CHAPTER 13

Troubleshooting the Network

Cisco E-DI provides diagnostic tools to allow you to troubleshoot the network by providing diagnostics on connectivity and performance. This chapter includes the following information:

Diagnostics

Diagnostic tools allow you to diagnose potential connectivity issues in the network or for each individual device. Cisco E-DI provides the following diagnostics tools:

- SNMP and Telnet/SSH connectivity check between Cisco E-DI and an NE.

You can also specify the credential set to be used for checking connectivity to the device.

Detailed information about connectivity and any problems encountered are displayed.

Verifying Procedures

Cisco E-DI provides commands that can be used to verify that commands have been completed successfully. See Table 13-1.

Table 13-1 Commands to Verify Procedures

Action	Command
To check that the SNMP server community string is set up correctly:	`[SVR:/server]# diag device server_ip`
To verify that the hostname has changed.	`[SVR:/server]# show running-config | include hostname`
To verify that the IP address has changed.	`[SVR:/server]# show running-config`
To verify that the DNS server is configured.	`[SVR:/server]# show running-config`
To verify that the mail server is set up correctly.	`[SVR:/server]# sh run | email username@cisco.com`

Table 13-1 Commands to Verify Procedures (continued)

Action	Command
To verify that a script will run successfully.	`[NET:/network]# run file Script_path`
To verify that a lock is created successfully.	`[SVR:/server]# show locks`
To verify that a lock is cleared successfully.	`[SVR:/server]# show locks`
To verify that the change-log contains performed operations on the server or network only if the priority of the task is greater than or equal to the defined change-log level setting.	`[SVR:/server]# show change-log`
To verify that the directory was created successfully, enter this command to show the contents of the current directory in the server file system.	`[SVR:/server]# dir`
To verify that the directory no longer exists in the server file system.	`[SVR:/server]# dir`
To verify that the file has been deleted from the server file system.	`[SVR:/server]# dir`
To verify that the directory has been copied.	`[SVR:/server]# dir`
To verify that the file has been saved to the destination directory.	`[SVR:/server]# dir`
To verify that changes have been saved.	`[SVR:/server]# show {startup-config | running-config | all} list-archives`
To verify that a label has been created. The output should display the label if it is applicable to at least one device under the current context.	`[SVR:/server]# show labels details server_conf | network_conf`
To verify that a configuration is restored.	`[SVR:/server]# show {startup-config | running-config | all} list-archives`
To verify the version on the device.	`[NET:/network]# show version`
To verify that the scheduled job has been created.	`[SVR:/server]# show job list`
To verify that the scheduled job has been deleted.	`[SVR:/server]# show job list`

Verifying Connectivity

You can verify connectivity:

- To a Specified Device
- To All Devices

To a Specified Device

To verify connectivity to a specified device with a correct credential set using SNMP and Telnet, enter:

```
[NETWORK | SERVER]# diag device IP-Address [credential-set credential-set-name]
```

Note Optionally, a credential set to be used for connection can be provided.

To All Devices

To perform SNMP and Telnet connectivity tests to all the devices currently managed by the Cisco E-DI server, enter:

```
[NET:/network]# diag connectivity [credential-set credential-set-name]
```

Optionally, a credential set to be used for connection can be provided.

Note The behavior of this command changes when session-based device authentication is enabled. See Using Session-Based Device Authentication, page 2-7 for a full explanation of the command behavior.

Finding a Device or Host

Cisco E-DI provides commands to find managed devices and hosts in the network. See Table 13-2:

Table 13-2 Commands to Find Devices in the Network

Action	Command
To find a managed device on the network. This command is used to find the device based on the IP address or the MAC address or the name of the device.	`[SRV:/server|NET:/network]# find devices {by-ip A.B.C.D | by-mac H.H.H | by-name name}`

To view the MAC address of the host and the switch it is connected to.
Sample find-host report:
`admin@edi-jms-1[SERVER]# find host by-mac 0002.55B7.6FA3`
`Host ip address = 172.25.86.71`
`Host mac address = 0002.55b7.6fa3`
`Connected to Switch = 172.25.86.109 on interface FastEthernet0/1 VlanId = 205`
	`[SRV:/server|NET:/network]# find host by-mac <H.H.H>`

To view the IP address of the host and the switch it is connected to.
Sample find-host report:
`admin@edi-jms-1[SERVER]# find host by-ip 172.25.86.171`
`Host ip address = 172.25.86.171`
`Host mac address = 0011.bce4.c540`
`nnected to Switch = 172.25.86.109 on interface FastEthernet0/1 VlanId = 205`
	`[SRV:/server|NET:/network]# find host by-ip <A.B.C.D>`