

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,IpworksDnsRoot=1,IpworksEnumRoot=1,EnumServer=1
(EnumServer=1)>configure
(config-EnumServer=1)>dbConnectionString="sc-1:1186"
(config-EnumServer=1)>dbConnectionStringSecondary="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.