Terminal Mode for NPort

Moxa Technical Support Team support@moxa.com

This Tech Note applies to the NPort 6000 and NPort Wireless Plus device servers. The following models are included:

- NPort 6150
- NPort 6250
- NPort 6450
- NPort 6650
- NPort W2150 Plus
- NPort W2250 Plus

What is Terminal Mode?

Terminal Mode is used for applications where serial terminals are connected to UNIX or Windows servers over a network. A terminal connects to a serial port on the NPort device server, and the NPort connects to the network through its Ethernet port. With the serial port operating in Terminal Mode, the NPort enables data communication between the terminal and the UNIX or Windows server.



Copyright © 2008 Moxa Inc.

Released on July 15, 2008

About Moxa

Moxa manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial hubs, media converters, device servers, embedded computers, Ethernet I/O servers, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

How to Contact Moxa

Tel:	1-714-528-6777	Web: www.moxa.com
Fax:	1-714-528-6778	Email: info@moxa.com



This document was produced by the Moxa Technical Writing Center (TWC). Please send your comments or suggestions about this or other Moxa documents to twc@moxa.com.

Configuring the NPort for Terminal Mode

Before performing the following steps, restore the NPort device server's default settings by holding the reset button down for 5 seconds.

Also, please note that for NPort Wireless Plus models, only one network interface (WLAN or Ethernet) can be active at a time. To use the Ethernet interface, make sure the network cable is plugged in before powering on the NPort. To use the WLAN interface, make sure the network cable is unplugged when the NPort is powered on.

- 1. Turn the NPort on. The Ready LED should turn green.
- 2. Make sure that the NPort and the host PC are properly connected to the network.
- 3. Adjust the NPort's IP settings as necessary so that it is in the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the NPort from your host PC.

Remember, the IP addresses of the NPort and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.

- On the host PC, connect to the NPort's Telnet console by entering telnet <*NPort's IP address>* at the command prompt. For example, if your NPort's IP address is 192.168.127.254, enter telnet 192.168.127.254 at the command prompt.
- In the Telnet console under Port > Modes, set Application to Terminal and Mode to TERM_ASC. Under Description/more settings, set Auto-link protocol to Telnet, and set Primary host IP to your UNIX or Windows server's IP address.
- 6. In the Telnet console under **Port** > **Line**, adjust the communication parameters as necessary for your terminal, such as 115200, N, 8, 1.
- 7. In the Telnet console, select **Save/Restart** to restart the NPort with the new settings activated.

Testing Terminal Mode for the NPort



- 1. Set the NPort's serial port to Terminal Mode as described above.
- 2. Use an RS-232 null modem cable to connect the host PC's COM port to the NPort's serial port.
- 3. Verify that the UNIX or Windows server is accessible from the network, and that the **Primary host IP** on the NPort is set to your host's IP address.
- 4. Use a terminal emulation program, such as PComm or Hyperterminal, to open the PC's COM port.
- 5. You should see the UNIX or Windows server login prompt in the terminal window. This means that the configuration is successful.

Cable Wiring



4 wire RS-422/485 Cable Wiring			
NPort	!	Device	
Tx (+)		Rx (+) Rx (-) Tx (+) Tx (-) GND	