



## VRF-Aware SCP

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The VRF-Aware SCP feature applies the secure copy protocol (SCP) functionality to Virtual Routing and Forwarding (VRF) interfaces using the Secure Shell (SSH) application to copy device configurations or device image files.

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## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Prerequisites for VRF-Aware SCP

- Ensure that Secure Shell (SSH) connection is enabled.
- Ensure that Virtual Routing and Forwarding (VRF) configuration is available on the device.

# Information About VRF-Aware SCP

## SCP and SSH

The secure copy protocol (SCP) feature allows a user with appropriate authorization to copy any file that exists in the Cisco IOS File System (IFS) to and from a device by using the copy command. Being Virtual Routing and Forwarding (VRF) aware, the SCP feature can provide the service only to a specific group or interface rather than providing global access and configuration. The VRF-aware SCP feature enables administrators to have more control and added security.

SCP relies on Secure Shell (SSH) for security and authentication.

Use the `ip ssh source-interface` command to source SSH traffic from any interface, including a VRF interface.

## How to Configure VRF-Aware SCP

### Configuring SCP to Use VRF-Aware Interface

#### Before You Begin

Configure Virtual Routing and Forwarding (VRF) aware interfaces.

#### SUMMARY STEPS

1. `enable`
2. `configure terminal`
3. `ip ssh source-interface interface`
4. `exit`
5. `copy running-config`  
`scp://username@destination-host-address[/destination-directory][/destination-filename]`
6. `copy scp://username@source-host-address[/source-directory][/source-filename] bootflash:`
7. `exit`

#### DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code>  <b>Example:</b> Device> <code>enable</code>	Enables privileged EXEC mode.  <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>

	Command or Action	Purpose
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> Device# <code>configure terminal</code>	Enters global configuration mode.
<b>Step 3</b>	<b>ip ssh source-interface <i>interface</i></b>  <b>Example:</b> Device(config)# <code>ip ssh source-interface GigabitEthernet 1/1</code>	Specifies the IP address of an interface as the source address for a Secure Shell (SSH) client device. Provide a VRF-aware interface to use the VRF-Aware SCP feature.
<b>Step 4</b>	<b>exit</b>  <b>Example:</b> Device (config)# <code>exit</code>	Exits global configuration mode and returns to privileged EXEC mode.
<b>Step 5</b>	<b>copy running-config</b> <b>scp://username@destination-host-address[/destination-directory]/[destination-filename]</b>  <b>Example:</b> Device# <code>copy running-config scp://guest@10.76.76.160/router.cfg</code>	Copies a file from the current running configuration file of the source device to a destination device with secure copy protocol (SCP).
<b>Step 6</b>	<b>copy scp://username@source-host-address[/source-directory]/[source-filename]</b> <b>bootflash:</b>  <b>Example:</b> Device# <code>copy scp://guest@10.76.76.160/router.cfg bootflash:</code>	Copies a file to the boot flash memory of the destination device from the source device with SCP.
<b>Step 7</b>	<b>exit</b>  <b>Example:</b> Device# <code>exit</code>	Exits privileged EXEC mode and returns to user EXEC mode.

## Configuration Examples for VRF-Aware SCP

### Example: Configuring SCP Using VRF-Aware Interface

```
Device> enable
Device# configure terminal
Device(config)# ip ssh source-interface GigabitEthernet 1/1
```

```

Device(config)# exit
Device# copy running-config scp://guest@10.76.76.160/router.cfg

Address or name of remote host [10.76.76.160]?
Destination username [guest]?
Destination filename [router.cfg]?
Writing router.cfg Password:
!
Sink: C0644 2574 router.cfg
2574 bytes copied in 20.852 secs (123 bytes/sec)

Device# copy scp://guest@10.76.76.160/router.cfg bootflash:

Destination filename [router.cfg]?
Password:
Sending file modes: C0644 2574 router.cfg
!
2574 bytes copied in 17.975 secs (143 bytes/sec)

Device# exit

```

## Additional References for VRF-Aware SCP

### Related Documents

Related Topic	Document Title
Cisco IOS commands	<a href="#">Cisco IOS Master Command List, All Releases</a>
Security commands	<ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Security Command Reference: Commands A to C</a></li> <li>• <a href="#">Cisco IOS Security Command Reference: Commands D to L</a></li> <li>• <a href="#">Cisco IOS Security Command Reference: Commands M to R</a></li> <li>• <a href="#">Cisco IOS Security Command Reference: Commands S to Z</a></li> </ul>
Secure Copy Protocol	“Secure Copy” module in the <i>Secure Shell Configuration Guide</i> publication

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<p><a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a></p>

## Feature Information for VRF-Aware SCP

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

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**Table 1: Feature Information for VRF-Aware SCP**

Feature Name	Releases	Feature Information
VRF-Aware SCP	15.2(1)SY	<p>The VRF-Aware SCP feature applies the secure copy protocol (SCP) functionality to Virtual Routing and Forwarding (VRF) interfaces using the Secure Shell (SSH) application to copy device configurations or device image files.</p> <p>The following commands were introduced or modified by this feature: <b>ip ssh source-interface</b>.</p>

