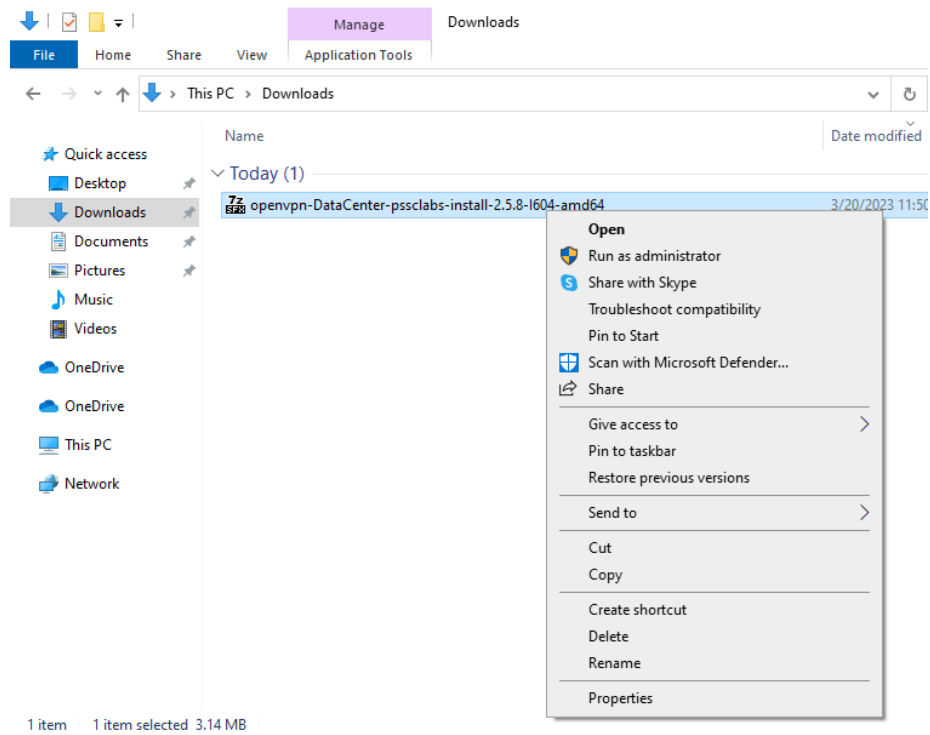


## Direct SSL VPN Tunnels To Users

Connecting researchers, educators, it staff and other personal can be a daunting task for any System's Administrator. NZO Engineers can work with you to create direct SSL VPN Tunnels from your users directly to NZO resources.

Windows Users -

- 1) Download the OpenVPN Client files from the given link.
- 2) Once you have transferred the OpenVPN executable for the given user you will go ahead and **right click on the file**.
- 3) **Click Open as administrator**.



- 4) It will prompt you if you would like to run as administrator, click yes.

User Account Control



Do you want to allow this app from an unknown publisher to make changes to your device?

openvpn-DataCenter-pssclabs-install-2.5.8-I604-amd64.exe

Publisher: Unknown

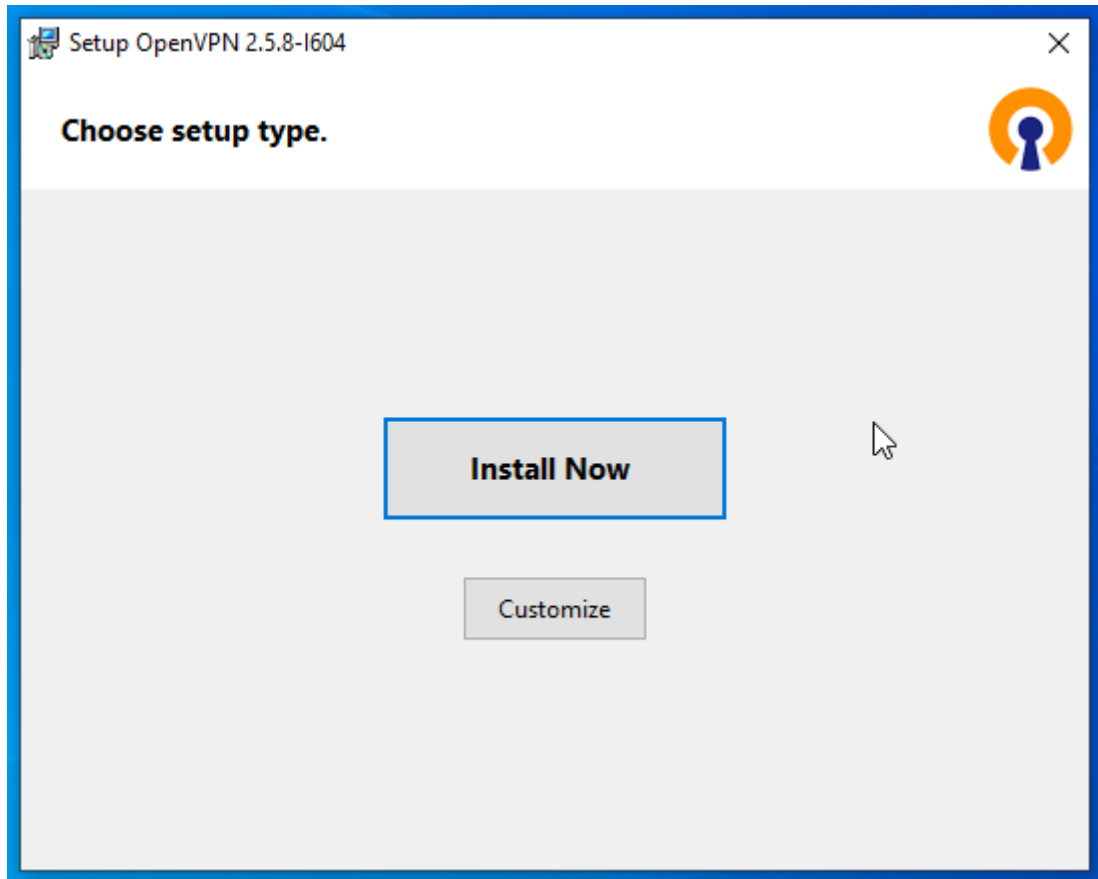
File origin: Hard drive on this computer

[Show more details](#)

Yes

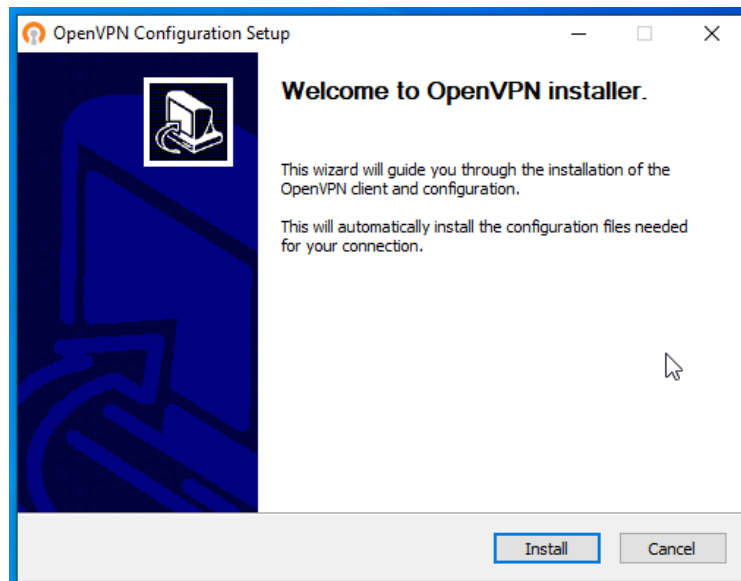
No

5) When prompted, go ahead and click Install Now.



6) Go ahead and click close, (You may receive an error it is safe to ignore).

7) The OpenVPN Configuration Setup should pop up. Go ahead and click Install.

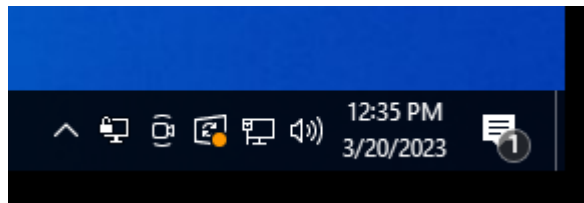


8) After the installation it will prompt you to click close. Go ahead and click close.

9) If a post installation prompts you, go ahead and click Allow.

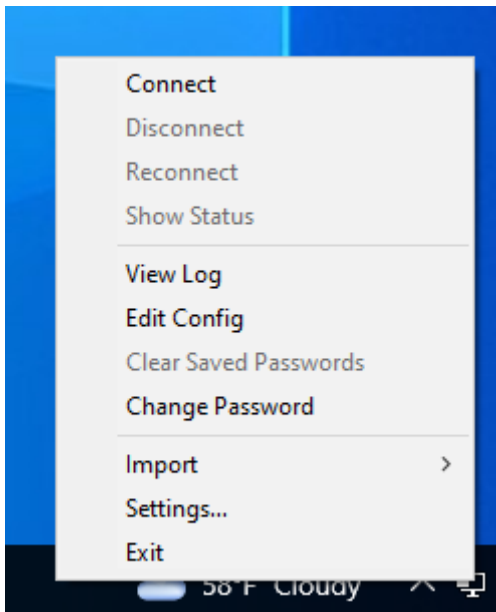
### **General Usage Instructions**

1) After the client has been installed on your desktop, you should see an OpenVPN Client on both your desktop and also in the lower right hand corner of your desktop.



2) Double click on the icon on your desktop if you do not see it, or click the ^ symbol and move it so that you do see it. (It is the icon with the lock as displayed in the picture)

3) Right click the computer with a lock and click connect.



4) After you are connected it will prompt you for a username and a password. Enter your username and password that you have been provided with.

# Installing the OpenVPN Client on macOS

There are three client options for macOS:

- The OpenVPN command line client. Most users prefer a graphical client, so this document does not cover that option.
- Tunnelblick, a free option available for download at the [Tunnelblick Website](#).
- The commercial [Viscosity client](#). At the time of this writing, it costs \$14 USD for a single seat. Viscosity is a much nicer client and well worth the cost for frequent OpenVPN users.

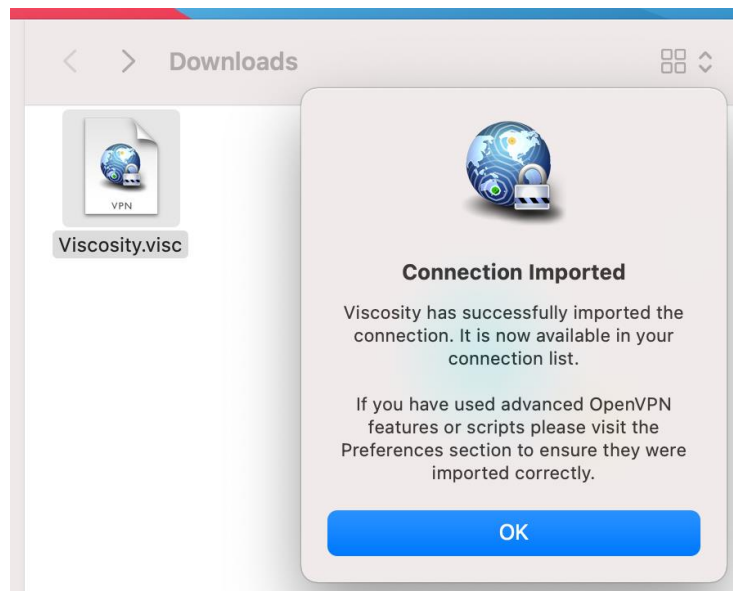
Both Tunnelblick and Viscosity are easy to install, with no configuration options during installation. Both clients can accept configurations generated by the [OpenVPN Client Export Package](#).

## Configuring Viscosity

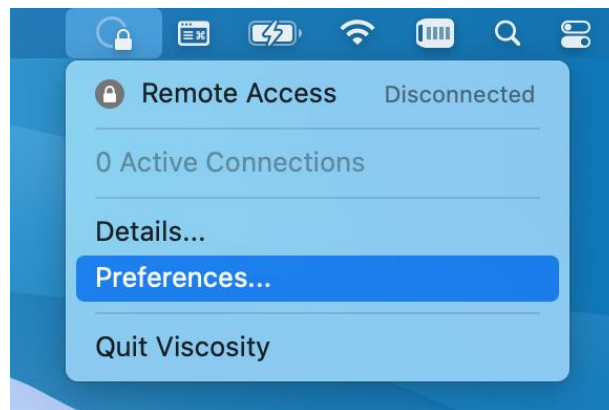
The Viscosity client can be configured manually or it can import configurations from the OpenVPN Client Export package.

Viscosity provides a GUI configuration tool that can generate the underlying OpenVPN client configuration based on a manual configuration. This section covers the much simpler process of importing a Viscosity bundle generated by the OpenVPN Client Export package.

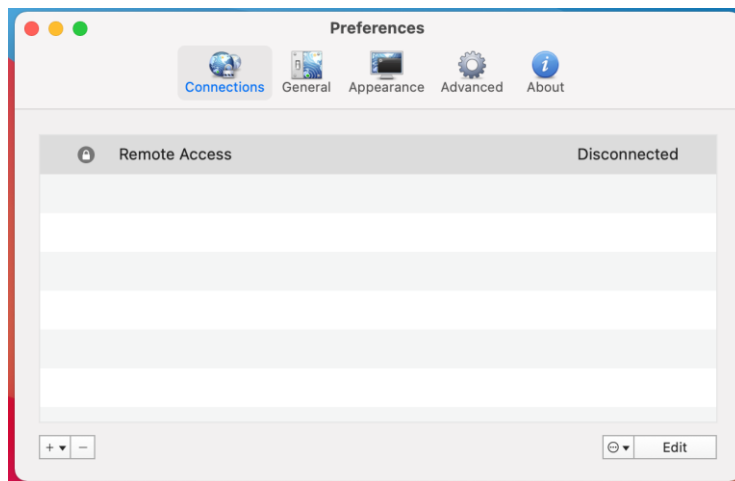
- Download a copy of the **Viscosity bundle** for the client from the OpenVPN Client Export package
- Locate the bundle file
- The bundle filename ends in `.visc.zip` indicating that it is a compressed archive.
- Copy this bundle file to a folder on the client Mac
- Double click this file and macOS expands it to `Viscosity.visc`
- Double click `Viscosity.visc` and Viscosity will open and import the connection as shown in Figure [Viscosity Import](#)



- Viscosity Import
- Delete the `Viscosity.visc` directory and the `.zip` archive
- Viscosity will be running after import and has an icon in the menu bar which looks like a circle with a lock
- Click the Viscosity icon in the menu bar at the top of the screen
- Click **Preferences** to check if Viscosity imported the configuration as shown in Figure [Viscosity Preferences](#)



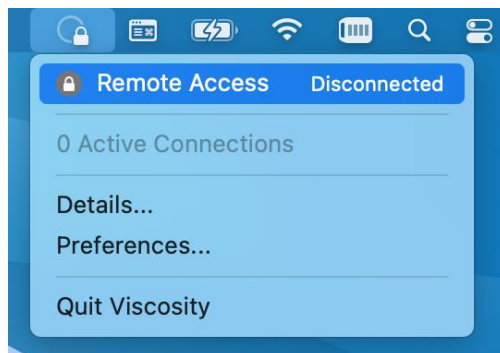
- Viscosity Preferences
- Check the **Connections** area to see if Viscosity imported the connection successfully as shown in Figure [Viscosity View Connections](#).



- View Connections
- Close the Preferences screen

## Connecting a VPN with Viscosity

- Click the Viscosity icon in the menu bar
- Click the name of the VPN connection to connect as shown in Figure [Viscosity Connect](#)
- After a few seconds the lock icon for this connection in the Viscosity menu will turn green if the connection attempt succeeds, and Viscosity displays some basic connection information.



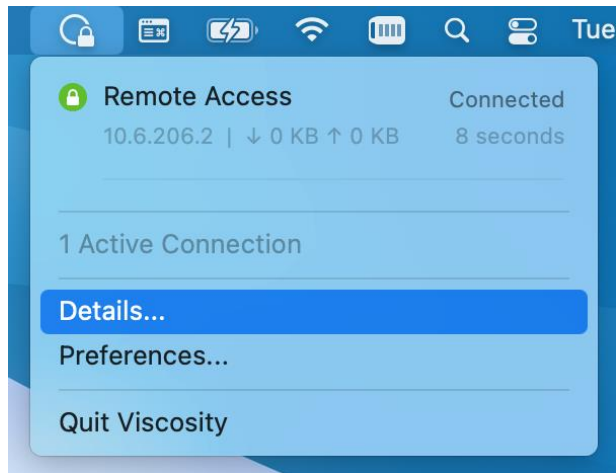
Notes:

- When at least one VPN is connected the appearance of the Viscosity icon also changes from a faint circle with a lock to a dark circle with a lock, but this can be easy to miss.

## View Connection Status in Viscosity

To view status information about a VPN connection:

- Click the Viscosity icon
- Click **Details** as shown in Figure [Viscosity Menu](#)

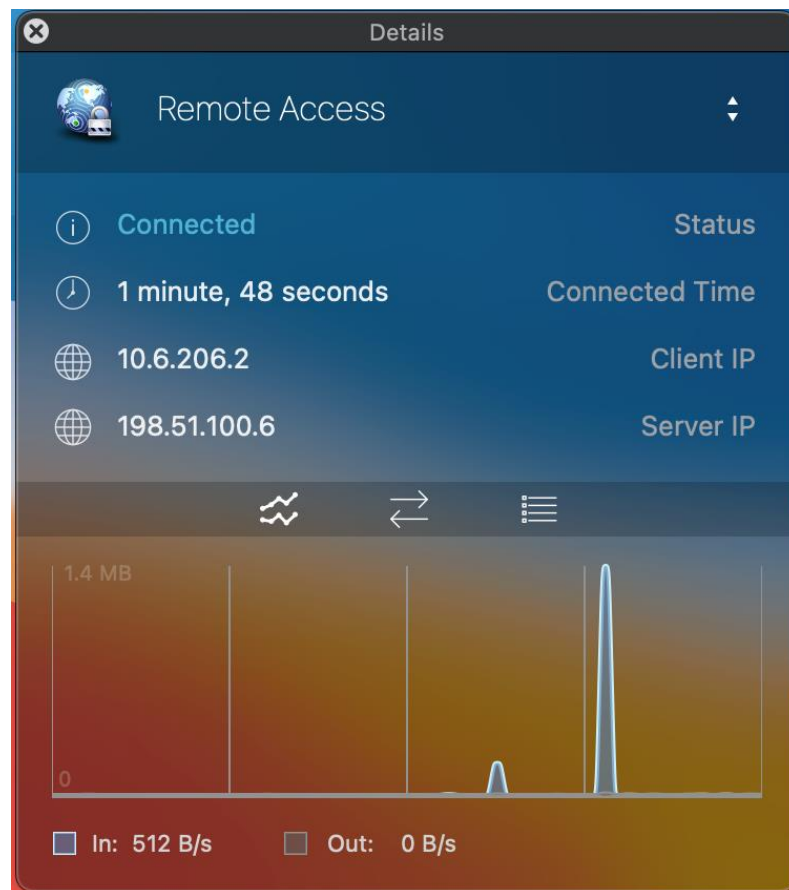


### *Viscosity Menu*

## **Basic Status, Bandwidth Graph**

The top of the details screen (Figure [Viscosity Details: Bandwidth Graph](#)) shows the connection status, connected time, the client IP address, and the IP address of the server.

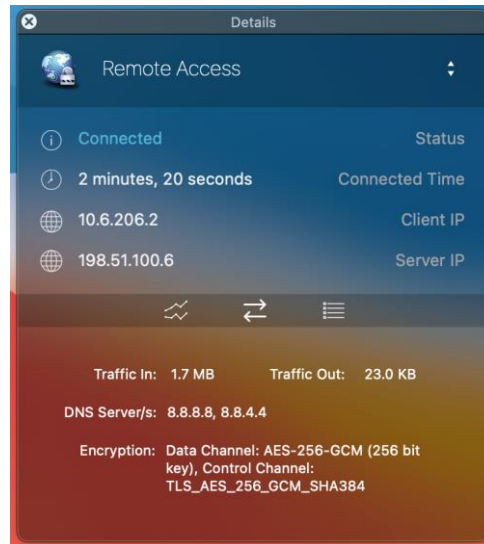
The bottom of the details screen contains a real-time bandwidth graph which shows the current throughput in and out of this OpenVPN connection.





## Viscosity Details: Bandwidth Graph Traffic Counters, Connection Details

The up/down arrow button in the middle of the details screen displays additional network traffic statistics. This function shows the total amount of traffic sent and received by the VPN client.



### Viscosity Details: Traffic Statistics

This screen also contains additional connection information such as DNS Servers assigned to this VPN by the server or local configuration, and the encryption algorithms used by the client to secure communications with the server.

## Viscosity Client Logs

The third icon in the middle of the **Details** screen shows the OpenVPN log file (Figure [Viscosity Details: Logs](#)). If there is any trouble connecting, review the logs here to help determine the problem.

