

Glossary of Terms and Acronyms

Call Session Control Function

TERMINOLOGY

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Contents

1	Introduction	1
2	Terms	3
	Glossary	21





1 Introduction

This document defines the terms and acronyms used in the documentation for the Call Session Control Function (CSCF).





2 Terms

2-tuple	2-tuple is a hash used by eVIP over the source and destination addresses for traffic distribution. All traffic with the same source and destination ends up on the same CPU core on the same blade. As a result, the blade load is heavy.
5-tuple	5-tuple is a hash used by eVIP over local IP address, remote IP address, local port, remote port, and transport protocol. As a result, the blade load is distributed.
-A	The -A option can be omitted, if the password-less logon is not configured. The -A option enables the forwarding of the authentication agent connection.
Accounting	The act of collecting information on resource use for the purpose, among others, of billing or cost allocation.
Action	An executable operation triggered by setting attributes on an MO. Each action is defined in the related MOC description.
AF	Application Function. Element offering applications that use IP bearer resources. One example of an AF is the S-CSCF.
Alarm	An event raised by unplanned system fault that prevents the system from operating properly or requires immediate action from node administrator. Alarms are automatically cleared when fault is corrected.
Alarm issuer	Component that reports an alarm.
Alert	A stateless alarm, that is, an alarm that can only have the raised state. As an alarm, an alert has an associated Operating Instructions document and is reported in real time as an SNMP notification. Alerts are recorded in the Alert Log but are not exposed in any list over the NBI.
Alias Role	Identity of a role, which has meaning to the user. An alias role is an alias for one or more real roles. The definition of alias role allows the user to use names of roles that the user is used to. Also, the same alias can be used for several real roles. The latter can be useful when different types of MEs have defined real roles with different names, but which requires the same (or similar) authority.



Application	A service enabler deployed by service providers, manufacturers, or users. Individual applications are often enablers for a wide range of services.
Attribute	Represents the configuration. The read-only attributes in the MOs describe configuration state and operational values. The writable attributes control the operation and configuration for the particular network resource. Each attribute is defined in the related MOC description.
Authentication	The process of verifying the identity of an entity.
Authorization	The granting of permission based on authenticated identification.
AUTN	Authentication Token. A component of an Authentication Vector (AV), used to authenticate a network to a UE.
AUTS	Authentication Token. A value generated by the UE upon experiencing an SQN synchronization failure.
AVP	Attribute-Value Pair. Diameter AVPs carry specific authentication, authorization, and accounting information, security information, and configuration details for the request and the reply.
Basic Compression	In basic compression, no state is saved except for the byte code, which is uploaded in the first message. Returned parameters are used.
Called Party Number	The called party number is a telephone number identifying the called user. The telephone number is included in a SIP request either in the format of a tel URI or in the format of a SIP URI with the telephone number in the user field.
Cardinality	Can exist in the MOM between MOs in parent-child relationships, and in associations between MOs.
Charging Determination	Charging determination is the process by which the S-CSCF extracts relevant data from the SIP signalling received and compare it with a set of preconfigured charging triggers to determine whether charging is to be applied, which charging mechanism (online or offline), and whether session or event charging is to be applied.



Charging Profile	A set of configured rules assigned to a particular charging trigger and defining the charging behavior to apply, and the reference to the concrete configuration options of the charging protocols applicable.
Charging Rule	A set of information including the service data flow filters (IP 5 tuple – local/remote IP address, local/remote port, and transport protocol), the gating status (pass/drop packets matching the rule), and the rating group, for a single service data flow.
Charging Trigger	A set of configured rules containing the criteria by which the SIP request received in the S-CSCF is analyzed to determine whether it must be charged or not and which type of charging mechanism is to be applied.
CM	Configuration Management. An area in the model, covering for, example system, configuration, network provisioning, subscriber provisioning, backup, and restore.
Compute Host	A physical computer where one or more Virtual Machines are running.
CPI	Customer Product Information. Documentation for an ME, delivered in the Active Library Explorer.
Credit Control	Credit control is a mechanism that directly interacts in real time with an account and controls or monitors the charges related to the service use. Credit control is a process of checking whether credit is available.
CscfTrustedASEntry	The S-CSCF verifies that the Application Server transport address is in the list of trusted Application Servers.
CSR	Customer Service Request. Used during the trouble reporting process to describe the problems identified.
Cx	The 3GPP reference point between a CSCF and an HSS.
Data Model	A mapping of the contents of an information model into a form that is specific to a particular type of data store or repository. A data model is basically the rendering of an information model according to a specific set of mechanisms for representing, organizing, storing, and handling data. In contrast to an Information Model, a Data Model includes implementation (and protocol-) specific details. That is, rules that explain how to map MOs onto lower-level protocol constructs.



Derived Data Type

Data type enhanced with extra restrictions and properties. Derived string data types contain, for example, length and content constraints. Derived integer data types contain extra range constraints. Each derived data type is defined in the related MOC description.

Distinct IMPU

A Distinct IMPU is provisioned in the HSS and identifies a single non-wildcarded Public User Identity that can belong to any service profile. The Distinct IMPU can be or not be within the range of a wIMPU. The Distinct IMPU is part of the same Implicit Registration Set as one or more wIMPUs. An Implicit Registration Set can have any combination of wIMPUs and Distinct IMPUs, with any combination of service profiles.

DN

Distinguished Name. The name of an object in an object tree that is shared between the system and the Management System. The DN is in 3GPP® format (from root to leaf). The DN is used to identify an MO uniquely in the system. It gives the path of the MO in the tree of objects. The system uses 3GPP formatted DNs where each relative DN part consists of the MOC name equal the MO identity. If the key attribute name is not equal to the MOC name plus ID, then the key attribute name is also appended to the MOC name separated by a dot.

Downlink

Refers to the direction of traffic from the network to the user equipment.

Dx

The 3GPP reference point between a CSCF and an SLF.

E.164

The International Public Telecommunication Numbering Plan, ITU-T Recommendation E.164.

ECIM

Ericsson Common Information Model. Controls the MOM structure. The ECIM is based on the CIM standard.

ECLI

Ericsson Command-Line Interface. A terminal-based Command-Line Interface that is used to monitor and manage the ME. The ECLI is based on industry de facto standard patterns.

Enumeration

Integer-name pairs defining a fixed set of named values for an attribute, return value, or action parameter. Each enumeration is defined in the MOM.

Ericsson NETCONF Interface

A Machine to Machine interface for configuration management of the ME using the NETCONF protocol over the Secure Shell.



Event	Occurrence of significance to users, the MEs under surveillance and Network Management specifications. Events do not have states.
Explicit iFC	Initial Filter Criteria specified explicitly in the user profile received from the HSS.
Explicit Preference	A caller preference indicated explicitly in the Accept-Contact or Reject-Contact header fields.
External Router	A Layer 3 capable router to which the CSCF VNF is connected. It can reside outside or inside the cloud infrastructure.
Failover	The mechanism that is done by an I-CSCF for forwarding a request to the secondary S-CSCF after the I-CSCF detects the primary S-CSCF has experienced a service interruption.
Feature tag	A name that identifies a feature. An example is "sip.methods".
First Match Analysis	A first match analysis is defined as an analysis where a set of characters, for example, a set of characters representing a telephone number, is matched against the entries in a list and the analysis is performed character by character against the entries in the list until either a match is found or it has been concluded that no match exists.
Fixed Domain	The set of nodes that cannot be subject of a scaling operation. Fixed domain of the CSCF consists of SC-1 and SC-2 nodes permanently. The domain cannot be changed.
Flow Description	See Service Data Flow, Page 16.



Freephone Service

Two accesses to the freephone databases are normally done for routing a call to a freephone number. The first one is done by the originating network that queries a freephone database for the CIC information so that the call can be routed to the serving freephone service provider of the called freephone number. The first freephone database contains the CIC information for all the active freephone numbers. The CIC information is returned in the query response but the `npdi` indicator is not to be set.

When the call reaches the serving freephone provider, the second database access is performed to map the freephone number to a geographical telephone number, or internal routing information, or both. The second freephone database contains mapping information only for those freephone numbers served by a freephone service provider.

When a geographical telephone number is returned in the response, it is possible that the NP-related information for that geographical telephone number could also be returned. In that case, the `npdi` parameter and the `rn` parameter containing the Routing Number is added to the query response.

It is possible that the originating carrier can provide freephone service, and its freephone database contains the CIC information for all the active freephone numbers plus the mapping information for those freephone numbers it serves.

Gating

A mechanism to enable or disable flows at the PCEF. It is used to prevent fraud. Charging rules are installed with status closed until the SIP session is established that the status is changed to open. It can be used when a media is temporarily paused.

Gm

The 3GPP reference point between a UE and a CSCF.

GP

Granularity Period. The time between the initiation of two successive gatherings of measurement data.

Guest

Virtual Machine is sometimes referred to as the Guest.

Guest OS

The operating system running inside a Virtual Machine.

HA

High Availability. A system or component that is continuously operational for a desirably long length of time. Availability is measured relative to 100% operational status.



Heartbeats	Used by a Management System to monitor the interface over which the alarms or alerts are to be sent. Heartbeats are needed because a management system cannot assume that a “silent” ME behaves properly. The Heartbeat event is reported as an SNMP notification at regular intervals.
HSS	Home Subscriber Server. An IMS database that contains the subscription-related information (subscriber profiles), performs authentication and authorization of the user, and can provide information about the location and IP information of the subscriber.
ICE	Interactive Connectivity Establishment. A technique for NAT traversal for media streams established by the offer/answer model. ICE is an extension to the offer/answer model, and it works by including a multiplicity of IP addresses and ports in the SDP offers and answers that are then tested for connectivity by peer-to-peer connectivity checks. The IP addresses and ports included in the SDP and the connectivity checks are performed using the revised STUN.
ICMP	Internet Control Message Protocol. A message control and error-reporting protocol between a host server and a gateway to the Internet.
Implicit Preference	A caller preference that is implied through the presence of other aspects of a request. For example, if the request method is INVITE, it represents an implicit caller preference to route the request to a UE that supports the INVITE method.
IMS Service Session	An IMS session established between the UEs.
Information Model	An abstraction and representation of the entities (or MOs) in a managed environment, their properties, attributes, and operations, as well as the way that they relate to each other. It is independent of any specific repository, software use, protocol, or platform.
Initial Request	A SIP request that either initiates the creation of a new dialog or is a standalone request.



Interrogating Call Session Control Function

The terminating I-CSCF is the entity that receives the SIP request. It analyses the SIP request and, depending on the result of the analysis, routes the SIP request to the BGCF, from which the Number Portability function can be started.

Inter-Operator Identifier

Used to identify the networks associated with a session setup and is used for charging purposes. The inter-operator identifiers are included in the P-Charging-Vector SIP header: the orig-ioi identifies the originating network and the term-ioi identifies the terminating network of the session. The inter-operator identifiers are included (optionally) when charging data is sent to the Charging Data Function.

IP Flow

A unidirectional flow of IP packets with the same source IP address and port number, the same destination IP address and port number, and the same transport protocol. Port numbers are only applicable if used by the transport protocol.

IP Multimedia Subsystem

An architectural framework for delivering IP Multimedia services as defined by 3GPP 23:228.

IS-CSCF

A physical node containing I-CSCF and S-CSCF logic

K

A secret Key used in AKA authentication

Load Balancing

The distribution of processing and communications activity evenly across a network so that no single node is overwhelmed.

LOT

Linux® Open Telecom Cluster. A custom Ericsson operating system distribution based on GNU/Linux. The LOTC provides a Linux cluster with High Availability characteristics.

LSS

Local Subsystem. A subsystem located in the own node.

MAC

Message Authentication Code. Included in AUTN.

Managed Object Management

A folder in the Active Library Explorer that contains the MOM.

ME

Managed Element. A node in the network. `ManagedElement` is a single root element object in the MOM and is the starting point for navigation.

**Media Component**

A part of an IMS session description conveying information about media (for example, media type, format, IP address, ports, transport protocol, bandwidth, direction).

The media described by a media component can be either bi- or unidirectional. Media using RTP for transport also have associated RTCP. The media component also conveys information about the associated RTCP (port and possibly bandwidth).

An IMS session description can consist of more than one media component.

Media component can consist of media subcomponents.

MIB

Management Information Base. The collection of MOs, which control the configuration of an ME and its functionality.

MIM

Management Information Model. A view of the MOM, where certain parts of the MOM can be hidden from the user, depending on the use case. The MOM is traditionally stored offline, while a MIM is traditionally stored online for use by tools. Often the MIM is represented in a different language to the MOM, for example, XML. There is normally one file, in whatever modeling format, per MIM. The cardinality between a MOM and a MIM is one to one.

MIP

Movable Internet Protocol. In this context MIP is used when moving an IP address between two or several blades. Another description of MIP is Mobile IP, which is an Internet Engineering Task Force (IETF) standard communications protocol that is designed to allow mobile device users to move from one network to another while maintaining a permanent IP address.

MO

Managed Object. A software object that encapsulates the manageable characteristics and behavior of a particular hardware or software resource. An MO is an instance of a MOC. An MO normally has attributes that provide information used to characterize the MOs that belong to the MOC. An MO can also have actions that allow the user to perform operations on the underlying implementation.

MOC

Managed Object Class. The MOM has one or more defined MOCs. The MOCs are instantiated with real data on a deployed ME. The MOC maintains all characteristics of an MO such as attributes and actions.



MOM	Managed Object Model. A structured collection of configuration information that defines the O&M capability on an ME. The MOM is defined as a set of MOCs. The MOCs contain attributes representing the configuration that can be performed by the user, and actions representing the operations that can be started by the user. The MOM is a static blueprint for the creation of the actual object model.
MSISDN	Mobile Subscriber Integrated Services Digital Network Number. A number uniquely identifying a subscription in a GSM or a UMTS mobile network.
Mw	SIP interface between the P-CSCF and the I/S/E-CSCF.
NBI	Northbound Interface. The interface to a Management System and a CLI client. The protocols used are ECLI, NETCONF, SFTP, and SNMP.
NETCONF	Network Configuration. A Network Management protocol developed in the IETF and published as RFC 4741.
NeLS	Network License Manager
Node	Refers to a compute resource and can be a physical hardware blade or a virtual machine (VM) instantiation.
Not registered	The Public Identity has not been registered and it is not in unregistered state.
Notification	A general term for a message that carries an alarm or alert instance.
Notifier	A notifier is a user agent who generates NOTIFY requests for notifying subscribers of the state of a resource. Notifiers typically also accept SUBSCRIBE requests to create subscriptions. For further information, see Session Initiation Protocol (SIP)-Specific Event Notification - RFC3265.
NSSA	Not So Stubby Area. An extension of the stub area feature allowing the injection of external routes in a limited fashion into the stub area.
Offline Charging	A charging mechanism where charging information does not affect, in real time, the service rendered. Information is generated for post-processing of billing, accounting, capacity and trend analysis, cost allocation and auditing.



Online Charging	Charging mechanism where charging information can affect the service rendered in real time and therefore a direct interaction of the charging mechanisms with the session/service control is required.
Or-Vnfm	Reference point between Network Functions Virtualization Orchestrator (NFVO) and Virtual Network Function Manager (VNFM).
Or-Vi	Reference point between NFVO and Virtual Infrastructure Manager (VIM).
OSS	Operations Support System. Systems dealing with the telecom network to support processes such as maintaining network inventory, provisioning services, configuring network components, and managing faults.
OSS-RC	Operations Support System for Radio and Core. The OSS-RC is a Network Management System, used for fault and performance management.
Outgoing Gateway	The outgoing gateway accepts SIP requests for a user connected to another network, for example, PSTN or another IMS network. The Number Portability function does not directly interact with the outgoing gateway, but just provides a, possibly modified, called party number to be used as input for the further analysis to select an outgoing gateway.
Performance Management	A functional area for collection and configuration of performance data.
P-Header	Private Header
Ported Number	A ported number is a user telephone number that has been kept when the user has changed its subscription from one operator to another one.



Preservation of Restoration Data

Different contacts of a user are to be registered in different Register requests. To avoid the existing restoration information in the HSS being overwritten by subsequent registration of a different contact, the restoration procedure uses the Multiple-registration-indication AVP in the SAR message.

According to 3GPP TS 23.380, when the HSS receives an SAR with Multiple-registration-indication and the Public Identity is stored as “registered” and there exists restoration information, the HSS does not overwrite the stored restoration information. Instead, the HSS rejects the SAR request and includes the existing restoration information in the SAA response. The S-CSCF updates the received restoration information with data of the new contact.

The updated restoration information is sent back to the HSS through another SAR with SAT equals to re-registration. This time the HSS accepts the restoration information update.

Primary S-CSCF

The S-CSCF serving the user before a failover.

RADIUS

Remote Authentication Dial In User Service. An internet protocol for carrying authentication, authorization and configuration information (RFC 2865), or accounting information (RFC2866 and RFC 2867) between a Network Access Server and a shared authentication/accounting server.

RAND

Random Challenge. A component of an AV, used to challenge a UE to authenticate itself to a network.

RAR

Re-Auth-Request. Rate based throttling provides a mechanism to restrict the rate of initial SIP requests from access networks toward the core network on a per SIP method basis.

Rating

The act of determining the cost of the service event.

Registered state

The subscriber has at least one registered contact.

Registered

The Public Identity has successfully completed the registration procedure.



Registrar	A registrar is a server that accepts REGISTER requests and places the information it receives in those requests into the Location Service for the domain it handles. For further information, see Session Initiation Protocol - IETF RFC 3261.
Registration	Binding of a contact address to a Public User Identity.
Restoration	The mechanism that is done by an S-CSCF for retrieving the restoration information from the HSS.
Restoration Backup	The mechanism done by an S-CSCF for storing the restoration information to the HSS.
Returned parameters	Information (CPB, DMS, SMS, version, and state identifiers) returned in the SigComp header to the other peer.
Role	A physical node contains functions like S-CSCF, I-CSCF, and E-CSCF. These functions can be used separately or combined. A role is either a function or a combination of functions that is possible to start from an external node using a defined port. Examples of roles are I, S, and IS.
Rule	Authorization rules specify the permissions to a set of resources within the ME. The authorization rules are grouped into roles. Authorization rules are defined locally on the ME.
S-CSCF Service Interruption	A time period in which the S-CSCF does not respond to requests and does not send any requests to the rest of the IMS network.
SA	Security Association. The establishment of shared security attributes between two network entities to support secure communication. An SA can, for example, include the following attributes: cryptographic algorithm and mode; traffic encryption key; and parameters for the network data to be passed over the connection.
Scaling Domain	The set of nodes that can be subject of a scaling operation. The CSCF scaling domain consists of all traffic nodes (PL-3, PL-4, PL-5 ... PL-N).
SCP	Secure Copy. A remote file copy program.



SDP	Software Delivery Package. An archive file (TAR file) with RPM® software packages and a file describing the Ericsson product data. A software item can be an SDP. A software item represents any kind of Ericsson software product that is present on the ME.
SDP offer/answer	A procedure used in IMS (SIP) to negotiate a multimedia (IMS) session between end points and arrives at a common view of the media parameters. For further information, see An Offer/Answer model with the Session Description Protocol (SDP) - IETF RFC 3264.
Secondary S-CSCF	The S-CSCF serving a user after the primary S-CSCF has failed.
Selectors	IP source address, IP destination address, IP protocol, IP source port, and IP destination port.
Server Capabilities	The S-CSCF capability to support the defined service profiles of a user.
Service Data Flow	An aggregate set of IP flows. For GPRS/WCDMA, it must be possible that a service data flow is more granular than a PDP context.
Service Data Flow Filter	A set of filter parameters used to identify one or more of the IP flows constituting a service data flow. At least the following means for the IP flow identification to be supported; source and destination IP address+port, protocol. The Service Data Flow Filter is used by the PCRF and the PCEF.
Service Record	A DNS Resource Record for specifying the location of services.
Serving Call Session Control Function	The S-CSCF is the entity that receives the SIP request. It analyses the SIP request and, depending on the result of the analysis, routes the SIP request to the BGCF, from which the Number Portability function can be started.
Session Refresh Request	An INVITE or UPDATE request sent within a dialog where at least one of the UEs supports the session timer procedure according to RFC4028.



SF	System Functions. Common system functions and resources for the management entity such as Fault Management (F _m), Performance Management (P _m), and Security Management (SecM). <i>SystemFunctions</i> is one of the first-level branches in the MOM.
Shared iFC	Initial Filter Criteria derived from the local definition associated with the Shared iFC Set ID present in the user profile received from the HSS.
SQN	Sequence Number. Used to compute XRES, CK, IK, and AUTN.
Standalone Request	A SIP request that does not create a dialog or is not part of an existing dialog.
State	Data saved for retrieval by a SigComp message.
Stateless Compression	In Stateless Compression, no state is saved, that is, SMS = 0. Hence, the byte code is sent in each SigComp message.
Struct	Handles structured attributes that can contain an arbitrary number of elements of the same or different type. Each struct is defined in the related MOC description.
Stub Area	A stub area is an area which does not receive route advertisements external to the autonomous system and routing from within the area is based entirely on a default route.
STUN	Session Traversal Utilities for NAT. A feature, as defined by RFC 5389, to allow an end host to discover its public IP address if it is located behind a NAT. It is used to permit NAT traversal for applications of real-time voice, video, messaging, and other interactive IP communications.
Subscriber	Generally a subscriber is a user agent who receives NOTIFY requests from notifiers; these NOTIFY requests contain information about the state of a resource in which the subscriber is interested. Subscribers typically also generate SUBSCRIBE requests and send them to notifiers to create subscriptions. For this event, a subscriber wants to get informed about registration state changes for a specific registered public identity/identities.
Subsequent Request	A SIP request that is part of an existing dialog.



SysM	System Management. Represents the system-level functions such as time handling and version handling. <i>SysM</i> is a system function.
TCP	Transmission Control Protocol. Part of the TCP/IP protocol stack. Provides a connection-oriented way to move data across the network. The protocol support byte oriented transfer of data between the applications, and is a reliable end-to-end transport protocol between the TCP processes.
Telephone Object Request Broker	An Ericsson propriety operating system. It is a CORBA®-compliant, distributed real-time processing environment, providing a robust cluster-based platform for telecom applications.
Transaction	Configuration changes are applied through atomic transactions. Thus, it is ensured that all or none of the operations are executed.
Transport Management	Transport-related functions and resources, for example, load sharing between all configured and available blades in the cluster, and distribution of incoming traffic to the system. <i>Transport</i> is one of the first-level branches in the MOM.
Trap	An unacknowledged SNMP message that carries a notification or heartbeat.
UA	User Agent. An endpoint in a SIP-based network that initiates SIP requests and generates accept, reject, and redirect responses on the behalf of the user.
Unregistered	The Public Identity has a state stored in the HSS as a consequence of a call from or to an unregistered service.
Unregistered state	The subscriber is not registered, but it has services related to its unregistered state.
Update of Restoration Information	An S-CSCF updates the restoration information in the HSS once changes are detected, the S-CSCF uploads to the HSS the whole set of restoration information belonging to the IMPI/IMPU or IMPI/IRS pair including both changed and unchanged information.



Upgrade	A product or product version that is created to provide an increased level of functionality or performance to a user. Upgrade is also the operation to replace a previous product or product version with a new product or product version that provides an increased level of functionality.
Uplink	The direction of traffic from the UE to the network.
URL	Uniform Resource Locator. The addressing system used by the server and the client to request, for example, a document. It is often called a location. The format of a URL is [protocol]://[machine:port]/[document]. The port number is necessary only on selected servers.
UTC	Coordinated Universal Time. UTC is the time-scale maintained by the Bureau International des Poids et Mesures (BIPM), with assistance from the International Earth Rotation Service (IERS), which forms the basis of a coordinated dissemination of standard frequencies and time signals. It corresponds exactly in rate with International atomic time (TAI) but differs from it by an integer number of seconds.
Vi-Vnfm	Reference point between Virtual Infrastructure Manager (VIM) and VNFM.
Virtual Network	A cloud infrastructure building block which provides logical separation of networking between VNF instances.
Virtual Network Function	One or more Virtual Machine (VM) instances that forms a VNF and delivers a network service/feature, or set of services/features, to its users.
Virtual Network Function Instance	An instantiation of VNF at time of deployment when a VNF is deployed in a cloud infrastructure. Multiple VNF instances of the same type can exist in parallel in the same cloud infrastructure.
Virtual Routing Function	A cloud infrastructure building block that provides Layer 3 routing capabilities to Virtual Networks.



White List Logic	<p>Implementing a screening function using White List Logic means that the list contains entries that are allowed to be used.</p> <p>For Payload Type Screening, this means that the list contains payload types that are allowed to be used. If a payload type is not specified in the list, the payload type is implicitly not allowed to be used.</p>
Wildcarded Public Identity	<p>A Wildcarded Public User Identity or a Wildcarded Public Service Identity.</p>
Wildcarded Public Service Identity	<p>A Wildcarded Public Service Identity represents a collection of Public Service Identities. A PSI identifies a service, or a specific resource created for a service on an Application Server. A Wildcarded Public Service Identity can take the form of a SIP URI or a tel URI.</p>
Wildcarded Public User Identity	<p>An HSS provisioned identity that identifies a grouped set of Public User Identities that share service profile and are handled in one Implicit Registration Set. A Wildcarded Public User Identity can take the form of a SIP URI or a tel URI as defined in TS23.003.</p>
XMAC	<p>Expected MAC, a value computed by a UE and compared to a received MAC value.</p>
XPath	<p>XPath is a language for selecting parts of an XML document.</p>
XRES	<p>Expected RES, a value computed by an AuC and used by the S-CSCF to validate a received RES value.</p>



Glossary

3GPP

3rd Generation Partnership Project (UMTS)

3GPP2

3rd Generation Partnership Project (CDMA)

-A

The -A option can be omitted, if the password-less logon is not configured. The -A option enables the forwarding of the authentication agent connection.

AAA

AA Answer

AAR

AA Request

ABNF

Augmented Backus-Naur Form

ABR

Area Border Router

AC

Area Code

ACA

Accounting-Answer

ACDC

Aggregated CSR Data Collection

ACQ

All Call Query

ACR

Accounting-Request

AF

Application Function

AIT

Automatic Installation Tool

AKA

Authentication and Key Agreement

ALB

Abstract Load Balancer

ALG

Application Layer Gateway

AMR

Adaptive Multi-Rate

ANSI

American National Standards Institute

AoC

Advice of Charge

AOR

Address Of Record

API

Application Programming Interface

AppTrace

Application Trace

ARP

Address Resolution Protocol

AS

Application Server

ASA

Abort-Session-Answer

ASP

Application Service Part

ASR

Abort-Session-Request

ATCF

Access Transfer Control Function

ATM

Asynchronous Transfer Mode

AuC

Authentication Center



AV
Authentication Vector

AVP
Attribute-Value Pair

B2BUA
Back-to-Back User Agent

BCF
Break-in Control Function

BFD
Bidirectional Forwarding Detection

BGCF
Breakout Gateway Control Function

BNC
Bulk Number Contact

BNF
Backus-Naur Form

BRF
Backup and Restore Framework

BSP
Blade Server Platform

CAAS
Centralized Authentication and Authorization Server

CAS
Central Authentication Service

CAT
Customized Alerting Tones

CBA
Component Based Architecture

CC
Country Code

CCA
Credit Control Answer

CCF
Charging Collection Function

CCI
Communication Content Inspection

CCR
Credit Control Request

CDF
Charging Data Function

CDR
Call Detail Record

CDSv
Container Distribution Service

CEA
Capabilities-Exchange-Answer

CEE
Cloud Execution Environment

CER
Capabilities-Exchange-Request

CIC
Carrier Identification Code | Cloud Infrastructure Controller

CK
CIPHERING Key | Confidentiality Key

CLI
Command-Line Interface

CLU
Command-Line Utility

CM
Configuration Management

CMF
Configuration Management and provisioning Framework

CN
Core Network

COM
Common Operation and Maintenance

COOB
Call Out Of the Blue

**COTS**

Commercial-of-the-Shelf

CPB

Cycles Per Bit

CRS

Customized Ringing Signal

CS

Circuit Switch

CSCF

Call Session Control Function

CSI

Combinational Services

CSM

CBA System Model

CSR

Customer Service Request

CTF

Charging Trigger Function

CUDB

Centralized User Database

DAI

Dial Around Indicator

DBN

Database Network

DBPA

Diameter Base Protocol Accounting

DCCA

Diameter Credit Control Application

DDoS

Distributed Denial of Service

DHCP

Dynamic Host Configuration Protocol

DMZ

Demilitarized Zone

DN

Distinguished Name

DNS

Domain Name System | Domain Name System Server

DoS

Denial of Service

DPI

Deep Packet Inspection

DRBD

Distributed Replicated Block Device

DRF

Domain Routing Function

DRS

Distributed Resource Schedule

DSCP

Differentiated Services Code Point

DSL

Digital Subscriber Line

DTD

Document Type Definition

DTLS

Datagram Transport Layer Security

DUA-DB

Dynamic User Association Database

DUA-R

Dynamic User Association Router

DUA-S

Dynamic User Association Server

DUIS

Dynamic User Identity Support

EATF

Emergency Access Transfer Function

E-CSCF

Emergency Call Session Control Function

ECIM

Ericsson Common Information Model



ECLI
Ericsson Command-Line Interface

ECMP
Equal-Cost Multipath

ECS
Ericsson Cloud System

ECUR
Event Charging with Unit Reservation

EMS
Element Management System

ENB
Ericsson NETCONF Browser

ENM
Ericsson Network Manager

ENS
External Network Selection

ENUM
E.164 number

EO
Ericsson Orchestrator

EOS
End-Of-Selection

EP
Emergency Package

ESRN
Emergency Service Routing Number

ETS
Emergency Telecommunications Service

eVIP
Evolved Virtual Internet Protocol

FE
Flow Entry

FEE
Front-End Element

FHRP
First Hop Redundancy Protocol

FQDN
Fully Qualified Domain Name

FS
File System

FTU
File Transfer Utility

GETS
Government Emergency Telecommunications Service

GETS-AN
Government Emergency Telecommunications Service Access Number

GETS-FC
Government Emergency Telecommunications Service Feature Code

GGSN
Gateway GPRS Support Node

GIBA
GPRS IMS Bundled Authentication

gin
Generate Implicit Number

GPRS
General Packet Radio Services

GRUU
Globally Routable User Agent URI

GSTN
Global Switched Telephone Network

GTP
GPRS Tunneling Protocol

HDS
Ericsson Hyperscale Datacenter System

HOT
Heat Orchestration Template

HSS
Home Subscriber Server

**HTTP**

Hypertext Transfer Protocol

IaaS

Infrastructure as a Service

IARI

IMS Application Reference Identifier

IBCF

Interconnection Border Control Function

ICE

Interactive Connectivity Establishment

ICID

IMS Charging Identifier

ICMP

Internet Control Message Protocol

I-CSCF

Interrogating Call Session Control Function

IDP

International Dialing Prefix

IEC

Immediate Event Charging

IETF

The Internet Engineering Task Force

IFC

Initial Filter Criteria

IK

Integrity Key

IKEv1

Internet Key Exchange version 1

IKEv2

Internet Key Exchange version 2

IM

IP Multimedia

IMEI

International Mobile Station Equipment Identity

IMM

Information Model Management

IMPI

IMS Private Identity

IMPU

IMS Public Identity | IP Multimedia Public Identity

IMS

IP Multimedia Subsystem

IOI

Inter-Operator Identifier

IOPS

Input/Output Operations per Second

IP

Internet Protocol

IP-CAN

IP Connectivity Access Network

IP-PBX

Internet Protocol Private Branch Exchange

IPsec

IP Security

IPv4

IP version 4

IPv6

IP version 6

IRS

Implicit Registration Set

IRP

Integration Reference Point

IS

Information Service

ISC

IMS Service Control Interface

ISDN

Integrated Services Data Network



ISIM
IP Multimedia Services Identity Module

ISP
In-Service Performance

ITU
International Telecommunication Union

KQI
Key Quality Indicator

LBaaS
Load-Balancing-as-a-Service

LBE
Load Balancer Element

LDAP
Lightweight Directory Access Protocol

LDE
Linux Distribution Extension

LDN
Local Distinguished Name

LEM
Lightweight Entity Management

LI
Lawful Interception

LIA
Location Information Answer

LIR
Location Information Request

LISA
Location Information Service Authority

LM
Load Module

LRF
Location Retrieval Function

LSA
Link-State Advertisement

LZBS
Lempel-Ziv Back-Skip

MAC
Message Authentication Code

MAA
Multimedia-Authentication-Answer

MAR
Multimedia-Authentication-Request

MCC
Mobile Country Code

MCID
Malicious Communication Identification

MGC
Media Gateway Controller

MGCF
Media Gateway Control Function

MGW
Media Gateway

MIB
Management Information Base

MIM
Management Information Model

MIME
Multipurpose Internet Mail Extensions

MIP
Movable Internet Protocol

MMI
Man–Machine Interfaces

MNC
Mobile Network Code

MO
Managed Object

MOC
Managed Object Class

MOI
Managed Object Instance

MOM
Managed Object Model

**MRF**

Media Resource Function

MRFP

Media Resource Function Processor

MS

Mobile Station

Managed System

MSC

Mobile Switching Center

MSISDN

Mobile Subscriber ISDN Number

MSRP

Message Session Relay Protocol

MT

Mobile Termination

MTBF

Mean Time Between Failures

MTU

Maximum Transmission Unit

MW

Middleware

MWI

Message Waiting Indication

NAI

Network Provided Terminal Identity

NAPTR

Naming Authority Pointer

NASS

Network Attachment Subsystem

NAT

Network Address Translation

NBA

NASS Bundled Authentication

NBI

Northbound Interface

NDS

Network Domain Security

NE

Network Element

NENA

National Emergency Number Association

NetRed

Network Redundant

NFV

Network Functions Virtualization

NFVO

Network Functions Virtualization Orchestrator

NFVI

Network Functions Virtualization Infrastructure

NIC

Network Interface Controller

NM

Node Management

NNI

Network-Node-Interface

NPDB

Number Portability Database

NPDI

Number Portability Database Indicator

nPMF

new Performance Management Function

NPTI

Network Provided Terminal Identity

NSNs

National Significant Numbers

NTP

Network Time Protocol

NumNorm

Number Normalization

O&M

Operation and Maintenance



OA Overload Abatement	PANI P-Access-Network-Info
OAM Operations, Administration, and Maintenance	PBR Policy Based Routing
OCS Online Charging System	PBX Private Branch Exchange
ODI Original Dialog Identifier	PCFA P-Charging-Function-Address
OID Original Dialog Identifier	PCRF Policy and Charging Rules Function
OMR Optimal Media Routing	P-CSCF Proxy Call Session Control Function
OPI Operating Instructions	PCV P-Charging-Vector
oPMF old Performance Management Function	PDB Parameter Database
OR Onward Routing	PDBCLI Parameter Database Command-Line Interface
OSA Open Service Architecture	PDBGUI Parameter Database Graphical User Interface
OSPF Open Shortest Path First	PDN Public Data Network
OSN Operator Service Number	PDP Packet Data Protocol
OSS Operations Support System	PDSN Packet Data Serving Node
OSS-RC Operations Support System for Radio and Core	PDU Protocol Data Unit
OVA Open Virtual Appliance Open Virtual Alliance	PIDF-LO Presence Information Data Format Location Object
OVF Open Virtualization Format	PL Payload
OVFD Open Virtualization Format Descriptor	PLMN Public Land Mobile Network
PAI P-Asserted-Identity	



PM
Performance Management

PMC
Performance Management Counters

PMF
Performance Management Function

PNF
Physical Node Function

PoC
Push to Talk over Cellular

PPA
Push-Profile-Answer

PPI
P-Preferred-Identity

PPR
Push-Profile-Request

PRC
Primary Restore Candidate

PS
Packet Switched

PSAP
Public Safety Answering Point

PSI
Public Service Identity

PSTN
Public Switched Telephone Network

PT
Payload Type

PXE
Preboot Execution Environment

QoR
Query on Release

QoS
Quality of Service

RAA
Re-Auth-Answer

RADIUS
Remote Authentication Dial In User Service

RAND
Random Challenge

RAR
Re-Auth-Request

RCA
Root Cause Analysis

RDF
Routing Determination Function

RDN
Relative Distinguished Name

RES
Remote-control Equipment Subsystem

RFC
Request for Comments

RN
Routing Number

RPH
Resource-Priority Header

RS
Registration Surrogate

RTA
Registration Termination Answer

RTCP
RTP Control Protocol

RTP
Real-Time Transport Protocol

RTR
Registration Termination Request

RTT
Round-Trip Time

RUI
Resource Utilization Information

SA
Security Association



SAA
Server-Assignment-Answer

SAD
Security Association Database

SAF
Service Application Framework

SAN
Storage Area Network

SAP
Service Access Point

SAR
Server-Assignment-Request

SAT
Server_Assignment_Type

SBC
Session Border Controller

SBG
Session Border Gateway

S-CSCF
Serving Call Session Control Function

SC
System Controller

SCC AS
Service Centralization and Continuity
Application Server

SCSv
Statistics Collection Service

SCTP
Stream Control Transmission Protocol

SCUR
Session Charging with Unit Reservation

SDP
Session Description Protocol | Software
Delivery Package

SFTP
SSH File Transfer Protocol

SGSN
Serving GPRS Support Node

SiFC
Shared iFC

SigComp
Signalling Compression

SIM
Subscriber Identity Module

SIP
Session Initiation Protocol

SLF
Subscriber Location Function

SMP
Subscribed Media Profile

SMP ID
Subscribed Media Profile Identifier

SMS
State Memory Size

SNMP
Simple Network Management Protocol

SOAP
Simple Object Access Protocol

SoC
Statement of Compliance

SP
Service Provider

SPI
Security Parameter Index

SPT
Service Point Trigger

SQN
Sequence Number

SRV
Service Record

SRVCC
Single Radio Voice Call Continuity



SS Solution Set	UAA User-Authorization-Answer
SSH Secure Shell	UAC User Agent Client
SSHD Secure Shell Daemon	UAR User-Authorization-Request
SSO Single Sign-On	UAS User Agent Server
STA Session-Termination-Answer	UAT User Authorization Type
STR Session-Termination-Request	UDP User Datagram Protocol
STUN Session Traversal Utilities for NAT	UE User Equipment
TCP Transmission Control Protocol	UICC Universal Integrated Circuit Card
TCAP Transaction Capabilities Application Part	UMTS Universal Mobile Telecommunications System
TCO Total Cost Ownership	URI Uniform Resource Identifier
TelORB Telephone Object Request Broker	URL Uniform Resource Locator
tel URI Telephone Uniform Resource Locator	URN Uniform Resource Name
TIPC Transparent Inter-Process Communication	USIM Universal Subscriber Identity Module
TLS Transport Layer Security	UTC Coordinated Universal Time
TP Traffic Processor	UTRAN Universal Terrestrial Radio Access Network
TRs Trouble Reports	UUI User-User Information Element
TFTP Trivial File Transfer Protocol	UUID Universally Unique Identifier
UA User Agent	VAPP Virtual Application



VCPU

Virtual CPU

vCSCF

Virtual Call Session Control Function

vCD

vCloud Director

VDU

Virtualization Deployment Unit

VII

VNF Instantiation Improvement

VIP

Virtual IP

VLAN

Virtual Local Area Network

VM

Virtual Machine

VMDK

Virtual Machine Disk

VMM

Virtual Machine Monitor

VNF

Virtual Network Function

VNFC

Virtual Network Function Component

VNF-LCM

VNF Lifecycle Manager

VNFM

Virtual Network Function Manager

VNIC

Virtual Network Interface Controller | Virtual Network Interface Card

VoLTE

Voice over LTE

VP

Virtual Path

VPN

Virtual Private Network

VRRP

Virtual Router Redundancy Protocol

wIMPU

Wildcarded Public User Identity

WLAN

Wireless Local Area Network

WP

Wholesale Partner

WPS

Wireless Priority Service

wPSI

Wildcarded Public Service Identity

WSDL

Web Services Description Language

XCAP

XML Configuration Access Protocol

XDMS

XML Document Management Server

XMAC

Expected MAC

XRES

Expected RES

XSD

XML Schema Definition