

vDicos, Diameter Link Disabled

OPERATING INSTRUCTIONS

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vDicos, Diameter Link Disabled



1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is raised when the relevant Diameter connection is either administratively disabled by Operation and Maintenance (O&M) or disabled by a peer.

Note: The alarm is cleared automatically if one of the following alarms is raised:

- *vDicos, Diameter Peer Node Disabled*

Alarms for connections to the peer node are cleared and a new alarm is raised for the peer node.

- *vDicos, Diameter Own Node Disabled*

Alarms for connections (and peer nodes) related to the own node are cleared and a new alarm is raised for the own node.

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

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
Link disabled by O&M	The Diameter connection is disabled by O&M	The link is administratively disabled or a new link is created (disabled by default)	Own node	No traffic flow through the disabled link
Link disabled by peer	The Diameter connection is disabled by the peer	The link is disabled because a Disconnect Peer Request (DPR) was received	Peer	

The alarm attributes are listed and explained in Table 2.



Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	2250572778
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 Disabled
Event Type	communicationsAlarm (2)
Probable Cause	m3100Unavailable (14)
Additional Text	Detailed Information: Link disabled by OAM, IRP Cause: 14 Detailed Information: Link disabled by peer, IRP Cause: 14
Perceived Severity	warning (6)

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 documents:

- *Data Collection Guideline*
- *vDicos, Diameter Own Node Disabled*
- *vDicos, Diameter Peer Node Disabled*

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 Disabled alarm is raised.



- System authorization and authentication have passed successfully.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.





2 Procedure

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

2.1 Analyzing Alarm

Select action according to the alarm cause:

- If the link is disabled by O&M, proceed with Section 2.2 Actions for Link Disabled by Operation and Maintenance on page 5.
- If the link is disabled by the peer, proceed with Section 2.3 Actions for Link Disabled by Peer on page 8.

2.2 Actions for Link Disabled by Operation and Maintenance

Do the following:

1. Navigate to *DIA-CFG-NeighbourNode* Managed Object (MO), for example:

```
>dn ManagedElement=NODE06ST,XYZFunction=xyz,DIA-CFG-App
lication=DIA,DIA-CFG-StackContainer=abc,DIA-CFG-PeerNo
deContainer=abc,DIA-CFG-NeighbourNode=node12.ericsson
n.com\23abc
```

2. Is the alarm raised for a connection acting as responder?

Yes: Proceed with Step 5.

No: Continue with the next step.

3. Navigate to the *DIA-CFG-Conn* MO:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >DIA-C
FG-Conn=abc\23node12.ericsson.com\23conn1
```

4. Proceed with Step 10.

5. Enter Config mode:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >con
figure
```

6. Set the responder to be an initiator:



```
(config-DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >initiateConnection=true
```

This is required because the responder must reinitiate the connection to delete the alarm on the other side.

7. Commit the setting:

```
(config-DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >commit
```

8. Verify the setting:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >show initiateConnection
```

```
initiateConnection=true
```

9. Navigate to the *DIA-CFG-Conn* MO:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1
```

10. Enter Config mode:

```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >configure
```

11. Enable the connection:

```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >enabled=true
```

12. Commit the setting:

```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >commit
```

13. Verify the setting:

```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >show enabled
```

```
enabled=true
```

14. Is the alarm raised for a connection action as responder?

Yes: Continue with the next step.

No: Proceed with Step 22.

15. Check the link status:



```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >show linkstatus
```

The system returns Up if the connection is set up.

16. Is the connection set up?

Yes: Continue with the next step.

No: Proceed with Step 22.

17. Navigate to *DIA-CFG-NeighbourNode* MO:

```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >up
```

18. Enter Config mode:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >configure
```

19. Reset the responder:

```
(config-DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >initiateConnection=false
```

It was set as initiator in Step 6.

20. Commit the setting:

```
(config-DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >commit
```

21. Verify the setting:

```
(DIA-CFG-NeighbourNode=node12.ericsson.com\23abc) >show initiateConnection
```

```
initiateConnection=false
```

22. Is the alarm cleared?

Yes: Proceed with Step 25.

No: Continue with the next step.

23. Perform data collection, refer to *Data Collection Guideline*.

24. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.

25. Job is completed.



2.3 Actions for Link Disabled by Peer

Do the following:

1. Is the alarm raised for a connection acting as responder?

Yes: Continue with the next step.

No: Proceed with Step 3.

2. Wait for the peer node to re-establish the connection and reception of a Capabilities-Exchange-Request (CER).

3. Is attribute `blockReason` of the corresponding connection equal to `DPR received, cause=DoNotWantToTalkToYou`?

Yes: Continue with the next step.

No: Proceed with Step 11.

4. Navigate to the *DIA-CFG-Conn* MO, for example:

```
>dn ManagedElement=NODE06ST,XYZFunction=xyz,DIA-CFG-App  
lication=DIA,DIA-CFG-StackContainer=abc,DIA-CFG-PeerNod  
eContainer=abc,DIA-CFG-NeighbourNode=node12.ericsson.co  
m\23abc,DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1
```

5. Enter Config mode:

```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1) >con  
figure
```

6. Disable the connection:

```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1  
) >enabled=false
```

7. Commit the setting:

```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1  
) >commit -s
```

The value of attribute `blockReason` is automatically changed to `Not blocked`.

8. Enable the connection:

```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn  
1) >enabled=true
```

9. Commit the setting:



```
(config-DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1)  
)>commit
```

10. Verify the setting:

```
(DIA-CFG-Conn=abc\23node12.ericsson.com\23conn1)>show  
enabled
```

```
enabled=true
```

11. Is the alarm raised for a connection acting as initiator?

Yes: Continue with the next step.

No: Proceed with Step 13.

12. Wait for automatic reconnect and sending of CER.

13. Is the alarm cleared?

Yes: Proceed with Step 16.

No: Continue with the next step.

14. Perform data collection, refer to *Data Collection Guideline*.

15. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.

16. Job is completed.