

ENUM, Server Lost Connections of DB IPWorks

OPERATING INSTRUCTIONS

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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is issued when the connections between ENUM server and MySQL NDB clusters are down.

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	Solution
ENUM configuration error occurs.	The alarm is raised because of the incorrect configuration of ENUM.	Both the attributes dbConnectString and dbConnectStringSecondary in the MO Enum Server are configured incorrectly.	ENUM server	ENUM server cannot provide service.	See Section 2.1 on page 3
NDB cluster is under abnormal condition.	All Management Nodes or Data Nodes are down.	All the NDB connections are down.	NDB cluster		See Section 2.2 on page 3

Note: An alarm can appear as a result of the maintenance activity.

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	856067
Managed Object Class	ipworksEnum



Attribute Name	Attribute Value
Source	ManagedElement=<Node Name>, SystemFunctions=1,Fm=1,FmAlarmModel=IpworksEnum,FmAlarmType=ipworksEnumLostConnDB, HostName=<Hostname>,IpworksEnum
Specific Problem	ENUM, Server Lost Connections of DB
Event Type	communicationsAlarm(2)
Probable Cause	x733RemoteNodeTransmissionError(342)
Additional Text	All the NDB connections are down. DNS ENUM requests that trigger NDB queries will fail with SERVFAIL response.;uuid:<Product_UUID> ⁽¹⁾
Perceived Severity	Critical

(1) <Product_UUID> is the universally unique identifier (UUID) of machine that generates the alarm. The value can be fetched from `/sys/devices/virtual/dmi/id/product_uuid` on the PL node.

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:

- *System Safety Information*
- *Personal Health and Safety Information*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

No conditions.



2 Procedure

This section describes the procedure to follow to clear this alarm.

2.1 Configuring ENUM server

To clear the alarm, do the following:

1. Log on to the ECLI interface.

```
# ssh <username>@<SC-1 or SC-2 IP Address> -p 22 -t -s cli
```

2. Configure the MO EnumServer.

```
>ManagedElement=<Node Name>,IpworksFunction=1,Ipwork
sDnsRoot=1,IpworksEnumRoot=1,EnumServer=1
(EnumServer=1)>configure
(config-EnumServer=1)>dbConnectString="sc-1:1186"
(config-EnumServer=1)>dbConnectStringSecondary="sc-2:1186"
(config-EnumServer=1)>commit
(config-EnumServer=1)>exit
```

3. Restart the ENUM service to make the change take effect.

```
# ipw-ctr stop enum <hostname>
# ipw-ctr start enum <hostname>
```

4. If this alarm still exists, consult the next level of maintenance support. Further actions are outside the scope of this instruction.

2.2 Starting Management Node and Data Node

To clear the alarm, do the following:

1. Log on to the SC-1.

```
# ssh <Username>@<SC-1 IP Address>
```

2. Start the Management Node and Data Node.

```
#!/etc/init.d/ipworks.mysql start-mgmd
#!/etc/init.d/ipworks.mysql start-ndbd
```

For more information on how to manage MySQL NDB Cluster, refer to *Configure MySQL NDB Cluster*.



3. Log on to the SC-2, then start the Management Node and Data Node on SC-2.
4. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.