

# Library Changes

## Call Session Control Function

### LIBRARY REVISION INFORMATION

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# 1 Introduction

This document shows the changes in the Virtual Call Session Control Function (vCSCF) library between the following releases:

**From** vCSCF 1.10.0, EN/LZN 765 0209 R12A  
**To** vCSCF 1.11.0, EN/LZN 765 0209 R13A

The following changes are shown:

- Documents added
- Documents changed
- Documents removed

The reason for a change is described, for example, new, updated, or removed features, as well as corrected faults and responses to change requests.

Minor changes, however, such as language corrections, link errors, and editorial improvements are not shown in the tables below unless these are the only corrections in the update.

## 2 Description of Changes

The structure in this section reflects the structure of the current library.

### 2.1 New and Changed Documents

#### 2.1.1 [ Library Front Page ]

Table 1 [ Library Front Page ]/Front Page Image

Title	Identity	Change
A Guide to Active Library Explorer	2/1424-EN/LZN 765 0209 Uen B	New document



## 2.1.2 Library Overview

Table 2 Library Overview

Title	Identity	Change
CSCF Library Overview	1551-EN/LZN 765 0209 Uen U	
Glossary of Terms and Acronyms	1/0033-AVA 901 30/2 Uen M	
Library Changes	109 45-EN/LZN 765 0209-13 Uen A	New document
Trademark Information	006 51-AVA 901 30/2 Uen D	
How to Get Started with Ericsson Library Explorer	1/1553-LXA 119 1929 Uen B	New document
How to Get Started with Active Library Explorer	1/1553-CRAH 301 1061 Uen J	

## 2.1.3 Product Overview

Table 3 Product Overview

Title	Identity	Change
CSCF Technical Description	221 02-AVA 901 30/2 Uen S	Section 3.1: Added E4 interface Section 3.6: Updated Section 6: Updated supported VNF workflows. Removed section Software Management.
Free and Open Source Software	0962-AVA 901 30/2 Uen L	
Virtual CSCF Infrastructure Requirements	3/1056-AVA 901 30/2 Uen L	Section 1: Added required minimum versions of Virtual Infrastructure Manager (VIM). Section 4: Changed the recommended disk size from 250 GB to 500 GB; Changed the footnote about delivered disk size to 50 GB.

## 2.1.4 Planning

Table 4 Planning

Title	Identity	Change
CSCF VNF Network Connectivity Overview	3/1551-CRA 119 1740 Uen V	Added section 2.4 MTU Considerations. Updated section 3.5.1 Avoid Fragmented UDP Packets through Using TCP.
vCSCF Network Impact Report from 1.6.x to 1.11.0	2/109 48-AVA 901 30/2-15 Uen A	New document
vCSCF Network Impact Report from 1.7.x to 1.11.0	4/109 48-AVA 901 30/2-15 Uen A	New document
vCSCF Network Impact Report from 1.8.x to 1.11.0	6/109 48-AVA 901 30/2-15 Uen A	New document



Table 4 Planning

Title	Identity	Change
vCSCF Network Impact Report from 1.9.x to 1.11.0	8/109 48-AVA 901 30/2-15 Uen A	New document
vCSCF Network Impact Report from 1.10.x to 1.11.0	10/109 48-AVA 901 30/2-15 Uen A	New document

## 2.1.5 Installation

Table 5 Installation

Title	Identity	Change
Instantiate OpenStack VNF Using EO	60/1543-AVA 901 30/2 Uen D	
Instantiate OpenStack VNF Using VNF-LCM	52/1543-AVA 901 30/2 Uen F	
Instantiate VMware VNF Using VNF-LCM	62/1543-AVA 901 30/2 Uen E	
vCSCF Upgrade Information from 1.6.x to 1.11.0	1/153 72-CXP 903 5589/1-18 Uen A	New document First release for v1.11.0.
vCSCF Upgrade Information from 1.7.x to 1.11.0	1/153 72-CXP 903 5589/1-19 Uen A	New document New document for v1.11.0.
vCSCF Upgrade Information from 1.8.x to 1.11.0	1/153 72-CXP 903 5589/1-20 Uen A	New document New document for v1.11.0.
vCSCF Upgrade Information from 1.9.x to 1.11.0	1/153 72-CXP 903 5589/1-21 Uen A	New document New document for v1.11.0.
vCSCF Upgrade Information from 1.10.x to 1.11.0	1/153 72-CXP 903 5589/1-22 Uen A	New document New document for v1.11.0.

## 2.1.6 Operation and Maintenance

Table 6 Operation and Maintenance/Fault Management/Alarms

Title	Identity	Change
CSCF Alarm List	1/006 51-AVA 901 30/2 Uen L	Added three alarms: C-Diameter, Diameter Measurement Threshold Crossed; C-Diameter, Peer Connection Congestion; and C-Diameter, RTT to Remote Node Exceed Limits.
CSCF List of Alarms and Attributes	2/006 51-AVA 901 30/2 Uen N	
BRM, Auto Export Backup Failed	9/1543-CAA 901 2624/4 Uen D	Updated the following based on MR60852. Table 1 Section 2.1 Handle Alarm BRM, Auto Export Backup Failed Insert new Section 2.6 "Handle Reason Server Diskspace Error" Firm revision.



Table 6 Operation and Maintenance/Fault Management/Alarms

Title	Identity	Change
BRM, Auto Export Manual Backup Failed	49/1543-CAA 901 2624/4 Uen C	Updated the following based on MR60852. Table 1 Section 2.1 Handle Alarm BRM, Auto Export Manual Backup Failed Insert new Section 2.6 "Handle Reason Server Diskspace Error" Firm revision.
BRM, Scheduled Backup Failed	8/1543-CAA 901 2624/4 Uen D	Updated the following based on MR60852. Table 1 Section 2.1 Handle Alarm BRM, Scheduled Backup Failed Insert new Section 2.3 "Handle Reason BRF Conflict with Other Task" Insert new Section 2.4 "Handle Reason Participant Reported Error" Insert new Section 2.5 "Handle Reason System Failover or Reboot" Firm revision.
CSCF, DNS Server Unavailable	49/1543-AVA 901 30/2 Uen F	Section 2.1: Prerequisite added. Section 2.1: Replaced "<username>" with "<emergency_username>" in Step 1. Section 2.1: Replaced "<OAM IP>" with "<OAM-MIP>" in Step 1. Section 2.1: Replaced "sudo or root" privileges with "SystemTroubleshooter" privileges in the notification in Step 6.
CSCF Charging Backup File System Unavailable	10/1543-AVA 901 30/2 Uen E	Updated storage path from /cluster/storage to /storage. Changed Additional Text to "Backup Write Failure, Backup Disk Full".
DBS, NR, Configuration Invalid	8/1543-CXP 902 5264/5 Uen F	Removed the "Source" line from the Alarm Attributes table.
DBS, NR, Initial Synchronization Needed	5/1543-CXP 902 5264/5 Uen E	Removed the "Source" line from the Alarm Attributes table.
DBS, NR, Out of Sync	3/1543-CXP 902 5264/5 Uen F	Removed the "Source" line from the Alarm Attributes table.
DBS, NR, Synchronization Needed	4/1543-CXP 902 5264/5 Uen E	Removed the "Source" line from the Alarm Attributes table.
License Management, Autonomous Mode Activated	1/1543-APR 901 0503/6-2 Uen B	
LPM, Load Regulation Limit Passed	1/1543-APR 901 0464/4 Uen A	New document Document renumbered for vDicos 4.10. Old number was 1/1543-CXP 904 0373/4.
SS7 CAF SCTP IP Path is Down	24/1543-ANA 901 37 Uen D	
C-Diameter, Diameter Measurement Threshold Crossed	6/1543-APR 901 0580/3 Uen B	New document
C-Diameter, Peer Connection Congestion	15/1543-APR 901 0580/3 Uen A	New document
C-Diameter, RTT to Remote Node Exceed Limits	18/1543-APR 901 0580/3 Uen A	New document





Table 6 Operation and Maintenance/Fault Management/Alarms

Title	Identity	Change
vDicos, Diameter Link Congestion	5/1543-APR 901 0580/3 Uen A	New document
vDicos, Diameter Link Disabled	3/1543-APR 901 0580/3 Uen A	New document
vDicos, Diameter Link Failure	4/1543-APR 901 0580/3 Uen A	New document
vDicos, Diameter Own Node Disabled	1/1543-APR 901 0580/3 Uen A	New document
vDicos, Diameter Peer Node Disabled	2/1543-APR 901 0580/3 Uen A	New document

Table 7 Operation and Maintenance/Fault Management/Troubleshooting Information

Title	Identity	Change
CSCF Fault Codes Catalogue	1545-AVA 901 30/2 Uen M	Removed section 2.1.4 Rx Interface, and other references to Rx.
CSCF Network Tracing	1/1553-AVA 901 30/2 Uen J	Section 3.1 > Prerequisites: Replaced sudo/root with maintenance or systemtroubleshooter. Section 3.2: Replaced "user1" with "<emergency_username>" and "<IP-address>" with "<OAM-MIP>" in Step 1.
CSCF SIP Hexadecimal Error Codes	2/1551-AVA 901 30/2 Uen L	Editorial update.
CSCF User Tracing	10/1553-AVA 901 30/2 Uen E	Updated storage path from /cluster/storage to /storage.
CSCF Troubleshooting Guideline	1/154 51-AVA 901 30/2 Uen N	
vDicos Troubleshooting Guideline	1/154 51-APR 901 0464/4 Uen A	New document  Document renumbered for vDicos 4.10. Old number was 1/154 51-CXP 902 5265/4.

Table 8 Operation and Maintenance/Configuration Management

Title	Identity	Change
CSCF Configuration Management	3/1553-AVA 901 30/2 Uen U	Section 3.2.1.1: Updated regarding queries for availability.test. Updated document structure, sorted by Management Area. Section 2.4.8.1: Updated for eVIP configuration changes including HA Confidential Fees. Section 2.5.4: New section Configure Support for AS Traffic Redistribution Section 2.6.2: Add notification for CSCF behavior directly after locked state.
CSCF User Data Output Guideline	11/1553-AVA 901 30/2 Uen D	Sections 3.1.1 and 3.1.2: Replaced "<user>" with "<emergency_username>" and "<platform-vip>" with "<OAM-MIP>"; and deleted some command examples.



Table 9 Operation and Maintenance/Configuration Management/Configuration Management Parameters

Title	Identity	Change
vCSCF 1.11.0 Master Parameter Value List for Performance Management	30/190 73-AVA 901 30/2 Uen J	New document
vCSCF 1.11.0 Master Parameter Value List for CSCF CM Application	31/190 73-AVA 901 30/2 Uen J	New document
vCSCF 1.11.0 Master Parameter Value List for eVIP Configured as FEE HA and SCTP Single Stack	25/190 73-AVA 901 30/2 Uen J	New document
vCSCF 1.11.0 Master Parameter Value List for eVIP Configured as BFD-Static and SCTP Single Stack	26/190 73-AVA 901 30/2 Uen J	New document
vCSCF 1.11.0 Complement Master Parameter Value List for BCF	27/190 73-AVA 901 30/2 Uen J	New document

Table 10 Operation and Maintenance/Configuration Management/Diameter Management

Title	Identity	Change
vDicosDia Managed Object Model	11/1553-APR 901 0580/3 Uen C	New document
vDicosDia, Configure Own Node	7/1543-APR 901 0580/3 Uen A	New document First version, based on 147/1543-APA 901 44/1, originally in the CBA System Functions library.
vDicosDia, Expand Diameter Dictionaries	11/1543-APR 901 0580/3 Uen A	New document First version, based on 150/1543-APA 901 44/1.
vDicosDia, Configure Peer Node and Peer Connection	8/1543-APR 901 0580/3 Uen A	New document First version, based on 148/1543-APA 901 44/1, originally in the CBA System Functions library.
vDicosDia, Disable or Enable Peer Node	10/1543-APR 901 0580/3 Uen A	New document First version, based on 151/1543-APA 901 44/1, originally in the CBA System Functions library.
vDicosDia, Configure Routing Table	9/1543-APR 901 0580/3 Uen A	New document First version, based on 149/1543-APA 901 44/1, originally in the CBA System Functions library.

Table 11 Operation and Maintenance/Configuration Management/Transport Management

Title	Identity	Change
Virtual IP Routing	3/1551-APR 901 0467/3 Uen C	

Table 12 Operation and Maintenance/Log Management Framework

Title	Identity	Change
Log Management Framework Description	4/155 16-CAA 901 2624/4 Uen D	New document



Table 12 Operation and Maintenance/Log Management Framework

Title	Identity	Change
LogM System Architecture Description	3/155 53-APR 901 0444/4 Uen E	New document
Configure Automatic Log Streaming	57/1543-CAA 901 2624/4 Uen C	New document
Export Log Stream	56/1543-CAA 901 2624/4 Uen B	New document
Set Severity Filter	55/1543-CAA 901 2624/4 Uen C	New document
View Export Log Stream Progress Report	58/1543-CAA 901 2624/4 Uen B	New document
View State of Automatic Log Streaming	75/1543-CAA 901 2624/4 Uen A	New document Created new document. Firm revision.
Temporarily Disable Automatic Streaming on a Single Log Stream	76/1543-CAA 901 2624/4 Uen A	New document Created new document. Firm revision.

Table 13 Operation and Maintenance/Scaling Management

Title	Identity	Change
CSCF Scaling Management	7/1551-AVA 901 30/2 Uen D	Editorial update.
Decrease Capacity Manually	57/1543-AVA 901 30/2 Uen C	Editorial updates after KPI measurement.
Increase Capacity with Heat Orchestration	58/1543-AVA 901 30/2 Uen D	Editorial updates after KPI measurement.
Decrease Capacity with Heat Orchestration	59/1543-AVA 901 30/2 Uen D	Editorial updates after KPI measurement.

Table 14 Operation and Maintenance/Security Management

Title	Identity	Change
CSCF Hardening Guideline	5/1553-AVA 901 30/2 Uen K	Section 2.1: Added content. Section 2.2: Added hardened item in the VDP. Section 2.3.3: Updated procedure for local user deletion. Section 2.5.2: Added example of legal message and updated link target in step 1a. Section 2.8.1: Updated cluster reboot command. Added section 2.6 for post-deployment hardening.
CSCF Security User Guide	12/1553-AVA 901 30/2 Uen K	
User Management	3/1551-AVA 901 30/2 Uen L	Added Log Management to Tables 6, 7, and 8.



Table 15 Operation and Maintenance/Software Management

Title	Identity	Change
Availability Management Framework	3/1551-APR 901 0444/4 Uen B	Added new section 1.10 Network Partitioning based on MR59105. Firm revision.

Table 16 Operation and Maintenance/Software Management/Backup and Restore

Title	Identity	Change
Restore Backup	70/1543-AVA 901 30/2 Uen B	Editorial changes.

Table 17 Operation and Maintenance/Software Management/License Management

Title	Identity	Change
License Management	1/1551-APR 901 0503/6-1 Uen D	
View License Information	7/1543-APR 901 0503/6 Uen C	

Table 18 Operation and Maintenance/VNF Life Cycle Management

Title	Identity	Change
CSCF VNF Lifecycle Management	6/1551-AVA 901 30/2 Uen E	
Configure Time-Based Scaling	72/1543-AVA 901 30/2 Uen B	
Terminate OpenStack VNF Using EO	61/1543-AVA 901 30/2 Uen D	
Scale in OpenStack VNF Using VNF-LCM	53/1543-AVA 901 30/2 Uen E	
Scale out OpenStack VNF Using VNF-LCM	54/1543-AVA 901 30/2 Uen E	
Terminate OpenStack VNF Using VNF-LCM	55/1543-AVA 901 30/2 Uen E	
Scale in VMware VNF Using VNF-LCM	63/1543-AVA 901 30/2 Uen D	
Scale out VMware VNF Using VNF-LCM	64/1543-AVA 901 30/2 Uen D	
Terminate VMware VNF Using VNF-LCM	65/1543-AVA 901 30/2 Uen D	

Table 19 Operation and Maintenance/Health Check

Title	Identity	Change
Check CSCF Key Performance Indicators	46/1543-AVA 901 30/2 Uen F	Section 1.1.3: Replaced requirements for root users to requirements for O&M users.  Section 2.1: Replaced "<user>" with "<oam-user>" and "<OAM IP>" with "<OAM-MIP>".  Updated storage path from /cluster/storage to /storage.  Replaced ln_sig_sc with cscf_sig_sp1.
CSCF Health Check	29/1543-AVA 901 30/2 Uen N	



Table 20 Operation and Maintenance/Managed Object Management/Managed Object Model

Title	Identity	Change
Managed Object Model (MOM)	190 89-LZN 765 0209 Uen N	

## 2.1.7 Emergency

Table 21 Emergency

Title	Identity	Change
Emergency Recovery Procedure for CSCF	1/154 32-AVA 901 30/2 Uen F	<p>Updated storage path from /cluster/storage to /storage.</p> <p>Sections 3.1.2.1 and 3.1.3.1: Replaced "root" with "&lt;emergency_username&gt;" and "&lt;platform_vip_address&gt;" with "&lt;OAM-MIP&gt;".</p> <p>Section 3.1.3.1: Replaced "\$i" with "\$I".</p> <p>Section 3.1.3.1: Removed P-CSCF since it is not supported in vCSCF.</p>

## 2.1.8 Interface

Table 22 Interface

Title	Identity	Change
CSCF Cx and Dx Interface	11/155 19-AVA 901 19 Uen Z	Editorial changes only.
CSCF ISC Interface	3/155 19-AVA 901 19 Uen T	Editorial changes only.
CSCF Mw Interface	5/155 19-AVA 901 19 Uen AB	<p>Editorial changes.</p> <p>Updated regarding P-Visited-Network-ID.</p>
CSCF Rf Interface (Offline Charging)	1/155 19-AVA 901 19 Uen X	<p>Editorial changes only.</p> <p>Removed link to Diameter document in section 3.3.</p>
CSCF Ro Interface (Online Charging)	7/155 19-AVA 901 19 Uen M	Editorial changes only.
Ericsson Alarm Interface	8/155 19-CAA 901 2587/7 Uen B	
Ericsson Command-Line Interface	4/155 19-CAA 901 2587/7 Uen J	

## 2.2 Removed Documents

Table 23 Documents Removed from Library

Title	Identity	Comment
Library Changes	109 45-EN/LZN 765 0209-12 Uen C	
Statement of Compliance to RFC 6733 - Diameter Base Protocol	1/174 02-CXP 904 0375/4 Uen C	



Table 23 Documents Removed from Library

Title	Identity	Comment
vCSCF Network Impact Report from 1.6.0 to 1.10.0	2/109 48-AVA 901 30/2-14 Uen B	
vCSCF Network Impact Report from 1.7.0 to 1.10.0	4/109 48-AVA 901 30/2-14 Uen B	
vCSCF Network Impact Report from 1.8.0 to 1.10.0	6/109 48-AVA 901 30/2-14 Uen B	
vCSCF Network Impact Report from 1.9.0 to 1.10.0	8/109 48-AVA 901 30/2-14 Uen B	
vCSCF Upgrade Information from 1.6.0 to 1.10.0	1/153 72-CXP 903 5589/1-12 Uen B	
vCSCF Upgrade Information from 1.7.0 to 1.10.0	1/153 72-CXP 903 5589/1-13 Uen B	
vCSCF Upgrade Information from 1.8.0 to 1.10.0	1/153 72-CXP 903 5589/1-14 Uen B	
vCSCF Upgrade Information from 1.9.0 to 1.10.0	1/153 72-CXP 903 5589/1-15 Uen B	
DBS, Data Access Service, Database Unreachable	2/1543-CXP 902 6912/5 Uen E	
LPM, Load Regulation Limit Passed	1/1543-CXP 904 0373/4 Uen D	
vDicos, Diameter Peer Node Disabled	6/1543-CXP 904 0375/4 Uen B	
vDicos, Diameter Link Failure	4/1543-CXP 904 0375/4 Uen C	
vDicos, Diameter Own Node Disabled	5/1543-CXP 904 0375/4 Uen C	
vDicos, Diameter Link Congestion	7/1543-CXP 904 0375/4 Uen B	
vDicos, Diameter Link Disabled	3/1543-CXP 904 0375/4 Uen B	
DBN Troubleshooting Guideline	1/154 51-CXP 902 5264/5 Uen E	
vDicos Troubleshooting Guideline	1/154 51-CXP 902 5265/4 Uen B	
vCSCF 1.10.0 Master Parameter Value List for Performance Management	23/190 73-AVA 901 30/2 Uen H	
vCSCF 1.10.0 Master Parameter Value List for Netconf	24/190 73-AVA 901 30/2 Uen J	
Diameter Configuration Management	3/1553-CXP 904 0375/4 Uen E	
Diameter, Configure Own Node	11/1543-CXP 904 0375/4 Uen B	
Diameter, Configure Peer Node and Connections	10/1543-CXP 904 0375/4 Uen B	
Diameter, Configure Realm Routing Table	9/1543-CXP 904 0375/4 Uen B	
Diameter, Disable Peer Node	8/1543-CXP 904 0375/4 Uen A	



Table 23 Documents Removed from Library

Title	Identity	Comment
Diameter, Configure Vendor and Attribute-Value Pair	12/1543-CXP 904 0375/4 Uen A	
CSCF Gm Interface	4/155 19-AVA 901 19 Uen N	
CSCF Rx Interface	8/155 19-AVA 901 19 Uen J	