Configuring the EN-4000's Serial Ports

A module containing two serial ports is installed in an expansion port on the front of the EN-4000. This document discusses configuration of the EN-4000's serial ports.

Also see *Configuring Chassis Ports in the EN-4000*.

7.1 Connecting to the EN-4000

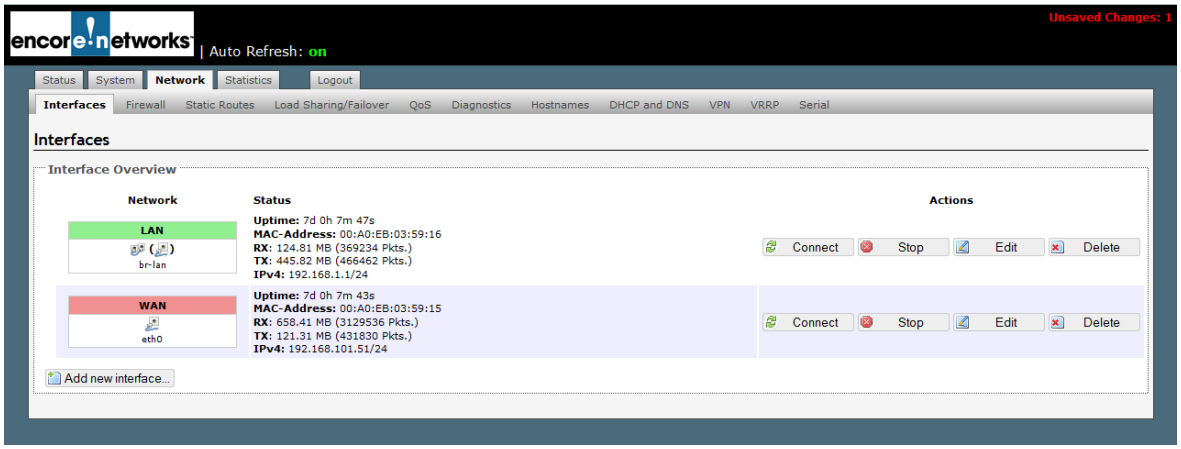
Connect a management terminal to the EN-4000, and log into the management system. (For details, see *Using the EN-4000's Management System*, in the document *Configuring General Settings for the EN-4000*.)

7.2 Configuring a Serial Port

1 On the EN-4000 Management System, select the **Network** tab.

❖ The Network Interfaces Screen is displayed (Figure 7-1).

Figure 7-1. Network Interfaces Screen



2 Then select the **Serial** tab.

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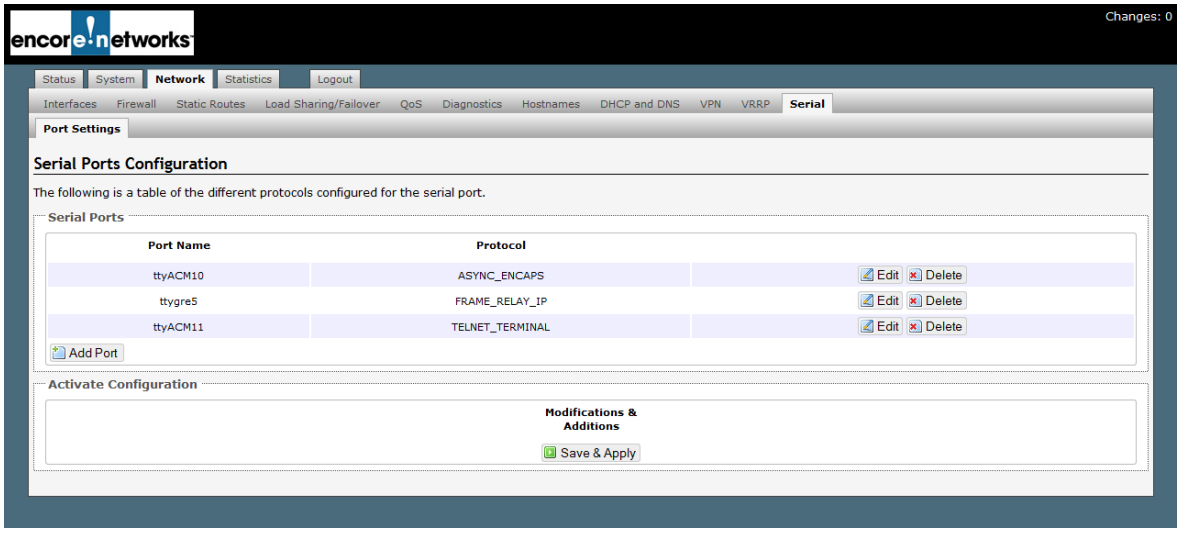
❖ The Serial Port Configuration Screen is displayed (Figure 7-2).

Figure 7-2. Serial Port Configuration Screen



The default configuration for the dual serial-port module includes the following. (Port names—for example, ttyACM10—may differ in your set-up.)

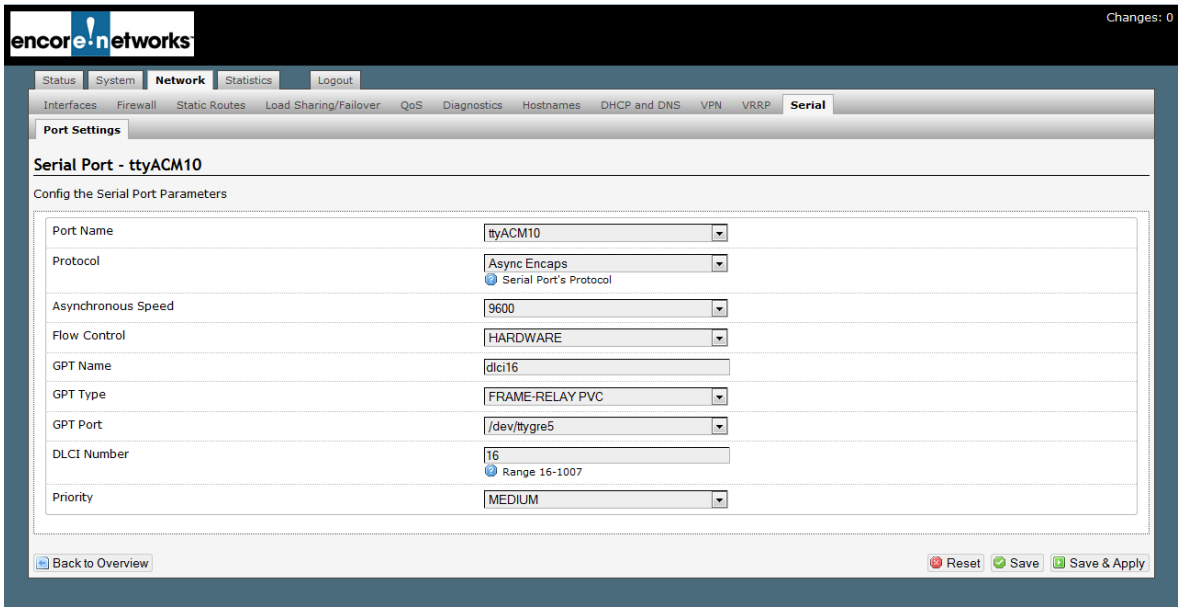
- **ttyACM10:** The Asynchronous Encapsulation protocol is the default configuration for one of the physical serial ports. This protocol sends and receives Async Encaps transmissions to and from a remote device.
- **ttyGRE5:** This virtual port uses general route encapsulation (GRE) to send and receive Frame Relay transmissions. (GRE uses the Internet Protocol, IP.)
- **ttyACM11:** The Telnet Terminal protocol is the default configuration on one of the physical serial ports.

The port configurations named ttyACM10 and ttyACM11 refer to discrete serial ports; each serves only one physical port. The port configuration named ttyGRE5 is a virtual port and can serve both physical serial ports. Additional virtual ports can be configured.

3 If you wish to customize a port configuration, select that row's **Edit** button. For example, select the edit button in the row for **ttyACM10**.

❖ The Serial Port Configuration Detail Screen is displayed (Figure 7-3).

Figure 7-3. Serial Port Configuration Detail



4 On the Serial Port Configuration Detail Screen, configure the following near the top of the screen:

- **Port Name:** At the direction of your network administrator, you may rename the port to something more meaningful in your network.
- **Protocol:** You may change the protocol that the port uses. The choices are:
  - **Telnet Terminal**
  - **Frame Relay (Synchronous Mode)**
  - **Frame Relay (IP)**
  - **Asynchronous Encapsulation**

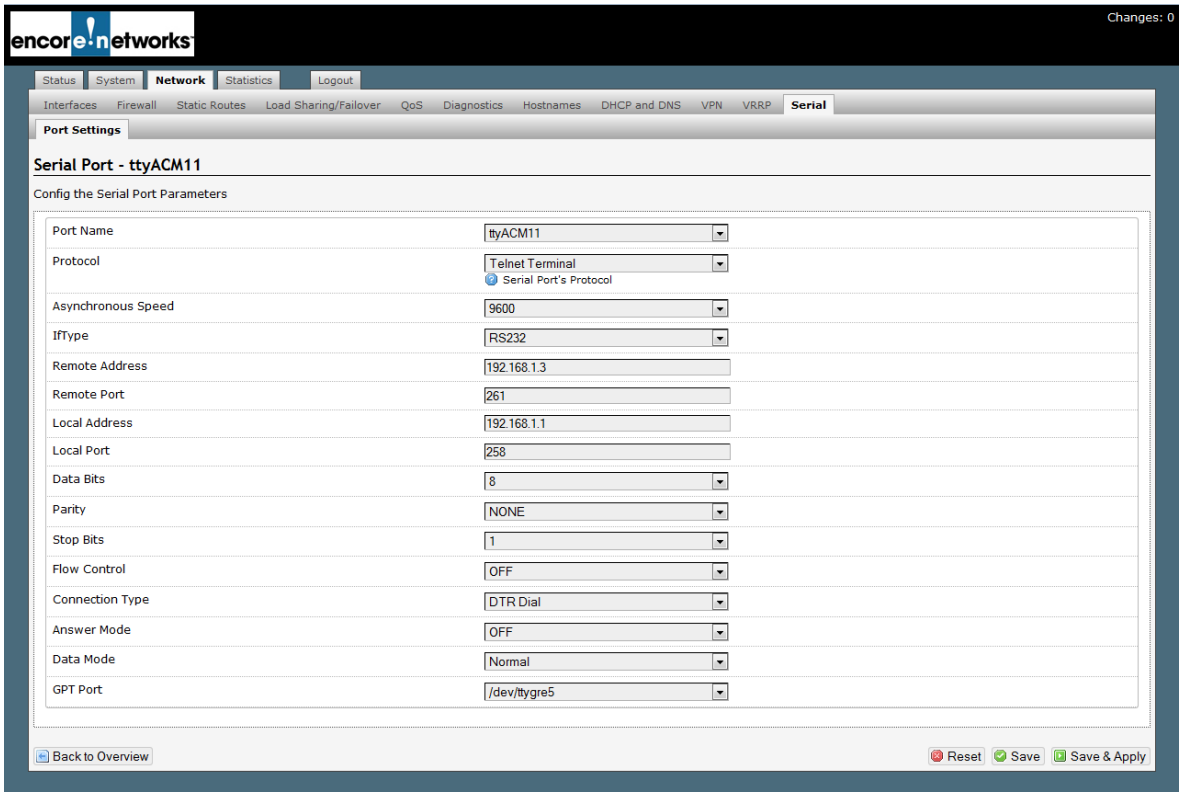
❖ The protocol selection determines the fields that appear on the rest of the screen.

5 See one of the following, as appropriate:

- Step 6: Serial Port Configuration for Telnet Terminal
- Step 7: Serial Port Configuration for Frame Relay (Synchronous Mode)
- Step 8: Serial Port Configuration for Frame Relay over IP
- Step 9: Serial Port Configuration for Asynchronous Encapsulation

6 Serial Port Configuration for Telnet Terminal

Figure 7-4. Serial Port Configuration Detail for Telnet Terminal



a On the Serial Port Configuration Detail for Telnet Terminal Screen (Figure 7-4), you may see the following fields:

- **Asynchronous Speed:** Select a speed for the transmission.
- **IfType:** The interface type can be RS232 or RS485.
- **Remote Address:** IP address for remote device
- **Remote Port:** Port number for remote device
- **Local Address:** IP address for EN-4000
- **Local Port:** Port number for EN-4000
- **Data Bits:** 8, 7, or 6. Confer with your network administrator to match the data bits to the application.
- **Parity:** None, Even, or Odd
- **Stop Bits:** 1 or 2
- **Flow Control:** Off or On
- **Connection Type:** Manual or DTR Dial
- **Answer Mode:**

  Off (Does not answer calls, but will initiate calls.)

  On (Answers and initiates calls.)

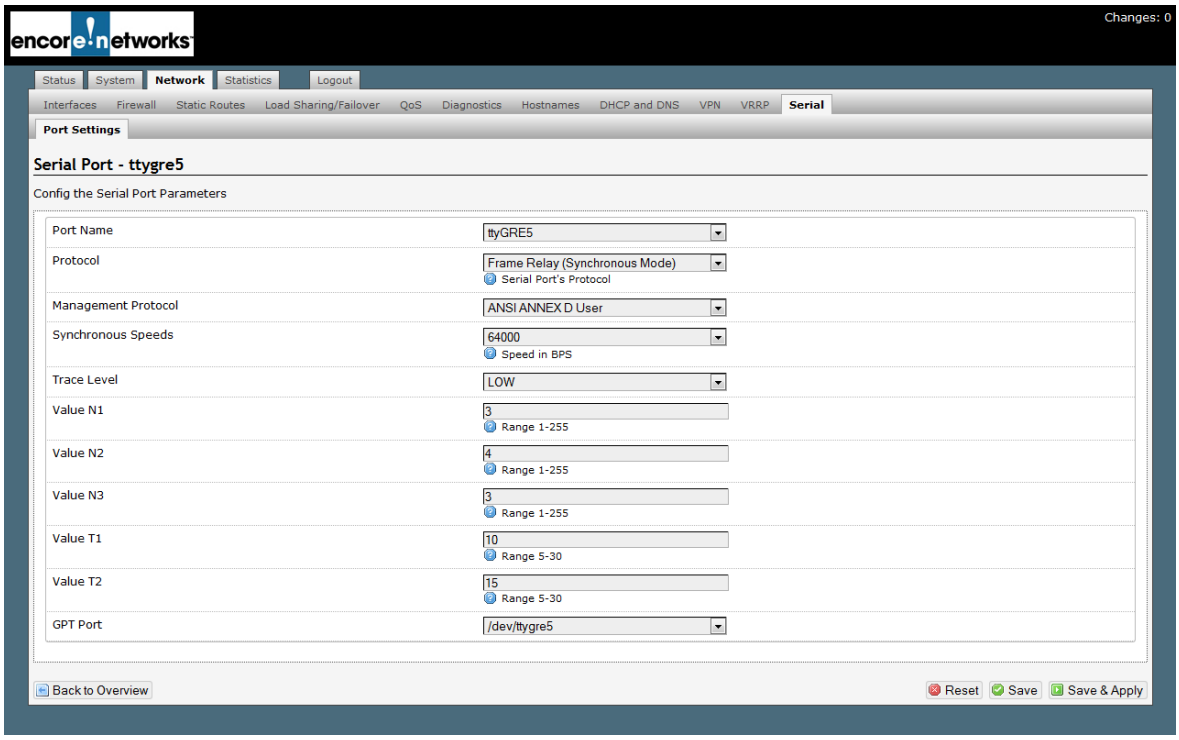
  Only (Answers but does not initiate calls.)

- **Data Mode:** Binary or Normal
- **GPT (Global Path) Port:** Select a global path port for the virtual protocol to use, or select **custom** to type a new global path name.

b Go to step 10.

7 Serial Port Configuration for Frame Relay (Synchronous Mode)

Figure 7-5. Serial Port Configuration Detail for Frame Relay (Synchronous Mode)



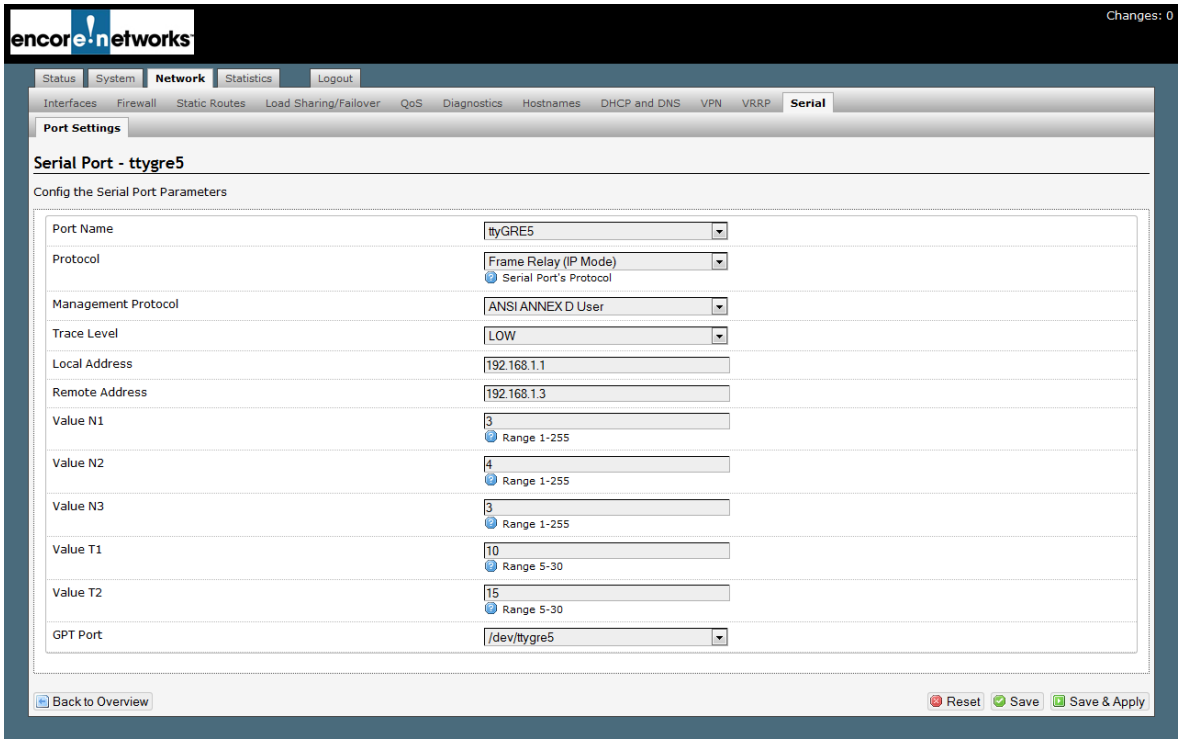
a On the Serial Port Configuration Detail for Frame Relay (Synchronous Mode) Screen (Figure 7-5), you may see the following fields:

- **Management Protocol:** Consult with your network administrator to select one of several available protocols.
- **Synchronous Speed:** Select a speed for the transmission.
- **Trace Level:** Low, Medium, High, Critical
- **Value N1:** For Frame Relay, polling, and so forth.
- **Value N2:** For Frame Relay, polling, and so forth.
- **Value N3:** For Frame Relay, polling, and so forth.
- **Value T1:** For Frame Relay, polling, and so forth.
- **Value T2:** For Frame Relay, polling, and so forth.
- **GPT (Global Path) Port:** Select a global path port for the virtual protocol to use, or select **custom** to type a new global path name.

b Go to step 10.

8 Serial Port Configuration for Frame Relay over IP

Figure 7-6. Serial Port Configuration Detail for Frame Relay (IP Mode)



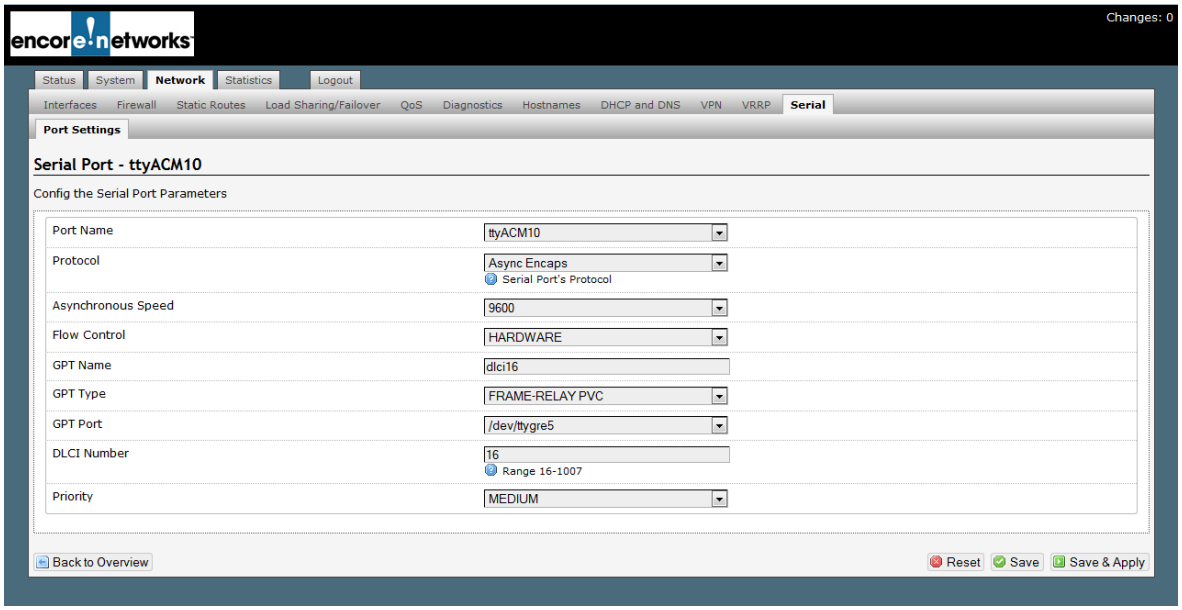
a On the Serial Port Configuration Detail for Frame Relay (IP Mode) Screen (Figure 7-6), you may see the following fields:

- **Management Protocol:** Consult with your network administrator to select one of several available protocols.
- **Trace Level:** Low, Medium, High, Critical
- **Local Address:** The EN-4000's IP address.
- **Remote Address:** The remote device's IP address
- **Value N1:** For Frame Relay, polling, and so forth.
- **Value N2:** For Frame Relay, polling, and so forth.
- **Value N3:** For Frame Relay, polling, and so forth.
- **Value T1:** For Frame Relay, polling, and so forth.
- **Value T2:** For Frame Relay, polling, and so forth.
- **GPT (Global Path) Port:** Select a global path port for the virtual protocol to use, or select **custom** to type a new global path name.

b Go to step 10.

9 Serial Port Configuration for Asynchronous Encapsulation

Figure 7-7. Serial Port Configuration Detail for Asynchronous Encapsulation



a On the Serial Port Configuration Detail for Asynchronous Encapsulation Screen (Figure 7-7), you may see the following fields:

- **Asynchronous Speed:** Select a speed for the transmission.
- **Flow Control:** Hardware, Off, On, or Tx (Transmit) Only
- **GPT (Global Path) Name:** Select a global path for the virtual protocol to use.
- **GPT Type:** Select a global path type (Frame Relay, Telnet, and so forth) for the virtual protocol to use.
- **GPT Port:** Select a global path port for the virtual protocol to use, or select **custom** to type a new global path name.
- **DLCI Number:** Get the DLCI number from your network administrator.
- **Priority:** Immediate, High, Medium, or Low

b Go to step 10.

10 When you have finished configuring the serial port protocol, do one of the following:

a Select the **Save & Apply** button (in the lower right corner of the screen).

❖ The changes are saved, and the Serial Port Configuration Screen is redisplayed. The new display includes your changes.

b Select the **Back to Overview** button (in the lower left of the screen).

❖ The changes are discarded, and the Serial Port Configuration Screen is redisplayed.

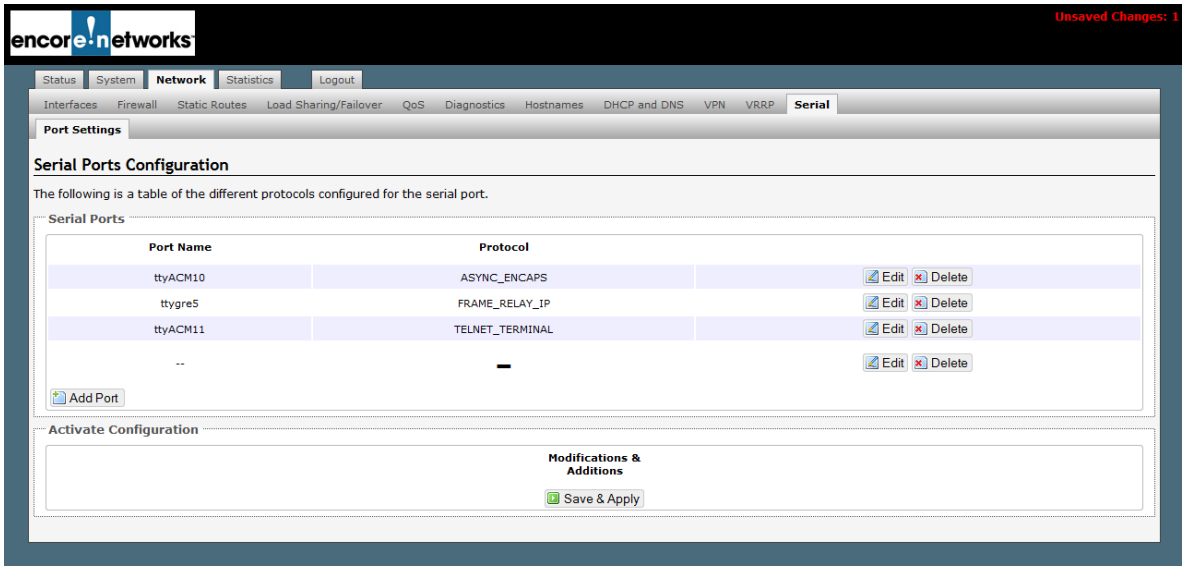
11 If you wish to reconfigure another protocol on the Serial Port Configuration Screen, select that protocol's row, and repeat step 3 through step 10.

12 If you wish to add another protocol for the serial ports, do the following:

a Select the **Add Port** button (at the lower left of the list of Port Names).

❖ The Serial Port Configuration Screen with a Row for a New Protocol (Figure 7-8) is displayed. The protocol does not yet have a name.

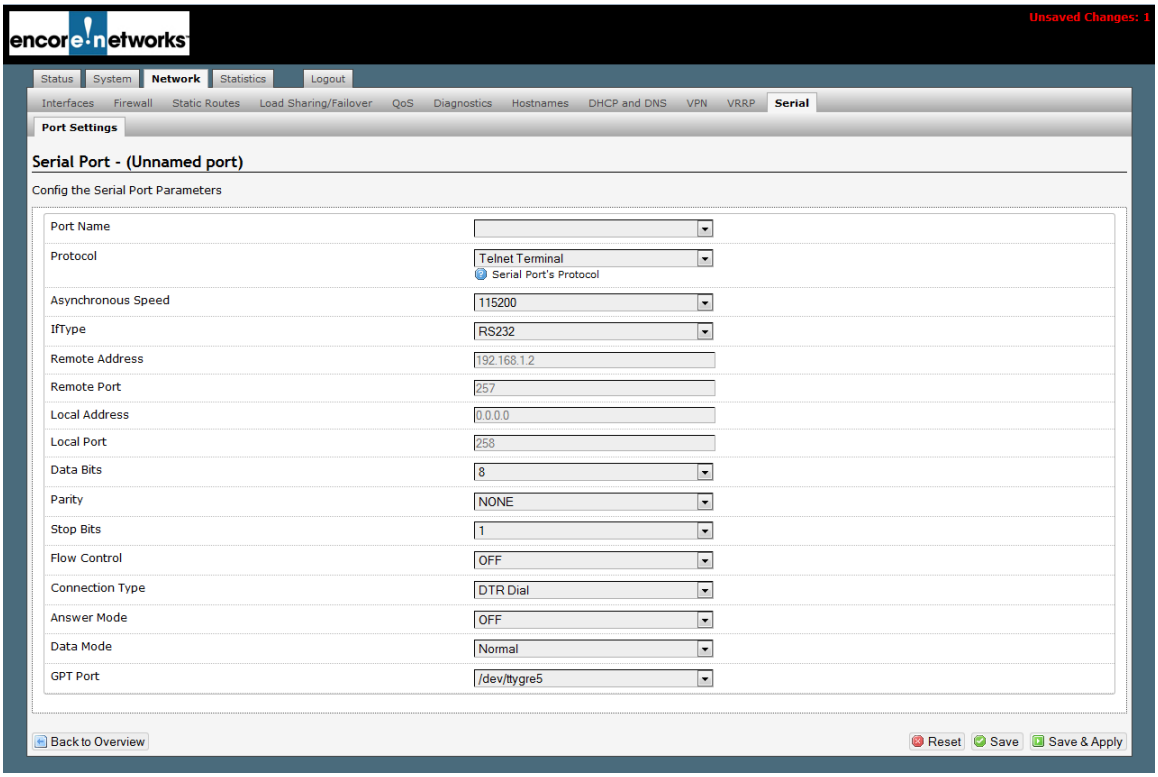
Figure 7-8. Serial Port Configuration Screen with a Row for a New Protocol



b In the new row, select the **Edit** button.

❖ The Serial Port Configuration Detail Screen for a New Protocol (Figure 7-9) is displayed. The protocol does not yet have a name.

Figure 7-9. Serial Port Configuration Detail Screen for a New Protocol



c In the **Port Name** field, select a name from the pulldown list, or select **custom** and type a new name.

d In the **Protocol** field, select the protocol that the virtual protocol will support.

❖ The remaining fields on the screen change to support the selected protocol. Return to step 5.