Source: **TSG CN WG 1**

Title: **CRs to Rel-5 (with mirror CRs) on Work Item IMS-CCR towards 24.229,- pack 3**

Agenda item: **8.1**

Document for: **APPROVAL**

Introduction:

This document contains **6** CRs, **Rel-5 (with mirror CRs)** on Work Item **"IMS-CCR"**, that have been agreed by **TSG CN WG1 in CN1#33 meeting**, and are forwarded to TSG CN Plenary meeting #23 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Meeting-2nd-Level
24.229	607	2	Rel-5	Unprotected deregistration	F	5.7.0	5.8.0	N1-040483	N1-33
24.229	608	2	Rel-6	Unprotected deregistration	A	6.1.0	6.2.0	N1-040482	N1-33
24.229	609		Rel-5	Sending authentication challenge	F	5.7.0	5.8.0	N1-040330	N1-33
24.229	610		Rel-6	Sending authentication challenge	A	6.1.0	6.2.0	N1-040331	N1-33
24.229	614	1	Rel-5	Support of MESSAGE (Profile Tables)	F	5.7.0	5.8.0	N1-040465	N1-33
24.229	615	1	Rel-6	Support of MESSAGE (Profile Tables)	A	6.1.0	6.2.0	N1-040466	N1-33

CR-Form-v7

CHANGE REQUEST

| ⌘ | **24.229** CR **607** | ⌘**rev** | **2**
~~1~~ | ⌘ | Current version: | **5.7.0** | ⌘ |

*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 **X**

| *Title:* | ⌘ | Unprotected deregistration |

| *Source:* | ⌘ | Nokia |

| *Work item code:*⌘ | IMS-CCR | | *Date:* ⌘ | 19/02/2004 |

| *Category:* | ⌘ | **F** | | | *Release:* ⌘ | Rel-5 |

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

Use one of the following releases:
   2   *(GSM Phase 2)*
   R96   *(Release 1996)*
   R97   *(Release 1997)*
   R98   *(Release 1998)*
   R99   *(Release 1999)*
   Rel-4 *(Release 4)*
   Rel-5 *(Release 5)*
   Rel-6 *(Release 6)*

| *Reason for change:* | ⌘ | There is a contradiction between sections 5.4.1.2.1 and 5.4.1.4. |

| *Summary of change:*⌘ | Put a reference to section 5.4.1.2.1 to section 5.4.1.4 and remove the procedure in ther latter section. |

| *Consequences if
not approved:* | ⌘ | Contradiction will persist in the TS. |

| *Clauses affected:* | ⌘ | 5.4.1.4 |

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

| *Other comments:* | ⌘ | |

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

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

5.4.1.2   Initial registration and user-initiated reregistration

5.4.1.2.1   Unprotected REGISTER

NOTE 1: Any REGISTER request sent unprotected by the UE is considered to be an initial registration. A 200 (OK) final response to such a request will only be sent back after the S-CSCF receives a correct authentication challenge response in a REGISTER request that is sent integrity protected.

NOTE 2: A REGISTER with Expires header value equal to zero should always be received protected. However, it is possible that in error conditions a REGISTER with Expires header value equal to zero may be received unprotected. In that instance the procedures below will be applied.

Upon receipt of a REGISTER request without an 'Integrity-protected' parameter, or with the integrity-protection parameter set to 'no', the S-CSCF shall:

1) identify the user by the public user identity as received in the To header and the private user identity as received in the username field in the Authorization header of the REGISTER request;

2) check if the P-Visited-Network header is included in the REGISTER request, and if it is included identify the visited network by the value of this header;

3) select an authentication vector for the user. If no authentication vector for this user is available, after the S-CSCF has performed the Cx Multimedia Authentication procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall select an authentication vector as described in 3GPP TS 33.203 [19].

   Prior to performing Cx Multimedia Authentication procedure with the HSS, the S-CSCF decides which HSS to query, possibly as a result of a query to the Subscription Locator Functional (SLF) entity as specified in 3GPP TS 29.228 [14];

NOTE 3: At this point the S-CSCF informs the HSS, that the user currently registering will be served by the S-CSCF by passing its SIP URI to the HSS. This will be indicated by the HSS for all further incoming requests to this user, in order to direct all these requests directly to this S-CSCF.

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

5) challenge the user by generating a 401 (Unauthorized) response for the received REGISTER request, including a WWW-Authenticate header which transports:

   -   the home network identification in the realm field;

   -   the RAND and AUTN parameters and optional server specific data for the UE in the nonce field;

   -   the security mechanism, which is AKAv1-MD5, in the algorithm field;

   -   the IK (Integrity Key) parameter for the P-CSCF in the ik field (see subclause 7.2A.1); and

   -   the CK (Cipher Key) parameter for the P-CSCF in the ck field (see subclause 7.2A.1);

6) store the RAND parameter used in the 401 (Unathorized) response for future use in case of a resynchronisation. If a stored RAND already exists in the S-CSCF, the S-CSCF shall overwrite the stored RAND with the RAND used in the most recent 401 (Unauthorized) response;

7) send the so generated 401 (Unauthorized) response towards the UE; and,

8) start timer reg-await-auth which guards the receipt of the next REGISTER request.

If the received REGISTER request indicates that the challenge sent previously by the S-CSCF to the UE was deemed to be invalid by the UE, the S-CSCF shall stop the timer reg-await-auth and proceed as described in the subclause 5.4.1.2.3.

5.4.1.4   User-initiated deregistration

When S-CSCF receives a REGISTER request with the Expires header field containing the value zero, the S-CSCF shall:

- check whether the P-CSCF included the Integrity-protection parameter into the Authorization header field set to yes, indicating that the REGISTER request was received integrity protected. The S-CSCF shall only proceed with the following steps if the integrity protection parameter is set to yes;

- release each multimedia session which was initiated with the public user identity found in the P-Asserted-Identity header field or with one of the implicitly registered public used identities by applying the steps listed in subclause 5.4.5.1.2;

- deregister the public user identity found in the To header field together with the implicitly registered public user identities;

- send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event; and

- if this is a deregistration request for the only public user identity currently registered with its associated set of implicitly registered public user identities (i.e. no other is registered) and there are still active multimedia sessions associated with this user, release each multimedia session belonging to the served user by applying the steps listed in subclause 5.4.5.1.2.

If all public user identities of the UE are deregistered, then the S-CSCF may consider the UE and P-CSCF subscriptions to the reg event package cancelled (i.e. as if the UE had sent a SUBSCRIBE request with an Expires header containing a value of zero).

If the Authorization header of the REGISTER request did not contain an Integrity-protection parameter, or the parameter was set to the value 'no', the S-CSCF shall ~~respond to the request with a 403 (Forbidden) response~~apply the procedures described in subclause 5.4.1.2.1. ~~The response may contain a Warning header with a warn-code 399.~~

On completion of the above procedures in this subclause and of the Cx Server Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], for one or more public user identities, the S-CSCF shall update or remove those public user identities, their registration state and the associated service profiles from the local data (based on operators' policy the S-CSCF can request of the HSS to either be kept or cleared as the S-CSCF allocated to this subscriber).

CR-Form-v7

CHANGE REQUEST

| ⌘ | **24.229** CR **608** | ⌘**rev** **2** ⌘ | Current version: | **6.1.0** | ⌘ |

*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 **X**

Title: ⌘	Unprotected deregistration	
Source: ⌘	Nokia	
Work item code: ⌘	IMS-CCR	**Date:** ⌘ 19/02/2004
Category: ⌘	**A**	**Release:** ⌘ Rel-6

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

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘	There is a contradiction between sections 5.4.1.2.1 and 5.4.1.4.
Summary of change:⌘	Put a reference to section 5.4.1.2.1 to section 5.4.1.4 and remove the procedure in ther latter section.
Consequences if not approved: ⌘	Contradiction will persist in the TS.

Clauses affected: ⌘	5.4.1.4

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

Other comments: ⌘	

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5.4.1.2 Initial registration and user-initiated reregistration

5.4.1.2.1 Unprotected REGISTER

NOTE 1: Any REGISTER request sent unprotected by the UE is considered to be an initial registration. A 200 (OK) final response to such a request will only be sent back after the S-CSCF receives a correct authentication challenge response in a REGISTER request that is sent integrity protected.

NOTE 2: A REGISTER with Expires header value equal to zero should always be received protected. However, it is possible that in error conditions a REGISTER with Expires header value equal to zero may be received unprotected. In that instance the procedures below will be applied.

Upon receipt of a REGISTER request without an 'Integrity-protected' parameter, or with the integrity-protection parameter set to 'no', the S-CSCF shall:

1) identify the user by the public user identity as received in the To header and the private user identity as received in the username field in the Authorization header of the REGISTER request;

2) check if the P-Visited-Network header is included in the REGISTER request, and if it is included identify the visited network by the value of this header;

3) select an authentication vector for the user. If no authentication vector for this user is available, after the S-CSCF has performed the Cx Multimedia Authentication procedure with the HSS, as described in 3GPP TS 29.229 [15], the S-CSCF shall select an authentication vector as described in 3GPP TS 33.203 [19].

   Prior to performing Cx Multimedia Authentication procedure with the HSS, the S-CSCF decides which HSS to query, possibly as a result of a query to the Subscription Locator Functional (SLF) entity as specified in 3GPP TS 29.228 [14];

NOTE 3: At this point the S-CSCF informs the HSS, that the user currently registering will be served by the S-CSCF by passing its SIP URI to the HSS. This will be indicated by the HSS for all further incoming requests to this user, in order to direct all these requests directly to this S-CSCF.

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

5) challenge the user by generating a 401 (Unauthorized) response for the received REGISTER request, including a WWW-Authenticate header which transports:

   - the home network identification in the realm field;

   - the RAND and AUTN parameters and optional server specific data for the UE in the nonce field;

   - the security mechanism, which is AKAv1-MD5, in the algorithm field;

   - the IK (Integrity Key) parameter for the P-CSCF in the ik field (see subclause 7.2A.1); and

   - the CK (Cipher Key) parameter for the P-CSCF in the ck field (see subclause 7.2A.1);

6) store the RAND parameter used in the 401 (Unathorized) response for future use in case of a resynchronisation. If a stored RAND already exists in the S-CSCF, the S-CSCF shall overwrite the stored RAND with the RAND used in the most recent 401 (Unauthorized) response;

7) send the so generated 401 (Unauthorized) response towards the UE; and,

8) start timer reg-await-auth which guards the receipt of the next REGISTER request.

If the received REGISTER request indicates that the challenge sent previously by the S-CSCF to the UE was deemed to be invalid by the UE, the S-CSCF shall stop the timer reg-await-auth and proceed as described in the subclause 5.4.1.2.3.

5.4.1.4 User-initiated deregistration

When S-CSCF receives a REGISTER request with the Expires header field containing the value zero, the S-CSCF shall:

- check whether the P-CSCF included the Integrity-protection parameter into the Authorization header field set to yes, indicating that the REGISTER request was received integrity protected. The S-CSCF shall only proceed with the following steps if the integrity protection parameter is set to yes;

- release each multimedia session which was initiated with the public user identity found in the P-Asserted-Identity header field or with one of the implicitly registered public used identities by applying the steps listed in subclause 5.4.5.1.2;

- deregister the public user identity found in the To header field together with the implicitly registered public user identities;

- send a third-party REGISTER request, as described in subclause 5.4.1.7, to each AS that matches the Filter Criteria from the HSS for the REGISTER event; and

- if this is a deregistration request for the only public user identity currently registered with its associated set of implicitly registered public user identities (i.e. no other is registered) and there are still active multimedia sessions associated with this user, release each multimedia session belonging to the served user by applying the steps listed in subclause 5.4.5.1.2.

If all public user identities of the UE are deregistered, then the S-CSCF may consider the UE and P-CSCF subscriptions to the reg event package cancelled (i.e. as if the UE had sent a SUBSCRIBE request with an Expires header containing a value of zero).

If the Authorization header of the REGISTER request did not contain an Integrity-protection parameter, or the parameter was set to the value 'no', the S-CSCF shall ~~respond to the request with a 403 (Forbidden) response~~apply the procedures described in subclause 5.4.1.2.1.~~The response may contain a Warning header with a warn-code 399.~~

On completion of the above procedures in this subclause and of the Cx Server Assignment procedure with the HSS, as described in 3GPP TS 29.229 [15], for one or more public user identities, the S-CSCF shall update or remove those public user identities, their registration state and the associated service profiles from the local data (based on operators' policy the S-CSCF can request of the HSS to either be kept or cleared as the S-CSCF allocated to this subscriber).

CR-Form-v7

CHANGE REQUEST

⌘	**24.229** CR ⌘ 609	⌘**rev** - ⌘	Current version: **5.7.0** ⌘

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 **X**

Title: ⌘	Sending authentication challenge	
Source: ⌘	Nokia	
Work item code:⌘	IMS-CCR	***Date:*** ⌘ 18/02/2004
Category: ⌘ **F**		***Release:*** ⌘ Rel-5

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

Use one of the following releases:
   2   (GSM Phase 2)
   R96   (Release 1996)
   R97   (Release 1997)
   R98   (Release 1998)
   R99   (Release 1999)
   Rel-4 (Release 4)
   Rel-5 (Release 5)
   Rel-6 (Release 6)

Reason for change: ⌘	CR565 removed the condition on sending an authentication challenge. The text in 5.4.1.2.3 remained unupdated.
Summary of change:⌘	The condition when an authentication challenge should be sent out was removed.
Consequences if not approved: ⌘	Misalignment between the successful and abnormal cases within 24.229.

Clauses affected: ⌘	5.4.1.2.3

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

Other comments: ⌘	

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

5.4.1.2.3   Abnormal cases

~~The S-CSCF need not challenge an unprotected REGISTER request for a private user identity that already has a registration in process, but instead return a 500 (Server Internal Error) response. The response shall contain a Retry-After header with a value indicating a time the UE shall wait before resending the request.~~

In the case that the authentication challenge response from the UE does not match with the expected authentication challenge response and the request was correctly integrity protected (it is indicated by the P-CSCF), the S-CSCF shall:

-    send a 403 (Forbidden) response to the UE. The S-CSCF shall consider this authentication attempt as failed. The S-CSCF shall not update the registration time of the subscriber.

NOTE 1: If the UE was registered before, it stays registered until the registration expiration time expires.

In the case that the REGISTER request, which was supposed to carry the response to the challenge, contains no authentication challenge response and no AUTS parameters indicating that the MAC parameter was invalid in the challenge, the S-CSCF shall:

-    respond with a 403 (Forbidden) response to the UE. The S-CSCF shall not update the registration time of the subscriber.

NOTE 2: If the UE was registered before, it stays registered until the registration expiration time expires.

In the case that the REGISTER request from the UE containing an authentication challenge response indicates that the authentication challenge was invalid (contains the AUTS parameter indicating this), the S-CSCF will fetch new authentication vectors from the HSS. In order to indicate a resynchronisation, the S-CSCF shall include the AUTS received from the UE and the stored RAND when fetching the new authentication vectors. On receipt of the new authentication vectors from the HSS, the S-CSCF shall either:

-    send a 401 (Unauthorized) response to initiate a further authentication attempt, using these new vectors; or

-    respond with a 403 (Forbidden) response if the authentication attempt is to be abandoned.

NOTE 3: Since the UE responds only to two consecutive challenges, the S-CSCF will send a 401 (Unauthorized) response that contains a new challenge only twice.

In the case that the expiration timer from the UE is too short to be accepted by the S-CSCF, the S-CSCF shall:

-    reject the REGISTER request with a 423 (Interval Too Brief) response, containing a Min-Expires header with the minimum registration time the S-CSCF will accept.

On receiving a failure response to one of the third-party REGISTER requests, the S-CSCF may initiate network-initiated deregistration procedure based on the information in the Filter Criteria. If the Filter Criteria does not contain instruction to the S-CSCF regarding the failure of the contact to the AS, the S-CSCF shall not initiate network-initiated deregistration procedure.

In the case that the REGISTER request from the UE contains more than one SIP URIs as Contact header entries, the S-CSCF shall only store the entry with the highest "q" value and include it in the 200 (OK) response.

NOTE 4: If the timer reg-await-auth expires, the S-CSCF will consider the authentication to have failed. If the public user identity was already registered, the S-CSCF will leave it as registered described in 3GPP TS 33.203 [19]. The operator's policy will specify when will, upon authentication failure, the currently registered public user identity or the user be de-registered by the S-CSCF.

CR-Form-v7

CHANGE REQUEST

⌘	**24.229 CR** ⌘ 610	⌘**rev**	**-**	⌘	Current version:	**6.1.0**	⌘		

*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 **X**

Title: ⌘	Sending authentication challenge	
Source: ⌘	Nokia	
Work item code:⌘	IMS-CCR2	***Date:*** ⌘ 18/02/2004

Category: ⌘ **A**	***Release:*** ⌘ Rel-6

Use one of the following categories:
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A (corresponds to a correction in an earlier release)
B (addition of feature),
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R99   (Release 1999)
Rel-4   (Release 4)
Rel-5   (Release 5)
Rel-6   (Release 6)

Reason for change: ⌘	CR566 removed the condition on sending an authentication challenge. The text in 5.4.1.2.3 remained unupdated.
Summary of change:⌘	The condition when an authentication challenge should be sent out was removed.
Consequences if not approved: ⌘	Misalignment between the successful and abnormal cases within 24.229.

Clauses affected: ⌘	5.4.1.2.3

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

Other comments: ⌘	

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NOTE 1: If the UE was registered before, it stays registered until the registration expiration time expires.

In the case that the REGISTER request, which was supposed to carry the response to the challenge, contains no authentication challenge response and no AUTS parameters indicating that the MAC parameter was invalid in the challenge, the S-CSCF shall:

- respond with a 403 (Forbidden) response to the UE. The S-CSCF shall not update the registration time of the subscriber.

NOTE 2: If the UE was registered before, it stays registered until the registration expiration time expires.

In the case that the REGISTER request from the UE containing an authentication challenge response indicates that the authentication challenge was invalid (contains the AUTS parameter indicating this), the S-CSCF will fetch new authentication vectors from the HSS. In order to indicate a resynchronisation, the S-CSCF shall include the AUTS received from the UE and the stored RAND when fetching the new authentication vectors. On receipt of the new authentication vectors from the HSS, the S-CSCF shall either:

- send a 401 (Unauthorized) response to initiate a further authentication attempt, using these new vectors; or

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NOTE 3: Since the UE responds only to two consecutive challenges, the S-CSCF will send a 401 (Unauthorized) response that contains a new challenge only twice.

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NOTE 4: If the timer reg-await-auth expires, the S-CSCF will consider the authentication to have failed. If the public user identity was already registered, the S-CSCF will leave it as registered described in 3GPP TS 33.203 [19]. The operator's policy will specify when will, upon authentication failure, the currently registered public user identity or the user be de-registered by the S-CSCF.

CR-Form-v7

CHANGE REQUEST

⌘   **24.229** CR **614**   ⌘**rev** **1** ⌘   Current version: **5.7.0** ⌘

*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 **X** Radio Access Network ☐   Core Network **X**

Title: ⌘	Profile Tables: Support of MESSAGE	
Source: ⌘	Nokia	
Work item code:⌘	IMS-CCR	***Date:*** ⌘ 06/02/04
Category: ⌘ **F**		***Release:*** ⌘ Rel-5

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

Use one of the following releases:
2   *(GSM Phase 2)*
R96   *(Release 1996)*
R97   *(Release 1997)*
R98   *(Release 1998)*
R99   *(Release 1999)*
Rel-4   *(Release 4)*
Rel-5   *(Release 5)*
Rel-6   *(Release 6)*

Reason for change: ⌘	23.229 states that the S-CSCF must be able to send MESSAGE requests. 24.229 says that S-CSCF may send MESSAGE requests. 24.229 also does not state that support of MESSAGE is mandatory in UE, S-CSCF and AS.
Summary of change:⌘	Option for S-CSCF is removed. Table A.4 is corrected to make support of MESSAGE mandatory for UE, S-CSCF as well as the AS.
Consequences if not approved: ⌘	Contradiction in 24.229

Clauses affected: ⌘	5.4.7, Annex A

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

Other comments: ⌘	

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

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

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

~~first change~~

## 5.4.7	Void~~MESSAGE support~~

~~A S-CSCF may be capable of sending and/or receiving the MESSAGE method to conduct dialog-unrelated interactions. To do so, a S-CSCF may initiate or terminate the MESSAGE method.~~

~~second change~~

A.2.1.2 Major capabilities

Table A.4: Major capabilities

Item	Does the implementation support	Reference	RFC status	Profile status
	Capabilities within main protocol			
1	client behaviour for registration?	[26] subclause 10.2	m	c3
2	registrar?	[26] subclause 10.3	o	c4
2A	initiating a session?	[26] subclause 13	o	o
3	client behaviour for INVITE requests?	[26] subclause 13.2	c18	c18
4	server behaviour for INVITE requests?	[26] subclause 13.3	c18	c18
5	session release?	[26] subclause 15.1	c18	c18
6	timestamping of requests?	[26] subclause 8.2.6.1	o	o
7	authentication between UA and UA?	[26] subclause 22.2	o	o
8	authentication between UA and registrar?	[26] subclause 22.2	o	n/a
8A	authentication between UA and proxy?	[26] 20.28, 22.3	o	o
9	server handling of merged requests due to forking?	[26] 8.2.2.2	m	m
10	client handling of multiple responses due to forking?	[26] 13.2.2.4	m	m
11	insertion of date in requests and responses?	[26] subclause 20.17	o	o
12	downloading of alerting information?	[26] subclause 20.4	o	o
	Extensions			
13	the SIP INFO method?	[25]	o	n/a
14	reliability of provisional responses in SIP?	[27]	c19	c18
15	the REFER method?	[36]	o	o
16	integration of resource management and SIP?	[30]	c19	c18
17	the SIP UPDATE method?	[29]	c5	c18
19	SIP extensions for media authorization?	[31]	o	c14
20	SIP specific event notification?	[28]	o	c13
21	the use of NOTIFY to establish a dialog?	[28] 4.2	o	n/a
22	acting as the notifier of event information?	[28]	c2	c15
23	acting as the subscriber to event information?	[28]	c2	c16
24	session initiation protocol extension header field for registering non-adjacent contacts?	[35]	o	c6
25	private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks	[34]	o	m
26	a privacy mechanism for the Session Initiation Protocol (SIP)	[33]	o	m
26A	request of privacy by the inclusion of a Privacy header	[33]	c9	c11
26B	application of privacy based on the received Privacy header	[33]	c9	n/a
26C	passing on of the Privacy header transparently	[33]	c9	c12
26D	application of the privacy option "header" such that those headers which cannot be completely expunged of identifying information without the assistance of intermediaries are obscured?	[33] 5.1	c10	
26E	application of the privacy option "session" such that anonymization for	[33] 5.2	c10	

	the session(s) initiated by this message occurs?			
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20

c2: IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.
c3: IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.
c4: IF A.3/4 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.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.
c7: IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D THEN m ELSE ELSE n/a - - UA or S-CSCF or AS acting as terminating UA or AS acting as originating UA or AS performing 3rd party call control.c7: IF A.3/4 THEN m ELSE (IF A.3/1 OR A.3/7B OR A.3/7D THEN o ELSE n/a - - S-CSCF or UA or AS acting as originating UA, or AS performing 3rd party call control.
c8: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c9: IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10: IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.
c11: IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.
c12: IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.
c13: IF A.3/1 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.
c14: IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.
c15: IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.
c16: IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.
c17: IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.
c18: IF A.4/2A THEN m ELSE n/a - - initiating sessions.
c19: IF A.4/2A THEN o ELSE n/a - - initiating sessions.
c20: IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c21: IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).
c22: IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.
c23: IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.
c24: IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.
c25: IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.
c26: IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.
o.1: At least one of these capabilities is supported.
o.2: At least one of these capabilities is supported.
o.3: At least one of these capabilities is supported.
o.4: At least one of these capabilities is supported.

CR-Form-v7

CHANGE REQUEST

⌘ **24.229 CR 615** ⌘**rev 1** ⌘ Current version: **6.1.0** ⌘

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Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network ☐   Core Network **X**

Title: ⌘	Profile Tables: Support of MESSAGE	
Source: ⌘	Nokia	
Work item code:⌘	IMS-CCR	***Date:*** ⌘ 06/02/04

Category: ⌘ **A**   ***Release:*** ⌘ Rel-6

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D *(editorial modification)*	*R99 (Release 1999)*
Detailed explanations of the above categories can	*Rel-4 (Release 4)*
be found in 3GPP TR 21.900.	*Rel-5 (Release 5)*
	Rel-6 (Release 6)

Reason for change: ⌘	23.229 states that the S-CSCF must be able to send MESSAGE requests. 24.229 says that S-CSCF may send MESSAGE requests. 24.229 also does not state that support of MESSAGE is mandatory in UE and S-CSCF.
Summary of change:⌘	Option for S-CSCF is removed. Table A.4 is corrected to make support of MESSAGE mandatory for UE, S-CSCF as well as the AS.
Consequences if not approved: ⌘	Contradiction in 24.229

Clauses affected: ⌘	5.4.7, Annex A

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

Other comments: ⌘	

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~~first change~~

5.4.7 ~~MESSAGE support~~Void

~~A S-CSCF may be capable of sending and/or receiving the MESSAGE method to conduct dialog-unrelated interactions. To do so, a S-CSCF may initiate or terminate the MESSAGE method.~~

~~second change~~

A.2.1.2 Major capabilities

Table A.4: Major capabilities

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

26E	application of the privacy option "session" such that anonymization for the session(s) initiated by this message occurs?	[33] 5.2	c10	
26F	application of the privacy option "user" such that user level privacy functions are provided by the network?	[33] 5.3	c10	
26G	application of the privacy option "id" such that privacy of the network asserted identity is provided by the network?	[34] 7	c10	n/a
27	a messaging mechanism for the Session Initiation Protocol (SIP)?	[50]	o	c7
28	session initiation protocol extension header field for service route discovery during registration?	[38]	o	c17
29	compressing the session initiation protocol?	[55]	o	c8
30	private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP)?	[52]	o	m
31	the P-Associated-URI header extension?	[52] 4.1	c21	c22
32	the P-Called-Party-ID header extension?	[52] 4.2	c21	c23
33	the P-Visited-Network-ID header extension?	[52] 4.3	c21	c24
34	the P-Access-Network-Info header extension?	[52] 4.4	c21	c25
35	the P-Charging-Function-Addresses header extension?	[52] 4.5	c21	c26
36	the P-Charging-Vector header extension?	[52] 4.6	c21	c26
37	security mechanism agreement for the session initiation protocol?	[48]	o	c20
38	the Reason header field for the session initiation protocol	[34A]	o	o (note 1)
39	an extension to the session initiation protocol for symmetric response routeing	[56A]	o	x

c2:	IF A.4/20 THEN o.1 ELSE n/a - - SIP specific event notification extension.
c3:	IF A.3/1 OR A.3/4 THEN m ELSE n/a - - UE or S-CSCF functional entity.
c4:	IF A.3/4 THEN m ELSE IF A.3/7 THEN o ELSE n/a - - S-CSCF or AS functional entity.
c5:	IF A.4/16 THEN m ELSE o - - integration of resource management and SIP extension.
c6:	IF A.3/4 OR A.3/1 THEN m ELSE n/a. - - S-CSCF or UE.
c7:	IF A.3/1 OR A.3/4 OR A.3/7A OR A.3/7B OR A.3/7D4 THEN m ELSE (IF A.3/1 OR A.3/7B OR A.3/7D THEN o ELSE n/a - - UA or S-CSCF or UA or AS acting as terminating UA or AS acting as originating UA, or AS performing 3rd party call control.
c8:	IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c9:	IF A.4/26 THEN o.2 ELSE n/a - - a privacy mechanism for the Session Initiation Protocol (SIP).
c10:	IF A.4/26B THEN o.3 ELSE n/a - - application of privacy based on the received Privacy header.
c11:	IF A.3/1 OR A.3/6 THEN o ELSE n/a - - UE or MGCF.
c12:	IF A.3/7D THEN m ELSE n/a - - AS performing 3rd-party call control.
c13:	IF A.3/1 OR A.3/4 THEN m ELSE o - - UE behaviour or S-CSCF.
c14:	IF A.3/1 THEN m ELSE IF A.3/2 THEN o ELSE n/a – UE or P-CSCF.
c15:	IF A.4/20 and A.3/4 THEN m ELSE o – SIP specific event notification extensions and S-CSCF.
c16:	IF A.4/20 and (A.3/1 OR A.3/2) THEN m ELSE o - - SIP specific event notification extension and UE or P-CSCF.
c17:	IF A.3/1 or A.3/4 THEN m ELSE n/a - - UE or S-CSCF.
c18:	IF A.4/2B THEN m ELSE n/a - - initiating sessions.
c19:	IF A.4/2B THEN o ELSE n/a - - initiating sessions.
c20:	IF A.3/1 THEN m ELSE n/a - - UE behaviour.
c21:	IF A.4/30 THEN o.4 ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP).
c22:	IF A.4/30 AND (A.3/1 OR A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF or UA.
c23:	IF A.4/30 AND A.3/1 THEN o ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE.
c24:	IF A.4/30 AND A.3/4) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and S-CSCF.
c25:	IF A.4/30 AND (A.3/1 OR A.3/4 OR A.3/7A OR A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and UE, S-CSCF or AS acting as terminating UA or AS acting as third-party call controller.
c26:	IF A.4/30 AND (A.3/6 OR A.3/7A OR A.3/7B or A.3/7D) THEN m ELSE n/a - - private header extensions to the session initiation protocol for the 3rd-Generation Partnership Project (3GPP) and MGCF, AS acting as a terminating UA, or AS acting as an originating UA, or AS acting as third-party call controller.
o.1:	At least one of these capabilities is supported.
o.2:	At least one of these capabilities is supported.
o.3:	At least one of these capabilities is supported.
o.4:	At least one of these capabilities is supported.
NOTE 1:	At the MGCF, the interworking specifications do not support a handling of the header associated with this extension.