



# Set Up Your Cisco Router

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## Step 7: Set Up an ISDN WAN Connection

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## Introduction

This document explains how to set up an ISDN WAN connection on your router.

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## Requirements

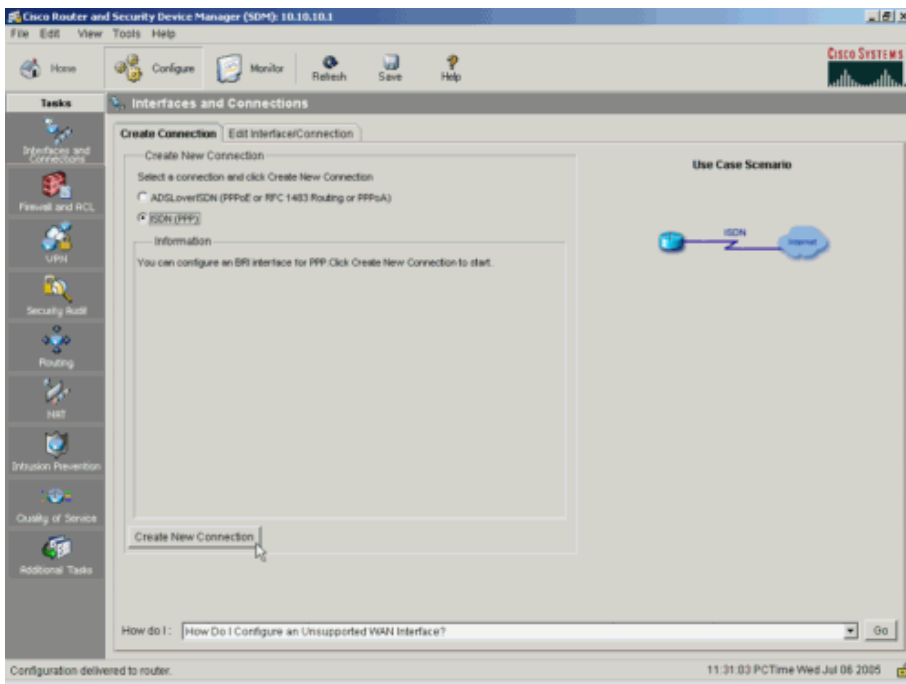
- You must have completed the initial configuration of your router as presented in [Configure Your Router with Security Device Manager](#).
- You must have completed the [Site Survey](#), which includes the Internet worksheet for the router.
- Your router must have a WAN Interface Card (WIC). If you do not have a WIC or need assistance to install a new one, contact the [SMB Technical Assistance Center \(SMB TAC\)](#) for assistance.

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## Set Up an ISDN WAN Connection

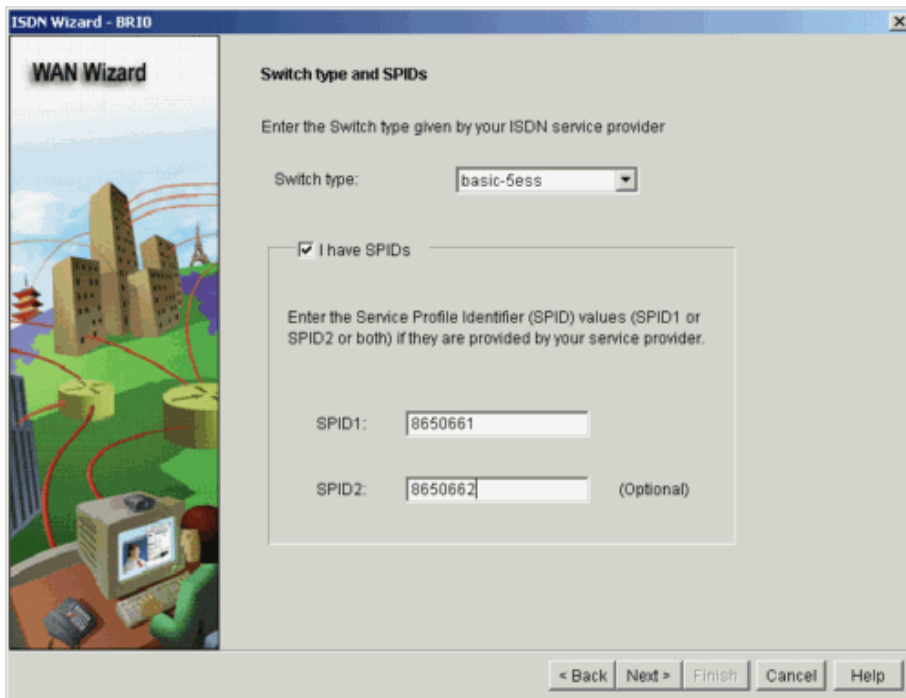
To set up an ISDN WAN connection, follow these steps:

1. Click **Create New Connection**.

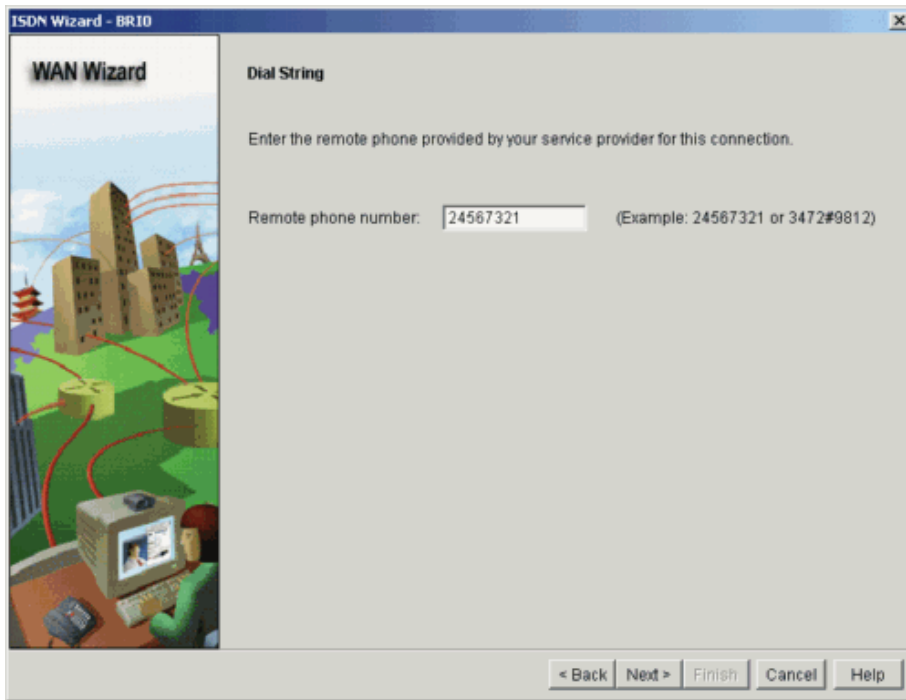


2. Click **Next** at the **Welcome to the ISDN connection Wizard** screen.
3. Next to **Switch type**, select the switch type that you entered in the Internet Worksheet (A30).

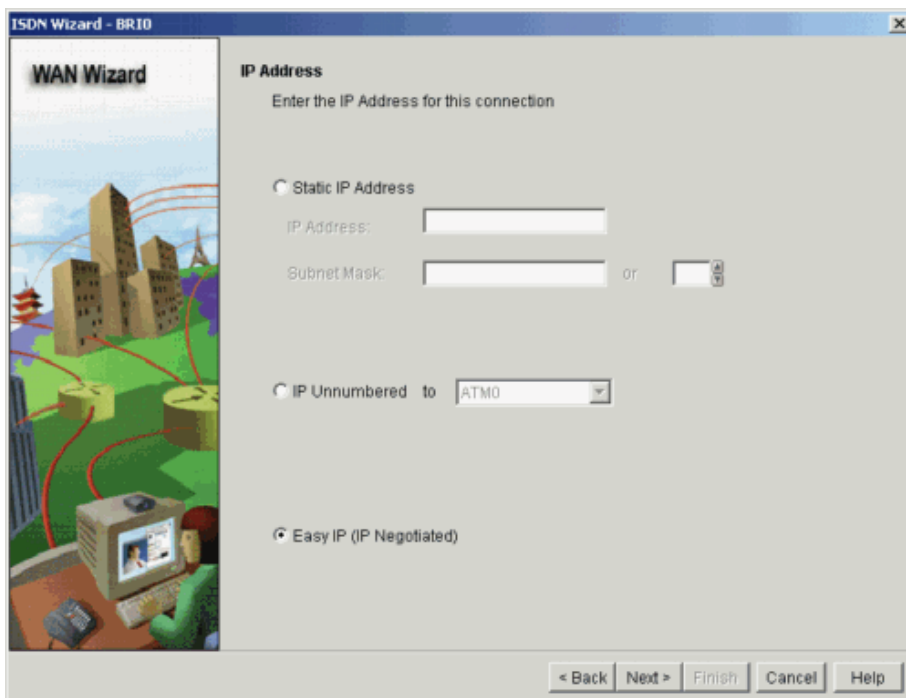
If you entered SPIDs in the Internet Worksheet (A33, A34), check **I have SPIDs**. If you entered a SPID 1 number(A33), enter the number next to **SPID1**. If you entered a SPID 2 number(A34), enter the number next to **SPID2**. Click **Next**.



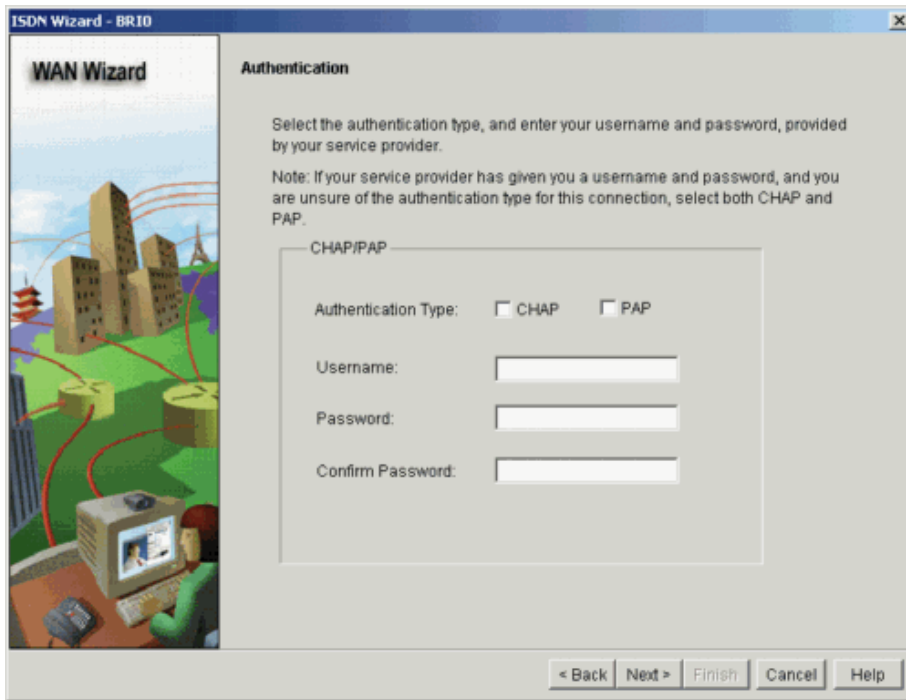
4. Next to **Remote phone number**, enter the ISP ISDN Access Number that you entered in the Internet Worksheet (A35). Click **Next**.



5. If you checked Static in field B43 of the Internet Worksheet, choose **Static IP Address** and enter the IP address and subnet mask that you entered in the Internet Worksheet (B46, B41). If you checked Dynamic in field B43 of the Internet Worksheet, choose **Easy IP (IP Negotiated)**. Click **Next**.

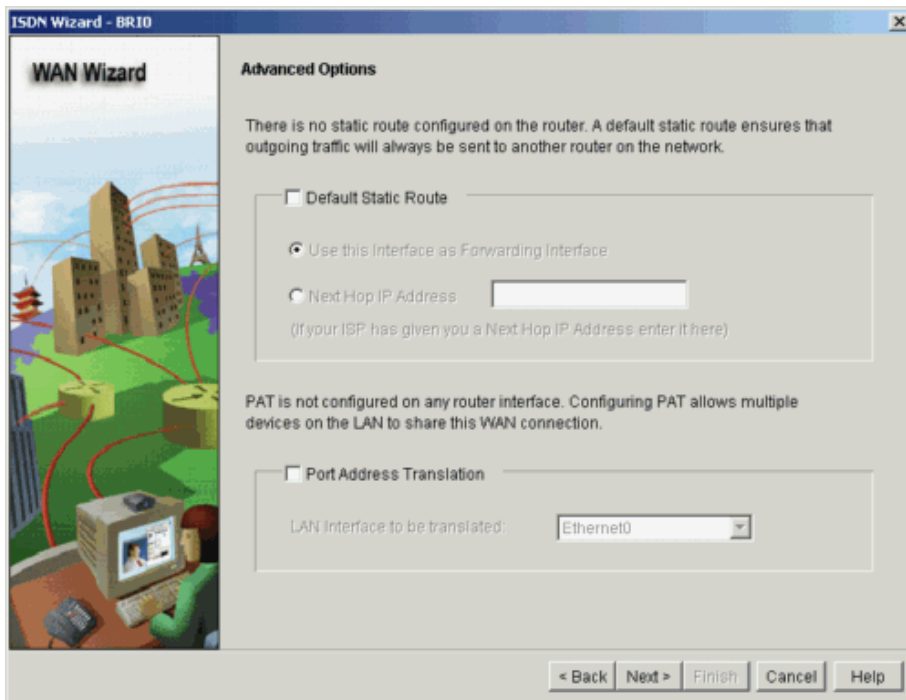


6. If you selected PPP PAP or PPP CHAP authentication in the Internet Worksheet (A37), check the appropriate type next to **Authentication Type**. In the **Username** and **Password** fields, enter the username and password that you entered in the Internet Worksheet (A38, A39). Click **Next**.



**Note:** If you have already configured another WAN connection, SDM displays the Backup Configuration screen. If you see the Backup Configuration screen, choose **Do not configure this connection as backup** and click **Next**.

7. If you checked Static in field B43 of the Internet Worksheet, check **Default Static Route** and choose **Next Hop IP Address**. Enter the ISP Router IP address that you entered in the Internet Worksheet (field B47). Click **Next**.



8. On the Summary screen, review your configuration to ensure that it is accurate, and then click **Finish**.
9. When the Commands Delivery Status screen appears, click **OK** to confirm.
10. Click **Save** to save your new configuration.

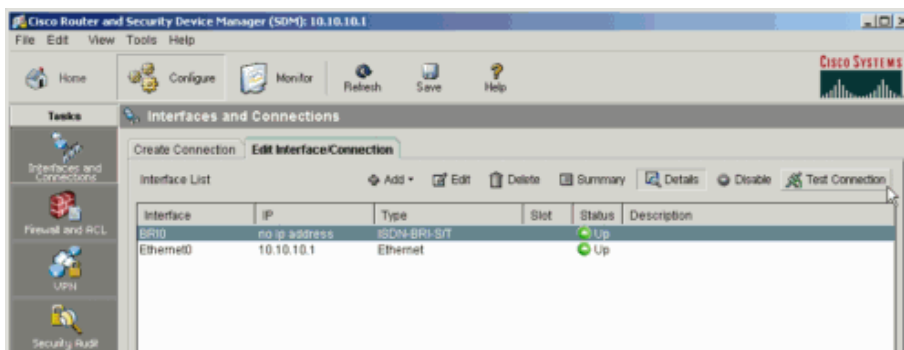


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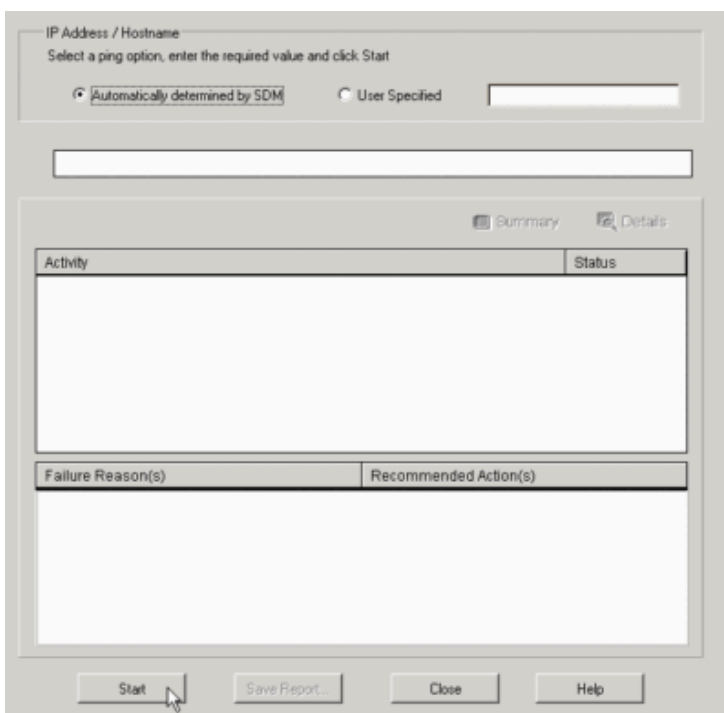
### Verify the WAN Connection

To verify your WAN connection, follow these steps:

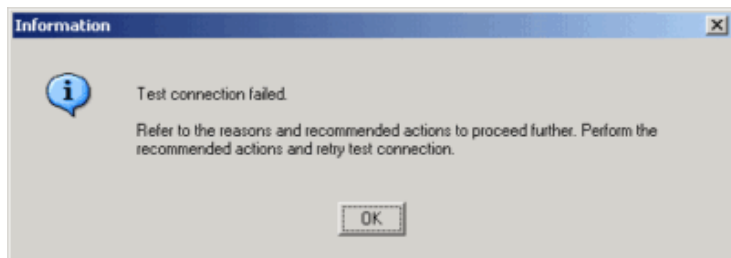
1. Click **Configure > Interfaces and Connections**.
2. Select your new WAN interface and click **Test Connection**.



3. Click **Automatically determined by SDM**, and then click **Start** to begin the test.



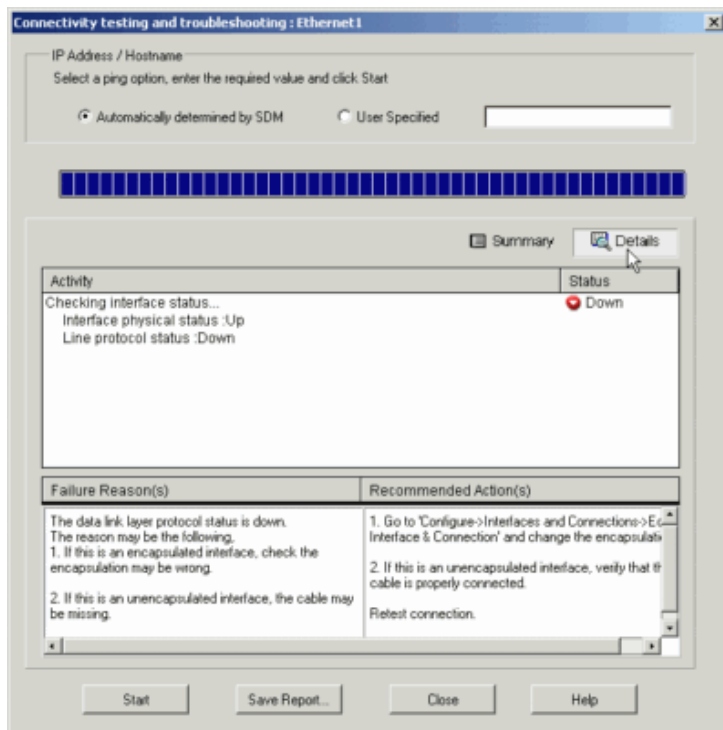
4. SDM displays a window that indicates whether or not the test was successful.



Click **OK** to close the Information window.

5. If the test is successful, proceed to the next step.

If the test failed, click **Details** to display the interface state. Note the Interface State and proceed to [Troubleshoot WAN Connection](#).



6. Click **Close** to exit the testing interface.

7. Click **File > Exit** to exit SDM.

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## Next Step

You have now set up an ISDN WAN connection.

You can now set up firewall and security options on your router. For instructions, refer to [Set Up Internet Security on a Cisco Router](#).

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## Troubleshoot the Procedure

This section provides information about common problems that you may encounter. If this information does not solve your problem, contact the [SMB Technical Assistance Center \(SMB TAC\)](#) for assistance.

Problem	Cause(s) and Suggested Solution(s)
I need more information about my ISDN connection in order to complete the configuration.	Contact your Internet Service Provider (ISP) to confirm the details of your ISDN connection.
I set up my WAN connection but it does not function properly.	See the <a href="#">Troubleshoot the WAN Connection</a> section.
I want to set up an ISDN connection in addition to my primary Internet connection.	Contact the <a href="#">SMB Technical Assistance Center (SMB TAC)</a> for assistance.
I want to set up an ISDN connection as a failover for my primary Internet connection.	Contact the <a href="#">SMB Technical Assistance Center (SMB TAC)</a> for assistance.

### Troubleshoot the WAN Connection

Use the table to determine your problem and the appropriate solution.

Interface physical status:	Line Protocol Status	Action
Up	Up	This interface status indicates that the interface functions properly and the router can communicate with the remote device on the WAN.
Administratively Down	Down	<p>This interface status indicates that the interface is disabled in the router configuration. To enable your interface, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Type <b>interface bri0/0</b> and press <b>Enter</b>.</li> <li>2. Type <b>no shutdown</b> and press <b>Enter</b>.</li> <li>3. Type <b>end</b> to exit configuration mode.</li> <li>4. Type <b>write memory</b> to save the new configuration.</li> </ol>
Down	Down	<p>This interface status indicates that the WAN interface is unable to communicate with a remote device.</p> <ul style="list-style-type: none"> <li>• Your router configurations do not match the configurations used by your Internet Service Provider (ISP). Contact your ISP to verify that you have the correct settings.</li> <li>• A physical WAN connection is not in place. Ensure that the router is properly plugged into the WAN connection and that your ISP has completed installation of the WAN connection.</li> <li>• Verify with your Internet Service Provider (ISP) that service is ready for use. Make a note of your current interface state and your current configuration before you contact your ISP.</li> </ul>

Up	Down	<p>This interface status indicates that the interface is enabled and the router is physically connected to a remote WAN device but the interface cannot communicate properly with the remote WAN device.</p> <ul style="list-style-type: none"><li>• Your configuration partially matches the settings used in the ISP network. Contact your ISP to verify that you have the correct settings.</li><li>• Check to ensure that you have the proper cable type attached to your WAN connection. Make a note of your current interface state and your current configuration before you contact your ISP. For more information about cable types, refer to <a href="#">Cable Descriptions</a>.</li></ul>
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## Related Information

- [Set Up Internet Security on a Cisco Router](#)
- [Configure Your Router with Security Device Manager](#)
- [Reset the Password on a Cisco Router](#)
- [Cable Descriptions](#)