

Storage Engine, Execution of Selective Replica Check Failed, PLDB, Major Ericsson Centralized User Database

OPERATING INSTRUCTION

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1 Introduction

This instruction concerns alarm handling for the Storage Engine, Execution of Selective Replica Check Failed, PLDB, Major alarm.

1.1 Alarm Description

The alarm is raised when Selective Replica Check was not able to retrieve all applicable entries when analyzing the operational logs for the database cluster .

For further information about Selective Replica Check, refer to *CUDB Data Storage Handling*, Reference [1].

The alarm is issued in the following situations:

- When Selective Replica Check has encountered time gaps in the operational logs .

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
Time gaps in the operational logs.	Certain events in the CUDB can cause failures when writing in the operational logs.	If a process that is responsible for writing in an operational log, crashes or is in any way prevented from writing, not all relevant information is provided in the operational logs.	Operational logs on the former master replica.	There is a possibility that all the changes to the data in the database cluster were not detected by Selective Replica Check.

The following are the consequences for the node if the alarm is raised:

- There might be some data durability issues in the Processing Layer Database (PLDB). In the end, this can have a service impact for certain subscribers.

The alarm attributes are listed and explained in Table 2:

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Auto Cease	No
Module	STORAGE-ENGINE



Attribute Name	Attribute Value
Error Code	27
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.
Resource ID	.1.3.6.1.4.1.193.169.1.1.27.<Timestamp>
Alarm Model Description	Execution of Selective Replica Check Failed, Storage Engine.
Alarm Active Description	Storage Engine (PLDB): Selective Replica Check failed, task <Task ID>. It was not possible to retrieve all applicable entries.
ITU Alarm Event Type	processingErrorAlarm (4)
ITU Alarm Probable Cause	databaseInconsistency (160)
ITU Alarm Perceived Severity	(4) - Major
Originating Source IP	Node ID where the alarm was raised.
Sequence Number	Number which indicates the order in which alarms were raised.

In Table 2, the indicated variables are as follows:

- <Timestamp> is the Unix epoch in seconds representing the time of the incident, that is the timestamp which is used to determine where, in the operational logs of the former master, Selective Replica Check starts looking for modified data.
- <Task ID> is an identifier for the Selective Replica Check processes for an individual PLDB.

For more information about attributes description, refer to *CUDB Node Fault Management Configuration Guide*, Reference [2].

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 [2], regarding alarm configuration.
- *System Safety Information*, Reference [5].



- *Personal Health and Safety Information*, Reference [6].

1.2.2**Tools**

Not applicable.

1.2.3**Conditions**

Not applicable.



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2 Procedure

Do the following:

1. If the *Storage Engine, Unable to Synchronize Cluster in PLDB, Major* alarm is raised when the *Self-Ordered Backup and Restore* function is not enabled or fails to restore the replication automatically, follow the procedure described in *Storage Engine, Unable To Synchronize Cluster In PLDB, Major*, Reference [3].
2. Cease the alarm manually.

Note: The procedure is to fix data inconsistency among master and slave replicas, but it cannot guarantee the full repair of system data.





Glossary

For the terms, definitions, acronyms, and abbreviations used in this document, refer to *CUDB Glossary of Terms and Acronyms*, Reference [4].



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Reference List

CUDB Documents

- [1] *CUDB Data Storage Handling*
- [2] *CUDB Node Fault Management Configuration Guide*
- [3] *Storage Engine, Unable To Synchronize Cluster In PLDB, Major*
- [4] *CUDB Glossary of Terms and Acronyms*

Other Ericsson Documents

- [5] *System Safety Information*
- [6] *Personal Health and Safety Information*