NetVanta Series

(with SHDSL Network Interface Module)

Quick Configuration Guide

64200867L1-42A



Equipment Required

- Category 5 UTP cable for connecting the system to the existing network.
- VT100 terminal or PC with VT100 emulation software.
- DB-9 (male) to DB-9 (female) straight-through serial cable for configuring the unit.

This quick start guide provides step-by-step instructions for configuring your application. The configuration scripts are available on the ADTRAN OS System Documentation CD.

The configuration parameters used in the example outlined in this document are for instructional purposes only. Please replace all underlined entries (**example**) with your specific parameters to configure your application.

Network Diagrams

Connection Diagram

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1 Configuring the Unit

The NetVanta may be initially accessed and managed either via a console session or through a Telnet session. See step 1a for console session instructions. Initiating a Telnet session requires using a hub and two Ethernet cables (one for the PC and one for the unit). The default Ethernet IP address is 10.10.10.1. Refer to step 7 to change Telnet session settings.

1a Initiating a Console Session

- 1. Connect a VT100 terminal (or PC with VT100 emulation software) to the NetVanta **CONSOLE** port using a DB-9 (male) to DB-9 (female) straight-through serial cable.
- 2. Configure the COM port with the following parameters:
- Data Rate: 9600 Data Bits: 8 Parity Bits: None Stop Bits: 1 Flow Control: None
- 3. Open a VT100 terminal session. (Please refer to the appropriate VT100 terminal software documentation for detailed instructions.)
- 4. Press the **<Enter>** key.
- 5. Enter **enable** at the > prompt.
- 6. Enter the password when prompted. The default password is **password**.
- 7. You are now at the **#** prompt. At the **#** prompt, enter **config terminal** to enter the global configuration mode.

2 Configuring the Ethernet Port Parameters

Typically you will have a master unit at the campus location, and a slave unit at a remote location. The following sections describe how to set up and configure both the Master and Slave units.

- 1. At the **(config)#** prompt, enter **interface eth 0/1** to access the configuration parameters for the Ethernet port located on the rear panel of the unit.
- 2. Enter **ip address** <u>10.10.20.7</u> <u>255.255.255.0</u> to assign an IP address to the Ethernet port using a 24-bit subnet mask.

If you are accessing the NetVanta via Telnet, once you change this IP address, you will lose connection to the NetVanta. You must change the IP address of your PC before you can proceed.

ADTRAN recommends that you set the Ethernet speed and duplex to match the switch or hub it is plugged in to.

For example: (config-eth 0/1)#speed 10

(config-eth 0/1)#half-duplex

- 3. Enter **no shutdown** to activate the interface to pass data.
- 4. Enter **exit** to exit the Ethernet interface commands and return to the global configuration mode.

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The NetVanta Network Interface Modules (NIMs) use a **slot/port** notation for interface identification. All non-modular interfaces built into the base unit (e.g., the Ethernet port) are identified using **0** as the slot number.

3 Configuring the SHDSL Network Interface

For the Master Unit:

- 1. At the **(config)#** prompt, enter **interface shdsl 1/1** to activate the interface configuration mode for the SHDSL network interface.
- 2. Enter **equipment-type co** to configure the unit to source timing into the SHDSL network connection. Use this option in a campus environment when operating two SHDSL network interface modules (NIMs) back-to-back.
- 3. Enter **linerate 2312** to define the line rate for the SHDSL interface for the co side.
- 4. Enter **no shutdown** to activate the SHDSL interface.
- 5. Enter **exit** to return to the global configuration mode.

For the Slave Unit:

- 1. At the **(config)#** prompt, enter **interface shdsl 1/1** to activate the interface configuration mode for the SHDSL network interface.
- 2. Enter **equipment-type cpe**. Use this option when interfacing directly with your service provider or when acting as the Slave NIM in a campus environment.
- 3. Enter **no shutdown** to activate the SHDSL interface.
- 4. Enter exit to return to the global configuration mode.

4 Configuring the Virtual PPP Interface

The following steps show how to configure a PPP virtual interface to the corporate router for the Master unit.

- 1. At the **(config)#** prompt, enter **interface ppp 1** to create a PPP virtual interface labeled 1.
- 2. Assign an IP address to the PPP endpoint using a 30-bit mask.
 - Master: Enter ip address 192.168.72.2 255.255.255.252
 - Slave: Enter ip address <u>192.168.72.1</u> <u>255.255.255.252</u>
- 3. Enter **no shutdown** to activate the PPP interface.
- 4. Enter **exit** to return to the global configuration mode.

5 Creating the Cross-Connect

For both the Master and Slave units, enter **cross-connect <u>1</u> shdsl 1/1 ppp <u>1</u>** to connect the SHDSL network connection (shdsl 1/1) to the virtual PPP interface (ppp 1).

6 Configuring the Routes

Depending on your network setup, configure your unit's static route to the far side/ internet access at the local site beginning at the **(config)#** prompt.

- 1. Set up the default route (i.e., address of internet router).
 - Master: ip route 10.10.20.0 255.255.255.0 192.168.72.1
 - Slave: ip route 0.0.0.0 0.0.0.0 <u>192.168.72.2</u>

7 Configuring Telnet

The following steps show how to access the Telnet configuration parameters and change the password. The default password for initializing a Telnet session is **password** (all lower-case). For security purposes, change the password to something unique. For this example, replace the underlined <u>word</u> with a password of your choosing. The NetVanta supports five Telnet sessions (0-4).

- 1. Verify that the prompt of your unit displays (config)#.
- 2. Enter line telnet 0 4 to change the configuration parameters for the Telnet session.
- 3. Enter **password** word to change the login password for the Telnet session.
- 4. Enter exit to return to the global configuration mode.



An enable security mode password must be defined before configured Telnet sessions are activated. See the following step (step 8) for information on password configuration.

8 Setting the Enable Security Mode Password

- 1. Verify that the prompt of your unit displays (config)#.
- 2. Enter **enable password** word to set the enable security mode password.

or

3. Enter **enable password md5** <u>word</u> to encrypt the enable password using MD5 encryption.

NOTE The enable command security level passwords are case sensitive.

9 Saving the Configuration

- 1. Verify that the prompt of your unit displays (config)#.
- 2. Enter **exit** to leave configuration mode.
- 3. Enter **copy running-config startup-config** to save the current configuration to memory. This command may be abbreviated as **copy run start**.
- 4. Enter **exit** to close the configuration session.

10 Completing the Installation

The NetVanta is now configured and operational. Complete the installation by connecting the appropriate cables to the networks. Please refer to the NetVanta Hardware Installation Guide for details on pinouts and cabling.