

# Control, Blackboard Coordination Server Down

Ericsson Centralized User Database

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## OPERATING INSTRUCTION

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# 1 Introduction

This instruction concerns alarm handling for the `Control`, `Blackboard Coordination Server Down` alarm.

## 1.1 Alarm Description

The alarm is issued when a Blackboard Coordination (BC) server is down.

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
The blade or Virtual Machine (VM) hosting a BC server is down.	The blade or VM hosting the BC server instance is down.	The blade or VM is rebooting or shut down, and cannot provide any service.	The blade or VM holding the BC server (that is, the System Controllers (SCs), or PL_2_5).	BC server redundancy is decreased, since the system is running with one less BC server instance.
A BC server goes down, or becomes unreachable.	The BC server process is not running	The process has been stopped or killed, and cannot be started.	The BC server process running in the SCs or PL_2_5.	BC server redundancy is decreased, since the system is running with one less BC server instance.
A BC server does not provide any service.	The BC server process is running, but is unable to provide any service.	The BC server process is running, but in an unhealthy state.	The BC server process running in the SCs or PL_2_5.	BC server redundancy is decreased, since the system is running with one less BC server instance.
The files on a BC server are corrupted because of inconsistent information in the data directory.	The information stored in the files of the BC server is corrupted, or inconsistent.	Problem in the <code>/local</code> file system in the blade or VM running the BC server, or wrong information in the BC server files.	The files in the <code>/local/cudb/BCServer</code> folder on the SCs, or PL_2_5.	BC server redundancy is decreased, since the system is running with one less BC server instance.

The alarm attributes are listed and explained in Table 2.

*Table 2 Alarm Attributes*

Attribute Name	Attribute Value
Auto Cease	Yes
Module	CONTROL
Error Code	4



Attribute Name	Attribute Value
Timestamp First	Date and time when the alarm was raised for the first time.
Repeated Counter	Number which indicates how many times the alarm was raised.
Timestamp Last	Date and time of the most recent alarm raise.
Resource ID	1.3.6.1.4.1.193.169.7.4.CN.BC
Alarm Model Description	Blackboard Coordination Server Down, Control.
Alarm Active Description	Control: Blackboard Coordination Server <i>&lt;IP Address&gt;</i> : <i>&lt;port&gt;</i> down, uuid: <i>&lt;uuid&gt;</i>
ITU Alarm Event Type	processingErrorAlarm (4)
ITU Alarm Probable Cause	softwareProgramError (546)
ITU Alarm Perceived Severity	(4) - Major
Originating source IP	Node IP where the alarm was raised.
Sequence Number	Number which indicates the order in which the alarms are raised.

In Table 2, the indicated variables are as follows:

- *<IP Address>* is the IP address of the CUDB node where BC server is down (refer to *CUDB Node Configuration Data Model Description*, Reference [1], for further information).
- *<Port>* is the port of the BC server that is down.

For more information about BC deployment and configuration, refer to *CUDB High Availability*, Reference [2].

- *<uuid>* is the universally unique identifier of the computing resource (blade or VM). It is blank if it is not possible to figure out its value.

For further information about attribute descriptions, refer to *CUDB Node Fault Management Configuration Guide*, Reference [3].

## 1.2 Prerequisites

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

### 1.2.1 Documents

Before starting this procedure, ensure that you have read the following documents:

- *CUDB Node Fault Management Configuration Guide*, Reference [3], regarding alarm configuration.



- *CUDB Node Commands and Parameters*, Reference [4], regarding the `cudbManageBCServer` command.
- The “Zookeeper” section of *CUDB Node Logging Events*, Reference [5], regarding logs related to the BC server.
- *System Safety Information*, Reference [7]
- *Personal Health and Safety Information*, Reference [8]

### **1.2.2 Tools**

Not applicable.

### **1.2.3 Conditions**

Not applicable.







## 2 Procedure

If the alarm is raised, then do the following:

1. Wait for a short time for the alarm to clear. If the alarm clears, no further actions must be taken. If it is not cleared after a short period of time, continue with the next step.
2. Try to restart the process manually with the following command:  
  
`/opt/ericsson/cudb/OAM/bin/cudbManageBCServer -restart`
3. Check the log file of the failing BC Server on the blade or VM holding the BC Server (look for some IOException on loading the database). The log is located in the following directory:

`/var/log/bc_server.err`

For further details, check the “Zookeeper” section of *CUDB Node Logging Events*, Reference [5].

4. If the BC Server is unable to read its database, and fails to start because of file corruption in the transaction logs, then do the following:
  - a. Make sure that all the other BC Servers in the BC Cluster are up and running with the following command:  
  
`cudbSystemStatus -B`
  - b. If all the other BC Servers of the BC Cluster are up, then clean the database of the corrupt BC Server with the following command:  
  
`rm -rf /local/cudb/BCServer/version-2`
  - c. Try to restart the process manually with the following command:  
  
`/opt/ericsson/cudb/OAM/bin/cudbManageBCServer -restart`
  - d. Wait for a short time for the alarm to clear.
5. If the problem is not identified, or the alarm does not cease with the measures taken, consult the next level of maintenance support. Further actions are outside the scope of this instruction.



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## Glossary

For the terms, definitions, acronyms and abbreviations used in this document, refer to *CUDB Glossary of Terms and Acronyms*, Reference [6].





## Reference List

### **CUDB Documents**

- [1] *CUDB Node Configuration Data Model Description*
- [2] *CUDB High Availability*
- [3] *CUDB Node Fault Management Configuration Guide*
- [4] *CUDB Node Commands and Parameters*
- [5] *CUDB Node Logging Events*
- [6] *CUDB Glossary of Terms and Acronyms*

### **Other Ericsson Documents**

- [7] *System Safety Information*
- [8] *Personal Health and Safety Information*