

### TSAN 039

### HiPR-900™ Terminal Server (RS-232 Serial) Repeater (Router Mode)

### Dataradio Technical Support

For additional assistance: [www.dataradio.com](http://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 for configuring an Ethernet network using back-to-back HiPR-900's as a serial data repeater. This application uses the HiPR-900 router mode. The SCADA host and the RTUs are on different IP sub networks. Serial data between HiPR-900s is transported in TCP/IP protocol. This allows legacy serial devices to operate within a mixed HiPR-900 system.

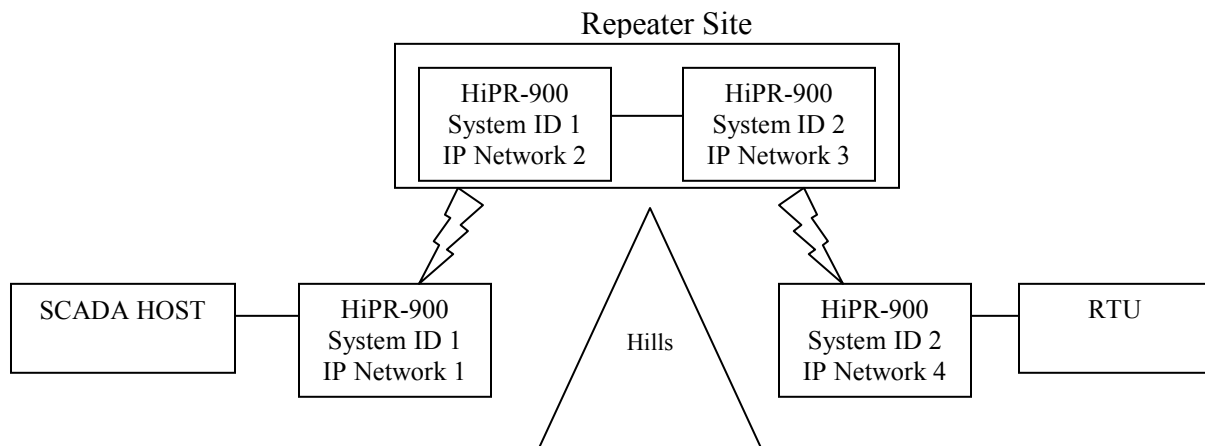


Fig. 1

See Figure 2 for a system example.

### HiPR-900 Terminal Server Back to back Repeater Router Mode

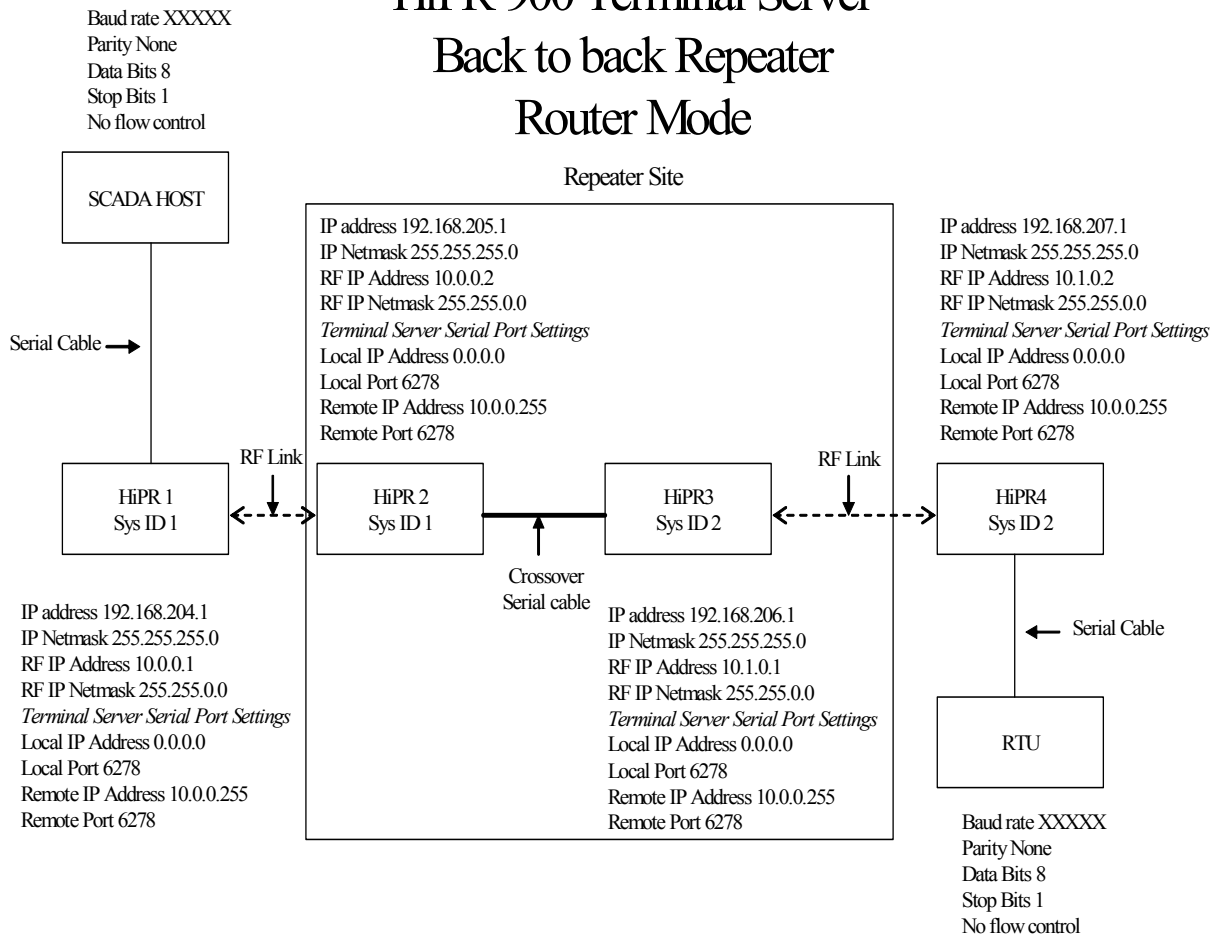


Figure 2

#### Set up:

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

One HiPR-900 on each System ID must be designated as a Synch Master unit. Please refer to the HiPR-900 quick start guide for information on Synch Master and System ID programming.

All Ethernet connections must use Cat 5 or higher cable.

#### Repeater Site:

The connection between the HiPR-900s is made via a serial crossover cable. See Table 1 for cable pin outs. The cable is connected between the selected DB-9 connectors on the HiPR-900 units. You may use either the Set Up Port or the Data Port. The selected

port must be programmed for Serial/RF Bridge in the IP Gateway Services. The Serial Port programming is located under Setup (Basic), Serial Port. See Figure 3 for programming.

DB-9		DB-9	
Pin	Description	Description	Pin
3	TD	RD	2
2	RD	TD	3
4	DTR	DSR	6
6	DSR	DTR	4

Table 1  
Serial Crossover Cable

### SETUP PORT

**Enabled**

**Speed**  
115200

**Flow Control**  
None

**Connection Control**  
Permanent (3-wire)

**IP Gateway Service**

- CLI Service
- Serial/RF bridge
- Online Diagnostics
- Custom

**IP Gateway Transport**  
TCP Client

Local IP Address: [ ]  
Local IP Port #: [ ]  
Remote IP Address: 127.0.0.1  
Remote IP Port #: 23

**Status: READY**

### DATA PORT

**Enabled**

**Speed**  
19200

**Flow Control**  
None

**Connection Control**  
Permanent (3-wire)

**IP Gateway Service**

- CLI Service
- Serial/RF bridge
- Online Diagnostics
- Custom

**IP Gateway Transport**  
UDP

Local IP Address: 0.0.0.0  
Local IP Port #: 6278  
Remote IP Address: 10.0.0.255  
Remote IP Port #: 6278

**Status: UP**

Figure 3

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