

Pulse Secure SSL VPN

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1) **Basic Concept** : Virtual Private Network, or VPN is the term used to refer to any device that is capable of creating a semi-permanent encrypted tunnel over the public network *between two private machines or networks* to pass non-protocol specific, or arbitrary, traffic. One of the key elements of VPNs is encryption. To protect sensitive or nonroutable data as it passes over the public Internet, we need to create a virtual private tunnel. This tunnel is built by encrypting the packets or frames of data and then encapsulating these in regular IP traffic between the two hosts or networks. At the end of this tunnel, the encapsulated encrypted data is decrypted and disassembled and sent on its merry way to the proper destination.

2) **Prerequisites** :

- Connection to the internet
- Mac OS X , Windows 7 and up
- Administrator level access to the computer you are using to connect with (*only need this for the first time, subsequent connections do not need admin access*)

Untested operating systems, should work, but you'll have to fiddle with it on your own:
Linux, iOS, Android, Windows 8+10 Mobile

3) **Limitations and Security** : While connecting via SSL VPN, we have set the default to only allow access to your labs' server and certain core services. This is needed in order to protect our systems in case your computer has a virus or someone has stolen your password. Access to other servers not in your normal configuration is automatically blocked. Please understand that we're doing this to protect your work, not to make life difficult for you, but if you need access to certain servers that are out of normal, please don't hesitate to contact us.

On the subject of viruses, it is still best to make sure your computer has the most updated antivirus software installed.

Generally, try to avoid using internet cafes and public internet kiosks, when using ssl vpn with us. The risk is that there is no way of knowing if those computers are safe or has been hacked. Sometimes it's unavoidable, so when you do, please remember to close the browser window and log off the computer. This will prevent someone from getting into your files after you've left the café. And when you get back, change your password as soon as possible.

4) **Connection Instructions**

Modes of Operation

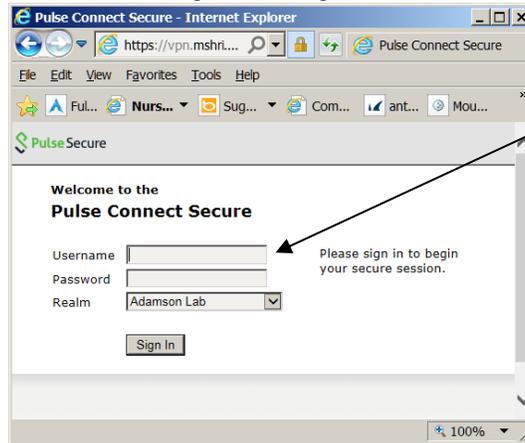
There are 2 basic modes of operation:

Mode 1 – Basic Web Browser menu mode

Mode 2 – Pulse Secure Client

Mode 1 : If all you want to do is to retrieve a file from your network share, #1 is what you'll be using. Firstly, using a browser, connect to the address to get to the login screen:

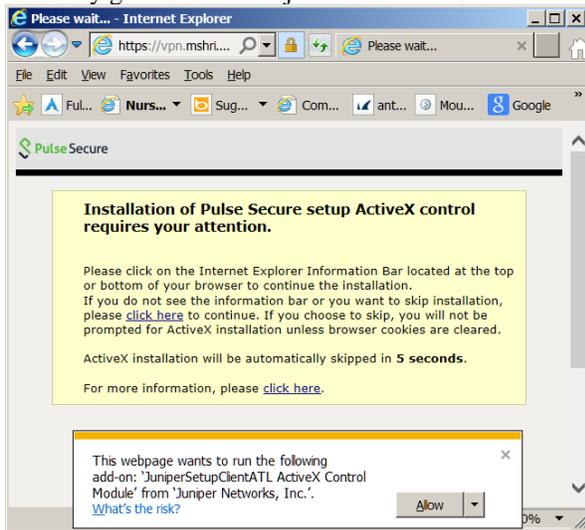
<https://vpn.mshri.on.ca>



At the login screen, just type in your username. You **do not** need to put slri_lan1 in front of your username!

Then select the lab “**Realm**” that you belong to and click on “Sign In”

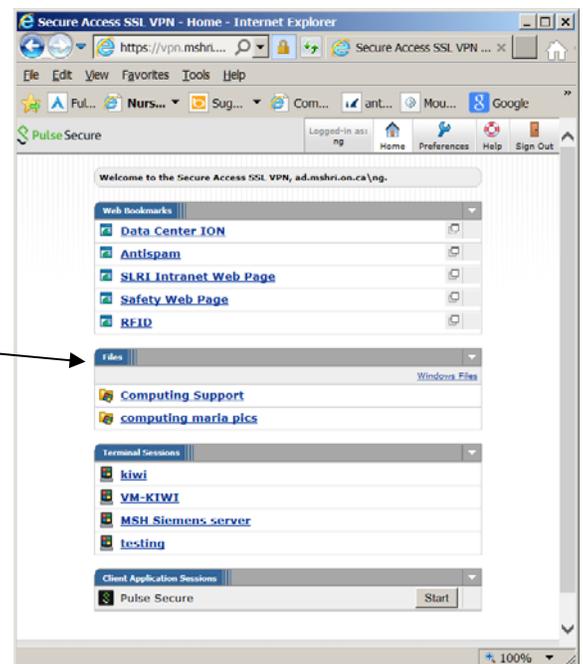
You may get this notice – just click on **Allow**:



You should now get a screen looking similar to the one here.

The items just below the menu heading “Files” are links to your lab share folder. In the nearby picture, it’s “**Computer Support**”, but your screen will show “**Labdata8**” or something similar.

Click onto the labshare folder and just click on the file you want, this will prompt you to save the file onto your local computer’s hard drive.





***** WARNING WARNING WARNING!!!! *****

There are several things that you MUST pay attention to here.

This is an important concept that you must wrap your brain around! When you click on save (from within your application, i.e. MS Word/Powerpoint), **YOU ARE NOT SAVING THE FILE BACK ONTO THE SERVER!** You are in fact actually saving it onto the computer you are using. For example, if you are sitting at an internet café and you download the Powerpoint file you needed, work on it for several hours and then click on save, you are saving the file onto the internet café's computer. When you go back to work, you'll realize that all the work you did at the café is not there and you've just wasted your money drinking all that overpriced coffee. What you must do is to save the file, then **UPLOAD** it back into your folder. Please note the picture above. Click on the upload files and just follow the menu items. I highly recommend that you do not overwrite your original files, and that instead you name your files incrementally, i.e. thesis1a.doc thesis1b.doc, etc etc. This will also let you visually verify that the new file has been successfully uploaded. Also remember **WHERE** you saved this file on the computer you are using. Do not just blindly click on "save", make sure you specify which folder you are putting it in. Also, be extremely careful what files you are downloading and where you are saving them. If they are confidential files, it is your responsibility to make sure they are deleted off any place that may expose them to unauthorized access, i.e. an internet café. If you are unsure of how to do this, then do not use ssl vpn to access files in an unsecured place.

The Mode 2 method of connecting – "**Pulse Secure**" – is the most flexible mode of connection. When connected, you will be able to access printers and also connect directly to your labshare. Conceptually, it will appear as if you are physically connected to our network. However, this mode requires that you have Administrator level access for the first time, in order to install the client softwares that will handle the connections.

On the address bar of your internet browser, type in the following:

<https://contact.mshri.on.ca/it/?page=Resources>

Under VPN Pulse Secure, download the appropriate version for your Operating System.

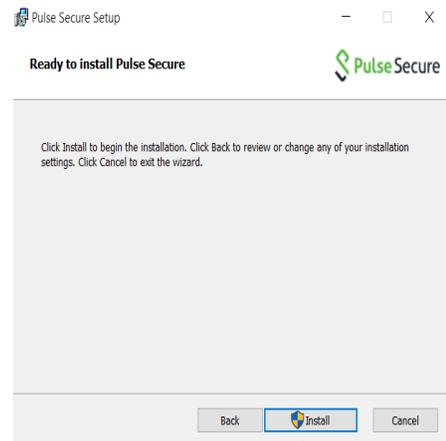
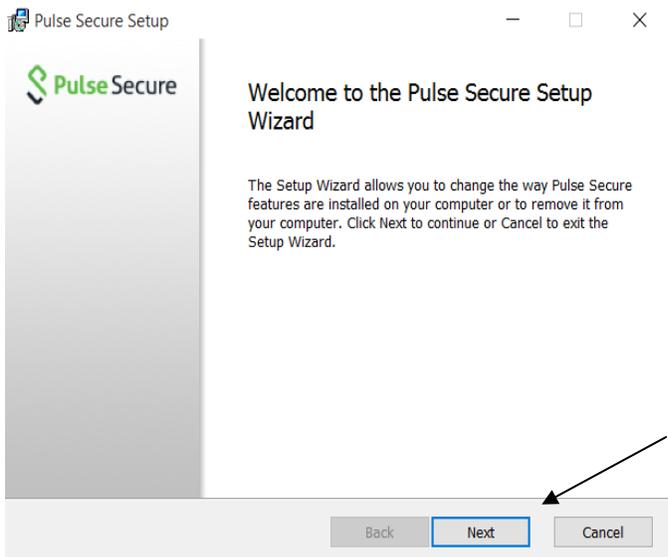
- VPN PULSE Win-5.2r.1.0-b2273-32bit installer for Windows 32 bit
- VPN PULSE Win-5.2r.1.0-b2273-64bit installer for Windows 64 bit
- VPN PS Pulse Mac-5.2r1.0-b227 installer for Mac OS

Resources

SecureDoc USB Reader Software for Windows PC v5.1	SecureDocMVv51x2010x15Setup.zip	(26.7 MB)
SecureDoc USB Reader Software for Mac v5.3	SecureDoc_Media_Viewer_For_Mac_v5.3.50.zip	(10.1 MB)
Web Outlook Simple Login Instructions	OWA Simple Instructions Login.doc	
Outlook - How to open Shared Calendars using Web Outlook	ROOM BOOKING CALENDARS USING OWA.doc	
VPN Pulse Secure		
VPN PS Pulse Win-5.2r1.0-b227-32bit installer	it/files/file/ps-pulse-win-5_2r1_0-b227-32bitinstaller_msi.zip	
VPN PS Pulse Win-5.2r1.0-b227-64bit installer	it/files/file/ps-pulse-win-5_2r1_0-b227-64bitinstaller_msi.zip	
VPN PS Pulse Mac-5.2r1.0-b227 installer	it/files/file/ps-pulse-mac-5_2r1_0-b227-installer_dmg.zip	

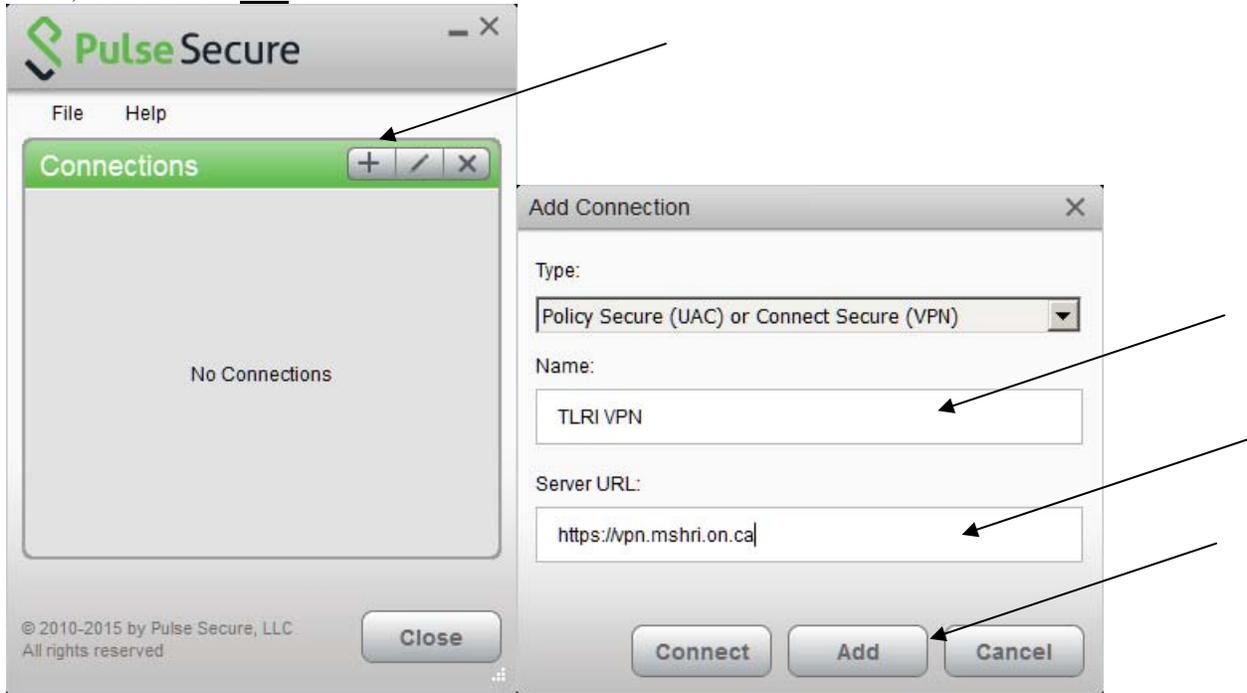
Once Downloaded, double click on the file and click next.

Name	Type	Compressed size
 ps-pulse-win-5.2r1.0-b227-64bitins...	Windows Installer Package	14,075 KB

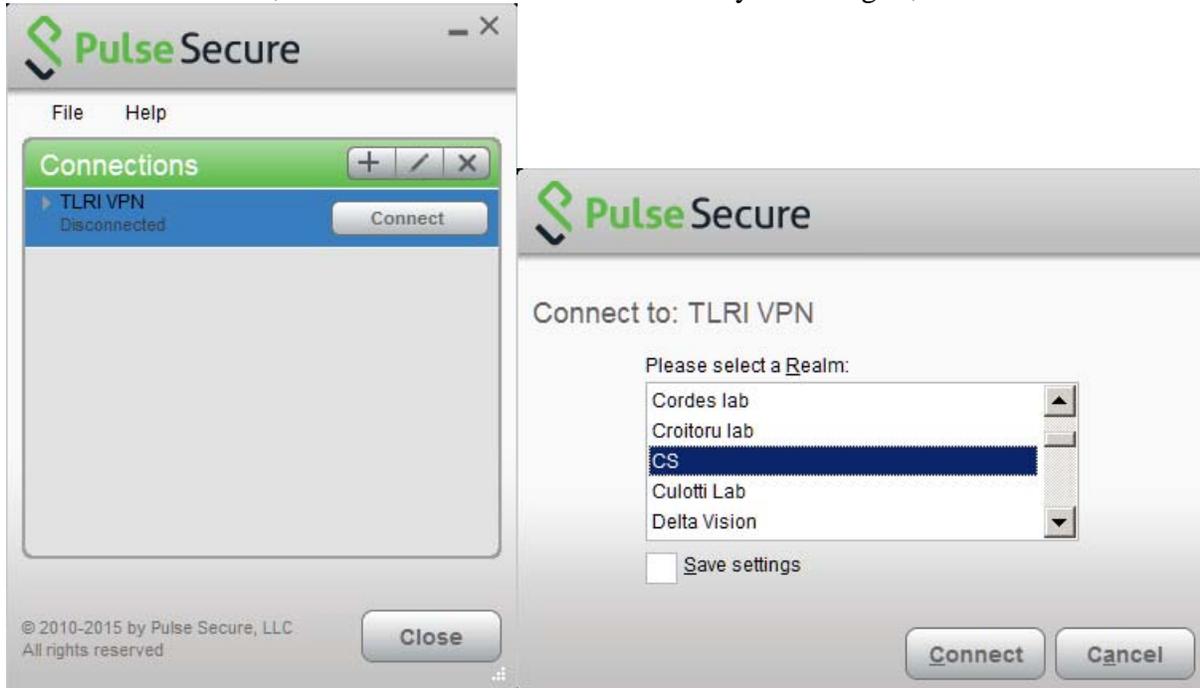


Click on Install. Once installed, launch Pulse Secure .

Click on the + Plus sign to create a new connection. In the “Name” and “Server URL” fields, fill it out like the picture below, then click on “**Add**”:



Click on “Connect” , then select the Lab or “realm” that you belong to, and click on “Connect”

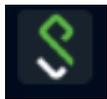


Enter your LTRI username and password and then click on connect (no SLRI_LAN1 is needed)



The image shows a screenshot of the Pulse Secure VPN connection dialog box. At the top, there is a header with the Pulse Secure logo and the text "Pulse Secure". Below the header, the text "Connect to: VPN" is displayed. A message box with a question mark icon contains the text "Provide the following credentials to complete the connection." Below this message box, there are two input fields: "User Name:" and "Password:". Below the password field, there is a checkbox labeled "Save settings". At the bottom right of the dialog box, there are two buttons: "Connect" and "Cancel".

You should also see the following icon on the system tray in the lower right hand side of your screen. We refer to this as the “S” icon.

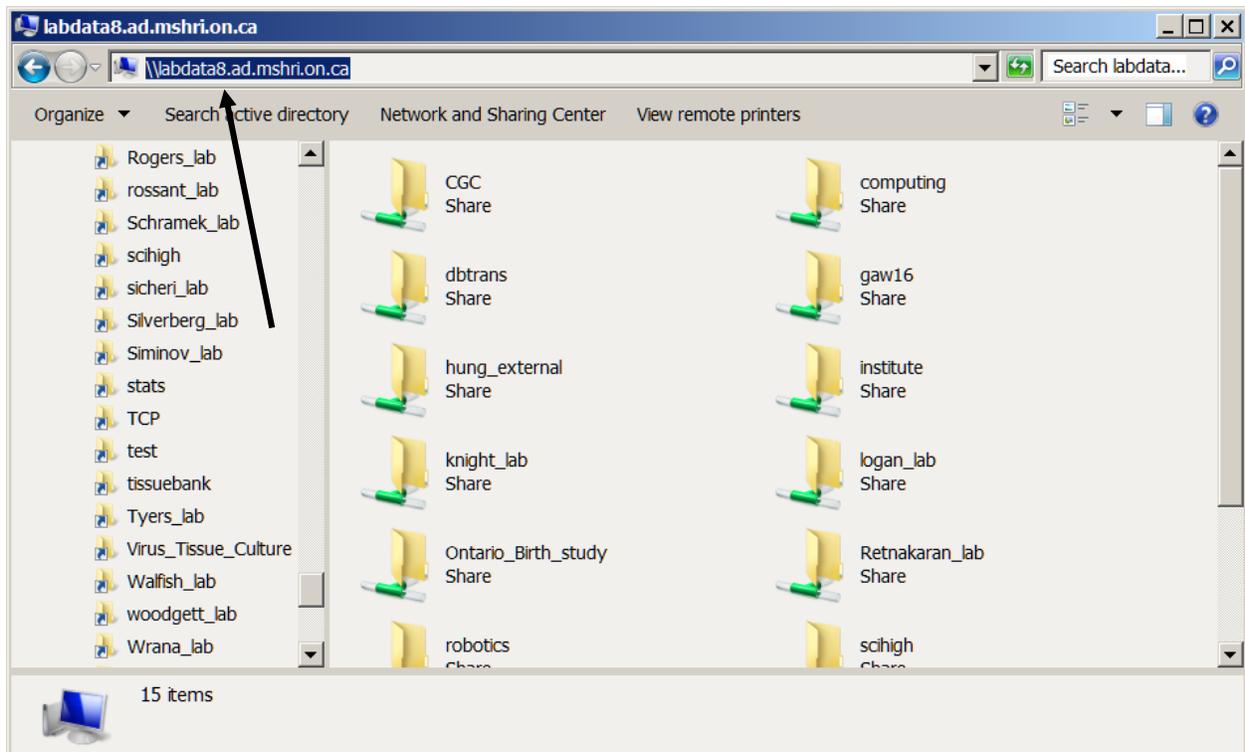


It should be noted that there are timeout values set for the SSL VPN. If no traffic passes over the SSL VPN for 60 minutes or more, the SSL VPN will automatically end your session (idle timeout).

When you are done using the SSL VPN, you MUST sign out. You can do this by rightclicking on the icon in the system tray and choosing “Sign Out” from the pop-up menu.

Now, to access your lab server folders, the M: drive has been automatically connected to your computer. Just access it like you normally do.

However, there's a chance that M: drive might not have connected automatically, just type in [\\labdataX.ad.mshri.on.ca](http://labdataX.ad.mshri.on.ca) (X=a number like 4,7,8 or 9) in the address bar in your file browser. So in the example figure below, I've opened up “My Computer” and typed in [\\labdata8.ad.mshri.on.ca](http://labdata8.ad.mshri.on.ca). Your lab may be in a different number.



Troubleshooting

While testing the SSL VPN, the testers ran into a few issues. If you run into problems getting the SSL VPN to work, one of these solutions may solve your problem.

Problem #1: You were able to login to the SSL VPN and the SSL VPN client seemed to install okay, but it just doesn't work.

Solution 1: Make sure the SSL VPN icon is in the system tray and is not greyed-out. If that doesn't work, check to make sure you don't have any other VPN clients installed such as CheckPoint VPN client, Cisco VPN client or Netscreen VPN client. Other VPN clients may interfere with the SSL VPN client operations. Either disable them or use the Add/Remove Program option in the Control Panel to delete the other VPN clients.

Problem #2: I keep getting disconnected from the SSL VPN after leaving my machine for a while.

Solution #2: There are two timeout values for the SSL VPN. One is an "idle timeout" which is set for 60 minutes. If no traffic passes over the SSL VPN for 60 minutes, it will end your session. You should get a pop-up about 5 minutes prior to warn you. The other timeout value is a "max session length." This is the maximum amount of time you can be signed onto the SSL VPN for a given session. This is set to 2 hours. After 2 hours, the SSL VPN will end your session, and you will need to login again. you about 5 minutes prior.