



## Telnet Access over IPv6

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The Telnet client and server in the Cisco software support IPv6 connections.

- [Prerequisites for Telnet Access over IPv6, on page 1](#)
- [Information About Telnet Access over IPv6, on page 1](#)
- [How to Enable Telnet Access over IPv6, on page 1](#)
- [Configuration Examples for Telnet Access over IPv6, on page 3](#)
- [Additional References for IPv6 Source Guard and Prefix Guard, on page 4](#)
- [Feature Information for Telnet Access over IPv6, on page 5](#)

## Prerequisites for Telnet Access over IPv6

To enable Telnet access over IPv6 to a device, you must create a vty interface and password.

## Information About Telnet Access over IPv6

### Telnet Access over IPv6

The Telnet client and server in Cisco software support IPv6 connections. A user can establish a Telnet session directly to the device using an IPv6 Telnet client, or an IPv6 Telnet connection can be initiated from the device. A vty interface and password must be created in order to enable Telnet access to an IPv6 device.

## How to Enable Telnet Access over IPv6

### Enabling Telnet Access to an IPv6 Device and Establishing a Telnet Session

#### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ipv6 host *name* [*port*] *ipv6-address***

4. **line** *[aux | console | tty | vty] line-number [ending-line-number]*
5. **password** *password*
6. **login** *[local | tacacs]*
7. **ipv6 access-class** *ipv6-access-list-name {in | out}*
8. **telnet** *host [port] [keyword]*

## DETAILED STEPS

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>enable</b> <b>Example:</b> <pre>Device&gt; enable</pre>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>configure terminal</b> <b>Example:</b> <pre>Device# configure terminal</pre>	Enters global configuration mode.
<b>Step 3</b>	<b>ipv6 host</b> <i>name [port] ipv6-address</i> <b>Example:</b> <pre>Device(config)# ipv6 host cisco-sj 2001:DB8:20:1::12</pre>	Defines a static hostname-to-address mapping in the hostname cache.
<b>Step 4</b>	<b>line</b> <i>[aux   console   tty   vty] line-number [ending-line-number]</i> <b>Example:</b> <pre>Device(config)# line vty 0 4</pre>	Creates a vty interface.
<b>Step 5</b>	<b>password</b> <i>password</i> <b>Example:</b> <pre>Device(config)# password hostword</pre>	Creates a password that enables Telnet.
<b>Step 6</b>	<b>login</b> <i>[local   tacacs]</i> <b>Example:</b> <pre>Device(config)# login tacacs</pre>	(Optional) Enables password checking at login.
<b>Step 7</b>	<b>ipv6 access-class</b> <i>ipv6-access-list-name {in   out}</i> <b>Example:</b> <pre>Device(config)# ipv6 access-list hostlist</pre>	(Optional) Adds an IPv6 access list to the line interface. <ul style="list-style-type: none"> <li>• Using this command restricts remote access to sessions that match the access list.</li> </ul>

	Command or Action	Purpose
Step 8	<b>telnet</b> <i>host</i> [ <i>port</i> ] [ <i>keyword</i> ] <b>Example:</b> Device(config)# telnet cisco-sj	Establishes a Telnet session from a device to a remote host using either the hostname or the IPv6 address. <ul style="list-style-type: none"> <li>The Telnet session can be established to a device name or to an IPv6 address.</li> </ul>

## Configuration Examples for Telnet Access over IPv6

### Examples: Enabling Telnet Access to an IPv6 Device

The following examples provide information on how to enable Telnet and start a session to or from an IPv6 device. In the following example, the IPv6 address is specified as 2001:DB8:20:1::12, and the hostname is specified as cisco-sj. The **show host** command is used to verify this information.

```
Device# configure terminal
Device(config)# ipv6 host cisco-sj 2001:DB8:20:1::12
Device(config)# end
Device# show host
Default domain is not set
Name/address lookup uses static mappings
Codes:UN - unknown, EX - expired, OK - OK, ?? - revalidate
       temp - temporary, perm - permanent
       NA - Not Applicable None - Not defined
Host      Port  Flags      Age Type  Address(es)
cisco-sj  None  (perm, OK)  0  IPv6  2001:DB8:20:1::12
```

To enable Telnet access to a device, create a vty interface and password:

```
Device(config)# line vty 0 4
password lab
login
```

To use Telnet to access the device, you must enter the password:

```
Device# telnet cisco-sj
Trying cisco-sj (2001:DB8:20:1::12)... Open
User Access Verification
Password:
cisco-sj
.
.
.
verification
```

It is not necessary to use the **telnet** command. Specifying either the hostname or the address is sufficient, as shown in the following examples:

```
Device# cisco-sj
```

or

```
Device# 2001:DB8:20:1::12
```

To display the IPv6 connected user (line 130) on the device to which you are connected, use the **show users** command:

```
Device# show users
      Line      User      Host(s)      Idle      Location
*   0 con 0
  130 vty 0          idle          00:00:00
          idle          00:00:22   8800::3
```

Note that the address displayed is the IPv6 address of the source of the connection. If the hostname of the source is known (either through a domain name server [DNS] or locally in the host cache), then it is displayed instead:

```
Device# show users
      Line      User      Host(s)      Idle      Location
*   0 con 0
  130 vty 0          idle          00:00:00
          idle          00:02:47   cisco-sj
```

If the user at the connecting device suspends the session with ^6x and then enters the **show sessions** command, the IPv6 connection is displayed:

```
Device# show sessions
Conn Host      Address      Byte Idle Conn Name
*   1 cisco-sj 2001:DB8:20:1::12      0   0 cisco-sj
```

The Conn Name field shows the hostname of the destination only if it is known. If it is not known, the output might look similar to the following:

```
Device# show sessions
Conn Host      Address      Byte Idle Conn Name
*   1 2001:DB8:20:1::12 2001:DB8:20:1::12      0   0 2001:DB8:20:1::12
```

## Additional References for IPv6 Source Guard and Prefix Guard

### Related Documents

Related Topic	Document Title
IPv6 addressing and connectivity	<i>IPv6 Configuration Guide</i>
IPv4 addressing	<i>IP Addressing: IPv4 Addressing Configuration Guide</i>
Cisco IOS commands	<a href="#">Cisco IOS Master Command List, All Releases</a>
IPv6 commands	<i>Cisco IOS IPv6 Command Reference</i>
Cisco IOS IPv6 features	<a href="#">Cisco IOS IPv6 Feature Mapping</a>

**Standards and RFCs**

Standard/RFC	Title
RFCs for IPv6	<i>IPv6 RFCs</i>

**Technical Assistance**

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for Telnet Access over IPv6

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.

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.

**Table 1: Feature Information for Telnet Access over IPv6**

Feature Name	Releases	Feature Information
Telnet Access over IPv6	12.2(2)T 12.2(18)SXE 12.2(25)SEA 12.2(25)SG 12.2(33)SRA 15.0(2)SG Cisco IOS XE Release 2.1 Cisco IOS XE Release 3.2SG	Telnet access over IPv6 is supported.  The following commands were introduced or modified: <b>ipv6 access-class</b> , <b>ipv6 host</b> .

