

3GPP TSG-SA Meeting #26
13th – 16th December 2004. Athens, Greece.

TSGS#26(04)0761

Source: TSG SA WG2
Title: CRs on 23.981 (IPv4 based IMS implementations)
Agenda item: 7.2.3
Document for: APPROVAL

The following CRs have been agreed by TSG SA WG2 and are requested to be approved by TSG SA plenary #26.

***Note:** the source of all these CRs is now SA2, even if the name of the originating company(ies) is still reflected on the cover page of all the attached CRs.*

Tdoc	Title	Spec	CR	Rev	Cat	C_Ver	Rel	WI
S2-043315	Clarification to the Interworking support in dual stack IM CN subsystem	23.981	4	1	F	6.1.0	Rel-6	IPV4IMS

CR-Form-v7.1

CHANGE REQUEST

⌘ **23.981 CR 004** ⌘ rev **1** ⌘ 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

Title:	⌘ Clarification to the Interworking support in dual stack IM CN subsystem		
Source:	⌘ Huawei, China Mobile		
Work item code:	⌘ IPv4IMS	Date:	⌘ 12/10/2004
Category:	⌘ F	Release:	⌘ R6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	Ph2 (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)	
		Rel-7 (Release 7)	

Reason for change:	⌘ In dual stack IM CN subsystem, an example is illustrated for the IP version interworking between an IPv4 UE and an IPv6 UE using immediate messaging. However it only presents the scenario that the MO S-CSCF is dual stack, while in some cases the MT S-CSCF is dual stack and the IP version interworking occurs on the MT side. Therefore another scenario is also illustrated.
Summary of change:	⌘ Add the example where the IP version interworking occurs on the MT side.
Consequences if not approved:	⌘ The situations considered is incomplete.

Clauses affected:	⌘ 5.3.7.2						
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;"><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"/>	Other core specifications	⌘
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>	Test specifications					
	<input checked="" 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.

5.3.7.2 Interworking support in dual stack IM CN subsystem

A dual stack IM CN subsystem and dual stack application servers may provide the necessary support for interworking between IP versions.

In particular, some IMS based services do not involve any media component but are based on SIP signalling only. Important examples are immediate messaging as described in subclause 5.16.1 of 3GPP TS 23.228 [4] and Presence as described in 3GPP TS 23.141 [5]. In such cases SIP signalling does not contain any IP addresses which would require a SIP-ALG. The dual stack IM CN subsystem can provide the necessary interworking: each entity forwards the SIP message using the appropriate IP version. Thus the service can be provided without any additional NAT in the network. This allows e.g. immediate messaging between an IPv4 UE and an IPv6 UE or allows a watcher with an IPv6 UE to subscribe to the presence information of a presentity publishing from a IPv4 UE, or vice versa. This is illustrated in figures 5-12a, 5-12b and 5-13 below.

[Figures 5-12a and 5-12b illustrate different scenarios for interworking support in dual stack IM CN subsystem. If the originating S-CSCF supports dual stack, the IP version interworking can occur on the originating side, if the terminating S-CSCF supports dual stack, the IP version interworking can also occur on the terminating side.](#)

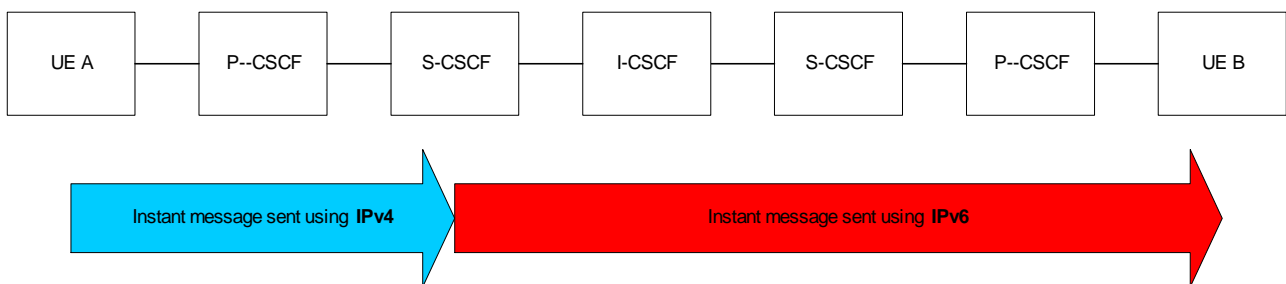


Figure 5-12a: Example with dual stack IM CN subsystem and Immediate Messaging (originating S-CSCF is dual stack)

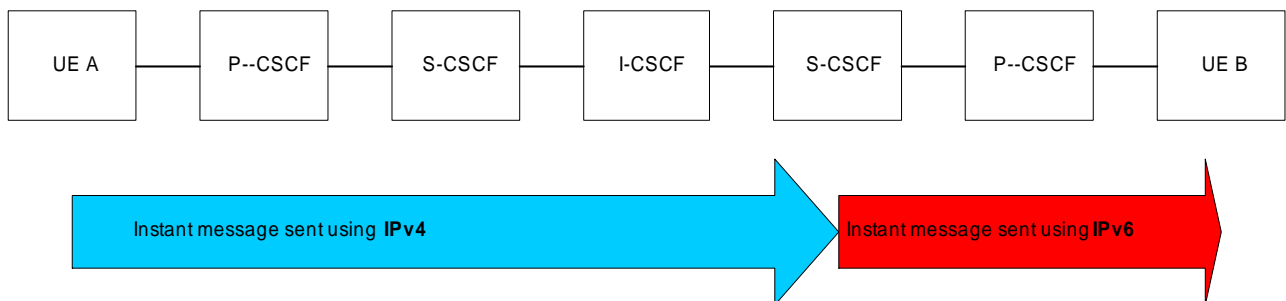


Figure 5-12b: Example with dual stack IM CN subsystem and Immediate Messaging (terminating S-CSCF is dual stack)

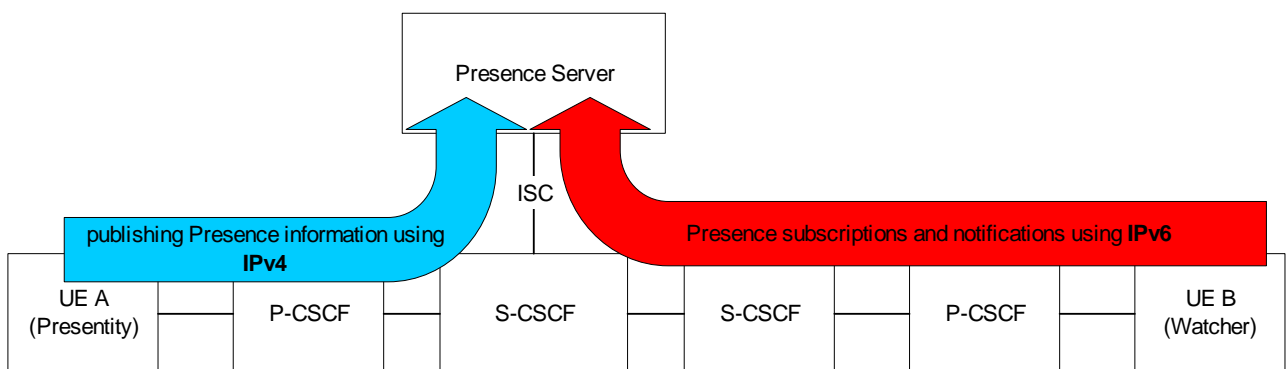


Figure 5-13: Example with dual stack IM CN subsystem and Presence Server

Note: In this scenario, if Presence information contains an IP address, then the IP address is not translated but provided as is to the watcher.