

TSAN 040

HiPR-900™ TCP/IP Repeater (Router Mode)

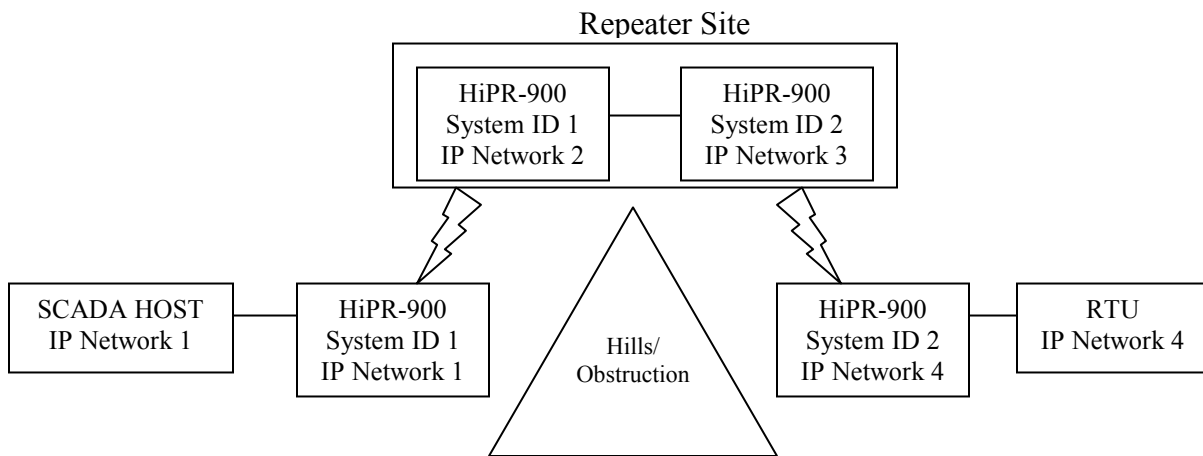
Dataradio Technical Support

For additional assistance: www.dataradio.com

Within the U.S.A.	1-800-992-7774	International	1-507-833-8819
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Product: Dataradio HiPR-900™

Application: Provide information necessary to configure an Ethernet network using back-to-back HiPR-900's as a TCP/IP repeater. This application uses the HiPR-900 router mode. The SCADA host and the RTUs are on different IP sub networks.



See Figure 2 for a system example.

HiPR-900 Router Mode

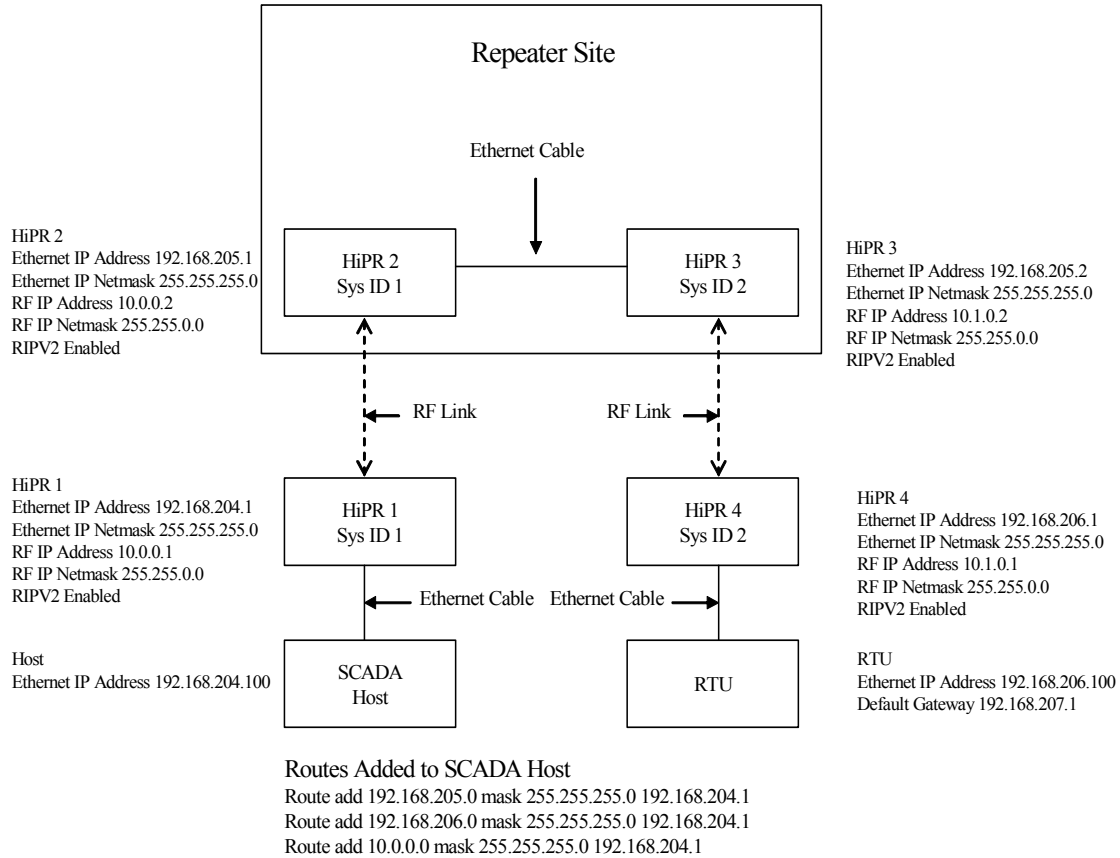


Figure 2

Set up:

The SCADA host and the RTUs are on different IP sub networks.

One HiPR-900 (not at the repeater site) on each System ID must be designated as a Synch Master unit. Please refer to the HiPR-900 Quick Start Guide or HiPR manual for information on Synch Master and System ID programming.

All Ethernet connections must use Cat 5 or higher cable.

The HiPR-900 is programmed for router mode (see Figure 3). Router mode programming is located under Setup (Basic), General.



Station Name	<input type="text" value="Station not named"/>
System ID	<input type="text" value="7531"/>
Operating mode 	<input type="radio"/> Remote <input checked="" type="radio"/> Master
IP Forwarding Mode 	<input type="radio"/> Bridge <input checked="" type="radio"/> Router

Figure 3

Router Information Protocol (RIP) is enabled (see Figure 4). RIP mode programming is located under Setup (Advanced), IP Services.



NAT 	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled
RIPV2 	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled

Figure 4

Repeater Site:

The connection between the HiPR-900s is made using a “straight through” Ethernet cable. The “LAN” port on one HiPR-900 is connected to the “LAN” port on the other HiPR-900.

SCADA Host Site:

The routes for the IP network must be entered in the SCADA host computer. To enter the routes proceed as follows:

1. From the computer Start Menu select Run.
2. In the command line type “cmd” and press “OK”. You will be at the C:\> prompt.
3. Enter the routes using the following syntax: route add -p 192.168.204.0 mask 255.255.255.0 192.168.204.1 <enter>. The -p switch will make the route persistent. This means the route will stay in the SCADA host computer even if the computer is rebooted. You will need to re-enter the route information after the computer is re-booted if you do not use the -p switch.
4. Repeat step 3 for each route to be added. You will need to add a route for every network in your system. In our example the routes to be added are 192.168.204.0, 192.168.205.0, 192.168.206.0, and 10.0.0.0.



Technical Support Application Note

Note: Dataradio offers this type of repeater as a complete assembly and enclosure.
Contact your Wireless Data Adviser for details.

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Release 3

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