

vDicos, Diameter Link Congestion

C-Diameter

OPERATING INSTRUCTIONS

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1 Alarm Description

The alarm is raised because of congestion at the Diameter transport layer.

This threshold based alarm was raised, when the congestion level indicated by the `OutgoingMessageDiscardedDueToCongestionPerLink` measurement type was higher than the configured threshold.

The threshold based alarm is cleared automatically in the following cases:

- 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, that is, the time between the initiations of two successive gatherings of measurement data.

The alarm can also be cleared if the related `Threshold Reader` or its `Threshold Monitor` is deleted or disabled

Table 1 vDicos, Diameter Link Congested 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

2 Procedure

2.1 Handle Alarm vDicos, Diameter Link Congested

Prerequisites

- This instruction references the following document:
 - C-Diameter Trouble Report and Support Case Writing Guideline
- No tools are required.



— The following conditions must apply:

- The alarm is raised.
- Diameter configuration data are correctly defined.
- Diameter Performance Management and Fault Management instance models are deployed.
- An Ericsson Command-Line Interface (ECLI) session in exec mode is in progress.

Steps

1. Does the alarm cease automatically after 3–5 minutes? (The exact time depends on the alarm configuration, traffic rate over the link, and network bandwidth.)

Yes: Proceed with Step 14.

No: Continue with the next step.

2. Navigate to the PmJob Managed Object (MO) indicated by alarm source attribute, for example:

```
>ManagedElement=NODE06ST, SystemFunctions=1, Pm=1, PmJob=Dia_Cong_Thr_Job
```

3. Check the value of attribute granularityPeriod:

```
(PmJob=Dia_Cong_Thr_Job)>show granularityPeriod
```

The following is an example output:

```
granularityPeriod=FIVE_MIN
```

4. Wait up to the time of the granularity period for the alarm to be cleared automatically.

5. Is the alarm cleared?

Yes: Proceed with Step 14.

No: Continue with the next step.

6. Navigate to the PmThresholdMonitoring MO, for example:

```
(PmJob=Dia_Cong_Thr_Job)>MeasurementReader=1, PmThresholdMonitoring=1
```

7. Check the values of attributes thresholdHigh and thresholdLow:

```
(PmThresholdMonitoring=1)>show
```



The following is an example output:

```
PmThresholdMonitoring=1
  pmThresholdMonitoringId="1"
  thresholdHigh=1
  thresholdLow=0
  thresholdSeverity=MINOR
```

8. Contact the network administrator to establish root cause of the fault, for example network dimensioning, alarm threshold values, or network configuration fault. Are the attributes thresholdHigh and thresholdLow set to correct values?

Yes: Proceed with Step 10.

No: Continue with the next step.

9. Set appropriate values for attributes thresholdHigh and thresholdLow, for example:

```
(PmThresholdMonitoring=1)>config
```

```
(config-PmThresholdMonitoring=1)>thresholdHigh=2
```

```
(config-PmThresholdMonitoring=1)>commit
```

```
(config-PmThresholdMonitoring=1)>up
```

10. Wait for the alarm to be cleared automatically after elapsing of two granularity periods.

11. Is the alarm cleared?

Yes: Proceed with Step 14.

No: Continue with the next step.

12. Perform data collection, refer to C-Diameter Trouble Report and Support Case Writing Guideline.

13. Contact the network administrator for further analysis.

14. Job is completed.