



TECHNICAL SUPPORT NOTE

Configuring the Total Access 850 RCU to route IP over PPP to an ISP

Introduction

This Technical Support Note describes how to configure the ADTRAN TA 850 for the typical connection to an ISP using IP routing over a PPP connection (see Figure 1).

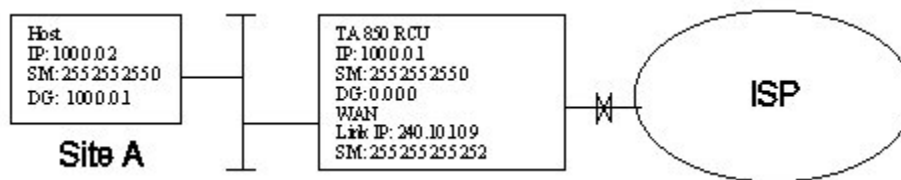


Figure 1

Layer One

- Configure the TA 850 RCU for the T1.
- Map the correct number of DS0s to the Internal Router.
- Verify that the TA 850 RCU is not in T1 alarm.

Establish a console session

To configure the TA 850, it is necessary to establish a console session to it using a VT-100 terminal. Terminal parameters are as follows:

Baud: 9600
Data Bits: 8
Parity: None
Stop Bit: 1
Flow Control: None

After a connection is established, you will see a **LOGIN** prompt. There is no password or login set by default, so you can get to the main menu by simply pressing **ENTER**. **CTRL-R** will refresh the display.

Configure the TA 850 RCU

1. Configure the Ethernet IP address information for the router.

In the **Configuration** menu of the console session, go to **TA 850 RCU/Router/Configuration/Ethernet/IP** and configure the **IP Address**, the **Subnet Mask**, and the **Default Gateway** of the Ethernet port. Figure 2 shows this screen with settings for our example.

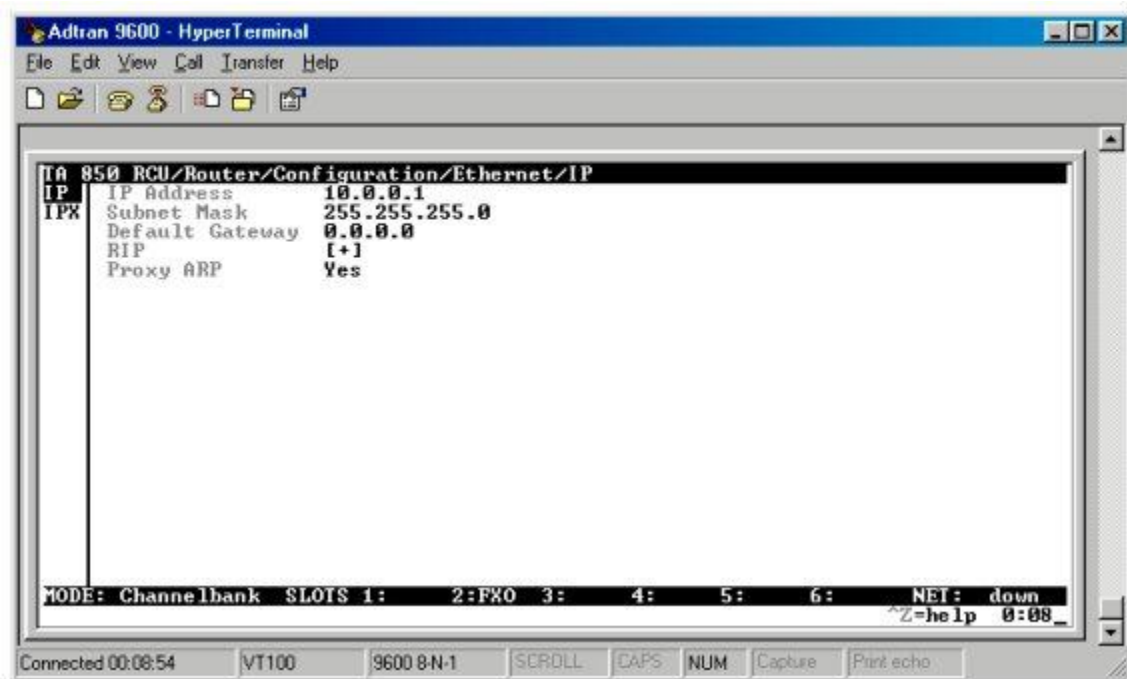


Figure 2

2. Configure RIP on the TA 850 RCU.

Under **TA 850 RCU/Router/Configuration/Ethernet/IP/RIP**, **Mode** should be set to **Off** unless other routers on the LAN are using RIP. If other routers on the LAN are using RIP, set **Mode** to **On** with **Protocol** and **Method** matching on all routers. See Figure 3.

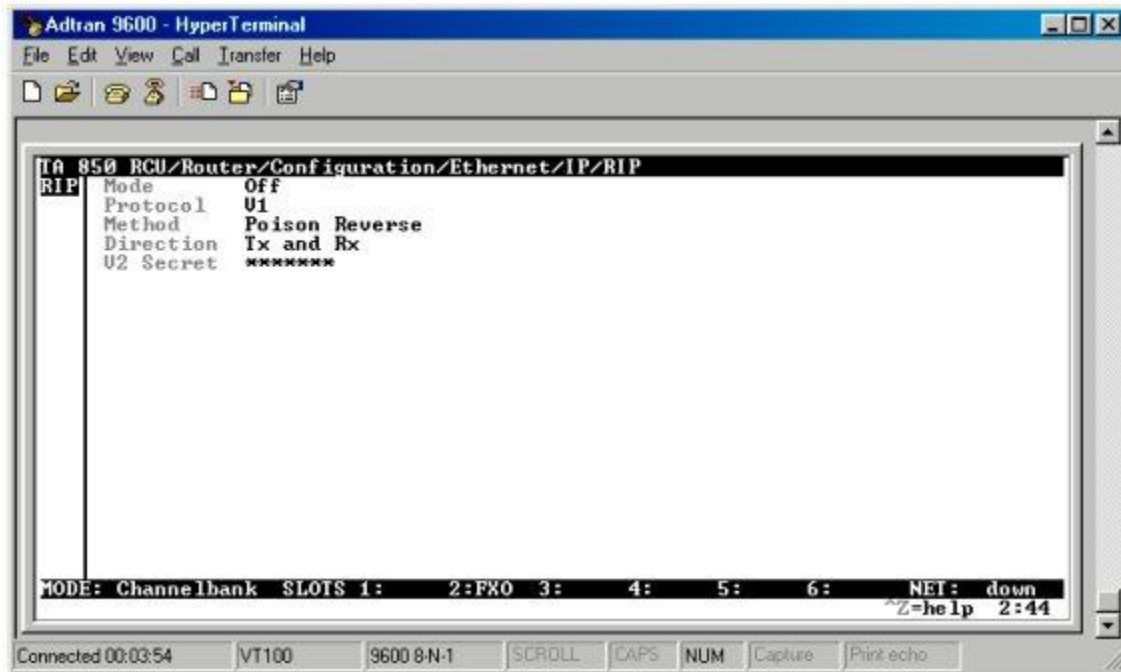


Figure 3

3. **Configure the TA 850 RCU to route IP.**

- a. Under **TA 850 RCU/Router/Configuration/Global/IP**, set **Mode** to **ON**.
- b. Under **TA 850 RCU/Router/Configuration/Global/IPX Mode**, set **Mode** to **OFF**.
- c. Under **TA 850 RCU/Router/Configuration/Global/Bridge**, set **Mode** to **OFF**.

This will disable bridge and IPX modes and enable IP routing.

4. **Configure the router with a numbered WAN interface.**

Go to **TA 850 RCU/Router/Configuration/WAN/PPP Profile/IP/Route** in the console session and configure **IP/Net**, **Netmask** and **Local IP**.

IP/Net is the IP address of the WAN/PPP interface on the ISP's router. **Netmask** is the mask for the network that exists between the ISP's router and the ADTRAN TA 850 RCU. **Local IP** is simply the IP address of the WAN/PPP interface of the TA 850 RCU. The ISP will provide all three of these parameters. See Figure 4.

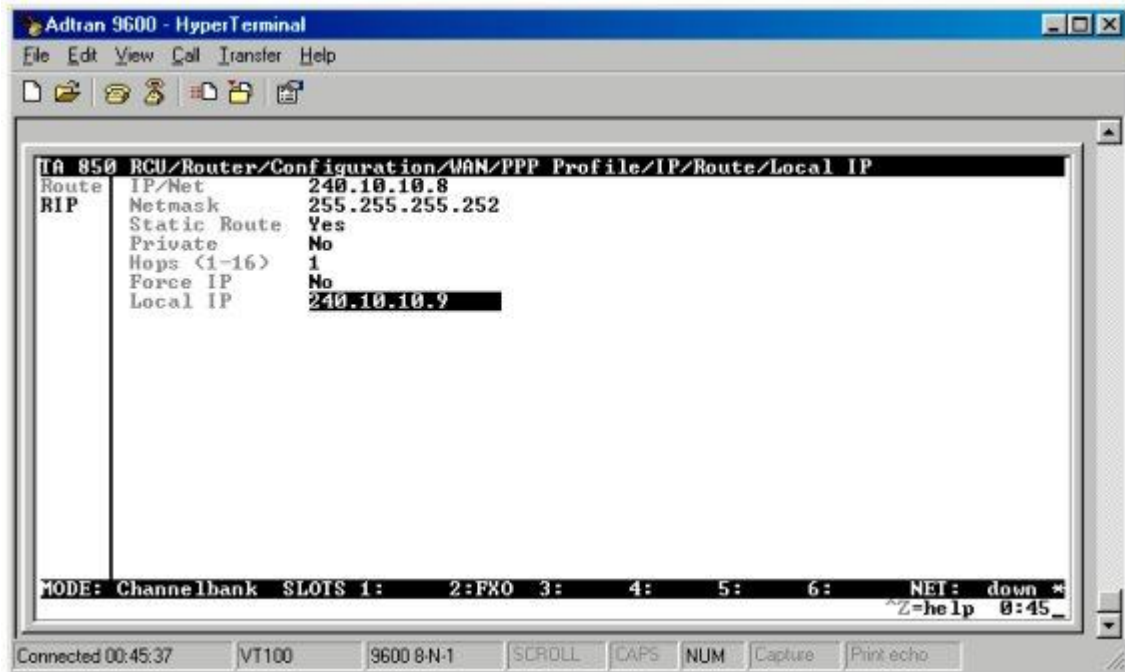


Figure 4

5. Configure the layer two protocol.

Go to **TA 850/Router/Configuration/WAN** in the configuration menu and set **L2 Protocol** to **PPP**. This is the layer two protocol on all router applications that are not using Frame Relay. See Figure 5.

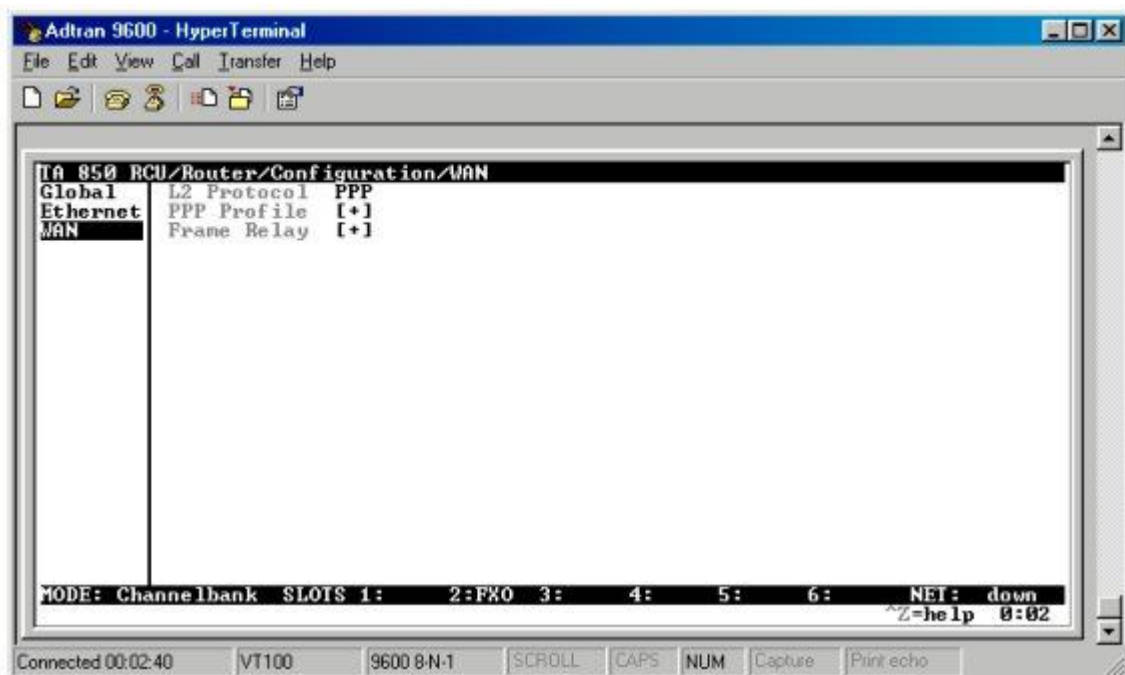


Figure 5

6. **Configure the WAN interface section of the TA 850 RCU.**

- a. Under **TA 850 RCU/Router/Configuration/WAN/PPP Profile/IP/Mode**, set **Mode** to **ON** to enable IP routing on the WAN.
- b. Under **TA 850 RCU/Router/Configuration/WAN/PPP Profile/IPX/Mode**, set **Mode** to **OFF** to disable IPX routing on the WAN.
- c. Under **TA 850 RCU/Router/Configuration/WAN/PPP Profile/Bridge/Mode**, set **Mode** to **OFF** to disable Bridging for our router on the PPP link.
- d. Under **TA 850 RCU/Router/Configuration/WAN/PPP Profile/IP/RIP/Mode**, set **Mode** to **OFF** to disable RIP for our router on the PPP link.

7. **Resetting the the router**

Note: It is very important to reset the router. The new settings will not take effect unless it is reset.

To reset the router, go into to **TA 850 RCU/Router/Configuration/Terminal Mode** and press **ENTER**. This will give you a prompt at the bottom of the screen where you will need to type **router** and press **ENTER**. Finish by confirming the reset with a **Y**.

Your ADTRAN TA 850 RCU is now configured to route IP over PPP to an ISP.

Summary

Below is a summary of the configuration paths for an IP over PPP to an ISP application.

WAN

TA 850 RCU Router/Configuration/WAN

-Set to PPP

TA 850 RCU Router/Configuration/PPP Profile/IP/Route

-Set the WAN IP Address (Link IP), WAN Subnet Mask, and WAN network address (IP/NET)

TA 850 RCU Router/Configuration/PPP Profile/IP/Mode

-Set Mode to On

TA 850 RCU Router/Configuration/PPP Profile/IP/RIP/Mode

-Set Mode to Off

TA 850 RCU Router/Configuration/PPP Profile/IPX/Mode

-Set Mode to Off

TA 850 RCU Router/Configuration/PPP Profile/Bridge/Mode

-Set Mode to Off

LAN

TA 850 RCU Router/Configuration/Ethernet/IP

-Set Ethernet IP address, Ethernet Subnet Mask, and Ethernet Default Gateway

TA 850 RCU Router/Configuration/Global/IP/Mode

-Set Mode to On

TA 850 RCU Router/Configuration/Global/IPX/Mode

-Set Mode to Off

TA 850 RCU Router/Configuration/Global/Bridge/Mode

-Set Mode to Off

TA 850 RCU Router/Configuration/Ethernet/IP/RIP/Mode

-Set Mode to Off unless specified to keep it On

If you experience any problems using your ADTRAN product, please contact [ADTRAN Technical Support](#).

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