

Using DHCP with the Cisco ICS7750

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Introduction

This document describes how to use DHCP in Cisco ICS 7750 in order to assign dynamic IP addresses to IP phones and other IP devices.

Note: All cards on the same Cisco ICS 7750 chassis also obtain dynamic IP addresses from the SPE 310 card with the system manager software. However, this document does not cover this procedure.

Prerequisites

Requirements

Ensure that you meet these requirements before you attempt this configuration:

- An SPE 310 card running system manager software must be installed on the Cisco ICS 7750 chassis.

Note: One and only one system SPE must be on the Cisco ICS 7750 box.

- All the cards in the Cisco ICS 7750 must be firmly seated in their slots.
- Verify that the Cisco ICS 7750 is not connected to any production network.
- Make sure your PC is connected to the Cisco ICS 7750 using an Ethernet cable.

Components Used

The information in this document is based on the Cisco ICS 7750 System Manager Software V2.1 running on an SPE310 card.

Note: The DHCP protocol is also supported in previous versions of the Cisco ICS 7750 System Manager Software, but it is outside the scope of this document.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

Set Up DHCP Address Pools

In this section, you are presented with the information to configure the features described in this document.

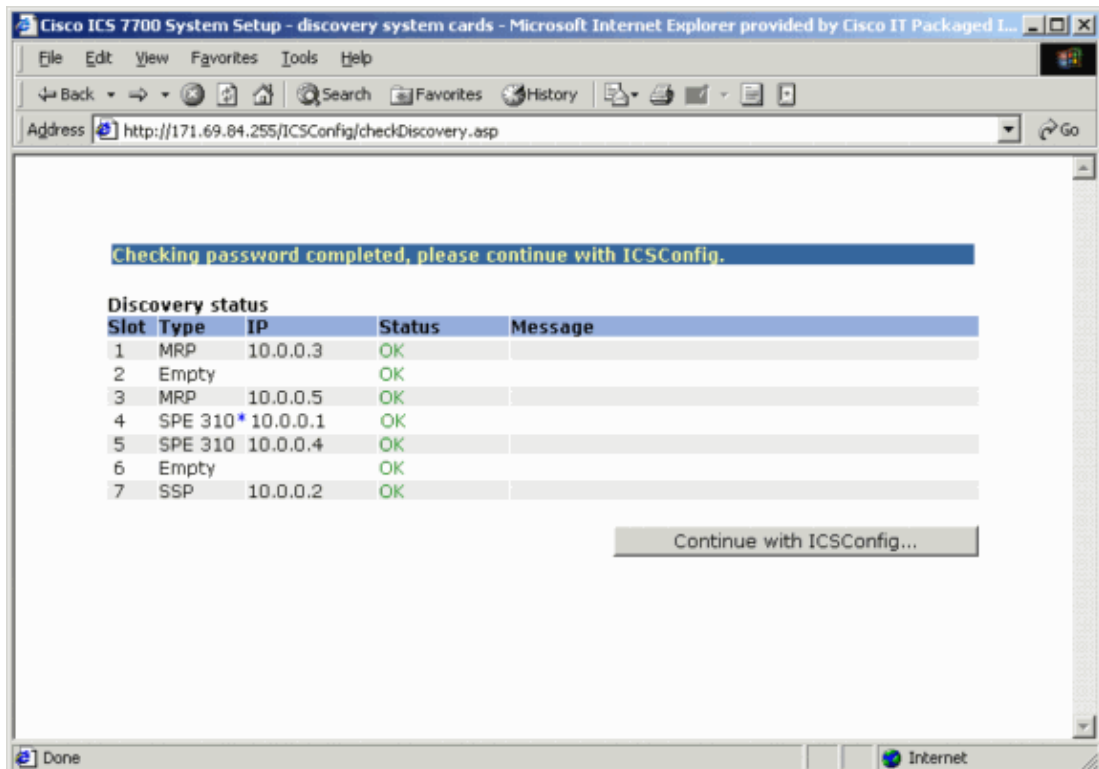
In order to set up DHCP address pools, perform these steps:

1. In order to display the ICS System Configuration page, open an Internet Explorer (version 5.01 or later) or Netscape (Netscape Communicator 4.7 or later) browser window and go to **http://<IP address of ICS7750 System Manager SPE card>/ICSConfig**:

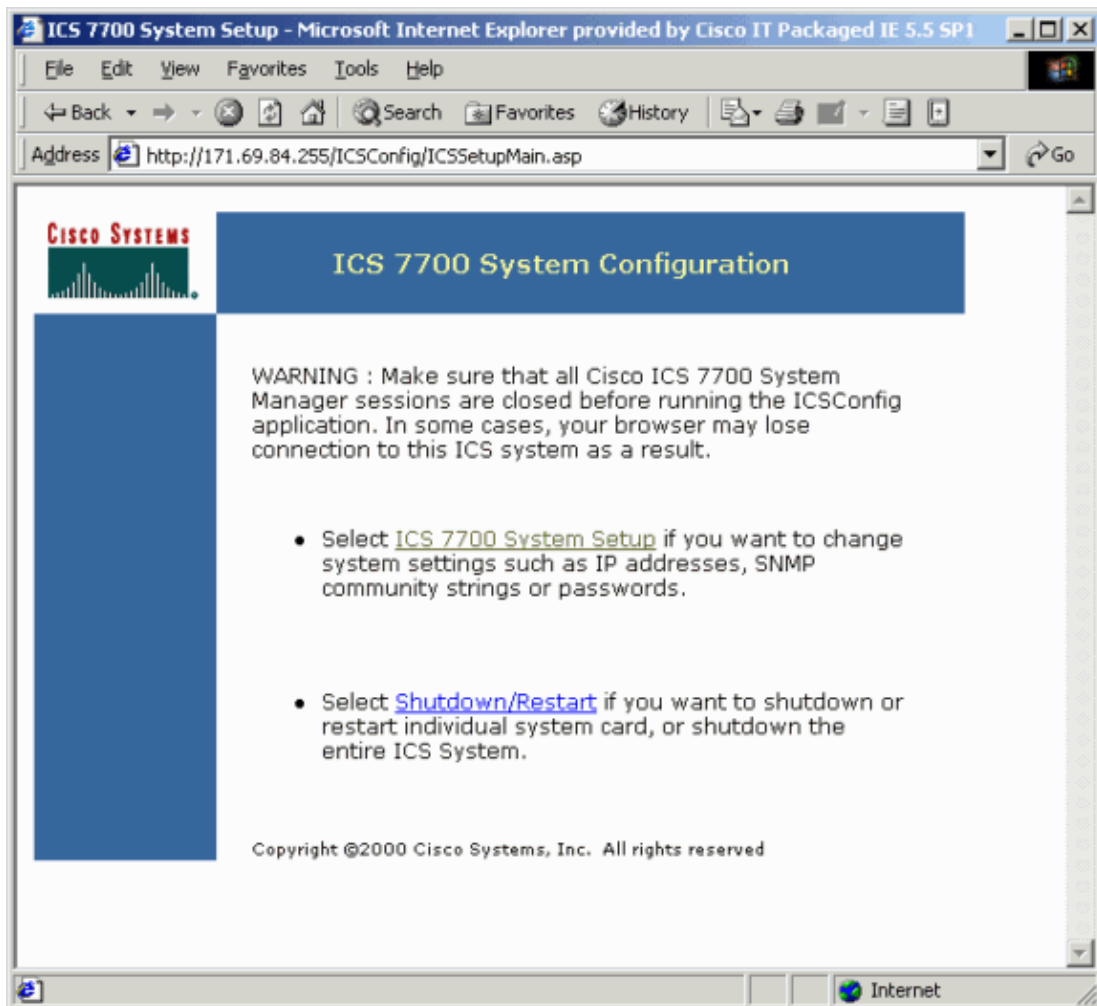
For example: **http://10.0.0.1/ICSConfig**

Note: It can take some time for the ICS system to discover all the cards on chassis.

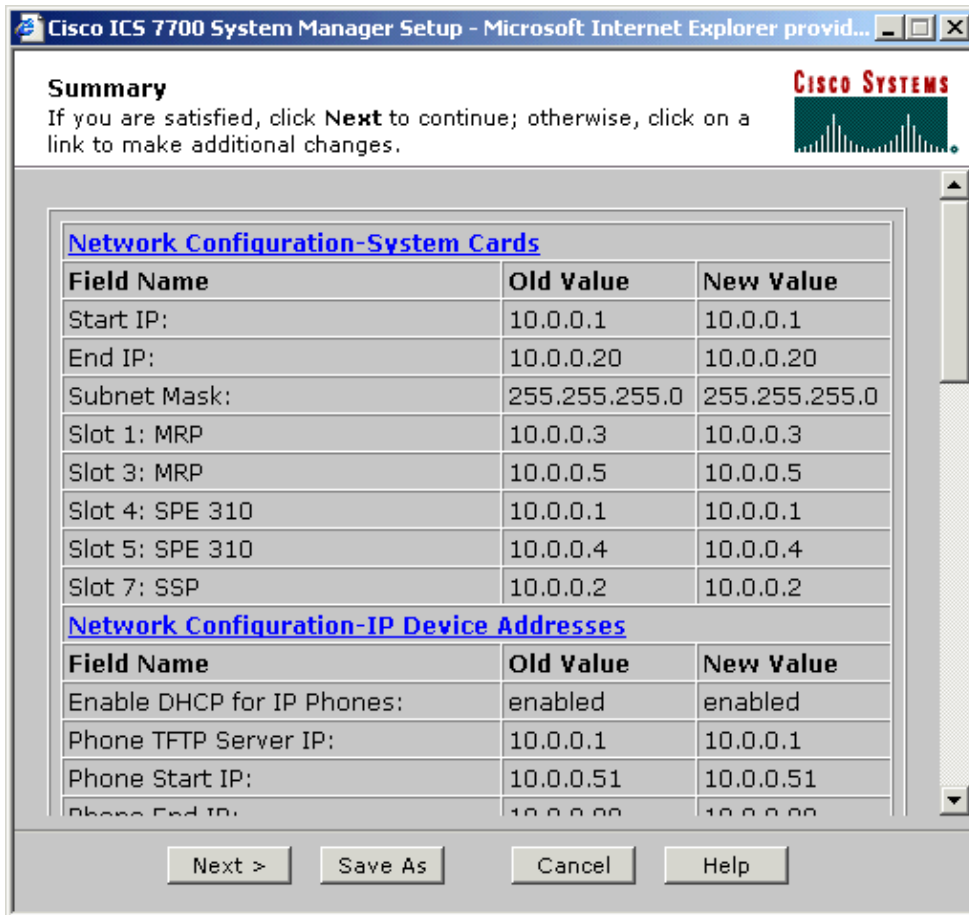
2. Click **Continue with ICSConfig...**



3. Click **ICS 7700 System Setup**.



4. Click **Network Configuration – IP Device Addresses**.



- In order to enable DHCP support for IP phones, check the **Enable DHCP for IP Phones** box as shown in this screen, fill in the corresponding information, and click **Continue**.

Note: The Phone TFTP IP address usually refers to the active Cisco CallManager server.



6. In order to enable DHCP support for other IP Devices, check the **Enable DHCP for Other IP Devices** box as shown in this screen, fill in the corresponding information, and click **Continue**.

Cisco ICS 7700 System Manager Setup - Microsoft Internet Explorer provid...

Network Configuration-IP Device Addresses

On this page you specify IP Device Addresses.

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IP Address pool for Other IP Devices:

Enable DHCP for Other IP Devices

Device Start IP:

Device End IP:

Lease Time:
DAY HOUR MIN SEC

Primary WINS Server:

Secondary WINS Server:


Note: If you use Lmhosts file to resolve computer names of Windows networking computers then use a text editor to make changes to LMhosts file.


7. Fill in the **DNS server IP address** and **Default Gateway** fields as shown, and click **Continue**.

Note: The DNS sever and Default Gateway IP address are shared with all other Cisco ICS 7750 cards on the same chassis.

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Network Configuration-DNS and Gateway
On this page you specify DNS and default gateway information.





Primary DNS IP:(optional)

Secondary DNS IP:(optional)

Default Gateway IP:

DNS is your Domain Name Server for domain name lookup.
Default Gateway IP is the IP address to connect the outside network.

8. Confirm the new values in the **Network Configuration – IP Device Addresses** and **Network Configuration – DNS and Gateway** sections as shown. Any new or changed values are not shown in bold. If the values are correct, click **Next**.

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Summary
 If you are satisfied, click **Next** to continue; otherwise, click on a link to make additional changes.

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Network Configuration-IP Device Addresses

Field Name	Old Value	New Value
Enable DHCP for IP Phones:	disabled	enabled
Phone TFTP Server IP:		10.0.0.1
Phone Start IP:		10.0.0.51
Phone End IP:		10.0.0.80
Phone Lease Time(sec):		604800
Enable DHCP For Other IP Devices:	disabled	enabled
Device Start IP:		10.0.0.81
Device End IP:		10.0.0.99
Device Lease Time(sec):		604800
Primary WINS IP:		11.1.1.1
Secondary WINS IP:		

Network Configuration-DNS and Gateway

Field Name	Old Value	New Value
Primary DNS IP:		11.1.1.1
Secondary DNS IP(optional):		11.1.1.2


Next > Save As Cancel Help

9. Click **Submit** in order to complete the initial setup process.

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Ready to Submit
 Attention - You will lose the connection if you change the IP Address

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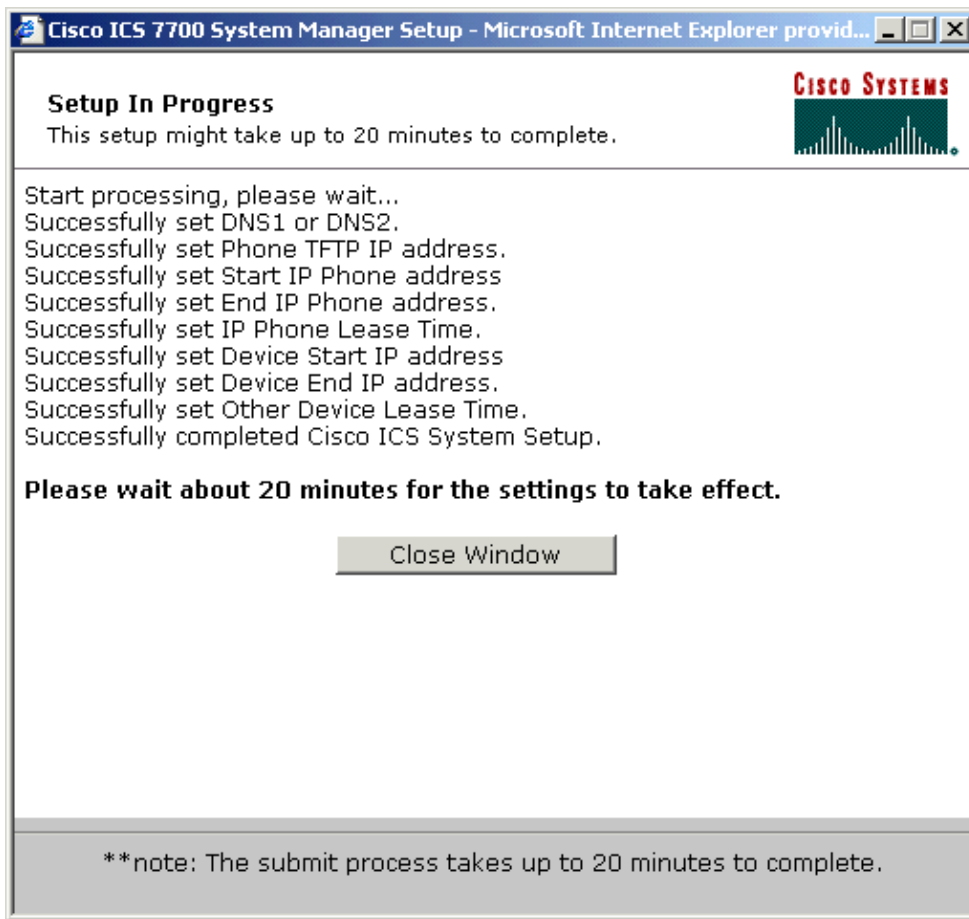
Initial Setup has the necessary information and is ready to submit your inputs to the Cisco ICS 7700 system. You must refresh your IP address (using ipconfig.exe for Windows NT/Win98 or winipcfg.exe for Windows 95) or reboot your PC.

Click **Submit** to complete the initial setup process. After rebooting, you can access the Cisco ICS 7700 System Manager by using the following URL:

<http://10.0.0.1/ics>

Submit Cancel Help

10. Depending on the changes made, a screen similar to this one appears:



11. Click **Close Window** in order to finish.

Limitation

Currently, a Cisco ICS 7750 system can only provide DHCP support for Cisco IP phones and other IP devices on the same IP subnet.

Note: Do not install or enable a DHCP server on any SPE other than the SPE card running the ICS system manager software. You can install or configure DHCP on an external server, provided that:

- The external DHCP server is configured to not respond to DHCP or BOOTP requests from Cisco ICS 7750 cards.
- If the ICS system manager provides the DHCP services to IP phones or external DHCP clients, the external DHCP server must not be configured to respond to these hosts.
- The DHCP scopes of the external DHCP server must not conflict with the DHCP or BOOTP scopes in use by ICS system manager.

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- **Release Notes for the Cisco ICS 7750 for System Software Release 2.x.x**
 - **Cisco ICS 7750 Getting Started Guide**
 - **Cisco ICS 7750 System Description**
 - **Cisco ICS 7750 Hardware Installation Guide**
 - **Cisco ICS 7750 Software Configuration Guide**
 - **Voice Technology Support**
 - **Voice and Unified Communications Product Support**
 - **Troubleshooting Cisco IP Telephony**
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