



# Linux

**Fulfilling Requirements for Bi-arch Linux**  
If you are running 64-bit Linux, prepare it to run 32-bit AnyConnect binary files, as follows:

**Step 1** Install the following packages:

- ia32-libs
- lib32nss-mdns.

**Step 2** Install 32-bit Firefox into the /usr/local/firefox directory.

**Step 3** Copy or link the following files from /usr/local/firefox to either /usr/lib32 or /opt/cisco/vpn/lib:

- libnssutil3.so
- libplc4.so
- libplds4.so
- libnspr4.so
- libsqlite3.so
- libnssdbm3.so
- libfreebl3.so

## Installing the AnyConnect Client on a System Running Linux

To install the AnyConnect client on a System Running Linux, follow these steps:

**Step 1** For Linux, the client files are contained in a tar/gz file. Unpack the archive with a **tar** command. For example:  
tar xvzf AnyConnect-Linux-Release-2.0.0241.tar.gztar

The files necessary for installation are placed in the folder *ciscovpn*.

**Step 2** Change to the *ciscovpn* folder. As a root user, run the script named *vpn\_install.sh*. For example:

```
[root@linuxhost]# cd ciscovpn
[root@linuxhost]# ./vpn_install.sh
```

The client installs in the directory /opt/cisco/vpn. This script also installs the daemon *vpnagentd* and sets it up as a service that is automatically started when the system boots.

After installing the client, you can start the client manually with the Linux command /opt/cisco/vpn/bin/vpnui or with the client CLI command /opt/cisco/vpn/bin/vpn.

## Using the AnyConnect CLI Commands For Linux

To launch the CLI command prompt and issue commands on a Linux system, locate the file *vpn* in the folder /opt/cisco/vpn/bin/. Execute the file *vpn*.

You can run the CLI in interactive mode, in which it provides its own prompt, or you can run it with the commands on the command line. Table 5 shows the CLI commands.

Command	Action
<b>connect</b> <i>IP address or alias</i>	Client establishes a connection to a specific security appliance.
<b>disconnect</b>	Client closes a previously established connection.
<b>exit</b>	Exits the CLI interactive mode.

help or ?	Gets usage information for CLI commands.
hosts	Lists all saved VPN server hosts.
quit	Exits the CLI interactive mode.
state or status	Displays current state of the VPN subsystem.
stats	Displays statistics about an established connection.
version	Displays the version of the currently installed Cisco AnyConnect VPN client.

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**Note** You cannot adjust preferences using the CLI interface of the AnyConnect client.

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The following examples show the user establishing and terminating a connection from the command line:

```
/opt/cisco/vpn/bin/vpn connect 1.2.3.4
```

Establishes a connection to a security appliance with the address 1.2.3.4.

```
/opt/cisco/vpn/bin/vpn connect  
some_asa_alias
```

Establishes a connection to a security appliance by reading the profile and looking up the alias *some\_asa\_alias* in order to find its address.

```
/opt/cisco/vpn/bin/vpn stats
```

Displays statistics about the vpn connection.

```
/opt/cisco/vpn/bin/vpn disconnect
```

Disconnect the vpn session if it exists.


## How to sign into the VPN Appliance via browser

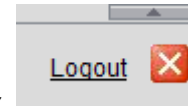
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Step 1 Open your browser and type in <https://vpn.fsu.edu>

Step 2 Enter your FSUID and Password on VPN Login Page.

Step 3 In your browser, type in the trusted Web site you want to access. Example: <http://www.pc.fsu.edu> Hit Enter.

Step 4 How do I Disconnect? Click the  button at top of screen or Click on your back button to go back to the opening VPN menu.



Click on Log Out or red X box.

## Additional Linux Information

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Linux-Specific AnyConnect Client Issue. The AnyConnect client might not establish DTLS tunnel in Linux and might revert to TLS. In addition, the AnyConnect client reports that statistics in the Linux user interface are not available. Closing the user interface without disconnecting and launching another (while the tunnel is still active) seems to fix the problem.

Linux Clients Might Disconnect If a Security Appliance Failover occurs. When the security appliance is operating in a high-availability Active/Standby configuration and a failover occurs, causing the Standby security appliance to resume current connections, Linux AnyConnect connections might disconnect. If a Linux AnyConnect connection disconnects after a failover you must reconnect.

Linux Client Weblaunch Requires an Account with Sudo Access Launching the AnyConnect client for Linux from the browser does not work when the user is non-root and when the user does not have sudo access on the machine. To work around this problem, install sudo, adding a line like "someusername ALL = (ALL) ALL" sudo(without the quotes) to /etc/sudoers.

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### **My Vendor cannot log in?**

FSU Sponsor must e-mail the FSU help desk at [it-help@fsu.edu](mailto:it-help@fsu.edu) to have their vendor added to the LDAP directory group for the SSL VPN access. Sponsor, please ask the help desk to assign the request to Core Networking.

### **Can I use my PDA to access the Web Proxy?**

Using any mobile device for SSL VPN is not supported by FSU at this time.

### **Can I have more than one session open at a time?**

SSL VPN will only allow one session per user name to be active at a time.

### **How do I uninstall the VPN client software?**

To manually uninstall the AnyConnect client from a Windows system, use the standard "Add or Remove Programs" Control Panel available from the Start menu.

The procedure for manually uninstalling the AnyConnect client from a Linux system. As root, run the following shell script:

```
/opt/cisco/vpn/bin/vpn_uninstall.sh
```

Typically, you would do this via sudo, as follows:

```
$ sudo /opt/cisco/vpn/bin/vpn_uninstall.sh
```

If you do not use sudo, use a root shell:

```
# /opt/cisco/vpn/bin/vpn_uninstall.sh
```

### **Note:**

SSL VPN is intended to access resources that are restricted and not as a general access solution for resources accessible to the entire Internet.

### **Linux**

The following sections show the Linux distributions and requirements.

AnyConnect supports Linux Kernel releases 2.4 and 2.6 on 32-bit architectures, and 64-bit architectures that support biarch (that is, that run 32-bit code).

The following Linux distributions have been tested and are known to work with the AnyConnect Client, while following the requirements listed below:

- Ubuntu 7 and 8 (32-bit only).
- Red Hat Enterprise Linux 3 or 4.
- Fedora Core 4 through 9. To use Fedora 9 with the AnyConnect client, you must first install Sun Microsystems JRE, preferably JRE 6, Update 5 or higher.
- Slackware 11 or 12.1.
- openSuSE 10 or SuSE 10.1.

## Linux Requirements

- Computer with an Intel i386 or higher processor.
- 32-bit processors are supported.
- Biarch 64-bit - standalone mode only; web-based install/connect is not supported.
- RAM: 32 MB.
- About 20 MB hard disk space.
- sudo access for the security appliance to download and install the AnyConnect client, or to update the AnyConnect client. For sudo, version 1.6.6 or later is required. sudo access is required for Linux during initial installation of the client and for upgrading from the AnyConnect client release 2.2 or earlier. glibc users must have glibc 2.3.2 installed. For example, libc.so.6 or higher.
- libstdc++ users must have libstdc++ version 3.3.2 (libstdc++.so.5) or higher, but below version 4.
- Firefox: required 1.0 or later (with libnss3.so installed in /usr/local/lib, /usr/local/firefox/lib, or /usr/lib).
- libcurl: required 7.10 or later.
- openssl: required 0.9.7a or later.
- java: required 1.5 or later. The default Java package on Fedora is an open-source GNU version, called Iced Tea on Fedora 8. The only version that works for web installation is Sun Java. You must install Sun Java and configure your browser to use that instead of the default package.
- zlib: required 1.2.3 or later.
- gtk: required 2.0.0, gdk: required 2.0.0, libpango: required 1.0.
- iptables: 1.2.7a or later.
- kernel: tun.o loadable module required. The tun module supplied with kernel 2.4.21 or 2.6 is required.
- Firefox must be installed in /usr/lib or /usr/local, or there must be a symbolic link in /usr/lib or /usr/local called firefox that points to the Firefox installation directory.