

# LOTC Disk Replication Consistency

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## OPERATING INSTRUCTIONS

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# 1 Introduction

This document is the Operating Instruction (OPI) for the alarm **LOTG Disk Replication Consistency**.

## Scope

This document covers the following topics:

- Alarm description
- Alarm handling procedure

## Target Groups

This document is intended for personnel involved in alarm handling.

## 1.1 Prerequisites

This section describes the possible documents, tools, and conditions needed before performing steps to cease the alarm.

### 1.1.1 Documents

Not applicable.

### 1.1.2 Tools

Not applicable.

### 1.1.3 Conditions

Not applicable.

## 1.2 Related Information

The definition and explanation of acronyms and terminology, information about trademarks used, and typographic conventions can be found in the following documents:

- *LDE Glossary of Terms and Acronyms*, Reference [1]



- *LDE Trademark Information*, Reference [2]
- *Typographic Conventions*, Reference [3]

## 1.3 Revision Information

Other than editorial changes, this document has been revised from revision - to revision A according to the following:

- First revision.



## 2 Alarm Description

This alarm is issued if the control node pair has been operating in a non-redundant mode for more than 20 minutes. Non-redundant in this context refers to the situation where the control nodes has **not** lost connection to each other, instead the data is not consistent. This situation is not immediately dangerous, it indicates that if the node with the up-to-date data goes down, the cluster will not have a node with consistent data to fail over to.

The following is a list of the alarm attributes:

**Note:** This view of the alarm attributes will be presented to the user from Common Operation and Maintenance (COM), only when the LDE adaptations for Component Based Architecture (CBA) have been installed and the LDE alarm model has been registered to COM.

Attribute Name	Attribute Value/Interpretation
Major Type	193
Minor Type	3341942790
Managed Object Class	SafNode
Specific Problem	LOTC Disk Replication Consistency
Event Type	6 <sup>(1)</sup>
Additional Information	Not applicable.
Perceived Severity	Minor

(1) *Environmental*

The possible cause is as follows:

- Disk mirroring failure leading to disk inconsistency between the control nodes.

**Note:** This alarm can be triggered during initial installation and replacement of a control node. In these situations a complete disk synchronization is performed, which practically can take up to 5 hours to complete. The time to complete a synchronization depends on disk size, disk performance and network performance. During disk synchronization the control nodes are not redundant.





## 3 Procedure

To clear the alarm, perform the following steps:

1. If this alarm is **not** issued during initial installation or replacement of a control node, consult the next level of maintenance support. Further actions are outside the scope of this OPI.
2. If this alarm is issued during initial installation or replacement of a control node, then wait for the disk synchronization to complete. When the disk synchronization is completed the alarm normally ceases automatically.
3. If the alarm does not cease automatically within 5 hours (the maximum practical time for disk synchronization to complete), then consult the next level of maintenance support. Further actions are outside the scope of this OPI.

**Note:** The actual time it takes to complete a disk synchronization depends on how much data that has not been synchronized and hardware properties (disk size, disk speed, and network speed). On each control node the `/proc/drbd` file provides detailed information about the disk synchronization progress.





## Reference List

- [1] *LDE Glossary of Terms and Acronyms*  
*TERMINOLOGY*, 1/0033-APR 901 0551/4
- [2] *LDE Trademark Information*  
*LIST*, 1/006 51-APR 901 0551/4
- [3] *Typographic Conventions*  
*DESCRIPTION*, 1/1551-FCK 101 05