

Configuring Network Settings on the Cisco Unified IP Phone

The Cisco Unified IP Phone includes many configurable network and device settings that you may need to modify before the phone is functional for your users.

The following sections provide details about configuring and verifying these network settings:

- Configuration Methods, page 4-2
- Accessing Network Settings through a Phone Configuration Web Page, page 4-2
- Accessing Network Configuration Settings through the Network Configuration Menu, page 4-4
- Verifying Network Settings, page 4-7
- Modifying DHCP Settings, page 4-13
- Configuring IP Settings, page 4-17
- Modifying VLAN Settings, page 4-26
- Configuring TFTP Options, page 4-29
- Configuring CDP, page 4-32

Configuration Methods

Table 4-1 describes the methods that you can use to configure network settings for a Cisco Unified IP Phone.

Table 4-1 Methods for Configuring Network Settings

Cisco Unified IP Phone	Configuration Methods
7905G and 7912G	• Use the Phone Configuration web page
	• Use the phone Network Configuration menu

This chapter describes how to use the Phone Configuration web page and the Network Configuration menu to configure most network settings for the Cisco Unified IP Phone. For more information about using the Phone Configuration web page for configuration, see Appendix A, "Additional Configuration Methods and Parameters." For information about using the IVR system for configuration, see Appendix A, "Additional Configuration Methods and Parameters."

Related Topics

- Accessing Network Settings through a Phone Configuration Web Page, page 4-2
- Accessing Network Configuration Settings through the Network Configuration Menu, page 4-4

Accessing Network Settings through a Phone Configuration Web Page

You can view and set network configuration options for a Cisco Unified IP Phone 7905G and 7912G from the Phone Configuration web page for that phone. To set options in this web page, you must first use the UIPassword parameter in the phone profile file to set up a password. If you do not set up a password, you will not be able to change network settings, and **Apply** will not be available.

For more information about the UIPassword parameter, see Table A-8 on page A-23.



The Phone Configuration web page described in this chapter differs from the User Options web pages, which gives users control over various phone options and features, and the Cisco Unified CallManager Administration Phone Configuration pages, which let you configure many phone functions and features. For more information about the User Options web pages, refer to the *Customizing Your Cisco Unified IP Phone on the Web*. For more information about the Cisco Unified CallManager Administration Phone Configuration pages, refer to the Cisco Unified CallManager documentation.

To access the Phone Configuration web page for a phone, follow these steps:

Procedure

Step 1 Open a web browser and enter the following URL, where *IPaddress* is the IP address of your phone:

http://IPaddress

On the Cisco Unified IP Phone 7905G and 7912G, you can determine the IP address by pressing the **Menu** button, choosing **Settings > Network Configuration**, and then scrolling to IP Address.

For example, the Phone Configuration web page for a Cisco Unified IP Phone with the IP address 192.168.3.225 is http://192.168.3.225

Step 2 Press Enter.

The Phone Configuration web page appears.



You can control whether users can access the web pages for a phone. For more information, see the "Disabling Web Page Access" section on page A-8.

Accessing Network Configuration Settings through the Network Configuration Menu

Accessing Network Configuration Settings through the Network Configuration Menu

You can view and set most network configuration options for the Cisco Unified IP Phone 7905G and 7912G using the Network Configuration menu on the phone.



You can control whether a Cisco Unified IP Phone 7905G or 7912G has access to the Settings menu by using the Settings Access field in the Cisco Unified CallManager Administration Phone Configuration page. For more information, refer to *Cisco Unified CallManager Administration Guide*.

For a description of the options that appear on the Network Configuration menu, see Table 4-2.

This section includes the following topics:

- Displaying the Network Configuration Menu, page 4-4
- Unlocking and Locking Options on the Network Configuration Menu, page 4-5
- Guidelines for Editing Settings in the Network Configuration Menu, page 4-6
- Verifying Network Settings, page 4-7

Displaying the Network Configuration Menu

To display the Network Configuration menu on a Cisco Unified IP Phone 7905G or 7912G, follow these steps:

- **Step 1** Press the **Menu** button.
- **Step 2** Choose **Settings > Network Configuration**.

To exit the Network Configuration menu, take one of these actions:

- Press the **Cancel** softkey to return to the Settings menu.
- Press the **Menu** button to return to the main screen.

Related Topics

- Unlocking and Locking Options on the Network Configuration Menu, page 4-5
- Guidelines for Editing Settings in the Network Configuration Menu, page 4-6

Unlocking and Locking Options on the Network Configuration Menu

Configuration options in the Network Configuration menu are locked by default to prevent users from making changes that could affect the operation of a phone. You must unlock these options before you can change them.

When options are inaccessible for modification, a *locked* padlock icon appears on the Network Configuration screen. When options are unlocked and accessible for modification, an *unlocked* padlock icon \bigcirc appears on this menu.

If a password has been specified for the phone, you must enter the password when unlocking network configuration options. (For more information about passwords, see Appendix A, "Additional Configuration Methods and Parameters.")

To unlock network settings on the Cisco Unified IP Phone 7905G and 7912G, follow these steps. Network settings are locked again automatically when you return to the main screen.

Procedure

Step 1 Press the **Menu** button.

- **Step 2** Choose **Settings > Network Configuration**.
- **Step 3** From the Network Configuration menu, press **#.
- **Step 4** If the phone displays "Enter Admin Password," enter your password and then press the **Enter** softkey.

Accessing Network Configuration Settings through the Network Configuration Menu

For information about entering a password, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.

Step 5 Look at the icon in the upper-right portion of the phone screen.When options are locked, the icon appears as a locked padlock .When options are unlocked, the icon appears as an unlocked padlock .

Related Topics

- Displaying the Network Configuration Menu, page 4-4
- Guidelines for Editing Settings in the Network Configuration Menu, page 4-6

Guidelines for Editing Settings in the Network Configuration Menu

When you edit the value of an option on the Network Configuration menu, follow these guidelines:

- Use the keys on the telephone keypad to enter numbers and letters.
- To enter letters using the keypad, use a corresponding number key. Press the key one or more times to display a particular letter. For example, press the 2 key once for "a," twice quickly for "b," and three times quickly for "c." After you pause, the cursor automatically advances to allow you to enter the next letter.
- If an option can accept either numbers or letters, the **Number** or **Alpha** softkey will appear. Press the **Number** softkey to enter numbers. Press the **Alpha** softkey to enter letters.
- To enter a period (for example, in an IP address), press the . (period) softkey.
- To correct a mistake, press the << softkey to delete the character to the left of the cursor.
- Press the **Cancel** softkey before pressing the **Validat.** softkey or the **Save** softkey to discard any changes you have made.

Related Topics

• Displaying the Network Configuration Menu, page 4-4

• Unlocking and Locking Options on the Network Configuration Menu, page 4-5

Verifying Network Settings

On Cisco Unified IP Phone 7905G and 7912G, you can view detailed information about the current network settings of the phone. Use this information to troubleshoot or to make modifications.

To display current network settings for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

tep 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
tep 2	In the pane on the left:
	a. Select Network Configuration to review network configuration information.
	b. Select Network Statistics to view network statistics.

Using the Phone Network Configuration Screen

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Scroll through the options to display the settings described in Table 4-2.

Table 4-2	Network Settings
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Network Setting	Description	Usage Notes
DHCP Server	Displays IP address of the Dynamic Host Configuration Protocol (DHCP) server that the phone uses to obtain IP address.	See the "Modifying DHCP Settings" section on page 4-13.
BootP Server	Indicates whether the phone obtains its configuration from a Bootstrap Protocol (BootP) server rather than a DHCP server.	Always displays No . Cannot be configured.
MAC Address	Identifies the unique Media Access Control (MAC) address of the phone.	Cannot configure.
Host Name	Identifies the unique host name assigned to the phone.	Obtained from the DHCP server.
Domain Name	Identifies the name of the Domain Name System (DNS) domain in which the phone resides.	See the "Assigning a Domain Name" section on page 4-22.
IP Address	Indicates the Internet Protocol (IP) address of the phone.	See the "Assigning an IP Address" section on page 4-18.
Subnet Mask	Indicates the subnet mask used by the phone.	See the "Assigning a Subnet Mask" section on page 4-21.
TFTP Server 1-2	TFTP Server 1 indicates the primary Trivial File Transfer Protocol (TFTP) server used by the phone to obtain configuration files.	See the "Assigning a TFTP Sever" section on page 4-29.
	TFTP Server 2 displays the IP address of the backup TFTP server, which is used to obtain configuration files and software upgrades if the primary TFTP server is unavailable.	
Default Router 1	Identifies the default gateway used by the phone.	See the "Assigning a Default Router" section on page 4-19.
DNS Servers 1-2	Indicates the Domain Name System (DNS) server used by the phone to resolve the host name of the TFTP server, Cisco Unified CallManager system and web server host names.	See the "Assigning DNS Servers" section on page 4-24.

Network Setting	Description	Usage Notes
Operational VLAN Id	Indicates the auxiliary Virtual Local Area Network (VLAN) configured on a Cisco Catalyst switch in which the phone is a member.	Obtained via Cisco Discovery Protocol (CDP) from the switch to which the
	If the Admin. VLAN Id option is configured, the Operational VLAN Id displays the administrative VLAN.	phone is attached.
	If neither the auxiliary VLAN nor the Administrative VLAN are configured, then the Operational VLAN field is blank.	
Admin. VLAN Id	Indicates the administrative VLAN in which the phone is a member.	See the "Configuring VLAN Settings" section on page 4-26.
VLAN Enabled	Indicates whether VLAN is enabled for the phone.	Displays Yes or No.
		See the "Disabling VLAN" section on page 4-27.
CDP Enabled	Indicates whether Cisco Discovery Protocol	Displays Yes or No.
	(CDP) is enabled for the phone. CDP allows the phone to be discovered by the CiscoWorks2000 network management system.	For more information about CiscoWorks2000, refer to the documentation available at this URL:
		http://www.cisco.com/ univercd/cc/td/doc/product/ rtrmgmt/cw2000/index.htm
		See the "Configuring CDP" section on page 4-32.

 Table 4-2
 Network Settings (continued)

Network Setting	Description	Usage Notes
CallManager 1-4	 Cisco Unified CallManager servers that are available for processing calls from this phone, in prioritized order. For an available server, an option will show the Cisco Unified CallManager server IP address and one of the following states: Active—the Cisco Unified CallManager server from which the phone is currently 	Use Cisco Unified CallManager Administration to modify. Configure the SRST router address in the Device Pool section in Cisco Unified CallManager
	 Standby—the Cisco Unified CallManager server to which the phone switches if the current server goes down. 	Administration.
	Blank—no TCP connection to this Cisco Unified CallManager server.	
	An option may also include the SRST designation, which indicates a Survivable Remote Site Telephony router capable of providing Cisco Unified CallManager functionality with a limited feature set. This router assumes control of call processing if all other Cisco Unified CallManager servers become unreachable. The SRST Cisco Unified CallManager always appears last in the list of servers, even if it is active.	
Directories URL	URL of the server from which the phone obtains directory information.	Use Cisco Unified CallManager to modify.
Services URL	URL of the server from which the phone obtains Cisco Unified IP Phone services.	Use Cisco Unified CallManager to modify.
Authentication URL	URL that the phone uses to validate requests made to the phone web server.	Use Cisco Unified CallManager to modify.
DHCP Enabled	Indicates whether DHCP is being used by the phone.	See the "Modifying DHCP Settings" section on page 4-13.

 Table 4-2
 Network Settings (continued)

Network Setting	Description	Usage Notes
DHCP Address Released	Allows the IP-address assigned by DHCP to be released.	See the "Releasing a DHCP Address" section on page 4-16.
Alternate TFTP	Indicates whether the phone is using an alternative TFTP server.	See the "Enabling an Alternate TFTP Server" section on page 4-30.
Alternate DNS	Indicates whether the phone is using an alternative DNS.	See the "Assigning DNS Servers" section on page 4-24.
Alternate Domain	Indicates whether the phone is using an alternative domain name.	See the "Assigning a Domain Name" section on page 4-22.
Erase Configuration	On the Cisco Unified IP Phone 7905G and 7912G, sets all configuration values except ringer sound to their factory defaults.	See the "Erasing the Local Configuration" section on page 7-17.
User Locale	User locale associated with the phone user. The user locale identifies a set of detailed information to support users, including language, font, date and time formatting, and alphanumeric keyboard text information.	Use Cisco Unified CallManager Administration to modify.
User Locale Version	Version of the user locale loaded on the phone.	Display only—cannot configure.
Network Locale	Network locale associated with the phone user. The network locale identifies a set of detailed information that supports the phone in a specific location, including definitions of the tones and cadences used by the phone.	Use Cisco Unified CallManager Administration to modify.
Network Locale Version	Version of the network locale loaded on the phone.	Display only—cannot configure.

Table 4-2 Network Settings (continued)

Network Setting	Description	Usage Notes
GARP Enabled	Indicates whether the phone learns MAC addresses from Gratuitous ARP responses. Disabling the ability to accept Gratuitous ARP will prevent applications that use this mechanism to monitor and record voice streams from working. If voice monitoring is not desired, set this option to No (disabled).	Use Cisco Unified CallManager Administration to modify.
DSCP For Call Control	DSCP IP classification for call control signalling.	Use Cisco Unified CallManager to modify.
DSCP For Configuration	DSCP IP classification for any phone configuration transfer.	Use Cisco Unified CallManager to modify.
DSCP For Services	DSCP IP classification for phone-based services.	Use Cisco Unified CallManager to modify.
Handset Only Mode	Indicates whether the speaker is enabled (No) or disabled (Yes).	Use Cisco Unified CallManager to modify.
Web Access Enabled	Indicates whether the internal web server is enabled (Yes) or disabled (No) for the phone. When disabled, you cannot access web pages for the phone.	Use Cisco Unified CallManager to modify.

Table 4-2 Network Settings (continued)

Related Topics

- Verifying Network Settings, page 4-7
- Modifying DHCP Settings, page 4-13
- Configuring IP Settings, page 4-17
- Modifying VLAN Settings, page 4-26
- Configuring TFTP Options, page 4-29

Modifying DHCP Settings

Dynamic Host Configuration Protocol (DHCP) automatically assigns IP addresses to devices when you connect them to the network. This section provides information about enabling DHCP and releasing a DHCP-assigned IP address in the following topics:

- Enabling DHCP, page 4-13
- Disabling DHCP, page 4-15
- Releasing a DHCP Address, page 4-16

Enabling DHCP

Cisco Unified IP Phones enable DHCP by default, but you can reset the protocol if it becomes disabled.

To enable DHCP for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
Step 3	To enable DHCP, enter 1 in the DHCP field and click Apply .

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to DHCP Enabled.
	If DHCP is disabled, the option appears as
	DHCP Enabled NO
Step 4	Press the Yes softkey to enable DHCP.
Step 5	Press Save.

Related Topics

- Disabling DHCP, page 4-15
- Releasing a DHCP Address, page 4-16
- Configuring IP Settings, page 4-17

Disabling DHCP

If you do not use DHCP in your network, use this procedure to disable DHCP before manually assigning IP addresses to Cisco Unified IP Phones.

<u>Note</u>

Procedures involved in configuring IP settings or TFTP options cannot be completed when DHCP is enabled in your network.

To disable DHCP for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2 In the pane on the left under Change Configuration, click Network	
	You may be prompted to enter a password.
	The Network Parameters web page appears.
step 3	To disable DHCP, enter 0 in the DHCP field and click Apply.

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to DHCP Enabled.
	If DHCP is enabled, the option appears as
	DHCP Enabled YES
Step 4	Press the No softkey to disable DHCP.
Step 5	Press Save.

Related Topics

- Enabling DHCP, page 4-13
- Releasing a DHCP Address, page 4-16
- Configuring IP Settings, page 4-17

Releasing a DHCP Address

When moving the phone to a new network segment, you should first release the DHCP address. You cannot perform this procedure from the Phone Configuration web page. Instead, you must use the Network Configuration Screen (for the Cisco Unified IP Phone 7905G and 7912G).

To release the DHCP address for the Cisco Unified IP Phone, follow these steps:

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to DHCP Address Released.
	If the DHCP address is currently assigned, the option appears as
	DHCP Address Released NO
Step 4	Press the Yes softkey to release the DHCP-assigned IP address.
Step 5	Press Save.
	The phone remains in an idle state, without an IP address assigned, until you do one of the following actions:

- Manually assign an IP address.
- Set DHCP Address Released back to No.
- Power cycle the phone, which enables all default settings, including enabling DHCP.

Related Topics

- Enabling DHCP, page 4-13
- Disabling DHCP, page 4-15
- Configuring IP Settings, page 4-17

Configuring IP Settings

Use these guidelines when manually configuring the IP settings:

- You can use 0.0.0.0 for the subnet mask only if the default gateway is also 0.0.0.0.
- Ensure the TFTP server has an IP address.
- Ensure the default gateway IP address is on the same subnet as the host IP address.



Procedures involved in configuring IP settings or TFTP options cannot be completed when DHCP is enabled in your network.

This section covers the following topics:

- Assigning an IP Address, page 4-18
- Assigning a Default Router, page 4-19
- Assigning a Subnet Mask, page 4-21
- Assigning a Domain Name, page 4-22
- Assigning DNS Servers, page 4-24

Assigning an IP Address

The IP address is the unique logical address identifying each host computer, or node, on a TCP/IP network. An IP address is a 32-bit number expressed as four decimal numbers from 0 to 255 separated by periods.

Before you can assign an IP address, you must disable DHCP. For instructions, see the "Disabling DHCP" section on page 4-15.

To assign an IP address for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

Step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2	In the pane on the left under Change Configuration, click Network Parameters

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You may be prompted to enter a password.

The Network Parameters web page appears.

Step 3 To set the IP address, enter an address in the StaticIP field and click Apply.

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to IP Address.
Step 4	Press the Edit softkey.
Step 5	Enter the new IP address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
Step 6	Press Validat.
Step 7	Press Save.

Assigning a Default Router

If you manually assign an IP address to the Cisco Unified IP Phone, you must indicate the default router to be used. The default router provides connectivity to the IP network beyond the subnet to which the phone belongs.

Before you can assign a default router, you must disable DHCP. For instructions, see the "Disabling DHCP" section on page 4-15.

To assign a default router for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

Display the Phone Configuration web page.
For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
In the pane on the left under Change Configuration, click Network Parameters.
You may be prompted to enter a password.
The Network Parameters web page appears.
To set the route address, enter an address in the StaticRoute field and click Apply.

Using the Phone Network Configuration Screen

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to Default Router.
Step 4	Press the Edit softkey.
Step 5	Enter the new IP address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.

Step 6 Press Validat.

Step 7 Press Save.

Assigning a Subnet Mask

The subnet mask is used to partition the IP address into a network and a host identifier. The subnet mask is used to mask a portion of the IP address so that TCP/IP can distinguish the network ID from the host ID.

Before you can assign a subnet mask, you must disable DHCP. For instructions, see the "Disabling DHCP" section on page 4-15.

To assign a subnet mask for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
Step 3	To set the subnet mask, enter an address in the StaticNetMask field and click Apply .

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to Subnet Mask.
Step 4	Press the Edit softkey.
Step 5	Enter the new IP address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
Step 6	Press Validat.
Step 7	Press Save.

Assigning a Domain Name

The domain name is the name of the Domain Name System (DNS) domain in which the phone is located. DNS is a hierarchical name for TCP/IP host computers that provides standard naming conventions.

Before assigning a domain name, verify that you have a DNS in your network.

To assign a domain name for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

Step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
Step 3	To set the domain name, enter a domain name in the Domain field and click Apply .

Using the Phone Network Configuration Screen

Procedure

1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
3	Scroll to Alternate Domain.
4	If the option appears as
	Alternate Domain NO
	Press the Yes softkey.
5	Scroll to Domain Name.
	Press the Edit softkey.

Step 7 Enter the new domain name. For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6. Step 8 Press Validat. Step 9 Press Save.

Assigning DNS Servers

The DNS setting on the Cisco Unified IP Phone allows you to specify remote computers by host names, which are character strings with some mnemonic value, rather than by using IP addresses, which are simply strings of numbers.

The phones use DNS to resolve the host name of TFTP servers, Cisco Unified CallManager systems, and web server host names when the system is configured to use names rather than IP addresses.

To assign a DNS server for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

ep 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
ep 2	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
ep 3	To set the DNS servers:
	 a. To set DNS Server1, in the DNSServer1 field enter an address and click Apply.

b. To set DNS Server2, in the DNSServer2 field enter an address and click **Apply**.

Using the Phone Network Configuration Screen

Procedure

p 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
p 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
p 3	Scroll to Alternate DNS.
p 4	If the option appears as
	Alternate DNS NO
	Press the Yes softkey.
p 5	Scroll to DNS Server 1.
p 6	Press the Edit softkey.
p 7	Enter the new domain name.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
8 (Scroll to DNS Server 2 to add a backup DNS server.
9	Press Validat.
10	Press Save.

Modifying VLAN Settings

You can change the administrative VLAN used by the Cisco Unified IP Phone and, on the Cisco Unified IP Phone 7905G and 7912G, you can disable or enable VLAN manually.

This section covers the following topics:

- Configuring VLAN Settings, page 4-26
- Disabling VLAN, page 4-27

Configuring VLAN Settings

If you configure an administrative VLAN manually, that setting overrides the auxiliary VLAN configured on a Cisco Catalyst switch in which the phone is a member.

To assign an administrative VLAN for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
	In the VLANSetting field, enter a VLAN ID into bits 18–29 and click Apply.
	For more information about this field, see the VLANSetting parameter in Table A-5 on page A-16.

Using the Phone Network Configuration Screen

Procedure

Display the Network Configuration menu.
For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Unlock Network Configuration menu options.
For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Scroll to Admin. VLAN Id.
Press the Edit softkey.
Enter the new Admin VLAN setting.
For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
Press Validat.
Press Save.

Disabling VLAN

You can disable or enable VLAN manually. To change the VLAN setting for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

Step 1 Display the Phone Configuration web page.For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.

Step 2 In the pane on the left under Change Configuration, click Network Parameters. You may be prompted to enter a password. The Network Parameters web page appears.
Step 3 To enable VLAN, in the OpFlags field, change bit 5 to 0 (zero). To disable VLAN, in the OpFlags field, change bit 5 to 1. For more information about this field, see OpFlags parameter in Table A-5 on page A-16.
Step 4 Click Apply.

Using the Phone Network Configuration Screen

Display the Network Configuration menu.
For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Unlock Network Configuration menu options.
For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Scroll to VLAN Enabled.
If VLAN is enabled, the option appears as
VLAN Enabled YES
Press the No softkey to disable VLAN.
Press Save.

Configuring TFTP Options

If you do not use DHCP to direct the Cisco Unified IP Phone to a TFTP server, you must manually assign one. You can also assign an alternative TFTP server to use instead of the one assigned by DHCP.

This section covers these topics:

- Assigning a TFTP Sever, page 4-29
- Enabling an Alternate TFTP Server, page 4-30

Assigning a TFTP Sever

If you are not using DHCP in your network, and you want to change this setting, you must manually assign the TFTP server to the phone.

Before you can manually assign a TFTP server, you must enable an alternate TFTP server. For instructions, see the "Enabling an Alternate TFTP Server" section on page 4-30.

To assign a TFTP server for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Step 1	Display the Phone Configuration web page.
	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
Step 2	In the pane on the left under Change Configuration, click Network Parameters.
	You may be prompted to enter a password.
	The Network Parameters web page appears.
Step 3	To set the TFTP servers:
	a. To set TFTP Server1, in the TFTPServer1 field enter an address and click Apply .

b. To set TFTP Server2, in the TFTPServer2 field enter an address and click **Apply**.

Using the Phone Network Configuration Screen

Procedure

1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
3	Scroll to TFTP Server 1.
4	Press the Edit softkey.
5	Enter a new TFTP server address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
6	Press Validat.
7	Scroll to TFTP Server 2 to add a backup TFTP server.
8	Press Save.

Enabling an Alternate TFTP Server

If you are using DHCP, but you want to override the TFTP address that the phone received through DHCP, enable an alternate TFTP Server.

To assign an alternate TFTP server for the Cisco Unified IP Phone, follow these steps:

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to Alternate TFTP.
	If the phone is not using an alternative TFTP server, the option appears as
	Alternate TFTP NO
Step 4	Press the Yes softkey.
Step 5	Scroll to TFTP Server 1.
Step 6	Press the Edit softkey.
Step 7	Enter the new Alternative TFTP Server address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
Step 8	Press Validat.
Step 9	Scroll to TFTP Server 2 to add a backup TFTP server.
Step 10	Press Save.

Assigning a Backup TFTP Server

TFTP Server 2 displays the IP address of the backup TFTP server. This server is used to obtain configuration files and software upgrades if the primary TFTP server is unavailable.

Before you can assign a backup TFTP server, the **Alternate TFTP** setting must be set to **Yes**.

To assign a backup TFTP server, follow these steps:

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to TFTP Server 2 .
Step 4	Press the Edit softkey.
Step 5	Enter the new Alternative TFTP Server address.
	For information about entering values, see the "Guidelines for Editing Settings in the Network Configuration Menu" section on page 4-6.
Step 6	Press the Validat softkey.
Step 7	Press Save.

Configuring CDP

You can disable or enable Cisco Discovery Protocol (CDP). CDP allows the phone to be discovered by the CiscoWorks network management system.

For more information about CiscoWorks, refer to the documentation available at this URL:

http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/index.htm

To configure CDP for the Cisco Unified IP Phone, follow these steps:

Using the Phone Configuration Web Page

Procedure

Ι	Display the Phone Configuration web page.
F	For instructions, see the "Accessing Network Settings through a Phone Configuration Web Page" section on page 4-2.
I	n the pane on the left under Change Configuration, click Network Parameters.
Ŋ	You may be prompted to enter a password.
1	The Network Parameters web page appears.
I	n the OpFlags field,
i	a. To enable CDP, change bit 6 to a zero (0).
I	b. To disable CDP, change bit 6 to a 1.

Using the Phone Network Configuration Screen

Procedure

Step 1	Display the Network Configuration menu.
	For instructions, see the "Displaying the Network Configuration Menu" section on page 4-4.
Step 2	Unlock Network Configuration menu options.
	For instructions, see the "Unlocking and Locking Options on the Network Configuration Menu" section on page 4-5.
Step 3	Scroll to CDP Enabled.
	If CDP is enabled, the option appears as

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CDP Enabled Yes

- **Step 4** Press the **No** softkey to disable CDP.
- Step 5 Press Save.

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