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Use CTC to Setup SNMP Trap Forwarding for GNE and ENE

Document ID: 66098

Introduction

Prerequisites

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Configuration Through CTC

Configure GNE

Configure ENE

NetPro Discussion Forums – Featured Conversations

Related Information

Introduction

This document describes how to setup Simple Network Management Protocol (SNMP) trap forwarding for Network Elements in a GNE–ENE network environment through Cisco Transport Controller (CTC). The Gateway Network Element (GNE) acts as a proxy for the attached End Network Element(s) (ENE).

Note: This document applies to all CTC–based Cisco ONS 15XXX Network Elements.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- CTC–based Cisco ONS 15XXX
- SNMP
- CTC

Components Used

The information in this document is based on these software and hardware versions:

- Cisco ONS 15327 version 3.3.0 or later
- Cisco ONS 15454 version 3 – 3.3.0 and later
- Cisco ONS 15454 version 4 – all
- Cisco ONS 15454 version 5 – all
- Cisco ONS 15600 version 1.0 or later

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

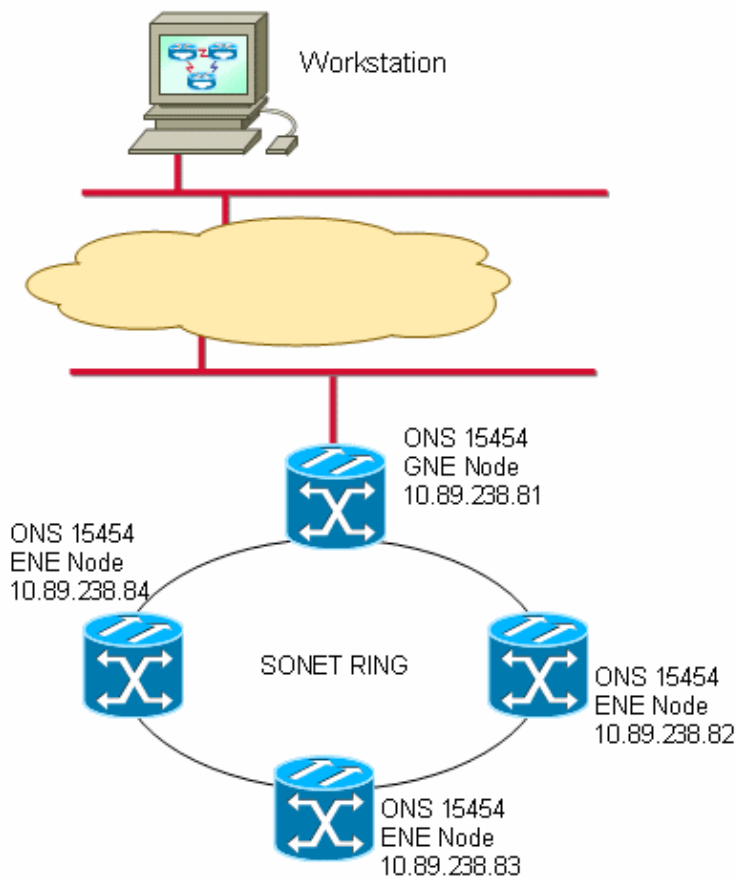
Topology

In a GNE–ENE setup, the GNE has direct connection to the LAN while the ENEs do not, even though each Network Element has a unique IP address. Proxy configuration in the GNE allows information exchange between the ENEs and the outside world.

The network in Figure 1 contains four NEs. One NE has LAN connectivity, and serves as the GNE. The other three NEs have only Data Communication Channel (DCC) connectivity. The NEs with only DCC connectivity need to use the NE with LAN connectivity to reach the Data Communications Network (DCN), where the management stations reside.

In Figure 1, 10.89.238.81 is the GNE. 10.89.238.82, 10.89.238.83 and 10.89.238.84 are the ENEs.

Figure 1 Topology



Configuration Through CTC

This section provides the procedures to configure the GNE and ENE through CTC.

Configure GNE

Complete these steps in order to set up SNMP trap forwarding on the GNE:

1. Use Internet Explorer or Netscape Navigator to open a browser window.
2. Type the IP address of the GNE in the address bar.

The Login screen appears.

3. Type the correct user name and password.
4. Click **OK**.

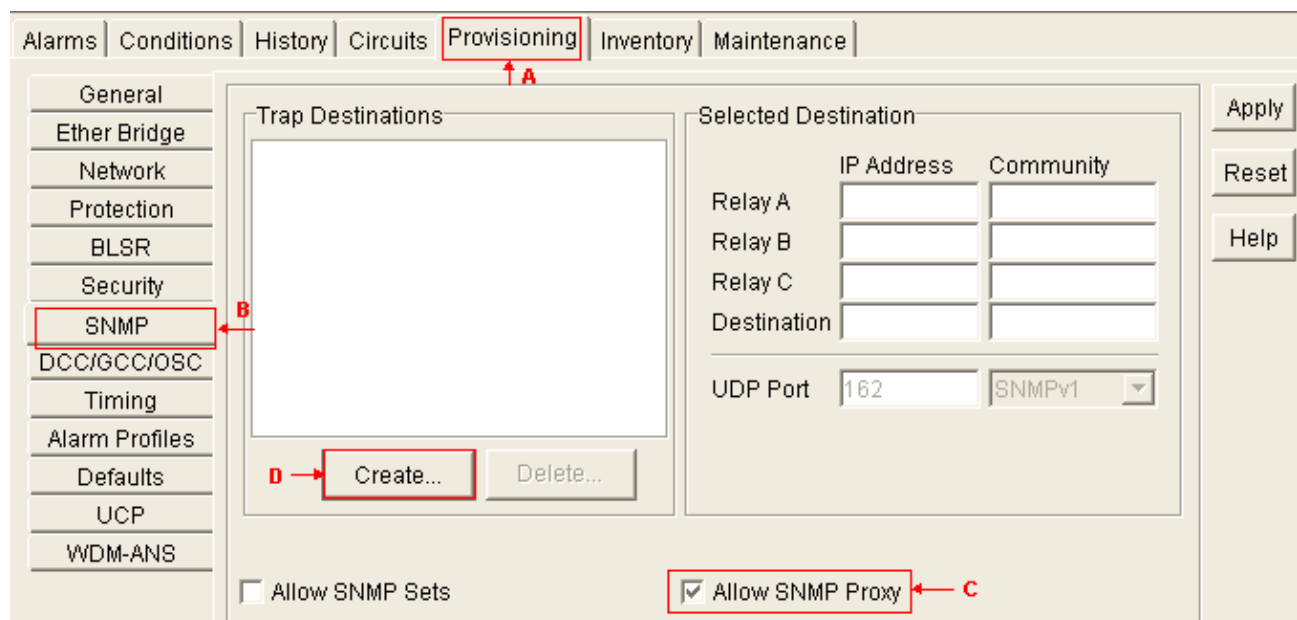
After authentication, the node view appears.

5. Select **View > Go To Network View**, or click the Up arrow.
6. Verify whether the ENEs are visible and available in the network view.
7. Double-click the GNE.

The node view for the GNE appears.

8. Click the **Provisioning** tab (see arrow A in).

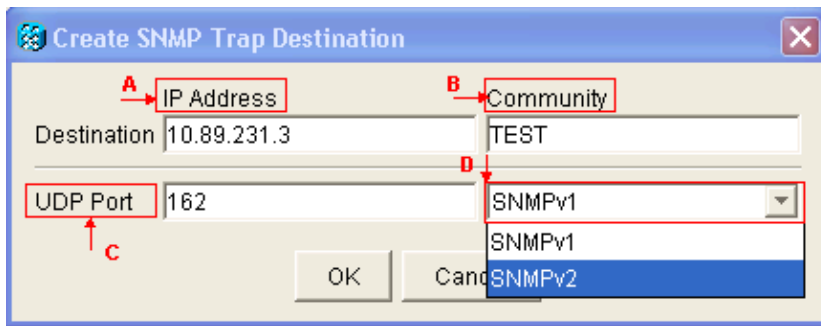
Figure 2 Provision SNMP



9. Click the **SNMP** tab (see arrow B in Figure 2).
10. Check the **Allow SNMP Proxy** check box in order to relay SNMP information from ENEs (see arrow C in Figure 2).
11. Click **Create**.

The Create SNMP Trap Destination window appears:

Figure 3 Create SNMP Trap Destination: GNE



12. Type the IP Address of Cisco Transport Manager (CTM) or other Open Source Software (OSS) SNMP server in the IP Address field (see arrow A in Figure 3).
13. Specify the community string in the Community field (see arrow B in).
14. Type the UDP port number in the UDP Port field (see arrow C in Figure 3). The default UDP port number for GNE is 162.
15. Select the appropriate SNMP version from the drop-down list. You have two choices: SNMP version 1 and SNMP version 2 (see arrow D in).
16. Click **OK**.
17. Repeat steps 12 through 17 to create extra SNMP trap destinations.

Configure ENE

Complete these steps in order to set up SNMP trap forwarding on the ENEs:

1. Use Internet Explorer or Netscape Navigator to open a browser window.
2. Type the IP address of the GNE in the address bar.

The Login screen appears.

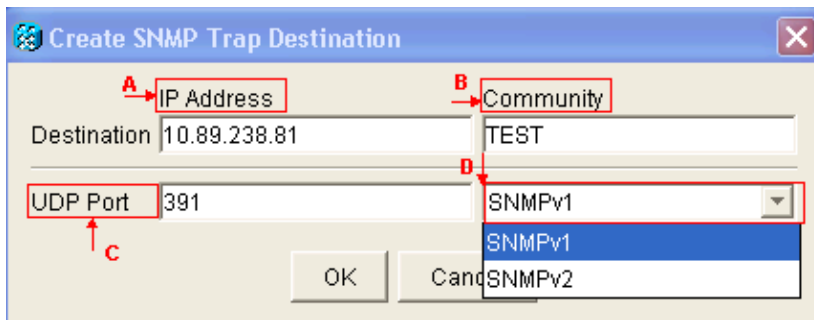
3. Type the correct user name and password.
4. Click **OK**.

After authentication, the node view appears.

5. Click the up arrow or the Network View tool on the CTC toolbar.
6. Select **View > Go To Network View**.
7. Verify whether the ENEs are visible and available in the network view.
8. Double-click an ENE. The node view for the selected ENE appears.
9. Click the **Provisioning** tab (see arrow A in).
10. Click the **SNMP** tab (see arrow B in Figure 2).
11. Ensure that you DO NOT check the **Allow SNMP Proxy** check box for the ENE nodes.
12. Click **Create**.

The Create SNMP Trap Destination window appears.

Figure 4 Create SNMP Trap Destination: ENE



13. Type the IP Address of GNE in the IP Address field (see arrow A in Figure 4).
14. Specify the community string in the Community field (see arrow B in Figure 4).
15. Type the UDP port number in the UDP Port field (see arrow C in Figure 4).
16. Select the appropriate SNMP version from the drop-down list. You have two choices: SNMP version 1 and SNMP version 2 (see arrow D in Figure 4).
17. Click **OK**.
18. Repeat steps 12 through 17 to create extra SNMP trap destinations.

NetPro Discussion Forums – Featured Conversations

Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

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| NetPro Discussion Forums – Featured Conversations for Optical |
| Service Providers: Optical Networking |
| Service Providers: Metro |

Related Information

- **Technical Support & Documentation – Cisco Systems**

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