	Department of Children and Family Services Office of Information Technology Services

MA41-0004 Connecting to Networks with a DCFS Laptop

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The information provided in this document will guide you through the process of establishing network connections on your DCFS laptop.

Connection Types

Wired – A network cable plugged in to the network port on your laptop or docking station.

- Wired connections are typically the most robust, reliable, and secure types of connectivity.
- This is a direct connection between your laptop and the network infrastructure.

Wireless - Also referred to as Wi-Fi.

- Wi-Fi adds convenience to a traditional wired network.
- If you have Wi-Fi at home, you can connect your DCFS laptop to it.
- You're encouraged to use secured and encrypted Wi-Fi connections to protect the data that's being transferred.
- Wi-Fi networks that do not use encryption make it easier for someone compromise the security of your laptop and the data being transferred.

Mobile Broadband – Also referred to as an Aircard connection, uses a cellular data network to provide an Internet connection. ***Not all DCFS laptops have Mobile Broadband capability***.

- DCFS Laptops with Mobile Broadband capability use the Verizon Wireless Mobile Broadband Network at up to 4G LTE speeds.
- The connection in AnyConnect shows up as "Verizon Wireless"
- Mobile Broadband should only be used when a wired or Wi-Fi connection is not possible.
- Network performance will typically be slower on a Mobile Broadband connection and is dependent on the quality of the signal. A number of factors can impact the performance and quality of a Mobile Broadband connection, including distance from cell towers, number of other people competing for bandwidth, and the environment around you.

VPN – Virtual Private Network

- Provides secure remote access to the DCFS network through an Internet connection.
- Some applications will not be available when you're disconnected from the DCFS network. Email (MS Outlook), SACWIS, and mainframe sessions are examples of applications that require a VPN connection to be active when you're working remotely.
- The quality and speed of your Internet connection will determine how well the VPN connection performs.
- The VPN is not needed when connected wired or wirelessly to an internal DCFS network.

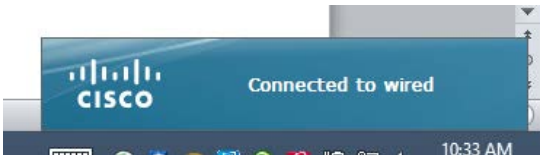
AnyConnect Client Overview

You will be using the Cisco AnyConnect Secure Mobility Client to manage your network connections, including remote access (VPN) to the DCFS Network.

The AnyConnect client on your DCFS laptop comes pre-installed and pre-configured for automatic connections to the DCFS Network. The VPN connection comes pre-configured but does not connect automatically.

Connections to non-DCFS networks, such as at home, a hotel, or a Wi-Fi hotspot will need to be setup through the AnyConnect client as you need them. Under most circumstances, you will not need to do anything for a wired connection except connect the network cable.

When you connect/disconnect from networks, the notification bar will appear.

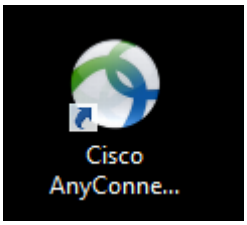


Notification Bar

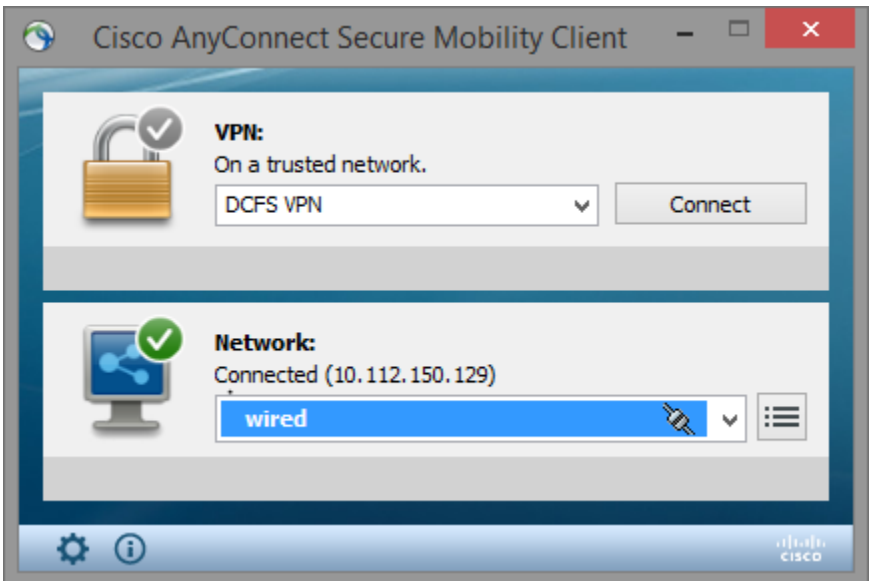
You can access the AnyConnect client by a single left-click on the AnyConnect icon in the system tray.
You can also pin the AnyConnect client to your Start Screen. Look for Cisco AnyConnect Secure Mobility Client in the Apps screen.

AnyConnect icon in the System Tray

AnyConnect icon on the Start Screen (if pinned to start)



AnyConnect icon on the Desktop



The AnyConnect client is separated into two modules.
The top module (VPN) is for establishing a secure remote connection to the DCFS network through the Internet. The VPN will not work when you're directly connected at a DCFS facility.

The bottom module (Network Access Manager) is for managing your network connections.

The AnyConnect client will allow one connection at a time, with priority based on type of connection. This feature prevents issues related to having multiple active connections.

- Wired connections have the highest priority.
- Wi-Fi connections can be used when a wired connection is not available
- Mobile Broadband (Cellular Aircards) can be used when a wired or Wi-Fi connection is not available.

Once you disconnect from the wired network, the AnyConnect client will try to automatically connect to a Wi-Fi network, if available.

The Mobile Broadband connection will not automatically activate. You will need to open the AnyConnect client and manually initiate the connection. In order to do this at a site that has a DCFS wireless access point, you will need to first disable Wi-Fi. To then reconnect to the DCFS Wi-Fi, you will need to re-enable it.

If you manually override the automatic connection behavior, by using AnyConnect to switch to a wireless network while you still have a wired connection, it will not switch back to the wired connection automatically when you plug it back in. You will have to set the connection back to wired manually.

Connecting to networks

Connecting to DCFS Networks (Wired and Wi-Fi)

Wired

Docked

1. Secure your laptop into the docking station.
2. Once the connection is established, the Connected to Wired notification should display. You should now have connectivity.

Undocked

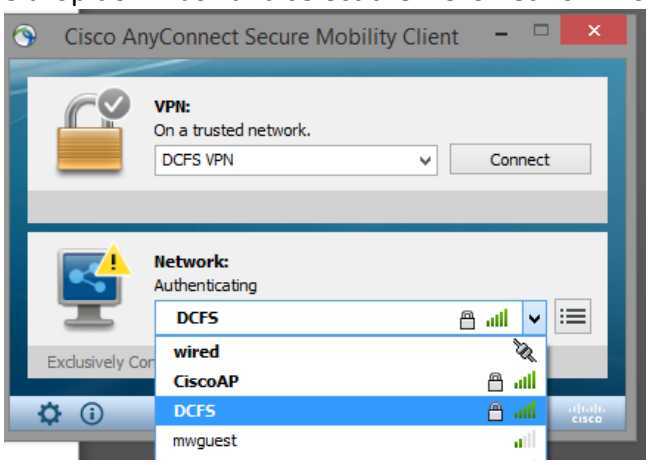
1. Connect an Ethernet cable (Right hand side of laptop).
2. Once the connection is established, the Connected to Wired notification should display. You should now have connectivity.

Note: You may not see the notification if you dock or connect the network cable before you're logged on. The connection will automatically be established in the background.

Wireless (Wi-Fi)

Your DCFS laptop is configured to automatically connect to the DCFS Wi-Fi when it's in range, with no action required from you. However, if you want to connect manually, here's how:

1. Open the AnyConnect client (click on the icon in the system tray)
2. Click the drop down box and select the DCFS network from the list



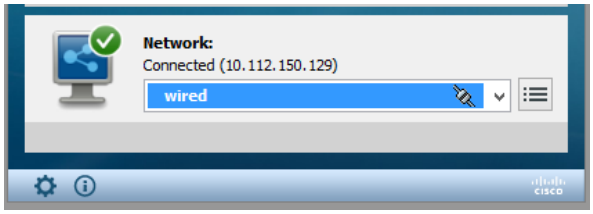
3. The Network will show as Connected to "**DCFS**" in the AnyConnect client.
4. You should now have connectivity to the DCFS wireless network.

Note: Only DCFS-issued devices are allowed to connect to the DCFS Wi-Fi network.

Connecting to Non-DCFS Networks (Home, Hotel, etc…)

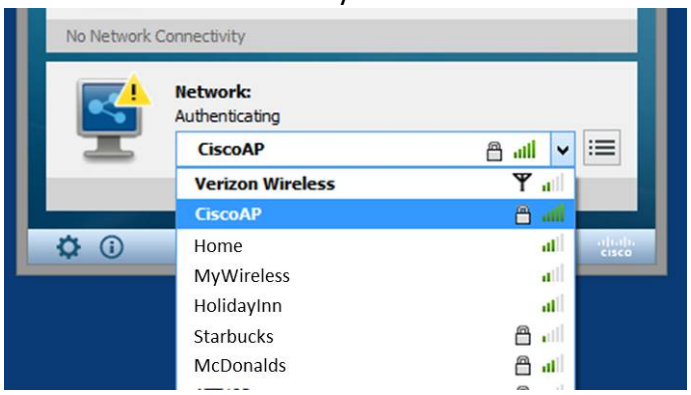
Wired

1. Connect an Ethernet cable (Right hand side of laptop)
2. If further intervention is required, follow the prompts until a connection is established.
3. The Network will show as Connected to "wired" in the AnyConnect client.



Wireless (Wi-Fi)

1. Open the AnyConnect client (click on the icon in the system tray)
2. Click the drop down box and select the wireless network you want to connect to.
3. If further intervention is required, such as a password, the AnyConnect client will prompt you until a connection is established.
4. The Network will show as Connected to "*the name of the network*" in the AnyConnect client.
5. You should now have connectivity.

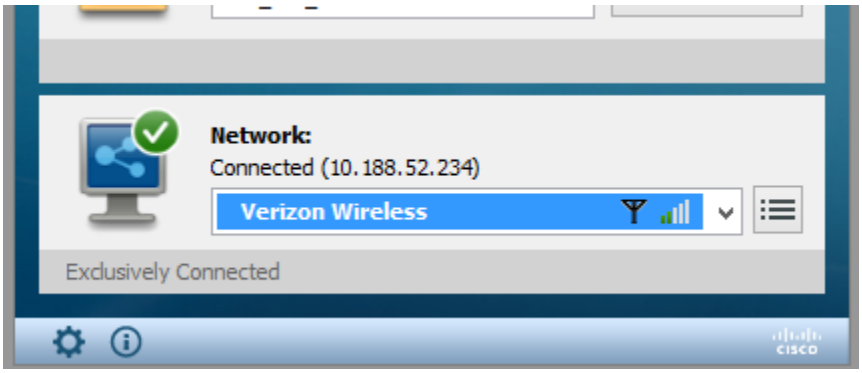


Additional Information:

1. Connections are remembered and can be re-connected automatically.
2. You can see signal strength and security type indicators from the network drop down menu.
3. Networks with a lock icon indicate encryption and will require some form of authentication.
4. Networks without a lock are open networks and will allow you to connect without authenticating. You may get redirected to a portal page to accept terms of use or enter a code before you're actually allowed to get to the Internet. The "Portal Pages and Proxy" section of this document has more information.

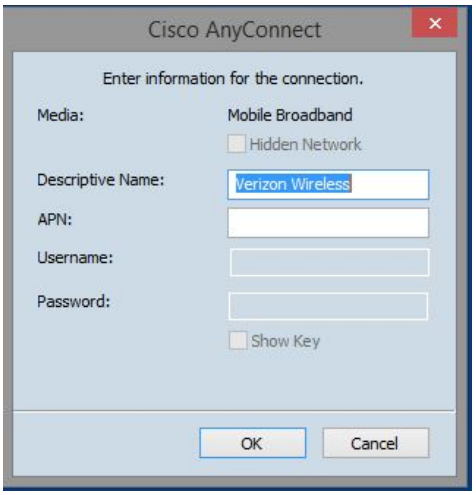
Mobile Broadband (Verizon Wireless)

1. Open the AnyConnect client (click on the icon in the system tray)
2. Click the drop down box and select the Verizon Wireless network.
3. The Network should show as Connected to “Verizon Wireless” in the AnyConnect client.



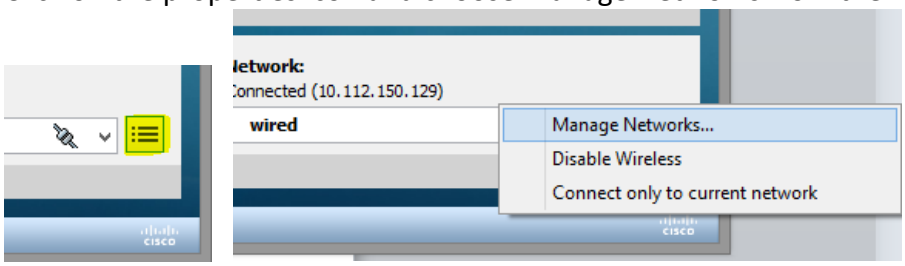
4. You should now have connectivity.

Note: You may see a prompt the very first time a Verizon Wireless connection is established from your laptop. You do not need to enter anything. Just click OK.

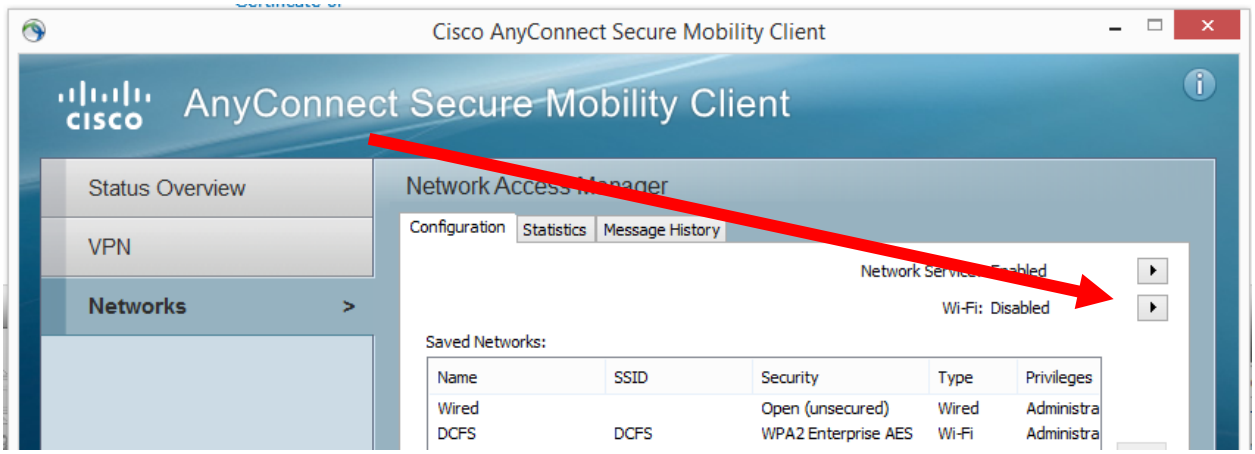


5. If you need to connect to the Mobile Broadband connection while you are within range of a DCFS Wireless access point, you must first disable Wi-Fi using Manage Networks.

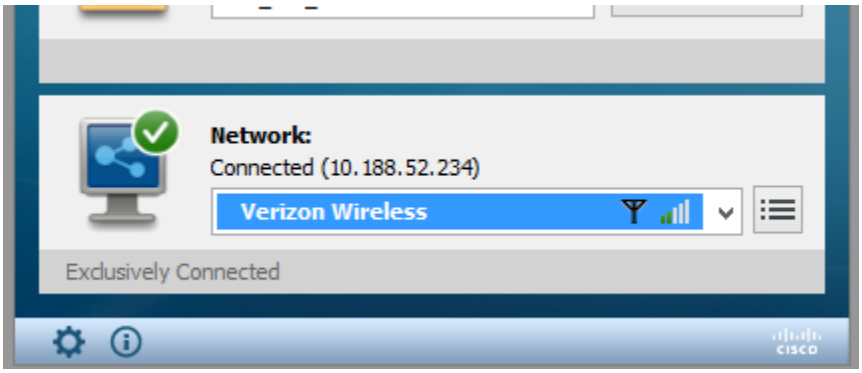
   1. Open the AnyConnect client (click on the icon in the system tray)
   2. Click on the properties icon and choose Manage Networks from the menu



3. From the Networks → Configuration tab, Click the arrow next to Wi-Fi: and select disable.



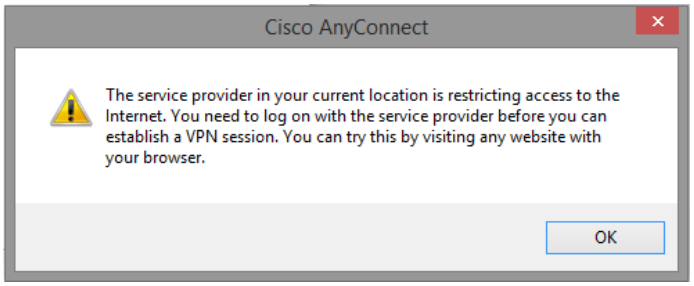
4. You can then close this box and go back to the AnyConnect Client, click the drop down box and select the Verizon Wireless network.
5. The Network should show as Connected to "Verizon Wireless" in the AnyConnect client.



6. You should now have connectivity, and be able to Launch a VPN connection as normally.

Portal Pages and Proxy

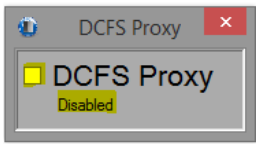
Some networks require you to visit a web page upon connecting to enter a code or accept a terms of use agreement. AnyConnect should detect and prompt you with a warning about access to the Internet being restricted. The VPN client should also show "Web Authentication Required".



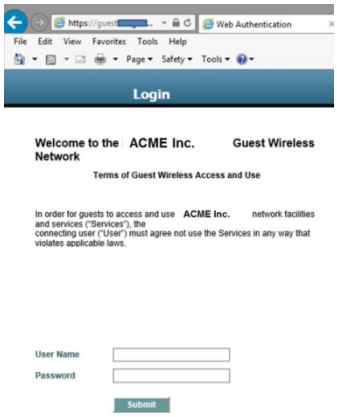
To access the portal page:

1. Make sure all Internet Explorer windows are closed
2. Launch the ProxyTool. (Shortcut on the desktop)

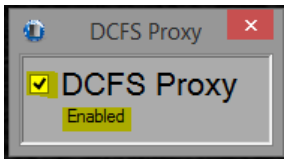
3. Clear the checkmark next to DCFS Proxy to disable the proxy server setting.



4. To bring up the portal page, open Internet Explorer and browse to a public website such as www.google.com. It should redirect you to their portal page.
5. Perform the necessary action that the portal page requires until you have access to the Internet.



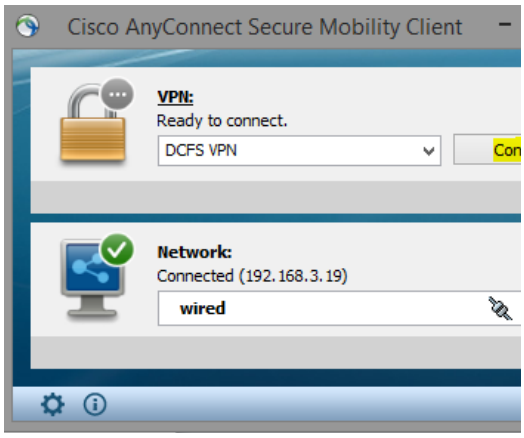
6. Once you have Internet access, close Internet Explorer
7. Connect to the DCFS VPN
8. Put a checkmark next to DCFS Proxy to re-enable the proxy server setting.

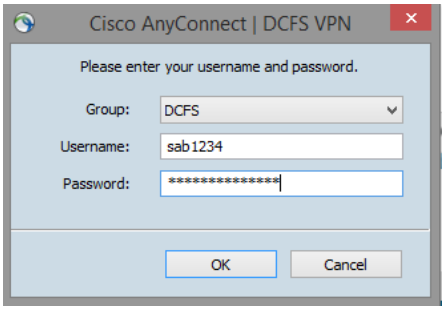


Note: You can close the DCFS Proxy Tool if desired.

Connecting to the DCFS VPN

1. Open the AnyConnect client (click on the icon in the system tray)
2. Establish a connection to a network that has Internet access, such as your home Wi-Fi .
3. In the VPN module of the AnyConnect client, make sure the DCFS VPN is selected and click Connect.
4. You will be prompted for your DCFS user name and password. Enter your credentials and click OK.



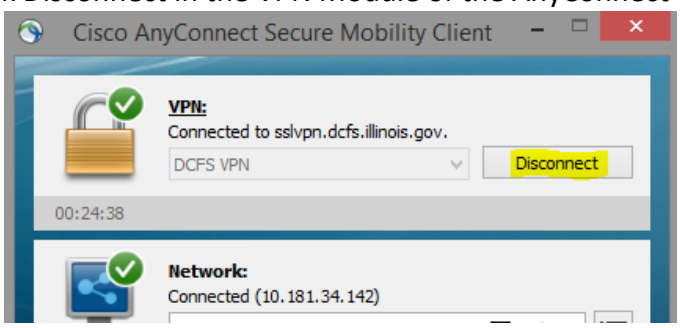


5. Once the VPN connection has established, the AnyConnect icon in the system tray will display a padlock in front of it. The notification bar will briefly display the DCFS VPN connection.

6. You can now start using SACWIS, Outlook and other applications as if you were in the office.
7. You can remain connected for as long as you need to complete your work. There is no time limit imposed by DCFS on how long you stay connected.

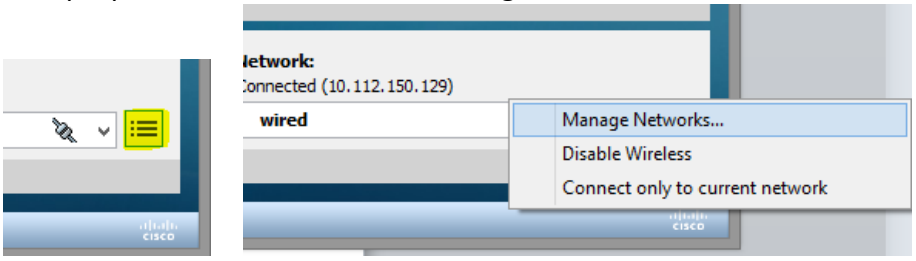
Disconnecting from the DCFS VPN

1. Open the AnyConnect client (click on the icon in the system tray)
2. Click Disconnect in the VPN Module of the AnyConnect Client



Remove Network Connections

Over time, the list of saved networks can get large and out of control.
To optimize the time it takes to get connected, you can remove unused saved networks and keep them in proper order.

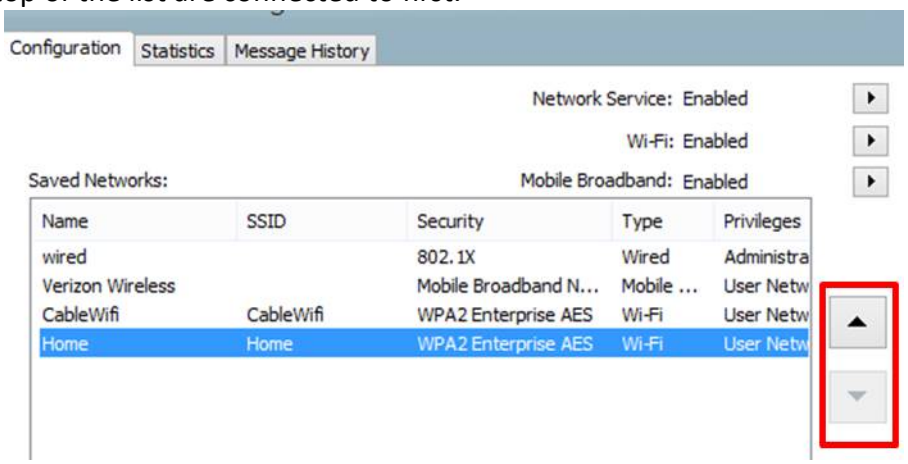
7. Open the AnyConnect client (click on the icon in the system tray)
8. Click on the properties icon and choose Manage Networks from the menu
   a. 

9. From the Networks → Configuration tab, select the saved network you want to remove and click the Remove button

Re-order Network Connections

If you are within range of multiple saved connections, you can set the order in which AnyConnect attempts to establish a connection. This is useful when you find that the laptop is connecting to a network other than the one you're expecting.

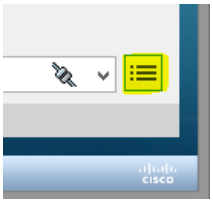
1. Select the network and click the up or down arrow to move it to the desired position. Networks at the top of the list are connected to first.

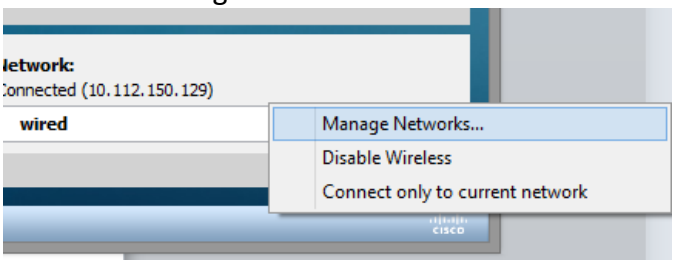


Connection Details

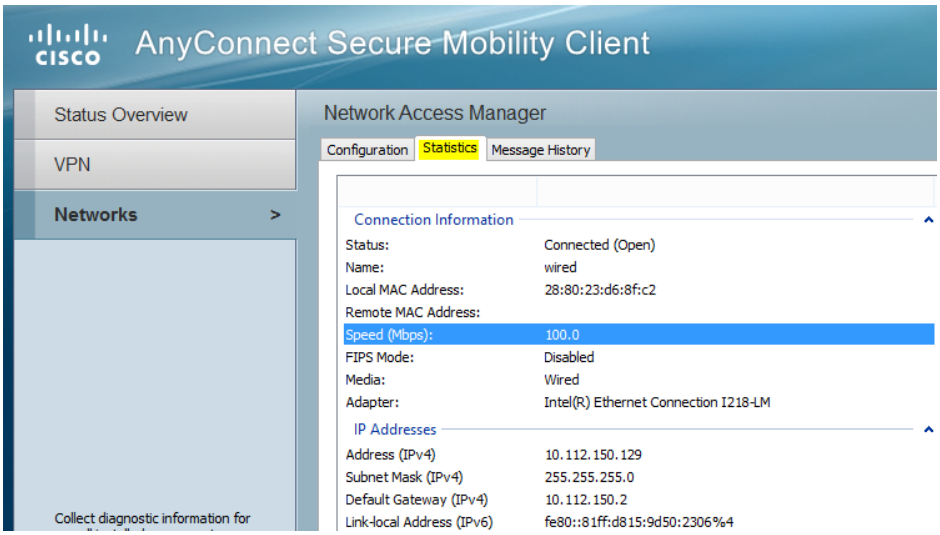
When you experience slowness or are unable to maintain a stable connection, you can see the details of the connection to help determine what is causing an issue.

1. Open the AnyConnect client (click on the icon in the system tray)
2. Click on the properties icon and choose Manage Networks from the menu





3. Navigate to Networks → Statistics

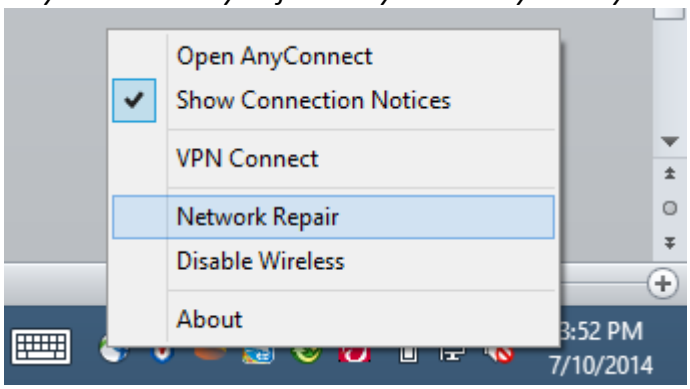


4. From here you can see details such as connection speed, signal quality, encryption, etc…
5. The Message History tab lets you see a history of connections and reasons why you may have been unexpectedly disconnected from a network.

Network Repair

If you are having connectivity issues, performing a network repair using the AnyConnect client may be able to resolve the issue. Use the following steps to perform a network repair:

1. Right click on the AnyConnect client (the icon in the system tray) and choose Network Repair. *You wouldn't want to do this when you have files open or are active in a SACWIS session, as it temporarily disconnects you from any network you may currently be connected to*



2. While the repair is in progress, you will see the AnyConnect icon with a red X in front of it.

3. Once the AnyConnect client returns to normal, try reconnecting again.

How to get support

For all issues, contact the OITS Help Desk 24x7 at 1-800-610-2089.

Please note that OITS cannot support non-DCFS equipment or connections. If an issue is found to be caused by local connectivity issues and not the DCFS laptop, you will need to contact the service provider for a resolution.