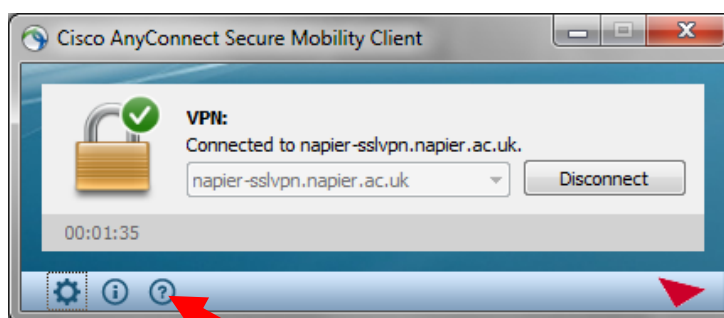


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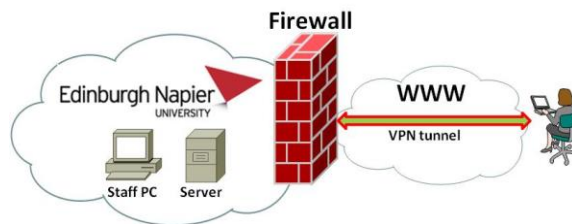


Once you have installed the AnyConnect Secure Mobility Client, this document is available by clicking on the “Help” icon on the client.

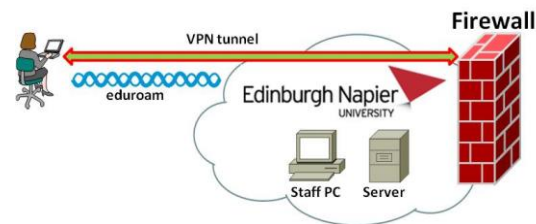
## Introduction

VPN is a technology that allows Edinburgh Napier University Staff to securely access their work PC from their home computer/laptop when they are either outside the University or when they are inside the University on the **eduroam** wireless service.

### Outside the University



### Inside the University



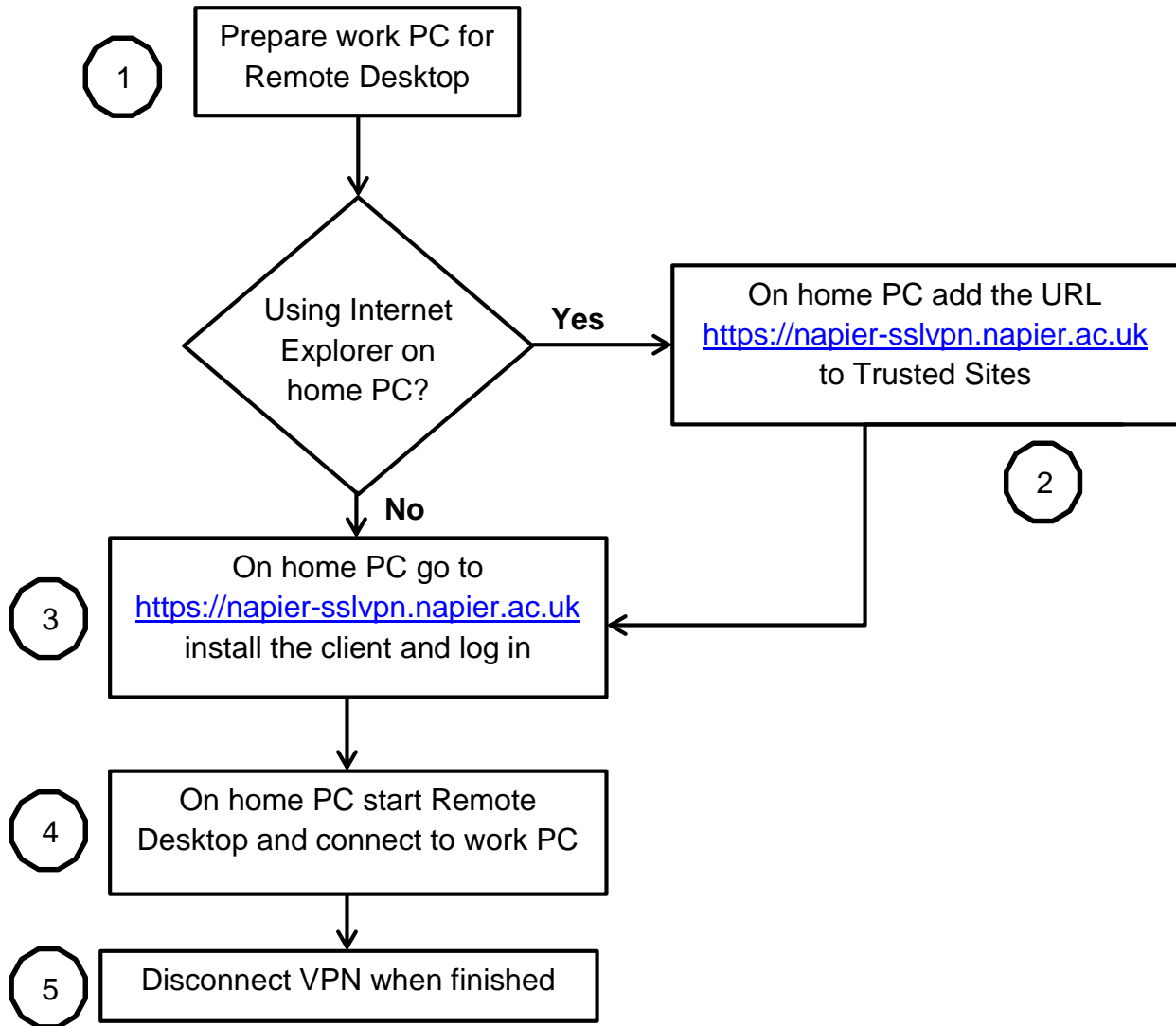
To use VPN, Staff must install a VPN client on their home computer. With the VPN client installed, a secure ‘tunnel’ is setup between the home computer and the University firewall. Staff can then access their work PC using Remote Desktop Connection (RDC). Only the traffic for Remote Desktop is encrypted and sent down the tunnel to the University – all other traffic from the home pc is unaffected by VPN.

If a Work PC is powered off and in a “standby” state, it can be “woken up” from a Home computer using “Wake on LAN” (WoL).

This document shows how to:

- Setup a work PC for Remote Desktop
- Install the AnyConnect VPN client
- Use AnyConnect client to connect to VPN
- Use WoL and RDC to access a Work PC

The following flowchart shows the process required to connect to a Work PC using VPN, each step is numbered and you will find detailed instructions of how to work through each step within this document.



- **Step 1 Prepare work PC for Remote Desktop**, refer to page 4.
- **Step 2 Add VPN URL as a Trusted Site in Internet Explorer** (this needs to be done on your home device), refer to page 5.
- **Step 3 VPN Client Installation**, refer to page 5. Please note: once the VPN client is installed by logging in through the URL, it can be started as any other installed programme on the Home computer – see **Starting the VPN Application** (page 6). For VPN client troubleshooting tips see **VPN Client Installation Troubleshooting** and **VPN Client Login/Connection Troubleshooting** (page 11 onwards).
- **Step 4 - Connect to Work PC with Remote Desktop**, refer to page 7. For information on using Wake on LAN see **Using “Wake on LAN”** (page 9), For Remote Desktop troubleshooting tips see **Remote Desktop Troubleshooting** (page 10).
- **Step 5 – See Remote Desktop Log off from Work PC** on how to terminate a Remote Desktop session and **Disconnect from VPN** on how to disconnect a VPN session (page 10)

## Prepare Work PC for Remote Desktop

To set up the Remote Desktop Connection on a Windows 7 Work PC:

- Click on the **Start** button.
- Right click **Computer**.
- Select **Properties**.
- Select **Remote Settings** from the menu on the left.
- If you will be connecting to your office PC using a Windows 7 machine at home select “**Allow connections only from computers running Remote Desktop with Network Level Authentication**” if you are using any other operating system at home click “**Allow connections from computers running any version of Remote Desktop**”
- Click **OK** to apply the changes.

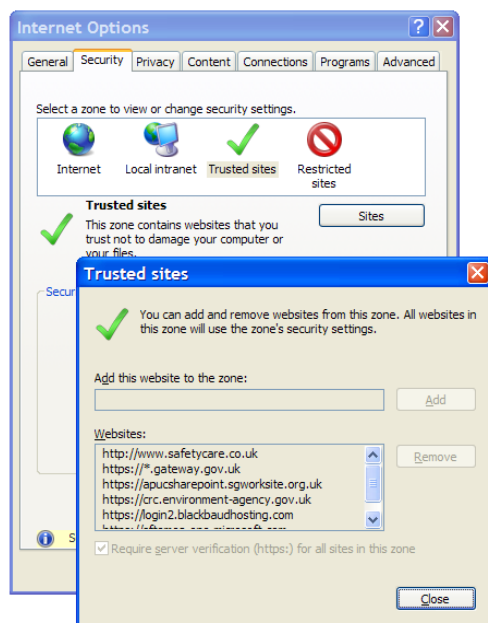
To use Remote Desktop Connection (RDC) you need your Work PC's IP Address. If you will be using RDC with Wake on LAN (recommended for power saving) you will also need your Work PC's MAC Address and subnet mask.

To obtain your Work PC IP, MAC address and subnet mask, double click on the “**IT Support Tool**” icon on the Work PC desktop:



- Click on the **More Computer Details** button.
- Take a note of the **number next to IP Address**.
- Take a note of the **number next to MAC**.
- Take a note of the **number next to Mask**.
- **Close** the IT Support Tool by clicking on the X at the top right.

## Add VPN URL as a Trusted Site in Internet Explorer



From your home device:

- Go to **Tools > Internet Options**
- Click on the **Security** tab and then the **Trusted Sites** icon.
- Type in the <https://napier-sslvpn.napier.ac.uk> and click Add

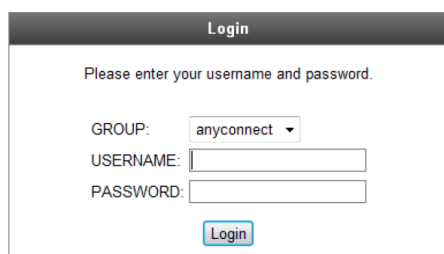
## VPN Client Installation

The VPN client used by Edinburgh Napier University is the Cisco **AnyConnect Secure Mobility** client. The currently supported OS versions for this client are:

- **Windows XP, Vista, 7 and 8 (32 and 64 bit)**
- **Mac OS X 10.6 or later (32 and 64 bit)**
- **Linux (32 bit)**

The **AnyConnect** client is initially installed on the home computer by opening a browser and going to the URL:

<https://napier-sslvpn.napier.ac.uk>

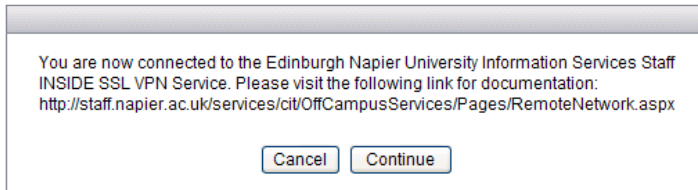


The image shows the login page for the AnyConnect client. It has a 'Login' title and a prompt: 'Please enter your username and password.' Below this are three fields: 'GROUP:' with a dropdown menu showing 'anyconnect', 'USERNAME:' with an empty text box, and 'PASSWORD:' with an empty text box. A 'Login' button is located at the bottom of the form.

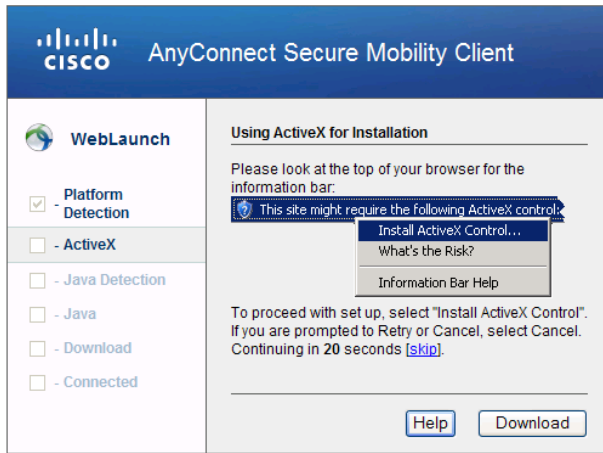
In the **Group** field ensure “**anyconnect**” is selected.

Enter your Edinburgh Napier University **login ID (username)** and **password** and click **Login**

# SSL VPN Service



On successful login, a splash screen will appear. Click **Continue**

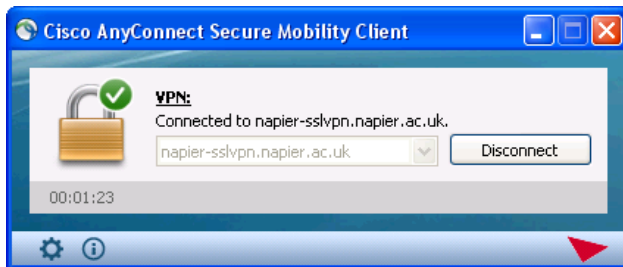


Previous versions of AnyConnect used ActiveX for installation. The later versions do not so the ActiveX install will fail. You can either download and manually install the AnyConnect client application at this point, or click **skip** to try the Java automatic install.

If you download the AnyConnect client and manually install, accept all the default options.



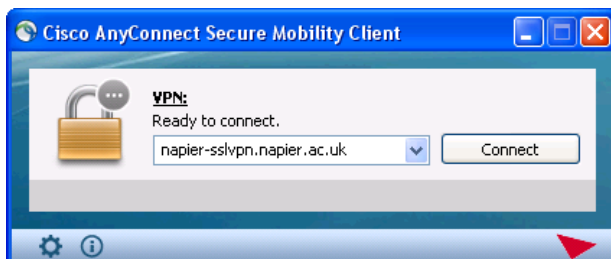
Once installed, AnyConnect will log you into VPN. A padlock icon will appear on your System Tray (bottom right hand corner of your screen)



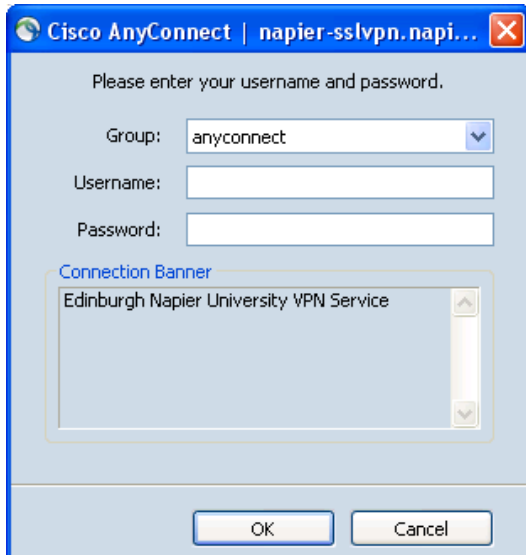
Left Click on the icon and the AnyConnect application window should appear showing a green tick – you have now successfully connected to VPN

## Starting the VPN Application

Once installed, AnyConnect can be used just like any other application installed on the Home PC. To start AnyConnect, click **Start > All Programs > Cisco > Cisco AnyConnect Secure Mobility Client > Cisco AnyConnect Secure Mobility Client.**



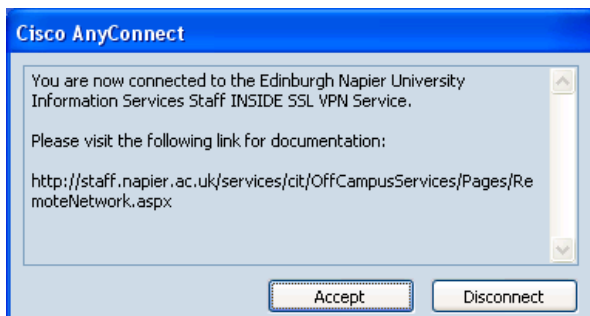
Ensure **napier-sslvpn.napier.ac.uk** is selected and click **Connect.**



In the **Group** field ensure “anyconnect” is selected.

Enter your Edinburgh Napier University **login ID (username) and password** and click **OK**

Please note: you may need to enter “napier-mail” in front of your username.

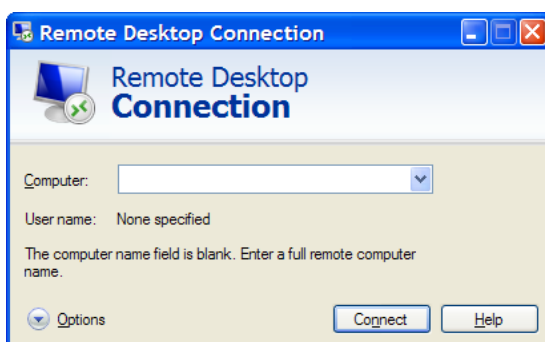


On successful authentication, a banner window appears. Click **Accept** to continue



You should now be connected to VPN

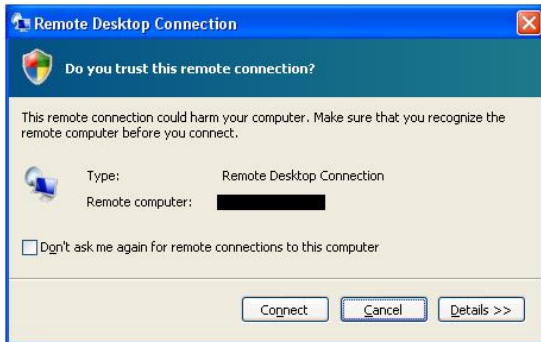
## Connect to Work PC with Remote Desktop



To start Remote Desktop in Windows:

Click **Start**, select **All Programs**  
Windows XP: Choose **Accessories > Communications**  
Windows 7: Choose **Accessories**

Enter your Work PC IP Address in the **Computer** box and click **Connect**



If prompted, click **Connect** to trust the remote connection.

Enter your Edinburgh Napier University **login ID** and **password** when prompted

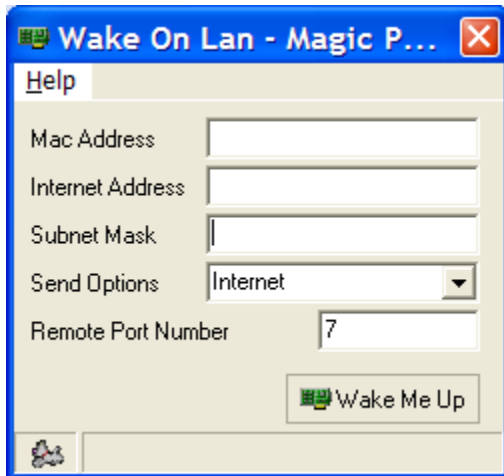
- If you receive an error message regarding the identity of the remote computer click **Yes**.
- Windows 7 users: You may be prompted again to enter your **University login ID** and **password**, enter your login credentials and select "napier-mail" from the realm name drop down list. Click **OK**.
- You should now be connected to your office PC.
- **Tip:** It is worth setting up a shortcut on your desktop to enable you to quickly and easily access the Remote Desktop Connection on subsequent occasions. To do this on a Windows machine: Go to **Start > All Programs > Accessories > Communications > Remote Desktop Connection**. (Windows 7 users: you will not need to go into the **Communications** folder). Right click on Remote Desktop Connection > Select **Send to > Desktop (Create Shortcut)**.



## Using "Wake on LAN"

Wake on LAN enables you to power up your office PC remotely meaning that you do not have to leave your office PC switched on and are effectively saving power. To use Wake on LAN (WoL), you must install a WoL utility. One can be downloaded from:

<http://www.depicus.com/wake-on-lan/wake-on-lan-gui.aspx>



Enter your Work PC's **Mac address**, **IP Address** and **Subnet Mask**. Ensure **Send Options** is set to **Internet** and **Remote Port Number** is set to **7**.

Click on **Wake Me Up**.

The Work PC may take a few minutes to boot up.

To check if the Work PC is ready for Remote Desktop, 'ping' its IP Address:

Open a **Command Prompt**:

Windows XP: click **Start > Run >** enter **cmd >** click **OK**.

Windows 7 users: click **Start >** in the **Search Programs and Files** field enter **cmd >** press enter.

In the command prompt window, type **ping < IP address> -t** (where <IP Address> is the IP address of your Work PC) and hit the enter key.

When your PC is unreachable (still booting) you will see the following output:

```
Request timed out.
```

When your PC is up and running you will see the following output:

```
Reply from 146.176. : bytes=32 time=50ms TTL=125
```

When you see replies from your PC you are ready to connect to it using Remote Desktop.

## Remote Desktop Log off from Work PC

To close your Remote Desktop Connection and leave your Work PC in the current state (programs open), click on the Exit (cross) icon at the top right of the Remote Desktop session:



You will be prompted to confirm whether you want to disconnect your Remote Desktop Services session – click **OK**. Your Remote Desktop session will close but your programs will continue to run on your Work PC.

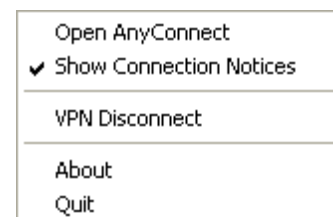
To close your Remote Desktop Connection (RDC) and log off your Work PC:

- Within RDC, on your office PC, click **Start**.
- Select **Log off**.

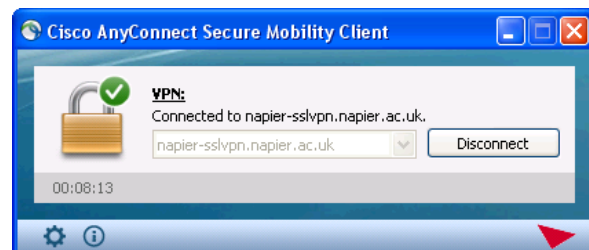
You will be logged off your Work PC and your Remote Desktop Session will close.

## Disconnect from VPN

To disconnect from VPN, right click on the VPN icon on your system tray (bottom right of the desktop window) and select **VPN Disconnect**:



You can also left click on the VPN icon on your system tray (bottom right of the desktop window) and click **Disconnect**:



## Remote Desktop Troubleshooting

To apply the key sequence **CTRL-ALT-DEL** when using Remote Desktop Connection (RDC):

- Press **CTRL-ALT-END**

If Remote Desktop hangs after logging in (usually on the Results window) or you get the message “**too busy to accept new connections**”:

- Disable RDC on your work PC
- Reboot work PC
- Enable RDC

Contact the IT Support Desk by telephoning (0131) 455 3000 if you require a technician to attend your Work PC.

If you get the message “**The local policy of this system does not permit you to logon interactively**”, you do not have administrator rights to access the Work PC. Contact the IT Support Desk by telephoning (0131) 455 3000 who will arrange for a Technician to visit your work PC.

Microsoft RDC help pages:

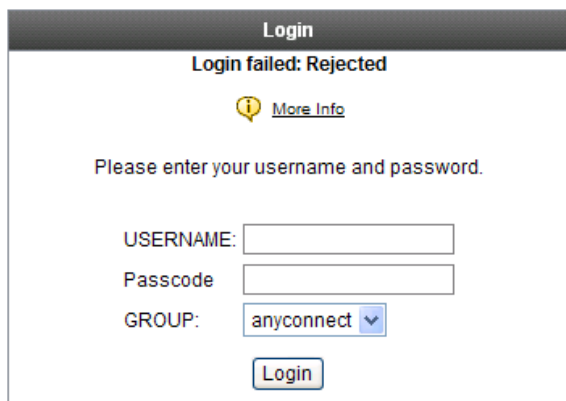
- <http://technet2.microsoft.com/windowsserver/en/library/a175573a-bb3d-4752-a412-8db391535a891033.msp?mfr=true>
- <http://technet2.microsoft.com/windowsserver/en/library/a175573a-bb3d-4752-a412-8db391535a891033.msp?mfr=true>

## VPN Client Installation Troubleshooting

### SSL VPN Client not installing (BT NETPROTECT PLUS users)

We have had some reports that users of BT NetProtect Plus McAfee Anti-Virus software are unable to install the SSL VPN client. The solution is to disable the BT NetProtect Plus McAfee Anti-Virus software while you install the SSL VPN client. Please remember to re-enable the Anti-Virus software once the SSL VPN installation is complete.

### Login failure reasons



Login

Login failed: Rejected

[More Info](#)

Please enter your username and password.

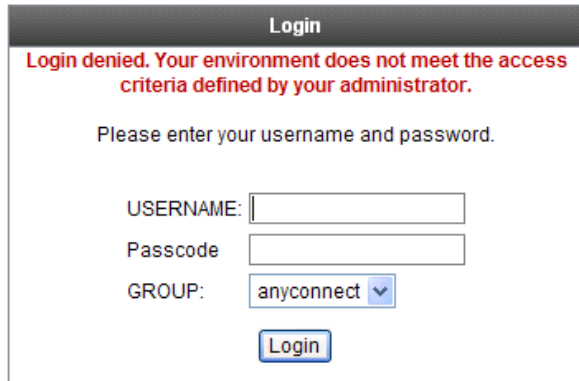
USERNAME:

Passcode

GROUP:

Login

After selecting **anyconnect** and entering your Edinburgh Napier University username and password, the login attempt is **rejected**. This occurs when an incorrect username and/or password has been entered



The screenshot shows a web-based login form titled "Login". At the top, a red error message reads: "Login denied. Your environment does not meet the access criteria defined by your administrator." Below this, a prompt says "Please enter your username and password." The form contains three input fields: "USERNAME:" with an empty text box, "Passcode" with an empty text box, and "GROUP:" with a dropdown menu currently set to "anyconnect". A "Login" button is positioned below the "GROUP:" field.

After selecting **anyconnect** and entering your Edinburgh Napier University username and password, the login attempt is **denied**. This occurs when the supplied username has not been given access to use **anyconnect**.

## Linux manual install

When the automatic installation of AnyConnect fails you will be prompted to download the installer. Download the **vpnsetup.sh** file and run the following commands:

```
# chmod +x vpnsetup.sh  
# sudo ./vpnsetup.sh
```

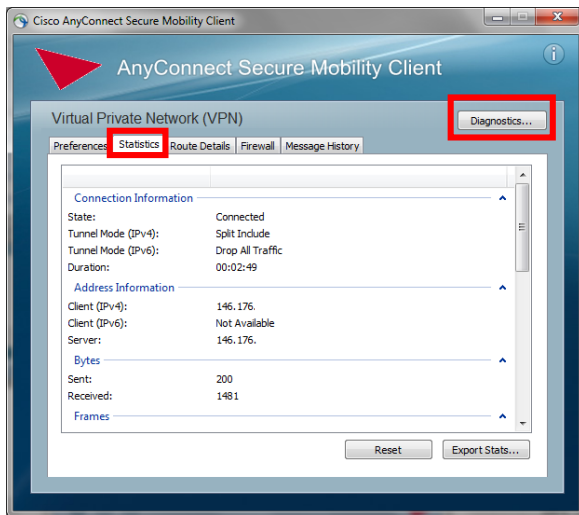
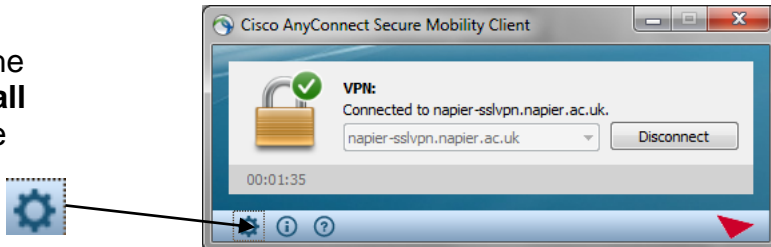
Connect to the **SSL VPN** service using:

- The command line: execute the file **/opt/cisco/vpn/bin/vpn**
- The GUI: execute the file **/opt/cisco/vpn/bin/vpnui**

## VPN Client Login/Connection Troubleshooting

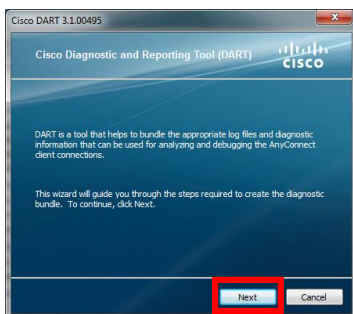
To help Information Services resolve AnyConnect login/connection problems, use the AnyConnect client Diagnostic and Reporting Tool (**DART**). **DART** gathers VPN logs and PC information and zips them into a file which can then be emailed to Information Services.

To start **DART**, click on the “**Advanced window for all components**” icon on the AnyConnect client.

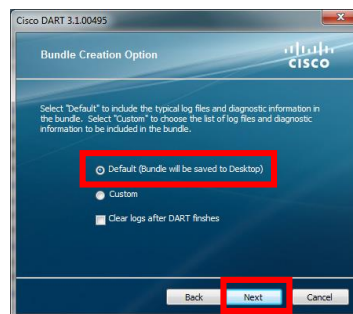


Select the **Statistics** tab and click the **Diagnostics** button in the top right hand corner to start **DART**

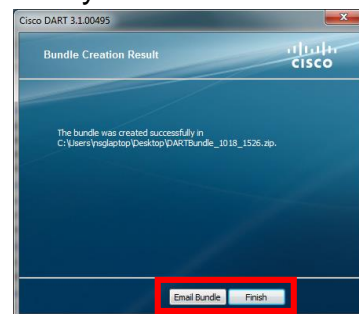
Click **Next** to start the **DART** wizard



Select **Default** and click **Next**



Click **Email Bundle** to start your email client



Send the **DART** zip file to the IS Service Desk ([ISServiceDesk@napier.ac.uk](mailto:ISServiceDesk@napier.ac.uk)) along with a description of the problem. If you clicked **Finish** instead of **Email Bundle**, **DART** will finish and the resultant zip file will be available by default on your desktop.