

Storage Engine, Memory Usage Too High In PLDB, Warning

Ericsson Centralized User Database

OPERATING INSTRUCTION

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1 Overview

This instruction concerns alarm handling for the Storage Engine, Memory Usage Too High In PLDB, Warning alarm.

1.1 Alarm Description

The alarm is issued in the following two scenarios for the Processing Layer Database (PLDB) in a CUDB node:

- The memory use of the PLDB reaches the Warning level (value of the `memoryWarningThreshold` attribute for the `CudbPlGroup` class, refer to [CUDB Node Configuration Data Model Description](#), Reference [5], for more information). The alarm is cleared in case the memory use keeps increasing, and eventually reaches the level configured for the Full threshold (internal CUDB threshold). In this case, another alarm is issued: refer to [Storage Engine, Memory Usage Too High In PLDB, Major](#), Reference [1] for more information.
- The memory use of the PLDB decreases below the level configured for the Full threshold. Later, once the memory use decreases below the Warning level (80%), the alarm is cleared.

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 memory use of the PLDB reached the Warning threshold level.	The amount of subscriber data stored in the PLDB results in a level of memory use which reaches the level configured for the Warning threshold.	The PLDB contains too much subscriber data.	PLDB	The memory use of the PLDB may reach the Full threshold, resulting in the rejection of newly provisioned subscriber data in the PLDB.

The alarm attributes are listed and explained in Table 2:

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Auto Cease	Yes
Module	STORAGE-ENGINE
Error Code	8
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 raised.



Attribute Name	Attribute Value
Resource ID	.1.3.6.1.4.1.193.169.1.1.8
Alarm Model Description	Memory usage at Warning level, Storage Engine.
Alarm Active Description	Storage Engine (PLDB): memory usage too high.
ITU Alarm Event Type	processingErrorAlarm (4)
ITU Alarm Probable Cause	storageCapacityProblem (151)
ITU Alarm Perceived Severity	(6) – Warning
Originating Source IP	Node IP where the alarm was raised.
Sequence Number	Number which indicates the order in which alarms were raised.

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:

- The section on the `cudbManageStore` command in [CUDB Node Commands and Parameters, Reference \[2\]](#).
- [CUDB Node Fault Management Configuration Guide, Reference \[3\]](#), regarding alarm configuration.
- The “Defragmenting a Database Cluster” section of [CUDB System Administrator Guide, Reference \[4\]](#).
- [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

In case the alarm is raised, do the following:

1. Check if some of the subscriber data can be removed to free up space in the PLDB. If possible, then remove the data.
2. Perform a defragmentation in the PLDB. Refer to *CUDB System Administrator Guide*, Reference [4] for more information.
3. 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 [6].



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Reference List

CUDB Documents

- [1] Storage Engine, Memory Usage Too High In PLDB, Major
- [2] CUDB Node Commands and Parameters
- [3] CUDB Node Fault Management Configuration Guide
- [4] CUDB System Administrator Guide
- [5] CUDB Node Configuration Data Model Description
- [6] CUDB Glossary of Terms and Acronyms

Other Ericsson Documents

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