
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
6	Server	[26] 20.35	o	o	[26] 20.35	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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							

A.2.1.3.10 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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	o	o	[26] 20.22	n/a	n/a
16	MIME-Version	[26] 20.24	o		[26] 20.24	o	
17	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
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
20	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	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		[26] 20.41	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 .					
c8:		IF A.4/6 THEN o ELSE n/a -- timestamping of requests .					

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		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	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
13	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						

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
1	Require	[26] 20.32	m	m	[26] 20.32	m	m
2	Server	[26] 20.35	o	o	[26] 20.35	o	o
3	Supported	[26] 20.37	m	m	[26] 20.37	m	m
4	User-Agent	[26] 20.41	o		[26] 20.41	o	
5	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.5	m	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/15 - PRACK response

Prerequisite: A.6/27 - 420@@@combine (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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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							

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
1	Accept-Language	[26] 20.3	o		[26] 20.3	o	
2	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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	o		[26] 20.10	o	
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		[26] 20.19	o	
11	From	[26] 20.20	m	m	[26] 20.20	m	m
12	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
13	MIME-Version	[26] 20.24	o		[26] 20.24	o	
14	Organization	[26] 20.25	o		[26] 20.25	o	
15	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
16	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
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
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
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		[26] 20.41	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.					
c6:		IF A.4/6 THEN o ELSE n/a -- timestamping of requests.					

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
2	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
3	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	o	
10	Organization	[26] 20.25	o		[26] 20.25	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
13	Via	[26] 20.42	m	m	[26] 20.42	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.					

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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")@@@combine

Table A.110: 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		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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~~ - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	m	m
6	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

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	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

Prerequisite A.5/17 --- REFER response

Prerequisite: A.6/34 --- 484@@@combine **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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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							

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	c1	c1
5	Authorization	[26] 20.7	c2	n/a	[26] 20.7	c2	n/a
6	Call-ID	[26] 20.8	m	m	[26] 20.8	m	m
7	Call-Info	[26] 20.9	o		[26] 20.9	o	
8	Contact	[26] 20.10	m		[26] 20.10	m	
9	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
10	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
11	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.19	o	
17	From	[26] 20.20	m	m	[26] 20.20	m	m
18	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
19	MIME-Version	[26] 20.24	o		[26] 20.24	o	
20	Organization	[26] 20.25	o		[26] 20.25	o	
21	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
22	Proxy-Require	[26] 20.29	o	o (note)	[26] 20.29	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
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		[26] 20.41	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 .					
c7:		IF A.4/6 THEN m ELSE n/a - - timestamping of requests .					
NOTE:		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..					

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~~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
2	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	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
14	Via	[26] 20.42	m	m	[26] 20.42	m	m
c1:	IF A.4/11 THEN o ELSE n/a - - insertion of date in requests and responses.						

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	
2	Allow	[26] 20.5	o		[26] 20.5	o	
3	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Contact	[26] 20.10	o		[26] 20.10	o	
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Server	[26] 20.35	o	o	[26] 20.35	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	m	m
6	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m		[26] 20.5	m	
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o	o	[26] 20.35	o	o
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
6	Expires	[26] 20.19	o	o	[26] 20.19	o	o
7	Require	[26] 20.32	m	m	[26] 20.32	m	m
8	Server	[26] 20.35	o	o	[26] 20.35	o	o
9	Supported	[26] 20.37	m	m	[26] 20.37	m	m
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	Unsupported	[26] 20.40	m	m	[26] 20.40	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o		[26] 20.18	o	
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Min-Expires	[26] 20.23	m	m	[26] 20.23	m	m
6	Require	[26] 20.32	m	m	[26] 20.32	m	m
7	Server	[26] 20.35	o		[26] 20.35	o	
8	Supported	[26] 20.37	m	m	[26] 20.37	m	m
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	

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	Accept	[26] 20.1			[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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							

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	c1	c1	[28] 8.2.2	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		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	m	m	[26] 20.19	m	m
16	From	[26] 20.20	m	m	[26] 20.20	m	m
17	Max-Forwards	[26] 20.22	o	o	[26] 20.22	n/a	n/a
18	MIME-Version	[26] 20.24	o		[26] 20.24	o	
19	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
20	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
21	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	m	m
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
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		[26] 20.41	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](#).
c8: IF A.4/6 THEN o ELSE n/a - - [timestamping of requests](#).

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		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	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
13	Via	[26] 20.42	m	m	[26] 20.42	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.					

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
1	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
2	Expires	[26] 20.19	m	m	[26] 20.19	m	m
3	Record-Route	[26] 20.30	m	m	[26] 20.30	m	m
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Retry-After	[26] 20.33	o		[26] 20.33	o	
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.5	m	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o		[26] 20.18	o	
2	Min-Expires	[26] 20.23	m	m	[26] 20.23	m	m
3	Require	[26] 20.32	m	m	[26] 20.32	m	m
4	Server	[26] 20.35	o		[26] 20.35	o	
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Server	[26] 20.35	o	o	[26] 20.35	o	o
4	Supported	[26] 20.37	m	m	[26] 20.37	m	m
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	

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
1	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	m	m
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	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
1	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
2	Require	[26] 20.32	m	m	[26] 20.32	m	m
3	Retry-After	[26] 20.33	o	o	[26] 20.33	o	m
4	Server	[26] 20.35	o	o	[26] 20.35	o	o
5	Supported	[26] 20.37	m	m	[26] 20.37	m	m
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	

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							

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow	[26] 20.5	o		[26] 20.5	o	
5	Allow-Events	[28] 8.2.2	c2	c2	[28] 8.2.2	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		[26] 20.9	o	
9	Contact	[26] 20.10	o		[26] 20.10	o	
10	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
11	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
12	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	o	o	[26] 20.22	n/a	n/a
19	MIME-Version	[26] 20.24	o		[26] 20.24	o	
20	Organization	[26] 20.25	o		[26] 20.25	o	
21	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
22	Proxy-Require	[26] 20.29	o	n/a	[26] 20.29	n/a	n/a
23	Record-Route	[26] 20.30	n/a	n/a	[26] 20.30	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
26	Supported	[26] 20.37	e8o	e8o	[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		[26] 20.41	o	
30	Via	[26] 20.42	m	m	[26] 20.42	m	m
e1: IF A.4/12 THEN o ELSE n/a -- downloading of alerting information.							
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.							
e6: IF A.4/15 THEN o ELSE n/a -- the REFER method extension.							
e7: IF A.4/15 THEN m ELSE n/a -- the REFER method extension.							
e8: IF A.4/16 THEN m ELSE o -- support of timer extension.							
c9: IF A.4/6 THEN o ELSE n/a -- timestamping of requests.							

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 **BYE 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
2	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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		[26] 20.24	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
13	Via	[26] 20.42	m	m	[26] 20.42	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.						

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
1	Allow	[26] 20.5	m		[26] 20.5	m	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Organization	[26] 24.25	o		[26] 24.25	o	
4	Require	[26] 20.31	m	m	[26] 20.31	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	o	o
6	Supported	[26] 20.37	m	m	[26] 20.37	m	m
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	

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	Call-Info	[26] 20.9	o		[26] 20.9	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Organization	[26] 20.25	o		[26] 20.25	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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	Call-Info	[26] 20.9	o		[26] 20.9	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Organization	[26] 20.25	o		[26] 20.25	o	
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Retry-After	[26] 20.33	o	o	[26] 20.33	o	o
6	Server	[26] 20.35	o	o	[26] 20.35	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.5	m	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Organization	[26] 20.25	o		[26] 20.25	o	
5	Require	[26] 20.32	m	m	[26] 20.33	m	m
6	Server	[26] 20.35	o	o	[26] 20.37	o	o
7	Supported	[26] 20.37	m	m	[26] 20.37	m	m
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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	Call-Info	[26] 20.9	o		[26] 20.9	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Organization	[26] 20.25	o		[26] 20.25	o	
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow	[26] 20.5	o		[26] 20.5	o	
5	Call-Info	[26] 20.9	o		[26] 20.9	o	
6	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
7	Organization	[26] 20.25	o		[26] 20.25	o	
8	Require	[26] 20.32	m	m	[26] 20.32	m	m
9	Server	[26] 20.35	o	o	[26] 20.35	o	o
10	Supported	[26] 20.37	m	m	[26] 20.37	m	m
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	

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	Call-Info	[26] 20.9	o		[26] 20.9	o	
2	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
3	Organization	[26] 20.25	o		[26] 20.25	o	
4	Require	[26] 20.32	m	m	[26] 20.32	m	m
5	Server	[26] 20.35	o	o	[26] 20.35	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

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 OR A.6/35 --- 3xx or 485 "(Ambiguous")

Table A.160: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-Info	[26] 20.9	o		[26] 20.9	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	o	o	[26] 20.18	o	o
4	Organization	[26] 20.25	o		[26] 20.25	o	
5	Require	[26] 20.32	m	m	[26] 20.33	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	

[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							

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			
1	client behaviour for session requests?	[26] 16	m	m
2	server behaviour for session requests?	[26] 16	m	m
3	session release?	[26] 16	m	m
4	sStateless proxy behaviour?	[26] 16.11	o.1	
5	sStateful proxy behaviour?	[26] 16.2	o.1	
6	forking of initial requests?	[26] 16.1	c1	n/a
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
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	the requirement to be able to insert itself in the subsequent transactions in a dialog?	[26] 16.6	o	c2
15	the requirement to be able to use separate URIs in the upstream direction and downstream direction when record routing?	[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
	Extensions			
20	The the SIP INFO method?	[25]	o	o
21	rReliability of provisional responses in SIP?	[27]	o	m
22	the REFER method?	[36]	o	o
23	Integration integration of resource management and SIP?	[30]	o	m
24	the SIP UPDATE method?	[29]	c4	m
25	SIP extensions for caller identity and privacy?	[34]	e	m
26	SIP extensions for media authorization?	[31]	o	m
27	SIP specific event notification	[28]	o	o
28	the use of NOTIFY to establish a dialog	[28] 4.2	o	n/a
29	SIP Extension Header Field for Registering Non-Adjacent Contacts Path Extension Header for Establishing Service Routes with SIP REGISTER	[35]	o	c5
30	extensions to the Session Initiation	[34]	o	m

	Protocol (SIP) for Network Asserted Identity within Trusted Networks			
31	a Privacy Mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
32	SIP Extension Header Field for Service Route Discovery During Registration	[38]	o	c5
c1:	IF A.162/5 THEN o ELSE n/a - - stateful proxy behaviour			
c2:	IF A.3/4 OR A.3/7 THEN m ELSE IF A.3/3 THEN o ELSE n/a - - S-CSCF or AS else I-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.3/2 OR A.3/3 THEN m ELSE n/a. - - P-CSCF or I-CSCF.			
o.1:	It is mandatory to support at least one of these items.			

A.2.2.3 PDUs

Table A.163: Supported methods

Item	PDU	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	ACK request	[26] 13	m	m	[26] 13	m	m
2	BYE request	[26] 16	o	m	[26] 16	o	m
3	BYE response	[26] 16	o	m	[26] 16	o	m
4	CANCEL request	[26] 16.10	o	m	[26] 16.10	o	m
5	CANCEL response	[26] 16.10	o	m	[26] 16.10	o	m
6	INFO request	[25] 2	c2	c2	[25] 2	c2	c2
7	INFO response	[25] 2	c2	c2	[25] 2	c2	c2
8	INVITE request	[26] 16	m	m	[26] 16	m	m
9	INVITE response	[26] 16	m	m	[26] 16	m	m
10	NOTIFY request	[28] 8.1.2	c3	c3	[28] 8.1.2	c3	c3
11	NOTIFY response	[28] 8.1.2	c3	c3	[28] 8.1.2	c3	c3
12	OPTIONS request	[26] 16	m	m	[26] 16	m	m
13	OPTIONS response	[26] 16	m	m	[26] 16	m	m
14	PRACK request	[27] 6	m	m	[27] 6	m	m
15	PRACK response	[27] 6	m	m	[27] 6	m	m
16	REFER request	[36] 3	c1	c1	[36] 3	c1	c1
17	REFER response	[36] 3	c1	c1	[36] 3	c1	c1
18	REGISTER request	[26] 16	m	m	[26] 16	m	m
19	REGISTER response	[26] 16	m	m	[26] 16	m	m
20	SUBSCRIBE request	[28] 8.1.1	c3	c3	[28] 8.1.1	c3	c3
21	SUBSCRIBE response	[28] 8.1.1	c3	c3	[28] 8.1.1	c3	c3
22	UPDATE request	[30] 7	c4	c4	[30] 7	c4	c4
23	UPDATE response	[30] 7	c4	c4	[30] 7	c4	c4
c1:	IF A.162/22 THEN m ELSE n/a - - the REFER method.						
c2:	IF A.162/20 THEN m ELSE n/a - - the SIP INFO method.						
c3:	IF A.162/27 THEN m ELSE n/a - - SIP specific event notification.						
c4:	IF A.162/24 THEN m ELSE n/a - - the SIP UPDATE method.						

A.2.2.4 PDU parameters

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		
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		
29	423 (Registration Interval Too Brief)	[26] 21.4.17	c5	c5	[26] 21.4.17	c6	c6

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
30	480 (Temporarily not available)	[26] 21.4.18			[26] 21.4.18		
31	481 (Call Leg/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 Cancelled/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 Events Event)	[28] 8-3-37.3.2	c4	c4	[28] 8-3-37.3.2	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)	[38] 3	c	c7	[3] 3	c	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 (SIP 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)						
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.162/45 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 routing .						
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.3/2 THEN m ELSE n/a - - P-CSCF role						

A.2.2.4.2 ACK method

Prerequisite A.163/1 --- ACK request

Table A.165: Supported headers within the ACK request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	o		[26] 20.5	o	
2	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.10	o	
6	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
7	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
8	Content-Language	[26] 20.13	o		[26] 20.13	o	
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
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	From	[26] 20.20	m	m	[26] 20.20	m	m
14	Max-Forwards	[26] 20.22	m	m	[26] 20.22	m	m
15	MIME-Version	[26] 20.24	o		[26] 20.24	o	
16	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
17	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
18	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
19	Route	[26] 20.34	m	m	[26] 20.34	m	m
20	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
21	To	[26] 20.39	m	m	[26] 20.39	m	m
22	User-Agent	[26] 20.41	o		[26] 20.41	o	
23	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 .						
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 .						
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.						

Editor's note: Is the following table a suitable way of showing the contents of message bodies.

Prerequisite A.163/1 --- ACK request

Table A.166: Supported message bodies within the ACK request

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

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
17	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
18	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
19	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
20	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
21	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
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 .						
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 .						
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-Trying100 (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
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	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Timestamp	[26] 20.38	m	m	[26] 20.38	e	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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

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
1	Authentication-Info	[26] 20.6	o		p	o	
2	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2: 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.							
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 routing.							

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/142** - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 - - "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		[26] 20.5	m	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12-20](#) - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 - - "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/34 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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

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							

A.2.2.4.4 CANCEL method

Prerequisite A.163/4 --- CANCEL request

Table A.181: Supported headers within the CANCEL request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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-Language	[26] 20.13	o		[26] 20.13	o	
8	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
9	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
10	Date	[26] 20.17	m	m	[26] 20.17	c2	c2
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	o		[26] 20.24	o	
14	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
15	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
16	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
17	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
18	Route	[26] 20.34	m	m	[26] 20.34	m	m
19	Supported	[26] 20.37	m	m	[26] 20.37	c6	c6
20	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
21	To	[26] 20.39	m	m	[26] 20.39	m	m
22	User-Agent	[26] 20.41	o		[26] 20.41	o	
23	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 .						
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 .						
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.163/4 --- CANCEL request

Table A.182: Supported message bodies within the CANCEL request

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

Prerequisite A.163/5 - - CANCEL response

Table A.183: Supported headers within the CANCEL 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-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	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
7	To	[26] 20.39	m	m	[26] 20.39	m	m
8	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.163/5 - - CANCEL response

Prerequisite: A.164/6 - - 200 **OK**

Table A.184: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:		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.					
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 routing.					

Prerequisite A.163/5 - - CANCEL 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.185: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
4	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:		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.163/5 - - CANCEL response

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

Table A.186: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 2418	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/5 - - CANCEL response

Prerequisite: A.164/27 - - 420 **Bad Extension**

Table A.187: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.163/5 - - CANCEL response

Prerequisite: A.164/34 - - 484 **Address Incomplete**

Table A.188: Supported headers within the CANCEL response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Content-Language	[26] 20.13	o		[26] 20.13	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/5 - - CANCEL response

Table A.189: Supported message bodies within the CANCEL response

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

A.2.2.4.5 COMET method

Void

A.2.2.4.6 INFO method

Prerequisite A.163/6 - - INFO request

Table A.190: Supported headers within the INFO request

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	c1	c1
5	Authorization	[26] 20.7	m	m	[26] 20.7	i	i
6	Call-ID	[26] 20.8	m		[26] 20.8	m	
7	Contact	[26] 20.10	o		[26] 20.10	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
10	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
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	o		[26] 20.19	o	
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	Organization	[26] 20.25	o		[26] 20.25	o	
17	Priority	[26] 20.26	m	m	[26] 20.26	i	i
18	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
19	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
20	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
21	Require	[26] 20.32	m	m	[26] 20.32	c4	c5
22	Route	[26] 20.34	m	m	[26] 20.34	m	m
23	Subject	[26] 24.38	o		[26] 24.38	o	
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	o		[26] 20.41	o	
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](#).
- 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](#).

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.163/6 - - INFO request

Table A.191: Supported message bodies within the INFO request

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

Prerequisite A.163/7 --- INFO response

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

Table A.192: Supported headers within the INFO 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.163/7 --- INFO response

Table A.193: Supported headers within the INFO 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-Encoding	[26] 20.12	o		[26] 20.12	o	
3	Content-Length	[26] 20.14	m	m	[26] 20.14	m	m
4	Content-Type	[26] 20.15	m	m	[26] 20.15	m	m
5	Cseq	[26] 20.16	m	m	[26] 20.16	m	m
6	Date	[26] 20.17	m	m	[26] 20.17	c1	c1
7	From	[26] 20.20	m	m	[26] 20.20	m	m
8	Organization	[26] 20.25	o		[26] 20.25	o	
9	Timestamp	[26] 20.38	im	im	[26] 20.38	i	i
10	To	[26] 20.39	m	m	[26] 20.39	m	m
11	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.163/7 --- INFO response

Prerequisite: A.164/6 - - 2xx

Table A.194: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m		[26] 20.5	m	
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
4	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.						
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 routing.						

Prerequisite A.163/7 - - INFO response

Prerequisite: A.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/12 - - 3xx

Table A.195: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Via	[26] 20.42	m	m	[26] 20.42	m	m
8	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/7 - - INFO response

Prerequisite: A.164/14 - - 401 **Unauthorized**

Table A.196: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 2418	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.163/7 - - INFO 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.197: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
5	Server	[26] 20.35	m	m	[26] 20.35	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/7 - - INFO response

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

Table A.198: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Allow	[26] 20.5	m		[26] 20.5	m	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
5	Server	[26] 20.35	m	m	[26] 20.35	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/7 - - INFO response

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

Table A.199: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.163/7 - - INFO response

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

Table A.200: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	Unsupported	[26] 20.40	m	m	[26] 20.40	c3	c3
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.163/7 - - INFO response

Prerequisite: A.164/34 - - 484 [\(Address Incomplete\)](#)

Table A.201: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:		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.163/7 - - INFO 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 of 485~~
 "(Ambiguous)" @@@ combine

Table A.202: Supported headers within the INFO response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Expires	[26] 20.19	o		[26] 20.19	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:		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.163/7 - - INFO response

Table A.203: Supported message bodies within the INFO response

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

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	c1	c1
5	Alert-Info	[26] 20.4	c2	c2	[26] 20.4	c3	c3
6	Allow	[26] 20.5, [26] 13	o		[26] 20.5, [26] 13	o	
7	Anonymity	[34] 5.2	o		[34] 5.2		
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	o		[26] 20.9	o	
11	Contact	[26] 20.10	m		[26] 20.10	m	
12	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
13	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
14	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	m	m	[26] 20.17	c4	c4
19	Expires	[26] 20.19	o		[26] 20.19	o	
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	o		[26] 20.24	o	
24	Organization	[26] 20.25	o		[26] 20.25	o	
25	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
26	Priority	[26] 20.26	m	m	[26] 20.26	i	i
27	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
28	Proxy-Require	[26] 20.29, [34] 4	m	m	[26] 20.29, [34] 4	m	m
29	Record-Route	[26] 20.30	m	m	[26] 20.30	c11	c11
30	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
31	Reply-To	[26] 20.31	m	m	[26] 20.31	i	i
32	Require	[26] 20.32	m	m	[26] 20.32	c7	c7
33	Route	[26] 20.34	m	m	[26] 20.34	m	m
34	Subject	[26] 24.38	o		[26] 24.38	o	
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	o		[26] 20.41	o	
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.						
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.						

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 - - 400-Trying100 (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: IF (A.162/9 AND A.162/5) OR A.162/4 THEN m ELSE n/a - - -- stateful proxy behaviour Stateful proxies that insert s date, or stateless proxies.							
c2: 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
2	Content-Disposition	[26] 20.11, [30] 8.3	o		[26] 20.11, [30] 8.3	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	o	
12	Timestamp	[26] 20.38	i	i	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
14	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.163/9 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Contact	[26] 20.10	o		[26] 20.10	o/m	
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	P-Media-Authorization	[31] 6.1	c9	c10	[31] 6.1	n/a	n/a
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
9	Rseq	[27] 7.1	m	m	[27] 7.1	i	i
10	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i
12	User-Agent	[26] 20.41	o		[26] 20.41	o	
13	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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	o		[26] 20.1	o	
2	Allow	[26] 20.5	o		[26] 20.5	o	
3	Anonymity	[34] 5.2	o		[34] 5.2		
4	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
5	Call-Info	[26] 20.9	o		[26] 20.9	o	
6	Contact	[26] 20.10	m		[26] 20.10	m	
7	Expires	[26] 20.19	o		[26] 20.19	o	
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	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
11	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
12	Server	[26] 20.35	m	m	[26] 20.35	i	i
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i
14	User-Agent	[26] 20.41	o		[26] 20.41	o	
15	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.						

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Contact	[26] 20.10	o		[26] 20.10	o/m	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
9	Server	[26] 20.35	m	m	[26] 20.35	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/14 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
9	Server	[26] 20.35	m	m	[26] 20.35	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	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
13	User-Agent	[26] 20.41	o		[26] 20.41	o	
14	Warning	[26] 20.43	o		[26] 20.43	o	
15	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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.212: 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		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
8	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
9	Server	[26] 20.35	m	m	[26] 20.35	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Via	[26] 20.42	m	m	[26] 20.42	m	m
13	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 - - "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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m		[26] 20.5	m/o	
3	Anonymity	[34] 5.2	o		[34] 5.2	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	From	[26] 20.20	m	m	[26] 20.20	m	m
8	MIME-Version	[26] 20.24	o		[26] 20.24	o	
9	Organization	[26] 20.25	o		[26] 20.25	o	
10	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
11	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
12	Server	[26] 20.35	m	m	[26] 20.35	i	i
13	Supported	[26] 20.37	m	m	[26] 20.37	i	i
14	User-Agent	[26] 20.41	o		[26] 20.41	o	
15	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
7	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
8	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
9	Server	[26] 20.35	m	m	[26] 20.35	i	i
10	Supported	[26] 20.37	m	m	[26] 20.37	i	i
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 - - "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Anonymity	[34] 5.2	o		[34] 5.2		
5	Call-Info	[26] 20.9	o		[26] 20.9	o	
6	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
7	Expires	[26] 20.19	o		[26] 20.19	o	
8	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
9	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
10	Server	[26] 20.35	m	m	[26] 20.35	i	i
11	Supported	[26] 20.37	m	m	[26] 20.37	i	i
12	User-Agent	[26] 20.41	o		[26] 20.41	o	
13	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
8	Server	[26] 20.35	m	m	[26] 20.35	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
11	User-Agent	[26] 20.41	o		[26] 20.41	o	
12	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/34 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Anonymity	[34] 5.2	o		[34] 5.2		
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Remote-Party-ID	[34] 5.1	o		[34] 5.1	o	
7	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
8	Server	[26] 20.35	m	m	[26] 20.35	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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

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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	m	m	[26] 20.17	c2	c2
14	Event	[28] 8.2.1	m	m	[28] 8.2.1	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	o		[26] 20.24	o	
18	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
19	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
20	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
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	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	o		[26] 20.41	o	
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 .					
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) .					
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	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Timestamp	[26] 20.38	em	m	[26] 20.38	e	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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.163/11 - - 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
1	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
2	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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 routing.						

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/14 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 - - "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		[26] 20.5	m	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 - - "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/34 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/39 - - 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
1	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	c1	c1
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Require	[26] 20.32	m	m	[26] 20.32	c3	c3
5	Server	[26] 20.35	m	m	[26] 20.35	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.						
c3:	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.						
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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.9	o	
8	Contact	[26] 20.10	m		[26] 20.10	m	
9	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
10	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
11	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
19	Organization	[26] 20.25	o		[26] 20.25	o	
20	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
21	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
22	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
23	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
24	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
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 .						
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 .						
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 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
2	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	o	
12	Timestamp	[26] 20.38	i	i	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
14	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

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	o		[26] 20.1	o	
2	Allow	[26] 20.5	o		[26] 20.5	o/m	
3	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Contact	[26] 20.10	o		[26] 20.10	o	
6	From	[26] 20.20	m	m	[26] 20.20	m	m
7	MIME-Version	[26] 20.24	o		[26] 20.24	o	
8	Organization	[26] 20.25	o		[26] 20.25	o	
9	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
10	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
11	Server	[26] 20.35	m	m	[26] 20.35	i	i
12	Supported	[26] 20.37	m	m	[26] 20.37	i	i
13	User-Agent	[26] 20.41	o		[26] 20.41	o	
14	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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 routing.						

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/14 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
5	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 -- "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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 -- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 -- "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
5	Server	[26] 20.35	m	m	[26] 20.35	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
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/34 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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

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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o	o	[26] 20.22	n/a	n/a
16	MIME-Version	[26] 20.24	o		[26] 20.24	o	
17	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
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
20	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
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	o		[26] 20.41	o	
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 .						
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 .						
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 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	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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

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
1	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2: 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.							
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 routing.							

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/14 --- 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 -- "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		[26] 20.5	m	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 --- 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 -- "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 -- - 420@@@combine **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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/34 -- - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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

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							

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
1	Accept-Language	[26] 20.3	o		[26] 20.3	o	
2	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.10	o	
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	m	m	[26] 20.17	c2	c2
10	Expires	[26] 20.19	o		[26] 20.19	o	
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	o		[26] 20.24	o	
14	Organization	[26] 20.25	o		[26] 20.25	o	
15	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
16	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
17	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
18	Refer-To	[36] 3	c3	c3	[36] 3	c4	c4
19	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
20	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
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 .						
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 .						
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 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
2	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
3	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
10	Organization	[26] 20.25	o		[26] 20.25	o	
11	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Record-Route	[26] 20.30	m	m	[26] 20.30	c3	c3
6	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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 routing.						

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)"@@@combine

Table A.266: 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		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/8 OR A.164/9 OR A.164/10 OR A.164/11 OR A.164/142 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 - - "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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m	m	[26] 20.5	m	m
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 --- 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	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Expires	[26] 20.19	o		[26] 20.19	o	
4	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 -- "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	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
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/34 --- 484@@@combine **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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Contact	[26] 20.10	o		[26] 20.10	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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

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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.9	o	
8	Contact	[26] 20.10	m		[26] 20.10	m	
9	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
10	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
11	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	m	m	[26] 20.17	m	m
16	Expires	[26] 20.19	o		[26] 20.19	o	
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	o		[26] 20.24	o	
20	Organization	[26] 20.25	o		[26] 20.25	o	
21	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
22	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
23	Require	[26] 20.32	m	m	[26] 20.32	c4	c4
24	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
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 .						
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 .						
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 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
2	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Organization	[26] 20.25	o		[26] 20.25	o	
12	Timestamp	[26] 20.38	m	m	[26] 20.38	i	i
13	To	[26] 20.39	m	m	[26] 20.39	m	m
14	Via	[26] 20.42	m	m	[26] 20.42	m	m

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	o		[26] 20.1	o	
2	Allow	[26] 20.5	o		[26] 20.5	o	
3	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Contact	[26] 20.10	o		[26] 20.10	o	
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
8	Server	[26] 20.35	m	m	[26] 20.35	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/8 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Contact	[26] 20.10	o		[26] 20.10	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/14 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
10	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c1:	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.164/17 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
6	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/18 - - "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
1	Accept	[26] 20.1	o		[26] 20.1	o	
2	Allow	[26] 20.5	m		[26] 20.5	m	
3	Call-Info	[26] 20.9	o		[26] 20.9	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Expires	[26] 20.19	o		[26] 20.19	o	
6	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/20 --- 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
6	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
7	Server	[26] 20.35	m	m	[26] 20.35	i	i
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/25 -- "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Call-Info	[26] 20.9	o		[26] 20.9	o	
5	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
6	Expires	[26] 20.19	o		[26] 20.19	o	
7	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
8	Server	[26] 20.35	m	m	[26] 20.35	i	i
9	Supported	[26] 20.37	m	m	[26] 20.37	i	i
10	User-Agent	[26] 20.41	o		[26] 20.41	o	
11	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.164/27 -- - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
6	Server	[26] 20.35	m	m	[26] 20.35	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
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.						
c3:	IF A.162/17 THEN m ELSE i						

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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	o		[26] 20.18	o	
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Min-Expires	[26] 20.23	m	m	[26] 20.23	i	i
6	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
7	Server	[26] 20.35	o		[26] 20.35	o	
8	Supported	[26] 20.37	m	m	[26] 20.37	i	i
9	User-Agent	[26] 20.41	o		[26] 20.41	o	
10	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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.163/19 - - 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	Accept	[26] 20.1	o		[26] 20.1	o	
2	Call-Info	[26] 20.9	o		[26] 20.9	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Expires	[26] 20.19	o		[26] 20.19	o	
5	Require	[26] 20.32	m	m	[26] 20.32	c1	c1
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	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

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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.11	o	
8	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
9	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	m	m	[26] 20.17	c2	c2
14	Event	[28] 8.2.1	m	m	[28] 8.2.1	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	o		[26] 20.24	o	
19	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
20	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
21	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
22	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
23	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
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.					
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.					
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	o		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Timestamp	[26] 20.38	em	m	[26] 20.38	e	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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.163/21 - - 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
1	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
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
4	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
5	Server	[26] 20.35	m	m	[26] 20.35	i	i
6	Supported	[26] 20.37	m	m	[26] 20.37	i	i
7	User-Agent	[26] 20.41	o		[26] 20.41	o	
8	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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 routing.						

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
1	Contact	[26] 20.10	o		[26] 20.10	o	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/14 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
8	WWW-Authenticate	[26] 20.44	o		[26] 20.44	o	
c2:	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.164/17 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.296: Supported headers within the SUBSCRIBE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Retry-After	[26] 20.33	m	m	[26] 20.33	i	i
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/18 - - "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		[26] 20.5	m	
2	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/20 - - 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Proxy-Authenticate	[26] 20.27	o		[26] 20.27	o	
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	m	m	[26] 20.35	i	i
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/25 - - "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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
5	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
6	Server	[26] 20.35	m	m	[26] 20.35	i	i
7	Supported	[26] 20.37	m	m	[26] 20.37	i	i
8	User-Agent	[26] 20.41	o		[26] 20.41	o	
9	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/27 -- 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	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
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.						
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.164/29 -- 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
1	Error-Info	[26] 20.18	o		[26] 20.18	o	
2	Min-Expires	[26] 20.23	m	m	[26] 20.23	i	i
3	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
4	Server	[26] 20.35	o		[26] 20.35	o	
5	Supported	[26] 20.37	m	m	[26] 20.37	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/34 -- 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
1	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
2	Require	[26] 20.32	m	m	[26] 20.32	c2	c2
3	Server	[26] 20.35	m	m	[26] 20.35	i	i
4	Supported	[26] 20.37	m	m	[26] 20.37	i	i
5	User-Agent	[26] 20.41	o		[26] 20.41	o	
6	Warning	[26] 20.43	o		[26] 20.43	o	
c2:	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.164/39 - - 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
1	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	c1	c1
2	Authentication-Info	[26] 20.6	o		[26] 20.6	o	
3	Error-Info	[26] 20.18	m	m	[26] 20.18	i	i
4	Require	[26] 20.32	m	m	[26] 20.32	c3	c3
5	Server	[26] 20.35	m	m	[26] 20.35	i	i
6	User-Agent	[26] 20.41	o		[26] 20.41	o	
7	Warning	[26] 20.43	o		[26] 20.43	o	
c1:	IF A.4/20 THEN m ELSE i - - SIP specific event notification extension .						
c3:	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 .						
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

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							

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	o		[26] 20.1	o	
2	Accept-Encoding	[26] 20.2	o		[26] 20.2	o	
3	Accept-Language	[26] 20.3	o		[26] 20.3	o	
4	Allow	[26] 20.5	o		[26] 20.5	o	

5	Allow-Events	[28] 8.2.2	m	m	[28] 8.2.2	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	o		[26] 20.9	o	
9	Contact	[26] 20.10	o		[26] 20.10	o	
10	Content-Disposition	[26] 20.11	o		[26] 20.11	o	
11	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
12	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
20	Organization	[26] 20.25	o		[26] 20.25	o	
21	Proxy-Authorization	[26] 20.28	o		[26] 20.28	o	
22	Proxy-Require	[26] 20.29	m	m	[26] 20.29	m	m
23	Record-Route	[26] 20.30	m	m	[26] 20.30	c7	c7
24	Require	[26] 20.32	m	m	[26] 20.32	c5	c5
25	Route	[26] 20.34	m	m	[26] 20.34	m	m
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	o		[26] 20.41	o	
30	Via	[26] 20.42	m	m	[26] 20.42	m	m
<p>c1: IF A.4/20 THEN m ELSE i - - SIP specific event notification extension.</p> <p>c2: IF A.162/9 THEN m ELSE i - - insertion of date in requests and responses.</p> <p>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.</p> <p>c6: IF A.162/16 THEN m ELSE i - - reading the contents of the Supported header before proxying the response.</p> <p>c7: IF A.162/14 THEN o ELSE i - - the requirement to be able to insert itself in the subsequent transactions in a dialog.</p> <p>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.</p>							

[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 -- INVITE UPDATE response

Table A.307: 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		[26] 20.11	o	
3	Content-Encoding	[26] 20.12	o		[26] 20.12	o	
4	Content-Language	[26] 20.13	o		[26] 20.13	o	
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	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	o		[26] 20.24	o	
11	Timestamp	[26] 20.38	m	m	[26] 20.38	e	i
12	To	[26] 20.39	m	m	[26] 20.39	m	m
13	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.163/23 - - 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
1	Allow	[26] 204.5	m		[26] 204.5	m	
2	Call-Info	[26] 24.9	o		[26] 24.9	o	
3	Organization	[26] 24.25	o		[26] 24.25	o	
4	Require	[26] 204.323	m	m	[26] 204.323	c2	c2
5	Server	[26] 24.37	m	m	[26] 24.37	i	i
6	Supported	[26] 204.379	m	m	[26] 204.379	i	i
7	User-Agent	[26] 24.43	o		[26] 24.43	o	
8	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.						
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 routing.						

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	Call-Info	[26] 24.9	o		[26] 24.9	o	
2	Contact	[26] 204.10	o		[26] 204.10	o	
3	Error-Info	[26] 204.18	m	m	[26] 204.18	i	i
4	From	[26] 204.20	m	m	[26] 204.20	m	m
5	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
6	Server	[26] 24.37	m	m	[26] 24.37	i	i
7	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.164/17 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	Call-Info	[26] 24.9	o		[26] 24.9	o	
2	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
3	Organization	[26] 24.25	o		[26] 24.25	o	
4	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
5	Retry-After	[26] 2420.343 3	m	m	[26] 2420.343 3	i	i
6	Server	[26] 24.37	m	m	[26] 24.37	i	i
7	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.164/18 - - "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] 2420.5	m		[26] 2420.5	m	
2	Call-Info	[26] 24.9	o		[26] 24.9	o	
3	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
4	Organization	[26] 24.25	o		[26] 24.25	o	
5	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
6	Server	[26] 24.37	m	m	[26] 24.37	i	i
7	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.164/20 - - 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	Call-Info	[26] 24.9	o		[26] 24.9	o	
2	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
3	Organization	[26] 24.25	o		[26] 24.25	o	
4	Proxy-Authenticate	[26] 2420.27	o		[26] 2420.27	o	
5	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
6	Server	[26] 24.37	m	m	[26] 24.37	i	i
7	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.164/25 - - "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] 2420.1	o		[26] 2420.1	o	
2	Accept-Encoding	[26] 2420.2	o		[26] 2420.2	o	
3	Accept-Language	[26] 2420.3	o		[26] 2420.3	o	
4	Allow	[26] 20.5	o		[26] 20.5	o	
5	Call-Info	[26] 24.9	o		[26] 24.9	o	
6	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
7	Organization	[26] 24.25	o		[26] 24.25	o	
8	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
9	Server	[26] 24.37	m	m	[26] 24.37	i	i
10	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
11	User-Agent	[26] 24.43	o		[26] 24.43	o	
12	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.164/27 - - 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	Call-Info	[26] 24.9	o		[26] 24.9	o	
2	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
3	Organization	[26] 24.25	o		[26] 24.25	o	
4	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
5	Server	[26] 24.37	m	m	[26] 24.37	i	i
6	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
7	Unsupported	[26] 2420.424 0	m	m	[26] 2420.424 0	c3	c3
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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.						
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.164/8 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.315: Supported headers within the UPDATE response

Item	Header	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Call-Info	[26] 24.9	o		[26] 24.9	o	
2	Contact	[26] 2420.10	o		[26] 2420.10	o	
3	Error-Info	[26] 2420.18	m	m	[26] 2420.18	i	i
4	Organization	[26] 24.25	o		[26] 24.25	o	
5	Require	[26] 2420.333 2	m	m	[26] 2420.333 2	c2	c2
6	Server	[26] 24.37	m	m	[26] 24.37	i	i
7	Supported	[26] 2420.393 7	m	m	[26] 2420.393 7	i	i
8	User-Agent	[26] 24.43	o		[26] 24.43	o	
9	Warning	[26] 24.45	o		[26] 24.45	o	
c2:	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](#)

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							

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 175** ⌘ rev **5** ⌘ Current version: **5.2.0** ⌘

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:	⌘	Clarifications of the binding and media grouping	
Source:	⌘	Ericsson	
Work item code:	⌘	IMS-CCR	Date: ⌘ 15/11/2002
Category:	⌘	F	Release: ⌘ REL-5
		Use <u>one</u> of the following categories:	Use <u>one</u> of the following releases:
		F (correction)	2 (GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96 (Release 1996)
		B (addition of feature),	R97 (Release 1997)
		C (functional modification of feature)	R98 (Release 1998)
		D (editorial modification)	R99 (Release 1999)
		Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘	Reference to the internet drafts providing the detailed working assumption for the grouping of m-lines replace the reference of the stage-2 reference.
Summary of change:	⌘	Added references to two internet drafts to support the functionality. Clarifications when and how a separate PDP context is required for media is needed in order to get consistant behaviour of the UE from different vendors. Added support for the mentioned internet draft in the profile tables in annex A.3 In addition, a recent change to 23.228 limiting the modification of media grouping is incorporated in the CR. The Tdoc from SA2 for this recent change is S2-023309 (CR 226v- to 23.228)
Consequences if not approved:	⌘	The detailed description of grouping of media streams will not be complete.

Clauses affected:	⌘	2, 6.1, 6.2, 9.2.1, 9.2.5, A.3.2.1, A.3.2.2, A.3.2.3, A.3.2.4 (new), A.3.3.1, A.3.3.2, A.3.3.3, A.3.3.4 (new)												
Other specs Affected:	⌘	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications ⌘ <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Y	N													
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Y	N													
<input type="checkbox"/>	<input checked="" type="checkbox"/>													
Y	N													
<input type="checkbox"/>	<input checked="" type="checkbox"/>													
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.

***** 1st modification *****

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".
- [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".
- [9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".
- [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".
- [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 32.200: "Telecommunication management; Charging management; Charging principles".
- [17] 3GPP TS 32.225: "Telecommunication management; Charging management; Charging data description for the IP Multimedia subsystem".
- [18] 3GPP TS 33.102: "3G Security; Security architecture".
- [19] 3GPP TS 33.203: "Access security for IP based services".
- [20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".
- [21] RFC 2617: "HTTP Authentication: Basic and Digest Access Authentication".

- [22] RFC 2806: "URLs for Telephone Calls".
- [23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".
- [24] RFC 2916 (June 1999): "E.164 number and DNS".
- [25] RFC 2976 (October 2000): "The SIP INFO method".
- [26] RFC 3261 (March 2002): "SIP: Session Initiation Protocol".
- [27] RFC 3262 (March 2002): "Reliability of provisional responses in Session Initiation Protocol".
- [28] RFC 3265 (March 2002): "Session Initiation Protocol Specific Event Notification".
- [29] RFC 3311 (April 2002): "The SIP UPDATE method".
- [30] RFC 3312 (May 2002): "Integration of resource management and SIP".
- [31] RFC 3313 (February 2002): "SIP extensions for media authorization".
- [32] RFC 3320 (March 2002): "Signaling Compression (SigComp)".
- [33] RFC 3323 (May 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".
- [34] RFC 3325 (May 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".
- [35] RFC 3327 (May 2002): "SIP Extension for Registering Non-Adjacent Contacts".
- [36] draft-ietf-sip-refer-05 (June 2002): "The REFER method".

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

- [37] draft-sparks-sip-mimetypes-03 (April 2002): "Internet Media Type message/sipfrag".

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

- [38] draft-willis-scvrtdisco-06 (May 2002): "SIP Extension Header for Service Route Discovery in Private Networks".

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

- [39] draft-ietf-mmusic-sdp-new-10 (May 2002): "SDP: Session Description Protocol".

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

- [40] draft-ietf-dhc-dhcpv6-26 (June 2002): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

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

- [41] draft-ietf-sip-dhcpv6-00 (April 2002): "DHCPv6 options for SIP servers".

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

- [42] draft-ietf-sipping-sigcomp-sip-dictionary-03.txt (July 2002): "The SIP/SDP static dictionary for Signaling Compression".

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

- [43] draft-rosenberg-sip-reg-00 (May 2002): "A Session Initiation Protocol (SIP) Event Package for Registrations".

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

- [44] draft-garcia-sip-visited-network-id-00 (March 2002): "Private SIP extension for Visited Network Identifier".

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

[45] draft-henrikson-sip-charging-information-01 (May 2002): "Private SIP Extension for Mobile Charging Information".

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

[46] Void.

[47] draft-mills-sip-access-network-info-01.txt (April 2002): "SIP Access Network Information header".

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

[48] draft-ietf-sip-sec-agree-04.txt (June 2002): "Security Mechanism Agreement for SIP Sessions".

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

[49] draft-ietf-sip-digest-aka-03.txt (May 2002): "HTTP Digest Authentication Using AKA".

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

[50] draft-ietf-sip-message-06.txt (July 2002): "Session Initiation Protocol Extension for Instant Messaging"

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

[51] draft-ietf-sip-callerprefs-06.txt (July 2002): "Session Initiation Protocol (SIP) Caller Preferences and Callee Capabilities"

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

[52] draft-ietf-mmusic-fid-06 (August 2002): "Grouping of media lines in SDP".

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

[53] draft-ietf-mmusic-reservation-flows-01.txt (October 2002): "Mapping of Media Streams to Resource Reservation Flows".

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

***** 2nd modification *****

6 Application usage of SDP

6.1 Procedures at the UE

Usage of SDP by the UE:

1. In order to authorize the media streams, the P-CSCF and S-CSCF have to be able to inspect and possibly modify the SDP payloads. Hence, the UE shall not encrypt the SDP payloads.
2. An INVITE request generated by a UE shall contain SDP payload. The SDP payload shall reflect the calling user's terminal capabilities and user preferences for the session. In addition, the calling user shall indicate the desired QoS for the session, using the segmented status type. In an initial INVITE the UE shall indicate that it mandates local QoS and that this precondition is not yet satisfied, i.e. the UE shall include the following preconditions:

a=des: qos mandatory local sendrecv

a=curr: qos local none

3. The first 183 (Session Progress) provisional response sent out shall contain the answer for the SDP received in the INVITE. The SDP payload shall reflect the called user's terminal capabilities and user preferences.
4. When UE sends out an 183 (Session Progress) response with SDP payload, it shall request confirmation for the result of the resource reservation at the originating end point.
5. During session establishment procedure, SIP messages shall only contain SDP payload if that is intended to modify the session description.
6. For "video" and "audio" media types that utilize the RTP/RTCP, the UE shall specify the proposed bandwidth for each media stream utilizing the "b=" media descriptor in the SDP. For other media streams the "b=" media descriptor may be included. The value or absence of the "b=" parameter will affect the assigned QoS which is defined in 3GPP TS 29.208 [13].
7. The UE shall include the DTMF media format at the end of the "m=" media descriptor in the SDP for audio media flows that support both audio codec and DTMF payloads in RTP packets as described in RFC 2833 [23].
8. The UE shall inspect the SDP contained in any SIP request or response, looking for possible indications of grouping of media streams according to draft-ietf-mmusic-reservation-flows-01 [53] and perform the action outlined in subclause 9.2.5.

6.2 Procedures at the P-CSCF

When the P-CSCF receives an INVITE request or reINVITE request, the P-CSCF shall examine the media parameters in the received SDP, and remove those which are not allowed on the network by local policy. The P-CSCF will also remove those codecs from the approved media streams which are not allowed by local policy. If the P-CSCF modifies the SDP, it shall also revise the SDP to reflect the modified bandwidth requirements. For the rejected media streams, the P-CSCF should ignore the b= lines.

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 draft-ietf-mmusic-reservation-flows-01 [53] to indicate to the UE that particular media stream(s) shall be 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 PDP contexts and identify the relation between different media streams and PDP contexts (see subclause 9.2.5).

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 draft-ietf-mmusic-reservation-flows-01 [53] 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 draft-ietf-mmusic-reservation-flows-01 [53] 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.

6.3 Procedures at the S-CSCF

When the S-CSCF receives an INVITE request or reINVITE request, the S-CSCF shall examine the media parameters in the received SDP, and remove those media streams which are not allowed based on the subscription. The S-CSCF will also remove those codecs from the approved media streams which are not allowed by the subscription. If the S-CSCF modifies the SDP, it shall also revise the SDP to reflect the modified bandwidth requirements. For the rejected media streams, the S-CSCF should ignore the b= lines.

6.4 Procedures at the MGCF

The usage of SDP by the MGCF is the same as its usage by the UE, as defined in the subclause 6.1 and A.3.2. When sending an SDP, the MGCF shall not include the "i", "u", "e", "p", "r", and "z" descriptors in the SDP, and it shall ignore them when received in the SDP.

6.4.1 Calls originating from circuit-switched networks

When the MGCF generates and sends an INVITE request for a call originating in a circuit-switched network, the MGCF shall:

- populate the SDP with the codecs supported by the associated MGW (see 3GPP TS 26.235 [10] for the supported codecs).

When the MGCF receives 183 (Session Progress) response to an INVITE request, the MGCF shall:

- check that a supported codec has been indicated in the SDP.

6.4.2 Calls terminating in circuit-switched networks

When the MGCF receives an initial INVITE request, the MGCF shall:

- check for a codec that matches the requested SDP, which may include DTMF support.

When the MGCF generates and sends a 183 (Session Progress) response to an initial INVITE request, the MGCF shall:

- set SDP indicating the selected codec, which may include DTMF support.

6.5 Procedures at the MRFC

Void.

***** 3rd modification *****

9 GPRS aspects when connected to the IM CN subsystem

9.1 Introduction

A UE accessing the IM CN subsystem, and the IM CN subsystem itself, utilise the services provided by GPRS to provide packet-mode communication between the UE and the IM CN subsystem.

Requirements for the UE on the use of these packet-mode services are specified in this clause. Requirements for the GGSN in support of this communication are specified in 3GPP TS 29.061 [11] and 3GPP TS 29.207 [12].

9.2 Procedures at the UE

9.2.1 PDP context activation and P-CSCF discovery

Prior to communication with the IM CN subsystem, the UE shall:

- a) perform a GPRS attach procedure;
- b) establish a PDP context used for SIP signalling according to the APN and GGSN selection criteria described in 3GPP TS 23.060 [4] and 3GPP TS 27.060 [10A]. This PDP context shall remain active throughout the period the UE is connected to the IM CN subsystem, i.e. from the initial registration and at least until the deregistration. As a result, the PDP context provides the UE with information that makes the UE able to construct an IPv6 address;

The UE shall choose one of the following options when performing establishment of this PDP context:

I. A dedicated PDP context for SIP signalling:

The UE shall indicate to the GGSN that this is a PDP context intended to carry IM CN subsystem-related signalling only by setting the IM CN Subsystem Signalling Flag. The UE may also use this PDP context for DNS and DHCP signalling according to the static packet filters described in 3GPP TS 29.207 [12];

II. A general-purpose PDP context:

The UE may decide to use a general-purpose PDP Context to carry IM CN subsystem-related signaling. The UE shall indicate to the GGSN that this is a general-purpose PDP context by not setting the IM CN Subsystem Signalling Flag. The UE may carry both signalling and media on the general-purpose PDP context.

The UE indicates the IM CN Subsystem Signalling Flag to the GGSN within the Protocol Configuration Options IE of the ACTIVATE PDP CONTEXT REQUEST message or ACTIVATE SECONDARY PDP CONTEXT REQUEST message.

Detailed description of how the IM CN Subsystem Signalling Flag is carried in the Protocol Configuration Options IE is provided in 3GPP TS 24.008 [8].

NOTE: A general-purpose PDP Context may carry both IM CN subsystem signaling and media, in case the media does not need to be authorized by Service Based Local Policy mechanisms defined in 3GPP TS 29.207 [12] and the media ~~stream~~ component is not mandated by the P-CSCF to be carried in a separate PDP Context.

- c) acquire a P-CSCF address(es).

The methods for P-CSCF discovery are:

- I. Employ Dynamic Host Configuration Protocol for IPv6 (DHCPv6) draft-ietf-dhc-dhcpv6 [40], the DHCPv6 options for SIP servers draft-ietf-sip-dhcpv6 [41] and if needed DNS after PDP context activation.

The UE shall either:

- in the DHCP query, request a list of SIP server domain names of P-CSCF(s) and the list of Domain Name Servers (DNS); or
- request a list of SIP server IPv6 addresses of P-CSCF(s).

- II. Transfer P-CSCF address(es) within the PDP context activation procedure.

The UE shall indicate the request for a P-CSCF address to the GGSN within the Protocol Configuration Options IE of the ACTIVATE PDP CONTEXT REQUEST message or ACTIVATE SECONDARY PDP CONTEXT REQUEST message.

If the GGSN provides the UE with a list of P-CSCF IPv6 addresses in the ACTIVATE PDP CONTEXT ACCEPT message or ACTIVATE SECONDARY PDP CONTEXT ACCEPT message, the UE shall assume that the list is prioritised with the first address within the Protocol Configuration Options IE as the P-CSCF address with the highest priority.

The UE can freely select method I or II for P-CSCF discovery. In case several P-CSCF addresses are provided to the UE, the selection of P-CSCF address shall be performed according to the resolution of host name as indicated in RFC 3261 [26]. If sufficient information for P-CSCF address selection is not available, selection of the P-CSCF address by the UE is implementation specific.

If the UE is designed to use I above, but receives P-CSCF address(es) according to II, then the UE shall either ignore the received address(es), or use the address(es) in accordance with II, and not proceed with the DHCP request according to I.

The UE may request a DNS Server IPv6 address(es) via draft-ietf-dhc-dhcpv6-26 [40] or by the Protocol Configuration Options IE when activating a PDP context according to 3GPP TS 27.060 [10A].

Detailed description of how the request and response for IPv6 address(es) for DNS server(s) and list of P-CSCF address(es) are carried in the Protocol Configuration Options IE is provided in 3GPP TS 24.008 [8].

9.2.1A Modification of a PDP context used for SIP signalling

The PDP context shall not be modified from a dedicated PDP context for SIP signalling to a general-purpose PDP context or vice versa. The IM CN Subsystem Signalling Flag shall not be set in the Protocol Configuration Options IE of the MODIFY PDP CONTEXT REQUEST message.

The UE shall not indicate the request for a P-CSCF address to the GGSN within the Protocol Configuration Options IE of the MODIFY PDP CONTEXT REQUEST message. The UE shall ignore P-CSCF address(es) if received from the GGSN in the Protocol Configuration Options IE of the MODIFY PDP CONTEXT RESPONSE message.

9.2.1B Re-establishment of the PDP context for signalling

If the dedicated PDP context for SIP signalling is lost due to e.g. a GPRS routing area update procedure, the UE shall attempt to re-establish the dedicated PDP context for SIP signalling. If this procedure does not succeed, the UE shall deactivate all PDP contexts related to IMS.

9.2.2 Session management procedures

The existing procedures for session management as described in 3GPP TS 24.008 [8] shall apply while the UE is connected to the IM CN subsystem.

9.2.3 Mobility management procedures

The existing procedures for mobility management as described in 3GPP TS 24.008 [8] shall apply while the UE is connected to the IM CN subsystem.

9.2.4 Cell selection and lack of coverage

The existing mechanisms and criteria for cell selection as described in 3GPP TS 25.304 [9] and 3GPP TS 44.018 [20] shall apply while the UE is connected to the IM CN subsystem.

9.2.5 PDP contexts for media

During establishment of a session, the UE establishes data streams(s) for media related to the session. Such data stream(s) may result in activation of additional PDP context(s). Such additional PDP context(s) shall be established as secondary PDP contexts associated to the PDP context used for signalling.

If the UE receives indication within the SDP according to draft-ietf-mmusic-reservation-flows-01 [53] that media stream(s) belong to group(s), the media stream(s) shall be set up on separate PDP contexts according to the indication of grouping. The UE may freely group media streams to PDP context(s) in case no indication of grouping is received from the P-CSCF. The P-CSCF shall indicate to the UE in SIP/SDP if a separate PDP Context is required for a media component as per procedures defined in 3GPP TS 23.228 [7]. The UE shall establish an additional PDP context for a media component if so indicated by the P-CSCF.

The UE shall pass the authorisation token received from the P-CSCF in the 183 (Session Progress) response to an INVITE request at originating setup or in the INVITE request at terminating setup to the GGSN by inserting it within the Traffic Flow Template IE at PDP Context activation/modification.

In order to identify to the GGSN which flow(s) (identified by m-lines within the SDP) are to be transferred within a particular PDP context, the UE shall set the flow identifier(s) within the Traffic Flow Template IE at PDP Context activation modification. Detailed description of how the flow identifiers are constructed is provided in 3GPP TS 29.207 [12].

Detailed description of how the authorization token and flow identifiers are carried in the Traffic Flow Template IE is provided in 3GPP TS 24.008 [8].

***** 4th modification *****

A.3 Profile definition for the Session Description Protocol as used in the present document

A.3.1 Introduction

Void.

A.3.2 User agent role

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.3.2.1 Major capabilities

Table A.317: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
	Extensions			
22	Integration of resource management and SIP?	[30]	o	m
23	Grouping of media lines	[52]	o	<u>m</u>
24	Mapping of Media Streams to Resource Reservation Flows	[53]	o	<u>m</u>

A.3.2.2 SDP types

Table A.318: SDP types

Item	Type	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
Session level description							
1	v= (protocol version)	[39] 6	m	m	[39] 6	m	m
2	o= (owner/creator and session identifier)	[39] 6	m	m	[39] 6	m	m
3	s= (session name)	[39] 6	m	m	[39] 6	m	m
4	i= (session information)	[39] 6	o		[39] 6		
5	u= (URI of description)	[39] 6	o	n/a	[39] 6		n/a
6	e= (email address)	[39] 6	o	n/a	[39] 6		n/a
7	p= (phone number)	[39] 6	o	n/a	[39] 6		n/a
8	c= (connection information)	[39] 6	o		[39] 6		
9	b= (bandwidth information)	[39] 6	o	o (NOTE 1)	[39] 6		
Time description (one or more per description)							
10	t= (time the session is active)	[39] 6	m	m	[39] 6	m	m
11	r= (zero or more repeat times)	[39] 6	o	n/a	[39] 6		n/a
Session level description (continued)							
12	z= (time zone adjustments)	[39] 6	o	n/a	[39] 6		n/a
13	k= (encryption key)	[39] 6	o		[39] 6		
14	a= (zero or more session attribute lines)	[39] 6	o		[39] 6		
Media description (zero or more per description)							
15	m= (media name and transport address)	[39] 6	o	o	[39] 6	m	m
16	i= (media title)	[39] 6	o		[39] 6		
17	c= (connection information)	[39] 6	c1	c1	[39] 6		
18	b= (bandwidth information)	[39] 6	o	o (NOTE 1)	[39] 6		
19	k= (encryption key)	[39] 6	o		[39] 6		
20	a= (zero or more media attribute lines)	[39] 6	o		[39] 6		
c1: IF A.318/15 THEN m ELSE n/a.							
NOTE 1: For "video" and "audio" media types that utilise RTP/RTCP, it shall be specified. For other media types, it may be specified.							

Prerequisite A.318/14 OR A.318/20 - - a= (zero or more session/media attribute lines)

Table A.319: zero or more session / media attribute lines (a=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	category (a=cat)	[39] 6			[39] 6		
2	keywords (a=keywds)	[39] 6			[39] 6		
3	name and version of tool (a=tool)	[39] 6			[39] 6		
4	packet time (a=ptime)	[39] 6			[39] 6		
5	maximum packet time (a=maxptime)	[39] 6			[39] 6		
6	receive-only mode (a=recvonly)	[39] 6			[39] 6		
7	send and receive mode (a=sendrecv)	[39] 6			[39] 6		
8	send-only mode (a=sendonly)	[39] 6			[39] 6		
9	whiteboard orientation (a=orient)	[39] 6			[39] 6		
10	conference type (a=type)	[39] 6			[39] 6		
11	character set (a=charset)	[39] 6			[39] 6		
12	language tag (a=sdplang)	[39] 6			[39] 6		
13	language tag (a=lang)	[39] 6			[39] 6		
14	frame rate (a=framerate)	[39] 6			[39] 6		
15	quality (a=quality)	[39] 6			[39] 6		
16	format specific parameters (a=fmtp)	[39] 6			[39] 6		
17	rtpmap attribute (a=rtpmap)	[39] 6			[39] 6		
18	qos-attribute (a=qos)	[30] 5	c1	c1	[30] 5	c2	c2
21	media stream identification attribute (a=mid)	[52] 3	c3	c3	[52] 3	c4	c4
22	group attribute (a=group)	[52] 4	c5	c5	[52] 3	c6	c6
c1:	IF A.317/22 THEN o ELSE n/a.						
c2:	IF A.317/22 THEN m ELSE n/a.						
c3:	IF A.317/23 THEN o ELSE n/a.						
c4:	IF A.317/23 THEN m ELSE n/a.						
c5:	IF A.317/24 THEN o ELSE n/a.						
c6:	IF A.317/24 THEN m ELSE n/a.						

A.3.2.3 SDP types parameters

Prerequisite A.318/2 - - o= (owner/creator and session identifier)

Table A.320: owner/creator and session identifier type (o=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	username	[39] 6	m	m	[39] 6	m	n/a
2	session id	[39] 6	m	m	[39] 6	m	m
3	version	[39] 6	m	m	[39] 6	m	m
4	network type	[39] 6	m	m	[39] 6	m	n/a
5	address type	[39] 6	m	m	[39] 6	m	n/a
6	address	[39] 6	m	m	[39] 6	m	n/a

Prerequisite A.318/10 - - t= (time the session is active)

Table A.321: time the session is active type (t=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	start time	[39] 6	m	m	[39] 6	m	n/a
2	stop time	[39] 6	m	m	[39] 6	m	n/a

Prerequisite A.318/11 - - r= (zero or more repeat times)

Table A.322: zero or more repeat times (r=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	repeat interval	[39] 6		n/a	[39] 6		n/a
2	active duration	[39] 6		n/a	[39] 6		n/a
3	list of offsets from start-time	[39] 6		n/a	[39] 6		n/a

Prerequisite A.318/12 - - z= (time zone adjustments)

Table A.323: time zone adjustments type (z=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	adjustment time	[39] 6		n/a	[39] 6		n/a
2	offset	[39] 6		n/a	[39] 6		n/a
3	adjustment time	[39] 6		n/a	[39] 6		n/a
4	offset	[39] 6		n/a	[39] 6		n/a

Prerequisite A.318/13 - - k= (encryption key)

Table A.324: encryption key type (k=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	method	[39] 6			[39] 6		
2	encryption key	[39] 6			[39] 6		

Prerequisite A.318/15 - - m= (media name and transport address)

Table A.325: media name and transport address type (m=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	media - ``audio" - ``video" - ``application" - ``data" - ``control"	[39] 6			[39] 6		
2	port	[39] 6			[39] 6		
3	transport	[39] 6			[39] 6		
4	fmt list	[39] 6			[39] 6		

Editor's note: It is expected that this table will be expanded, as this is the principle table that will distinguish operation of different entities within the IM CN subsystem.

Prerequisite A.318/17 -- c= (connection information)

Table A.326: connection type (c=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	network type	[39] 6			[39] 6		
2	address type	[39] 6			[39] 6		
3	connection address	[39] 6			[39] 6		

Prerequisite A.318/18 -- b= (bandwidth information)

Table A.327: bandwidth information (b=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	modifier	[39] 6		o (NOTE 1)	[39] 6		
2	bandwidth-value	[39] 6		o (NOTE 2)	[39] 6		

NOTE 1: For "video" and "audio" media types that utilise RTP/RTCP, the value shall be AS.
 NOTE 2: For "video" and "audio" media types that utilise RTP/RTCP, it shall be specified. For other media types, it may be specified.

A.3.2.4 SDP types parameters within attribute lines

This subclause does not intend to show an exhaustive list of all the possible attribute values

Prerequisite A.319/22 -- group attribute (a=group)

Table A.327a: group semantics (a=group)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	Lip Synchronization (LS)	[52] 4	o	o	[52] 4	m	m
2	Flow Identification (FID)	[52] 4	o	o	[52] 4	m	m
3	Single Reservation Flow (SRF)	[53] 2	o	m	[53] 2	m	m

A.3.3 Proxy role

This subclause contains the ICS proforma tables related to the user role. They need to be completed only for proxy implementations.

Prerequisite: A.2/2 -- proxy role

A.3.3.1 Major capabilities

Table A.328: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
	Extensions			
1	Integration of resource management and SIP?	[30]	o	m
2	Grouping of media lines	[52]	o	c1
3	Mapping of Media Streams to Resource Reservation Flows	[53]	o	c1
c1:	IF A.3/2 THEN m ELSE n/a - - P-CSCF role			

A.3.3.2 SDP types

Table A.329: SDP types

Item	Type	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
Session level description							
1	v= (protocol version)	[39] 6	m	m	[39] 6	m	m
2	o= (owner/creator and session identifier).	[39] 6	m	m	[39] 6	i	i
3	s= (session name)	[39] 6	m	m	[39] 6	i	i
4	i= (session information)	[39] 6	m	m	[39] 6	i	i
5	u= (URI of description)	[39] 6	m	m	[39] 6	i	i
6	e= (email address)	[39] 6	m	m	[39] 6	i	i
7	p= (phone number)	[39] 6	m	m	[39] 6	i	i
8	c= (connection information)	[39] 6	m	m	[39] 6	i	i
9	b= (bandwidth information)	[39] 6	m	m	[39] 6	i	i
Time description (one or more per description)							
10	t= (time the session is active)	[39] 6	m	m	[39] 6	i	i
11	r= (zero or more repeat times)	[39] 6	m	m	[39] 6	i	i
Session level description (continued)							
12	z= (time zone adjustments)	[39] 6	m	m	[39] 6	i	i
13	k= (encryption key)	[39] 6	m	m	[39] 6	i	i
14	a= (zero or more session attribute lines)	[39] 6	m	m	[39] 6	i	i
Media description (zero or more per description)							
15	m= (media name and transport address)	[39] 6	m	m	[39] 6	m	m
16	i= (media title)	[39] 6	o		[39] 6		
17	c= (connection information)	[39] 6	o		[39] 6		
18	b= (bandwidth information)	[39] 6	o		[39] 6		
19	k= (encryption key)	[39] 6	o		[39] 6		
20	a= (zero or more media attribute lines)	[39] 6	o		[39] 6		

Prerequisite A.329/14 OR A.329/20 - - a= (zero or more session/media attribute lines)

Table A.330: zero or more session / media attribute lines (a=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	category (a=cat)	[39] 6			[39] 6		
2	keywords (a=keywds)	[39] 6			[39] 6		
3	name and version of tool (a=tool)	[39] 6			[39] 6		
4	packet time (a=ptime)	[39] 6			[39] 6		
5	maximum packet time (a=maxptime)	[39] 6			[39] 6		
6	receive-only mode (a=recvonly)	[39] 6			[39] 6		
7	send and receive mode (a=sendrecv)	[39] 6			[39] 6		
8	send-only mode (a=sendonly)	[39] 6			[39] 6		
9	whiteboard orientation (a=orient)	[39] 6			[39] 6		
10	conference type (a=type)	[39] 6			[39] 6		
11	character set (a=charset)	[39] 6			[39] 6		
12	language tag (a=sdplang)	[39] 6			[39] 6		
13	language tag (a=lang)	[39] 6			[39] 6		
14	frame rate (a=framerate)	[39] 6			[39] 6		
15	quality (a=quality)	[39] 6			[39] 6		
16	format specific parameters (a=fmtp)	[39] 6			[39] 6		
17	rtpmap attribute (a=rtpmap)	[39] 6			[39] 6		
18	qos-attribute (a=qos)	[30] 5	m	m	[30] 5	c2	c2
21	media stream identification attribute (a=mid)	[52] 3	c3	c3	[52] 3	c4	c4
22	group attribute (a=group)	[52] 4	c5	c6	[52] 3	c5	c6
c2:		IF A.328/1 THEN m ELSE i.					
c3:		IF A.328/2 THEN o ELSE n/a.					
c4:		IF A.328/2 THEN m ELSE n/a.					
c5:		IF A.328/3 THEN o ELSE n/a.					
c6:		IF A.328/3 THEN m ELSE n/a.					

A.3.2.3 SDP types parameters

Prerequisite A.329/2 - - o= (owner/creator and session identifier)

Table A.331: owner/creator and session identifier type (o=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	username	[39] 6	m	m	[39] 6	m	m
2	session id	[39] 6	m	m	[39] 6	m	m
3	version	[39] 6	m	m	[39] 6	m	m
4	network type	[39] 6	m	m	[39] 6	m	m
5	address type	[39] 6	m	m	[39] 6	m	m
6	address	[39] 6	m	m	[39] 6	m	m

Prerequisite A.329/10 - - t= (time the session is active)

Table A.332: time the session is active type (b=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	start time	[39] 6			[39] 6		
2	stop time	[39] 6			[39] 6		

Prerequisite A.329/11 - - r= (zero or more repeat times)

Table A.333: zero or more repeat times (r=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	repeat interval	[39] 6			[39] 6		
2	active duration	[39] 6			[39] 6		
3	list of offsets from start-time	[39] 6			[39] 6		

Prerequisite A.329/12 - - z= (time zone adjustments)

Table A.334: time zone adjustments type (z=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	adjustment time	[39] 6			[39] 6		
2	offset	[39] 6			[39] 6		
3	adjustment time	[39] 6			[39] 6		
4	offset	[39] 6			[39] 6		

Prerequisite A.329/13 - - k= (encryption key)

Table A.335: encryption key type (k=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	method	[39] 6			[39] 6		
2	encryption key	[39] 6			[39] 6		

Prerequisite A.329/15 - - m= (media name and transport address)

Table A.336: media name and transport address type (m=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	media - ``audio" - ``video" - ``application" - ``data" - ``control"	[39] 6			[39] 6		
2	port	[39] 6			[39] 6		
3	transport	[39] 6			[39] 6		
4	fmt list	[39] 6			[39] 6		

Editor's note: It is expected that this table will be expanded, as this is the principle table that will distinguish operation of different entities within the IM CN subsystem.

Prerequisite A.329/17 - - c= (connection information)

Table A.337: connection type (c=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	network type	[39] 6			[39] 6		
2	address type	[39] 6			[39] 6		
3	connection address	[39] 6			[39] 6		

Prerequisite A.329/18 - - b= (bandwidth information)

Table A.338: bandwidth information (b=)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	modifier	[39] 6			[39] 6		
2	bandwidth-value	[39] 6			[39] 6		

A.3.3.4 SDP types parameters within attribute lines

The subclause does not intend to show an exhaustive list of all the possible attribute values.

Prerequisite A.330/22 -- group attribute (a=group)

Table A.338a: group semantics (a=group)

Item	Field	Sending			Receiving		
		Ref.	RFC status	Profile status	Ref.	RFC status	Profile status
1	<u>Lip Synchronization (LS)</u>	[52] 4	m	m	[52] 4	i	i
2	<u>Flow Identification (FID)</u>	[52] 4	m	m	[52] 4	i	i
3	<u>Single Reservation Flow (SRF)</u>	[53] 2	o	m	[53] 2	m	m

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 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 Path 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-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 an initial request for a dialog or a request for a standalone transaction, prior to forwarding the request, the S-CSCF shall:

- determine whether the request contains a barred public user identity in the [P-Asserted-Identity](#) or [From](#) ~~or Remote Party ID~~ header fields of the request or not. In case any of the said header fields contains a barred public user identity for the user, then the S-CSCF shall reject the request by generating a 403 (Forbidden) response. Otherwise, continue with the rest of the steps;
- remove its own SIP URL from the topmost Route header;
- 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 URL 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 an appropriate SIP response shall be sent to the originator;
- 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 Application Server in response to a previously sent request;
- check whether the initial request matches the initial filter criteria based on a public user identity in the P-Asserted-Identity header, the S-CSCF shall forward this request to that application server, 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 application server 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 application server(s) before processing the outgoing Request-URI. In case of contacting one or more application server(s) the S-CSCF shall:
 - insert the AS URL to be contacted into the Route header as the topmost entry followed by its own URL populated as specified in the subclause 5.4.3.4;
- 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;
- insert an orig-ioi parameter into the P-Charging-Vector header if the next hop is an AS, I-CSCF or outside of the current network. The orig-ioi parameter shall be set to a value that identifies the sending network. The term-ioi parameter shall not be included;
- insert a P-Charging-Function-Addresses header (see subclause 7.2.5) populated with values received from the HSS if the message is forwarded within the S-CSCF home network, including towards AS;

- in the case where the S-CSCF has knowledge of an associated tel-URI for a SIP URL contained in the received P-Asserted-Identity header, add a second P-Asserted-Identity header containing this tel-URI;
- in the case where the network operator has policy to provide privacy on From headers, and such privacy is required for this dialog, change the From header to "Anonymous". Network policy may also require the removal of the display field;
- determine the destination address (e.g. DNS access) using the URL placed in the topmost Route header if present, otherwise based on the Request-URI;
- if network hiding is needed due to local policy, put the address of the I-CSCF(THIG) to the topmost route header;
- in case of an initial request for a dialog the S-CSCF shall create a Record-Route header containing its own SIP URL and save the necessary Record-Route header fields and the Contact header from the request in order to release the dialog when needed;
- remove the P-Access-Network-Info header and act upon the contents accordingly; and
- route the request based on SIP routing procedures.

When the S-CSCF receives any response to the above request, the S-CSCF may:

- apply any privacy required by RFC 3323 [33] to the P-Asserted-Identity header.

NOTE 1: This header would normally only be expected in 1xx or 2xx responses.

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].

When the S-CSCF receives a response to the initial request for a dialog, it shall save the necessary Record-Route header fields and the Contact header from the response in order to release the dialog if needed.

When the S-CSCF receives from the served user a refresh request for a dialog, prior to forwarding the request the S-CSCF shall:

- remove its own URL from the topmost Route header;
- create a Record-Route header containing its own SIP URL and save the Contact header from the request in order to release the dialog when needed;
- remove the P-Access-Network-Info header and act upon the contents accordingly; and
- route the request based on the topmost Route header.

When the S-CSCF receives a response to the refresh request for a dialog, it shall save the necessary Record-Route header fields and the Contact header from the response in order to release the dialog if needed.

When the S-CSCF receives from the served user a subsequent request other than refresh request for a dialog, prior to forwarding the request the S-CSCF shall:

- remove its own URL from the topmost Route header;
- remove the P-Access-Network-Info header and act upon the contents accordingly;
- remove the P-access-network-info header and act upon the contents accordingly; and
- 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 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 URL 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 Application Server in response to a previously sent request;
 - 4) check whether the initial request matches the initial filter criteria based on the public user identity in the Request-URI, the S-CSCF shall forward this request to that application server, 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 application server as described in 3GPP TS 23.218 [5] subclause 6.5. Depending on the result of the previous process, the S-CSCF may contact one or more application server(s) before processing the outgoing Request-URI. In case of contacting one or more application server(s) the S-CSCF shall:
 - insert the AS URL to be contacted into the Route header as the topmost entry followed by its own URL populated as specified in the subclause 5.4.3.4;
 - 5) insert a P-Charging-Function-Addresses header (see subclause 7.2.4) 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) 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;
 - 9) build the Route header field with the values determined in the previous step;
 - 10) determine, from the destination public user identity, the saved Contact URL where the user is reachable saved at registration or reregistration, as described in subclause 5.4.1.2;
 - 11) build a Request-URI with the contents of the saved Contact URL determined in the previous step;
 - 12) insert a P-Called-Party-ID SIP header field including the Request-URI received in the INVITE;
 - 13) in case of an initial request for a dialog create a Record-Route header containing its own SIP URL and save the necessary Record-Route header fields and the Contact header from the request in order to release the dialog when needed; and
 - 14) optionally, apply any privacy required by RFC 3323 [33] to the P-Asserted-Identity header; and
- NOTE: 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].
- 15) 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];
- 3) keep the user registration status as unregistered for the duration of the dialog. When the dialog expires, the S-CSCF shall inform appropriately the HSS according to the procedures described in 3GPP TS 29.228 [14];

- 4) execute the procedure described in step ~~4~~³ and ~~5~~⁴ 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; and

- 5) execute the procedures described in the steps ~~5~~, ~~6~~, ~~7~~, ~~11~~, ~~12~~, ~~13~~, ~~14~~, and ~~15~~⁴ 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).

When the S-CSCF receives a response to the initial request for a dialog (whether the user is registered or not), it shall save the necessary Record-Route header fields and the Contact header field from the response in order to release the dialog if needed. In the case where the S-CSCF has knowledge of an associated tel-URI for a SIP URL contained in the received P-Asserted-Identity header, the S-CSCF shall add a second P-Asserted-Identity header containing this tel-URI; in the case where the network operator has policy to provide privacy on To headers, and such privacy is required for this dialog, change the To header to "Anonymous". Network policy may also require the removal of the display field.

When the S-CSCF receives, destined for a served user, a refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

- 1) remove its own URL from the topmost Route header;
- 2) create a Record-Route header containing its own SIP URL and save the Contact header from the refresh request in order to release the dialog when needed; and
- 3) forward the request based on the topmost Route header.

When the S-CSCF receives a response to the refresh request for a dialog (whether the user is registered or not), it shall save the necessary Record-Route header fields and the Contact header field from the response in order to release the dialog if needed.

When the S-CSCF receives, destined for the served user, a subsequent request other than refresh request for a dialog, prior to forwarding the request, the S-CSCF shall:

- 1) remove its own URL from the topmost Route header; and
- 2) forward the request based on the topmost Route header.

~~When the S-CSCF receives a request destined for a barred public user identity, the S-CSCF shall return an appropriate unsuccessful SIP response. This response may be, e.g., a 404 (Not found) or 604 (Does not exist anywhere).~~

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 197** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Wrong references in 4.1		
Source:	⌘ Ericsson		
Work item code:	⌘ IMS-CCR	Date:	⌘ 11/09/2002
Category:	⌘ D	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Wrong references in 4.1		
Summary of change:	⌘ Correct references		
Consequences if not approved:	⌘ Wrong references		

Clauses affected:	⌘ 4.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
Y	N										
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<input type="checkbox"/>	<input checked="" type="checkbox"/>										
		Test specifications									
		O&M Specifications									
Other comments:	⌘										

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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.

4 General

4.1 Conformance of IM CN subsystem entities to SIP

SIP defines a number of roles which entities can implement in order to support capabilities. These roles are defined in annex A.

Each IM CN subsystem functional entity using an interface at the Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point, the Mr reference point and the Mw reference point, and also using the IP multimedia Subsystem Service Control (ISC) Interface, shall implement SIP, as defined by the referenced specifications in Annex A, and in accordance with the constraints and provisions specified in annex A, according to the following roles.

The Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point and the Mw reference point are defined in 3GPP TS 23.002 [2].

The Mr reference point is defined in 3GPP TS 23.228 [7].

The ISC interface is defined in 3GPP TS 23.228 [7] subclause 4.2.4.

- The User Equipment (UE) shall provide the User Agent (UA) role with the exceptions and additional capabilities as described in subclause 5.1.
- The P-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.2. When acting as the subscriber to or the recipient of event information, the P-CSCF shall provide the UA role, again with the exceptions and additional capabilities as described in subclause 5.2.
- The I-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.3.
- The S-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.4. Under certain circumstances as described in subclause 5.4, the S-CSCF shall provide the UA role with the additional capabilities, as follows:
 - a) the S-CSCF shall also act as a registrar. When acting as a registrar, or for the purposes of executing a third-party registration, the S-CSCF shall provide the UA role;
 - b) as the notifier of event information the S-CSCF shall provide the UA role; and
 - c) when performing S-CSCF initiated release the S-CSCF shall provide the UA role, even when acting as a proxy for the remainder of the dialog.
- ~~- The BGCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.5.~~
- ~~- The MGCF shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.5.~~
- ~~- The BGCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.6.~~
- The AS, acting as terminating UA, or redirect server (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.1), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.2.
- The AS, acting as originating UA (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.2), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.3.
- The AS, acting as a SIP proxy (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.3), shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.7.4.
- The AS, performing 3rd party call control (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.4), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.5.

- The AS, receiving third-party registration requests, shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.
- The MRFC shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.8.

NOTE: The allocated roles defined in this clause are the starting point of the requirements from the IETF SIP specifications, and are then the basis for the description of further requirements. Some of these extra requirements formally change the proxy role into a B2BUA. Thus, for example, a P-CSCF is a B2BUA in that it inspects and may modify SDP message bodies, and terminates Record-Route headers on behalf of the UA, but in all other respects other than those more completely described in subclause 5.2 it implements proxy requirements. Despite being a B2BUA a P-CSCF does not implement UA requirements from the IETF RFCs, except as indicated in this specification, e.g., relating to registration event subscription.

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 198** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Alignment of the MGCF procedures to RFC 3312		
Source:	⌘ Ericsson		
Work item code:	⌘ IMS-CCR	Date:	⌘ 16/09/2002
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ And old version of the manyfolks draft used to mandate the usage of the Content-Disposition header set to the value "precondition". However, the approved RFC 3312 [30] has deprecated it.
Summary of change:	⌘ Delete the Content-Disposition header procedures from the CS termination procedures.
Consequences if not approved:	⌘ Misalignment with IETF.

Clauses affected:	⌘ 5.5.3.1.2										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications	⌘ 24.228
Y	N										
X											
	X										
	X										
		Test specifications									
		O&M Specifications									
Other comments:	⌘										

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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.

5.5.3.1.2 Calls terminating in circuit-switched networks

When the MGCF receives an initial INVITE request with Supported header indicating "100rel", the MGCF shall:

- send 100 (Trying) response;
- after a matching codec is found at the MGW, send 183 "Session Progress" response:
 - set the Require header to the value of "100rel";
 - ~~— set the Content-Disposition header to the value of "precondition";~~
 - include an P-Asserted-Identity header; and
 - store the values received in the P-Charging-Function-Addresses header; and
 - store the value of the icid parameter received in the P-Charging-Vector header.

When the MGCF does not find an available matching codec at the MGW for the received initial INVITE request, the MGCF shall:

- send 503 (Service Unavailable) response if the type of codec was acceptable but none were available; or
- send 488 (Not Acceptable Here) response if the type of codec was not supported, and may include SDP in the message body to indicate the codecs supported by the MGCF/MGW.

3GPP TSG-CN1 Meeting #26
 Miami Beach, Florida, USA, 23 – 27 September 2002

Tdoc N1-022080

CR-Form-v7
CHANGE REQUEST
⌘ 24.229 CR 199 ⌘ rev 1 ⌘ Current version: 5.2.0 ⌘

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:	⌘ Service Route Header and Path Header interactions
Source:	⌘ Ericsson
Work item code:	⌘ IMS-CCR Date: ⌘ 24/09/2002
Category:	⌘ F Release: ⌘ Rel-5 Use <u>one</u> of the following categories: Use <u>one</u> of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP <u>TR 21.900</u> . Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ The specification refers to an old document the defined the P-Service-Route header. This header is no longer a P- header, but a standard SIP header named Service-Route.
Summary of change:	⌘ <ul style="list-style-type: none"> References updated Replaced "P-Service-Route" with "Service-Route". Clarified some text with respect how the Service-Route header is built. Deletion of clause 7.2.8 because it no longer applies
Consequences if not approved:	⌘ Misleading Service-Route header processing.

Clauses affected:	⌘ 2, 5.2.1, 5.2.2, 5.2.6.3, 5.3.3.1, 5.4.1.1., 5.4.1.2.2, 5.5.1, 5.6.1, 7.2.8								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr><td>Y</td><td>N</td></tr> <tr><td>X</td><td></td></tr> <tr><td></td><td>X</td></tr> <tr><td></td><td>X</td></tr> </table> Other core specifications ⌘ 24.228 CR 073 Test specifications O&M Specifications	Y	N	X			X		X
Y	N								
X									
	X								
	X								
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.

First 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".
- [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".
- [9] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".
- [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".
- [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 32.200: "Telecommunication management; Charging management; Charging principles".
- [17] 3GPP TS 32.225: "Telecommunication management; Charging management; Charging data description for the IP Multimedia subsystem".
- [18] 3GPP TS 33.102: "3G Security; Security architecture".

- [19] 3GPP TS 33.203: "Access security for IP based services".
- [20] 3GPP TS 44.018: "Mobile radio interface layer 3 specification, Radio Resource Control Protocol".
- [21] RFC 2617: "HTTP Authentication: Basic and Digest Access Authentication".
- [22] RFC 2806: "URLs for Telephone Calls".
- [23] RFC 2833 (May 2000): "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals".
- [24] RFC 2916 (June 1999): "E.164 number and DNS".
- [25] RFC 2976 (October 2000): "The SIP INFO method".
- [26] RFC 3261 (March 2002): "SIP: Session Initiation Protocol".
- [27] RFC 3262 (March 2002): "Reliability of provisional responses in Session Initiation Protocol".
- [28] RFC 3265 (March 2002): "Session Initiation Protocol Specific Event Notification".
- [29] RFC 3311 (April 2002): "The SIP UPDATE method".
- [30] RFC 3312 (May 2002): "Integration of resource management and SIP".
- [31] RFC 3313 (February 2002): "SIP extensions for media authorization".
- [32] RFC 3320 (March 2002): "Signaling Compression (SigComp)"
- [33] RFC 3323 (May 2002): "A Privacy Mechanism for the Session Initiation Protocol (SIP)".
- [34] RFC 3325 (May 2002): "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".
- [35] RFC 3327 (May 2002): "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".
- [36] draft-ietf-sip-refer-05 (June 2002): "The REFER method".

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

- [37] draft-sparks-sip-mimetypes-03 (April 2002): "Internet Media Type message/sipfrag".

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

- [38] draft-ietf-sip-sevrtdisco-01 (August 2002): "Session Initiation Protocol Extension Header Field for Service Route Discovery During Registration", ~~draft-willis-sevrtdisco-06 (May 2002): "SIP Extension Header for Service Route Discovery in Private Networks"~~.

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

- [39] draft-ietf-mmusic-sdp-new-10 (May 2002): "SDP: Session Description Protocol".

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

- [40] draft-ietf-dhc-dhcpv6-26 (June 2002): "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

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

- [41] draft-ietf-sip-dhcpv6-00 (April 2002): "DHCPv6 options for SIP servers".

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

- [42] draft-ietf-sipping-sigcomp-sip-dictionary-03.txt (July 2002): "The SIP/SDP static dictionary for Signaling Compression".

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

[43] draft-rosenberg-sip-reg-00 (May 2002): "A Session Initiation Protocol (SIP) Event Package for Registrations".

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

[44] draft-garcia-sip-visited-network-id-00 (March 2002): "Private SIP extension for Visited Network Identifier".

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

[45] draft-henrikson-sip-charging-information-01 (May 2002): "Private SIP Extension for Mobile Charging Information".

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

[46] Void.

[47] draft-mills-sip-access-network-info-01.txt (April 2002): "SIP Access Network Information header".

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

[48] draft-ietf-sip-sec-agree-04.txt (June 2002): "Security Mechanism Agreement for SIP Sessions".

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

[49] draft-ietf-sip-digest-aka-03.txt (May 2002): "HTTP Digest Authentication Using AKA".

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

[50] draft-ietf-sip-message-06.txt (July 2002): "Session Initiation Protocol Extension for Instant Messaging"

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

[51] draft-ietf-sip-callerprefs-06.txt (July 2002): "Session Initiation Protocol (SIP) Caller Preferences and Callee Capabilities"

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

Next proposed change

5.2 Procedures at the P-CSCF

5.2.1 General

The P-CSCF shall support the Path and ~~P-Service-Route~~Service-Route headers.

NOTE 1: The Path header is only applicable to the REGISTER request and its 200 (OK) response. The ~~P-Service-Route~~Service-Route header is only applicable to the 200 (OK) response of REGISTER request.

When the P-CSCF sends any request or response to the UE, before sending the message the P-CSCF shall:

- remove the P-Charging-Function-Addresses and P-Charging-Vector headers, if present.

When the P-CSCF receives any request or response from the UE, the P-CSCF shall:

- remove the P-Charging-Function-Addresses and P-Charging-Vector headers, if present. Also, the P-CSCF shall ignore any data received in the P-Charging-Function-Addresses and P-Charging-Vector headers; and
- may insert previously saved values into the P-Charging-Function-Addresses and P-Charging-Vector headers before forwarding the message.

NOTE 2: When the P-CSCF is located in the visited network, then it will not receive the P-Charging-Function-Addresses header from the S-CSCF or I-CSCF. Instead, the P-CSCF discovers charging function addresses by other means not specified in this document.

5.2.2 Registration

When the P-CSCF receives a REGISTER request from the UE, the P-CSCF shall:

- 1) insert a Path header in the request including an entry containing:
 - the SIP URL identifying the P-CSCF;
 - an indication that requests routed in this direction of the path (i.e. from the S-CSCF to the P-CSCF) shall be treated as for the mobile-terminating case. This indication may e.g. be in a ~~parameter in the URL,- Path header parameter~~, a character string in the user part ~~of the URL~~, or be a port number ~~in the URL~~;
- 2) insert a Supported and a Require header both containing the option tag "path";
- 3) for the initial REGISTER request for a public user identity create a new, globally unique value for icid, save it locally and insert it into the icid parameter of the P-Charging-Vector header (see subclause 7.2.5). Also include the gprs-charging-info parameter in the P-Charging-Vector header (see subclause 5.2.7.4);
- 4) insert the parameter "integrity-protected" (described in subclause 7.2A.2) with a value "yes" into the Authorization header field in case the REGISTER request was received integrity protected, otherwise insert the parameter with the value "no";
- 5) in case the REGISTER request was received without integrity protection, then check the existence of the Security-Client header. If the header is present, then remove and store it. The 'Require: sec-agree' header shall also be removed. If the header is not present, then a suitable 4xx error code shall be sent back;
- 6) in case the REGISTER request was received integrity protected, then the P-CSCF shall:

- check the security association which protected the request. If that has a temporary lifetime, then the request shall contain a Security-Verify header. If there is no such header, then a suitable 4xx error code shall be sent back. If there is such header, then compare the content of the Security-Verify header with the local static security list. If those do not match, then there is a potential man-in-the-middle attack. The request should be rejected by sending a suitable 4xx error response. If the contents match, then the Security-Verify header together with the 'Require: sec-agree' header shall be removed from the request; and
 - if the security association the REGISTER request came is an established one, then a Security-Verify header is not expected to be included. If the header is present, then that shall be removed together with the 'Require: sec-agree' header;
- 7) insert a P-Visited-Network-ID header field, with the value of a pre-provisioned string that identifies the visited network at the home network; and
 - 8) determine the I-CSCF of the home network and forward the request to that I-CSCF.

When the P-CSCF receives a 401 (Unauthorized) response to a REGISTER request, the P-CSCF shall:

- 1) remove and store the CK and IK values contained in the 401 (Unauthorized) response. The 401 (Unauthorized) response shall be forwarded to the UE if and only if the CK and IK have been removed;
- 2) insert the Security-Server header in the response, containing the P-CSCF static security list. For further information see 3GPP TS 33.203 [19]; and
- 3) set up the security association between the UE and the P-CSCF with a temporary lifetime. For further details see 3GPP TS 33.203 [19] and draft-sip-sec-agree [48]. The SIP level lifetime of the Security Association shall be long enough to permit the UE to finalize the registration procedure (bigger than 64*T1). The IPsec level lifetime of the Security Association shall be set to the maximum.

When the P-CSCF receives a 200 (OK) response to a REGISTER request, the P-CSCF shall check the value of the Expires header field and/or Expires parameter in the Contact header. When the value of the Expires header field and/or expires parameter in the Contact header is different than zero, then the P-CSCF shall:

- 1) save the list of ~~P-Service-Route~~Service-Route headers preserving the order. This list shall be stored during the entire registration period of the respective public user identity. This list shall be used to preload the routing information into the initial requests originated by the UE. If this registration is a reregistration, the P-CSCF shall replace the already existing list of ~~P-Service-Route~~Service-Route headers with the new list;
- 2) associate the ~~P-Service-Route~~Service-Route header information with the registered public user identity;
- 3) remove any Path and ~~P-Service-Route~~Service-Route headers from the 200 (OK) response before forwarding the response to the UE;
- 4) store the public user identities found in the P-Associated-URI header value, as those that are authorized to be used by the UE;
- 5) store the default public user identity for use with procedures for the P-Asserted-Identity. The default public user identity is specifically indicated in the Associated-URI header values;

Editor's note: The exact mechanism for indicating this value is for further discussion.

- 6) store the values received in the P-Charging-Function-Addresses header; and
- 7) update the SIP level lifetime of the security association with the value found in the Expires header.

NOTE: The P-CSCF will maintain two Route lists. The first Route list - created during the registration procedure - is used only to pre-load the routing information into the initial INVITE request that originated at the UE. This list is valid during the entire registration of the respective public user identity. The second Route list - constructed from the Record Route headers in the initial INVITE and associated response - is used during the duration of the call. Once the call is terminated, the second Route list is discarded.

The P-CSCF shall delete any security association from the IPsec database when their SIP level lifetime expires.

Next proposed change

5.2.6.3 Requests initiated by the UE

When the P-CSCF receives an initial request for a dialog or a request for a standalone transaction, and the request contains a P-Asserted-Identity header that matches one of the registered public user identities, the P-CSCF shall identify the initiator of the request by that public user identity.

When the P-CSCF receives an initial request for a dialog or a request for a standalone transaction, and the request contains a P-Asserted-Identity header that does not match one of the registered public user identities, or does not contain a P-Asserted-Identity header, the P-CSCF shall identify the initiator of the request by a default public user identity.

NOTE: The contents of the From header do not form any part of this decision process.

When the P-CSCF receives from the UE an initial request for a dialog, and a ~~P-Service-Route~~Service-Route header list exists for the initiator of the request, the P-CSCF shall:

- 1) remove any Route header from the request;
- 2) select the list of Route headers that was created during the registration or reregistration of the respective public user identity utilizing the ~~P-Service-Route~~Service-Route mechanism;
- 3) pre-load the list of Route headers to the request;
- 4) create a Record-Route header containing its own SIP URL;
- 5) insert a P-Asserted-Identity header with a value representing the initiator of the request;
- 6) create a new, globally unique value for the icid parameter and insert it into the P-Charging-Vector header; and
- 7) forward the request based on the topmost Route header.

When the P-CSCF receives a 1xx or 2xx response to the above request, the P-CSCF shall:

- 1) store the values received in the P-Charging-Function-Addresses header;
- 2) remove the list of Record-Route headers from the received response;
- 3) create a new list of stored Route headers, with the newly received list of Record-Route headers. The Contact header received in the response shall not be appended to the bottom of the stored list of Route headers;
- 4) store the dialog ID and associate it with the private user identity and public user identity involved in the session;
- 5) save the Contact header received in the response in order to release the dialog if needed; and
- 6) forward the response to the UE.

When the P-CSCF receives any other response to the above request, the P-CSCF shall:

- 1) remove any list of Record-Route headers, even though not allowed, from the received response; and
- 2) forward the response to the UE.

When the P-CSCF receives from the UE a refresh request for a dialog, the P-CSCF shall:

- 1) verify if the request relates to a dialog in which the originator of the request is involved:
 - a) if the request does not relate to an existing dialog in which the originator is involved, then the P-CSCF shall answer the request by sending a 403 (Forbidden) response back to the originator. The P-CSCF will not forward the request. No other actions are required;

- b) if the request relates to an existing dialog in which the originator is involved, then the P-CSCF shall continue with the following steps;
- 2) remove any Route header from the request;
- 3) select the list of Route headers that was created during the exchange of the initial request and its associated response;
- 4) pre-load the list of Route headers to the request;
- 5) create a Record-Route header containing its own SIP URL; and
- 6) forward the request based on the topmost Route header.

When the P-CSCF receives a 1xx or 2xx response to the above request, the P-CSCF shall:

- 1) remove the list of Record-Route headers from the received response;
- 2) overwrite any existing list of stored Route headers, or create a new list of stored Route headers, with the newly received list of Record-Route headers. The Contact header received in the response shall not be appended to the bottom of the stored list of Route headers;
- 3) save the Contact header received in the response in order to release the dialog if needed; and 4) forward the response to the UE.

When the P-CSCF receives any other response to the above request, the P-CSCF shall:

- 1) remove any list of Record-Route headers, even though not allowed, from the received response; and
- 2) forward the response to the UE.

When the P-CSCF receives from the UE the request for a standalone transaction, and a ~~P-Service-Route~~Service-Route header list exists for the initiator of the request, the P-CSCF shall:

- 1) remove any Route header from the request;
- 2) select the list of Route headers that was created during the registration or reregistration of the respective public user identity utilizing the ~~P-Service-Route~~Service-Route mechanism;
- 3) pre-load the list of Route headers to the request;
- 4) insert a P-Asserted-Identity header with a value representing the initiator of the request;
- 5) create a new, globally unique value for the icid parameter and insert it into the P-Charging-Vector header; and
- 6) forward the request based on the topmost Route header.

When the P-CSCF receives any response to the above request, the P-CSCF shall:

- 1) store the values received in the P-Charging-Function-Addresses header; and
- 2) remove any list of Record-Route headers, even though not allowed, from the received response and forward it to the UE.

When the P-CSCF receives from the UE subsequent requests other than a refreshing request, the P-CSCF shall:

- 1) verify if the request relates to a dialog in which the originator of the request is involved:
 - a) if the request does not relate to an existing dialog in which the originator is involved, then the P-CSCF shall answer the request by sending a 403 (Forbidden) response back to the originator. The P-CSCF will not forward the request. No other actions are required;
 - b) if the request relates to an existing dialog in which the originator is involved, then the P-CSCF shall continue with the following steps;
- 2) select the list of Route headers that was created during the exchange of the initial request and associated response for this call;

- 3) pre-load the list of Route headers to the request; and
- 4) forward the request based on the topmost Route header.

When the P-CSCF receives any response to the above request, the P-CSCF shall:

- 1) remove any list of Record-Route headers, valid or not, from the received response; and
- 2) forward the response to the UE.

When the P-CSCF receives from the UE an initial request for a dialog, a refresh request for a dialog, or the request of a standalone transaction, and a ~~P-Service-Route~~Service-Route header list does not exist for the initiator of the request, the P-CSCF shall:

- 1) send a 403 (Forbidden) response back to the UE containing a warning header.

Editor's Note: how to find out whether the user has a valid registration in the P-CSCF is FFS.

Editor's Note: The correct value for the warning code is yet to be assigned by IANA.

When the P-CSCF receives from the UE the request for an unknown method, and a ~~P-Service-Route~~Service-Route header list exists for the initiator of the request, the P-CSCF shall:

- 1) select the list of Route headers that was created during the registration or reregistration of the respective public user identity utilizing the ~~P-Service-Route~~Service-Route mechanism;
- 2) pre-load the list of Route headers to the request,
- 3) insert an P-Asserted-Identity header with a value representing the initiator of the request; and
- 4) forward the request based on the topmost Route header.

When the P-CSCF receives any response to the above request, the P-CSCF shall:

- 1) remove any list of Record-Route headers, even though invalid, from the received response; and
- 2) forward the response to the UE.

Next proposed change

5.3.3 THIG functionality in the I-CSCF(THIG)

5.3.3.1 General

The following procedures shall only be applied if topology hiding is required by the network. The network requiring topology hiding is called the hiding network.

NOTE 1: Requests and responses are handled independently therefore no state information is needed for that purpose within an I-CSCF(THIG).

All headers which reveal topology information, such as Via, Route, Record-Route, ~~P-Service-Route~~Service-Route, shall be subject to topology hiding.

Upon receiving an incoming REGISTER request for which topology hiding has to be applied and which includes a Path header, the I-CSCF(THIG) shall add the routeable SIP URL of an I-CSCF(THIG) to the top of the Path header. The inserted SIP URL may include an indicator that identifies the direction of subsequent requests received by the I-CSCF i.e., from the S-CSCF towards the P-CSCF, to identify the mobile-terminating case. This indicator may e.g., be encoded in different ways, such as, e.g., a unique header-parameter in the URL, a character string in the username part of the URL, or a dedicated port number in the URL. Any subsequent request that includes this indicator (in the Route header) or arrives at the dedicated port indicates that the request was sent by the S-CSCF toward the P-CSCF.

NOTE 2: Any subsequent request that includes the direction indicator (in the Route header) or arrives at the dedicated port number, indicates that the request was sent by the S-CSCF towards the P-CSCF

Upon receiving an incoming initial request for which topology hiding has to be applied and which includes a Record-Route header, the I-CSCF(THIG) shall add its own routeable SIP URL to the top of the Record-Route header.

Upon receiving an outgoing initial request for which topology hiding has to be applied and which includes P-Charging-Function-Addresses header, the I-CSCF(THIG) shall remove the P-Charging-Function-Addresses header prior to forwarding the message.

Next proposed change

5.4 Procedures at the S-CSCF

5.4.1 Registration and authentication

5.4.1.1 Introduction

The S-CSCF shall act as the SIP registrar for all UAs of the IM CN subsystem with public user identities.

The S-CSCF shall support the use of the Path and ~~P-Service-Route~~Service-Route header. The S-CSCF must also support the Require and Supported headers. The Path header is only applicable to the REGISTER request and its 200 (OK) response. The ~~P-Service-Route~~Service-Route header is only applicable to the 200 (OK) response of REGISTER.

The network operator defines minimum and maximum times for each registration. These values are provided within the S-CSCF.

The procedures for notification concerning automatically registered public user identities of a user are described in subclause 5.4.2.1.2.

Next proposed change

5.4.1.2.2 Protected REGISTER

Upon receipt of a REGISTER request with the integrity-protection parameter set to 'yes', the S-CSCF shall:

In the case that there is no authentication currently ongoing for this user (i.e. no timer reg-await-auth is running):

- 1) identify the user by the public user identity as received in the To header and the private user identity as received in the From header of the REGISTER request;
- 2) 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 registration requests received without integrity protection by the P-CSCF. The information that a REGISTER request was received integrity protected at the P-CSCF may be used as part of the decision to challenge the user.

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;

- 3) 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 proceed with the procedures as described for the second REGISTER in subclause 5.4.1.2, beginning with step 7); and
- 4) remove the P-Access-Network-Info header and may act upon the contents accordingly.

In the case that a timer reg-await-auth is running for this user 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 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.
- 3) stop timer reg-await-auth;
- 4) check whether an Authorization header is included, containing:
 - the private user identity of the user in the username field;
 - the algorithm which is AKAv1-MD5 in the algorithm field; and
 - the RES parameter needed for the authentication procedure in the response field.

The S-CSCF shall only proceed with the following steps in this paragraph if the RES parameter was included;

- 5) check whether the received RES parameter and the XRES parameter 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 RES and XRES are matching;
- 6) 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:
 - 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,
 - the user profile(s) of the user 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.

7) bind to each non-barred registered public user identity all registered contact information and store the related method tag values from the Contact header for future use;

NOTE 2: There might be more than one contact information available for one public user identity.

NOTE 3: The barred public user identities are not bound to the contact information.

8) 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.

9) 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;

10) store the icid parameter received in the P-Charging-Vector header;

11) remove the P-Access-Network-Info header and may act upon the contents accordingly;

12) create a 200 (OK) response for the REGISTER request, including:

- an expiration time in the Expires header, using one value provided within the S-CSCF, and,
- the list of received Path headers;
- a P-Associated-URI header containing the list of public user identities that the user is authorized to use. Such a collection of public user identities may or may not be implicitly registered by the network. Using information supplied by the HSS, the P-Associated-URI header will indicate the default public user identity to be used by the P-CSCF in conjunction with the procedures for the P-Asserted-Identity header;

Editor's note: The mechanism for indicating this default public user identity is yet to be agreed.

- a P-Service-Route header containing
 - the SIP URL identifying the S-CSCF containing an indication that requests routed via the service route (i.e. from the P-CSCF to the S-CSCF) shall be treated as for the mobile-originating case. This indication may e.g. be in a URL parameter, a character string in the user part of the URL or be a port number in the URL; and,
 - ~~— an indication that requests routed via the service route (i.e. from the P-CSCF to the S-CSCF) shall be treated as for the mobile-originating case. This indication may e.g. be in a URL parameter, a character string in the user part or be a port number;~~
 - if network topology hiding is required a SIP URL identifying an I-CSCF (THIG) as the topmost entry;

13) send the so created 200 (OK) response to the UE;

14) send a third-party REGISTER request, as described in subclause 5.4.1.7, to each Application Server 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.

15) handle the user as registered for the duration indicated in the Expires header.

Next proposed change

5.5 Procedures at the MGCF

5.5.1 General

The MGCF, although acting as a UA, does not initiate any registration of its associated addresses. These are assumed to be known by peer-to-peer arrangements within the IM CN subsystem. Therefore the dependencies of table A.3/1 and table A.3/2 shall not apply.

The use of the Path and ~~P-Service-Route~~Service-Route headers shall not be supported by the MGCF.

When the MGCF sends any request or response related to a dialog or standalone transaction, the MGCF may insert previously saved values into P-Charging-Vector and P-Charging-Function-Addresses headers before sending the message.

Next proposed change

5.6 Procedures at the BGCF

5.6.1 General

The use of the Path and ~~P-Service-Route~~Service-Route headers shall not be supported by the BGCF.

When the BGCF receives any request or response related to a dialog or standalone transaction, the BGCF may insert previously saved values into P-Charging-Vector and P-Charging-Function-Addresses headers before forwarding the message.

Next proposed change

7.2.8 ~~P-Service-Route header~~void

~~The P-Service-Route header is defined in draft-willis-sevrtdisco [38].~~

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 202** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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:	⌘ Addition of clause 6 though clause 9 references to conformance clause		
Source:	⌘ Lucent Technologies		
Work item code:	⌘ IMS-CCR	Date:	⌘ 10/09/2002
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Clause 4.1 is meant to be the main integrating clause that describes how the subsequent clauses (5, 6, 8 etc) must be implemented by each of the remaining entities. Current references are only to clause 5 (in addition to Annex A).
Summary of change:	⌘ References to clauses other than 5 are added to each of the individual entities within clause 4.1
Consequences if not approved:	⌘ Absence of clarity for implementation of subsequent clauses

Clauses affected:	⌘ 4.1								
Other specs affected:	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Y</td> <td style="border: 1px solid black; padding: 2px;">N</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> <td style="border: 1px solid black; padding: 2px;"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> <td style="border: 1px solid black; padding: 2px;"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> <td style="border: 1px solid black; padding: 2px;"></td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N	X		X		X	
Y	N								
X									
X									
X									
Other comments:	⌘ References are not made forward to clause 7, as it is assumed that this clause will be referenced from within clause 5. There may be additional work to perform in this area.								

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.

4.1 Conformance of IM CN subsystem entities to SIP, [SDP](#) and [other protocols](#)

SIP defines a number of roles which entities can implement in order to support capabilities. These roles are defined in annex A.

Each IM CN subsystem functional entity using an interface at the Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point, the Mr reference point and the Mw reference point, and also using the IP multimedia Subsystem Service Control (ISC) Interface, shall implement SIP, as defined by the referenced specifications in Annex A, and in accordance with the constraints and provisions specified in annex A, according to the following roles.

The Gm reference point, the Mg reference point, the Mi reference point, the Mj reference point, the Mk reference point, the Mm reference point and the Mw reference point are defined in 3GPP TS 23.002 [2].

The Mr reference point is defined in 3GPP TS 23.228 [7].

The ISC interface is defined in 3GPP TS 23.228 [7] subclause 4.2.4.

- The User Equipment (UE) shall provide the User Agent (UA) role, with the exceptions and additional capabilities [to SIP](#) as described in subclause 5.1, [with the exceptions and additional capabilities to SDP as described in subclause 6.1, and with the exceptions and additional capabilities to SigComp as described in subclause 8.1. The UE shall also provide the access dependent procedures described in subclause 9.2.](#)
- The P-CSCF shall provide the proxy role, with the exceptions and additional capabilities [to SIP](#) as described in subclause 5.2. When acting as the subscriber to or the recipient of event information, the P-CSCF shall provide the UA role, again with the exceptions and additional capabilities as described in subclause 5.2, [with the exceptions and additional capabilities to SDP as described in subclause 6.2, and with the exceptions and additional capabilities to SigComp as described in subclause 8.2.](#)
- The I-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.3.
- The S-CSCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.4, [and with the exceptions and additional capabilities to SDP as described in subclause 6.3.](#) Under certain circumstances as described in subclause 5.4, the S-CSCF shall provide the UA role with the additional capabilities, as follows:
 - a) the S-CSCF shall also act as a registrar. When acting as a registrar, or for the purposes of executing a third-party registration, the S-CSCF shall provide the UA role;
 - b) as the notifier of event information the S-CSCF shall provide the UA role; and
 - c) when performing S-CSCF initiated release the S-CSCF shall provide the UA role, even when acting as a proxy for the remainder of the dialog.
- The BGCF shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.5.
- The MGCF shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.6, [and with the exceptions and additional capabilities to SDP as described in subclause 6.4.](#)
- The AS, acting as terminating UA, or redirect server (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.1), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.2.
- The AS, acting as originating UA (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.2), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.3.
- The AS, acting as a SIP proxy (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.3), shall provide the proxy role, with the exceptions and additional capabilities as described in subclause 5.7.4.

- The AS, performing 3rd party call control (as defined in 3GPP TS 23.218 [5] subclause 9.1.1.4), shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.5.
- The AS, receiving third-party registration requests, shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.7.
- The MRFC shall provide the UA role, with the exceptions and additional capabilities as described in subclause 5.8, [and with the exceptions and additional capabilities to SDP as described in subclause 6.5](#).

NOTE: The allocated roles defined in this clause are the starting point of the requirements from the IETF SIP specifications, and are then the basis for the description of further requirements. Some of these extra requirements formally change the proxy role into a B2BUA. Thus, for example, a P-CSCF is a B2BUA in that it inspects and may modify SDP message bodies, and terminates Record-Route headers on behalf of the UA, but in all other respects other than those more completely described in subclause 5.2 it implements proxy requirements. Despite being a B2BUA a P-CSCF does not implement UA requirements from the IETF RFCs, except as indicated in this specification, e.g., relating to registration event subscription.

CHANGE REQUEST

⌘ **24.229 CR 203** ⌘ rev **1** ⌘ Current version: **5.2.0** ⌘

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:	⌘	URL and address assignments	
Source:	⌘	Lucent Technologies	
Work item code:	⌘	IMS-CCR	Date: ⌘ 10/09/2002
Category:	⌘	F	Release: ⌘ Rel-5
		Use <u>one</u> of the following categories:	Use <u>one</u> of the following releases:
		F (correction)	2 (GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96 (Release 1996)
		B (addition of feature),	R97 (Release 1997)
		C (functional modification of feature)	R98 (Release 1998)
		D (editorial modification)	R99 (Release 1999)
		Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘	Recent CRs against clause 4.2 weakened the precision of this clause by introducing the word "based on". Attention is drawn to the word "preconditions" at the head of the item list, and as such the clause is setting the scene for procedures specified elsewhere (e.g. clause 9). It is not meant to contain procedures in its own right, which some of the changes imply.
Summary of change:	⌘	Our understanding of 23.221 is that only IPv6 addresses are possible in these two cases, and therefore the text is modified to reflect this. Additionally a minor change is made to the SIP URL examples in item 1.
Consequences if not approved:	⌘	Unclear specification with possible confusion to the user as to the status of the material in clause 4.2, such that it may cause the implementation in clause 9 to be in error.

Clauses affected:	⌘	4.2								
Other specs affected:	⌘	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N									
	X									
	X									
	X									
Other comments:	⌘									

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4.2 URL and address assignments

In order for SIP and SDP to operate, the following preconditions apply:

- 1) I-CSCFs used in registration are allocated SIP URLs. Other IM CN subsystem entities may be allocated SIP URLs. For example [sip:pcscf.home1.net](#) and [sip:<impl-specific-info>@pcscf.home1.net](#) are valid SIP URLs. If the user part exists, it is an essential part of the address and shall not be omitted when copying or moving the address. How these addresses are assigned to the logical entities is up to the network operator. For example, a single SIP URL may be assigned to all I-CSCFs, and the load shared between various physical boxes by underlying IP capabilities, or separate SIP URLs may be assigned to each I-CSCF, and the load shared between various physical boxes using DNS SRV capabilities.
- 2) All IM CN subsystem entities are allocated IPv6 addresses. ~~Allocation of IP addresses is based on the requirements of of~~ [in accordance with the constraints specified in 3GPP TS 23.221 \[6\] subclause 5.1.](#)
- 3) The subscriber is allocated a private user identity by the home network operator, and this is contained within the ISIM application, if present, on the UICC. Where no ISIM application is present, the private user identity is derived from the IMSI, which is contained on the USIM (see 3GPP TS 23.003 [3]). This private user identity is available to the SIP application within the UE.

NOTE: The SIP URLs may be resolved by using any of public DNSs, private DNSs, or peer-to-peer agreements.

- 4) The subscriber is allocated one or more public user identities by the home network operator. At least one of these is contained within the ISIM application, if present, on the UICC. Where no ISIM application is present, the UE shall derive a temporary public user identity from the IMSI contained on the USIM (see 3GPP TS 23.003 [3]). All registered public user identities are available to the SIP application within the UE, after registration.
- 5) ~~The allocation of IP address for UE is also based on the requirements of 3GPP TS 23.221 [6] subclause 5.1 and 3GPP TS 23.228 [7] subclause 4.3.~~ [For the purpose of access to the IM CN subsystem, UEs are allocated assigned IPv6 addresses prefixes in accordance with the constraints specified in 3GPP TS 23.221 \[6\] subclause 5.1 \(see subclause 9.2.1 for the assignment procedures\).](#)