

**Source:** TSG SA WG2  
**Title:** CRs on 23.221 (Architecture Requirements)  
**Agenda Item:** 7.2.3

The following Change Requests have been approved by TSG SA WG2 and are requested to be approved by TSG SA plenary #25.

S2 doc #	Title	Spec	CR #	cat	Version in	Rel	WI	S2 meeting	Clauses affected
<a href="#">S2-042695</a>	Referencing TR 23.981	23.221	050	F	5.10.0	5	IPv4IMS	S2 #41	2, 5.1

CR-Form-v7

## CHANGE REQUEST

**23.221 CR 050 rev -** Current version: **5.10.0**

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

<b>Title:</b>	Referencing TR 23.981		
<b>Source:</b>	SA2 (Siemens)		
<b>Work item code:</b>	IPv4IMS	<b>Date:</b>	11/08/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	<b>Rel-5</b>
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		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)

<b>Reason for change:</b>	SA#24 asked to create a Rel-5 version of TR 23.981, so that it could be referenced from TS 23.221.
<b>Summary of change:</b>	Clarify that the guidelines and recommendations in TR 23.981 should be followed in IPv4 based IMS implementations.
<b>Consequences if not approved:</b>	Insufficient guidance for IPv4 based IMS implementations.

<b>Clauses affected:</b>	2, 5.1										
<b>Other specs affected:</b>	<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;"><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> Other core specifications Test specifications O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N										
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<b>Other comments:</b>	The proposal is to fully align the wording Rel-6 version of TS 23.221. It is assumed that a Rel-5 version of TR 23.981 is available, i.e. CR 002 against TR 23.981 is approved..										

### 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.

## 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 TS 23.002: "Network Architecture".
- [2] 3GPP TS 23.060: "General Packet Radio Service (GPRS) Service description; Stage 2".
- [3] 3GPP TS 23.012: "Location management procedures"
- [5] 3GPP TS 25.331: "Radio Resource Control (RRC) Protocol Specification"
- [6] 3G TS 25.301: "Radio interface protocol architecture"
- [7] 3G TS 25.303: "UE functions and inter-layer procedures in connected mode"
- [8] 3GPP TR 21.905: "3G Vocabulary".
- [9] 3GPP TS 25.413: "UTRAN Iu interface RANAP signalling"
- [10] 3GPP TS 25.410: "UTRAN Iu Interface: General Aspects and Principles"
- [11] 3G TS 23.228 "IP Multimedia Subsystem - Stage 2"
- [12] 3G TS 43.051 "GERAN Overall Description"
- [13] 3G TS 23.153, "Out of Band Transcoder Control - Stage 2".
- [14] 3G TS 23.205, "Bearer Independent CS Core Network - Stage 2"
- [15] 3G TR 25.931: "UTRAN Functions, examples on signalling procedures"
- [16] RFC2766 "Network Address Translation - Protocol Translation (NAT-PT)", G. Tsirtsis, P. Srisuresh. February 2000.
- [17] RFC2893 "Transition Mechanisms for IPv6 Hosts and Routers", R. Gilligan, E. Nordmark, August 2000.
- [17a] RFC 3041: "Privacy Extensions for Stateless Address Autoconfiguration in IPv6", T. Narten, R. Daves, January 2001.
- [18] 3G TS 25.401 "UTRAN Overall Description"
- [19] 3G TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode"
- [20] 3G TS 45.008: "Radio subsystem link control"
- [21] RFC3316 "IPv6 for Some Second and Third Generation Cellular Hosts", June 2002

- [22] 3GPP TS 24.007: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface signalling layer 3 General aspects".
- [23] 3G TS 24.229 i IP Multimedia Call Control Protocol based on SIP and SDP
- [\[24\] 3G TR 23.981 "Interworking aspects and migration scenarios for IPv4 based IMS implementations"](#)

**\*\*\* NEXT CHANGE \*\*\***

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## 5 IP addressing

### 5.1 IP version issues

The UMTS/GSM architecture shall support IPv4 / IPv6 based on the statements below.

- IP transport between network elements of the IP Connectivity services (between RNC, SGSN and GGSN) and IP transport for the CS Domain: both IPv4 and IPv6 are options for IP Connectivity
- IM CN subsystem elements (UE to CSCF and the other elements e.g. MRF):
  - The architecture shall make optimum use of IPv6.
  - 3GPP specifications design the IM CN subsystem elements and interfaces to exclusively support IPv6. However, early IMS implementations and deployments may use IPv4; [if IPv4 is used, the guidelines and recommendations in TR 23.981 \[24\] should be followed.](#)~~guidelines for interworking and migration are not part of this release of specifications.~~
  - 3GPP specifications design the UE to exclusively support IPv6 for the connection to the IM CN subsystem. The UE shall support IPv6 for the connection to the IM CN subsystem. However, UEs may in addition support IPv4 which allows for the connection to early IM CN subsystem implementations that use IPv4 only; [in this case the guidelines and recommendations in TR 23.981 \[24\] should be followed.](#)~~guidelines for interworking and migration are not part of this release of specifications.~~
- Access to existing data services (Intranet, Internet, Ö):
- The UE can access IPv4 and IPv6 based services.