

CSCF Statement of Compliance Overview

Call Session Control Function

STATEMENT OF COMPLIANCE

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1 Introduction

This document provides general information about compliances with standards for the Call Session Control Function (CSCF).





2 Statement of Compliance Definitions

One of the following statements is given to each standard specification:

- **Compliant** The functionality that is provided has been implemented in accordance with relevant and mandatory requirements in the specification. Possible limitations in the functionality are summarized.
- **Partially Compliant** Part of the functionality that is provided has either been implemented in a way that is deviating from relevant and mandatory requirements in the specification, or if there are functionality that has not been implemented, or both.
- **Not Compliant** The functionality that is provided has been implemented in a way that is deviating from relevant and mandatory requirements in the specification.
- **Not Applicable** No explicit CSCF requirements.

Note: Compliant sometimes means that the functionality is transparent for the CSCF.





3 Standards

This section describes the standards with which the CSCF is compliant.

3.1 3GPP Specifications

The compliance for each specification is described in Table 1.

Note: In this document, the 3GPP® specifications are based on Release 9.

Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TR 21.905	Vocabulary for 3GPP Specifications	Not Applicable	
3GPP TS 22.101	Service aspects; Service principles	Not Applicable	
3GPP TS 22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	Not Applicable	
3GPP TS 23.002	Network architecture	Compliant	
3GPP TS 23.003	Numbering, addressing and identification	Compliant	
3GPP TS 23.167	IP Multimedia Subsystem (IMS) emergency sessions	Compliant	
3GPP TS 23.218	IP Multimedia (IM) Session Handling; IM call model	Compliant	
3GPP TS 23.221	Architectural requirements	Not Applicable	The architectural requirements for IMS are addressed in 3GPP TS 23.228.
3GPP TS 23.228	IP Multimedia Subsystem; Stage 2	Compliant	Temporary GRUU is not supported.
3GPP TS 23.234	3GPP system to Wireless Local Area Network (WLAN) interworking; System description	Not Applicable	

Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS 23.292	IP Multimedia Subsystem (IMS) Centralized Services; Stage 2	Compliant	
3GPP TS 23.380	IMS Restoration Procedures	Compliant	
3GPP TS 24.141	Presence Service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3	Compliant	
3GPP TS 24.147	Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3	Compliant	
3GPP TS 24.167	3GPP IMS Management Object (MO); Stage 3	Not Applicable	
3GPP TS 24.173	IMS Multimedia Telephony service and supplementary services; Stage 3	Not Applicable	
3GPP TS 24.182	IP Multimedia Subsystem (IMS) Customized Alerting Tones (CAT); Protocol specification	Compliant	
3GPP TS 24.183	IP Multimedia Subsystem (IMS) Customized Ringing Signal (CRS); Protocol specification	Compliant	



Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS24.229	IP Multimedia Call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Stage 3	Partially Compliant	<p>The following are not supported:</p> <ul style="list-style-type: none"> • Transport Layer Security (TLS) • History-Info • P-Asserted-Service • P-Private-Network-Indication • Access network charging information • Temporary GRUU • Combination of public GRUU and RFC6140 • Multiple registration (ob), registration instance ID/reg-id • Type 3 IOI • Request-Disposition header • Logging P-Debug-ID • Overlap signaling
3GPP TS 24.234	3GPP System to Wireless Local Area Network (WLAN) interworking; User Equipment (UE) to network protocols; Stage 3	Not Applicable	
3GPP TS 24.237	IP Multimedia Subsystem (IMS) Service Continuity; Stage 3	Compliant	
3GPP TS 24.247	Messaging service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3	Not Applicable	

Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS 24.279	Combining Circuit Switched (CS) and IP Multimedia Subsystem (IMS) services, stage 3, Release 7	Compliant	
3GPP TS 24.292	IP Multimedia (IM) Core Network (CN) subsystem Centralized Services (ICS); Stage 3	Compliant	
3GPP TS 24.323	3GPP IMS service level tracing management object (MO)	Not Compliant	
3GPP TS 24.341	Support of SMS over IP networks; Stage 3	Partially Compliant	The procedures requiring “service-info” are not supported.
3GPP TS 24.606	Message Waiting Indication (MWI) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification	Compliant	
3GPP TS 24.616	Malicious Communication Identification (MCID) using IP Multimedia (IM) Core Network (CN) subsystem	Compliant	
3GPP TS 24.623	Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services	Not Applicable	
3GPP TS 24.647	Advise Of Charge (AoC) using IP Multimedia (IM) Core Network (CN) subsystem	Compliant	



Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS 27.060	Mobile Station (MS) supporting Packet Switched Services	Not Applicable	
3GPP TS 29.061	Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN)	Not Applicable	
3GPP TS 29.162	Interworking between the IM CN subsystem and IP networks	Not Applicable	
3GPP TS 29.163	Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks	Not Applicable	
3GPP TS 29.212	Policy and Charging Control over Gx reference point	Not Applicable	
3GPP TS 29.213	Policy and Charging Control signalling flows and Quality of Service (QoS) parameter mapping	Compliant	
3GPP TS 29.214	Policy and Charging Control over Rx reference point	Partially Compliant	Indication of Emergency Session is not supported. Notifications of AF Signaling Transmission Path Status and IP-CAN Type Change are not supported.

Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS 29.228	IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents	Compliant	<p>The procedures are supported except that the Supported-Applications, Associated-Identities, Subscription-Info, Framed-IPv6-Prefix, Framed-Interface-Id AVPs are not supported and the feature AliasInd is not supported. The S-CSCF never stores the server name in the HSS. The CSCF does not send an SAR message at Authentication failure or Authentication time-out.</p> <p>Network initiated deregistration of Wildcarded Public Service Identities is not supported, but must be done by its Private Service Identity. The CSCF does not support Session Description Service Point Trigger. The CSCF also supports Ericsson additions to the Cx/Dx interface, which carries additional functionality.</p>
3GPP TS 29.229	Cx and Dx Interfaces based on the Diameter protocol, Protocol details	Compliant	<p>The procedures are supported except that the Supported-Applications, Associated-Identities, Subscription-Info, Framed-IPv6-Prefix, Framed-Interface-Id AVPs are not supported and the feature AliasInd is not supported. The CSCF also supports Ericsson additions to the Cx/Dx interface, which carries additional functionality.</p>



Table 1 3GPP Specifications

Specification/Version	Title	Compliance	Comment
3GPP TS 31.103	Characteristics of the IP Multimedia services identity module (ISIM) application	Not Applicable	
3GPP TS 32.240	Telecommunication management; Charging management; Charging architecture and principles	Partially Compliant	The P-CSCF and the I-CSCF do not support charging.
3GPP TS 32.260	Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging	Partly Compliant	Offline/online charging is not supported for the P-CSCF and the I-CSCF. Immediate Event Charging (IEC) is not supported.
3GPP TS 32.422	Telecommunication management; Subscriber and equipment trace; Trace control and configuration management	Compliant	
3GPP TS 33.102	3G Security; Security architecture	Not Applicable	
3GPP TS 33.203	Access security for IP-based services	Compliant	
3GPP TS 33.210	3G Security; Network Domain Security; IP Network Layer Security	Compliant	RFC 2401, PF_KEY Key Management API, Version 2. Only manual keying is supported with limitations. RFC 2367, Security Architecture for the Internet Protocol. Only ESP in transport and tunnel modes are supported.
3GPP TS 33.328	IP Multimedia Subsystem (IMS) media plane security	Not Applicable	

3.2 IETF RFCs

The compliance for each specification is described in Table 2.

Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 2046 (November 1996)	Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types	Partially Compliant	
RFC 2617 (June 1999)	HTTP Authentication: Basic and Digest Access Authentication	Compliant	
RFC 3261 (June 2002)	SIP: Session Initiation Protocol	Compliant	
RFC 3262 (June 2002)	Reliability of provisional responses in Session Initiation Protocol (SIP)	Compliant	
RFC 3263 (June 2002)	Session Initiation Protocol (SIP): Locating SIP Servers	Compliant	
RFC 3264 (June 2002)	An Offer/Answer Model with Session Description Protocol (SDP)	Compliant	
RFC 3265 (June 2002)	Session Initiation Protocol (SIP) Specific Event Notification	Compliant	
RFC 3310 (September 2002)	Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)	Compliant	
RFC 3311 (September 2002)	The Session Initiation Protocol (SIP) UPDATE method	Compliant	
RFC 3312 (October 2002)	Integration of resource management and Session Initiation Protocol (SIP)	Compliant	
RFC 3313 (January 2003)	Private Session Initiation Protocol (SIP) Extensions for Media Authorization	Not Compliant	
RFC 3320 (March 2002)	Signaling Compression (SigComp)	Not Compliant	



Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 3323 (November 2002):	A Privacy Mechanism for the Session Initiation Protocol (SIP)	Partially Compliant	
RFC 3325 (November 2002)	Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks	Compliant	
RFC 3326 (December 2002)	The Reason Header Field for the Session Initiation Protocol (SIP)	Compliant	
RFC 3327 (December 2002)	Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts	Compliant	
RFC 3329 (January 2003)	Security Mechanism Agreement for the Session Initiation Protocol (SIP)	Compliant	Syntax modified by TS33.203.
RFC 3428 (December 2002)	Session Initiation Protocol (SIP) Extension for Instant Messaging	Compliant	
RFC 3455 (January 2003)	Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd Generation Partnership Project (3GPP)	Compliant	
RFC 3485 (February 2003)	The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)	Not Compliant	

Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 3486 (February 2003)	Compressing the Session Initiation Protocol (SIP)	Not Compliant	
RFC 3515 (April 2003)	The Session Initiation Protocol (SIP) REFER method	Partially Compliant	Does not establish a dialogue.
RFC 3556 (July 2003)	Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth	Compliant	
RFC 3581 (August 2003)	An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing	Not Compliant	
RFC 3608 (October 2003)	Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration	Compliant	
RFC 3680 (March 2004)	A Session Initiation Protocol (SIP) Event Package for Registrations	Compliant	
RFC 3761 (April 2004)	The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)	Compliant	
RFC 3840 (August 2004)	Indicating User Agent Capabilities in the Session Initiation Protocol (SIP)	Compliant	
RFC 3841 (August 2004):	Caller Preferences for the Session Initiation Protocol (SIP)	Compliant	No support for Request-Disposition header.



Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 3890 (September 2004)	A Transport Independent Bandwidth Modifier for the Session Description Protocol (SDP)	Not Compliant	
RFC 3891 (September 2004)	The Session Initiation Protocol (SIP) “Replaces” Header	Compliant	
RFC 3892 (September 2004)	The Session Initiation Protocol (SIP) Referred-By Mechanism	Compliant	
RFC 3903 (October 2004)	An Event State Publication Extension to the Session Initiation Protocol (SIP)	Compliant	
RFC 3911 (October 2004)	The Session Initiation Protocol (SIP) “Join” Header	Compliant	
RFC 3966 (December 2004)	The tel URI for Telephone Numbers	Compliant	
RFC 4028 (April 2005)	Session Timers in the Session Initiation Protocol (SIP)	Compliant	
RFC 4077 (May 2005)	A Negative Acknowledgement Mechanism for Signaling Compression	Not Compliant	
RFC 4122 (July 2005)	A Universally Unique Identifier (UUID) URN Namespace	Not Compliant	
RFC 4145 (September 2005)	TCP-Based Media Transport in the Session Description Protocol (SDP)	Compliant	
RFC 4168 (October 2005)	The Stream Control Transmission Protocol (SCTP) as a Transport for the Session Initiation Protocol (SIP)	Not Compliant	

Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 4235 (November 2005)	An INVITE-Initiated Dialog Event Package for the Session Initiation Protocol (SIP)	Compliant	
RFC 4240 (December 2005)	Basic Network Media Services with SIP	Not Compliant	
RFC 4244 (November 2005)	An Extension to the Session Initiation Protocol (SIP) for Request History Information	Not Compliant	
RFC 4320 (January 2006)	Actions Addressing Identified Issues with the Session Initiation Protocol's (SIP) Non-INVITE Transaction	Not Compliant	
RFC 4346 (April 2006)	The TLS Protocol Version 1.1	Not Compliant	
RFC 4412 (February 2006)	Communications Resource Priority for the Session Initiation Protocol (SIP)	Partially Compliant	The Resource-Priority Header is supported for the name spaces ets.0 and wps.0 to wps.4.
RFC 4457 (April 2006)	The Session Initiation Protocol (SIP) P-User-Database Private-Header (P-Header)	Compliant	
RFC 4458 (January 2006)	Session Initiation Protocol (SIP) URIs for Applications such as Voicemail and Interactive Voice Response (IVR)	Compliant	
RFC 4566 (June 2006)	SDP: Session Description Protocol	Partially Compliant	Implementation based on RFC2327.
RFC 4694 (October 2006)	Number Portability Parameters for the tel URI	Compliant	



Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 4733 (December 2006)	RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals	Partially Compliant	Support only as an SDP media format, not as a MIME subtype.
RFC 4769 (November 2006)	IANA Registration for an Enumservice Containing Public Switched Telephone Network (PSTN) Signaling Information	Compliant	
RFC 4896 (June 2007)	Signaling Compression (SigComp) Corrections and Clarifications Implementer's Guide for SigComp	Not Compliant	
RFC 4967 (July 2007)	Dial String Parameter for the Session Initiation Protocol Uniform Resource Identifier	Not Compliant	
RFC 4975 (September 2007)	The Message Session Relay Protocol (MSRP)	Not Applicable	
RFC 5002 (August 2007)	The Session Initiation Protocol (SIP) P-Profile-Key Private Header (P-Header)	Compliant	
RFC 5009 (September 2007)	Private Header (P-Header) Extension to the Session Initiation Protocol (SIP) for Authorization of Early Media	Not Compliant	
RFC 5031 (January 2008)	A Uniform Resource Name (URN) for Services	Partially Compliant	The “sos” service is supported but the “counseling” service is not supported.
RFC 5049 (December 2007)	Applying Signaling Compression (SigComp) to the Session Initiation Protocol (SIP)	Not Compliant	

Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 5079 (December 2007)	Rejecting Anonymous Requests in the Session Initiation Protocol (SIP)	Compliant	
RFC 5112 (January 2008)	The Presence-Specific Static Dictionary for Signaling Compression (SigComp)	Not Compliant	
RFC 5245 (April 2010)	Interactive Connectivity Establishment (ICE): A Protocol for Network Address Translator (NAT) Traversal for Offer/Answer Protocols	Not Compliant	
RFC 5373 (November 2008)	Requesting Answering Modes for the Session Initiation Protocol (SIP)	Compliant	
RFC 5389 (October 2008)	Session Traversal Utilities for NAT (STUN)	Not Compliant	
RFC 5393 (December 2008)	Addressing an Amplification Vulnerability in Session Initiation Protocol (SIP) Forking Proxies	Not Compliant	
RFC 5502 (April 2009)	The SIP P-Served-User Private-Header (P-Header) for the 3GPP IP Multimedia (IM) Core Network (CN) Subsystem	Compliant	
RFC 5626 (October 2009)	Managing Client Initiated Connections in the Session Initiation Protocol (SIP)	Not Compliant	Support sip.instance feature tag.



Table 2 IETF RFCs Specifications

Specification	Title	Compliance	Comment
RFC 5627 (October 2009)	Obtaining and Using Globally Routable User Agent URIs (GRUUs) in the Session Initiation Protocol (SIP)	Partially Compliant	Temporary GRUU is not supported
RFC 5628 (October 2009)	Registration Event Package Extension for Session Initiation Protocol (SIP) Globally Routable User Agent URIs (GRUUs)	Partially Compliant	Temporary GRUU is not supported
RFC 5688 (January 2010)	A Session Initiation Protocol (SIP) Media Feature Tag for MIME Application Subtype	Compliant	
RFC 5768 (April 2010)	Indicating Support for Interactive Connectivity Establishment (ICE) in the Session Initiation Protocol (SIP)	Not Compliant	
RFC 6140 (March 2011)	Registration for Multiple Phone Numbers in the Session Initiation Protocol (SIP)	Partially Compliant	Supported by the I-CSCF. Supported by the S-CSCF except for the interaction with GRUU. Not supported by the P-CSCF.
RFC 7339 (September 2014)	Session Initiation Protocol (SIP) Overload Control	Compliant	Only the default oc algorithm loss is supported. The alternative mechanism that uses SIP event packages is not supported.