

TROUBLESHOOTING GUIDE

Secured Internet at Edge in schools for **BYO AND SCHOOL-OWNED NON-WINDOWS (PERSONAL) DEVICES**

Description

This troubleshooting guide is designed to be used in conjunction with the quick reference guide (QRG) for personal BYO devices.

The diagram below shows successful operation of a BYOD or school-owned non-Windows devices in a school with the Internet at Edge connection.



User



User PC



Edge Firewall

1. PC OS boots and acquires from DHCP server:
 - IP address, netmask and gateway
 - DNS server address 10.254.254.254 (Edge Firewall)
 - DHCP Option 252 (WPAD - Web Proxy Auto-detection)
2. User unlocks/ logs in to his PC
3. User launches web browser
4. Web Browser discovers the Internet connection:
 - GP policy directs Internet connection to use `http://pac.det.nsw.edu.au/fib/proxy.pac` via <Automatically detect settings> setting ** OR <Use automatic configuration script> setting **
 - proxy.pac file, downloaded by browser when at I@E site, instructs the system to use DIRECT connection
5. Client navigates to **detnsw.net**
6. Edge Firewall intercepts DNS request for `pac.det.nsw.edu.au` and directs the user to I@E PAC file servers 153.107.132.11/153.107.133.11 instead of non-I@E PAC file servers 10.7.126.120/10.7.127.120
7. Client authenticates using his "first.last@detnsw" credentials
8. Edge Firewall validates user credentials and records user details
9. Edge Firewall redirects the user to the go.det.win landing page
10. **detnsw.net** page acknowledges the user is authorized to access DoE Internet at Edge
11. User accesses an URL
12. Web Browser (or a non-browser application) initiates direct connection (no proxy) to the Internet resource
13. Firewall verifies the connection against the DoE security and web filtering policies
 - Enables the connection if permitted

** As applicable to the device platform

The troubleshooting steps for school-owned Windows devices fall into the following main stages:

Know what a blocked page looks like 2

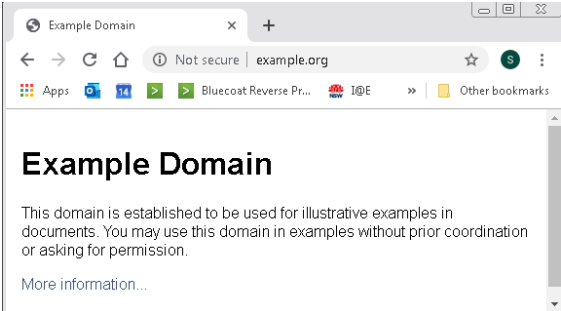
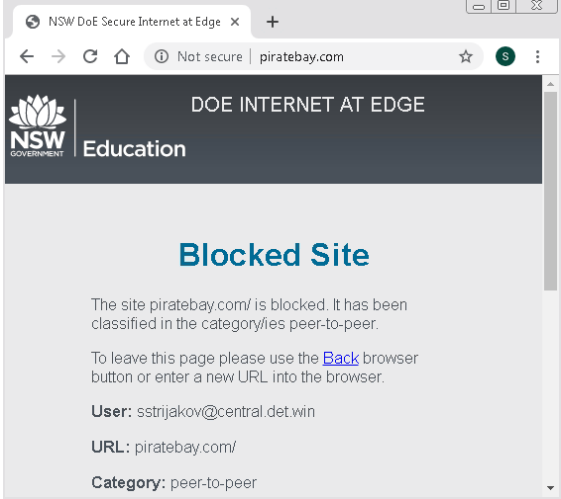
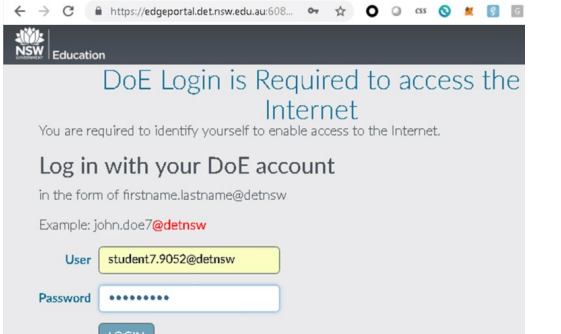
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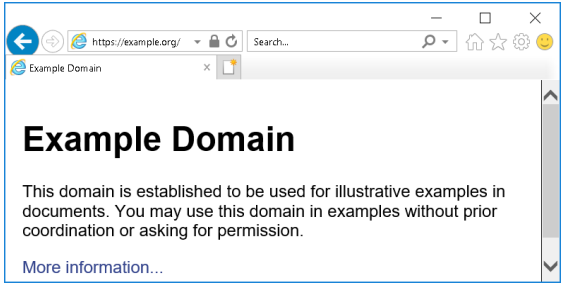
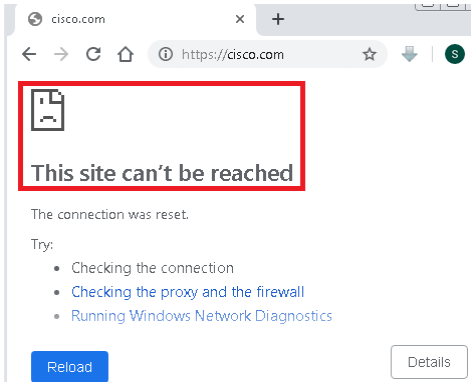
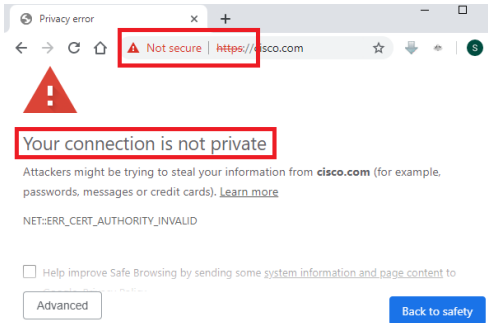
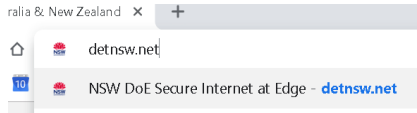
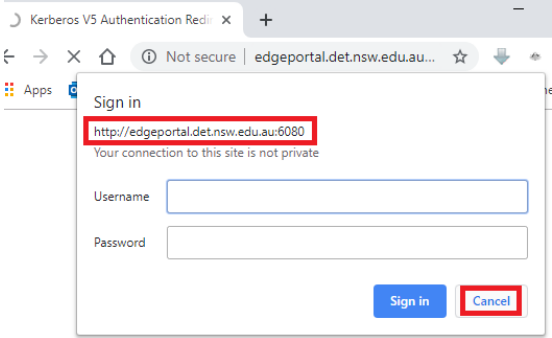
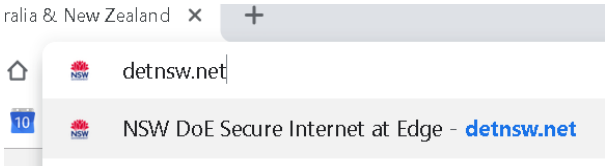
Know what a blocked page looks like

In an Internet at Edge site, a blocked page will show different for HTTP and HTTPS URLs.

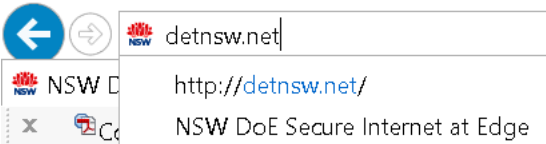
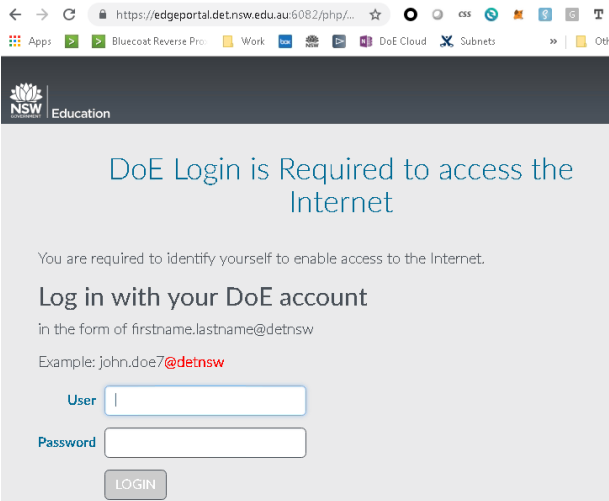
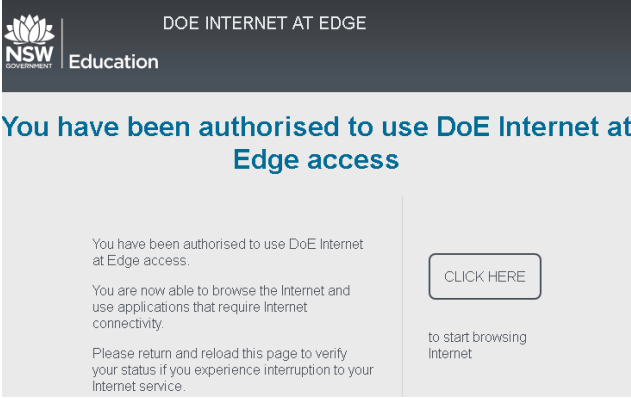
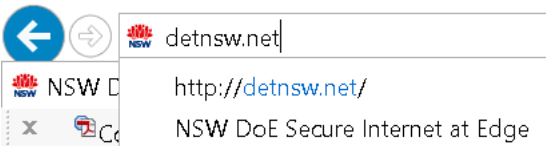
If you navigate to an unsecured (HTTP) internet site, you may see one of the following results:

<p>Site contents:</p> 	<p>You are already authenticated to the Internet at Edge and authorised to view the page.</p>	<p>Enjoy your browsing 😊</p>
<p>Blocked site alert:</p> 	<p>You are authenticated to the Internet at Edge but NOT authorised to view the site.</p>	<p>If you believe you should have access to this page, let your teacher know.</p>
<p>Internet at Edge login page:</p> 	<p>You are NOT authenticated to the Internet at Edge.</p>	<p>Login with your DoE account.</p> <p>Make sure you use the same username format as: firstname.lastname@detnsw</p> <p>Click Login.</p>

If you navigate to a secured (HTTPS) internet site, you may see one of the following results:

<p>Site contents:</p> 	<p>You are already authenticated to the Internet at Edge and authorised to view the page.</p>	<p>Enjoy your browsing 😊</p>
<p>This site can't be reached:</p> 	<p>You are authenticated to the Internet at Edge, but NOT authorised to view the page.</p>	<p>Seeing this response may also mean your network connection is not working.</p> <p>To verify if this page is blocked, navigate to HTTP version of this URL. For example, if you tried access https://cisco.com, navigate to http://cisco.com to see if page is blocked.</p> <p>Also check if the sites that you have access to are working.</p> <p>If you believe you should have access to this page, let your teacher know.</p>
<p>“Your connection is not private” or “Your connection is not secure” certificate warning.</p> 	<p>You are NOT authenticated to the Internet at Edge.</p>	<p>Navigate to detnsw.net to authenticate to Internet at Edge.</p> 
<p>If you come across this prompt, press cancel and navigate to detnsw.net to authenticate your Internet at Edge connection:</p>		
		

Validate Internet at Edge User Identification

INSTRUCTIONS	SCREENSHOT CLARIFICATION
<p>The user will need to authenticate to the Internet at Edge firewall in order to access the internet.</p> <p>To authenticate, user needs to navigate to detnsw.net in the browser.</p>	
<p>If not already authenticated to the Internet at Edge firewall, the user will be prompted with the Internet at Edge firewall captive portal log in with your DoE account prompt.</p> <p>Verify that the end user enters their first.last@detnsw credentials. It is important for the user to use @detnsw suffix for successful internet access.</p>	
<p>Once successfully authenticated, the Internet at Edge landing page, detnsw.net, should look as shown (right).</p> <p>Note: At this stage, if the user is NOT presented with this landing page, call EDConnect and ask that a ticket be escalated to the Operations.T4L Centre, stating that issue is Internet at Edge firewall captive portal authentication failure.</p>	
<p>To validate user identification, launch a web browser and go to detnsw.net</p>	

INSTRUCTIONS

Click **My Details** button.

Check if username shown is that of the logged in user. Check that the user's group for Internet access is show and is correct.

My Details page should show **CP** as Authentication mode.

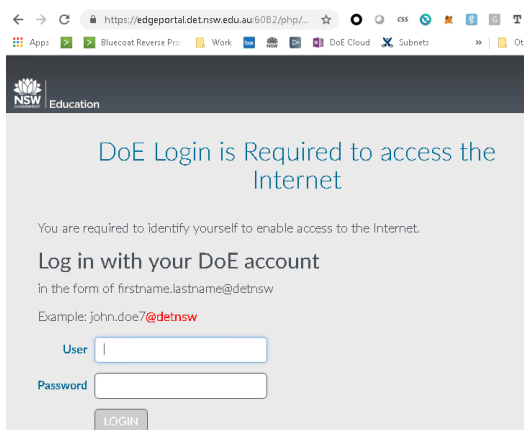
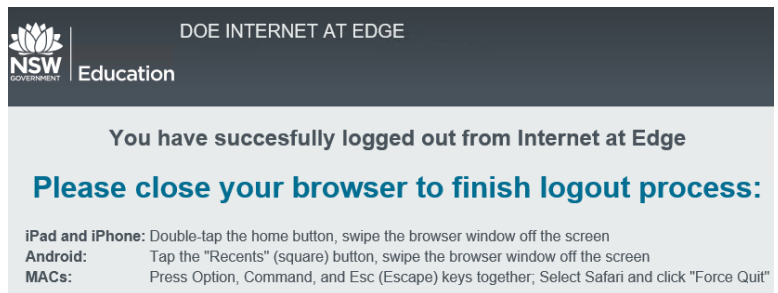
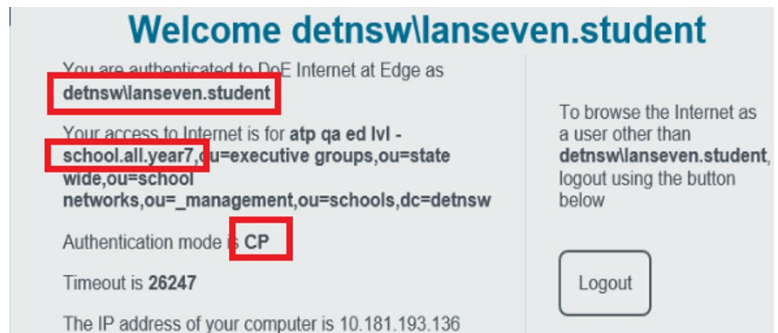
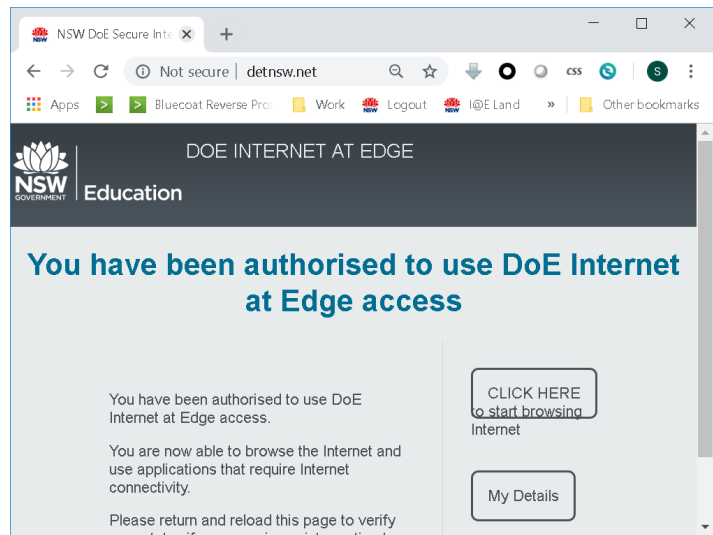
If username is different from the user using the device, click **Logout** button and close the browser following the displayed instructions

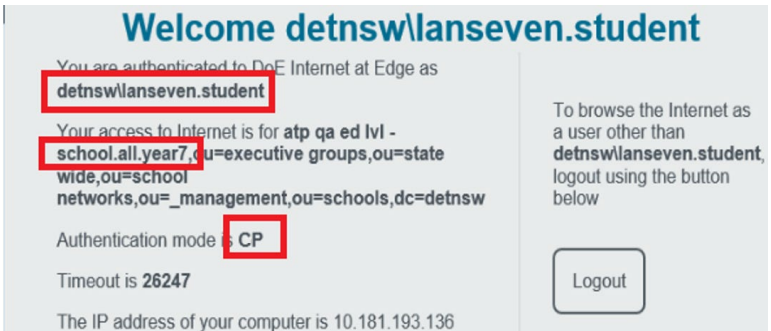
Launch a web browser and go to **detnsw.net** to enter username and password of the current user.

If user is not prompted for username and password but instead, the Internet at Edge landing page, **detnsw.net**, is shown, please repeat the logout process carefully following the instructions to close the browser.

If the same behaviour persists, call EDConnect and ask that a ticket be escalated to the **Operations.T4L Centre**, stating that issue is **Internet at Edge logout function does not work**.

SCREENSHOT | CLARIFICATION



INSTRUCTIONS	SCREENSHOT CLARIFICATION
<p>If user followed the logout process and entered their username and password in captive portal but still wrong username is shown on the Details page, call EDConnect and ask that a ticket be escalated to the Operations.T4L Centre, stating that issue is Wrong user name after Captive Portal authentication</p> <p>Otherwise, continue troubleshooting.</p>	
<p>If group name on the Details page is not shown or is not correct for the user, call EDConnect and ask that a ticket be escalated to the Operations.T4L Centre, stating that issue is the Internet at Edge group mapping is not working.</p> <p>Otherwise, continue troubleshooting.</p>	

Validate IP and proxy settings

Having incorrect proxy setting on unmanaged devices may prevent the user from successfully browsing the internet.

This section details instructions on how to verify proxy settings on unmanaged devices.

Apple iOS devices

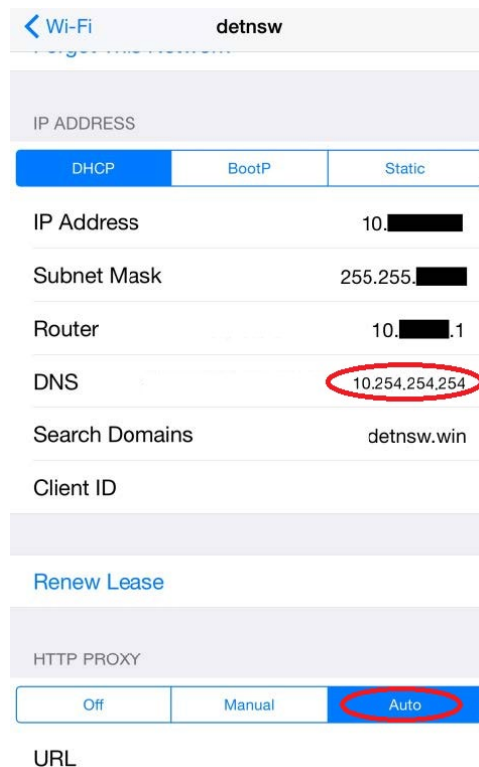
Go to settings.

Select Wi-Fi.

Tap **detnsw**.



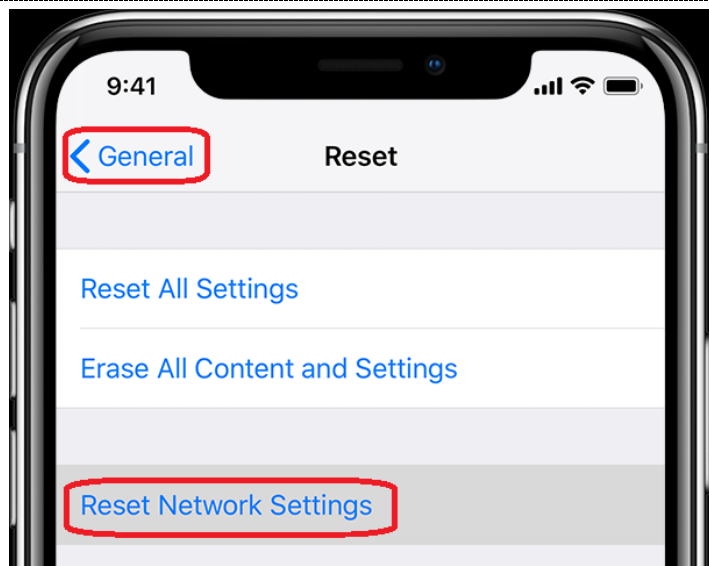
Scroll down and verify settings are as shown.



Reset network settings

When the school changes to Secured Edge solution, the cached previous configuration may prevent Apple iOS device from connecting to Internet. If this happens, reset your Network Settings: Tap Settings > General > Reset > Reset Network Settings.

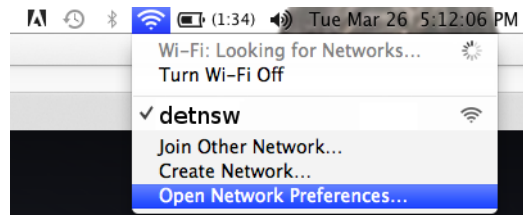
Note: this also resets Wi-Fi networks and passwords, cellular settings, and VPN and APN settings that you've used before. They need to be configured again.



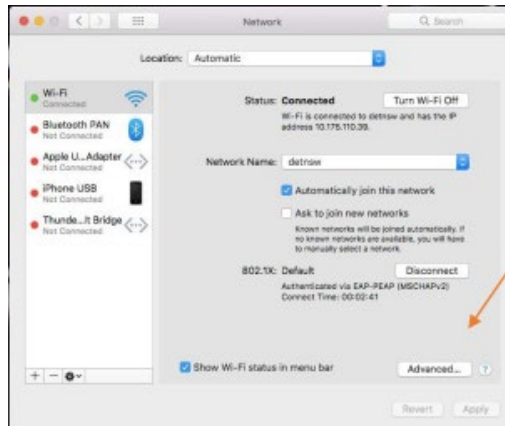
MAC devices

Your connection to detnsw.net landing page may not work from older versions of Safari. If you can navigate to detnsw.net using Chrome but cannot navigate to detnsw.net using Safari, please consider upgrading Safari to at least version 12.0.1.

Select **Open Network Preferences** from the Wi-Fi button.



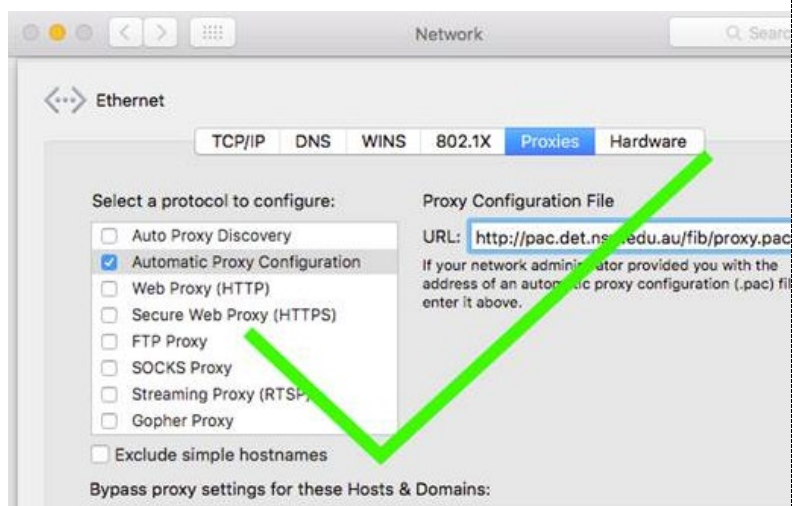
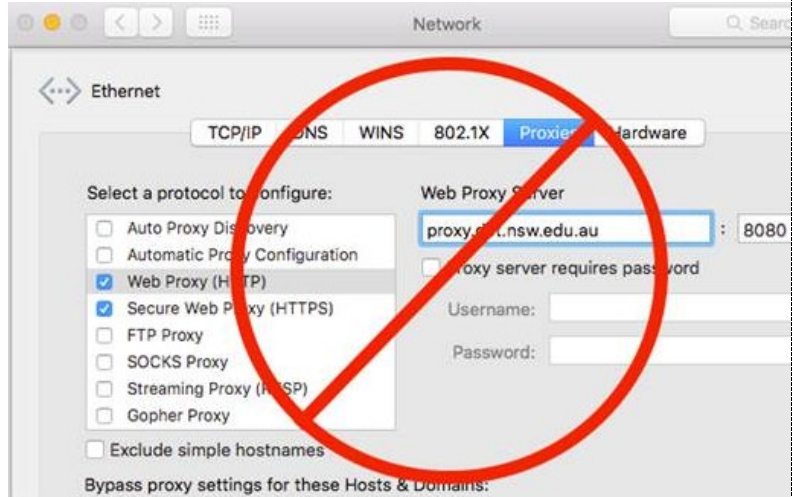
Select **Advanced**.



Select the **Proxies** tab.

Make sure the settings are as shown.

Click **OK**.



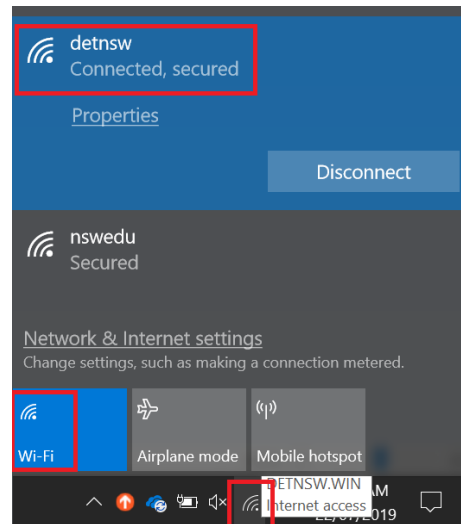
Windows devices

The way to check/set proxy settings varies between Windows 7 and Windows 10.

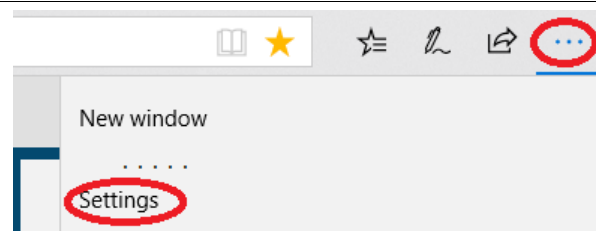
Windows 10

Verify that your device is connected to detnsw wireless SSID

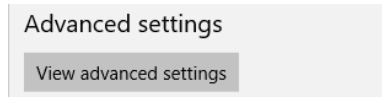
If not, select detnsw SSID and connect using your **firstname.lastname@detnsw** username and your network password



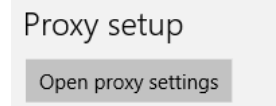
Start Internet Explorer and select **Menu / Settings**.



Scroll down to and click **Advanced settings**.



Scroll down to and click **Open proxy settings**.



Verify the settings are as shown.

Proxy

Automatic proxy setup

Use a proxy server for Ethernet or Wi-Fi connections. The don't apply to VPN connections.

Automatically detect settings

On

Use setup script

Off

Script address

Save

Manual proxy setup

Use a proxy server for Ethernet or Wi-Fi connections. The don't apply to VPN connections.

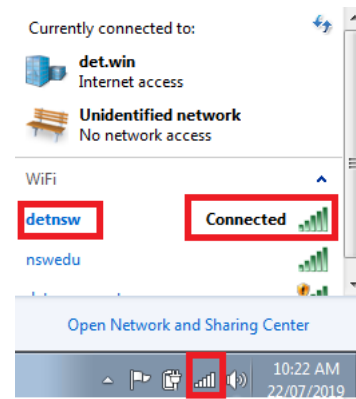
Use a proxy server

Off

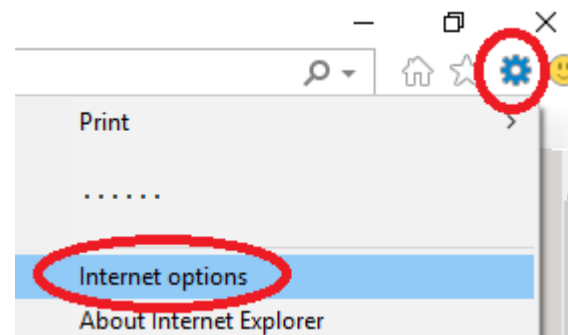
Windows 7

Verify that your device is connected to **detnsw wireless SSID**.

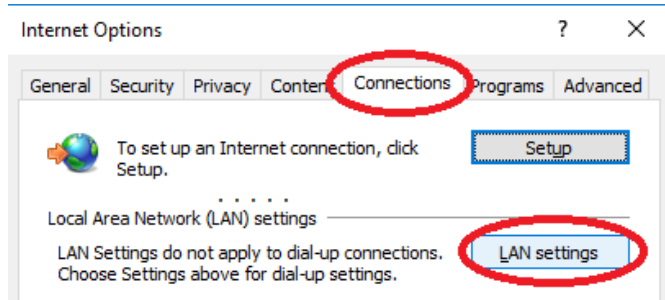
If not, select **detnsw SSID** and connect using your **firstname.lastname@detnsw** username and your network password



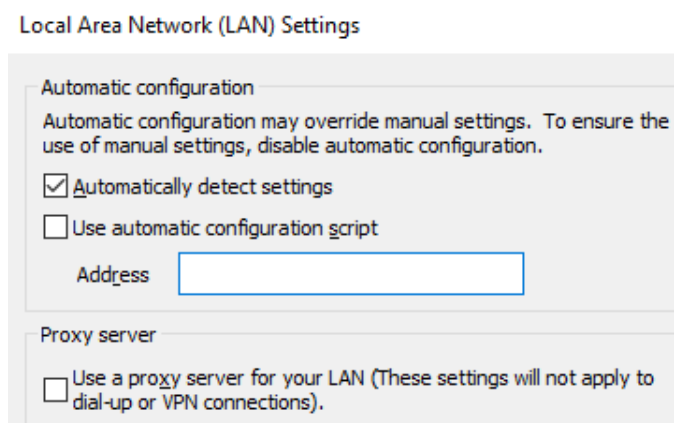
Start Internet Explorer and select **Menu / Internet Settings**.



Then select Connections tab and click **LAN settings** button.



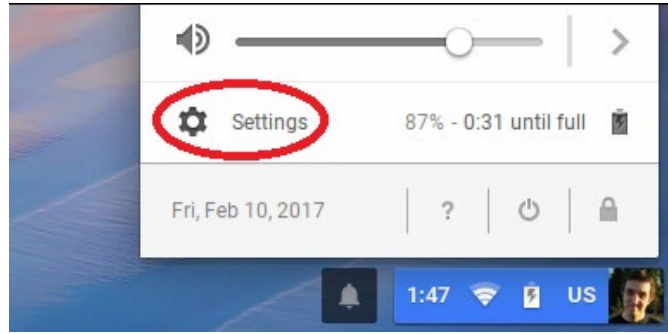
Verify the settings are as shown.



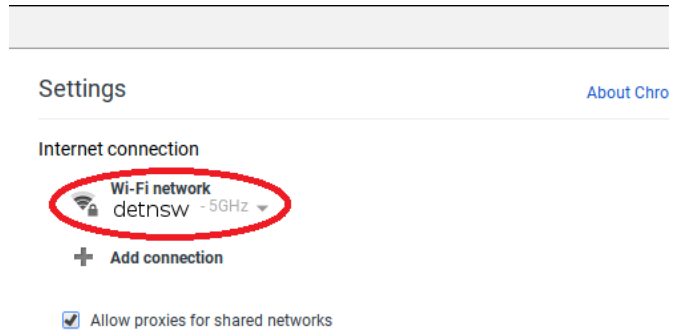
Chromebooks

Click the panel at the bottom-right corner of your Chrome OS desktop and select **Settings**.

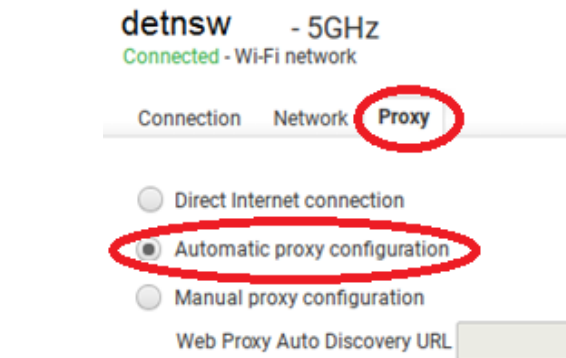
Or click menu > **Settings** in a Chrome browser window.



Click **detnsw** Wi-Fi network.

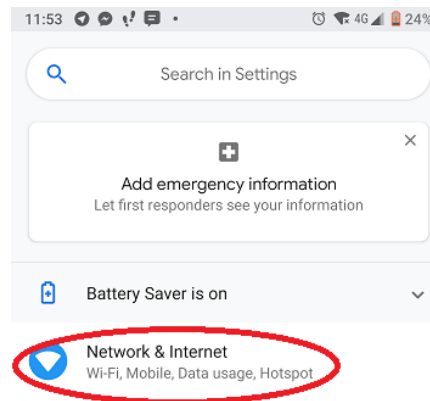


Click **Proxy**.
Click **Automatic proxy configuration**.
Click the **Close** button.

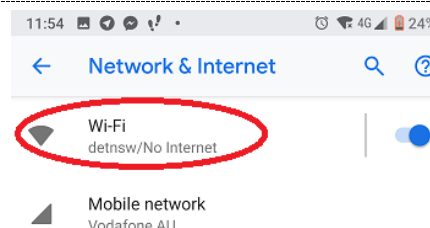


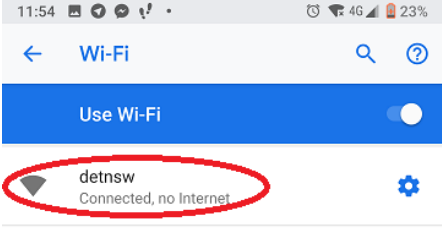
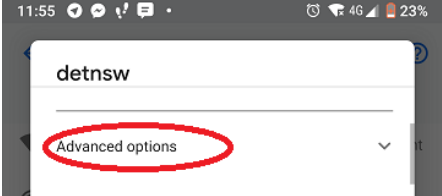
Android devices 9.0 and above

Open **Settings**.
Tap **Network and Internet**.



Tap **Wi-Fi**.



Tap detnsw .	
Tap Edit icon.	
Tap Edit icon.	
Scroll down to and tap Advanced options .	
Check that Proxy is set to Proxy Auto-Config .	

Android devices older than 9.0

Android devices older than Android 9.0 do not support proxy autoconfiguration. Pre-existing manual proxy configuration to **proxy.det.nsw.edu.au** on port 8080 will continue to work. To benefit from Internet at Edge solution, follow the same steps as described in 'Android devices', but check that the **proxy** setting is set to **None**.

Roaming between Internet at Edge and non-Internet at Edge sites

As the proxy setting for majority of supported devices are to be set to **Auto**, no changes are required when the same device is used in Internet at Edge and non-Internet at Edge sites.

Web browsers

Operation of the Internet at Edge was successfully tested with the following browsers:

- Internet Explorer
- Google Chrome
- Firefox
- Safari 12.0.1

Need further assistance?

For technical support, call EDConnect 1300 32 32 32 or raise a ticket through the [self-service portal](#)