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# Remote Access to SignalPath™ Devices

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You may wish to monitor or manage a SignalPath™ device (an SP201™, SP201-SA™, R2Adapter™, or SP230™) on a terminal at some distance from the SignalPath's physical location. This document discusses remote access to the SignalPath device.

After you have connected the SignalPath device to its local terminal (e.g., a PC), you can connect a remote terminal to the local terminal. After you have connected the remote terminal to the local terminal, you can configure, monitor, and otherwise manage the SignalPath from the remote terminal.

**Note:** If the SP230's primary System Controller Module (SCM) has an IP address, you can connect a remote terminal to the SP230 itself. See the section *Remote Access to the SP230's Primary SCM*.

(The SP201, SP201-SA, and R2Adapter do not have IP addresses; however, each has a direct serial connection to a local terminal. If the local terminal has an IP address and you wish to use a remote terminal to communicate with one of these SignalPath devices, you must connect the remote terminal to the SignalPath's local terminal.)

## Sample Connections and Products

The following are typical connections between the local and remote terminals:

- Virtual private network (VPN), using the Point-to-Point Tunneling Protocol (PPTP). PPTP VPN is available in Microsoft Windows 98 and above.
- Virtual network computing (VNC)
- Telnet protocol, through a VPN tunnel. After connection, the remote terminal can use its copy of a terminal-emulation program (e.g., HyperTerminal) to manage the SignalPath device.

There are many products that can be used for remote access to the SignalPath's local terminal. The following are some products (with URLs for product information) available for remote access:

- NetMeeting [www.microsoft.com/windows/netmeeting](http://www.microsoft.com/windows/netmeeting)
- pcAnywhere [www.symantec.com/pcanywhere](http://www.symantec.com/pcanywhere)
- RealVNC [www.realvnc.com](http://www.realvnc.com)
- Yahoo! Messenger [messenger.yahoo.com](http://messenger.yahoo.com)

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*This guide provides an overview of using remote terminals to manage the SignalPath. It does not replicate instructions for setting up third-party applications. For details of installing and configuring a third-party application, see the manufacturer's website or product installation guide.*

*Mention of a third-party product in this document is merely for illustration; it does not indicate endorsement or recommendation of the product.*

## Connection Overview

Remote access to the SignalPath device has two components, as shown in [Figure 1](#): the connection between the SignalPath and its local terminal, and the connection between the local terminal and the remote terminal.

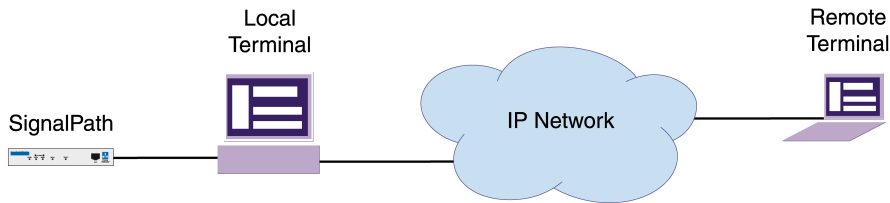


Figure 1. Full Path for Remote Access to a SignalPath Device

### Connection between the SignalPath and the Local Terminal

The local terminal (e.g., a PC) must have a direct connection to the SignalPath device. Connect the local terminal's COM1 port to the SignalPath in one of the following ways:

- Connect to the RJ45 Supervisory port on the front of the SP201-SA chassis.
- Connect to the DB9 serial port on the rear of the SP201 or R2Adapter chassis.
- On the SP230, connect in one of the following ways:
  - Connect to the DB9 serial port on the primary SCM, in a front slot of the SP230 chassis, or
  - Connect to the DB25 serial port on the primary SCM's Computer Console Interface (CCI) module, in the rear slot behind the SCM.

**Note:** The CCI module's DB25 serial port is the preferred port for a direct connection to the SP230.

Start a terminal-emulation program (e.g., HyperTerminal). Use the following settings for communication between the local terminal and the SignalPath device:

- 9600 bps
- 8 data bits
- No parity
- 1 stop bit
- No flow control

### Connection between the Local Terminal and the Remote Terminal

In the connection between the terminals, the SignalPath's local terminal is a host or a client (depending on the application), and the remote terminal is a client. The unit connected to the SignalPath device must be on line and available when a remote connection is desired. (In the following procedures, the local terminal is called the *host* and the remote terminal is called the *client*.)

There are several connection protocols for remote access. However, most connections travel across an IP network. Encore Networks, Inc., recommends using TCP/IP for the connection between the local and remote terminals.

**Note:** The connection can take place between terminals using the same or different operating systems. Some remote-access products are available in each of the operating systems Unix, Macintosh, and Windows. The examples given are for a workstation (terminal) using the Windows operating system.

The following general instructions indicate the overall process:

- On the host workstation, set up an account for the client.
- On the client workstation, configure the information for connection to the host.

The following items are common to all connections:

- Each workstation must enable a remote desktop connection. (This feature is available in Windows 2000 and above.)
- Each workstation must install the software needed for the connection.

- In general, you will need to set the following information for the connection between the PCs. (Details vary by product.)
  - The host and the client must indicate connection type, workstation names or IP addresses, passwords, etc. (Except for items specific to the client, configuration values depend on the host.)
  - The host must set permissions, levels of access, firewall opening, etc., for the client connection.

**Note:** The method of letting a connection penetrate a firewall depends on the firewall. Get this information from your network administrator. (Basic firewalls on home systems typically cannot specify items; the firewall itself must be turned off, thereby affording no protection. However, some home-office firewall products may let you specify IP addresses or machine names to let through. Check with a firewall product's manufacturer before purchasing the product.)

At connection, the host challenges and authenticates the client (if you have configured the connection for challenge and authentication). After the connection has been established, the client can use the host workstation to manage the SignalPath device.

**Note:** A connection's security depends on the product. Some products might not of themselves provide secure connections and might advise tunneling the connection through a secure-connection protocol such as VPN or Secure Shell (SSH). See the product manufacturer's website for information.

**Note:** Some products include a webserver so that clients can use a browser for remote management. The same process is used to establish the connection: The host must set up a client account, etc.

## Sample Connection

This guide uses the commercial product pcAnywhere to illustrate configuration of a remote connection. In pcAnywhere, the PC connected to the SignalPath device is a host. The host and the client are configured in similar ways in pcAnywhere. Before configuring, determine the information (IP address, etc.) for each side of the connection.

**Note:** One licensed copy of pcAnywhere must be on each PC. Other products may use a different distribution of software. See the manufacturer's requirements for licensed use of a software package.

Configure the host in the following way:

- In Windows, enable remote access.
- Open pcAnywhere and select the menu button **Be a Host PC**.
- In the pcAnywhere window, select the icon for **Add a Host PC Item**.
- When prompted, enter the host's name for the connection.
- When prompted, select **TCP/IP** connection.
- In the subsequent prompt window, uncheck **Automatically launch session upon wizard completion**.
- After the connection setup has finished, right-click the icon for the connection. (The icon shows the connection name.) Then select **Properties**.
- Select the Callers tab. Then check **Specify individual caller privileges**, select the **Add Caller** icon, and enter the client information, including password.
- After the client setup has finished, right-click the icon for the client and select **Properties**. Then select the Advanced tab and specify the client's privileges on the host machine.
- In the host's firewall software, indicate that the client connection may pass through the firewall. (Consult your network administrator for information on doing this.)

Configure the client in the following way:

- In Windows, enable remote access.
- Open pcAnywhere and select the menu button **Remote Control**. (This indicates that this machine will be a client in the connection.)
- In the pcAnywhere window, select the icon **Add Remote Control Item**.
- When prompted, enter the client's name for the connection.
- When prompted, select **TCP/IP** connection.
- On the same screen, enter the host name or the IP address the host has provided. (The host may have masked its private IP address, providing only its public IP address.)
- In the subsequent prompt window, uncheck **Automatically begin session upon wizard completion**.
- After the connection setup has finished, right-click the icon for the connection. (The icon shows the connection name.) Then select **Properties**.
- Select the Connection Info tab and select the **Details** button. Then indicate whether the connection goes through a gateway. (This depends on the host's network.)

After you have configured the host and the client, the client's administrator may still need the password from the host's administrator. Then the client can connect to the host and manage the SignalPath device.

### **Remote Access to the SP230's Primary SCM**

Although you can manage an SP230 by connecting a remote terminal to the SP230's local terminal, you can instead "remove the middleman" by connecting across an IP network to the SP230 itself.

When you configure the SP230's primary System Controller Module, you can assign it an IP address for its LAN. (In such case, the Ethernet port on the SCM's corresponding CCI module provides the SP230's connection to the LAN.)

If you are managing the SP230 from another location within the LAN, use the SP230's LAN IP address for the connection. If you are managing the SP230 from a location outside the LAN, get the SCM's external IP address from the network administrator.

You can establish a connection to and manage the SP230 by using any of several programs, including the following:

- A terminal-emulation program, such as HyperTerminal
- Telnet
- Simple Network Management Protocol (SNMP)

For more information on connecting to the SP230's primary SCM and managing the SP230, see the *SP230 Customization and Maintenance Guide*.

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