

[Scenario]

The user must have root privilege to install the SSL VPN client from the DSR router. Some Apple Mac operating systems do not enable root user by default.

[Topology]

PC(192.168.10.55)---(LAN1:192.168.10.1)DSR(WAN:61.218.67.126)---internet---MAC_OS

[Solution]

Since the SSL VPN tunnel can only be established as "root" user, the following method can be used to enable and login as a root user:

- Login as administrator
- Start the terminal: **Applications > Utilities > Terminal**
- At the command prompt enter these commands

```
% sudo passwd root
Enter Password:
Changing password for root
New password:
Verify password:
```

The first password asked for is the Administrator account password, to prove that you are authorized to make changes to this system. After that, enter the new root password (twice for verification). The "root" account is enabled after these steps with the new password.

- Logout of the administrator account. In the login prompt of the OS, select other and supply "**root**" as username and new password defined previous step
- Once logged in, SSL VPN client binaries can be downloaded to this operating system and SSL VPN tunnels can be established.

STEP1

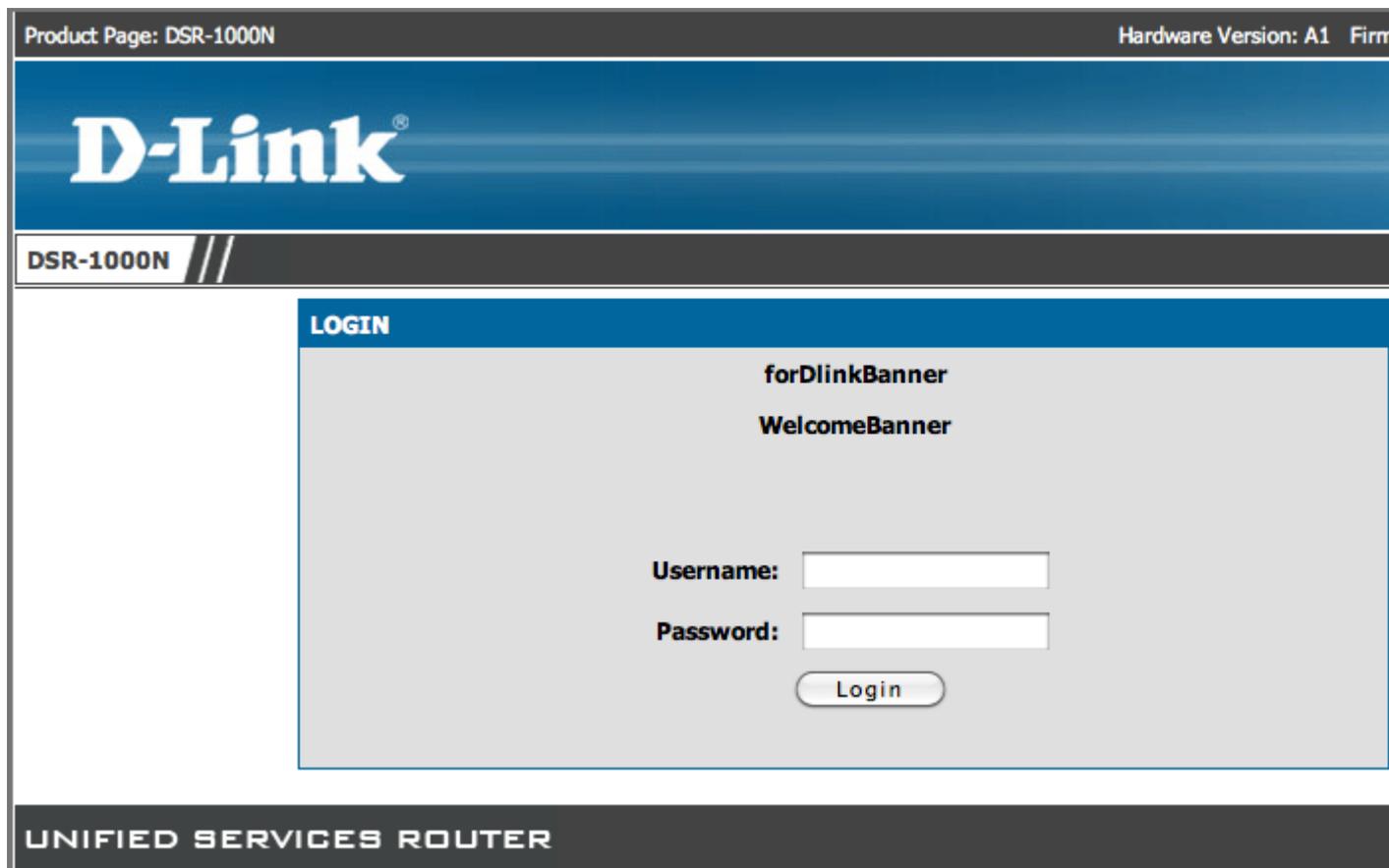
Check the browser, OS version and java version(v14.1-b02-90) , and ensure the Safari is running in 32-bit mode. In MAC-10.6 O.S (Snow Leopard) Safari can be run in two different modes. By default it will run in 64-bit mode. To enable 32-bit mode from MAC desktop options select **Go -> Applications -> Safari. Right click on Safari icon -> Select Get Info** and select Open in 32-bit mode. For Java Run-Time Environment JavaFrameEmbedding.framework needs to be installed. It is available in **System -> Library -> Frameworks** directory and should be installed if not present



```
Terminal — sh — 80x24
-ea[:<packagename>...|:<classname>]
-enableassertions[:<packagename>...|:<classname>]
    enable assertions
-da[:<packagename>...|:<classname>]
-disableassertions[:<packagename>...|:<classname>]
    disable assertions
-esa | -enablesystemassertions
    enable system assertions
-dsa | -disablesystemassertions
    disable system assertions
-agentlib:<libname>[=<options>]
    load native agent library <libname>, e.g. -agentlib:hprof
    see also, -agentlib:jdwp=help and -agentlib:hprof=help
-agentpath:<pathname>[=<options>]
    load native agent library by full pathname
-javaagent:<jarpath>[=<options>]
    load Java programming language agent, see java.lang.instrument
-splash:<imagepath>
    show splash screen with specified image
MACs-MacBook-Pro:~ root# java -version
java version "1.6.0_15"
Java(TM) SE Runtime Environment (build 1.6.0_15-b03-219)
Java HotSpot(TM) 64-Bit Server VM (build 14.1-b02-90, mixed mode)
MACs-MacBook-Pro:~ root# █
```

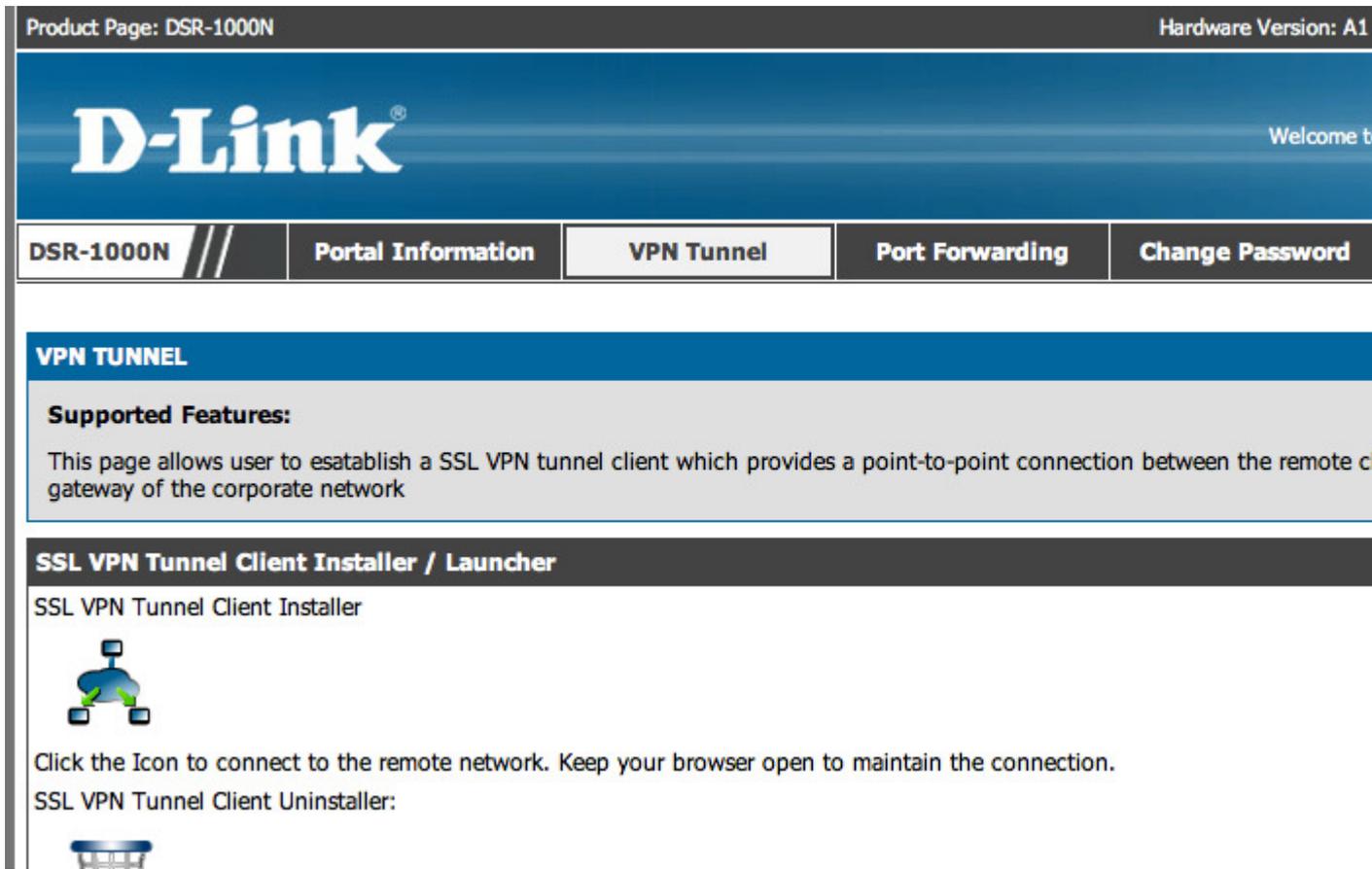
STEP2

Login to the portal of SSL-VPN-Client. (Username/password:test/test)



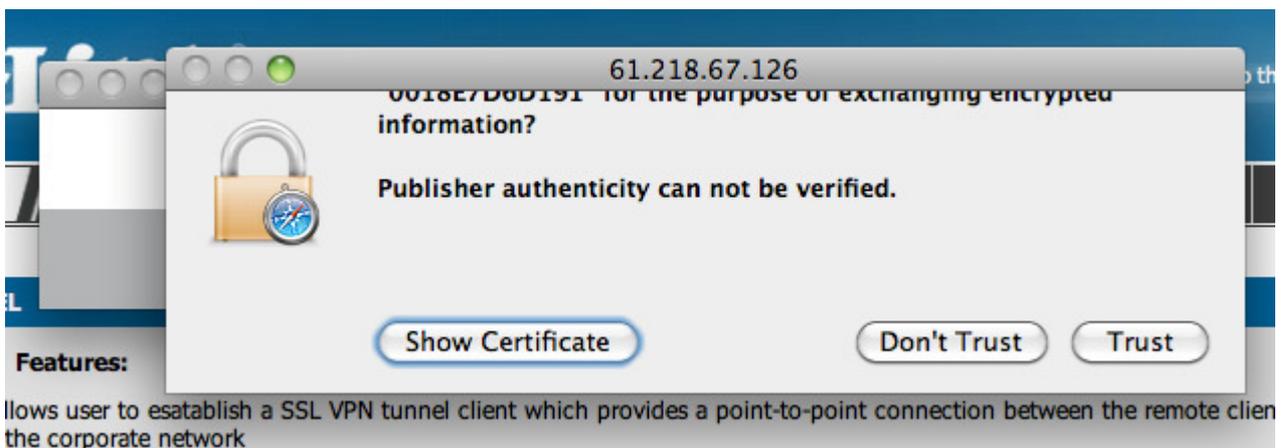
STEP3

On the page of "VPN tunnel", click the icon of "SSL VPN Tunnel Client Installer"



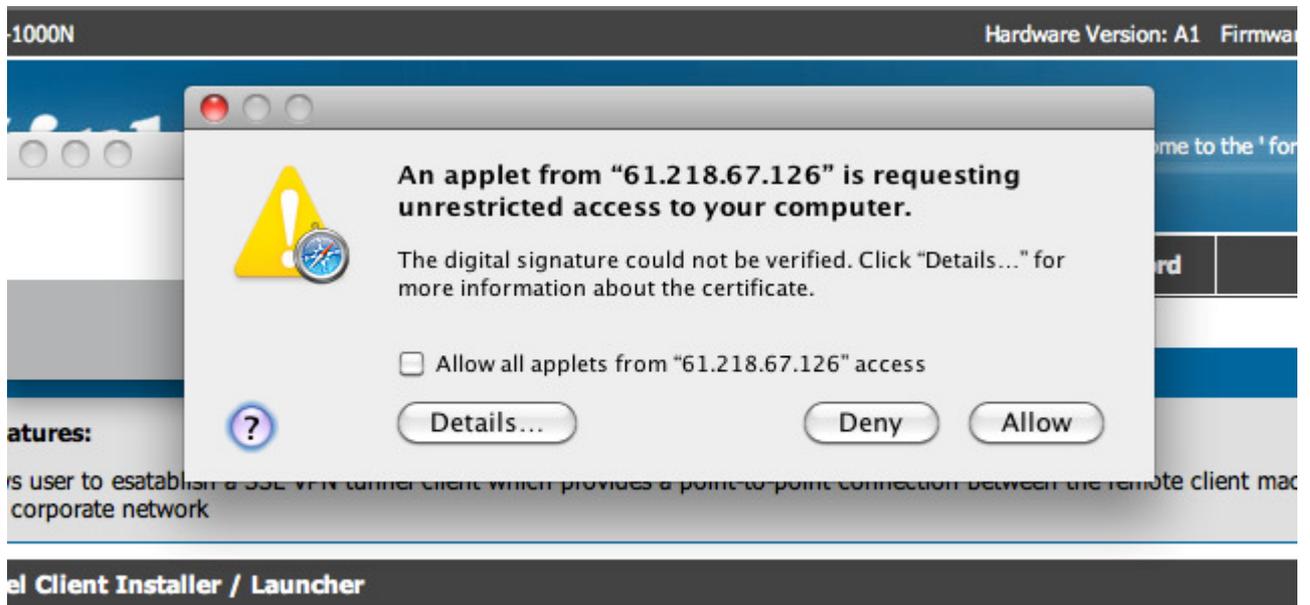
STEP4

"Trust" the certification for downloading the tool.



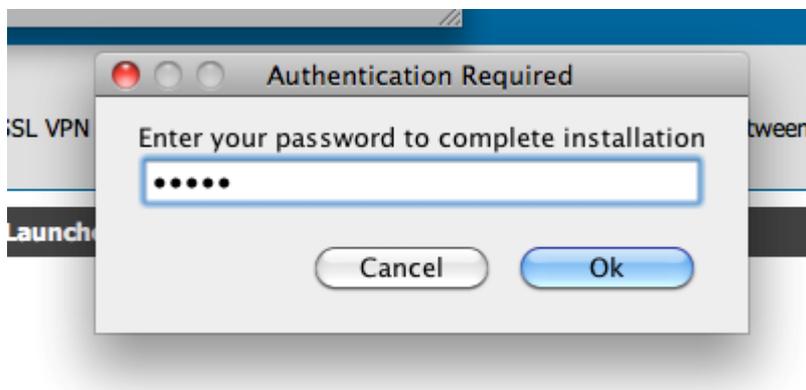
STEP5

Allow the applet installation.



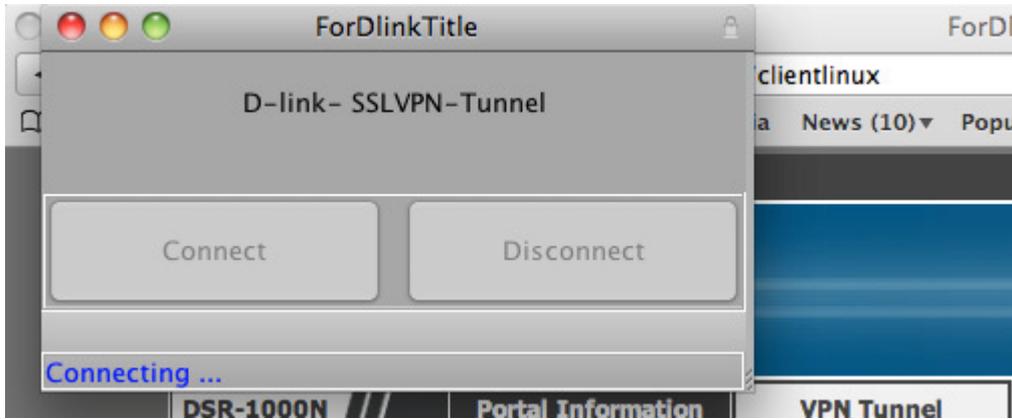
STEP6

Enter the root's password.



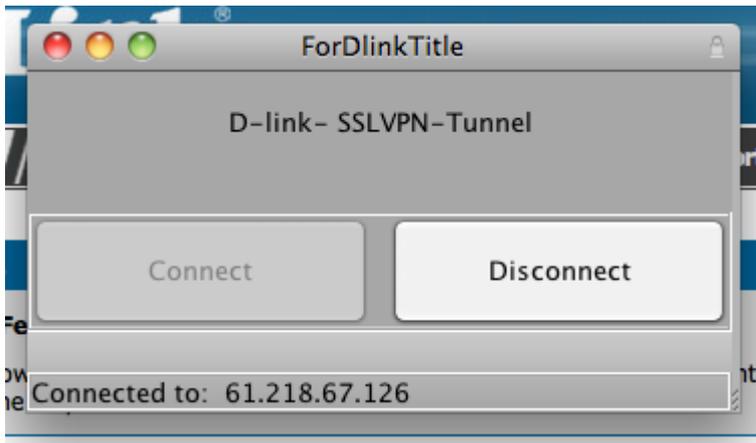
STEP7

SSL-VPN software has been starting to establish the SSL tunnel.



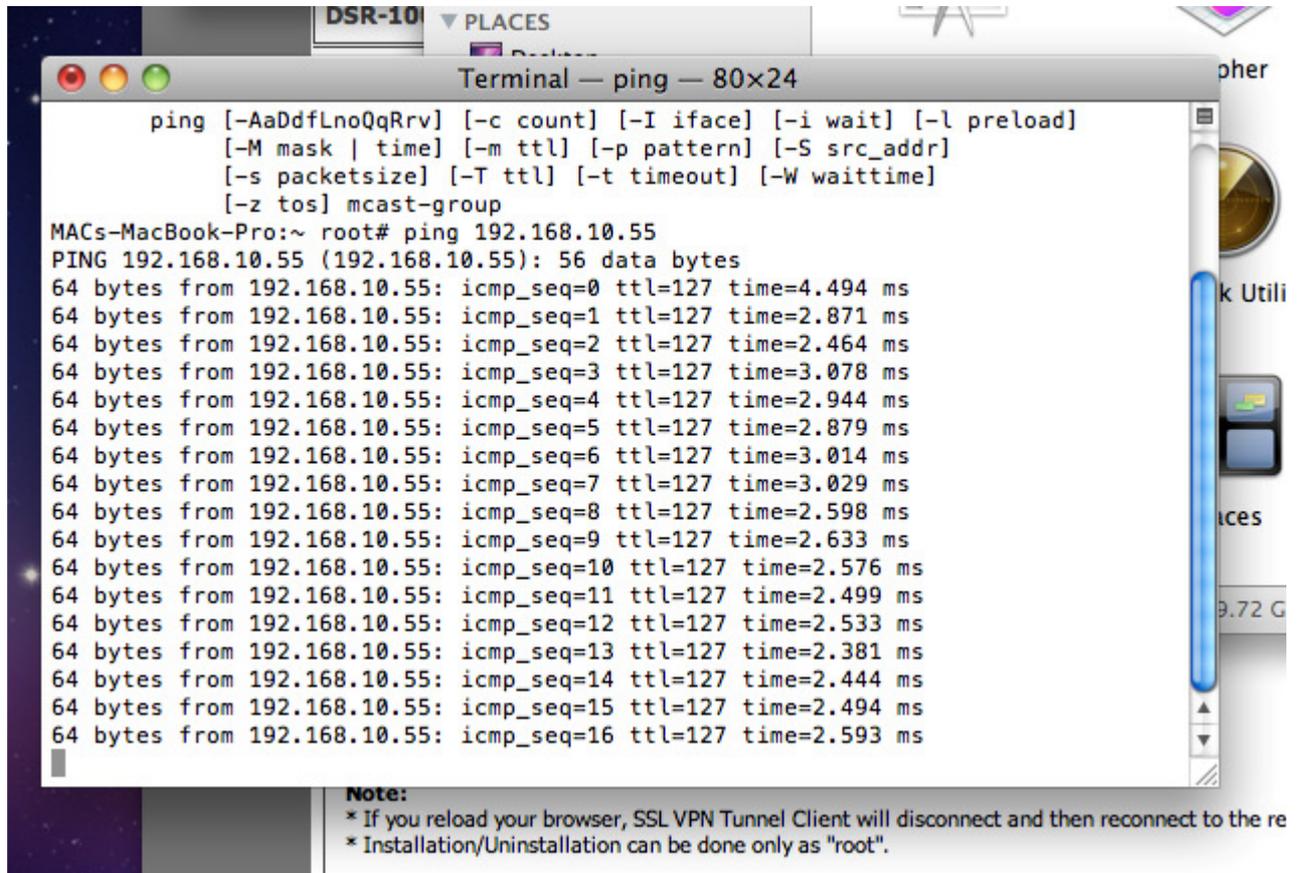
STEP8

SSL Tunnel established.



STEP9

Try to PING the PC(192.168.10.55) in which is behind DSR-1000N.



```
MACs-MacBook-Pro:~ root# ping 192.168.10.55
PING 192.168.10.55 (192.168.10.55): 56 data bytes
64 bytes from 192.168.10.55: icmp_seq=0 ttl=127 time=4.494 ms
64 bytes from 192.168.10.55: icmp_seq=1 ttl=127 time=2.871 ms
64 bytes from 192.168.10.55: icmp_seq=2 ttl=127 time=2.464 ms
64 bytes from 192.168.10.55: icmp_seq=3 ttl=127 time=3.078 ms
64 bytes from 192.168.10.55: icmp_seq=4 ttl=127 time=2.944 ms
64 bytes from 192.168.10.55: icmp_seq=5 ttl=127 time=2.879 ms
64 bytes from 192.168.10.55: icmp_seq=6 ttl=127 time=3.014 ms
64 bytes from 192.168.10.55: icmp_seq=7 ttl=127 time=3.029 ms
64 bytes from 192.168.10.55: icmp_seq=8 ttl=127 time=2.598 ms
64 bytes from 192.168.10.55: icmp_seq=9 ttl=127 time=2.633 ms
64 bytes from 192.168.10.55: icmp_seq=10 ttl=127 time=2.576 ms
64 bytes from 192.168.10.55: icmp_seq=11 ttl=127 time=2.499 ms
64 bytes from 192.168.10.55: icmp_seq=12 ttl=127 time=2.533 ms
64 bytes from 192.168.10.55: icmp_seq=13 ttl=127 time=2.381 ms
64 bytes from 192.168.10.55: icmp_seq=14 ttl=127 time=2.444 ms
64 bytes from 192.168.10.55: icmp_seq=15 ttl=127 time=2.494 ms
64 bytes from 192.168.10.55: icmp_seq=16 ttl=127 time=2.593 ms
```

Note:
* If you reload your browser, SSL VPN Tunnel Client will disconnect and then reconnect to the re
* Installation/Uninstallation can be done only as "root".