

Firmware Upgrade/Backup and Image Swap on the SG350XG and SG550XG

Objectives

This objective of this document is to explain how to upgrade, backup or swap the firmware on the SG350XG and SG550XG switches.

Using the latest firmware is a best practice for both security and performance. More than one firmware version may be saved onto the switch and may be swapped when desired. Firmware versions can also be backed up. This can be useful to save backup copies of firmware in case of device failure.

Applicable Devices

- SG350XG
- SG550XG

Software Version

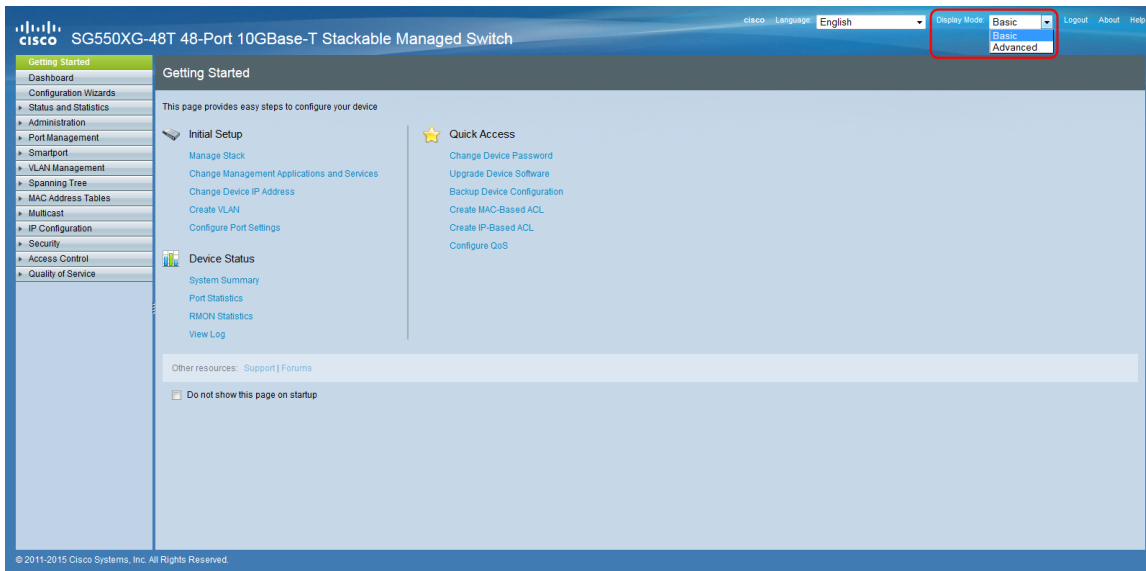
- v2.0.0.73

Table of Steps

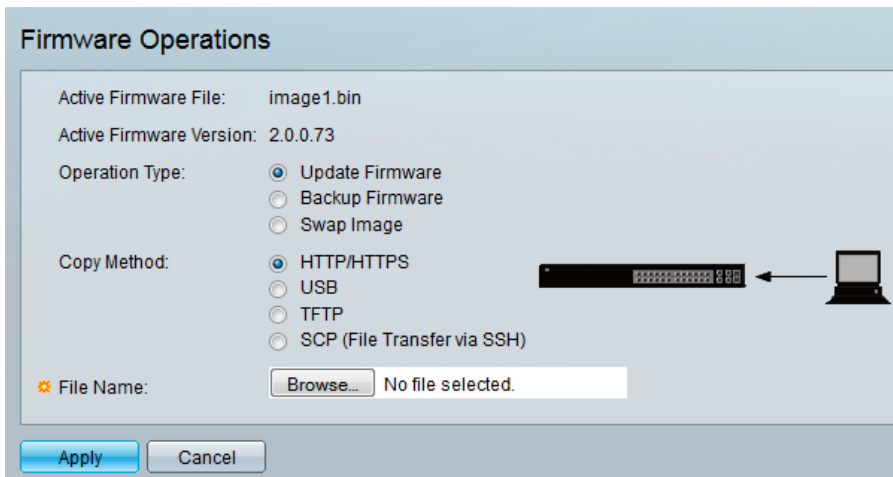
1. Login
2. [Update/Backup Firmware](#)
 - [Method: HTTP/HTTPS](#)
 - [Method: USB](#)
 - [Method: TFTP](#)
 - [Method: SCP](#)
3. [Swap Image](#)

Login

Note: The following screenshots are from the Advanced Display. This can be toggled by clicking the *Display Mode* drop-down list located in the top right of the screen

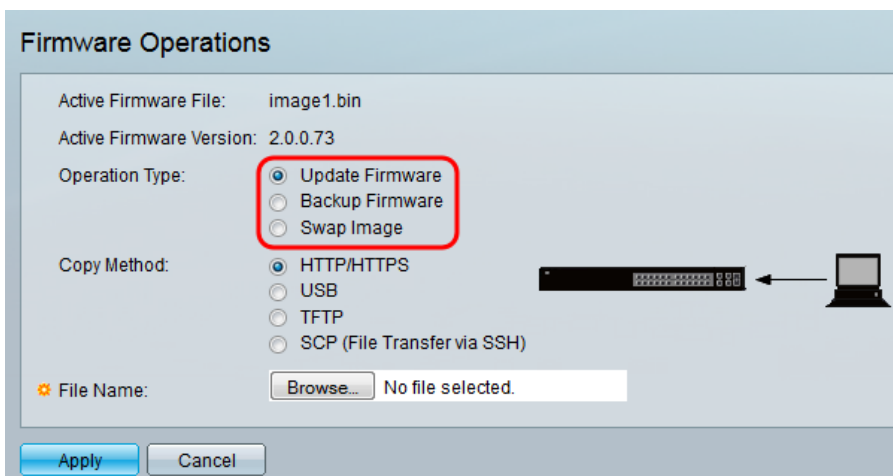


Step 1. Log in to the web configuration utility and choose **Administration > File Management > Firmware Operations**. The *Firmware Operations* page opens.



Note: You can see the current firmware file and version in the *Active Firmware File* field and the *Active Firmware Version* field.

Step 2. Click the desired radio button in the *Operation Type* area.



The options are described as follows:

- [Update Firmware](#) – Updates the device's firmware.

- [Backup Firmware](#) – Creates a backup of the device’s firmware.
- [Swap Image](#) – Changes the device’s firmware with one stored in the device’s flash memory.

Update/Backup Firmware

Step 1. Click the radio button in the *Copy Method* section for the desired method of transferring the file.

The screenshot shows the 'Firmware Operations' dialog box. It contains the following fields and options:

- Active Firmware File: image1.bin
- Active Firmware Version: 2.0.0.73
- Operation Type:
 - Update Firmware
 - Backup Firmware
 - Swap Image
- Copy Method:
 - HTTP/HTTPS
 - USB
 - TFTP
 - SCP (File Transfer via SSH)
- File Name: No file selected. (with a 'Browse...' button)

At the bottom are 'Apply' and 'Cancel' buttons. An illustration of a switch and a laptop is also present.

The options are described as follows:

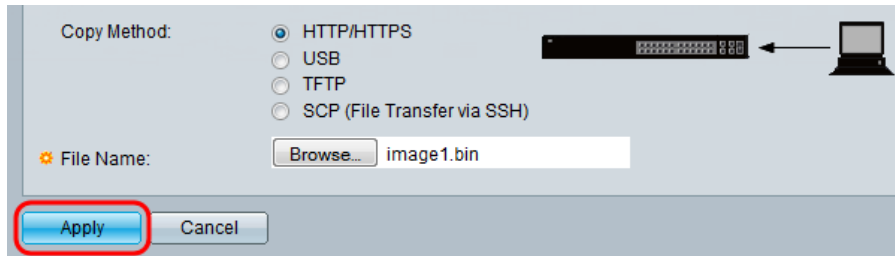
- [HTTP/HTTPS](#) – Uses the facilities provided by the browser.
- [USB](#) – Uses the switches USB port.
- [TFTP](#) – Trivial File Transfer Protocol (TFTP) is a simple file transferring protocol which allows a client to get from or put a file onto a remote host.
- [SCP](#) (File Transfer via SSH) – Secure Copy Protocol(SCP)supports file transfers between hosts on a network. It uses Secure Shell (SSH) for data transfer and uses the same mechanisms for authentication, thereby ensuring the authenticity and confidentiality of the data in transit.

HTTP/HTTPS

Step 1. Click the **Browse** button in the *File Name* field to select the image file to be updated. This step is not relevant for Backup by HTTP/HTTPS.

This screenshot shows the same dialog box as before, but the 'File Name' field now contains the text 'image1.bin'. The 'Browse...' button is highlighted with a red box, indicating it has been clicked.

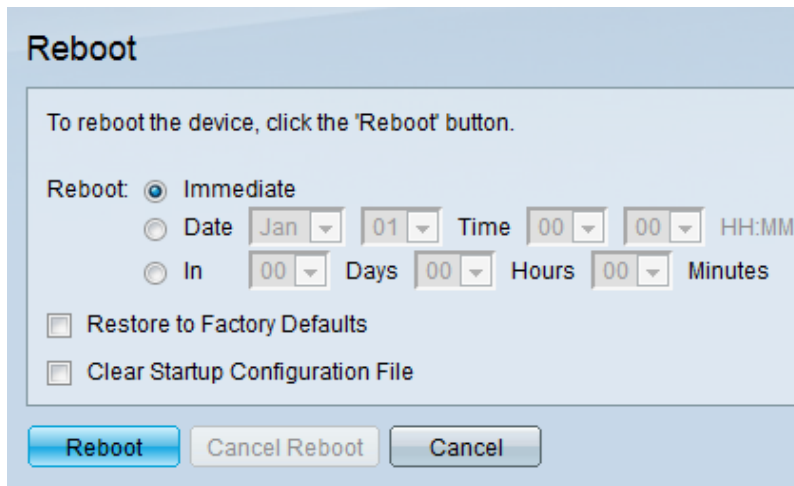
Step 2. Click **Apply**.



Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

File Name: image1.bin

Step 3. Navigate to **Administration > Reboot**. The *Reboot* page opens.



Reboot

To reboot the device, click the 'Reboot' button.

Reboot: Immediate Date In

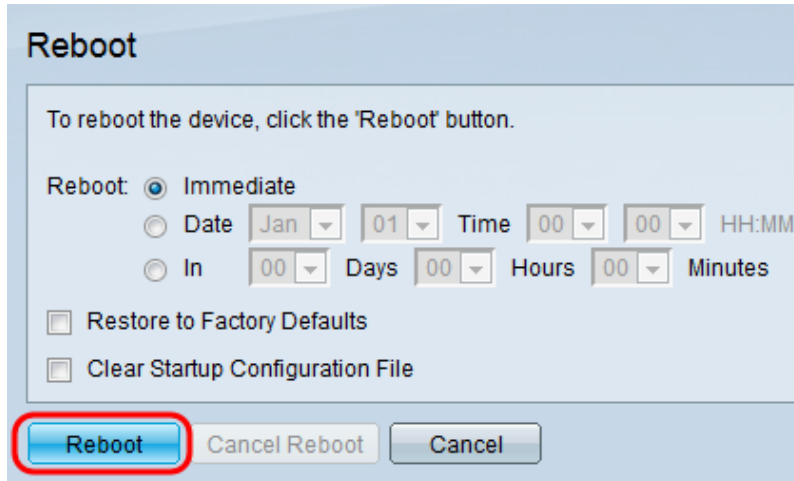
Date: Jan 01 Time 00:00 HH:MM

In: 00 Days 00 Hours 00 Minutes

Restore to Factory Defaults

Clear Startup Configuration File

Step 4. Click **Reboot**. A confirmation window will appear.



Reboot

To reboot the device, click the 'Reboot' button.

Reboot: Immediate Date In

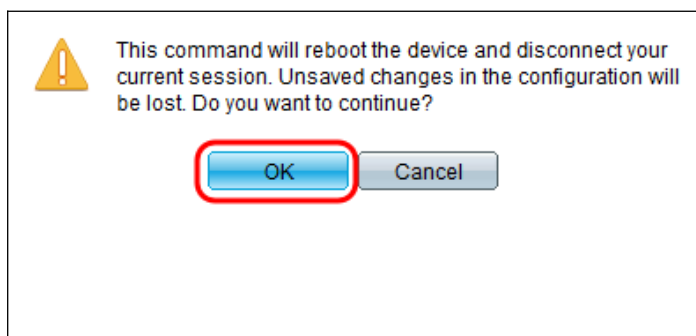
Date: Jan 01 Time 00:00 HH:MM


In: 00 Days 00 Hours 00 Minutes

Restore to Factory Defaults

Clear Startup Configuration File

Step 5. Click **Ok**.



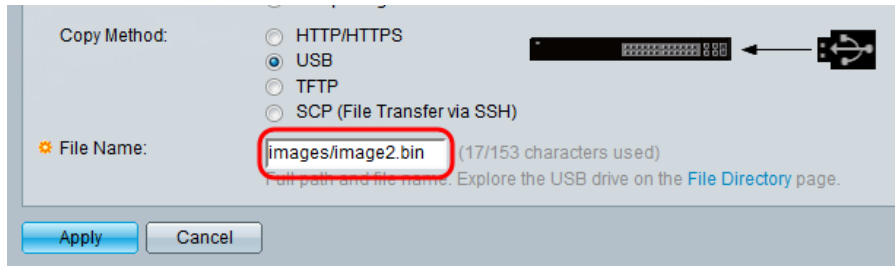
 This command will reboot the device and disconnect your current session. Unsaved changes in the configuration will be lost. Do you want to continue?

Note: The device will now reboot which will disconnect the current session. Once the reboot

is complete, a new session will connect.

USB

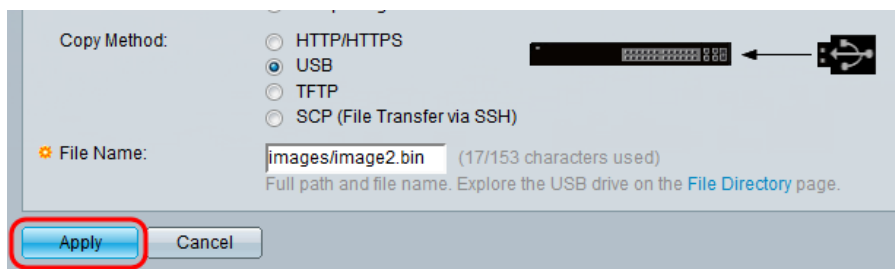
Step 1. Enter the path of the image file located on the USB in the *File Name* field.



Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

File Name: (17/153 characters used)
Full path and file name. Explore the USB drive on the [File Directory](#) page.

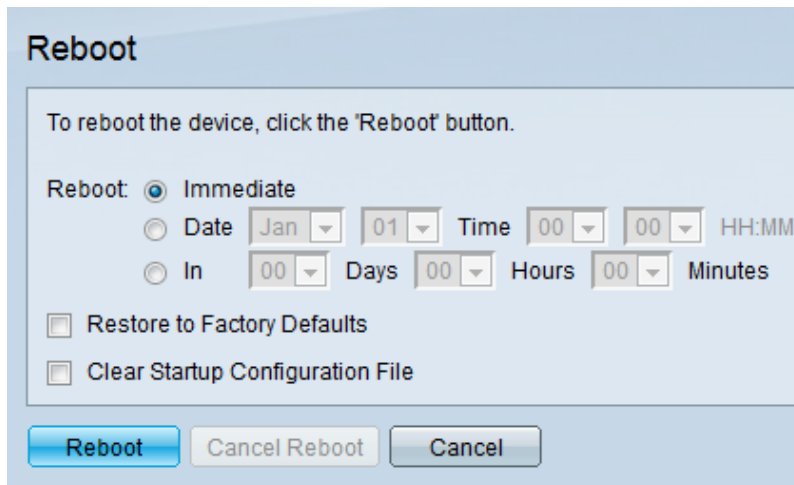
Step 2. Click **Apply**.



Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

File Name: (17/153 characters used)
Full path and file name. Explore the USB drive on the [File Directory](#) page.

Step 3. On web configuration utility and choose **Administration > Reboot**. The *Reboot* page opens.



Reboot

To reboot the device, click the 'Reboot' button.

Reboot: Immediate
 Date Time HH:MM
 In Days Hours Minutes

Restore to Factory Defaults
 Clear Startup Configuration File

Step 4. Click **Reboot**.

Reboot


To reboot the device, click the 'Reboot' button.

Reboot: Immediate
 Date Time HH:MM
 In Days Hours Minutes

Restore to Factory Defaults
 Clear Startup Configuration File

Reboot Cancel Reboot Cancel

Step 5. A confirmation window will appear. Click **OK**.

 This command will reboot the device and disconnect your current session. Unsaved changes in the configuration will be lost. Do you want to continue?

OK Cancel

Note: The device will now reboot which will disconnect the current session. Once the reboot is complete, a new session will connect.

TFTP

Step 1. Select the corresponding radio button for how you would like to define the TFTP server. The server can be defined either **By IP address** or **By name**. If you selected **By name**, skip to [Step 5](#).

Copy Method: Swap image
 HTTP/HTTPS
 USB
 TFTP
 SCP (File Transfer via SSH)

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

Server IP Address/Name:

Source File Name: (0/160 characters used)

Apply Cancel

Step 2. (Optional) Select the version of the server's IP address. If **Version 4** is selected skip to [Step 5](#).

Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name:

Source File Name: (0/160 characters used)

Apply Cancel

The options are described as follows:

- IPv4 – A 32-bit (four-byte) address.
- IPv6 – A successor to IPv4, consists of a 128-bit (8-byte) address.

Step 3. (Optional) Select the type of IPv6 address. You may select either **Link Local** or **Global** for your address type. If **Global** was selected, skip to [Step 5](#).

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name:

Source File Name: (0/160 characters used)

Apply Cancel

Step 4. (Optional) Select the desired VLAN from the *Link Local Interface* drop-down list.

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name:

Source File Name: (0/160 characters used)

Apply Cancel

Step 5. Enter the name or IP address of the server in the *Server IP Address/Name* field.

Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name: 192.0.2.1

Source File Name: (0/160 characters used)

Apply Cancel

Note: The following field depends on the option selected in [Step 1](#).

Step 6. Enter the file name in the *Source/Destination File Name* field.

Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name: 192.0.2.1

Source File Name: image2.bin (10/160 characters used)

Apply Cancel

Note: The following field is titled *Destination File Name* for Backup by TFTP.

Step 7. Click **Apply**.

Copy Method: HTTP/HTTPS USB TFTP SCP (File Transfer via SSH)

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1

Server IP Address/Name: 192.0.2.1

Source File Name: image2.bin (10/160 characters used)

Apply Cancel

SCP (File Transfer via SSH)

Step 1. To enable SSH server authentication (which is disabled by default), click **Edit** by *Remote SSH Server Authentication*. This takes you to the *Client SSH UserAuthentication* page to configure the SSH User.

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

✦ Server IP Address/Name:

✦ Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Note: For more information on SSH Client System Credentials refer to the SSH User Authentication article.

Step 2. Select the desired SSH authentication in the *SSH Client Authentication* field.

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

✦ Server IP Address/Name:

✦ Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

The available options are defined as follows:

- Use SSH Client System Credentials – Sets permanent SSH user credentials. Click **System Credentials** to go to the *SSH User Authentication* page where the user/password can be set once for all future use
- Use SSH Client One-Time Credentials – Sets one-time SSH user credentials.

Note: For more information on SSH Client System Credentials refer to the SSH User Authentication article.

Step 3. (Optional) Enter the desired *Username* and *Password* in their respective fields.

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication:
 Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition:
 By IP address By name

IP Version:
 Version 6 Version 4

IPv6 Address Type:
 Link Local Global

Link Local Interface:

✦ Server IP Address/Name:

✦ Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Step 4. Select the corresponding radio button for how you would like to define the SCP server. The server can be defined either **By IP address** or **By name**. If you selected **By name**, skip to [Step 8](#).

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication:
 Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition:
 By IP address By name

IP Version:
 Version 6 Version 4

IPv6 Address Type:
 Link Local Global

Link Local Interface:

✦ Server IP Address/Name:

✦ Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Step 5. (Optional) Select the version of the server's IP address. If **Version 4** is selected skip to [Step 8](#).

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication:
 Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition:
 By IP address By name

IP Version:
 Version 6 Version 4

IPv6 Address Type:
 Link Local Global

Link Local Interface:

✦ Server IP Address/Name:

✦ Source File Name: (0/160 characters used)

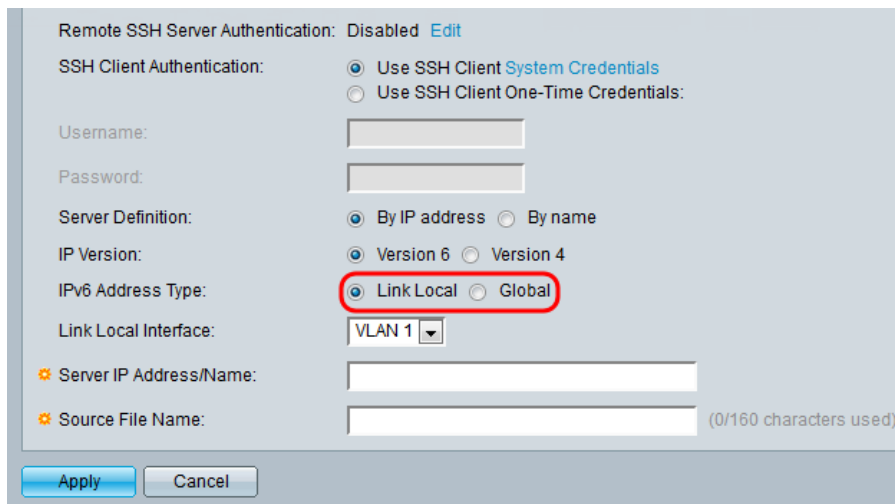
[Apply](#) [Cancel](#)

The options are described as follows:

- IPv4 – A 32-bit (four-byte) address.
- IPv6 – A successor to IPv4, consists of a 128-bit (8-byte) address.

Step 6. (Optional) Select the type of IPv6 address. You may select either **Link Local** or

Global for your address type. If **Global** was selected, skip to [Step 8](#).



Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

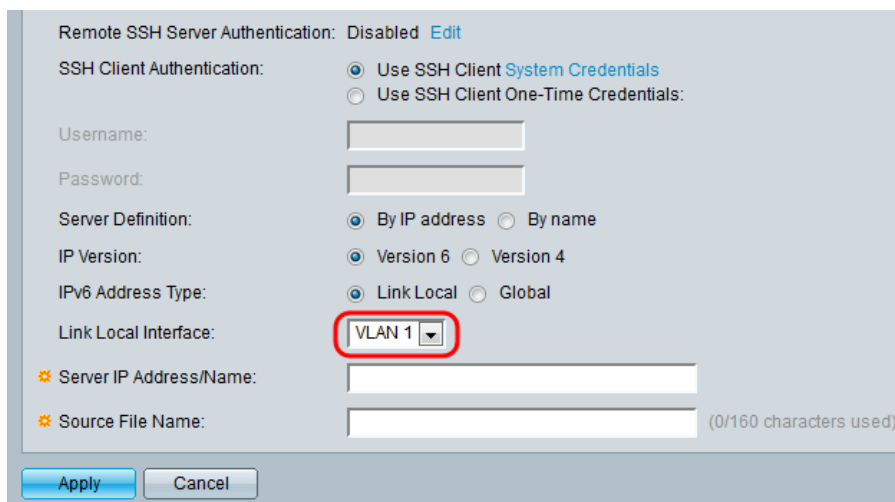
Link Local Interface:

Server IP Address/Name:

Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Step 7. (Optional) Select the desired VLAN from the *Link Local Interface* drop-down list.



Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

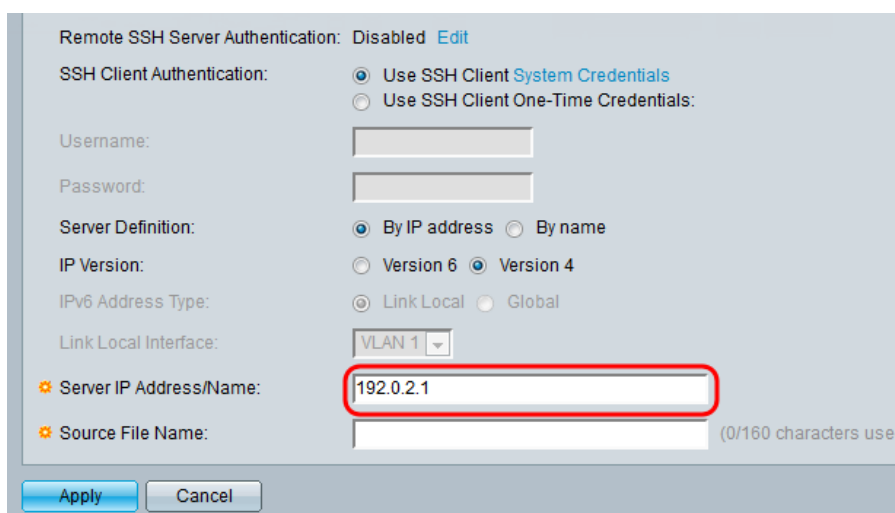
Link Local Interface:

Server IP Address/Name:

Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Step 8. Enter the name or IP address of the server in the *Server IP Address/Name* field.



Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

Server IP Address/Name:

Source File Name: (0/160 characters used)

[Apply](#) [Cancel](#)

Step 9. Enter the file name in the *Source/Destination File Name* field.

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

Server IP Address/Name:

Source File Name: (10/160 characters used)

Note: The field is titled *Destination File Name* for Backup by SCP.

Step 10. Click **Apply**.

Remote SSH Server Authentication: Disabled [Edit](#)

SSH Client Authentication: Use SSH Client [System Credentials](#)
 Use SSH Client One-Time Credentials:

Username:

Password:

Server Definition: By IP address By name

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

Server IP Address/Name:

Source File Name: (10/160 characters used)

Swap Image

Step 1. Select the firmware file that you want to be active after reboot from the *Active Image After Reboot* drop-down list.

Firmware Operations

Active Firmware File: image1.bin

Active Firmware Version: 2.0.0.73

Operation Type: Update Firmware
 Backup Firmware
 Swap Image

Active Image After Reboot:

Step 2. Click **Apply**.

Firmware Operations

Active Firmware File:	image1.bin
Active Firmware Version:	2.0.0.73
Operation Type:	<input type="radio"/> Update Firmware <input type="radio"/> Backup Firmware <input checked="" type="radio"/> Swap Image
Active Image After Reboot:	image1.bin
Active Image Version Number After Reboot:	2.0.0.73

Step 3. On web configuration utility and choose **Administration > Reboot**. The *Reboot* page opens.

Reboot

To reboot the device, click the 'Reboot' button.

Reboot: Immediate
 Date Time HH:MM
 In Days Hours Minutes

Restore to Factory Defaults
 Clear Startup Configuration File

Step 4. Click **Reboot**. A confirmation window will appear.

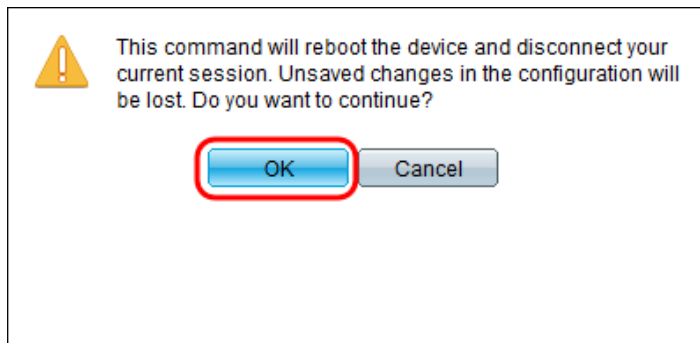
Reboot

To reboot the device, click the 'Reboot' button.

Reboot: Immediate
 Date Time HH:MM
 In Days Hours Minutes

Restore to Factory Defaults
 Clear Startup Configuration File

Step 5. Click **Ok**.



Note: The device will now reboot which will disconnect the current session. Once the reboot is complete, a new session will connect.

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