

# Operating System, Disk Usage Too High

## Ericsson Centralized User Database

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### OPERATING INSTRUCTION

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# 1 Introduction

This instruction concerns alarm handling for the Operating System, Disk Usage Too High alarm.

## 1.1 Alarm Description

This alarm is raised when a data disk partition in a physical blade or Virtual Machine (VM) has reached its capacity limit (90%) or the partition is not mounted. The alarm is cleared when the capacity is below the warning level (85%).

Disk usage is monitored every 15 minutes, so alarm raise or clear may take up to 15 minutes to be updated.

**Note:** This alarm is independent of the underlying operating system disk usage threshold configuration and the related alarm. The underlying operating system alarm for disk usage is kept internally, and is not forwarded to the network management system through the CUDB FM interface.

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   |
|---|---|---|----------------|--|
| Data disk partition reached capacity limit. | A data disk partition in a physical blade or VM has reached its capacity limit (90% of its total capacity). | Too much data is stored in the partition.   | Blade or VM.   | No free space available on affected data disk partition.   |
| The partition is not mounted.               | It is not possible to create a mount point for the disk partition.  | <ul style="list-style-type: none"> <li>Damaged disk unit or problem in the virtual infrastructure.</li> <li>Damaged file system.</li> <li>Configuration fault.</li> </ul> | Blade or VM.   | <ul style="list-style-type: none"> <li>Disk partition cannot be used.</li> <li>Some processes might not be able to start.</li> </ul> |

The alarm attributes are listed and explained in Table 2.

*Table 2 Alarm Attributes*

| Attribute Name | Attribute Value |
|----------------|-----------------|
| Auto Cease     | Yes             |



| Attribute Name               | Attribute Value  |
|------------------------------|--|
| Module                       | OPERATING-SYSTEM   |
| Error Code                   | 2  |
| 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                  | .1.3.6.1.4.1.193.169.5.2.<IP>.<m>  |
| Alarm Model Description      | Disk usage too high, Operating System.   |
| Alarm Active Description     | Operating System: disk 90% full or not mounted @<IP> in partition <MP>, uuid: <uuid> |
| ITU Alarm Event Type         | processingErrorAlarm (4)   |
| ITU Alarm Probable Cause     | storageCapacityProblem (151)   |
| ITU Alarm Perceived Severity | (3) - Critical   |
| 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> is the IP address of the faulty node.
- <MP> is the mount point of the affected partition.
- <m> is a number to identify the information per machine typed as follows:

Control Machine:

- 1 - /boot
- 2 - /var/log
- 3 - /cluster
- 4 - /

Payload Machine:

- 1 - /local
- 2 - /local2
- 3 - /

- <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 [1].



## 1.2 Prerequisites

This section lists the prerequisites required for the procedure described in Section 2 on page 5.

### 1.2.1 Documents

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

- *CUDB Node Fault Management Configuration Guide*, Reference [1], regarding alarm configuration.
- *System Safety Information*, Reference [3].
- *Personal Health and Safety Information*, Reference [4].

### 1.2.2 Tools

Not applicable.

### 1.2.3 Conditions

Not applicable.



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## 2 Procedure

In case the alarm is raised, do the following:

1. Check if the partition (indicated by *<MP>*) is properly mounted in the blade or VM identified by the *<IP>* address. If it is not mounted, reboot the blade or VM. Then, continue as follows:
  - If the partition has been mounted, continue with Step 2.
  - If the partition is still unmounted, and the problem still persists, continue with Step 3.
2. Check if it is possible to delete data not belonging to CUDB from the blade or VM identified by the *<IP>* address in partition *<MP>*, to free space.
3. After 15 minutes, 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.



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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 [2].



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## Reference List

### **CUDB Documents**

- [1] *CUDB Node Fault Management Configuration Guide*
- [2] *CUDB Glossary of Terms and Acronyms*

### **Other Ericsson Documents**

- [3] *System Safety Information*
- [4] *Personal Health and Safety Information*