

Dynamic Host Configuration Protocol (DHCP) Server Auto Configuration on the 200/300 Series Managed Switches

Objective

Dynamic Host Configuration Protocol (DHCP) is a protocol that provides IP addresses automatically to the different devices within a network. The 200/300 Series Managed Switches have a DHCP Auto Configuration feature which allows you to apply to your current network an already configured DHCP configuration file. This article explains how to configure the DHCP Auto Configuration feature on the 200/300 Series Managed Switches.

Applicable Devices | Software Version

- Sx200 Series | 1.2.7.76 ([Download latest](#))
- Sx300 Series | 1.2.7.76 ([Download latest](#))

Configuration of DHCP

Step 1. Log in to the web configuration utility and choose **Administration > File Management > DHCP Auto Configuration**. The *DHCP Auto Configuration* page opens.

The screenshot shows the 'DHCP Auto Configuration' web interface. It is divided into several sections:

- Auto Configuration Via DHCP:** Includes a checked 'Enable' checkbox and a 'Download Protocol' section with three radio buttons: 'Auto By File Extension' (selected), 'TFTP Only', and 'SCP Only'. A text input field for 'File Extension for SCP' contains 'scp' with a '(3/16 Characters Used)' indicator.
- SSH Settings For SCP:** Shows 'Remote SSH Server Authentication' as 'Disabled' and 'SSH Client Authentication' as 'Use SSH Client System Credentials'.
- Backup Server Definition:** Includes radio buttons for 'By IP address' (selected) and 'By name'. Below are text input fields for 'Backup Server IP Address/Name' (containing '192.168.1.1'), 'Backup Configuration File Name' (containing 'DHCP Backup' with '(11/160 Characters Used)'), 'Last Auto Configuration Server IP Address' (containing '0.0.0.0'), and 'Last Auto Configuration File Name'.

A note at the bottom states: 'Note: DHCP Auto Configuration is operational only when the IP Address configuration is dynamic.' At the very bottom are 'Apply' and 'Cancel' buttons.

Step 2. In the *Auto Configuration Via DHCP* field, check the **Enable** check box to enable this feature.

Step 3. In the *Download Protocol* field, click one of the methods to download the configuration file. The available options are:

- Auto By File Extension — This option indicates that auto configuration uses Trivial File Transfer Protocol (TFTP) or Secure Copy Protocol (SCP), which depends on the extension of the configuration file.

– File Extension for SCP — If Auto By File Extension is chosen, enter the file extension of the configuration file in the *File Extension for SCP* field. Any file with this extension is downloaded via SCP. If no extension is entered, then the default extension file (.scp) is used.

- TFTP Only — This option only uses TFTP to download the configuration file regardless of the file extension.
- SCP Only — This option only uses SCP to download the configuration file regardless of the file extension.

Step 4. If you chose SCP in [Step 3](#), then click the link to the right of Remote SSH Server Authentication to configure the authentication of the remote SSH server. For more information about this, refer to the article [Secure Shell \(SSH\) Server Authentication Settings on a Switch](#).

Step 5. If you chose SCP in [Step 3](#), then click the link to the right of SSH Client Authentication to configure the authentication of the SSH client. For more information about this, refer to the article [Secure Shell \(SSH\) Client User Authentication on Cisco Business Managed Switches](#).

Note: [Step 4](#) and [Step 5](#) applies only for the 300 Series Managed Switches. If you have a 200 Series Managed Series, the options to configure the SSH client and server, which are explained in [Step 4](#) and [Step 5](#), are not available.

Step 6. In the *Backup Server Definition* field, click the radio button that corresponds to how you want to define the server used for backup. The available options are:

- By IP Address — Allows you to define the server with an IP address.
- By Name — Allows you to define the server with a fully qualified domain name.

Step 7. In the *Backup Server IP Address/Name* field, enter the IP address or the fully qualified domain name to define the server used for backup.

Step 8. (Optional) In the *Backup Configuration File Name* field, enter the backup configuration file name.

Note: The *Last Auto Configuration Server IP Address* field displays the IP address of the last server used by the switch for auto configuration. The *Last Auto Configuration File Name* field displays the last file name used by the switch for auto configuration.

Step 9. Click **Apply** to save your configuration.

For more information, including links to multiple articles and documentation on the 200 Series Switches check out the following links:

- [Product Page for 200 Series Switches](#)
- [Product Page for 300 Series Switches](#)