



SSL VPN INSTALLATION GUIDE



Sonicwall VPN Client Download & Installation Guide

❖ For Windows Machines :

- 1) Open Browser and Browse the following URL to download the client.
<https://103.237.170.61/cgi-bin/welcome/VirtualOffice>
It is also available on <https://sftp.msei.in> portal where you can use your SFTP credentials to download the client.
[path > common/setup/ssl vpn setup/NetExtender.8.6.260.MSI](#)
- 2) Now you will get MSE portal as shown in below Fig. 1 on the browser so login the portal with the user name and password provided to you.

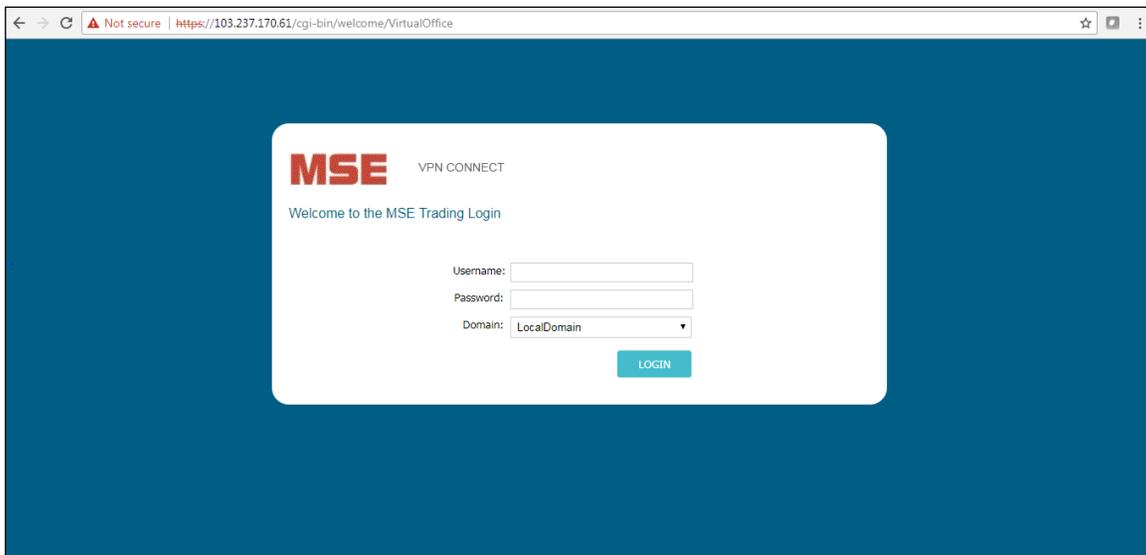


Fig. 1

- 3) Once you are logged in Click on Downloads option beside logout tab on top right corner which is highlighted in below Fig. 2

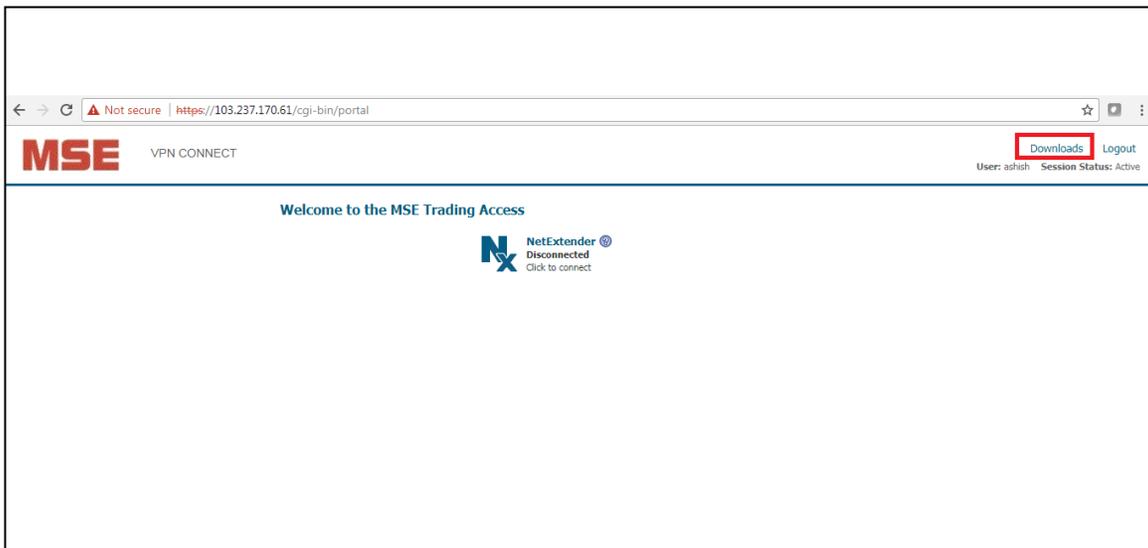


Fig. 2

- 4) In Downloads Click on Windows.exe which is in NetExtender Client option .The option is highlighted in below Fig. 3.This client is applicable for both Windows 32 as well as 64 bit hardware.

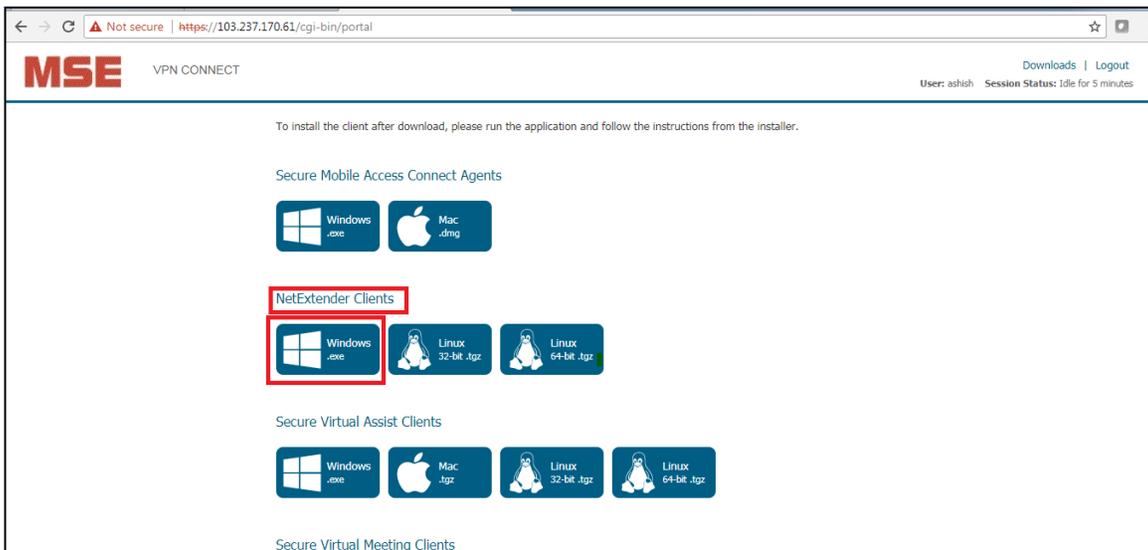


Fig.3

- 5) Once the client is downloaded successfully we need to run the downloaded file by clicking on it, but before running the file make sure you are logged in into machine with administrator rights.

- 6) Once you run the exe file it will launch a setup wizard to guide you to install the agent. So click on next option as shown in below Fig. 4.

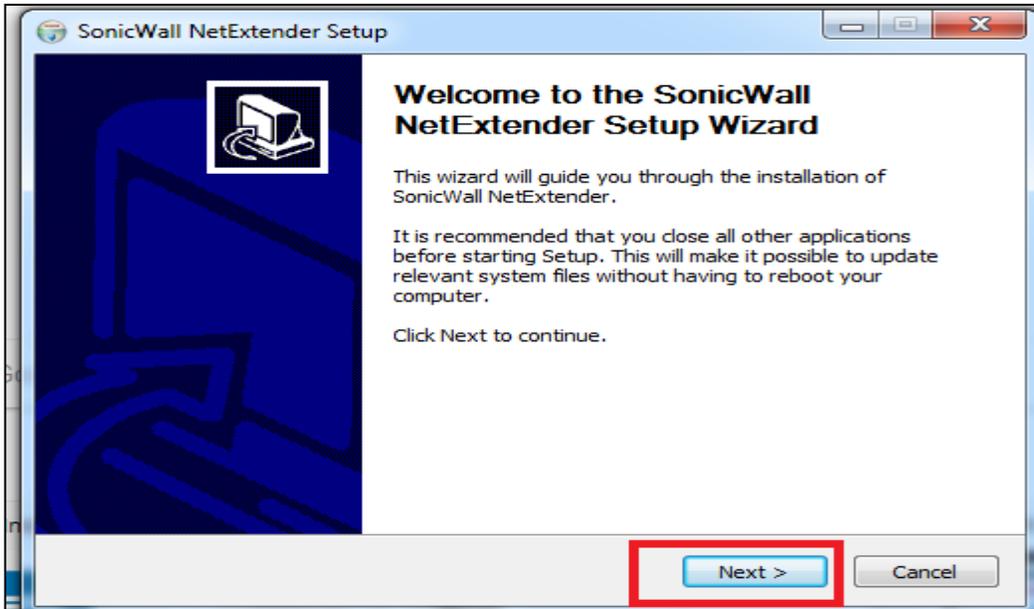


Fig.4

- 7) Now the licenses page will be displayed so there you have to click on I accept radio button and then click on Next as highlighted in below Fig. 5.

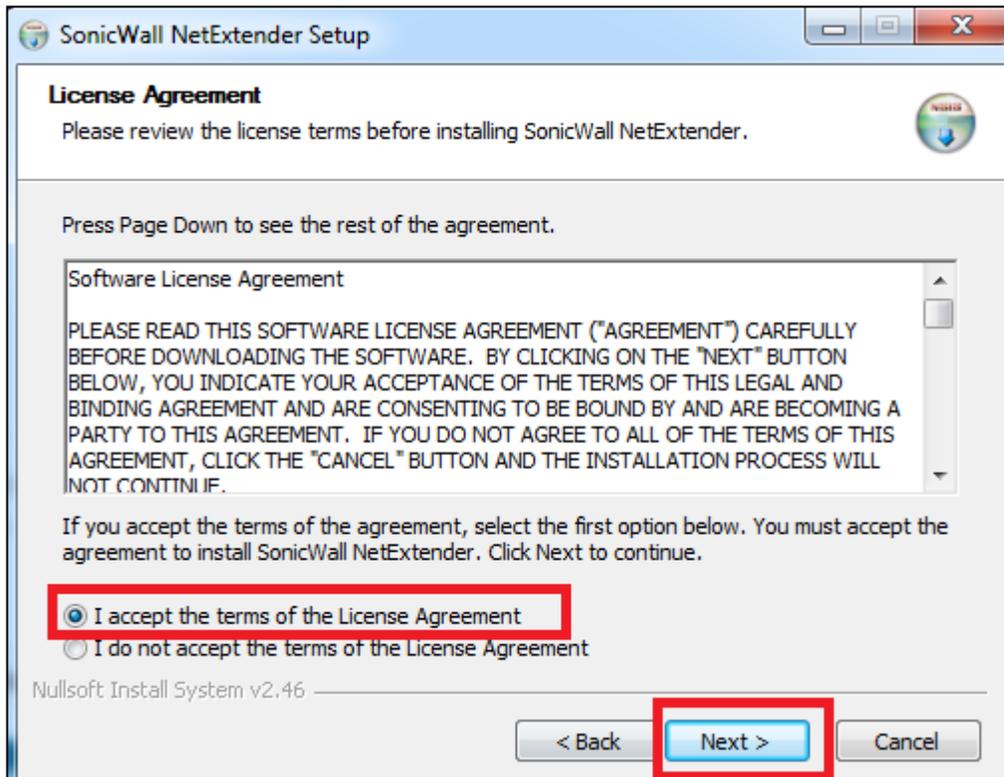


Fig. 5

- 8) Now it will ask for location where you want to install the agent. by default C drive program files is given so you can keep it default and proceed further by clicking on Next as highlighted in below Fig. 6 .

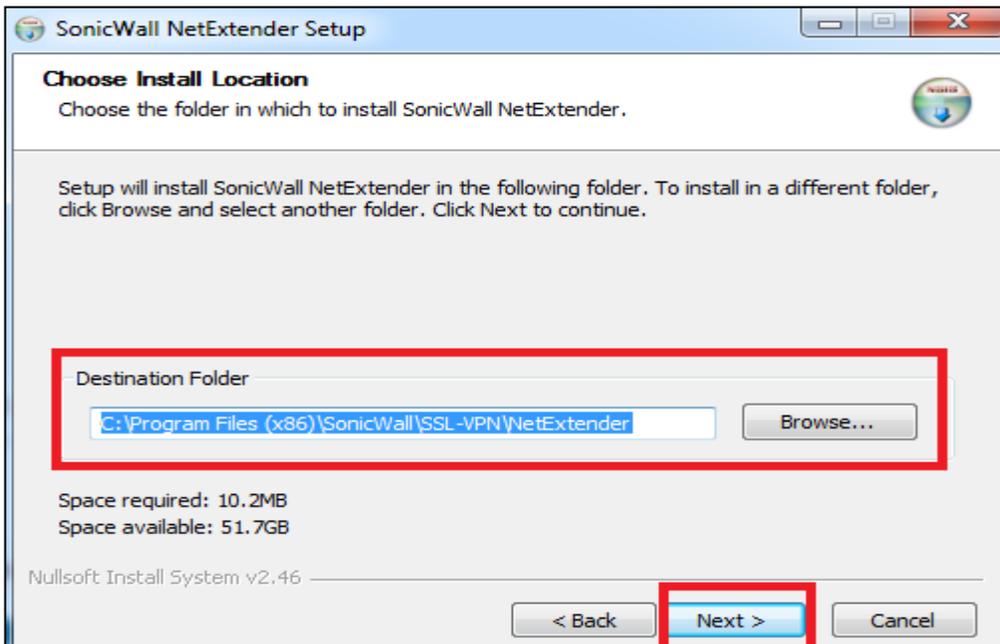


Fig. 6

- 9) Now it will ask for shortcuts where you want to place agents so by default all are selected so let it be as default and simply click on Next without changing anything as highlighted in below Fig. 7.

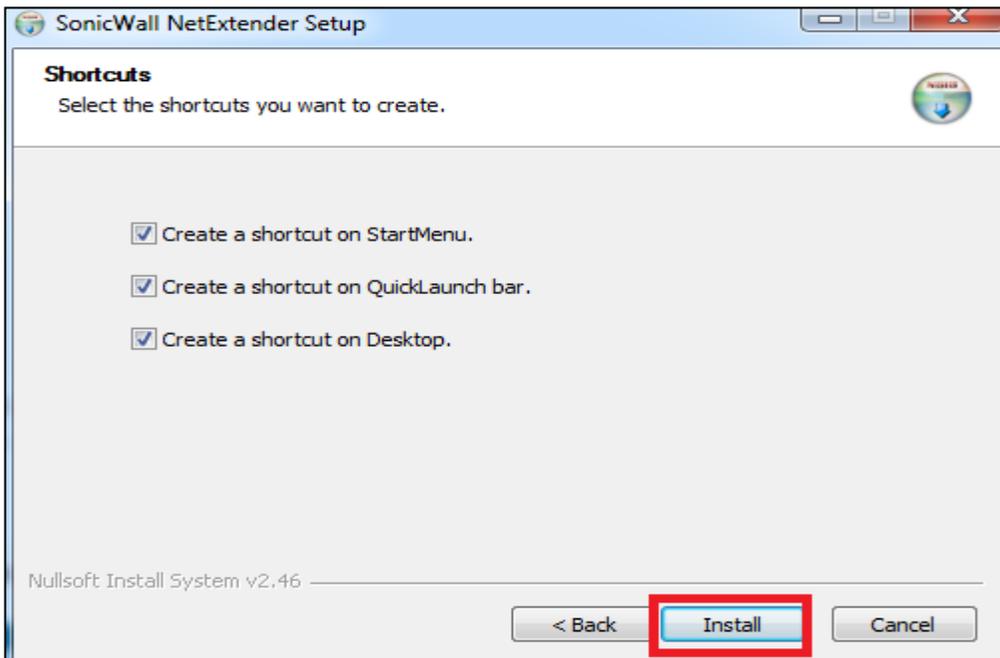


Fig.7



- 10) Once the installation is done click on Finish and it will end the installation and launch the client on your desktop. In below image red highlighted is the agent shortcut so whenever you need to connect to VPN client you need to click on this application and once it is open it will be displayed as highlighted in green. So to connect over VPN you need to enter your Server IP address(103.237.170.61) and your user-name and password and in Domain Tab Type LocalDomain as shown in below Fig. 8.

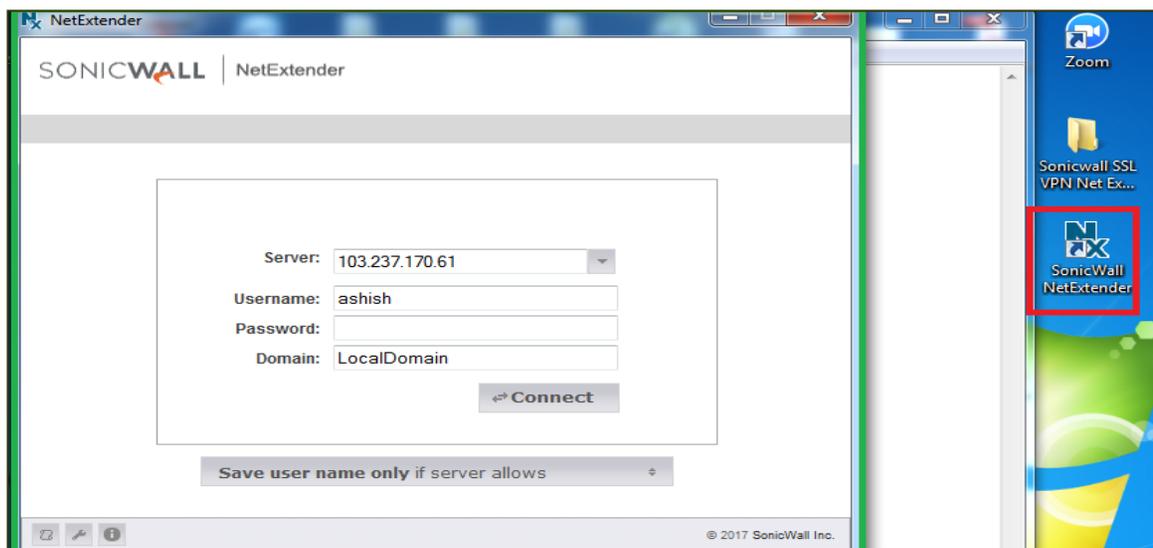


Fig. 8

11) Post that you will get connection establishment popup as highlighted below in Fig. 9.

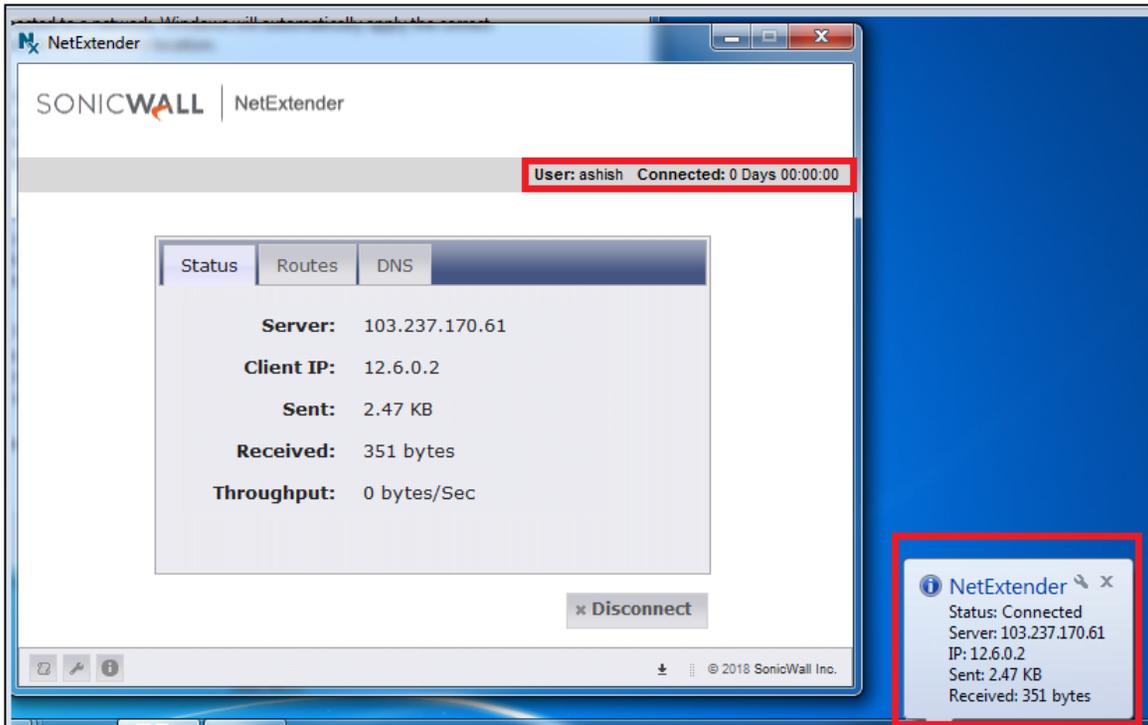


Fig. 9

❖ For Linux Machines :

- 1) Open Browser and Browse the following URL to download the client.
<https://103.237.170.61/cgi-bin/welcome/VirtualOffice>
- 2) Now you will get MSE portal as shown in below image on the browser so login the portal with the user name and password provided to you.

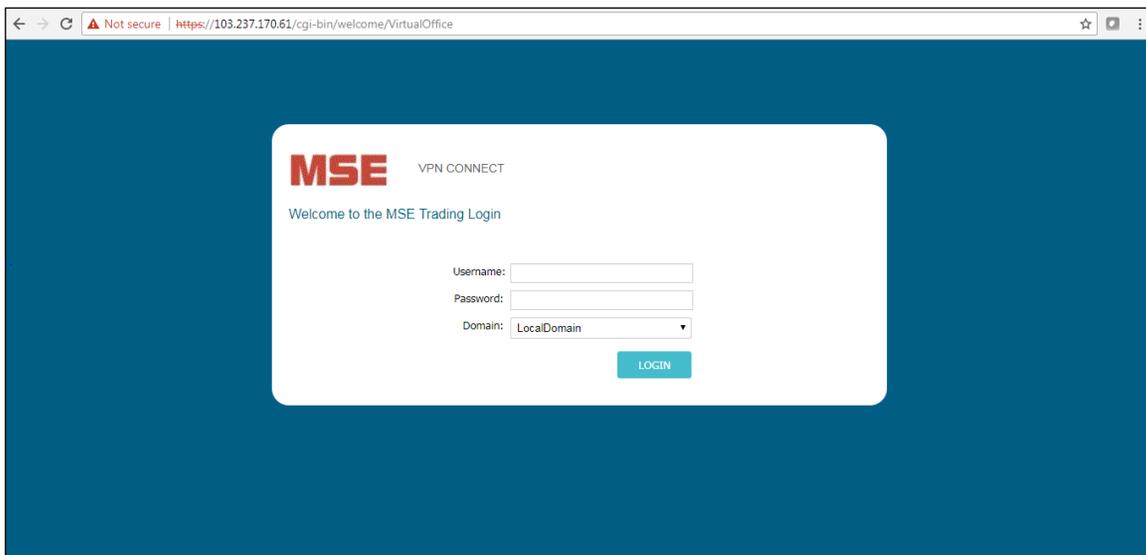


Fig. 1



- Once you are logged in Click on Downloads option beside logout tab on top right corner which is highlighted in below image.

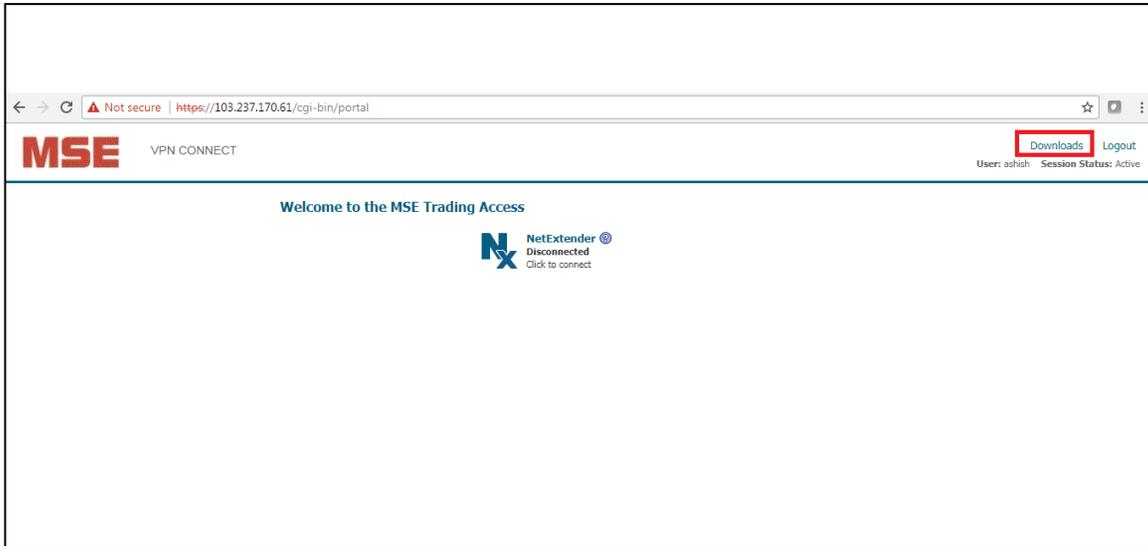


Fig. 2

- In Downloads below NetExtender Tab Click on the respective agents which you wan to download as per your OS and hardware compatibility.

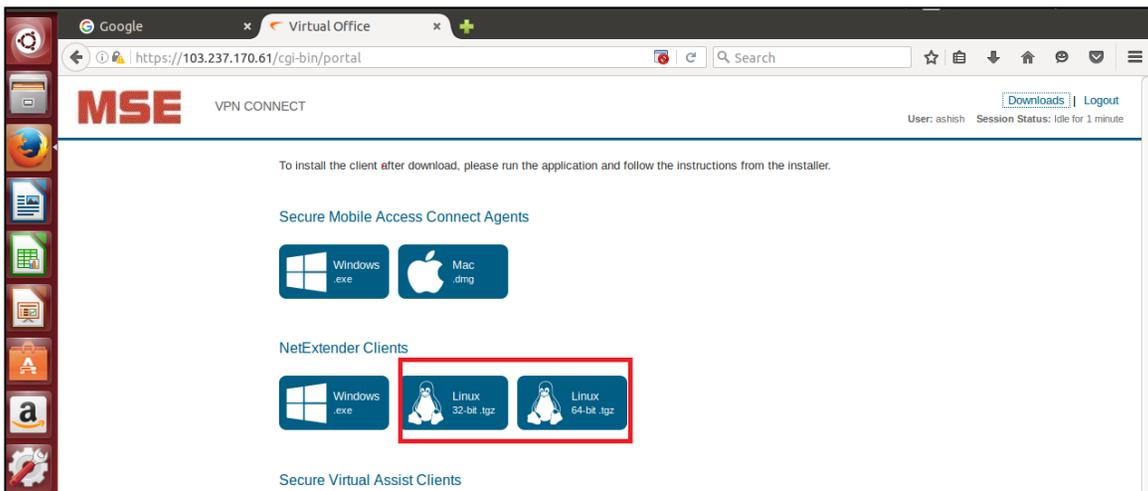


Fig. 3

- 5) The downloaded NetExtender file was extracted using tar (Fig. 4) CLI utility. One may consider using a GUI utility offered in a distribution. It extracts a directory called NetExtenderClient.

tar xzvf filename.tgz

```
ratan@element:~/Downloads$ ls
NetExtender.Linux.8.6.801.x86_64.tgz
ratan@element:~/Downloads$ tar xzvf NetExtender.Linux.8.6.801.x86_64.tgz
netExtenderClient/
netExtenderClient/libNetExtender.so
netExtenderClient/NetExtender.desktop
netExtenderClient/ca-bundle.crt
netExtenderClient/netExtender.1
netExtenderClient/icons/
netExtenderClient/icons/nx16.xpm
netExtenderClient/icons/nx128.png
netExtenderClient/icons/nx32.png
netExtenderClient/icons/nx48.xpm
netExtenderClient/icons/nx128.xpm
netExtenderClient/icons/nx16.png
netExtenderClient/icons/nx32.xpm
netExtenderClient/icons/nx48.png
netExtenderClient/NetExtender.jar
netExtenderClient/uninstallNetExtender
netExtenderClient/netExtender
netExtenderClient/libNetExtenderEpc.so
netExtenderClient/install
netExtenderClient/README
netExtenderClient/nxMonitor
netExtenderClient/netExtenderGui
netExtenderClient/sslvpn
ratan@element:~/Downloads$ ls
NetExtenderClient NetExtender.Linux.8.6.801.x86_64.tgz
ratan@element:~/Downloads$ ls netExtenderClient/
ca-bundle.crt  install  libNetExtender.so  netExtender.1  netExtenderGui  nxMonitor  sslvpn
icons          libNetExtenderEpc.so  netExtender      NetExtender.desktop  NetExtender.jar  README  uninstallNetExtender
ratan@element:~/Downloads$
```

The tar options:
x: extract, z: for unzipping gz, v: verbose, f: filename

Fig. 4

- 6) Fig. 4. Extracting the NetExtender.Linux.xxx.tgz file. The README file provides brief instructions (Fig. 5).

```
ratan@element:~/Downloads$ cd netExtenderClient/
ratan@element:~/Downloads/netExtenderClient$ ls
ca-bundle.crt  install  libNetExtender.so  netExtender.1  netExtenderGui  nxMonitor  sslvpn
icons          libNetExtenderEpc.so  netExtender      NetExtender.desktop  NetExtender.jar  README  uninstallNetExtender
ratan@element:~/Downloads/netExtenderClient$ cat README
SonicWALL NetExtender Client for Linux

To install:
1. First unzip the tar ball, type:
   tar xzvf NetExtender.tgz or
   tar xzvf NetExtender.x86_64.tgz (64-bit)
2. Run the install script:
   cd netExtenderClient
   ./install (you need root permission)
```

Fig. 5. An Excerpt of the README file.

- 7) NetExtender Client's GUI uses Java runtime. Therefore one has to install a Java Development Kit (JDK) and Java Runtime Environment (JRE). Without them, the
- 8) NetExtender GUI will not be functional. However, one can still use it by the CLI commands, discussed later in this article. For the present study, only a JRE was installed.
- 9) If JRE is not installed then only follow point 8 to Install JRE (Java Runtime.
- 10) Environment) in your machine. Please enter below commands

```
sudo apt-get update
sudo apt-get install default-jre
java -version
```

```
ratan@element:~/Downloads$ java -version
openjdk version "1.8.0_151"
OpenJDK Runtime Environment (build 1.8.0_151-8u151-b12-0ubuntu0.16.04.2-b12)
OpenJDK 64-Bit Server VM (build 25.151-b12, mixed mode)
ratan@element:~/Downloads$
```

Fig. 6.

Java Runtime Environment (JRE). For the present study, openjdk was and Runtime were used

11) Install NetExtender

As suggested in the README file (Fig. 6), NetExtender was installed by executing the install file (Fig. 8). In the example, below the command was executed from inside the netExtenderClient. If you are running the command from a different location, please update the appropriate file path.

```
sudo ./install
```

```
...
Set pppd
```

```
to run as root [y/N]? Y
```

```
netExtenderClient: ./install
+ x ...tenderClient: ./install
ratan@element:~$ cd Downloads/netExtenderClient/
ratan@element:~/Downloads/netExtenderClient$ ls
ca-bundle.crt          netExtender          nxMonitor
icons                  netExtender.1        README
install                NetExtender.desktop sslvpn
libNetExtenderEpc.so  netExtenderGui       uninstallNetExtender
libNetExtender.so     NetExtender.jar
ratan@element:~/Downloads/netExtenderClient$ sudo ./install 1
[sudo] password for ratan:
--- SonicWALL NetExtender 8.6.801 Installer ---
Checking library dependencies...
Checking pppd...
Do you want non-root users to be able to run NetExtender?
If so, I can set pppd to run as root, but this could be
considered a security risk.
Set pppd to run as root [y/N]? y 2
mode of '/usr/sbin/pppd' retained as 4754 (rwsr-xr--)
mode of '/usr/sbin/pppd' changed from 4754 (rwsr-xr--) to 4755 (rwsr-xr-x)
mode of '/etc/ppp' retained as 0755 (rwxr-xr-x)
mode of '/etc/ppp/peers' changed from 2750 (rwxr-s---) to 2754 (rwxr-sr--)
mode of '/etc/ppp/peers/provider' changed from 0640 (rw-r-----) to 0644 (rw-r--r--)
mode of '/etc/ppp/peers' changed from 2754 (rwxr-sr--) to 2755 (rwxr-sr-x)
Copying files...

----- INSTALLATION SUCCESSFUL -----

To launch NetExtender, do one of the following:

1. Click the NetExtender icon under the Applications menu
   (look under the 'Internet' or 'Network' category)
   or
2. Type 'netExtenderGui'

ratan@element:~/Downloads/netExtenderClient$ █
```

Fig. 7. Installing NetExtender from the Package directory. Please notice the prompt "Set pppd ..." (2). One has to permit (y) NetExtender to run pppd as the root.

12) Now we will see how to access Installed NetExtender agent and connect to MSE.

13) From GUI One can use the NetExtender Icon from the Applications (Fig. 8). Accessing this depends on the User Interface (UI) of the distribution.

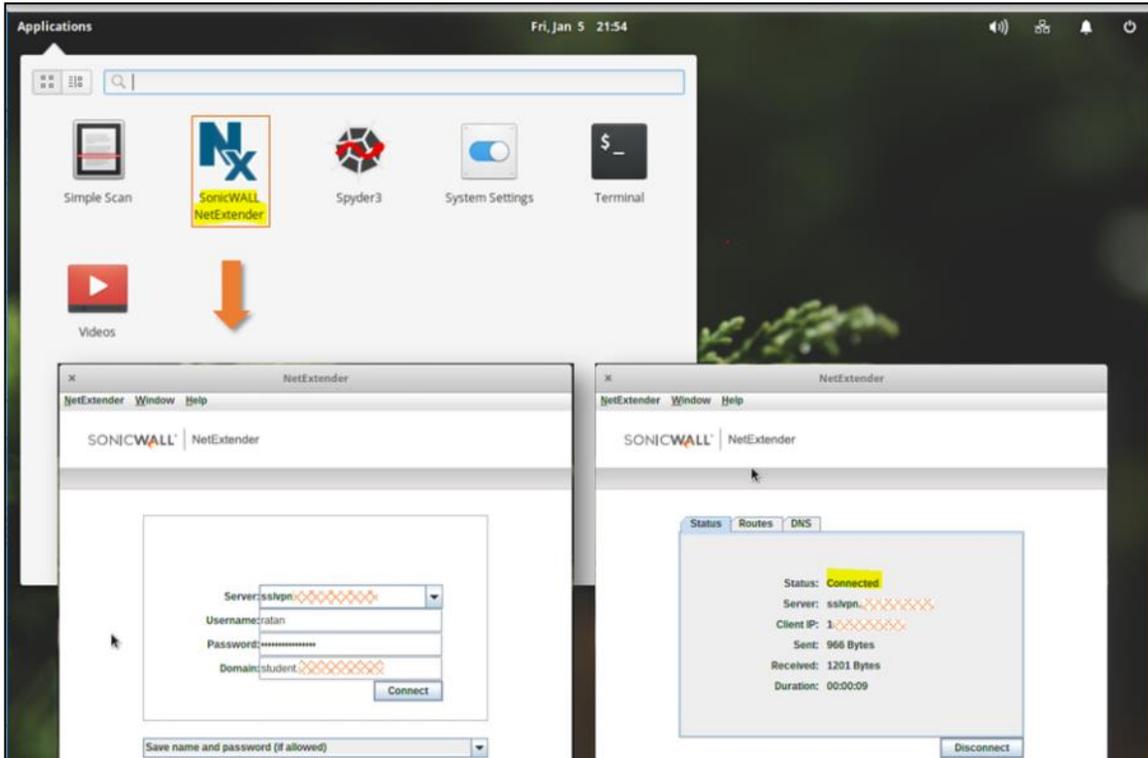


Fig. 8. Operating NetExtender from the GUI control. A successful connection is indicated by Status:"Connected", Client IP, Sent, Received and Duration.

14) From CLI As pointed out that earlier, one may operate NetExtender from the CLI, which is also the only option if there is no JDK and JRE. Netextender has a man page that can be accessed by `man netextender` (Fig. 9).

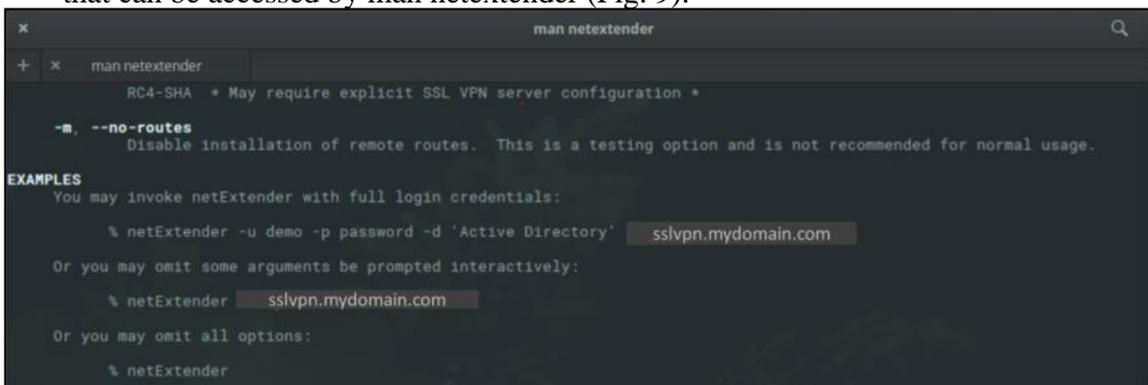


Fig. 9. man netextender the manual page. Please notice that one can invoke NetExtender by the command `netExtender` and provide the parameters interactively. Alternatively, the parameters can be supplied in line with appropriate switches: -u (user name) -p (password) -d (domain).

```
ratan@element:~$ netExtender : .com
NetExtender for Linux - Version 8.6.801
SonicWall
Copyright (c) 2017 SonicWall

User Access Authentication
User: 
Password: 
Domain: 
Connecting to ...
Connected.
Logging in...
Login successful.
SSL Connection is ready
Using SSL Encryption Cipher ' '
Using new PPP frame encoding mechanism
Using PPP async mode (chosen by server)
Connecting tunnel...
Client IP Address: 
You now have access to the following x remote networks:

NetExtender connected successfully. Type "Ctrl-c" to disconnect...
^CTerminating pppd.
SSL VPN logging out...
SSL VPN connection is terminated.
Exiting NetExtender client
ratan@element:~$
```

Fig. 10. Invoking NetExtender from the CLI. A successful connection provides a list of remote subnets accessible. Please notice that Control-C terminates an SSL-VPN session.

NOTE :-- For MAC OS and IOS user can download and install Sonicwall Mobile Connect application from App Store.

THANK YOU