

Agenda Item: TBD
Source: Ericsson
Title: Presence, Instant Messaging and IMS security in R6
Document for: Discussion/Decision

1. Introduction

This paper aims to initiate discussion on the desired procedure and documentation of Presence, Instant Messaging and IMS security in Release 6. Accompanied CR to TS 33.203 Release 6 is one alternative approach to be taken, however, other alternatives also exists.

2. Problem description

Release 6 will include various services that apply IMS. For example, some part of Presence and Instant Messaging will directly re-use IMS. These new services have some new security requirements that do not exist in IMS Release 5. When the new security functions are added for IMS-based Presence and Instant Messaging, they will also be applied for normal IMS. It is not appropriate to separate IMS, Presence and Instant Messaging messages from each other.

It is not clear which SA3 Technical Specifications should include these new security requirements and features. [TS 33.203] is currently limited to IMS, and IP based access security services. Presence and Instant Messaging may bring the following kind of features for IMS that may or may not include to the current scope of [TS 33.203]:

- New access security features, such as IPsec encryption (within the current scope of TS 33.203)
- New security related services, such as anonymity (outside the current scope of TS 33.203)
- New transport protocols and related security features, such as HTTP and TLS (outside the current scope of TS 33.203)

There are two basic alternatives to solve the problem:

- 1) The scope of [TS 33.203] can be extended to cover other IMS based services. Accompanied CR demonstrates this change.
- 2) New Technical Specification for additional IMS-based services is created.

Alternative 1) has the advantage of having all related security features in one document. For example, the security services added because of Presence are automatically available for all IMS services. The formal CR procedure is relatively heavy. However, the procedure in which new security features are temporarily added to documents that are not under formal change control, such as on the TR on Presence Security, can solve the problem. New security features can be moved from other related documents to [TS 33.203] when they are mature enough. Note that Ericsson is already applying this approach with some Presence related documents.

Alternative 2) has the advantage of having lighter CR procedure since the document need not to be under formal change control until it is mature. However, there may be some confusion on which security features are available in IMS.

It is also possible to do combine parts form both alternatives.

3. Conclusions

SA3 should give guidance on the procedure and documentation of new security requirements and mechanisms related to IMS based services, such as Presence and Instant Messaging.

4. References

[TS 33.203] 3GPP (2002) Access security for IP-based services (Release 5), TS 33.203 v5.3.0.

CR-Form-v7

CHANGE REQUEST

⌘ **33.203** CR **CRNum** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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: ⌘ Scope of 33.203 in Release 6

Source: ⌘ Ericsson

Work item code: ⌘ Presence **Date:** ⌘ 13/11/2002

Category: ⌘ **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)

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)

Detailed explanations of the above categories can be found in 3GPP [TR 21.900](#).

Reason for change: ⌘ TS 33.203 on "Access security for IP-based services" is limited to IMS security in Release 5. Release 6 will include new IP- and IMS-based services such as Presence and Instant Messaging. The scope of TS 33.203 should be extended to cover all these services in Release 6.

Summary of change: ⌘ The scope of the document has been extended.

Consequences if not approved: ⌘ Other IMS based services would need new technical specifications, however, most security features can not be separated for IMS, Presence or Instant Messaging only. For example, if the Presence security includes a mechanisms for anonymity, it will automatically be applied to IMS also – and vice versa.

Clauses affected: ⌘

Y	N
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Other specs affected: ⌘

<input type="checkbox"/>	Other core specifications	⌘
<input type="checkbox"/>	Test specifications	⌘
<input type="checkbox"/>	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.

1 Scope

The scope for this technical specification is to specify the security features and mechanisms for secure access to the IM subsystem (IMS) [and related services such as IMS-based Presence and IMS-based Instant Messaging](#) for the 3G mobile telecommunication system.

The IMS in UMTS will support IP Multimedia applications such as video, audio and multimedia conferences. [IMS can also be used for other services, such as delivering instant messages, or subscribing and delivering presence related information.](#) 3GPP has chosen SIP, Session Initiation Protocol, as the signaling protocol for ~~IMS~~[creating and terminating Multimedia sessions](#), cf. [6]. This specification ~~only~~ deals with how the SIP signaling is protected between the subscriber and the IMS, how the subscriber is authenticated and how the subscriber authenticates the IMS.