

vDicos, Diameter Link Congested

OPERATING INSTRUCTIONS

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Contents

| | | |
|----------|---------------------|----------|
| 1 | Introduction | 1 |
| 1.1 | Alarm Description | 1 |
| 1.2 | Prerequisites | 2 |
| 2 | Procedure | 3 |
| 2.1 | Analyzing Alarm | 3 |
| 2.2 | Procedure | 3 |





1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is raised when the number of messages that are discarded because of congestion at the Diameter transport layer exceeds a configured threshold value in a given time interval.

The possible alarm causes and fault locations are explained in Table 1.

Table 1 Alarm Causes

| Alarm Cause | Description | Fault Reason | Fault Location | Impact |
|--|---|--|-------------------------------|--------------|
| Too high traffic at Diameter transport layer | The number of messages that get discarded because of congestion exceeds a configured threshold value in a given time interval | Congestion at Diameter transport layer | Transport layer – SCTP or TCP | Message loss |

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

| Attribute Name | Attribute Value |
|-------------------------|--|
| Major Type | 193 |
| Minor Type | 2250572781 |
| Managed Object Class | <i>DIA-CFG-Conn</i> |
| Managed Object Instance | ManagedElement=<node_name>, <ManagedFunction>=<FunctionId>, DIA-CFG-Application=DIA, DIA-CFG-StackContainer=<stackId>, DIA-CFG-PeerNodeContainer=<stackId>, DIA-CFG-NeighbourNode=<hostId>#<stackId>, DIA-CFG-Conn=<stackId>#<hostId>#<connId> |
| Specific Problem | vDicos, Diameter Link Congested |
| Event Type | communicationsAlarm (2) |
| Probable Cause | x733ThresholdCrossed (351) |
| Additional Text | Diameter Link Congested |
| Perceived Severity | minor (5) |



1.2 Prerequisites

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

1.2.1 Documents

This instruction references the following document:

- *Data Collection Guideline*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

Before starting this procedure, ensure that the following conditions are met:

- A vDicos, Diameter Link Congested alarm is raised.
- System authorization and authentication have passed successfully.
- Diameter configuration data is correctly defined.



2 Procedure

This section describes the procedure to follow when this alarm is received.

2.1 Analyzing Alarm

In the following cases, alarms must not be cleared manually by the user; they are cleared automatically:

- The observed measurement value is lower than the low threshold of the smallest non-empty severity.
- No measurement result is available during the granularity period.
- The threshold reader is deleted or disabled.
- The threshold monitor is deleted or disabled.

2.2 Procedure

Do the following:

1. Wait up to 5 minutes for the alarm to be cleared automatically. The time depends on the alarm configuration, traffic rate over the link, and the network bandwidth.
2. Is the alarm cleared?

Yes: Proceed with Step 9.

No: Continue with the next step.
3. Are the thresholds and the granularity period for the corresponding alarm set correctly?

Yes: Proceed with Step 6.

No: Continue with the next step.
4. Set appropriate values for attributes `thresholdHigh` and `thresholdLow` of the relevant *PmThresholdMonitoring* Managed Object (MO), and `granularityPeriod` of the *PmJob* MO for the alarm.
5. Wait for the alarm to be cleared automatically after elapsing of two granularity periods.
6. Is the alarm cleared?



Yes: Proceed with Step 9.

No: Continue with the next step.

7. Perform data collection, refer to *Data Collection Guideline*.
8. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.
9. Job is completed.