



# Set Up a Catalyst Switch

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### Step 2: Hardware Setup Procedure for the Catalyst Switch

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## Introduction

This document describes how to install a standalone Catalyst switch. This procedure applies to 2900XL, 2940, 2950, 2960, 2970, 3500XL, 3550, 3560, and 3750 model Catalyst switches.

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## Requirements

To perform this procedure, you need to have these items:

- You must have completed the [Site Survey](#), which includes the LAN Addressing worksheet and Switch Port Assignments worksheet.
- Your switch and power cord
- Adhesive rubber pads (included in accessory kit)
- Access to local AC power
- Completed router installation
- Review the regulatory compliance and safety information for your switch. Use the table to see information for your switch model.

Safety Information for Catalyst Switches		
<a href="#">2940</a>	<a href="#">2970</a>	<a href="#">3750</a>
<a href="#">2950</a>	<a href="#">3550</a>	<a href="#">2900 XL</a>
<a href="#">2960</a>	<a href="#">3560</a>	<a href="#">3500 XL</a>

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## Install the Switch

Most Catalyst switches can be mounted in a rack or set up on a flat surface. These setup instructions describe the desktop installation.

### Prepare the Chassis for Installation

Follow these steps to prepare the chassis:

1. Place the chassis upside-down on the desktop or a flat surface.
2. Locate the adhesive rubber pads in the accessory kit. Attach the four rubber pads to the recessed areas on the bottom of the chassis.
3. Place the switch on the desktop near an AC power source.

**Note:** The power outlet where the switch is plugged in must be accessible at all times, because it serves as the main method to disconnect power from the device.

### Connect the Power Cord

There is no power switch on the Catalyst switch. Instead, power is available when the power cord is plugged in.

To power on the switch, follow these steps:

1. Ensure that no other devices are connected to the switch.
2. Connect the AC power cord to the power connector on the rear panel of the switch.



**Note:** The model illustrated is a Catalyst 2950. Your switch may look slightly different.

3. Connect the power cable plug to a grounded AC outlet.

When the switch powers on, it begins the power-on self test (POST), a series of automatic tests that confirm proper operation. POST lasts approximately 1 minute. During POST, the LEDs blink and then go out. When POST completes, the PWR or SYST LEDs turn solid green. On the 2960 switch, the SYST and MASTR LEDs turn solid green.

4. To confirm that the switch completed POST successfully, check that the SYST LED is green. If the switch is not functioning properly, the SYST or PWR LED displays amber or red. See [Troubleshoot the Procedure](#) for help.

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## Next Step

You have completed hardware installation. To configure your switch, proceed to [Download and Install Cisco Network Assistant](#).

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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)
The switch performed POST, but the SYST LED turned amber instead of green.	The switch failed POST. POST failures are usually fatal. Contact the <a href="#">SMB TAC</a> for assistance.
The switch continuously reboots.	The switch may have a corrupt or missing system image. Contact the <a href="#">SMB TAC</a> for assistance.

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## Related Information

- [Download and Install Cisco Network Assistant](#)
- [Configure a Catalyst Switch with Cisco Network Assistant](#)
- [Site Survey](#)



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## Step 2: Hardware Setup Procedure for the Catalyst 2955 Switch

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## Introduction

This document describes how to install a standalone Catalyst 2955 switch. The Catalyst 2955 switch is designed to withstand extremes in temperature, vibration, and shock so that the switch can be deployed in an industrial environment. The switch can be mounted on a DIN rail in an industrial enclosure as well as in a standard 19-inch rack.

The Catalyst 2955 switch can be installed to use AC or DC power. This procedure describes an installation with an AC/DC power converter (sold separately). This procedure describes installation in a nonhazardous location.

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## Requirements

To perform this procedure, you will need these items:

- You must have completed the [Site Survey](#), which includes the LAN Addressing worksheet and Switch Port Assignments worksheet.
- Switch components and tools:
  - Switch
  - Power converter
  - Power and relay connector
  - Ferrite
  - Wire stripping tools for 10, 12, and 18-g wire
  - Twisted-pair copper appliance wire (UL rated, style 1007 or 1569)
  - Wire cutters
  - Phillips screw driver
  - Ratcheting torque flathead screwdriver

- Power cord
- Access to AC power
- Review [Regulatory Compliance and Safety Information for the Catalyst 2950 Switch](#)

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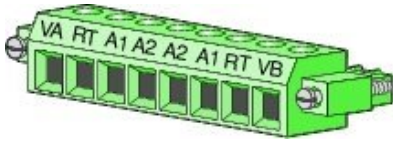
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## Install the Switch

### Install the Power and Relay Connector

The power and relay connector allows you to attach DC input wires to the switch and connect them to the power converter. Follow these steps to install the power and relay connector:

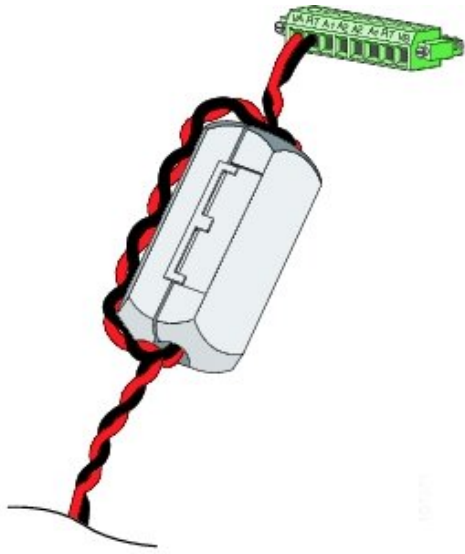
1. Locate the power and relay connector that came with your switch.



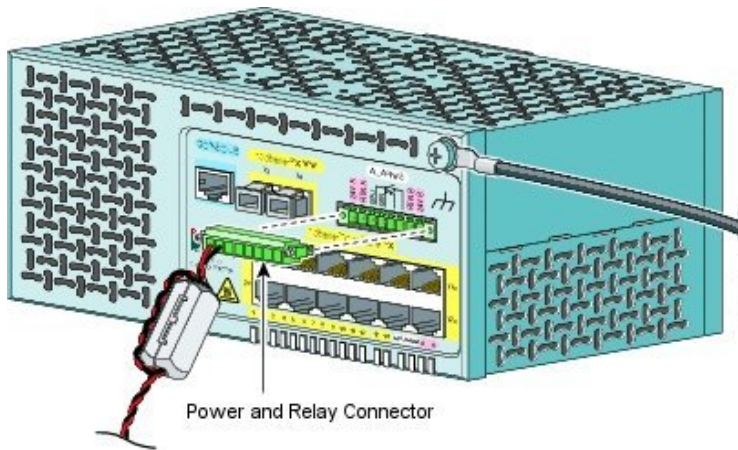
2. Identify the positive and return feed positions for the power and relay connector. The positive DC power connection from power supply A is labeled **VA**, and the return is the adjacent connection labeled **RT**.
3. Measure and cut two strands of twisted-pair copper wire (18 to 20 AWG) long enough to connect to the DC power source, in this case, the power converter. Ensure the wire is long enough to loop through the ferrite cylinder and still maintain 4 inches of thermal spacing between the switch and the power converter.
4. With an 18-gauge wire-stripping tool, strip the ends of each twisted-pair wire to 0.25 inch or 6.3 mm.
5. Insert the exposed DC-input wires into the power and relay connector. Insert the positive wire into the **VA** slot. Insert the return wire into the **RT** slot. Make sure that you cannot see any wire lead. Only wire with insulation should extend from the connector.

**Note:** If you ordered the twisted-pair wire from Cisco, the positive wire is red and the return wire is black. If your twisted-pair wire is colored differently, refer to the wire manufacturer's documentation for more information.

6. Use a ratcheting torque flathead screwdriver to torque the power and relay connector captive screws above the installed wire leads to 4.5 in-lbs.
7. Before you connect the power and relay connector to the front panel, add the ferrite assembly to the power and relay connector wiring. The ferrite reduces electromagnetic interference (EMI).
8. Position the opened ferrite assembly around the wiring within 3 inches of the power and relay connector.
9. Loop the wiring around the ferrite assembly and press the case closed until it snaps shut.



10. Insert the power and relay connector into the receptacle on the switch front panel.



11. Use a screwdriver to tighten the captive screws on the sides of the power and relay connector.

### Connect the Switch to the Power Converter

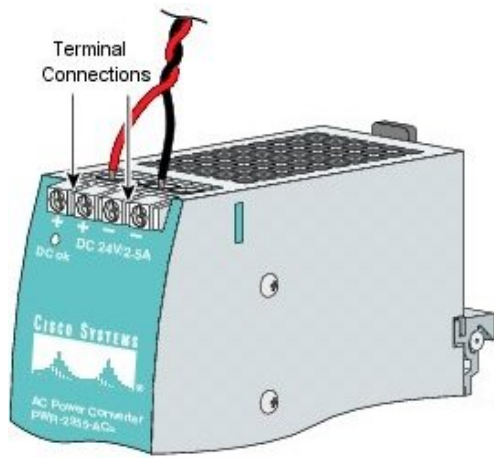
Review the safety precautions regarding the power converter before installation. The power converter requires 1 inch of thermal spacing to prevent overheating. Since the switch requires 3 inches of thermal spacing, ensure that there is a minimum of 4 inches between the power converter and the Catalyst 2955 to prevent each device from overheating.

**Note:** The Catalyst 2955 switch does not have cooling fans.

**Note:** The power converter should only be used in a nonhazardous location.

Follow these steps to connect the switch to the power converter:

1. Locate the positive wire that is connected to VA on the power and relay connector. Connect the other end of the positive wire to the far-left DC positive-output connection of the power converter. Tighten the terminal block screw.
2. Locate the return wire and connect it to the far-left return-output connection of the power converter. Tighten the terminal block screw.



### Connect the Power Cord

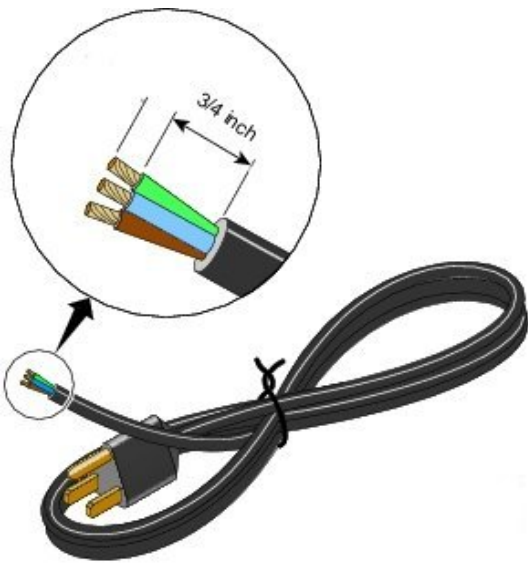
To connect the power converter to an AC power source, you need a standard AC power cord. Power cord connector types vary by country. Check with your electrical equipment supplier to obtain a cord that meets your site electrical requirements. Power cord color codes also vary by country, as shown in this table.

### Power Cord Color Codes

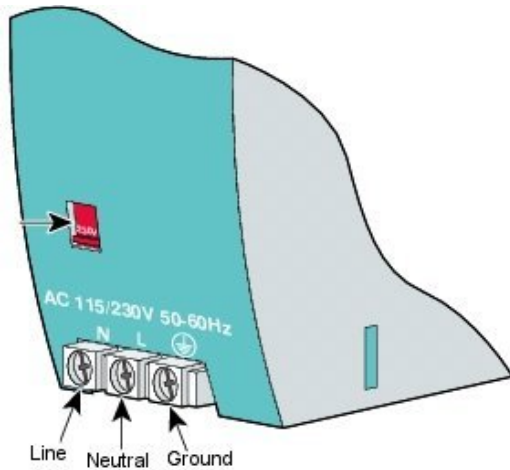
Country	Color	Meaning
Europe (International)	Brown	Line
	Blue	Neutral
	Green/Yellow	Earth ground
United States	Black	Line
	White	Neutral
	Green	Earth ground

Follow these steps to prepare an AC power cord to connect to the power converter.

1. Use the wire cutters to cut off the female connector of the power cord.
2. Use the wire strippers to strip the outer insulation layer 1 inch.
3. Strip the inner wire insulation to 0.25 inch (6.3 mm).

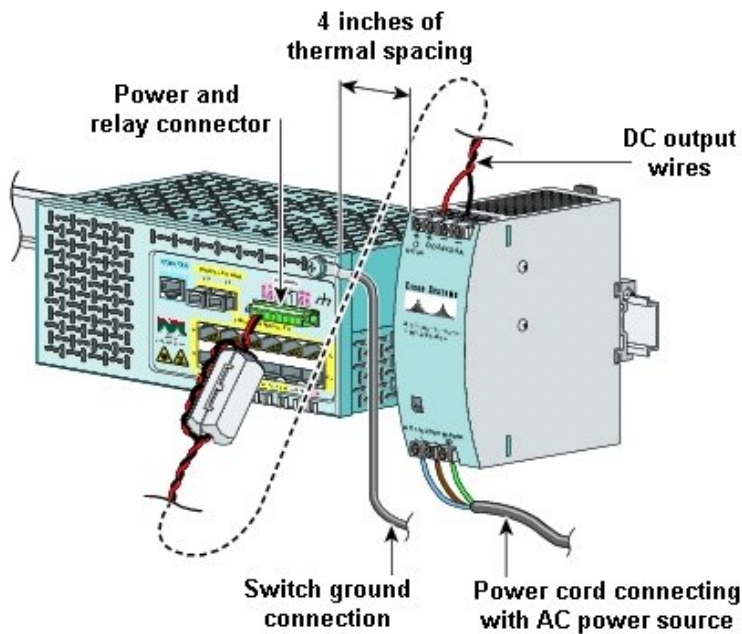


4. Insert the exposed ground wire lead into the power converter ground wire connection. Ensure that only wire with insulation extends from the connector. Tighten the ground wire terminal block screw.
5. Insert the line and neutral wire leads into the terminal block line and neutral connections. Ensure that only wire with insulation extends from the connector. Tighten the line and neutral terminal block screws



6. Set the input voltage selector on the power converter to 115 or 230 V, depending on your country voltage settings or the requirements for the AC receptacle that you are using.
7. Connect the other end of the AC power cord to the AC outlet.

The illustration shows the Catalyst 2955 switch connected to the power converter and AC power.



### Apply Power

Before you mount the switch on a DIN rail or standard rack, apply power to the switch to verify operation.

**Note:** Refer to the guide that came with your switch for mounting instructions.

Flip the wall switch or circuit breaker to power on the switch. After power is applied, the switch automatically begins the power-on self test (POST), a series of tests that verifies that the switch functions properly. The LED on the power converter front panel is green when the unit is operating normally. The LED is off when the unit is not operating normally.

### Verify Switch Operation

The uplink port status LEDs provide system and status information during POST. On the Catalyst 2955T-12, the uplink ports are labeled 1 and 2. On the Catalyst 2955C-12 and 2955S-12, the uplink ports are labeled 13 and 14. The uplink ports are just left of the power and relay connector. To interpret POST results, refer to this table.

### Catalyst 2955 POST Results

2955 Switch Model	Successful POST	Failed POST
Catalyst 2955C-12 and 2955S-12	<ul style="list-style-type: none"> <li>Uplink port 13 LED turns green</li> <li>Uplink port 14 LED goes off during the system initialization</li> </ul>	<ul style="list-style-type: none"> <li>Uplink port 13 LED blinks amber</li> <li>Uplink port 14 LED turns green</li> </ul>
Catalyst 2955T-12	<ul style="list-style-type: none"> <li>Uplink port 1 LED turns green</li> <li>Uplink port 2 LED goes off during the system initialization</li> </ul>	<ul style="list-style-type: none"> <li>Uplink port 1 LED blinks amber</li> <li>Uplink port 2 LED turns green</li> </ul>

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### Next Step

You have completed hardware installation and are ready to configure your switch using the Cisco Network Assistant (CNA). First, fill out the [Site Survey](#) which contains worksheets that you will need to configure your switch.

Once you have completed the worksheets, refer to [Configure a Catalyst Switch with Cisco Network Assistant](#) for the configuration procedure.

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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)
The switch failed POST.	POST failures are usually fatal. Contact the <a href="#">SMB TAC</a> for assistance.
The switch continuously reboots.	Switch has a corrupt or missing system image. Contact the <a href="#">SMB TAC</a> for assistance.

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### Related Information

- [Regulatory Compliance and Safety Information for the Catalyst 2950 Switch](#)
- [Download and Install Cisco Network Assistant](#)
- [Configure a Catalyst Switch with Cisco Network Assistant](#)
- [Site Survey](#)



# Set Up a Catalyst 4500 Switch

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## Step 2: Hardware Setup Procedure for the Catalyst 4500 Series Switch

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Step 3: [Download and Install Cisco Network Assistant](#)

Step 4: [Configure the Catalyst 4500 Switch with Cisco Network Assistant](#)

## Introduction

This document explains how to use the Cisco Network Assistant (CNA) software to configure a Catalyst 4500 series switch for the first time.

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## Requirements

To perform the steps described in this document, you need to have these items:

- A switch with Cisco IOS® Software Release 12.0 - 12.2
- Your switch and power cord(s)
- An ESD prevention wrist strap
- A wire-stripping tool
- A crimping tool
- Access to local AC or DC power
- Review the regulatory compliance and safety information for your switch: [Catalyst 4500 Series Regulatory Compliance and Safety Information](#)
- You must have completed configuration of your router.
- Completed worksheets as instructed in the [Site Survey](#):
  - LAN Addressing Worksheet
  - Switch Port Assignments Worksheet
  - Internet Worksheet

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## Install the Switch

Follow these steps to complete hardware installation of your switch:

### Rack Installation

Catalyst 4500 switches can be mounted in a rack or set up on a flat surface. For instructions on how to install the switch in a rack, refer to [Catalyst 4500 Series Installation Guide](#).

### Power Supplies

Catalyst 4500 switches can operate a variety of power supplies. Before you begin installation, ensure that a power supply is installed in your switch and that the power supply matches the type of power available at your site.

For instructions about how to install a power supply, refer to [Catalyst 4500 Series Installation Guide](#).

### Switch Modules

The 4500 switches can accommodate supervisor modules and switch modules. Supervisor modules provide management functions for the switch, and switch modules provide additional switch ports. Verify that all needed modules are installed before you begin installation.

For instructions about how to install a supervisor or switch module, refer to [Catalyst 4500 Series Supervisor Engines and Switching Modules Installation Note](#).

### Connect System Ground

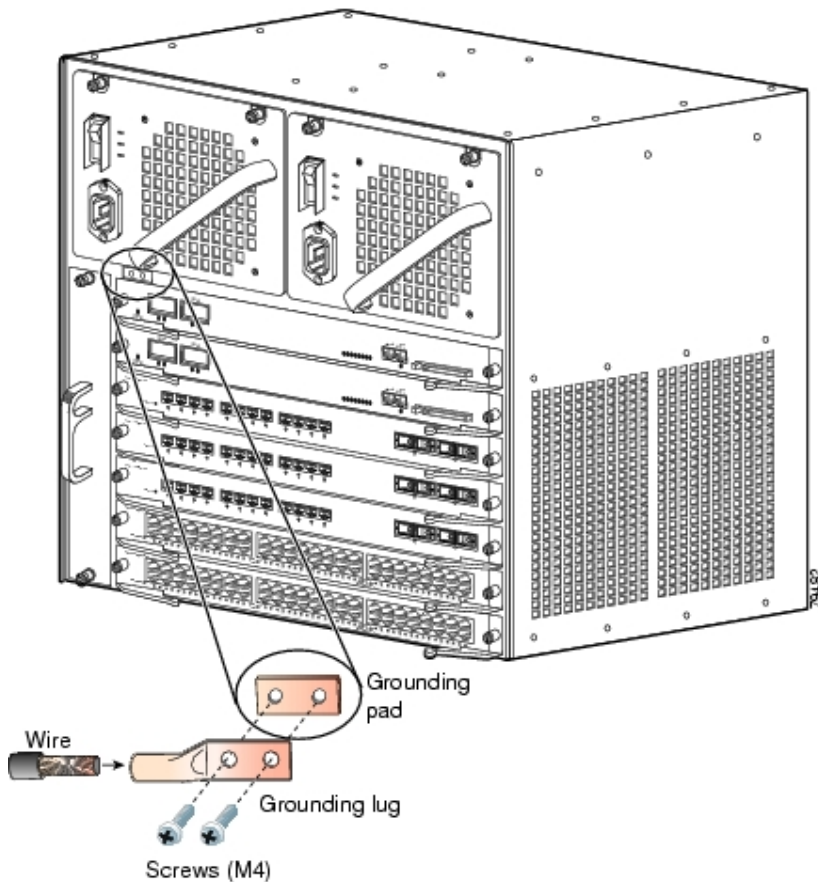
This section provides an overview of how to connect the Catalyst 4500 series switches to earth ground. The system ground connection is required if FXS modules are installed or if this equipment is installed in a US or European Central Office. For more detailed instructions on how to set up an earth ground, refer to [Catalyst 4500 Series Installation Guide](#).



**Caution:** You must complete this procedure before you connect power to the switch.

Follow these steps to attach a grounding lug and cable to the grounding pad on your Catalyst 4500 series switch:

1. Use a wire-stripping tool to remove approximately 0.75 inches (19 mm) of the covering from the end of the grounding wire.
2. Insert the stripped end of the grounding wire into the open end of the grounding lug.
3. Use a crimping tool to secure the grounding wire in the grounding lug.
4. Locate the ground pad on the switch and remove the label that covers the grounding pad.



**Note:** The model illustrated is a 4507R. Your switch may look slightly different.

5. Place the grounding lug against the grounding pad, aligning the holes. Insert the two M4 screws through the holes in the grounding lug and grounding pad ( Figure 3-15 and Figure 3-17).

Ensure that the grounding lug and the attached wire will not interfere with other switch hardware or rack equipment.

6. Tighten the screws to secure the grounding lug to the grounding pad.
7. Use a wire-stripping tool to remove approximately 0.75 inches (19 mm) of the covering from the opposite end of the grounding wire.
8. Connect the stripped end of the ground wire to the appropriate ground point at your site. If needed, use a crimping tool to secure the ground wire to the connector at the ground point.

### Connect Power to the Switch

Follow these steps to connect power to the switch:

1. Connect the power supply cord to the power supply on the switch.
2. Connect the power supply cord to the local power source.

**Note:** If your switch has multiple power supplies, ensure that you connect power to both power supplies.

3. Move the power switch to the on ( | ) position. The switch takes 2-3 minutes to boot.

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## Next Step

You have completed hardware setup of your Catalyst 4500 switch.

To configure your switch, refer to [Configure a Catalyst 4500 Switch with Cisco Network Assistant](#).

To make other changes to your switch, refer to the [Switch Support Page](#).

To configure other devices in your network, refer to the [Configuration Overview Page](#).

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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)
The switch does not start up when I apply power.	<ul style="list-style-type: none"> <li>Ensure that the power switch is in the on (   ) position.</li> <li>Contact the <a href="#">SMB Technical Assistance Center (SMB TAC)</a> for assistance.</li> </ul>
The switch does not have a switch module installed.	<ul style="list-style-type: none"> <li>Contact the <a href="#">SMB Technical Assistance Center (SMB TAC)</a> for assistance.</li> </ul>

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## Related Information

- [Site Survey](#)
- [Configure a Catalyst 4500 Switch with Cisco Network Assistant](#)
- [Catalyst 4500 Series Regulatory Compliance and Safety Information](#)
- [Catalyst 4500 Series Installation Guide](#)



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## Step 3: Download and Install Cisco Network Assistant

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Step 4: [Configure the Catalyst Switch with Cisco Network Assistant](#)

[Configure the Catalyst 4500 Series Switch with Cisco Network Assistant](#)

## Introduction

This document describes how to download and install Cisco Network Assistant (CNA), a PC-based application used to configure Catalyst switches.

**Note:** If you already have CNA on your computer, you do not need to do this procedure. CNA is located at **Start > Programs > Cisco Network Assistant > Cisco Network Assistant**.

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## Requirements

To perform this procedure, you need a Windows PC connected to the Internet. The PC must have these minimum requirements:

- 80 MB of available hard disk space

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## Download CNA

To download CNA, follow these steps:

1. Go to the [CNA home page](#).
2. Click the link for "free download" from the Download Cisco Network Assistant box.

### Download Cisco Network Assistant

If you are a Registered User, get your free [download](#) of Cisco Network Assistant.

If you are not a Registered User, you may [register](#) here. Fill in the section titled, "Your Information" and "Login Information." Then click "Submit".

3. When prompted, enter your SMB user name and password, and then click **OK**.
4. Click on the Network Assistant Installer executable (.exe file).

Select a File to Download			
Sort by: <input type="text" value="Filename"/> <input type="button" value="Go"/>			
<u>Filename</u>	<u>Release</u>	<u>Date</u>	<u>Size (Bytes)</u>
<a href="#">cna-windows-k9-installer-3-0.exe</a> Network Assistant 3.0 Installer	3.0	21-SEP-2005	31988341

5. When prompted, enter your SMB user name and password again, and then click **OK**.
6. Read the Encryption Software Export Distribution Authorization form. When you are finished, click the **Yes** radio button, and then click **Submit**.
7. Verify the software image that you want to download, and then click **Next**.
8. Read the Software Download Rules, and then click **Agree**.
9. When prompted, enter your SMB user name and password again, and then click **OK**.
10. When the File Download dialog box appears, click **Save** to download the executable to your desktop.

11. On your PC desktop, double-click the CNA Installer icon to run the installer. Follow the instructions to install CNA on your PC.

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## Next Step

After you have installed the CNA software, you can use it to configure your switch. Refer to [Configure a Catalyst Switch with Cisco Network Assistant](#).

If you have a Catalyst 4500 Series switch, refer to [Configure the Catalyst 4500 Series Switch with Cisco Network Assistant](#).

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## Troubleshoot the Procedure

If you have problems with your login or with the CNA download process, contact the [SMB Technical Assistance Center \(SMB TAC\)](#) for assistance.

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## Related Information

- [Configure a Catalyst Switch with Cisco Network Assistant](#)
- [Site Survey](#)



# Set Up a Catalyst Switch

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## Introduction

This document explains how to use the Cisco Network Assistant (CNA) software to configure a Catalyst switch for the first time. This procedure applies to 2900XL, 2940, 2950, 2960, 2970, 3500XL, 3550, 3560, and 3750 model Catalyst switches.

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## Requirements

To perform the steps described in this document, you need to have these items:

- A switch with Cisco IOS® Software Release 12.0 - 12.2 that is installed and powered on

**Note:** If you have not installed the switch, refer to [Hardware Setup Procedure for the Catalyst Switch](#).

- A PC with CNA installed on it

**Note:** This document is based on CNA 3.0. If your PC does not have CNA installed, or if you need to upgrade your software, refer to [Download and Install Cisco Network Assistant](#).

- A [straight-through Ethernet cable](#) to connect your PC to the switch
- Completed worksheets as instructed in the [Site Survey](#):
  - LAN Addressing Worksheet
  - Switch Port Assignments Worksheet
  - Internet Worksheet

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## Connect to the Switch

Follow these steps to connect your PC to the switch for configuration:

- [Change the IP address on the PC](#)
- [Connect the PC to the switch](#)

- [Put the switch in setup mode](#)

## Change the IP Address on the PC

Your PC must have a compatible IP address in order to communicate with the switch. Before you change your TCP/IP settings, make note of your current settings.

To configure the IP address on your PC, go to the **Start > Settings > Control Panel > Network and Dialup Connections**. Right-click on your network connection icon and choose **Properties**. Select **Internet Protocol (TCP/IP)** and click **Properties**. Enter the IP address **10.0.0.2** with a subnet mask of **255.255.255.0**. For more detailed instructions, refer to [Configure an IP Address on Your PC](#).

## Put the Switch in Setup Mode

Follow these steps to put the switch in setup mode:

1. Press and hold the Mode button for approximately 2 seconds, or until all LEDs next to the Mode button except for the RPS LED turn green. On the 2940 switch, hold the Mode button until all of the LEDs above the Mode button turn green. On the 2960 switch, hold the Mode button until the all of the LEDs except the RPS and SPEED turn green.



**Note:** The model illustrated is a Catalyst 2950. Your switch may look slightly different.

2. When all LEDs except the RPS LED turn green, release the Mode button. All LEDs except the RPS LED should remain green. On the 2940 switch, all of the LEDs remain green. On the 2960 switch, all of the LEDs except the RPS and SPEED remain green.

If the LEDs begin to blink after you have held the Mode button for 2 seconds or you cannot get the required LEDs to remain lit, then the switch has an existing configuration and cannot enter setup mode. Refer to [Troubleshoot the Procedure](#) for assistance.

## Connect the PC to the Switch

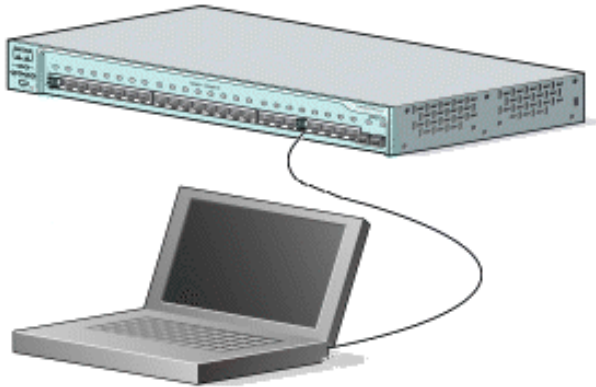
Follow these steps to connect your PC to the switch:

**Note:** For configuration, the switch must be connected only to the PC. Verify that no other devices are connected to the switch.

1. Connect one end of a straight-through Ethernet cable to Ethernet port 20 on the front panel of the switch. If you have a 2940 switch, connect one end of a straight-through Ethernet cable to any Ethernet port on the front panel of the switch.

**Note:** Port 1 is typically the management port, but for VLAN configuration you cannot use port 1 as the management port for setup.

2. Connect the other end of the Ethernet cable to the Ethernet port on your PC.



3. Verify that the port status LEDs turn green on both connected Ethernet ports.

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## Configure the Switch

Follow these steps to configure VLANs on the switch with CNA:

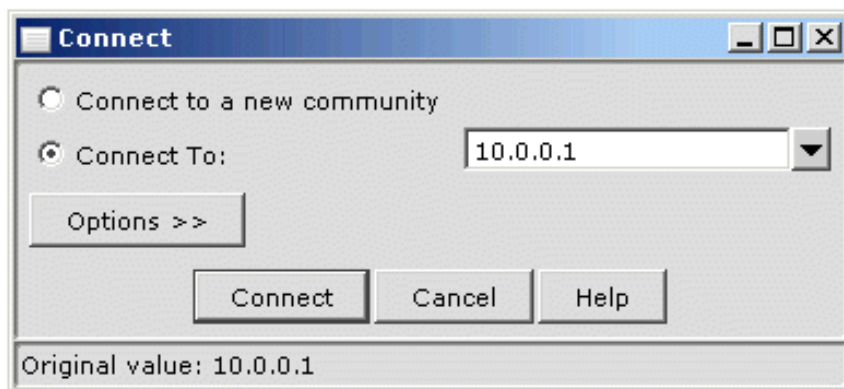
- [Connect to the Switch with CNA](#)
- [Create a VLAN](#)
- [Configure VTP Server](#)
- [Configure the Host Name](#)
- [Configure Passwords](#)

- [Set the System Time](#)
- [Configure the IP Address](#)
- [Configure the Initial Port Assignments](#)
- [Reconnect to the Switch](#)
- [Configure the Remaining Ports](#)
- [Save Your Configuration](#)

### Connect to the Switch with CNA

Follow these steps to log in to the switch with CNA:

1. To launch CNA, go to **Start > Programs > Cisco Network Assistant > Cisco Network Assistant**.
2. When the Connect window opens, type **10.0.0.1** in the Connect To field, and then click **Connect**.



**Note:** If you are unable to connect to the switch with CNA, see [Troubleshoot the Procedure](#) for help.

### Create a VLAN

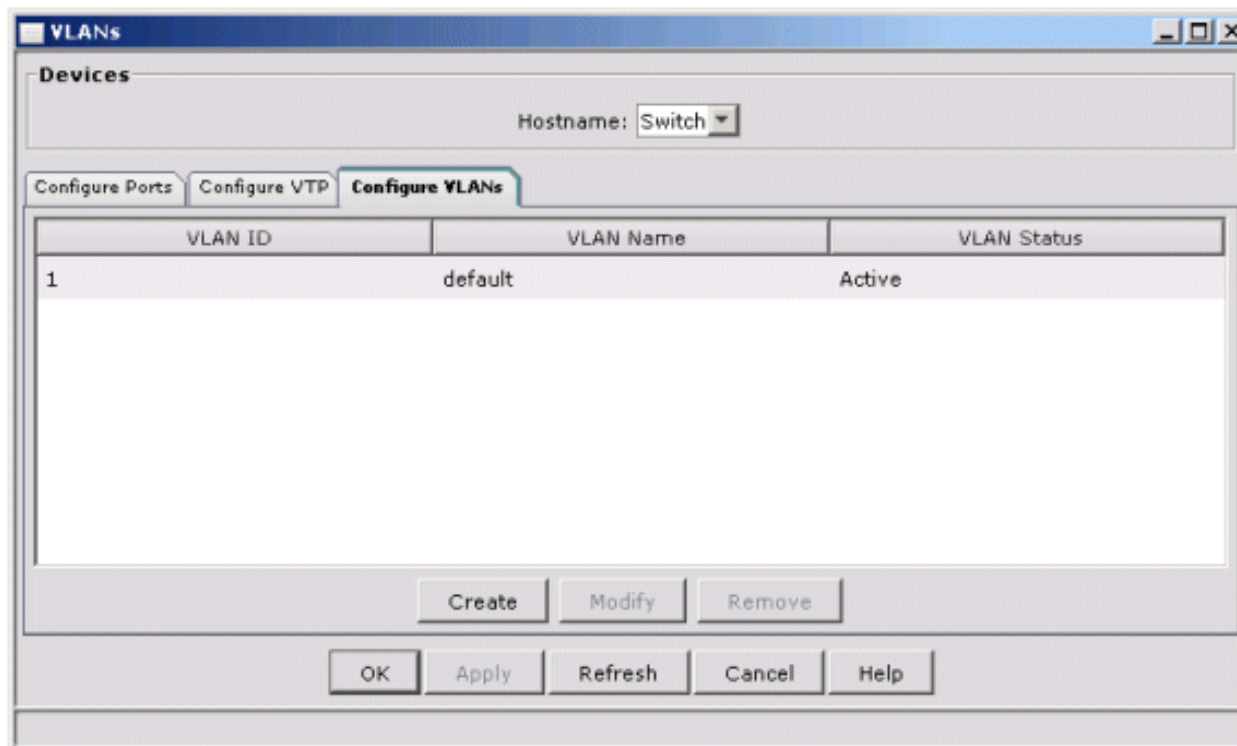
CNA operates in two modes: Expert View and Guide View. The default view for CNA 3.0 is Expert View. To ensure that you are in Expert View, click the **Expert** button on the far right of the toolbar.

Follow these steps to create a VLAN on the switch:

1. On the Features tab, click **Configure > Switching > VLANs**.



2. In the VLANs window, click the **Configure VLANs** tab.

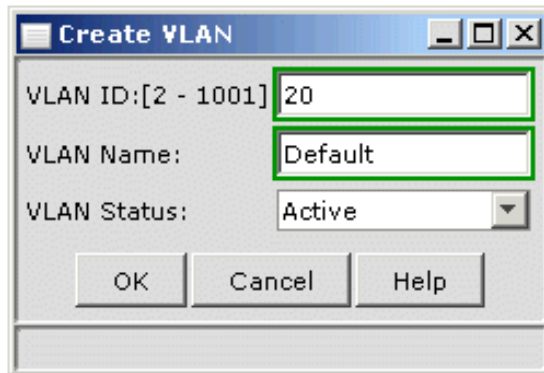


3. Click **Create** to open the Create VLAN window.

4. Enter the VLAN information for the new VLAN.

- In the VLAN ID field, enter **20**.
- In the VLAN Name field, enter **Default**.
- Leave the VLAN Status field set as Active.

Click **OK**.



**Create VLAN**

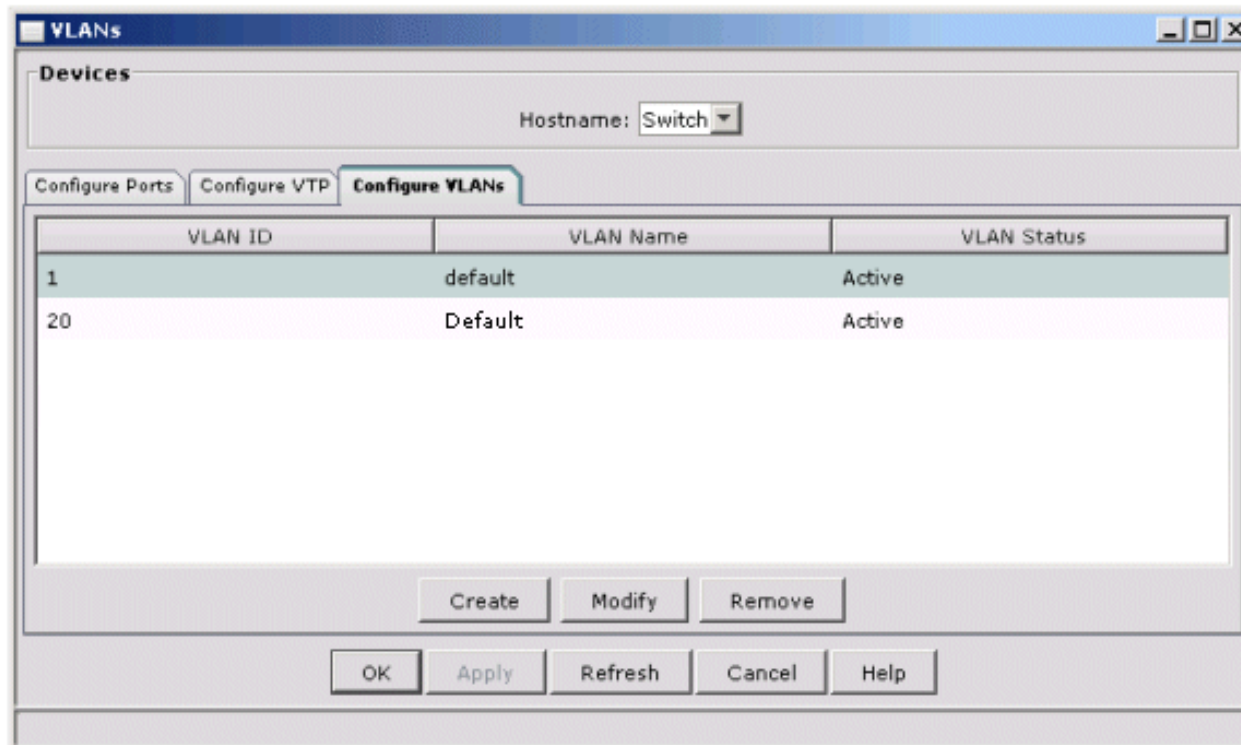
VLAN ID:[2 - 1001] 20

VLAN Name: Default

VLAN Status: Active

OK Cancel Help

5. When you are finished, the two VLANs appear in the VLANs window. Click **Apply**, and then click **OK**.



**VLANs**

Devices

Hostname: Switch

Configure Ports Configure VTP **Configure VLANs**

VLAN ID	VLAN Name	VLAN Status
1	default	Active
20	Default	Active

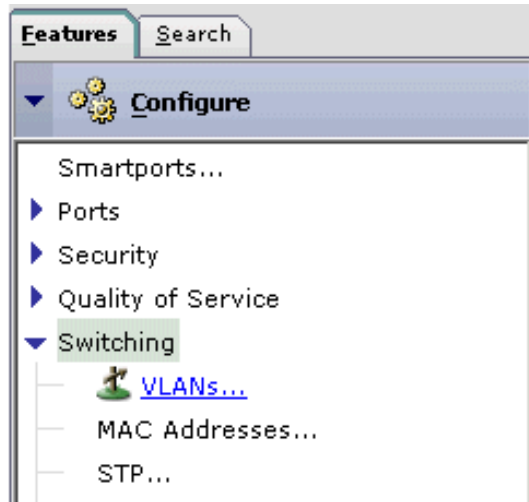
Create Modify Remove

OK Apply Refresh Cancel Help

## Configure VTP Server

Follow these steps to configure the VLAN trunking protocol (VTP) server:

1. On the Features tab, click **Configure > Switching > VLANs**.



2. In the VLANs window, click the **Configure VTP** tab.
3. Enter the VTP information for the new VLANs.
  - For V2 VTP Mode, select **Enabled**.
  - For VTP Mode Control, select **Server**.
  - For VTP Pruning Mode, select **Disabled**.
  - For Domain Name, type **SMB**.
  - For VTP Password, type the enable password of the router that you entered in field B12 on the Internet worksheet.

Click **OK** to save the VTP information.

**VLANs**

Devices

Hostname: Switch

Configure Ports **Configure VTP** Configure VLANs

VTP Version: 2 VTP V2 Mode: Enabled

Configuration Revision: 4 VTP Mode Control: Server

Maximum VLANs Supported Locally: 255 VTP Pruning Mode: Disabled

Number of Existing VLANs: 9 Domain Name: SMB

Configuration Last Modified By: 10.0.0.3 at 3-1-93 10:09:35 VTP Password: \*\*\*\*\*

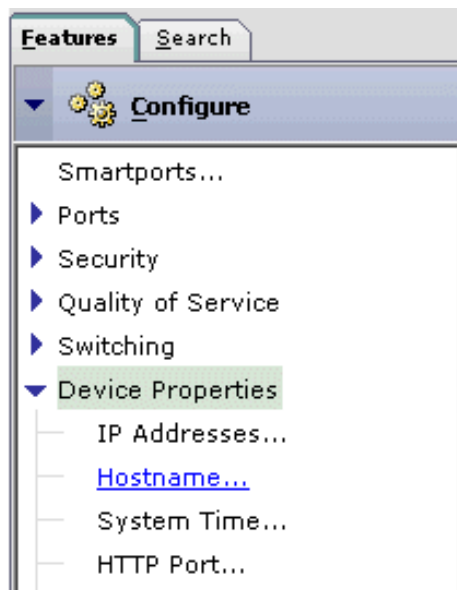
OK Apply Refresh Cancel Help

Original value: \*\*\*\*\*

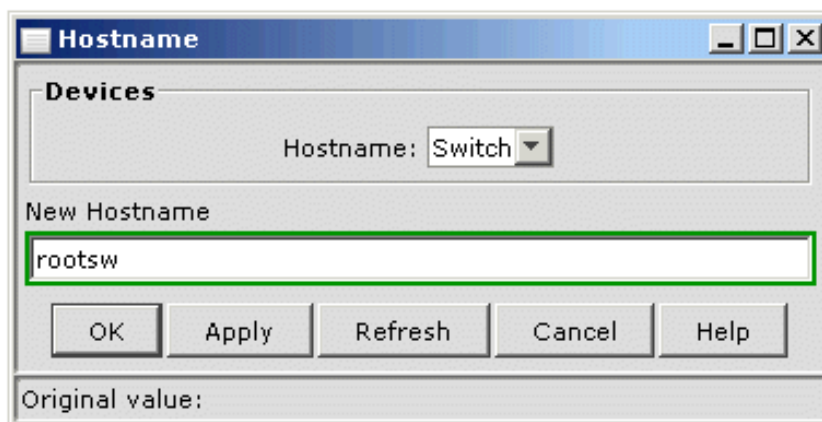
### Configure the Host Name

The host name identifies the switch. Follow these steps to configure or change the host name on the switch:

1. On the Features tab, click **Configure > Device Properties > Hostname**.



2. Since this is the root switch, type **rootsw** in the New Hostname field.



3. Click **OK**.

### Configure Passwords

Follow these steps to create or change passwords on the switch:

**Note:** Refer to [Password Security](#) for guidelines on how to create secure passwords.

1. On the Features tab, click **Configure > Device Properties > Users and Passwords**.



2. In the Users and Passwords window, click the **Local Username/Password** tab.
3. Click **Create**.
4. Enter the administrative user name and password information:
  - In the Username field, enter **admin**.
  - In the password fields, enter the password, and then enter the password again to confirm. Use the admin password that you entered in field S5 of the Switch Port Assignments worksheet.
  - Use the Privilege Level drop-down list to set the access level to **15**. This level has read-write access; all user levels under 15 have read-only access.

Click **OK**.

Create Local Username/Password

Username: admin

Password: \*\*\*\*\*

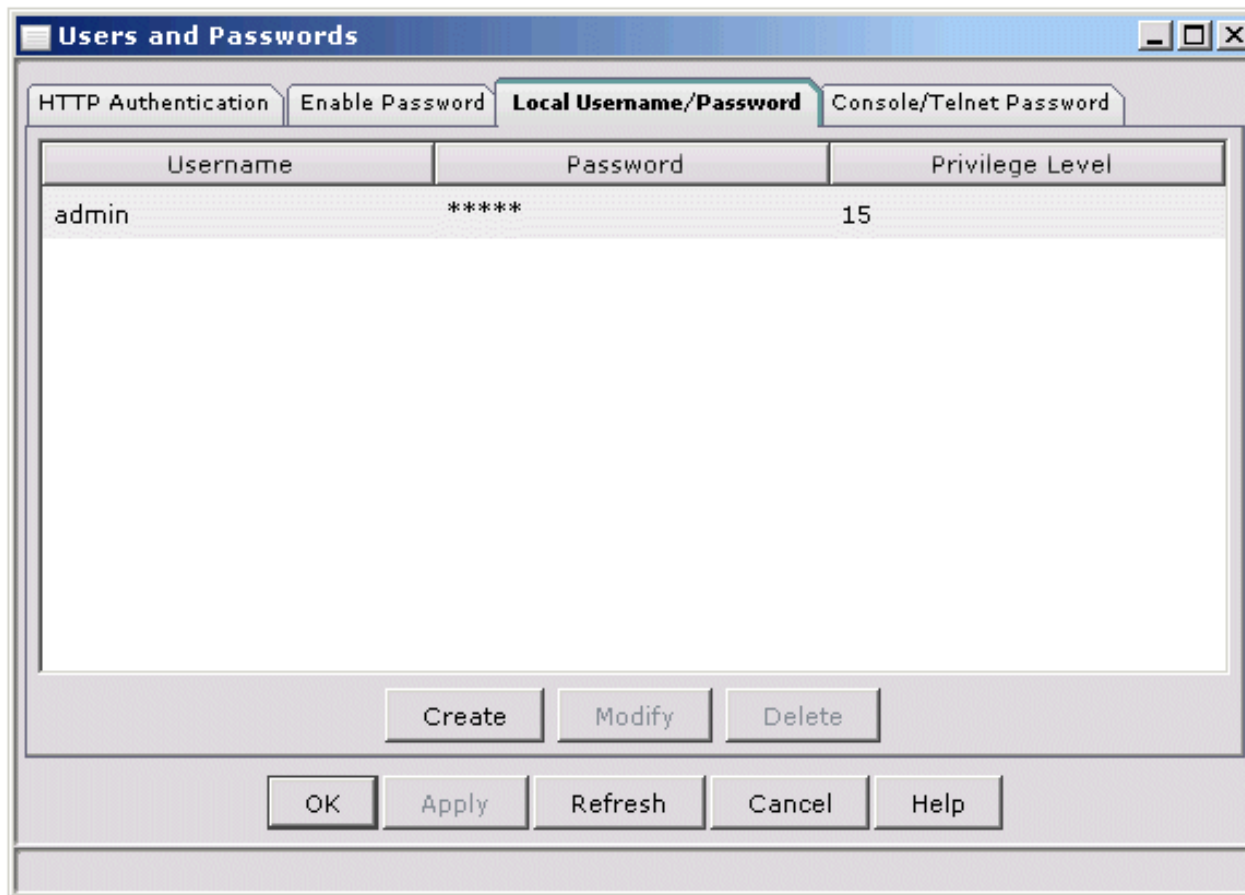
Confirm Password: \*\*\*\*\*

Privilege Level: 15

OK Cancel Help

Original value:

5. Click **Apply**. The user information appears in the Username list.



6. Click the **HTTP Authentication** tab.

7. Click the **Local Username/Password** radio button, and then click **Apply**.

**Note:** When you receive an alert message that you have changed your authentication values, click **Yes** to continue. You do not need to relaunch CNA.

8. Click the **Enable Password** tab.

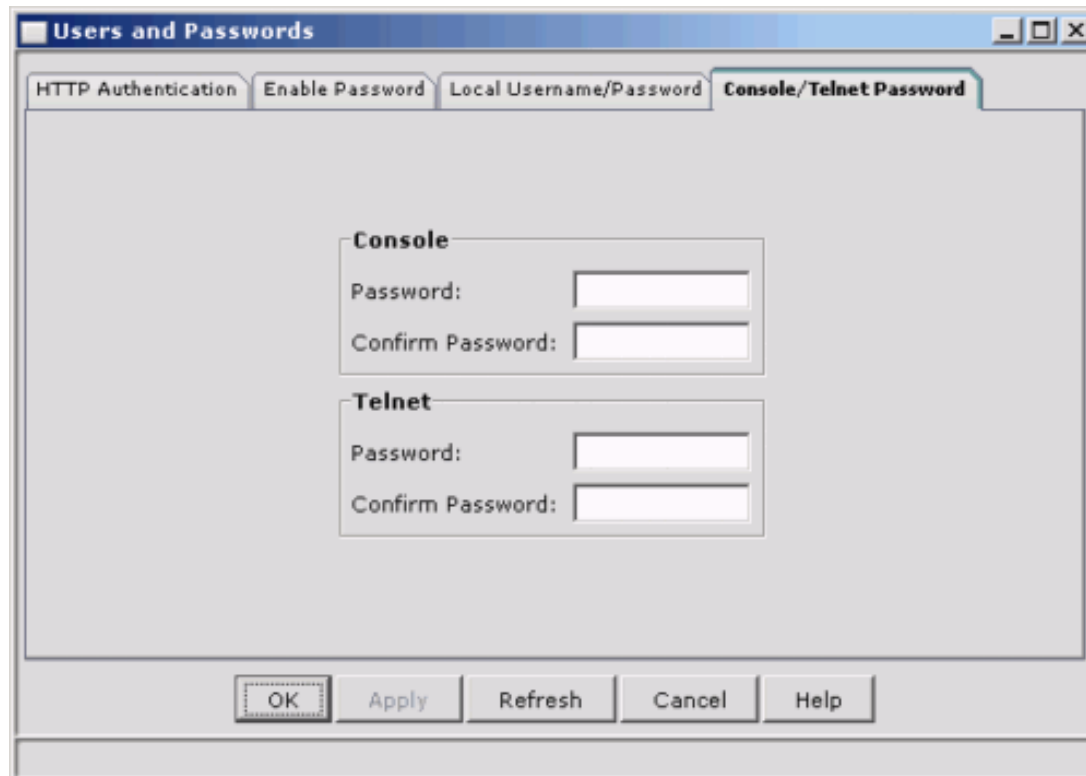
9. Click **Create**.

10. In the password fields, enter the enable password, and then enter the password again to confirm. Click **OK**. Use the enable password that you entered in field S5 of the Switch Port Assignments worksheet.



The image shows a dialog box titled "Create Enable Password". It has a title bar with a menu icon, a minimize button, a maximize button, and a close button. The main area contains three labels: "Privilege Level:" with a dropdown menu showing "15", "Password:" with a text box containing "\*\*\*\*\*", and "Confirm Password:" with a text box containing "\*\*\*\*\*". The "Password:" and "Confirm Password:" text boxes are highlighted with a green border. At the bottom, there are three buttons: "OK", "Cancel", and "Help". Below the dialog box, there is a label "Original value:" followed by a text box.

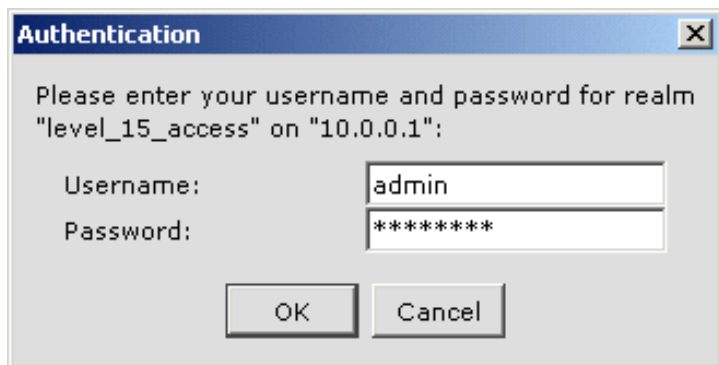
11. Click the **Console/Telnet Password** tab.
12. Under Console and Telnet, type the admin password that you entered in field S5 of the Switch Port Assignments worksheet.



The image shows a dialog box titled "Users and Passwords". It has a title bar with a menu icon, a minimize button, a maximize button, and a close button. Below the title bar, there are four tabs: "HTTP Authentication", "Enable Password", "Local Username/Password", and "Console/Telnet Password". The "Console/Telnet Password" tab is selected. The main area contains two sections: "Console" and "Telnet". Each section has a "Password:" label and a text box, and a "Confirm Password:" label and a text box. At the bottom, there are five buttons: "OK", "Apply", "Refresh", "Cancel", and "Help".

13. Click **Apply** in the Users and Passwords window. When you receive an alert message that you have changed your authentication values, click **Yes** to continue. Then click **OK**.
14. After you change the system passwords, CNA may prompt you to log in again. If the Network Authentication window appears, log in to CNA with the admin username and password that you entered in fields S5 of the Switch Port Assignments worksheet. Click **OK**.

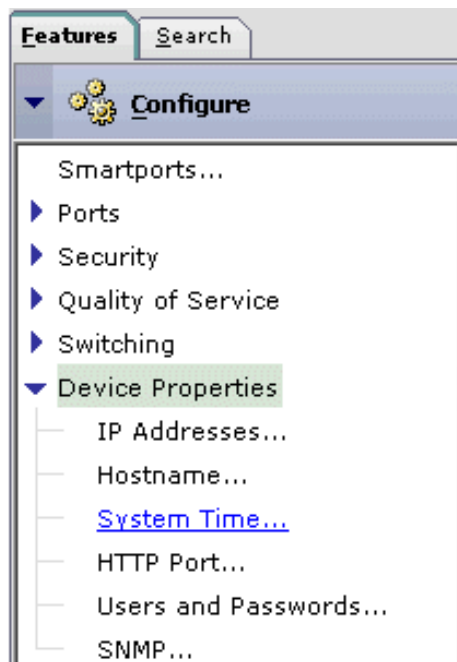
**Note:** The login prompt may not appear until you perform another action in CNA.



### Set the System Time

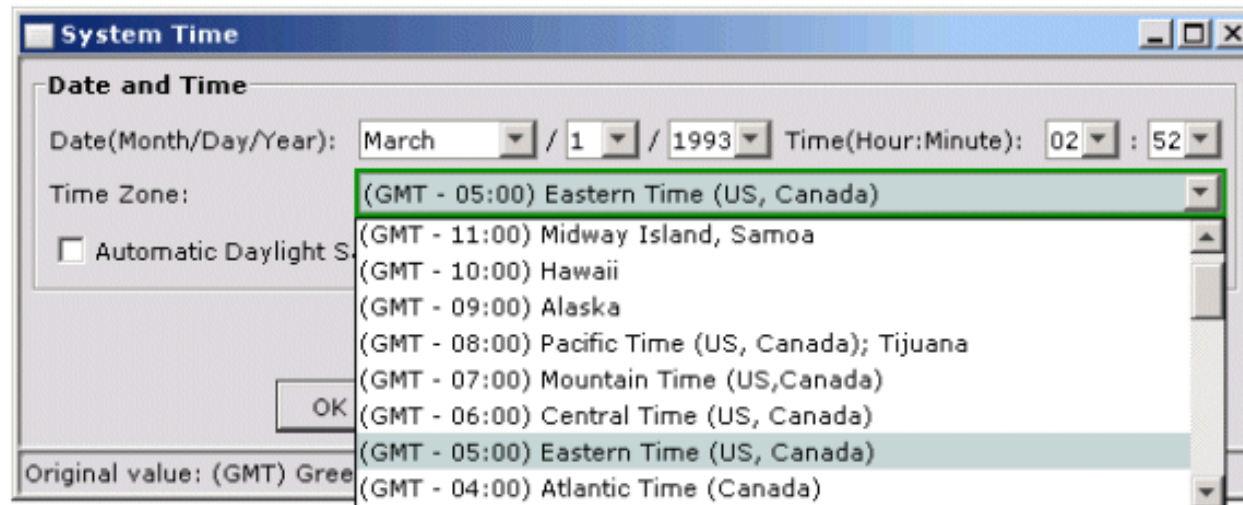
Follow these steps to configure the clock time zone and the Network Time Protocol (NTP) server:

1. On the Features tab, click **Configure > Device Properties > System Time**.

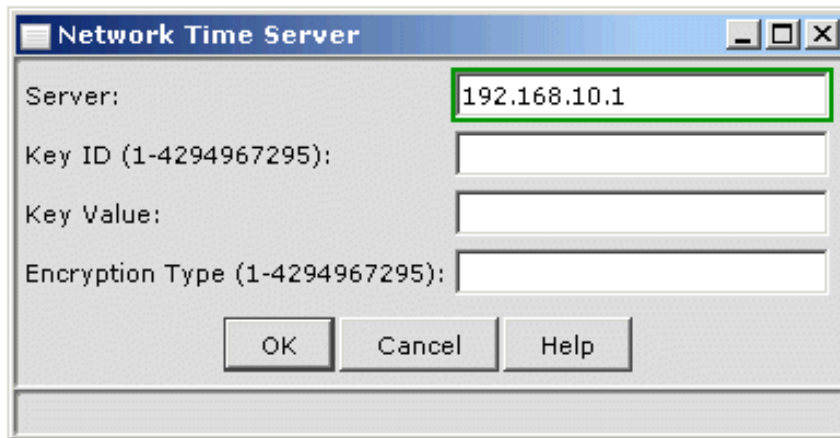


- In the System Time window, use the Time Zone drop-down list to select the correct time zone for your location. Use the system time that you entered in field B13 in the Internet worksheet.

**Note:** You do not need to manually enter the current time because the switch uses the router as a time server.



- Click **Advanced**.
- In the Server field, enter the IP address of the router that you entered in field L6A of the LAN Addressing Worksheet, and click **OK**.

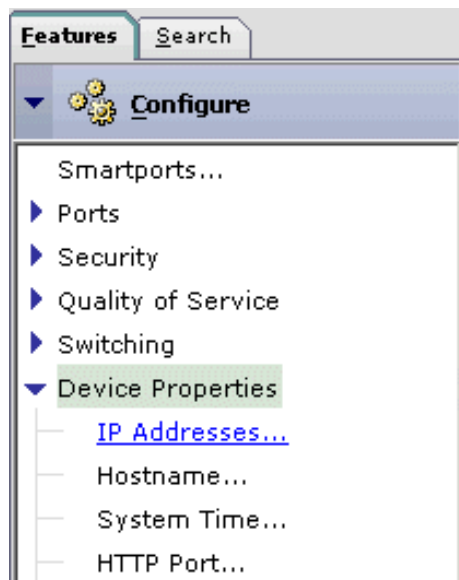


5. Click **OK** in the System Time window.

### Configure the IP Address

Configure VLAN 20 with the IP address that you entered in field L8 of the LAN Addressing Worksheet.

1. On the Features tab, click **Configure > Device Properties > IP Addresses**.



2. On the Interface Configuration tab, enter the IP address information.
  - o Click the IP Address field for VLAN 20, and then enter the IP address of the root switch that you entered in field L8 of the LAN Addressing Worksheet.

- Click the Subnet Mask field, and then select **255.255.255.0** from the drop-down list.

Click **Apply**.

**IP Addresses**

Devices

Hostname: rootsw

**Interface Configuration** Device Configuration

Interface Name	IP Address	Subnet Mask
Vlan1	10.0.0.3	255.255.255.0
Vlan20	192.168.10.2	255.255.255.0

OK Apply Refresh Cancel Help

3. Click the **Device Configuration** tab.
4. Enter the default gateway information for the switch.
  - In the Default Gateway field, enter the IP address for the router that you entered in field L6A of the LAN Addressing Worksheet.
  - In the Domain Name field, enter the domain name for the device that you entered in field B48 of Internet Worksheet.

- o Uncheck the **Enable Domain Lookup** check box.

Click **OK**.

**IP Addresses**

**Devices**

Hostname: rootsw

Interface Configuration **Device Configuration**

Default Gateway: 192.168.10.1

Domain Name: SMB

Enable Domain Lookup:

**DNS Information**

New Server:  Add Remove

**Current Servers**

255.255.255.255 Select All

OK Apply Refresh Cancel Help

Original value: Checked

### Configure Port Assignments

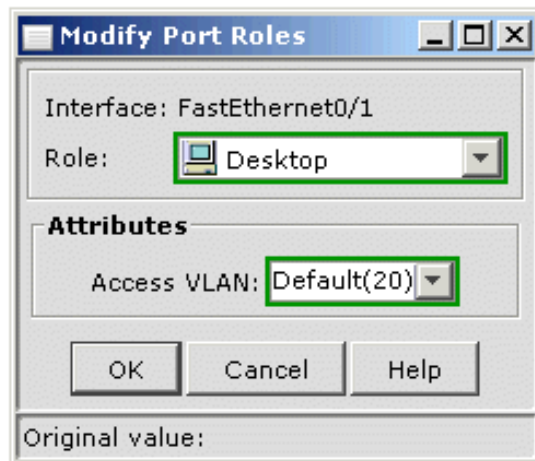
Follow these steps to configure switch ports with Smartports. Smartports is a feature that helps you apply consistent configurations to ports based on roles that you assign to each port. CNA then applies appropriate port settings for the connection type.

1. On the Features tab, click **Configure > Smartports**. A window displays with a graphic illustration of the switch.

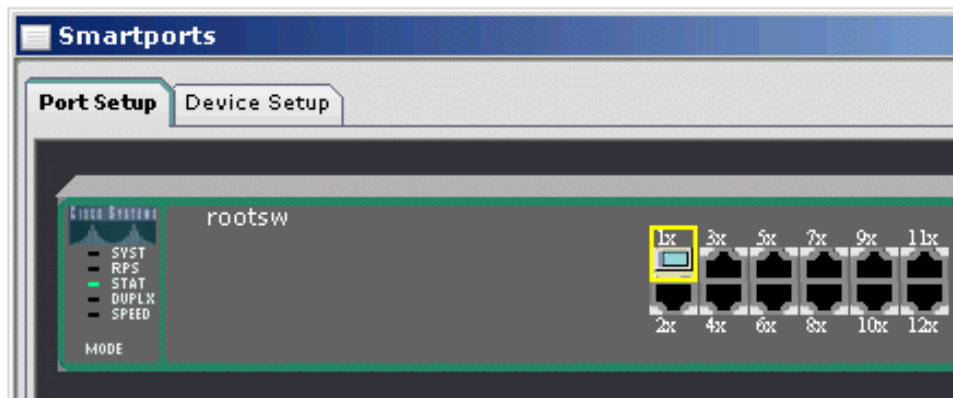


2. Click port 1 to select the port, and then click **Modify**.
3. In the Modify Port Roles window, configure the port role and attributes.
  - Use the Role drop-down list to set the port role to **Desktop**.
  - Use the Access VLAN drop-down list to set the Access VLAN field to **Default (20)**.

Click **OK**.



The port is assigned with the desktop macro, which appears on the switch illustration.



4. Configure ports 2 through 9 with these assignments:

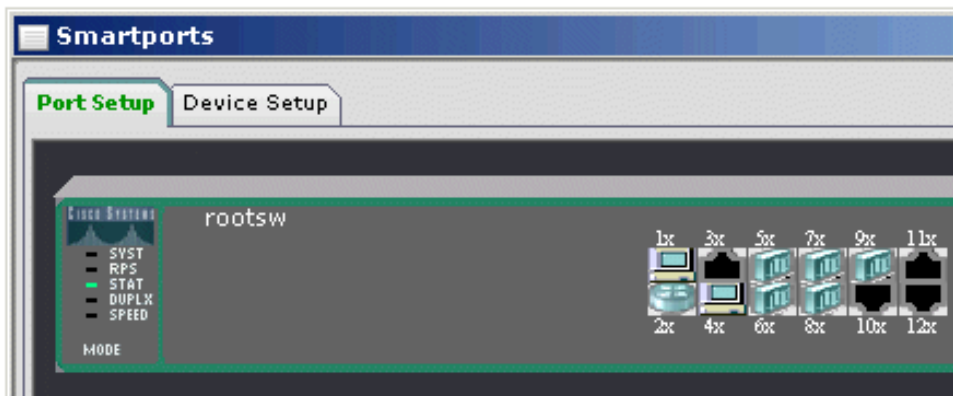
- For port 2 (for use by a router), set the port role to Router and Native VLAN to Default (20).

**Note:** When you receive a warning message that you are about to change a port role, click **Yes** to continue.

- Port 3 is reserved for future use.
- For port 4 (for use by PIX internal), set the port role to Desktop and Access VLAN to Default (20).
- For port 5 (for use by a wireless access point) and ports 6 through 9 (for use by switches), set the port role to Switch and Native VLAN to Default (20). To configure these ports at one time, press **Ctrl** on your keyboard while you click each port in the CNA window.

**Note:** When you receive a warning message that you are about to change a port role, click **Yes** to continue.

Click **OK**. When you receive a warning message that modified ports will be set to factory default, click **Yes** to continue.

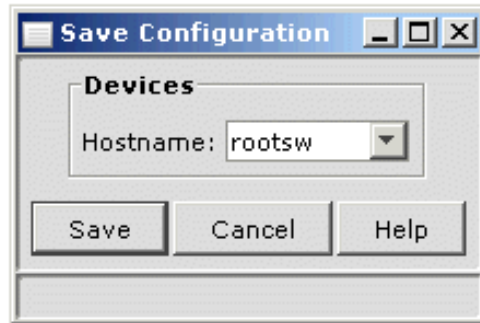


## Save Your Configuration

Follow these steps to save your configuration.

**Note:** When you save your configuration, CNA disconnects from the switch.

1. On the Features tab, click **Configure > Save Configuration**.
2. In the Save Configuration window, use the Hostname drop-down list to select **rootsw**.



3. Click **Save**. This causes the switch to exit setup mode and disconnect from your PC. All LEDs on the switch shut off except the SYS and STAT LEDs, which remain green.
4. Close the CNA application.

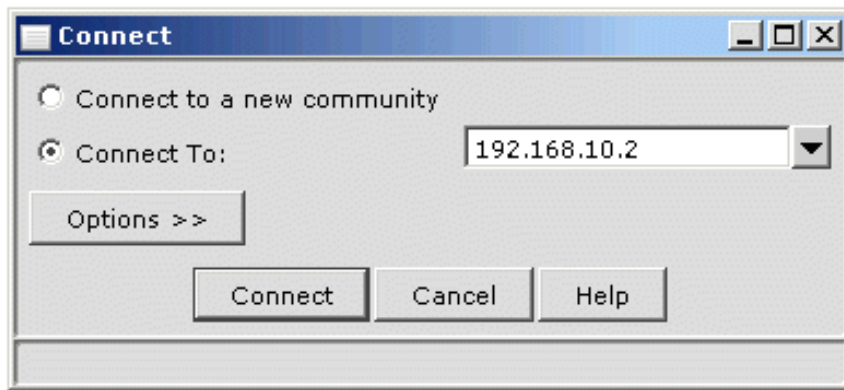
## Reconnect to the Switch

Follow these steps to reconnect to the switch on a different port:

1. Unplug the Ethernet cable from port 20, and then insert the cable into port 1.
2. Change the TCP/IP setting on your PC to match the switch (for example, 192.168.10.50). Right-click on the network connection icon in your system tray and open the network connections window. Right-click on the **Local Area Connection** icon and choose **Properties**. Select **Internet Protocol (TCP/IP)**, click **Properties**, and then enter the new IP address.

**Note:** You may need to restart your computer after you change the IP address.

3. Launch CNA. When the Connect window appears, enter the switch IP address from field L8 on the LAN Addressing Worksheet (for example, 192.168.10.2), and then click **Connect**.



4. When the Network Authentication window appears, log into the switch with the admin user ID and password.

### Configure the Remaining Ports

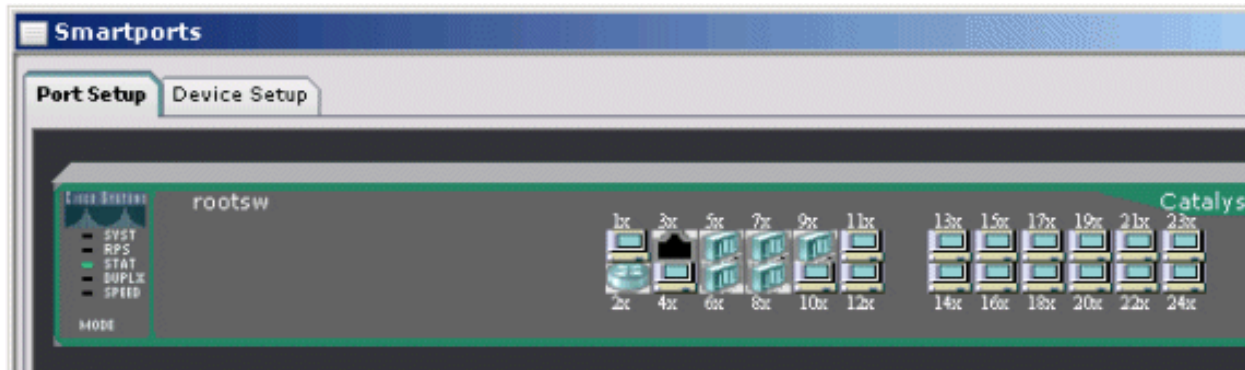
Follow these steps to configure the rest of the ports on the switch.

1. On the Features tab, click **Configure > Smartports**. A window displays with a graphic illustration of the switch.



2. Drag the mouse cursor over ports 10 through 24 (or 48) to highlight the ports with a yellow outline.
3. Click **Modify**.
4. In the Modify Port Roles window, configure the port type and attributes.
  - o Use the Role drop-down list to set the macro type to **Desktop**.
  - o Use the Access VLAN drop-down list to set the Access VLAN field to **Default (20)**.

Click **OK**.

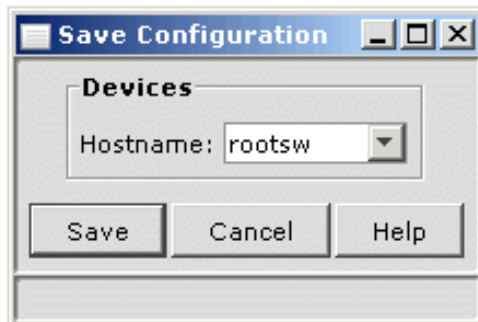


- Click **OK** in the Smartports Setup window. The remaining ports are now configured.

### Save Your Configuration

Follow these steps to save your configuration.

- On the Features tab, click **Configure > Save Configuration**.
- In the Save Configuration window, use the Hostname drop-down list to select **rootsw**.



- Click **Save**. You can now close the CNA application.
- To disconnect your PC from the switch, remove the Ethernet cable from the ports on the PC and the switch. You may need to restore the TCP/IP settings on your PC to the original values. Refer to [Configure an IP Address on Your PC](#) for instructions.

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## Connect the Switch to Your Network

Identify the cables that you need to connect the switch to your network. If you are not sure how to identify the types of Ethernet cables, refer to [Cable Descriptions](#).

- To connect your switch to a server, workstation, or router, use a straight-through Ethernet cable.
- To connect your switch to a repeater or another switch, use a crossover Ethernet cable.

Connect devices to the switch according to the Switch Port Assignments Worksheet. The general assignments are shown in this table.

Port	Device
Port 1	Workstation
Port 2	Router
Port 3	Reserved for future use
Port 4	PIX
Port 5	Access Point
Ports 6 through 9	Additional switches
Ports 10 through 24 or 48	Additional devices

Follow these steps to connect devices to your switch:

1. Connect one end of an Ethernet cable to a port on your switch.
2. Insert the other end of the Ethernet cable into a port on the target device (server, workstation, router, switch, etc.).
3. Wait for approximately 30 seconds, and then verify that the port status LED on the switch turns green. If the LED is off and does not turn green, see [Troubleshoot the Procedure](#) for help.

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## Next Step

You have completed configuration of your Catalyst switch.

If want to add additional switches, refer to [Add a New Ethernet Switch](#).

To make other changes to your switch, refer to the [Switch Support Page](#).

To configure other devices in your network, refer to the [Configuration Overview Page](#).

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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)
You are unable to put the switch into setup mode because the four Mode LEDs begin to blink after you have held the Mode button for two seconds or you cannot get the four LEDs to remain lit.	<p>The switch has an existing configuration on it. To clear the current configuration from the switch, follow these steps:</p> <ol style="list-style-type: none"><li data-bbox="615 1027 1346 1084">1. Press and hold the Mode button. The switch LEDs will begin to blink after about two seconds.</li><li data-bbox="615 1130 1310 1187">2. Continue to hold the Mode button for approximately eight more seconds, or until the LEDs stop blinking.</li><li data-bbox="615 1232 1272 1256">3. Release the Mode button. The switch will then reboot.</li><li data-bbox="615 1302 1346 1390">4. Wait 1 minute for the power-on self test (POST) to complete successfully. When POST is complete the SYST and STAT LEDs will display green.</li><li data-bbox="615 1435 1346 1523">5. Press and hold the Mode button for approximately two seconds, or until all LEDs next to the Mode button <i>except</i> for the RPS LED turn green.</li></ol>

<p>You connected a PC directly to the switch, but you are unable to establish a connection with CNA.</p>	<ul style="list-style-type: none"><li>• Ensure that the power-on self test (POST) completed successfully. The SYST and STAT LEDs must be green.</li><li>• After you connect the switch to the PC, you must wait 30 seconds before you can try to connect. Wait 30 seconds, and then try to connect again.</li><li>• Verify the IP Address on your PC is 10.0.0.2.</li><li>• Ensure that you typed the correct IP address in the Connect window. Retype <b>10.0.0.1</b>, and then click <b>Connect</b>.</li><li>• Ensure that you used the proper cable. You must use a straight-through cable, not a crossover cable. Refer to <a href="#">Cable Descriptions</a> for more information.</li></ul>
<p>You connected the switch to your network, but you are unable to establish a remote connection with CNA.</p>	<ul style="list-style-type: none"><li>• Ensure that you typed the correct IP address in the Connect window. Retype the IP address that you assigned to the switch, and then click <b>Connect</b>.</li><li>• Ensure that you used the proper cable. To connect your switch to a server, workstation, or router, use a straight-through Ethernet cable. To connect your switch to a repeater or another switch, use a crossover Ethernet cable. Refer to <a href="#">Cable Descriptions</a> for more information.</li><li>• Ensure that the switch is connected to a subnet that matches the IP address you assigned.</li></ul>
<p>You connected the switch to another device on your network, but the port status LED is off.</p>	<ul style="list-style-type: none"><li>• Ensure that the target device is powered on.</li><li>• Ensure that you have used the correct cable to connect to the target device. Refer to <a href="#">Cable Descriptions</a> for more information.</li><li>• Ensure that the port adapter on the target device is operating properly.</li></ul>

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## Related Information

- [Site Survey](#)
- [Download and Install Cisco Network Assistant](#)
- [Hardware Setup Procedure for the Catalyst Switch](#)
- [Add a New Ethernet Switch](#)
- [Configure an IP Address on Your PC](#)
- [Cable Descriptions](#)
- [Password Security](#)

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# Set Up a Catalyst 4500 Switch

[Home](#) > [Work With My Switches](#) > [Cisco Catalyst Switches](#) > [Set Up a Catalyst 4500 Switch](#)

## Step 4: Configure the Catalyst 4500 Series Switch with Cisco Network Assistant

- Step 1: [Cisco SMB Support Assistant Site Survey](#)  
Step 2: [Hardware Setup Procedure for the Catalyst 4500 Series Switch](#)  
Step 3: [Download and Install Cisco Network Assistant](#)  
**Step 4: Configure the Catalyst 4500 Switch with Cisco Network Assistant**

[Introduction](#)

[Requirements](#)

[Prepare to Configure the Switch](#)

[Connect to the Switch](#)

[Change the IP Address on the PC](#)

[Connect the PC to the Switch](#)

[Connect to the Switch with CNA](#)

[Configure the Switch](#)

[Configure VTP Server](#)

[Configure the Host Name](#)

[Configure Passwords](#)

[Set the System Time](#)

[Configure a Default Gateway](#)

[Configure Port Assignments](#)

[Save Your Configuration](#)

[Connect the Switch to Your Network](#)

[Next Step](#)

[Troubleshoot the Procedure](#)

[Related Information](#)

## Introduction

This document explains how to use the Cisco Network Assistant (CNA) software to configure a Catalyst 4500 switch.

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## Service Requests

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 [Step 4: Configure the Catalyst 4500 Series Switch with Cisco Network Assistant](#)

 [Set Up a Catalyst 4500 Switch](#)

If Cisco may contact you for more details or for future feedback opportunities, please enter your contact information:

Full Name:

Email:

## Requirements

To perform the steps described in this document, you need to have these items:

- A switch with Cisco IOS® Software Release 12.0 - 12.2 that is installed and powered on

**Note:** If you have not installed the switch, refer to [Set Up Your Catalyst 4500 Series Switch Hardware](#).

- A PC with CNA installed on it

**Note:** This document is based on CNA 3.0. If your PC does not have CNA installed, or if you need to upgrade your software, refer to [Download and Install Cisco Network Assistant](#).

- A [straight-through Ethernet cable](#).
- A [console cable](#).
- You must have completed configuration of your router.
- Completed worksheets as instructed in the [Site Survey](#):
  - LAN Addressing Worksheet
  - Switch Port Assignments Worksheet
  - Internet Worksheet
  - Router Worksheet

**Note:** This configuration assumes that you have a supervisor module installed in slot 1 of the switch and a switch module installed in slot 2. This document provides instructions to connect to the switch with the first available Ethernet port in this configuration, FastEthernet 2/1.

**Note:** If your switch does not have a switch module installed in slot 2, use the first available Ethernet port on your switch. For example, if the first available Ethernet port is installed in slot 3 of the switch, you will use interface FastEthernet 3/1 to connect to the switch.

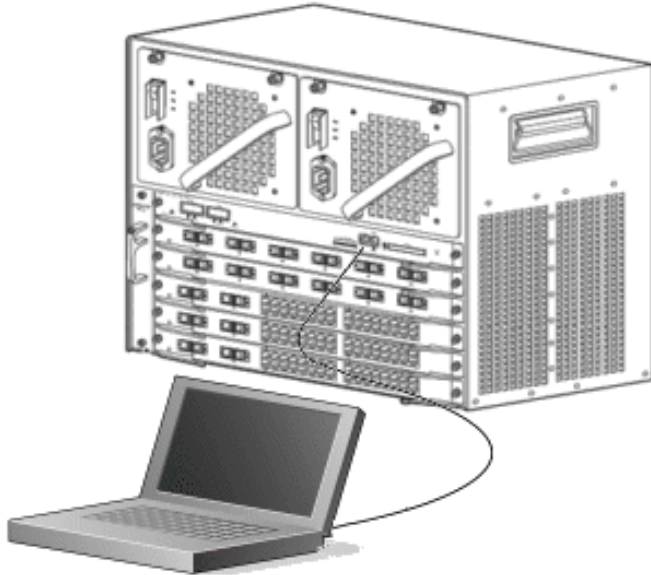
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## Prepare to Configure the Switch

Follow these steps to prepare your switch for configuration with CNA:

1. Ensure that the switch is powered on. The switch takes approximately 2-3 minutes to boot.
2. Connect a console cable from the PC to the console port of the switch. For more information about cables, refer to [Cable Descriptions](#).



3. Create a terminal connection to the switch. For more information about how to create a terminal connection, refer to [Create a HyperTerminal Connection](#).
4. At the autoinstall prompt, press **Enter** to terminate autoinstall.

**Note:** If the autoinstall prompt does not display when you log into the switch, press **Enter**.

```
Would you like to terminate autoinstall [yes]:
```

5. Type **enable** and press **Enter**.

```
Switch>enable  
Switch#
```

6. Type **configure terminal** and press **Enter**.

```
Switch#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#
```

7. Type **ip http server** and press **Enter**.

```
Switch(config)#ip http server
```

8. Type **interface vlan 20** and press **Enter**.

```
Switch(config)#interface vlan 20  
Switch(config-if)#
```

9. Type **ip address root-switch-ip 255.255.255.0** and press **Enter**. For root-switch-ip, use the root switch IP address that you entered in field L8 of the LAN Addressing Worksheet.

```
Switch(config-if)#ip address 192.168.10.2 255.255.255.0
```

10. Type **no shutdown** and press **Enter**.

```
Switch(config-if)#no shutdown  
Switch(config-if)#
```

11. Type **exit** and press **Enter**.

```
Switch(config-if)#exit  
Switch(config)#
```

12. Type **interface fastethernet 2/1** and press **Enter**.

**Note:** If your switch does not have a switch module installed in slot 2, use the slot and port number of the first available Ethernet port on your switch in place of interface FastEthernet 2/1.

```
Switch(config)#interface fastethernet2/1  
Switch(config-if)#
```

13. Type **macro description cisco-desktop** and press **Enter**.

```
Switch(config-if)#macro description cisco-desktop
```

14. Type **switchport mode access** and press **Enter**.

```
Switch(config)#switchport mode access
```

15. Type **switchport access vlan 20** and press **Enter**.

```
Switch(config-if)#switchport access vlan 20
```

16. Type **no shutdown** and press **Enter**.

```
Switch(config-if)#  
Switch(config-if)#no shutdown
```

17. Type **end** and press **Enter**.

```
Switch(config-if)#end  
Switch#
```

18. Type **write memory** and press **Enter**.

```
Switch#write memory  
Building configuration...  
Compressed configuration from 4128 to 1219 bytes[OK]
```

19. Exit the terminal software.

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## Connect to the Switch

Follow these steps to connect your PC to the switch:

### Change the IP Address on the PC

Your PC must have a compatible IP address in order to communicate with the switch. Before you change your TCP/IP settings, make note of your current settings.

To configure the IP address on your PC, click **Start > Settings > Control Panel > Network and Dialup Connections**. Right-click on your network connection icon and choose **Properties**. Select **Internet Protocol (TCP/IP)** and click **Properties**. Enter an IP address that matches the switch. For example, if the switch has IP address 192.168.10.2 with subnet mask 255.255.255.0, use **192.168.10.50** with the subnet mask **255.255.255.0**. For more detailed instructions, refer to [Configure an IP Address on Your PC](#).

### Connect the PC to the Switch

To create a connection to the switch, connect the PC to the first available Ethernet port on the switch. Follow these steps to connect your PC to the switch:

**Note:** The Ethernet management port on the 4500 series switch is used for emergency software image recovery only. This port is not active during normal operation of the switch.

1. Connect one end of a straight-through Ethernet cable to Ethernet port 2/1 on the front panel of the switch.

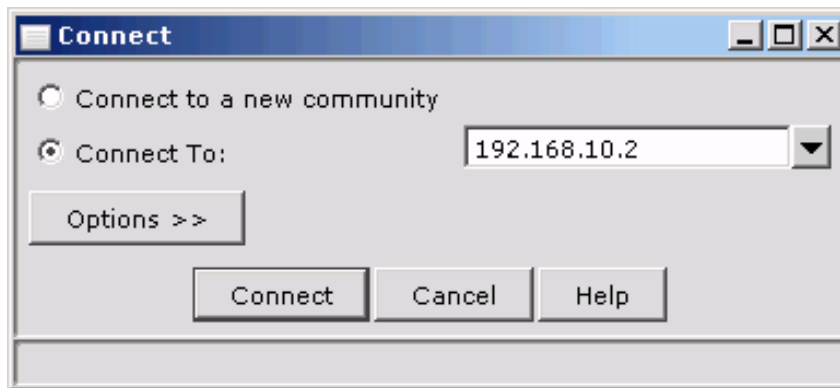
**Note:** If you do not have a switch module installed in slot 2 of your switch, use the first available Ethernet port on the switch in place of interface FastEthernet 2/1.

2. Connect the other end of the Ethernet cable to the Ethernet port on your PC.
3. Verify that the port status LEDs turn green on both connected Ethernet ports.

### Connect to the Switch with CNA

Follow these steps to log in to the switch with CNA:

1. To launch CNA, go to **Start > Programs > Cisco Network Assistant > Cisco Network Assistant**.
2. When the Connect window opens, type **192.168.10.2** in the Connect To field, and then click **Connect**.



**Note:** If you are unable to connect to the switch with CNA, see [Troubleshoot the Procedure](#) for help.

3. CNA displays the current network topology.

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### Configure the Switch

Follow these steps to configure VLANs on the switch with CNA:

**Note:** CNA operates in two modes: Expert View and Guide View. The default view for CNA 3.0 is Expert View. To ensure

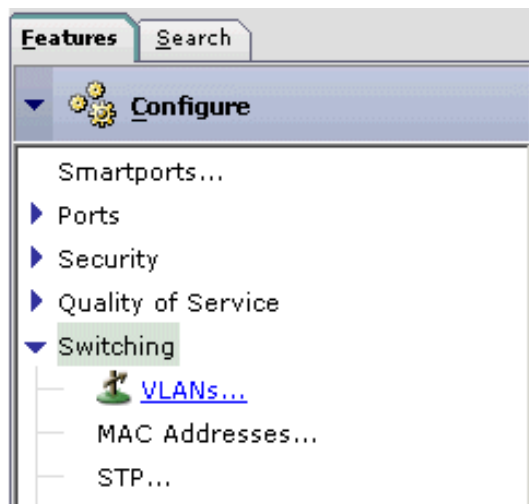
that you are in Expert View, click the **Expert** button on the far right of the toolbar.

- [Configure VTP Server](#)
- [Configure the Host Name](#)
- [Configure Passwords](#)
- [Set the System Time](#)
- [Configure a Default Gateway](#)
- [Configure Port Assignments](#)
- [Save Your Configuration](#)

### Configure VTP Server

Follow these steps to configure the VLAN trunking protocol (VTP) server:

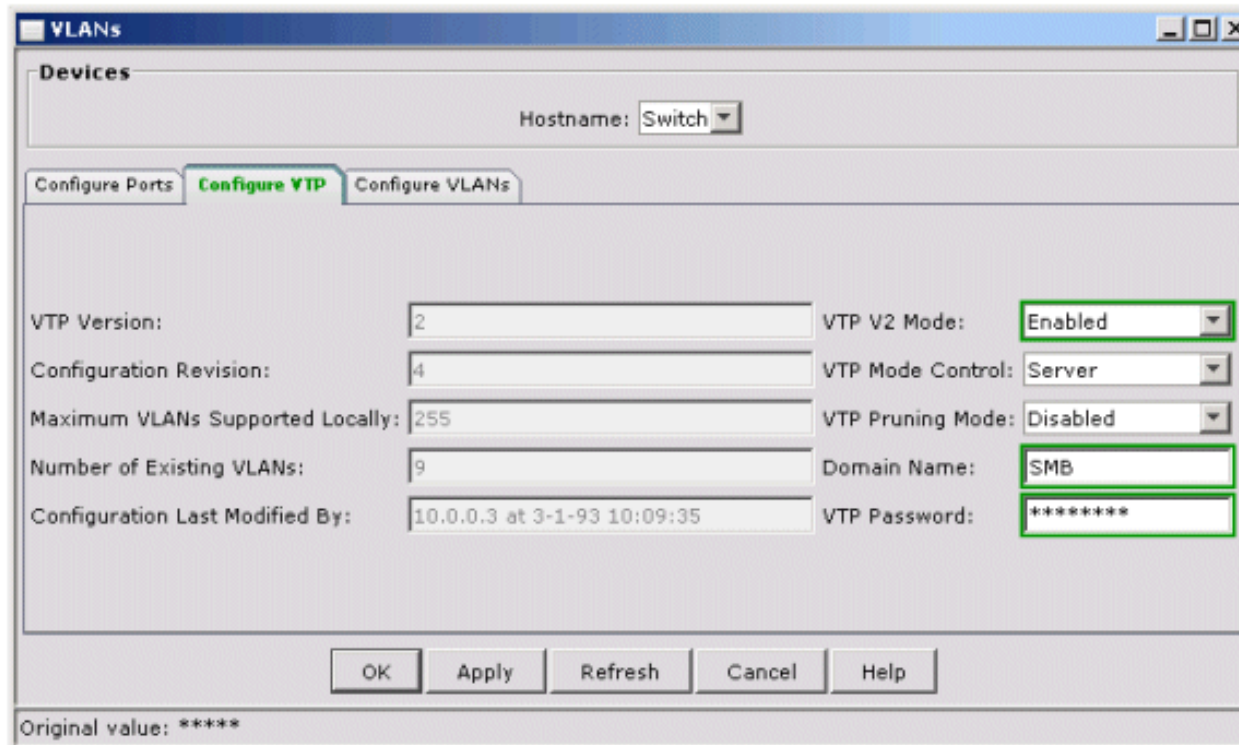
1. On the Features tab, click **Configure > Switching > VLANs**.



2. In the VLANs window, click the **Configure VTP** tab.
3. Enter the VTP information for the new VLANs:
  - For V2 VTP Mode, select **Enabled**.
  - For VTP Mode Control, select **Server**.

- For VTP Pruning Mode, select **Disabled**.
- For Domain Name, type **SMB**.
- For VTP Password, type the enable password of the router that you entered in field B12 on the Router worksheet.

To save the VTP information, click **Apply**, and then click **OK**.



The screenshot shows the 'VLANs' configuration window for a device named 'Switch'. The 'Configure VTP' tab is active. The following settings are visible:

Field	Value
VTP Version	2
Configuration Revision	4
Maximum VLANs Supported Locally	255
Number of Existing VLANs	9
Configuration Last Modified By	10.0.0.3 at 3-1-93 10:09:35
VTP V2 Mode	Enabled
VTP Mode Control	Server
VTP Pruning Mode	Disabled
Domain Name	SMB
VTP Password	*****

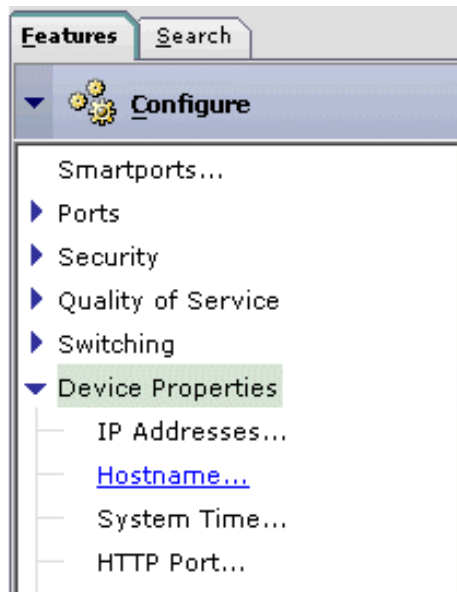
Buttons at the bottom: OK, Apply, Refresh, Cancel, Help.

Original value: \*\*\*\*\*

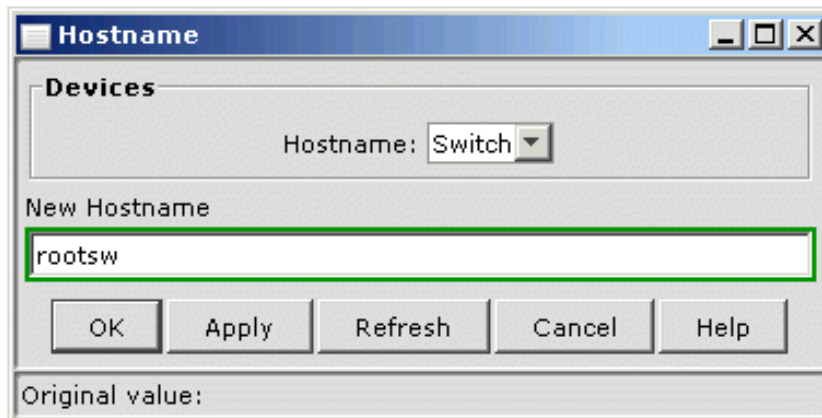
### Configure the Host Name

The host name identifies the switch. Follow these steps to configure or change the host name on the switch:

1. On the Features tab, click **Configure > Device Properties > Hostname**.



2. Type **rootsw** in the New Hostname field. Click **Apply**, then click **OK**.



### Configure Passwords

Follow these steps to create or change passwords on the switch:

**Note:** Refer to [Password Security](#) for guidelines on how to create secure passwords.

1. On the Features tab, click **Configure > Device Properties > Users and Passwords**.



2. In the Users and Passwords window, click the **Local Username/Password** tab.
3. Click **Create**.
4. Enter the administrative user name and password information:
  - In the Username field, enter **admin**.
  - In the password fields, enter the password, and then enter the password again to confirm. Use the admin password that you entered in field S5 of the Switch Port Assignments worksheet.
  - Use the Privilege Level drop-down list to set the access level to **15**. This level has read-write access; all user levels under 15 have read-only access.

Click **OK**.

Create Local Username/Password

Username: admin

Password: \*\*\*\*\*

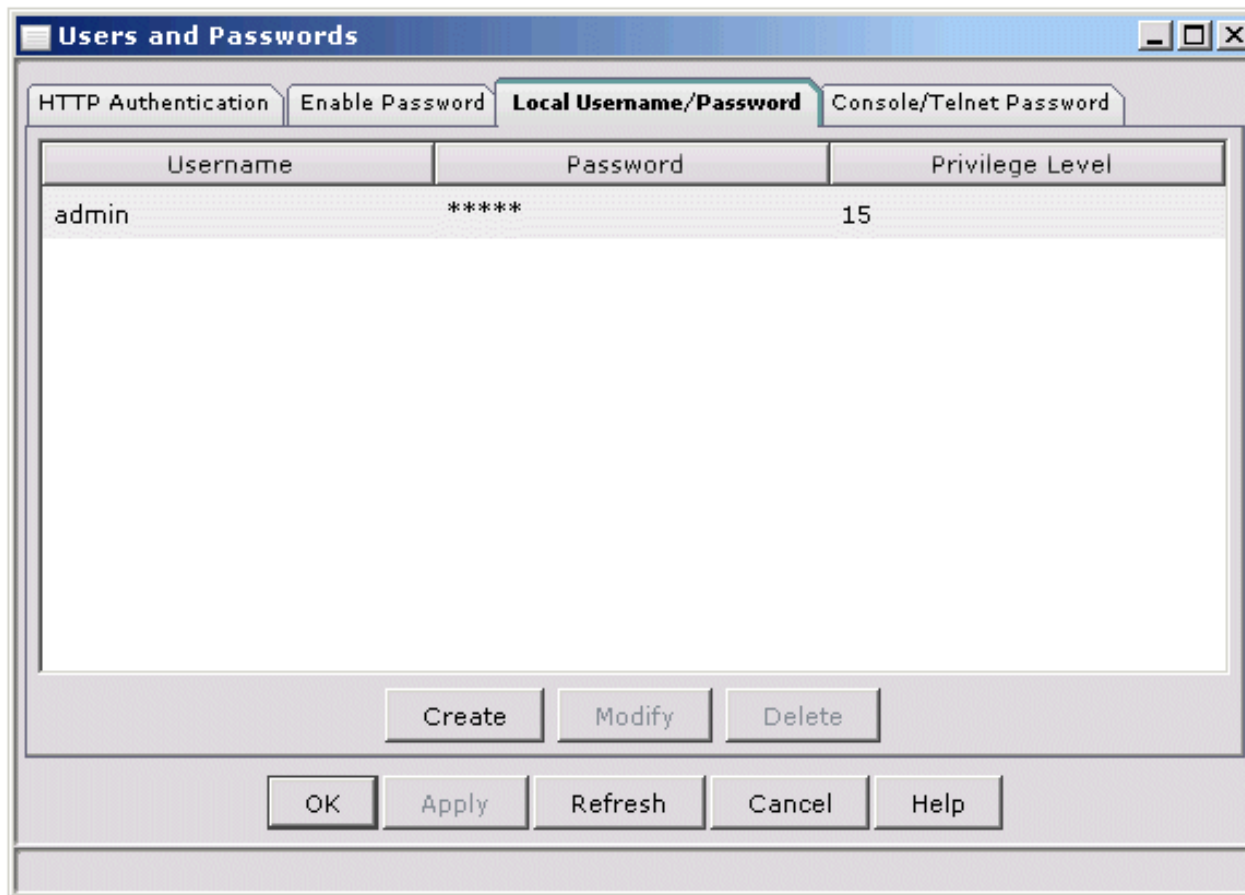
Confirm Password: \*\*\*\*\*

Privilege Level: 15

OK Cancel Help

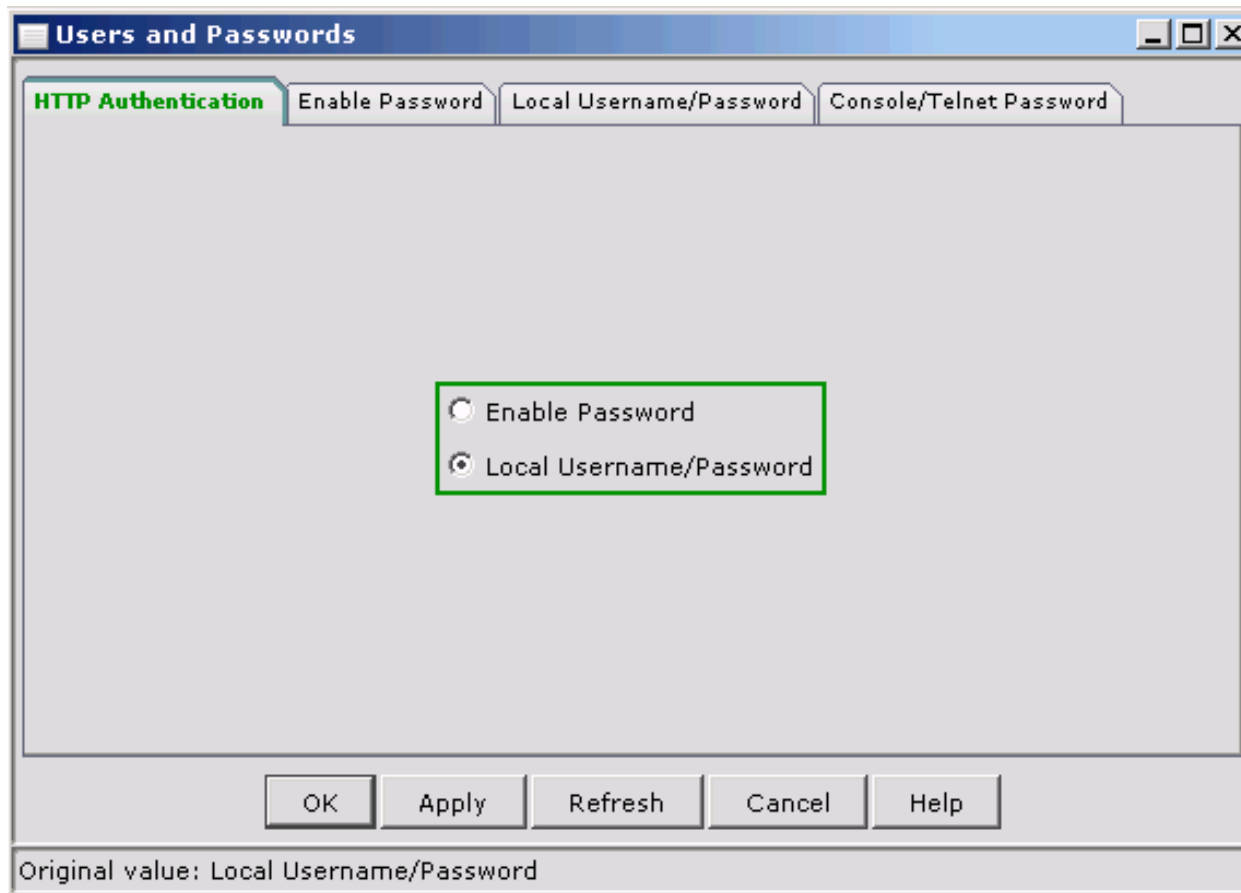
Original value:

5. Click **Apply**. The user information appears in the Username list.



6. In the same window, click the **HTTP Authentication** tab.
7. Click the **Local Username/Password** radio button, and then click **Apply**.

**Note:** When you receive an alert message that you have changed your authentication values, click **Yes** to continue. You do not need to relaunch CNA.



8. Click the **Enable Password** tab.

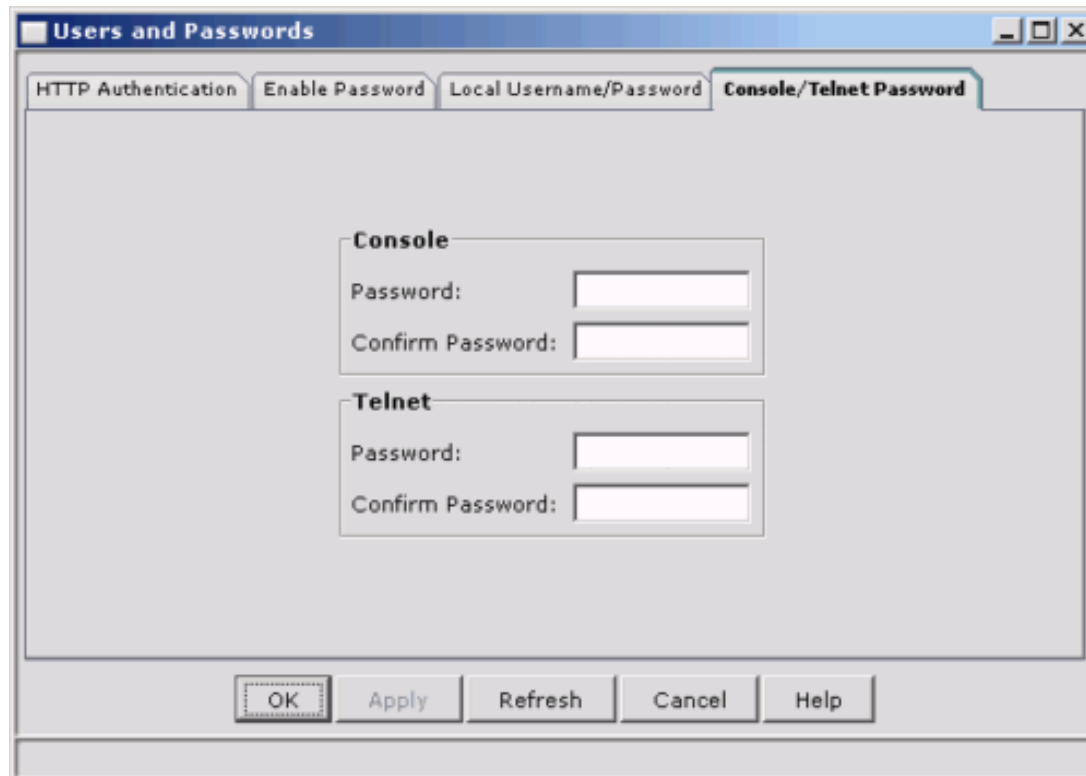
The screenshot shows the 'Users and Passwords' configuration window. The 'Enable Password' tab is selected. The main area is a table with two columns: 'Privilege Level' and 'Password'. The table is currently empty. Below the table are three buttons: 'Create', 'Modify', and 'Delete'. At the bottom of the window are five buttons: 'OK', 'Apply', 'Refresh', 'Cancel', and 'Help'. A status bar at the very bottom shows 'Original value: Local Username/Password'.

9. Click **Create**.
10. Choose privilege level 15. In the password fields, enter the enable password, and then enter the password again to confirm. Click **OK**. Use the enable password that you entered in field S5 of the Switch Port Assignments worksheet.



The image shows a dialog box titled "Create Enable Password". It has a title bar with a menu icon, a minimize button, a maximize button, and a close button. The main area contains three labels: "Privilege Level:" with a dropdown menu showing "15", "Password:" with a text box containing "\*\*\*\*\*", and "Confirm Password:" with a text box containing "\*\*\*\*\*". The "Password:" and "Confirm Password:" text boxes are highlighted with a green border. At the bottom, there are three buttons: "OK", "Cancel", and "Help". Below the dialog box, there is a label "Original value:" followed by a text box.

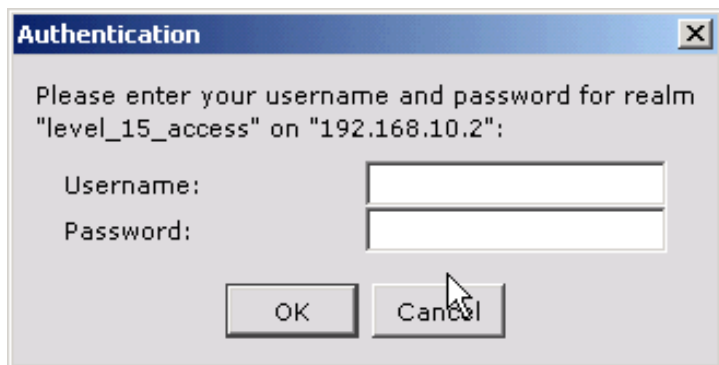
11. Click the **Console/Telnet Password** tab.
12. Under Console and Telnet, type the admin password that you entered in field S5 of the Switch Port Assignments worksheet.



The image shows a dialog box titled "Users and Passwords". It has a title bar with a menu icon, a minimize button, a maximize button, and a close button. Below the title bar, there are four tabs: "HTTP Authentication", "Enable Password", "Local Username/Password", and "Console/Telnet Password". The "Console/Telnet Password" tab is selected. The main area contains two sections: "Console" and "Telnet". Each section has a "Password:" label and a text box, and a "Confirm Password:" label and a text box. At the bottom, there are five buttons: "OK", "Apply", "Refresh", "Cancel", and "Help".

13. Click **Apply** in the Users and Passwords window. When you receive an alert message that you have changed your authentication values, click **Yes** to continue. Then click **OK**.
14. After you change the system passwords, CNA may prompt you to log in again. If the Network Authentication window appears, log in to CNA with the admin username and password that you entered in fields S5 of the Switch Port Assignments worksheet. Click **OK**.

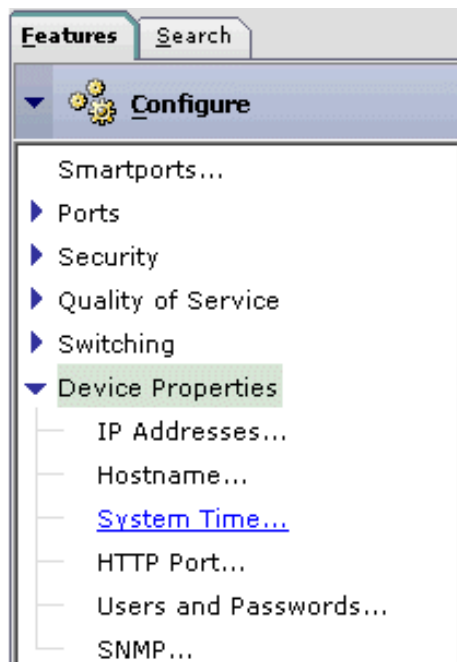
**Note:** The login prompt may not appear until you perform another action in CNA.



### Set the System Time

Follow these steps to configure the clock time zone and the Network Time Protocol (NTP) server:

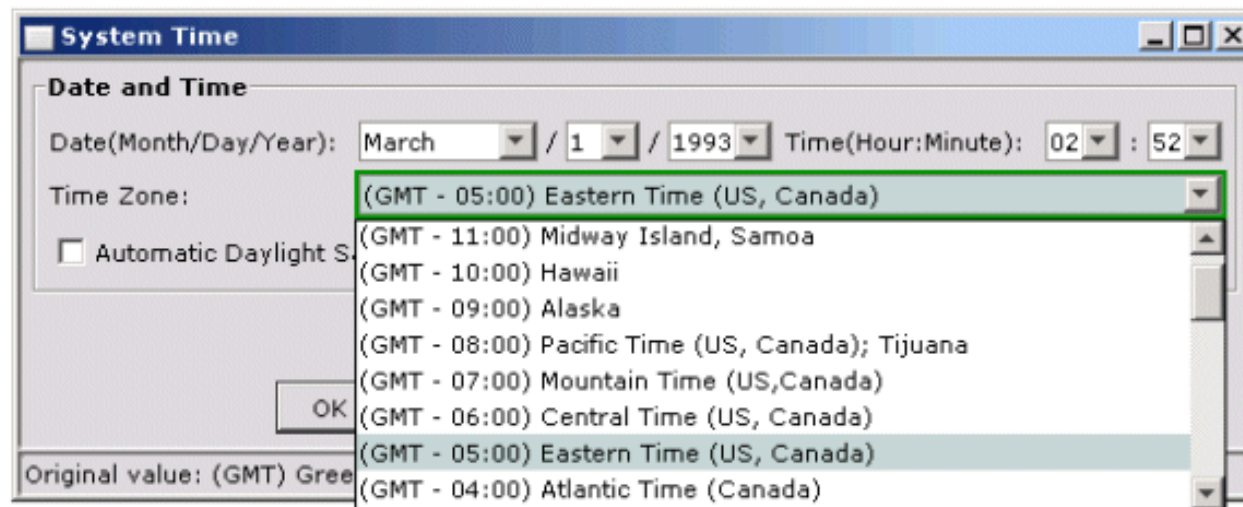
1. On the Features tab, click **Configure > Device Properties > System Time**.



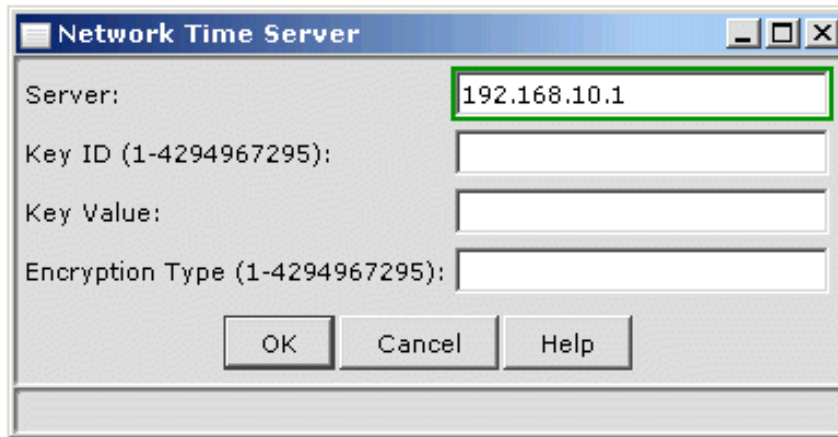
**Note:** If CNA prompts you to log in again, use the admin username and password that you entered in fields S5 of the Switch Port Assignments worksheet and click **OK**.

2. In the System Time window, use the Time Zone drop-down list to select the time zone for your location that you entered in field B13 in the Router worksheet. Select the **Automatic Daylight Savings Adjustment** option. Then click **Advanced**.

**Note:** You do not need to manually enter the current time because the switch uses the router as a time server.



3. In the Server field, enter the IP address of the router that you entered in field L6A of the LAN Addressing Worksheet, and click **OK**.

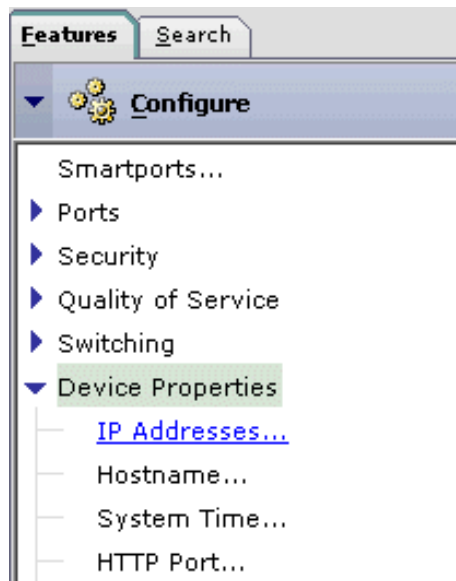


4. In the System Time window, click **Apply**, then click **OK**.

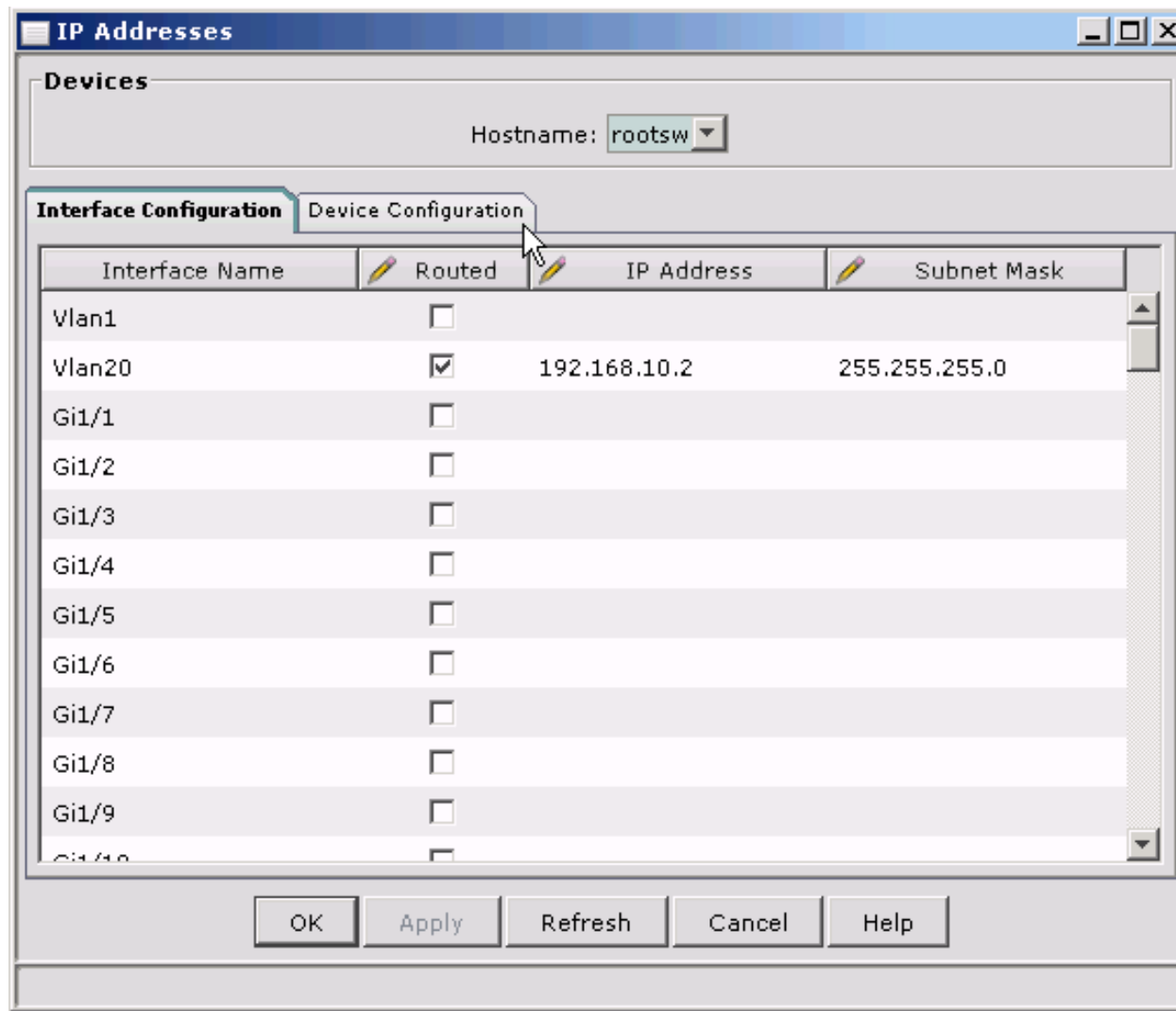
### Configure a Default Gateway

Follow these steps to configure a default gateway on the switch:

1. On the Features tab, click **Configure > Device Properties > IP Addresses**.



2. Click the **Device Configuration** tab.



3. Enter the default gateway information for the switch.

- In the Default Gateway field, enter the IP address for the router that you entered in field L6A of the LAN Addressing Worksheet.
- In the Domain Name field, enter the domain name for the device that you entered in field B48 of Internet Worksheet.
- Uncheck the **Enable Domain Lookup** check box.

Click **Apply**, then click **OK**.

**IP Addresses**

**Devices**

Hostname: rootsw

Interface Configuration **Device Configuration**

Default Gateway: 192.168.10.1

Domain Name: SMB

Enable Domain Lookup:

**DNS Information**

**New Server**

Add

Remove

**Current Servers**

255.255.255.255

Select All

OK Apply Refresh Cancel Help

Original value: Checked

### Configure Port Assignments

Follow these steps to configure switch ports with Smartports. Smartports is a feature that helps you apply consistent configurations to ports based on roles that you assign to each port. CNA then applies appropriate port settings for the connection type.

1. On the Features tab, click **Configure > Smartports**. A window displays with a graphic illustration of the switch.

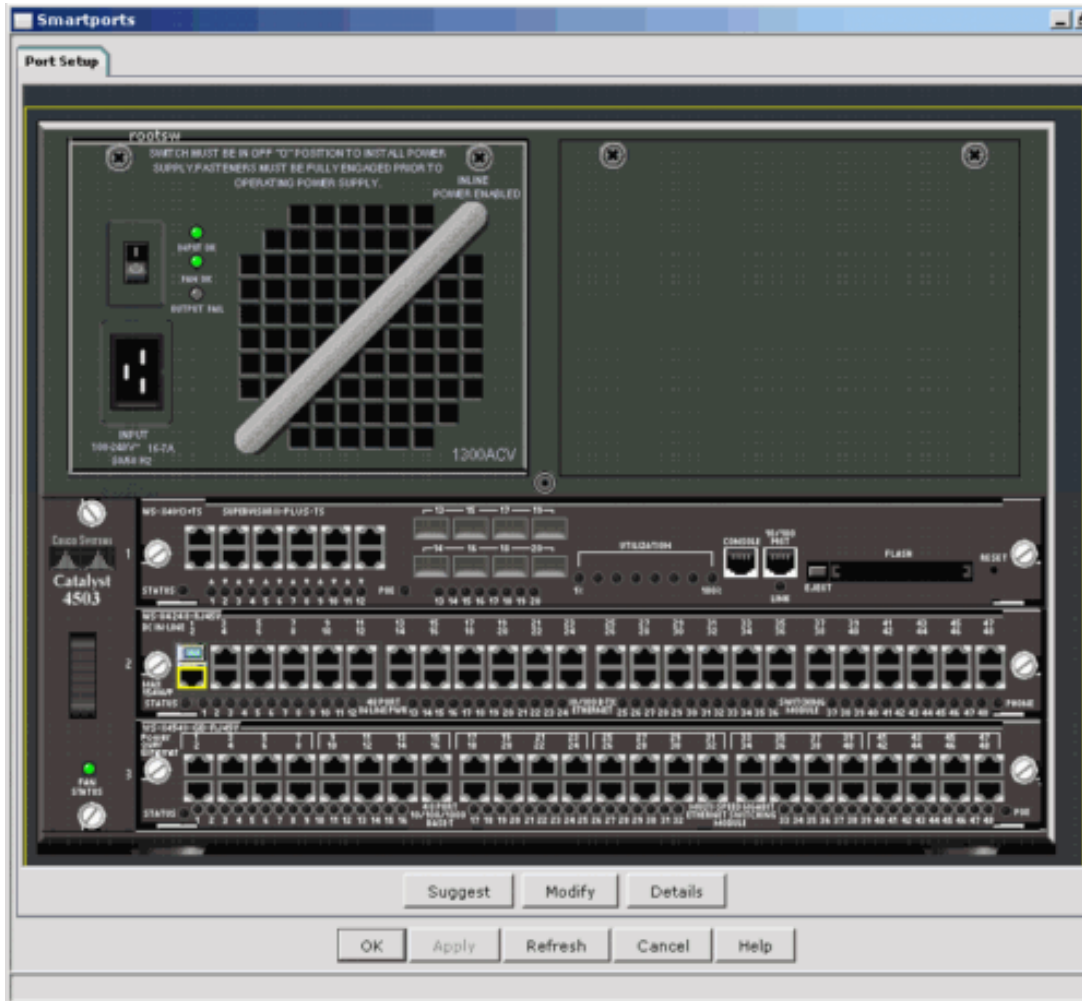


2. Follow these steps to update the settings for the Fastethernet port 2/2:

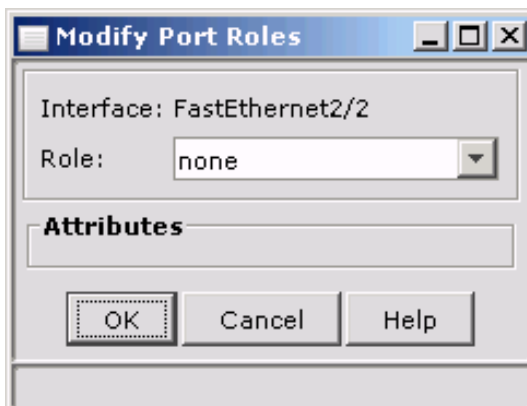
**Note:** This section gives instructions on how to configure Smartports on ports 2/2 through 2/48. If your switch does not have a switch module installed in slot 2, use the slot and port numbers available on your switch, starting with the second available Ethernet port.

- a. Click on port 2 so that it is selected yellow. Click **Modify**.

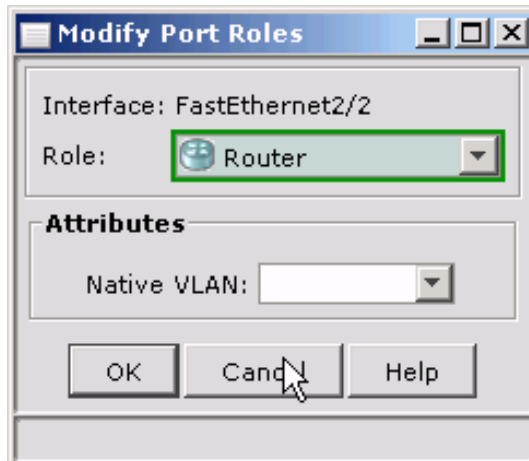
**Note:** You may need to expand the Smartports window to view all ports on the switch.



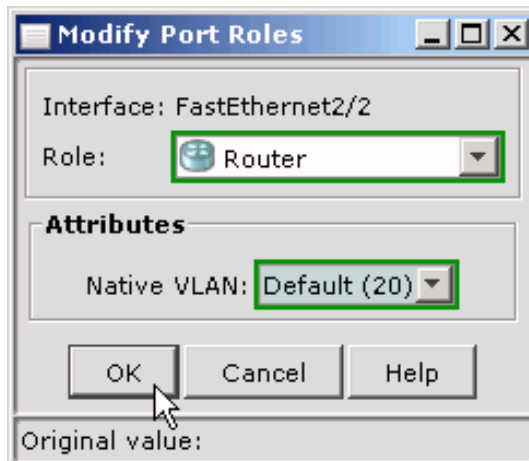
b. For Port role, choose **Router**.



- c. For VLAN, choose **Default (20)**.



- d. Click **OK**.



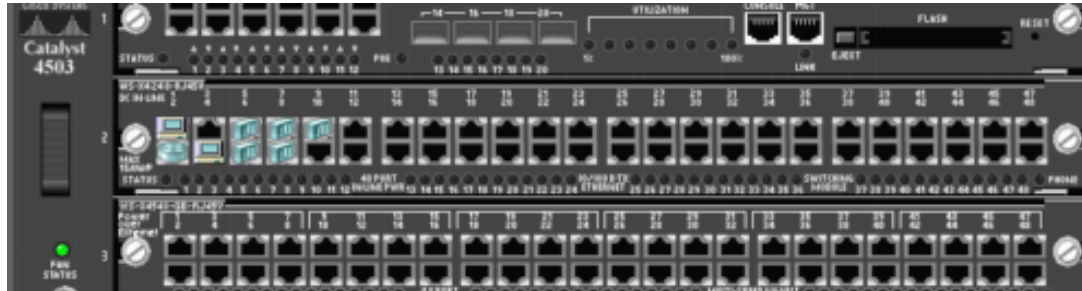
**Note:** When you receive a warning message that you are about to change a port role, click **Yes** to continue.

3. Configure ports 3 through 9 with these assignments:

- Port 3 is reserved for future use- no changes to the Smarport settings are required.
- For port 4 (for use by PIX internal), set the port role to **Desktop** and Access VLAN to **Default (20)**.
- For port 5 (for use by a wireless access point) and ports 6 through 9 (for use by switches), set the port role to **Switch** and VLAN to **Default (20)**. To configure these ports at one time, press **Ctrl** on your keyboard while you click each port in the CNA window.

**Note:** When you receive a warning message that you are about to change a port role, click **Yes** to continue.

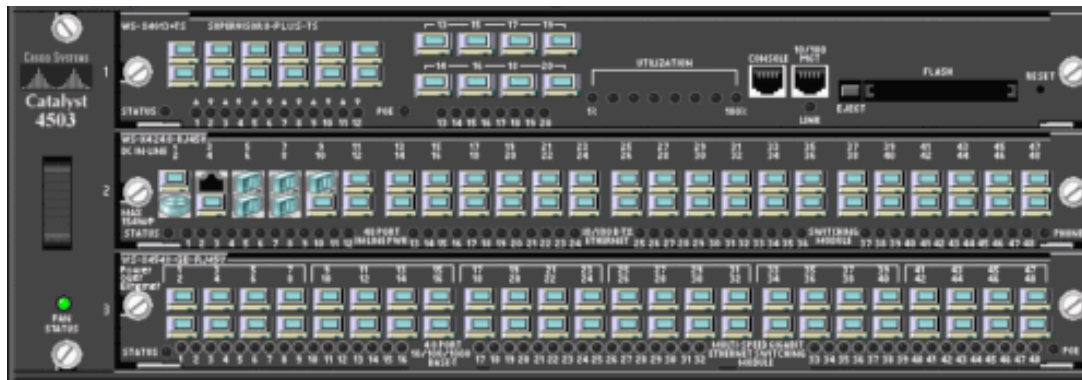
Click **OK**. When you receive a warning message that modified ports will be set to factory default, click **Yes** to continue.



4. Select the remaining ports on the switch except for port 3, and configure them to use the port role **Desktop** and the VLAN **Default (20)**.



**Caution:** This operation may take up to 2 minutes to complete.



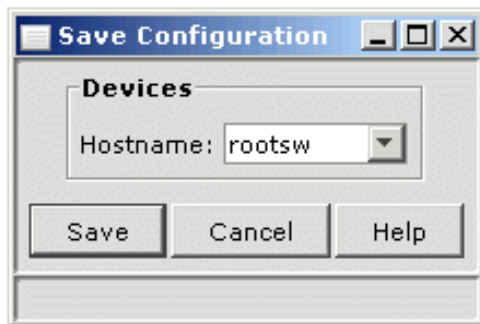
5. In the Port Setup window, click **Apply**, then click **OK**.

### Save Your Configuration

Follow these steps to save your configuration.

**Note:** When you save your configuration, CNA disconnects from the switch.

1. On the Features tab, click **Configure > Save Configuration**.
2. In the Save Configuration window, use the Hostname drop-down list to select **rootsw**.



3. Click **Save**.
4. Click **Application > Exit** to close the CNA application. Click **Yes** to confirm.

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## Connect the Switch to Your Network

Identify the type of cable needed to connect each network device to the switch. For more information about cables, refer to [Cable Descriptions](#).

- To connect your switch to a server, workstation, or router, use a straight-through Ethernet cable.
- To connect your switch to a repeater or another switch, use a crossover Ethernet cable.

Connect devices to the switch according to the Switch Port Assignments Worksheet. The general assignments are shown in this table.

Port	Device
Port 1	Management Workstation
Port 2	Router
Port 3	Reserved for future use
Port 4	PIX

Port 5	Access Point
Ports 6 through 9	Additional switches
Remaining ports	Additional devices

Follow these steps to connect devices to your switch:

1. Connect one end of an Ethernet cable to a port on your switch.
2. Insert the other end of the Ethernet cable into a port on the target device (server, workstation, router, switch, etc.).
3. Wait for approximately 30 seconds, and then verify that the port status LED on the switch turns green. If the LED is off and does not turn green, see [Troubleshoot the Procedure](#) for help.

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## Next Step

You have completed configuration of your Catalyst 4000 series switch.

If want to add additional switches, refer to [Add a New Ethernet Switch](#).

To make other changes to your switch, refer to the [Switch Support Page](#).

To configure other devices in your network, refer to the [Configuration Overview Page](#).

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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)
<p>You connected a PC directly to the switch, but you are unable to establish a connection with CNA.</p>	<ul style="list-style-type: none"> <li>• After you connect the switch to the PC, you must wait 30 seconds before you can try to connect. Wait 30 seconds, and then try to connect again.</li> <li>• Verify the IP Address on your PC matches the IP address of the root switch. If the root switch is 192.168.10.2, the PC should use 192.168.10.50 and subnet mask 255.255.255.0.</li> <li>• Ensure that you typed the correct IP address in the Connect window. Retype <b>192.168.10.2</b>, and then click <b>Connect</b>.</li> <li>• Ensure that you used the proper cable. You must use a straight-through cable, not a crossover cable. Refer to <a href="#">Cable Descriptions</a> for more information.</li> </ul>
<p>You connected the switch to your network, but you are unable to establish a remote connection with CNA.</p>	<ul style="list-style-type: none"> <li>• Ensure that you typed the correct IP address in the Connect window. Retype the IP address that you assigned to the switch, and then click <b>Connect</b>.</li> <li>• Ensure that you used the proper cable. To connect your switch to a server, workstation, or router, use a straight-through Ethernet cable. To connect your switch to a repeater or another switch, use a crossover Ethernet cable. Refer to <a href="#">Cable Descriptions</a> for more information.</li> <li>• Ensure that the switch is connected to a subnet that matches the IP address you assigned.</li> </ul>
<p>You connected the switch to another device on your network, but the port status LED is off.</p>	<ul style="list-style-type: none"> <li>• Ensure that the target device is powered on.</li> <li>• Ensure that you have used the correct cable to connect to the target device. Refer to <a href="#">Cable Descriptions</a> for more information.</li> <li>• Ensure that the port adapter on the target device is operating properly.</li> <li>• Ensure that the port you are connected to has an assigned port role. To view port settings in CNA, click <b>Configure &gt; Smartports</b>.</li> </ul>

- Contact the [SMB Technical Assistance Center \(SMB TAC\)](#) for assistance.

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## Related Information

- [Site Survey](#)
- [Download and Install Cisco Network Assistant](#)
- [Hardware Setup Procedure for the Catalyst Switch](#)
- [Add a New Ethernet Switch](#)
- [Configure an IP Address on Your PC](#)
- [Cable Descriptions](#)
- [Password Security](#)