

CSCF Charging Backup File System Unavailable

Call Session Control Function

OPERATING INSTRUCTIONS

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CSCF Charging Backup File System Unavailable



1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is issued when there is an error of charging data sent to the backup handler. If the alarm is not solved, the CSCF node may lose charging data.

The possible alarm causes and the corresponding fault reasons, fault locations, and impacts are described in Table 1.

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
CSCF Charging Backup File System Unavailable.	The CSCF charging backup handler is unable to store charging data successfully.	The file server is down.	The charging buffer gets full because it cannot successfully write charging records to the disk. The fault is caused either by a storage disk that is exceeded or a file server that is unavailable.	The possible impacts if the file server is down, or the file system is full, is that Charging Data Records are not backed up to disk and are lost.
		The file system is full and the charging system is unavailable.		

Note: An alarm can appear as a result of maintenance activity.

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	6684682
Managed Object Class	CSCF-Application
Managed Object Instance	ManagedElement=<node_name>, CscfFunction=1, CSCF-Application=CSCF



Attribute Name	Attribute Value
Specific Problem	CSCF Charging Backup File System Unavailable
Event Type	equipmentAlarm (5)
Probable Cause	x733FileError (317)
Additional Text	Write Failure, Disk is Full.
Perceived Severity	major (4)

1.2 Prerequisites

This section provides information on the documents, tools, and conditions that apply to the procedure.

1.2.1 Documents

This instruction references the following documents:

- *CSCF Charging Request Transmission Problem*
- *LOTG Disk Usage*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

Before starting this procedure, ensure that the following condition is met:

- An CSCF Charging Backup File System Unavailable alarm is raised.



2 Procedure

The following alarms are related to the Charging Backup Handler (CBH):

- *CSCF Charging Request Transmission Problem* is triggered when there is a problem sending charging records from the CSCF to the external charging server. The reason can be that the external charging server or the connection is down. Accounting Requests (ACRs) starts to be buffered to disk.
- *CSCF Charging Backup File System Unavailable*, the alarm related to this Operating Instructions document, is triggered when the CSCF is no longer able to write charging data to disk on the file system, because the file system is down or full.
- *LOTC Disk Usage* is triggered when the disk quota taken up by files is exceeded, triggered by the platform. This may raise the alarm *CSCF Charging Backup File System Unavailable*.

All three of these alarms are implicitly related and they can be seen as being raised at the same time, but not triggered by the same source trigger.

Different procedures are used for solving the alarm, depending if the alarm *LOTC Disk Usage* is also raised, see Figure 1.

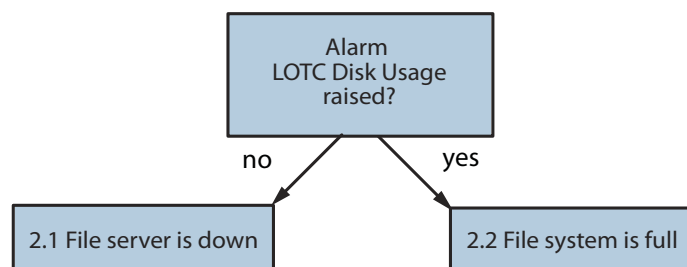


Figure 1 Alarm LOTC Disk Usage



2.1 File Server Is Down



Attention!

Risk of data loss or data corruption.

Following this procedure may result in loss of charging data.

Do the following:

1. Verify that the file server is available
2. Log in remotely to the file server host:

```
ssh -A <your_user_ID>@<host>
```

Verify that the host is available and is storing charging records.
3. If successful, proceed to do a cleanup of files on the server.
4. Delete all files that are no longer needed in the partition specified in the instance. Under the `loadingGroup01_1` mount point, delete only the old backup files.
5. Check if other users must also delete their unused files, and act accordingly.
6. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
7. Job is completed.

2.2 File System Is Full

Different procedures are used for solving the alarm, depending if the alarm CSCF Charging Request Transmission Problem is also raised, see Figure 2.

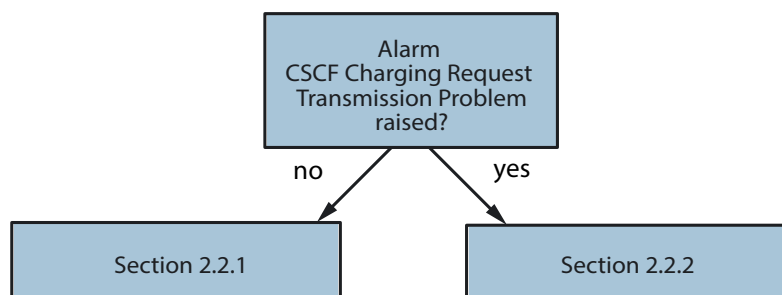


Figure 2 Alarm CSCF Charging Request Transmission Problem

2.2.1

CSCF Charging Request Transmission Problem Is Not Raised

The LOTC Disk Usage alarm is raised when the disk use on a mount point exceeds a threshold value.

Warning!

Following this procedure may result in loss of charging data.

Do the following:

1. Follow the instructions on how to resolve the alarm, refer to *LOTIC Disk Usage*.
2. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
3. Job is completed.

2.2.2

CSCF Charging Request Transmission Problem Alarm Raised

The CSCF Charging Request Transmission Problem alarm is raised when the number of charging records has reached or exceeded its configured threshold limit (given that Charging Data Function (CDF) is also unavailable).

Do the following:

1. Follow the instructions on how to resolve the alarm, refer to *CSCF Charging Request Transmission Problem*.



2. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
3. Job is completed.

Note: Both CSCF Charging Request Transmission Problem and LOTC Disk Usage alarms can be raised. Therefore, follow the instructions described both in Section 2.2.1 CSCF Charging Request Transmission Problem Is Not Raised on page 5 and in Section 2.2.2 CSCF Charging Request Transmission Problem Alarm Raised on page 5.