



[SSL VPN/MAG] How to install the 32 bit Network Connect client on 64 bit Linux platforms

▼ [KB25230] Show KB Properties

SUMMARY:

This article provides information on how to install the 32 bit Network Connect client on 64 bit Linux platforms.

PROBLEM OR GOAL:

This article provides information on how to install the 32 bit Network Connect client on 64 bit Linux platforms.

The native Network Connect 64 bit client is not available yet; this article will be updated with the latest information; as and when obtained.

CAUSE:

SOLUTION:

From 7.3 onwards, Juniper SA devices support 64-bit Linux (Redhat, OpenSuse, and Ubuntu) for Network Connect. Refer to the relevant Release Notes for the correct supported platforms (Secure Access (SA) Series).

Note: Juniper made changes in the existing 32 bit Network Connect client to launch it on 64 bit Linux platforms, which has all the necessary components/dependencies for 32 bit NC to work.

To launch NC on 64 bit Linux, you need to have the 64 bit Mozilla Firefox browser, with the Java plug-in already configured. You can use both the Oracle and OpenJDK JRE. If the user installs the OpenJDK JRE, then the version of **IcedTea-Web plug-in** (java plug-in) should be 1.2 or higher.

You also have to perform the following procedure:

1. Install the 32 bit Java version:

32 bit Java installation (Oracle JRE 6/ Oracle JRE 7, OpenJDK JRE 6/OpenJDK JRE 6):

Download **jre-7u3-linux-i586.tar.gz** and copy it to a folder (for example, **/usr/java32**).

Run the **tar -xvf jre-7u3-linux-i586.tar.gz**.

2. Update the **alternatives** link for Java:

Use the **sudo update-alternatives --install /usr/bin/java java <32 bit java path> <priority>** command.

For example: **sudo update-alternatives --install /usr/bin/java java /usr/java32/jre1.7.0_03/bin/java 10**.

Ensure that the default Java version is still 64 bit. This can be checked by looking at the **link currently points to** string in the output of the **update-alternatives --display java** command.

If the default Java version is 32 bit, then change it to 64 bit, by using the **sudo update-alternatives --config java** command.

After performing the above steps, alternative links will look as illustrated in the following image (the highlighted rows show both the 32 bit Java path and the default Java version:

```

juniper@juniper-virtual-machine: ~
File Edit View Search Terminal Help
juniper@juniper-virtual-machine:~$ update-alternatives --display java
java - auto mode
  link currently points to /usr/lib/jvm/java-6-openjdk-amd64/jre/bin/java
/usr/java32/jre1.7.0_03/bin/java - priority 20
/usr/lib/jvm/java-6-openjdk-amd64/jre/bin/java - priority 1061
  slave java.1.gz: /usr/lib/jvm/java-6-openjdk-amd64/jre/man/man1/java.1.
current 'best' version is '/usr/lib/jvm/java-6-openjdk-amd64/jre/bin/java
juniper@juniper-virtual-machine:~$

```

Note: If 32 bit Java is installed via package managers, such as **apt-get**, **yum** or **zypper**, the **'alternatives'** link may get automatically updated. In such a case, you can skip Step 2.

3. Install the standard 32 bit libraries and components:

Ubuntu:

```
sudo apt-get -y install ia32-libs
```

RedHat/Fedora:

```

yum -y install xterm
yum -y ld-linux.so.2
yum -y libstdc++.so.6
yum -y libz.so.1
yum -y libXext.so.6
yum -y libXrender.so.1
yum -y libXtst.so.6

```

OpenSUSE:

```
zypper install libXi.so.6
```

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Now you can connect to the VPN server and click the start button to launch NC. If the NC launcher applet can find the 32 bit Java path in the alternatives links, NC will successfully launch. Otherwise, the following error message is generated:



To launch Network Connect via the command line, use the following command:

```
<java_path> -cp NC.jar -h <ivehostname> -u <username> -p <password> [-r  
<realm>]  
-f <ivecertificate_in_der_format> [-l <gui_log_level> [-L <ncsvc_log_level>]  
[-y <proxy> -  
z <proxy_port> [-s <proxy_username> -a <proxy_password> [-d <proxy_domain>]]]
```

<java_path> is the path to the 32 bit Java version.

Note:

*IcedTeaPlugin will display the **Start: Applet not initialized** error, if the common name (CN) of the VPN's web server certificate does not match with the host name, which is typed in the address bar.*

*This is not a issue with the Juniper VPN. To resolve this, you can add the common name (CN) in **/etc/hosts** and access the VPN server via common name; instead of the IP address.*

PURPOSE:

Configuration
Implementation
Installation
Troubleshooting

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