

CSCF Library Overview

Call Session Control Function

DESCRIPTION

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1 Introduction

This document lists the information available for the Virtual Call Session Control Function (vCSCF).

1.1 CPI Product Numbers

The Customer Product Information (CPI) product numbers and delivery information is provided in Table 1.

Table 1 CPI Product Numbers

Product Name	Product Number	CPI Library
vCSCF 1.11.0	AVA 901 30/2 R13A	EN/LZN 765 0209 R13A

1.2 CPI Library Distribution

CPI libraries are distributed as follows:

- Online libraries on CPI Store on the Ericsson extranet

1.3 CPI Library Access

How to access the library, see the document [How to Get Started with Active Library Explorer](#).

1.4 Library Structure

The CPI library consists of documents grouped into the following main folders:

- Library Overview
- Product Overview
- Planning
- Operation and Maintenance
- Emergency
- Interface



1.5 Document Types

The documents are grouped into the following three types:

- Descriptive documents contain descriptions of the product on different levels.
- Operational documents give instructions on how to install, operate, or maintain the product.
- Reference documents contain additional information to which a user needs to refer.

1.6 Related Information

Trademark information, typographic conventions, definition, and explanation of acronyms and terminology used in this library, see the following documents:

- Trademark Information
- Typographic Conventions
- Glossary of Terms and Acronyms



2 CSCF Library

This section describes the CPI library contents for the CSCF library.

2.1 Library Overview

Documents included in this area are listed in Table 2. These documents are intended for all personnel involved in work related to any aspect of the product.

Table 2 Library Overview

Title	Description	Type
Glossary of Terms and Acronyms	Explanations of all terms, abbreviations, and acronyms that occur in the CPI library.	Description, Reference
CSCF Library Overview	Overview of the CPI library (this document).	Description, Reference
Trademark Information	Includes trademark information used in the CPI library.	Reference
Typographic Conventions	Includes typographic conventions used in the CPI library.	Reference

2.2 Product Overview

Documents included in this area are listed in Table 3. These documents are intended as an introduction for all personnel who want to learn more about the product.

Table 3 Product Overview

Title	Description	Type
CSCF Technical Description	Technical description of CSCF.	Descriptive
Free and Open Source Software	Contains notices and license documentation related to the Free and Open Source Software (FOSS) that is included in the CSCF.	Descriptive
Virtual CSCF Infrastructure Requirements	Describes the minimum infrastructure resource requirements to deploy virtual CSCF application in a Cloud deployment.	Descriptive
Statement of Compliance		
CSCF Statement of Compliance Overview	General information about compliances with standards for the product.	Descriptive



2.3 Planning

Documents included in this area are listed in Table 4. These documents are intended for personnel responsible for planning, implementation, and product handling.

Table 4 Planning

Title	Description	Type
CSCF VNF Network Connectivity Overview	Provides a general description of the CSCF logical network connectivity in a virtualized or Cloud environment.	Descriptive
vCSCF Network Impact Report	Describes the impact of current product release on a previous release of the product.	Descriptive

2.4 Installation

Documents included in this area are listed in Table 5. These documents are intended for personnel performing software installation and configuration.

Table 5 Upgrade

Title	Description	Type
Instantiate OpenStack VNF Using EO	Step-by-step instructions to instantiate a VNF using Ericsson Orchestrator (EO)	Operative
Instantiate OpenStack VNF Using VNF-LCM	Step-by-step instructions to instantiate a VNF in VNF-LCM.	Operative
Instantiate VMware VNF Using VNF-LCM	Step-by-step instructions to instantiate a VMware VNF in the VNF-LCM.	Operative
vCSCF Upgrade Information	Describes how to upgrade the CSCF from earlier versions.	Descriptive, Operative

2.5 Operation and Maintenance

The following subsections list documents included in the Operation and Maintenance (O&M) area.

Table 6 Operation and Maintenance

Title	Description	Type
Ericsson Command-Line Interface User Guide	Describes the basic features of the Ericsson Command-Line Interface (ECLI) and how to use it.	Descriptive, Operative



2.5.1 Fault Management

Documents included in this area are listed in Table 7. These documents are intended for personnel performing fault handling, alarm handling, and troubleshooting.

Table 7 Fault Management

Title	Description	Type
Handling Alarms	Provides an overview of the management model and concepts associated with this managed area.	Descriptive
Alarms		
CSCF Alarm List	Lists all alarms that the CSCF can receive.	Reference
CSCF List of Alarms and Attributes	Lists all alarms and attributes.	Reference
Troubleshooting Information		
CSCF AppTrace User Guide	Describes how to use and apply the Application Trace (AppTrace) in the CSCF.	Descriptive, Operative
CSCF Fault Codes Catalogue	Describes the fault codes that are generated by the CSCF.	Descriptive, Reference
CSCF Network Tracing	Describes the procedure that is to be used to obtain network traces from the CSCF.	Descriptive, Operative
CSCF SIP Hexadecimal Error Codes	Describes the CSCF SIP response error codes that can occur for the SIP.	Descriptive
CSCF Troubleshooting Guideline	Describes common corrective actions to locate an error.	Descriptive, Operative
CSCF User Tracing	Describes the procedure to obtain user traces from the CSCF nodes.	Descriptive, Operative
Data Collection		
Data Collection Guideline for CSCF	Step-by-step instructions required during data collecting activities.	Descriptive, Operative

2.5.2 Configuration Management

Documents included in this area are listed in Table 8. These documents are intended for personnel working with configuring and fine-tuning. It is also intended for personnel performing provisioning.

Table 8 Configuration Management

Title	Description	Type
CSCF Configuration Management	Provides information regarding configuration activities, including procedures and background information	Descriptive, Operative
CSCF User Data Output Guideline	Provides CSCF troubleshooting guidelines on printing user data from the Serving CSCF (S-CSCF) and the Proxy CSCF (P-CSCF).	Descriptive, Operative
System Management	Provides information about configuration activities, including procedures and background information.	Descriptive
Configuration Management Parameters		
vCSCF 1.11.0 Master Parameter Value List for Performance Management	Source parameter list for the CSCF for Performance Management.	Reference
vCSCF 1.11.0 Master Parameter Value List for CSCF CM Application	Source parameter list for the CSCF for NETCONF.	Reference
vCSCF 1.11.0 Master Parameter Value List for eVIP Configured as FEE HA and SCTP Single Stack	Source parameter list for the CSCF for eVIP Configured as FEE HA and SCTP Single Stack	Reference
vCSCF 1.11.0 Master Parameter Value List for eVIP Configured as BFD-Static and SCTP Single Stack	Source parameter list for the CSCF for eVIP configured as BFD-Static	Reference
vCSCF 1.11.0 Complement Master Parameter Value List for BCF	Source parameter list for BCF Complement Master Parameter Value List for Netconf	Reference
Diameter Management		
vDicosDia Managed Object Model	Provides an overview of the management model and concepts associated with the Diameter Management managed area.	Descriptive
File Management		
Handling Files	Provides an overview of the management model and concepts associated with this managed area.	Descriptive
Transport Management		
Virtual IP Addressing	Provides an overview of the management model and concepts associated with the Virtual IP Address Management managed area.	Descriptive



2.5.3 Performance Management

Documents included in this area are listed in Table 9. These documents are intended for personnel involved in performance monitoring.

Table 9 Performance Management

Title	Description	Type
Performance Management	Provides an overview of the management model and concepts associated with the Performance Management managed area.	Descriptive
SCTP Performance Measurements	Describes the SCTP performance measurements.	Descriptive
List Performance Management Groups and Measurement Types	Describes how to list the Performance Management (PM) groups and measurement types.	Descriptive
List Performance Management Jobs	Describes how to list the PM jobs.	Descriptive
Create Measurement Collection Job	Describes how to create a measurement collection job.	Descriptive
Start Measurement Collection Job	Describes how to start a measurement collection job.	Descriptive
Stop Measurement Collection Job	Describes how to stop a measurement collection job.	Descriptive
Delete Measurement Collection Job	Describes how to delete a measurement collection job.	Descriptive
Create Threshold Monitoring Job	Describes how to create a threshold monitoring job.	Descriptive
Start Threshold Monitoring Job	Describes how to start a threshold monitoring job.	Descriptive
Stop Threshold Monitoring Job	Describes how to stop a threshold monitoring job.	Descriptive
Delete Threshold Monitoring Job	Describes how to delete a threshold monitoring job.	Descriptive

2.5.4 Scaling Management

Documents included in this area are listed in Table 10. These documents are intended for personnel involved in scaling.



Table 10 Scaling Management

Title	Description	Type
CSCF Scaling Management	Provides an overview of the management model and concepts associated with the Scaling Management managed area.	Descriptive
Manage Scaling		
Increase Capacity Manually	Step-by-step instructions on how to increase the capacity of the CSCF cluster, that is, to scale out, by adding a Virtual Machine (VM) manually.	Operative
Decrease Capacity Manually	Step-by-step instructions on how to decrease the capacity of the CSCF cluster, that is, to scale in, by deleting a VM manually.	Operative
Increase Capacity with Heat Orchestration	Step-by-step instructions on how to increase the capacity of the CSCF cluster, that is, to scale out, by adding a VM with Heat Orchestration.	Operative
Decrease Capacity with Heat Orchestration	Step-by-step instructions on how to decrease the capacity of the CSCF cluster, that is, to scale in, by deleting a VM with Heat Orchestration.	Operative

2.5.5 Security Management

Documents included in this area are listed in Table 11. These documents are intended for personnel performing security tasks, including supervision and user administration. They are also intended for personnel performing hardening of the product.

Table 11 Security Management

Title	Description	Type
CSCF Hardening Guideline	Describes the basic hardening information of the CSCF.	Descriptive
CSCF Security User Guide	Describes the security functions implemented by the CSCF) and the security-related procedures that can be performed by the system administrators.	Descriptive
User Management	Provides an overview of the management model and concepts associated with the User Management managed area.	Descriptive
Certificate Management		
Certificate Management	Provides an overview of the management model and concepts associated with the Certificate Management managed area.	Descriptive



2.5.6 Software Management

Documents included in this area are listed in Table 12. These documents are intended for personnel performing preventive maintenance of the software and for personnel involved in troubleshooting. They are also intended for personnel performing backup and restoration.

Table 12 Software Management

Title	Description	Type
Software Management	Provides an overview of the management model and concepts associated with the Software Management managed area.	Descriptive
Software Inventory Management	Provides an overview of the management model and concepts associated with the Software Inventory Management managed area.	Descriptive
Backup and Restore		
System Backup and Restore	Provides an overview of the management model and concepts associated with the Backup and Restore managed area.	Descriptive
License Management		
License Management	Provides an overview of the management model and concepts associated with the License Management managed area.	Descriptive
CSCF License Management		

2.5.7 VNF Life Cycle Management

Documents included in this folder are listed in Table 13. These documents contain information on how to manage Virtual Network Function (VNF) life cycle procedures.

Table 13 VNF Life Cycle Management

Title	Description	Type
CSCF VNF Lifecycle Management	Provides an overview of the VNF Life Cycle Manager (VNF-LCM) and concepts associated with the VNF Life Cycle Management managed area.	Descriptive
Terminate OpenStack VNF Using EO	Step-by-step instructions to terminate a VNF using EO	Operative
Heal OpenStack VNF Using VNF-LCM	Step-by-step instructions to heal a VNF in VNF-LCM.	Operative
Configure Time-Based Scaling	Step-by-step instructions for Time-based Scaling.	Operative



Table 13 VNF Life Cycle Management

Title	Description	Type
Scale in OpenStack VNF Using VNF-LCM	Step-by-step instructions to decrease capacity in a VNF	Operative
Scale out OpenStack VNF Using VNF-LCM	Step-by-step instructions to increase capacity in a VNF	Operative
Terminate OpenStack VNF Using VNF-LCM	Step-by-step instructions to terminate a VNF using VNF-LCM.	Operative
Scale in VMware VNF Using VNF-LCM	Step-by-step instructions to decrease capacity in a VNF	Operative
Scale out VMware VNF Using VNF-LCM	Step-by-step instructions to increase capacity in a VNF	Operative
Terminate VMware VNF Using VNF-LCM	Step-by-step instructions to terminate a VNF using VNF-LCM.	Operative

2.5.8 Health Check

Documents included in this area are listed in Table 14. These documents are intended for personnel performing installation, preventive maintenance of the software, and provisioning tasks. They are also intended for personnel involved in troubleshooting.

Table 14 Health Check

Title	Description	Type
Check CSCF Key Performance Indicators	Describes how to perform a check of the Key Performance Indicators (KPIs) on the CSCF.	Operative
CSCF Health Check	Step-by-step instructions required in health check situations.	Operative

2.5.9 Events

Documents included in this area are listed in Table 15. These documents contain information about the events provided by the product.

Table 15 Events

Title	Description	Type
AlarmListRebuilt	Describes event AlarmListRebuilt and how to handle it.	Descriptive, Operative



Table 15 Events

Title	Description	Type
eVIP, Configuration Fault	Describes event eVIP, Configuration Fault and how to handle it.	Descriptive, Operative
HeartBeat	Describes event HeartBeat and how to handle it.	Descriptive, Operative

2.5.10 Managed Object Management

The Managed Object Model (MOM) included in this area is listed in Table 16. The MOM is intended for personnel working with configuring and who requires detailed information about the MOM.

Table 16 MOMs

Title	Description	Type
Managed Object Model User Guide	Describes the MOM and how to use it.	Descriptive, Operative
Managed Object Model (MOM)	The MOM defines the information model about Node Management. It presents a view of all the manageable resources in the node, and all the parameters and actions associated with these resources.	Descriptive, Reference

2.6 Emergency

Documents included in this area are listed in Table 17. These documents are intended for personnel authorized to perform an emergency recovery.

Table 17 Emergency

Title	Description	Type
Emergency Recovery Procedure for CSCF	Information regarding emergency recovery activities, including procedures and background information.	Descriptive, Operative

2.7 Interface

Documents included in this area are listed in Table 18. These documents are intended for personnel needing to understand the logical entity, including interfaces and protocols.

Table 18 Interface

Title	Description	Type
Ericsson Alarm Interface	Describes the alarm interface concepts.	Descriptive, Reference
Ericsson Command-Line Interface	Describes the ECLI, including descriptions of all commands, key combinations, error messages, character support, and examples.	Descriptive, Reference
Ericsson FTP over TLS	Describes the Ericsson FTP over TLS interface.	Descriptive, Reference
Ericsson NETCONF Interface	Describes the Ericsson Network Configuration (NETCONF) interface, including standard compliance, NETCONF operations, and examples.	Descriptive, Reference
Performance Management Report File Format	Describes the 3GPP® compliant Performance Management (PM) XML file format supported in the PM interfaces.	Descriptive, Reference
CSCF Cx and Dx Interface	Detailed information regarding the Cx/Dx interface.	Descriptive, Reference
CSCF I4 and I5 Interface	Detailed information regarding the EATF and the CSCF using reference points I4 and I5.	Descriptive, Reference
CSCF ISC Interface	Detailed information regarding the ISC interface.	Descriptive, Reference
CSCF Mw Interface	Detailed information regarding the interface between CSCF including the BGCF to multiple SIP-based nodes using the reference points Mg, Mj, Mk, Mm/Mx, Mr, Mw, and I2.	Descriptive, Reference
CSCF Rf Interface	Detailed information regarding the Rf interface, used for offline charging.	Descriptive, Reference
CSCF Ro Interface	Detailed information regarding the Ro interface, used for online charging.	Descriptive, Reference
E-CSCF MI SIP Interface	Detailed information regarding the SIP-based MI interface.	Descriptive, Reference
I-CSCF DUA-DB LDAP Interface	Detailed information regarding the LDAP interface between the I-CSCF and the Dynamic User Association-Database (DUA-DB).	Descriptive, Reference