

Always on VPN – Installation Guide

IM&T

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Document History

Document Validity

This document is only valid on the day of printing.

Any subsequent revisions will only be valid on the day of printing of that revision.

Revision History

Revision Date	Author	Version	Summary of Changes	Changes Marked
26 th March	Warren Stone	1.4	Original	

Document Approval

This document has been approved by:

Name	Title	Date of Approval	Version
Andrew Carruthers	UHL CIO	26 March	1.3

Reference Documents

Reference Number	Title	Document Reference	Date of Issue	Version
1				

Always on VPN

1.1 What is Always on VPN?

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Always on VPN is a technology from Microsoft that provides a seamless, transparent, and always on secure network tunnel to UHL's IT infrastructure. When connected remote users can access on-site data and applications in the same familiar way, just as if you were on a UHL site.

1.2 Pre-requisites

For always on VPN to work there are some pre-requisites. They are:

- UHL Issued laptop
- Windows 10 operating system
- Active internet connection at remote location. The service will be affected by the quality of the internet connection.
 - Home Internet
 - Public Wi-Fi hotspot
 - Mobile device hotspot

1.3 How do I get Always on VPN?

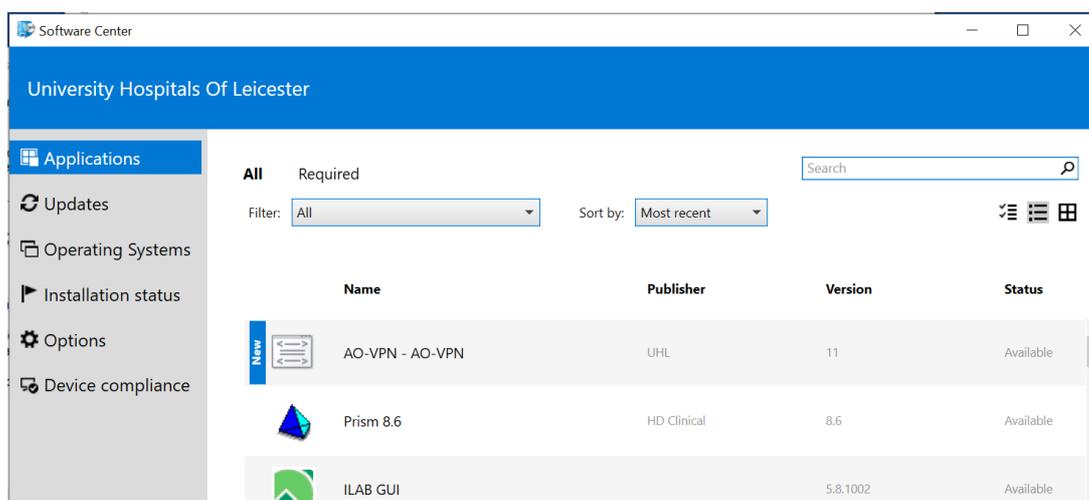
- a. **Software push** – If your laptop is connected to the UHL network we will automatically push a silent update to your laptop. It is important that you regularly connect your UHL laptop to the trust network and allow updates to be completed. It will take time for the software to reach all UHL laptops.
- b. **Software pull** – If you have an immediate requirement to download the update then you can do so from the UHL Software Centre. You can only access the software centre whilst connected to a UHL network. Follow the steps at **section 1.4**.
- c. **COVID 19 Isolation work around** – If you are isolated at home then you will need to follow the workaround guide at **section 1.5**

1.4 How to download the update from the UHL Software Centre?

- a. Click the start button on your Windows 10 laptop
- b. Select the Software Center Tile.



c. The software centre will start



d. Select the top entry, “AO-VPN – AO-VPN”

e. Select install on the next window

f. The application will now install. The next window will show a status of “installed”

AO-VPN - AO-VPN

Published by UHL

Reinstall

Status: Installed

Version: 11

Date published: 27/03/2020

Restart required: No

Download size: Less than 1 MB

Estimated time: Not specified

Total components: 1

- g. Done. Your UHL laptop will now connect to the UHL network from a private internet connection.

1.5 How do I check my laptop has received the Always on VPN update?

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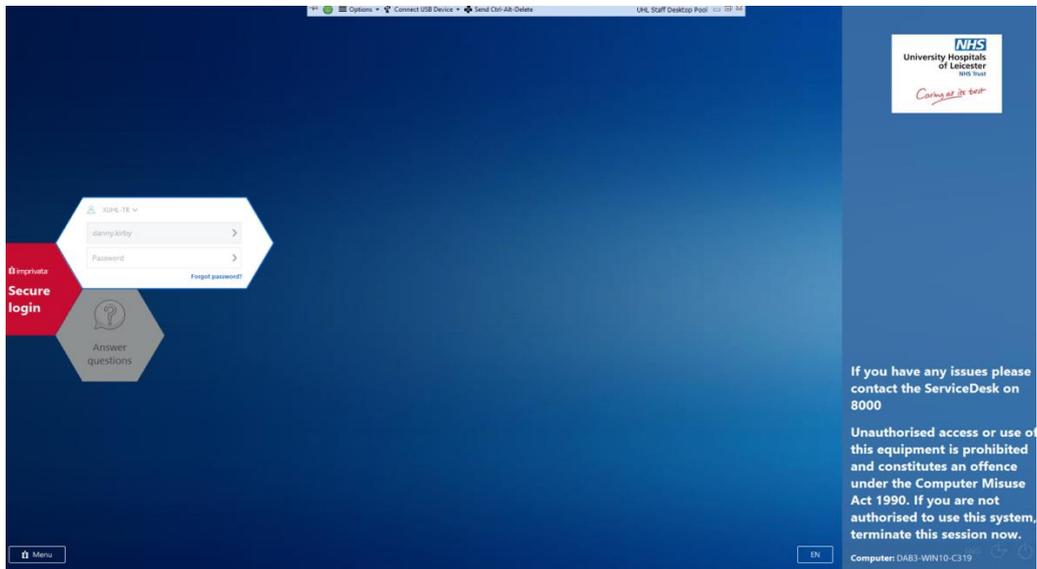
The Always on VPN connection will be transparent to you. When you log into your PC whilst connected from a remote location your laptop will automatically connect to Always on VPN. There will be no visible indication. If you are successfully connected then you will be able to open *INsite*. You will also be able to receive your UHL emails.

1.6 COVID 19 – Isolated at home Workaround

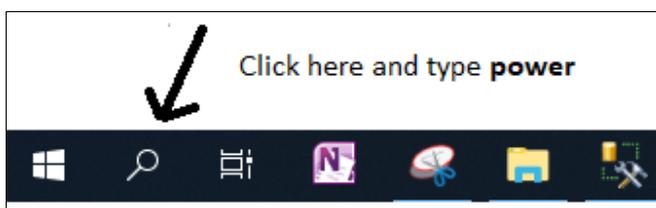
Because of COVID 19, some staff are not able to return to a UHL site to receive the silent update. We have a manual workaround to connect users to Always on VPN without the need to visit the office. Follow this manual workaround to implement the Always on VPN connection whilst working from home (**see Section 1.7**).

1.7 Installation workaround steps

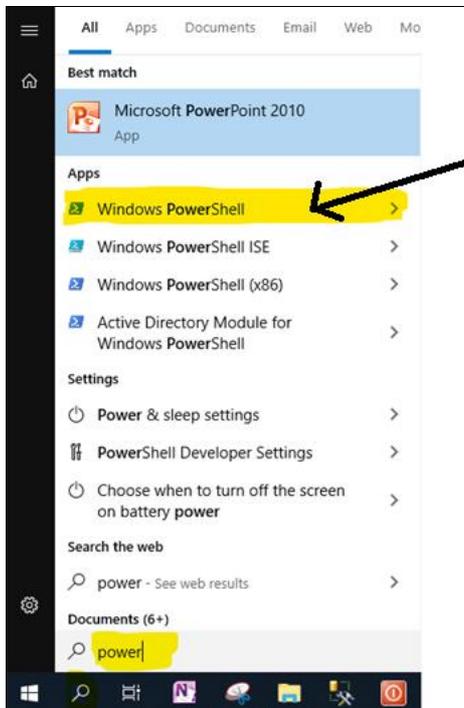
- a) Check that you are using a Windows 10 laptop. The home screen will look like this:



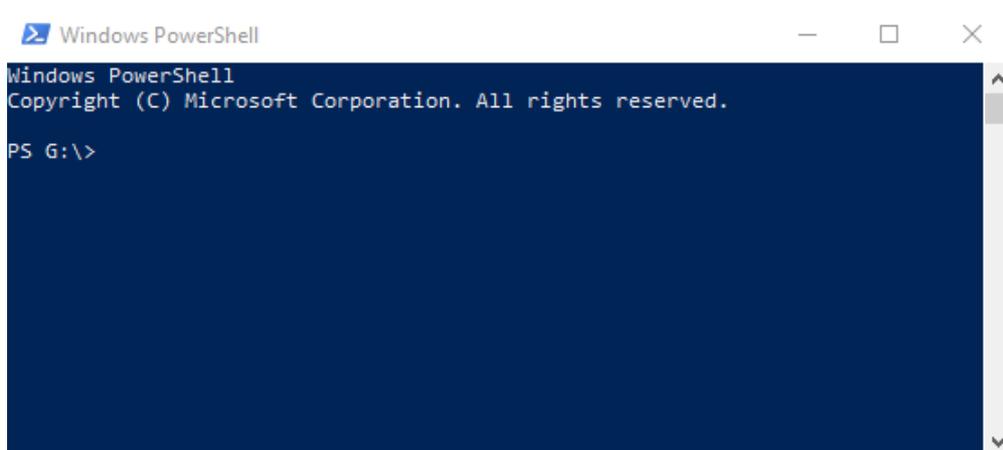
- b) After you have logged in, connect to any Wi-Fi/network connection that gives you access to the Internet
- c) Click on the magnifying glass/search icon in the bottom left hand corner of your windows desktop and type the word "power":



d) You should see a result that says “Windows PowerShell” which you need to select:



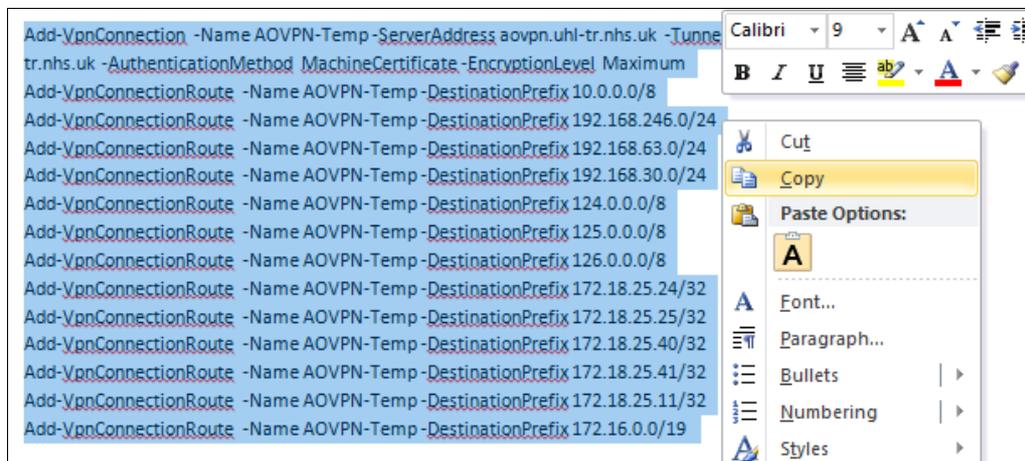
e) A blue Windows PowerShell will open.



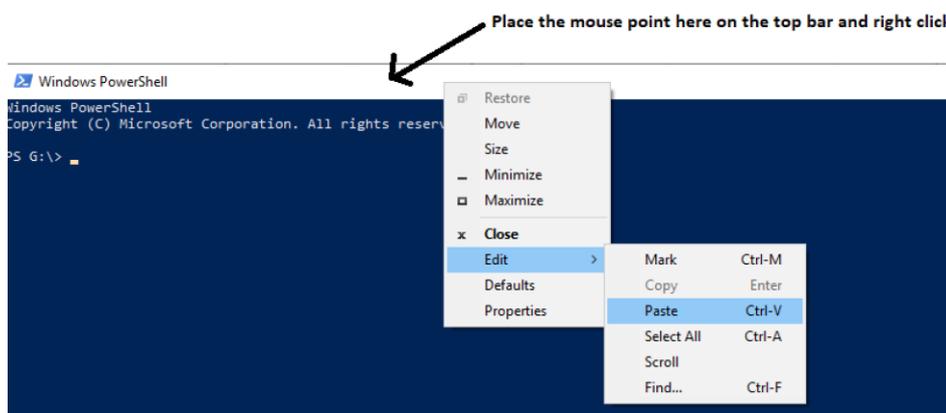
f) Highlight the lines below in this document, right click and choose **Copy**:

```
Add-VpnConnection -Name AOVPN-Temp -ServerAddress aovpn.uhl-tr.nhs.uk -TunnelType Ikev2 -SplitTunneling -DnsSuffix
xuhl-tr.nhs.uk -AuthenticationMethod MachineCertificate -EncryptionLevel Maximum
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 10.0.0.0/8
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 192.168.246.0/24
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 192.168.63.0/24
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 192.168.30.0/24
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 122.0.0.0/8
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 124.0.0.0/8
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 125.0.0.0/8
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 126.0.0.0/8
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.18.25.24/32
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.18.25.25/32
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.18.25.40/32
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.18.25.41/32
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.18.25.11/32
Add-VpnConnectionRoute -Name AOVPN-Temp -DestinationPrefix 172.16.0.0/19
```

e.g.



g) Click on the top bar of the Windows PowerShell, right click and choose **Paste**:



h) If successful you will see this return:

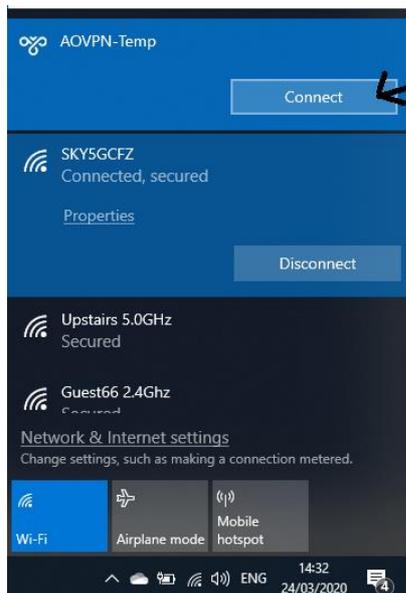
```

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS G:\> Add-VpnConnection -Name AOVPN-Temp -ServerAddress aovpn.uhl-tr.nhs.uk -TunnelType Ikev2 -SplitTunneling -DnsSuffix xuh1-tr.nhs.uk -AuthenticationMethod MachineCertificate -EncryptionLevel Maximum
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 10.0.0.0/8
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 192.168.246.0/24
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 192.168.63.0/24
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 192.168.30.0/24
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 124.0.0.0/8
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 125.0.0.0/8
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 126.0.0.0/8
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.18.25.24/32
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.18.25.25/32
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.18.25.40/32
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.18.25.41/32
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.18.25.11/32
PS G:\> Add-VpnConnectionRoute -Name AOVPN -DestinationPrefix 172.16.0.0/19
PS G:\>
  
```

i) Click on your Wi-Fi/Network Connection in the bottom right hand corner, at the top you should be able to see the new temporarily Always-On VPN (AOVPN) connection button. Click **Connect** to link you to the UHL network

(Note: you will still need to remain connected to a Wi-Fi/Network connection for the VPN to connect over)



Note: you will have to re-connect manually to your VPN connection every time you log in to your laptop or if your Wi-Fi drops out etc.

You do not have to use VPN if you are connecting directly to the UHL WiFi/network.

j) Done! Your laptop should now work exactly the same as if you were at work. E.g. you should have access to INSite, SharePoint, Outlook Emails and UHL Clinical IT applications.

Note: Once you are connected to the UHL network via the temp VPN connection “AOVPN- Temp”, the IT department will be able to implement the permanent configuration setting, so please do not be concerned if you notice temp VPN connection disappears.