

Remote Operator Station Installation Instructions

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Setting up and making the Data Connection

Making the data connection from the Remote Station

Although there are many different ways to make the data connection, the only method discussed here will be with the SDM. This method requires that the Spectrum Agent or Spectrum WebConsole is installed on the remote station.

Note: There are other third party applications that can accomplish the data connection but they are not covered in this document. Contact Telescan if you wish some of the other supported options. If you choose an unsupported method, proceed at your own risk.

Requirements

The following hardware and software are required to make the data connection:

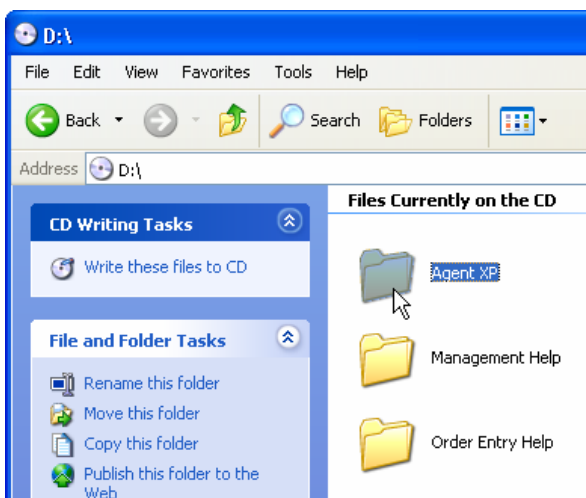
- High speed internet connection at both the remote location and the host location.
- Spectrum Agent or WebConsole installed on the remote station
- Router configured with the correct port forwarding at the Prism/SDM location.
- PC running windows 98, 2000, or XP Professional at the remote location

Note: It is strongly recommended that you use a high speed internet connection for the data portion of the remote console.

Spectrum Agent

Installing the Spectrum Agent Software

The install for the Spectrum Agent and Spectrum WebConsole are identical, therefore, only the Spectrum Agent will be covered in this section



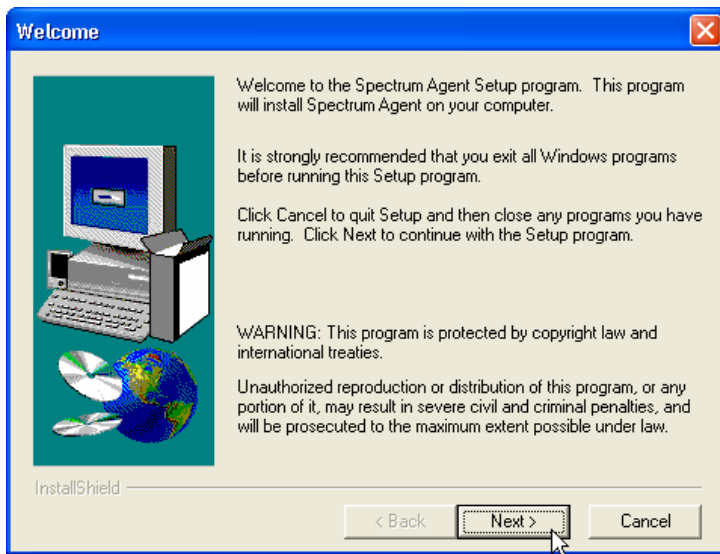
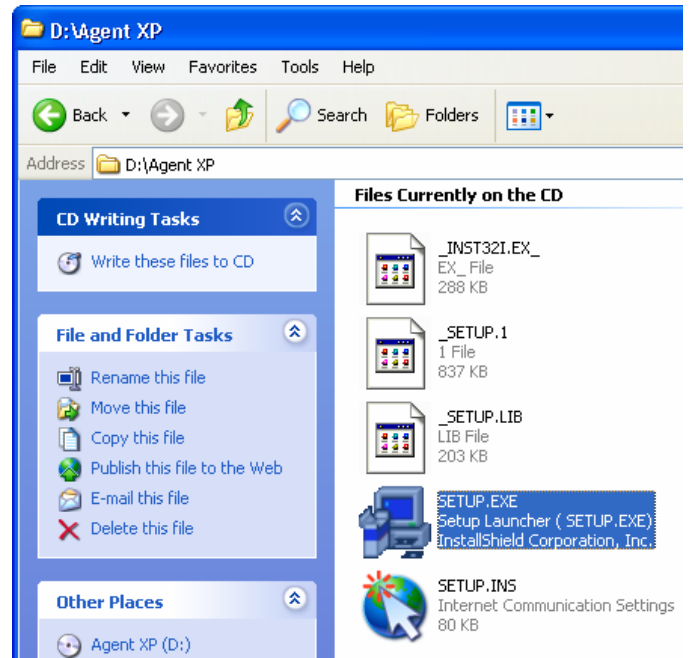
Insert the "Spectrum Agent XP" CD into the CD-ROM drive.

After the CD has been inserted into the drive, a window will open up and show you the contents of the CD.

Double click the "Agent XP" folder with the left mouse button.

This will open the "Agent XP" folder and display the files within that folder.

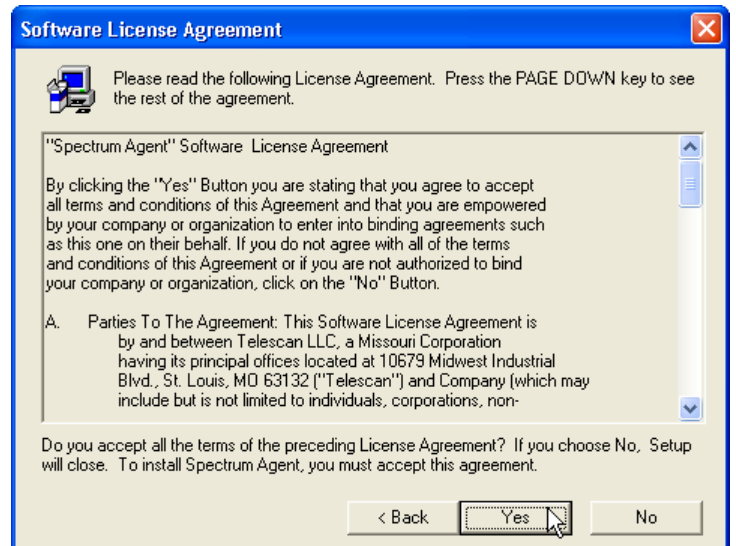
Double click the "SETUP.EXE" file to launch the installation.

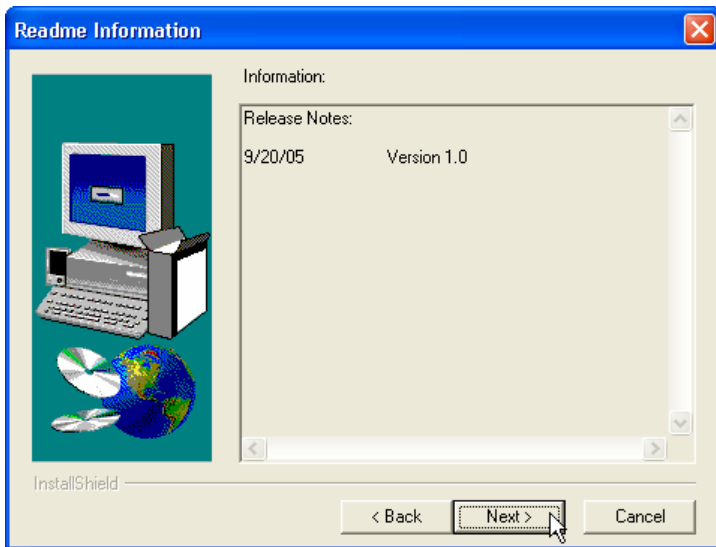


Click the "Next" button to go to the next screen of the installation process.

After clicking "Next", the following screen will appear.

Read the Software License Agreement. Click the button labeled "Yes" if you agree to the terms and conditions it explains.



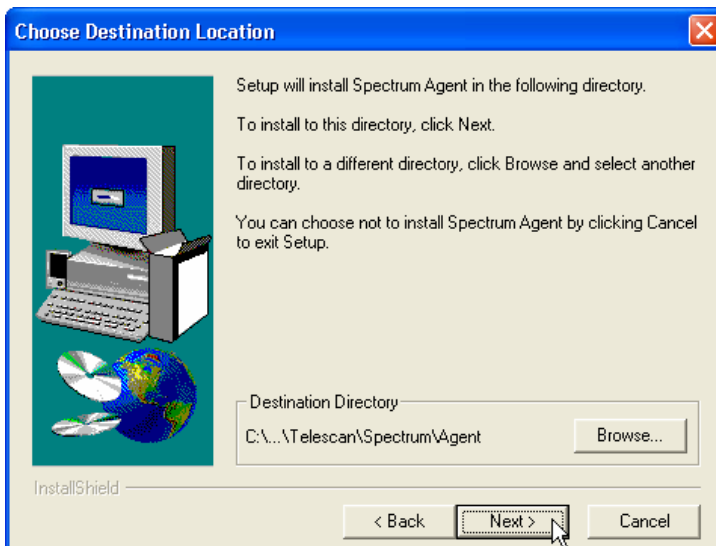
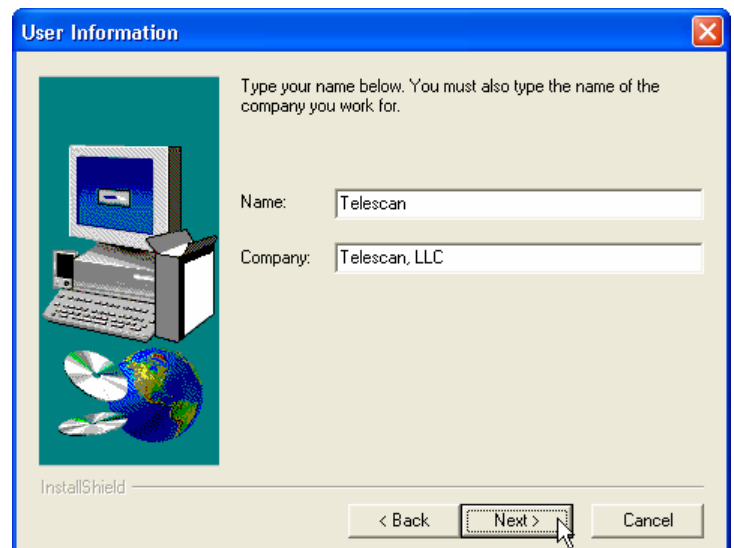


Click the "Next" button on the Readme Information Prompt.

Enter your name or your company's name in this field.

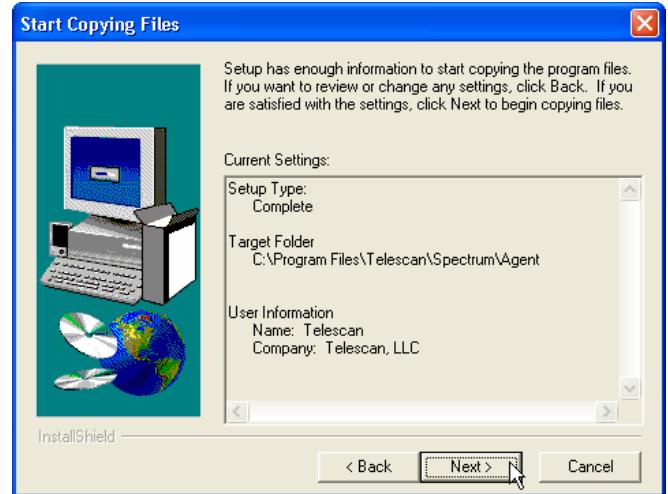
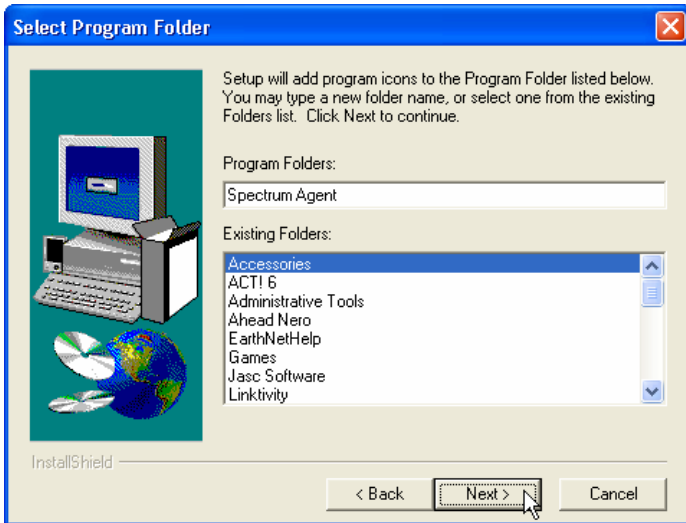
Enter your company name in this field

Click "Next"



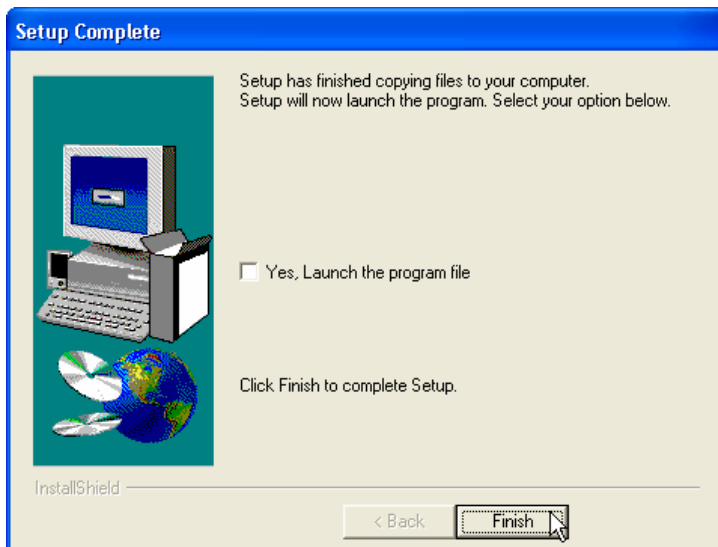
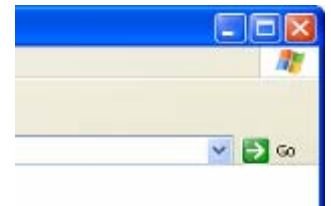
Click "Next" to accept the default Destination Location

Click "Next" to accept the default Program Folder



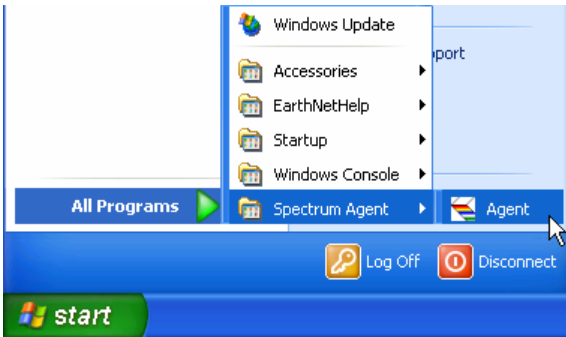
Click "Next" to begin copying files to your computer

During the installation process, you may get a window that pops up showing the Spectrum Agent icon. Click the "X" to close this window so that you can view the progress of the installation



Click "Finish" to complete the installation of the Spectrum Agent program

Configuring the Spectrum Agent



To configure the Spectrum Agent, you must first launch the program.

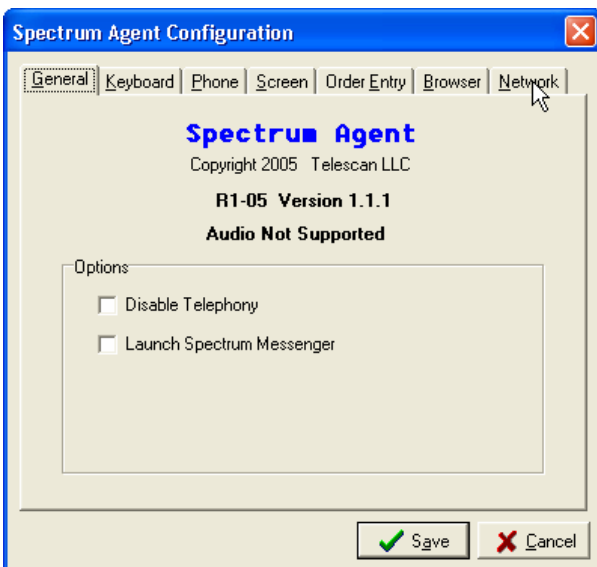
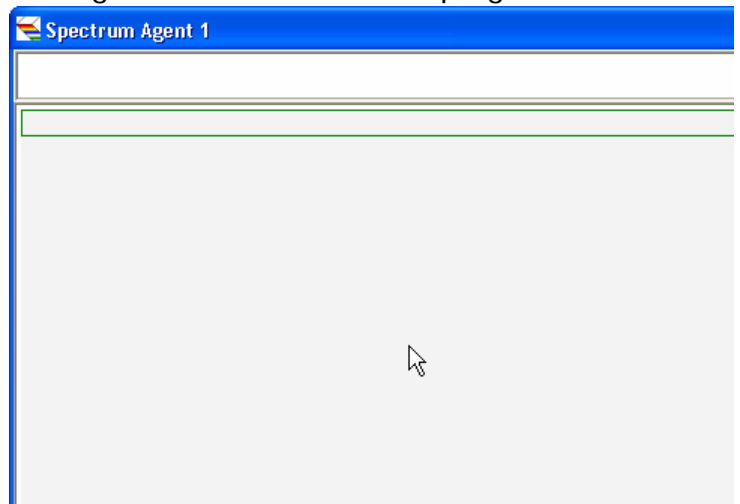
Click "Start"

Select "All Programs" to bring up the All Programs menu

Select the menu item "Spectrum Agent"

Click on the "Agent" icon to launch the program

Once you have the Spectrum Agent program running on your Remote Station, hold down the shift key on your keyboard and click anywhere in the gray portion of the window with your right mouse button to bring up the Spectrum Agent Configuration window. (This process is the same on the Spectrum WebConsole)



Click the tab labeled "Network" to enter the network configuration screen

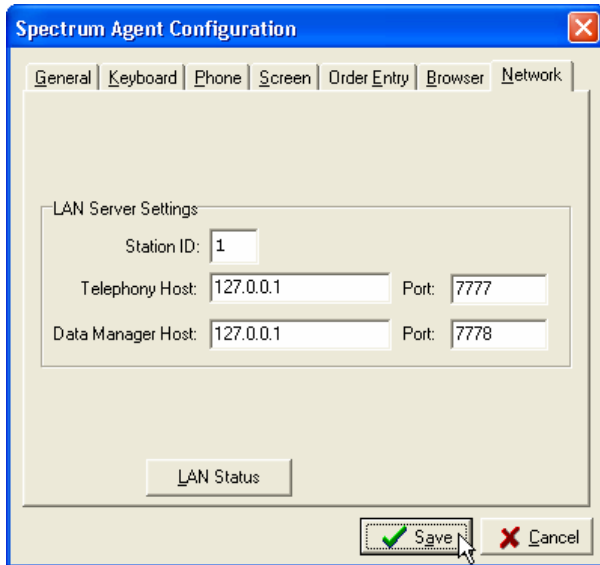
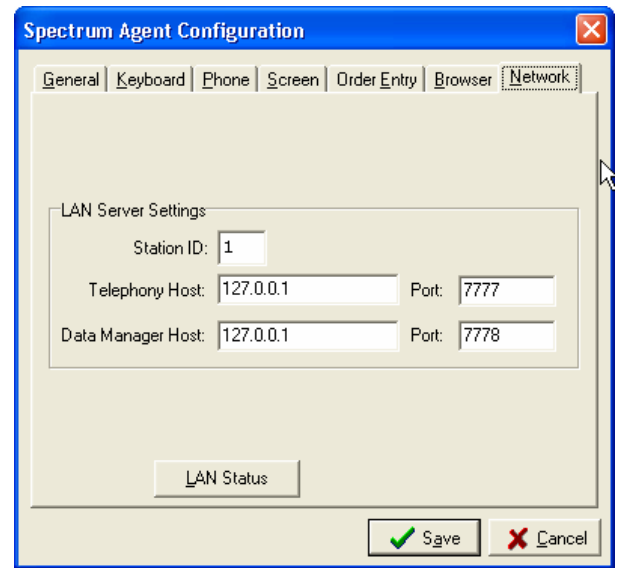
This is what the Network Configuration screen will look like.

Enter the Station ID that you are going to assign to this remote station in the field labeled "Station ID"

In the Telephony Host field enter the IP address of the router at your office location that hosts the Prism and SDM or Remote Gateway.

Leave the defaults of 7777 and 7778 in the "Port" field for both the Telephony Host and Data Manager Host.

In the Telephony Host field enter the IP address of the router at your office location that hosts the Prism and SDM or Remote Gateway.



Click "Save" to save and close this window and return to the Spectrum Agent program

Note: IP addresses and how to find them is discussed in more detail in the Router configuration and IP address assignment section of this document.

Configuring the router to accept incoming data connections from the Remote Station

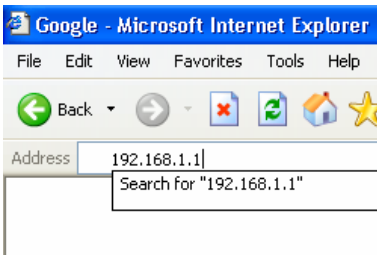
When using a high speed internet connection to connect the Remote Station to the office that is hosting the Audio and Data connections, you will need to configure a router to accept those incoming connections and forward the "Ports".

Since no two Routers are configured exactly the same, we can only provide an example for reference. Therefore, we suggest that you contract with someone that is qualified to configure the router you are using.

Each connection type will need the port forwarding configured in the router to accept the incoming connection. Not all router manufacturers will refer to this as port forwarding, the other common terms are NAT, Pinhole, and Servers. If you are attempting to configure your router yourself, we suggest that you download the manual for that router from the manufacturer's website and make note of whether this process is referred to as Pinholes, NAT, Port Forwarding, or Servers.

In the following example, we will be using a Linksys BEFSR11 router and configuring port forwarding for the Remote Desktop, PC Anywhere, Remote Gateway, Telephony Server, and Data Manager Server Ports.

Configuring a BEFSR11 Router for Port Forwarding



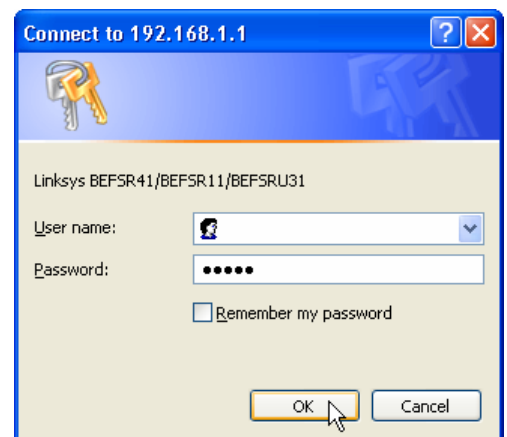
The Linksys Router is configured through a web interface (as are most "consumer grade" routers). You can access this interface by opening up an instance of Internet Explorer (or any other web browser you prefer).

In the address bar, type in the address of your router and press enter on your keyboard.

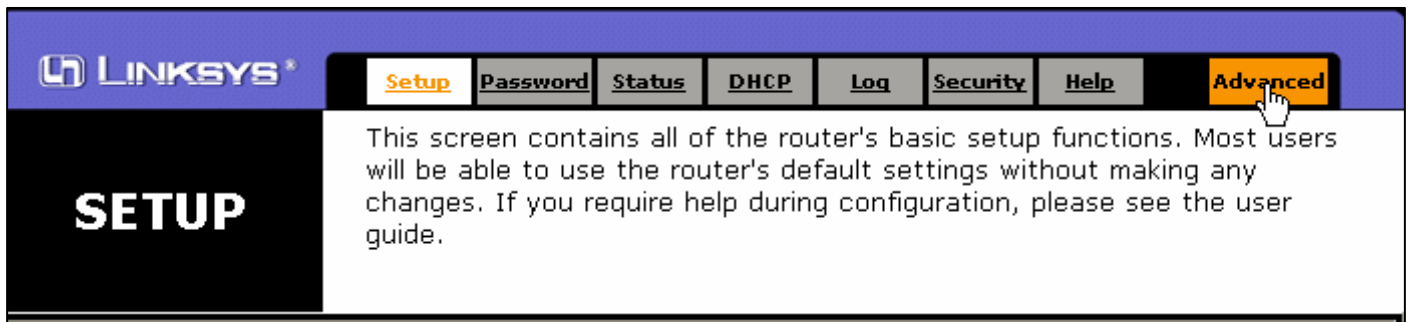
You can find out the address of your router by going to any computer on your network that has access to the internet and clicking start, select run, type in cmd and click ok. From the command prompt, type in ipconfig/all and press enter. Take note of your default gateway. That is the IP address of your router.

After you have entered the Router's IP address, you will be prompted with a window asking for the username and password.

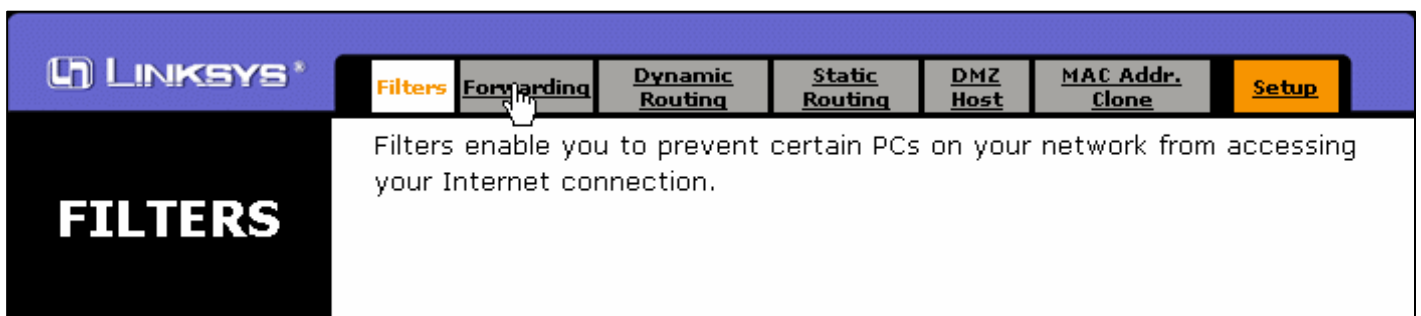
Enter the username and password for your Linksys BEFSR11 Router and then click "OK"



Note: The default User name and Password for Linksys routers is, no user name and admin is the password



Click the tab labeled "Advanced" to enter the advanced configuration of the router



Once in the Advanced configuration, click the tab labeled Forwarding

| Customized Applications | Ext.Port | Protocol TCP | Protocol UDP | IP Address | Enable |
|-------------------------|--------------|-------------------------------------|--------------------------|--------------|-------------------------------------|
| PSMRS | 7777 To 7777 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 192.168.1.31 | <input checked="" type="checkbox"/> |

Port forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your router, they will be redirected to the specified IP.

In this screen, you will enter the Ports for the customized applications so that the traffic for the remote station can pass through the router.

In the first un-used Customized Applications field, enter the name for the application. This field is limited to 11 characters; therefore, we are going to use shortened versions of the Application name.

In the Ext. Port field, enter the port range that is used for the application that uses these ports. In most cases, both of these fields will be the same port.

In the Protocol TCP field and the Protocol UDP field, put a check mark in each box to indicate which type of traffic the application uses. Unless otherwise noted, all the applications for your Telescan software will use only the TCP Protocol.

Note: Any computer that is hosting a "server" program such as the SDM and Prism, MUST be assigned a static IP address.

In the IP Address field, enter the IP address of the server that is hosting the server application.

You can find the IP address of the host machine by going to the computer hosting the server application (ie: Prism and SDM). From the host machine, click start, run, and type in cmd. At the command prompt type in ipconfig and make a note of the IP address.

LINKSYS

Filters **Forwarding** Dynamic Routing Static Routing DMZ Host MAC Addr. Clone Setup

PORT RANGE FORWARDING

Port forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your router, they will be redirected to the specified IP.

| Customized Applications | Ext.Port | Protocol TCP | Protocol UDP | IP Address | Enable |
|-------------------------|--------------|-------------------------------------|--------------------------|---------------|-------------------------------------|
| PSMRS | 7777 To 7777 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 192.168.1.31 | <input checked="" type="checkbox"/> |
| SDMRS | 7778 To 7778 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 192.168.1.32 | <input checked="" type="checkbox"/> |
| RDPRS | 3389 To 3389 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 192.168.1.205 | <input checked="" type="checkbox"/> |
| PCARS | 5631 To 5631 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 192.168.1.205 | <input checked="" type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |
| | 0 To 0 | <input type="checkbox"/> | <input type="checkbox"/> | 192.168.1.0 | <input type="checkbox"/> |

UPnP Forwarding Port Triggering

Apply Cancel

After you have configured all necessary Customized Applications, Click Apply to save your changes.

The following table lists the Standard Telescan Applications that can be configured in the router for use remotely.

| Telescan Application Name | Customized Applications | Ext Port | Protocol TCP | Protocol UDP |
|---------------------------------|-------------------------|--------------|--------------|--------------|
| Prism Remote Diagnostics | PSMPCA | 5631 TO 5631 | YES | NO |
| Data Manager Remote Diagnostics | SDMRDP | 3389 TO 3389 | YES | NO |
| Remote Gateway | REMGATE | 7777 TO 7777 | YES | NO |

| | | | | |
|------------------------|-------|--------------|-----|----|
| Spectrum Messenger | SM | 6767 TO 6767 | YES | NO |
| Spectrum Messenger FTP | SMFTP | 21 TO 21 | YES | NO |
| On-Call Scheduler | OCS | 211 TO 211 | YES | NO |
| Prism Remote Station | PSMRS | 7777 TO 7777 | YES | NO |
| SDM Remote Station | SDMRS | 7778 TO 7778 | YES | NO |

Setting up and making the Audio Connection

When connecting from a Remote Station, the final step is always to make the audio connection. The following sections describe how to setup and make this connection.

Setting up the Remote Console in the Prism

System Components and Requirements

Audio Connection

For the audio connection you will need an analog telephone line at the remote location and one DID trunk or B channel on the PRI. You will also need an analog phone with a headset at the remote location to complete the audio connection.

You will need to set up one DID account in the Prism for each remote workstation.

Prism Account Setup

If remote access is enabled for your system you will be able to setup a DID account to become the audio channel for your remote station.

To setup the DID account for audio access click the "Edit Accounts" button. The Pri OD type determines how the system will react to a call placed in on this number. The "S" type is the code to configure the DID as a remote station audio channel. When the "S" is entered it will change the names of several of the other fields. The field that previously marked "Pri DID" is now changed to "Station ID", the "Pri Dial String" is changed to "Passcode", and the title bar of the window will change to "Remote Station Setup" to reflect the new configuration.

Change the new "Station ID" field to the number of the Station setup as the remote station. The Primary dial string will be used for a security passcode for audio setup.

Note: If the "Station ID" field does not match the host station's id, the connection will be unpredictable and most likely, unusable.

Station ID

ID of the host console audio to be linked into.

Primary OD Type

Determines the way the DID will react when a call is received.

Passcode

security code issued to the user of the Prism's Remote Access Account.

Making the Voice Connection

Always make the data connection before making the voice connection.

The voice connection is made by dialing the DID number for the "Remote Station" account from a standard telephone at the remote site. When you dial this DID number you will hear a voice prompt, "Please enter your passcode for remote audio connection". At any time after the start of the prompt, enter the passcode and wait for the "go ahead" tone.

Note: If there is an error or timeout when making the voice connection, you will hear a voice error message. *If you hear this message you must hang up and dial again.*

Always use the station keyboard for dialing out and answering calls. Do not hang up the telephone until the end of the session.

If the voice connection is lost while the workstation is connected to an active client call, the client call will be placed on hold and made available to all operators.

Account setup on the Prism is covered in more detail in the Prism Technical Manual.