NSW GOVERNMENT | Education

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

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

5. Client navigates to **detnsw.net**

6. Edge Firewall redirects the user to Auth page

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 paltform

The troubleshooting steps for school-owned Windows devices fall into the following main stages:
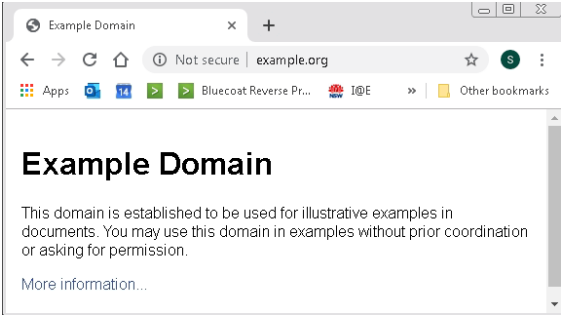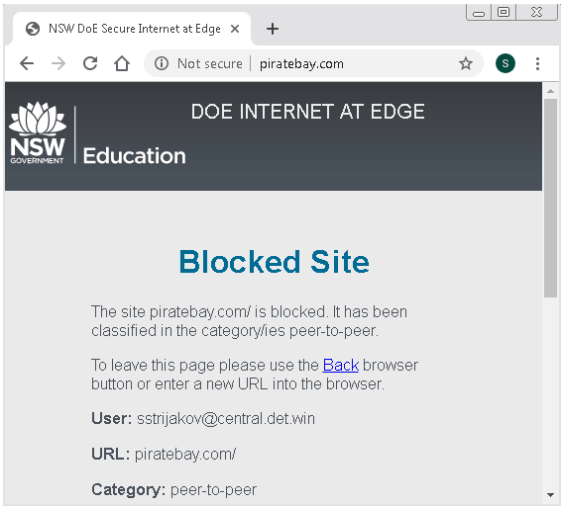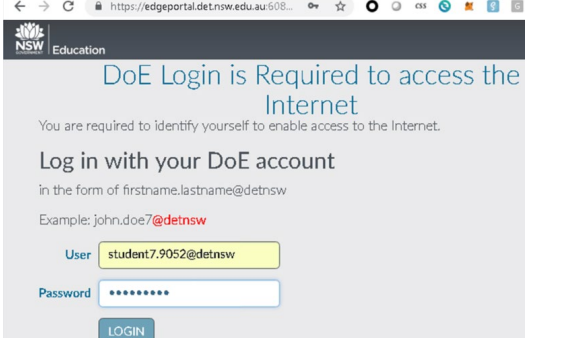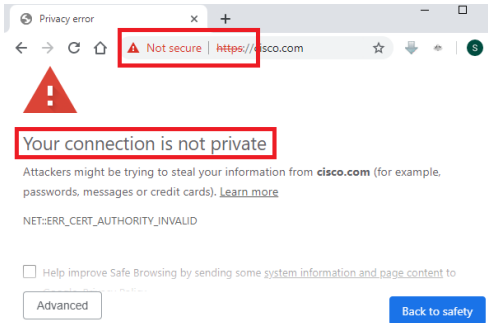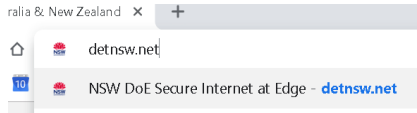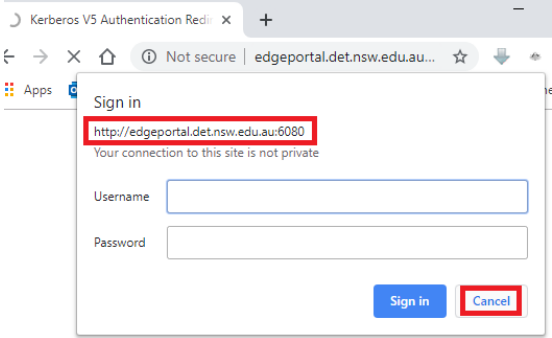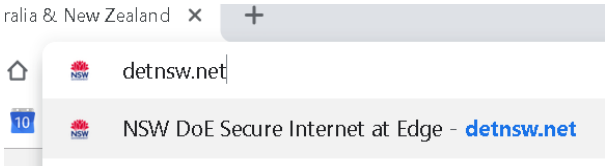
Know what a blocked page looks like

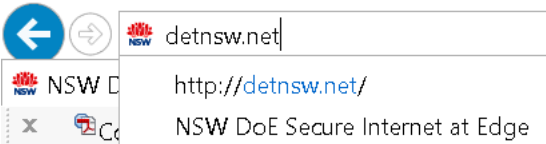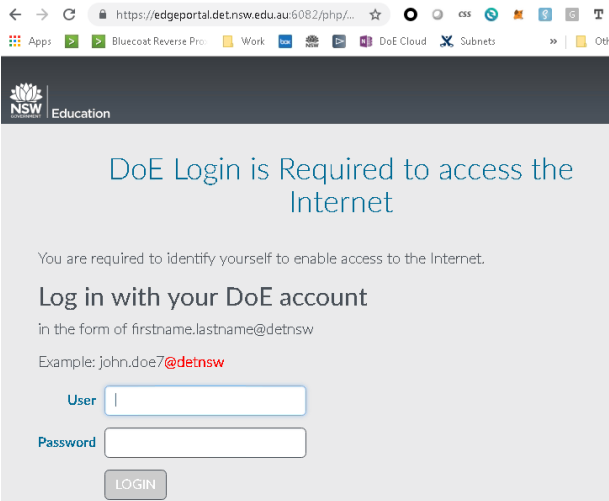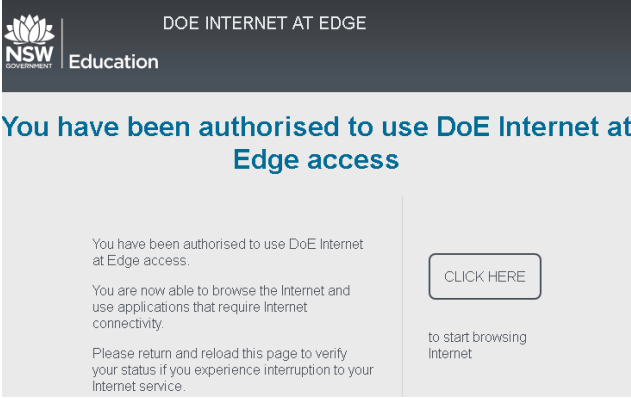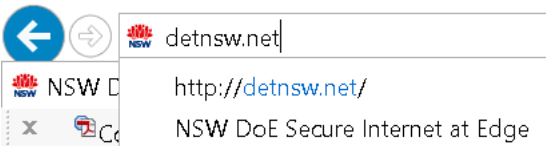In an Internet at Edge site, a blocked page will show different for HTTP and HTTPS URLs.

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

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

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

Site contents:	You are already authenticated to the Internet at Edge and authorised to view the page.	Enjoy your browsing ☺
This site can't be reached:	You are authenticated to the Internet at the Internet at Edge, but NOT authorised to view the page.	Seeing this response may also mean your network connection is not working. 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. Also check if the sites that you have access to are working. If you believe you should have access to this page, let your teacher know.
"Your connection is not private" or "Your connection is not secure" certificate warning.	You are NOT authenticated to the Internet at Edge.	Navigate to detnsw.net to authenticate to Internet at Edge.

If you come across this prompt, press cancel and navigate to **detnsw.net** to authenticate your Internet at Edge connection:

Validate Internet at Edge User Identification

INSTRUCTIONS	SCREENSHOT | CLARIFICATION
The user will need to authenticate to the Internet at Edge firewall in order to access the internet. To authenticate, user needs to navigate to **detnsw.net** in the browser.	
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. 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.	
Once successfully authenticated, the Internet at Edge landing page, **detnsw.net,** should look as shown (right). 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**.	
To validate user identification, launch a web browser and go to **detnsw.net**	

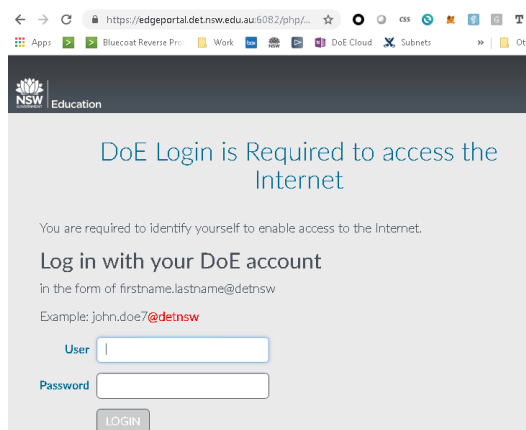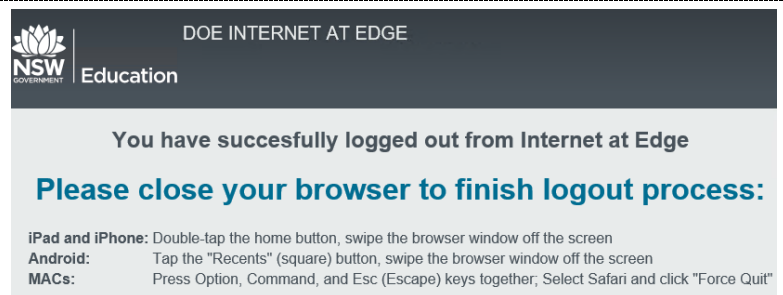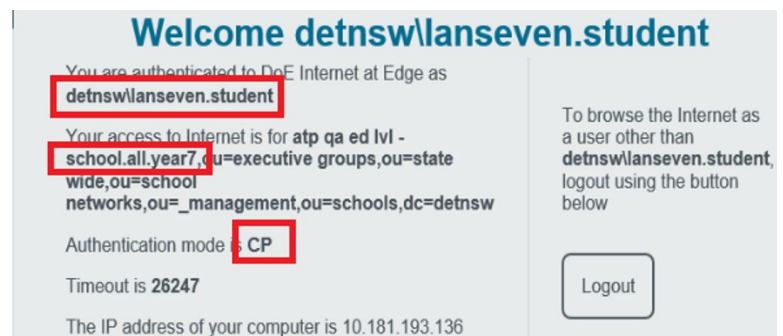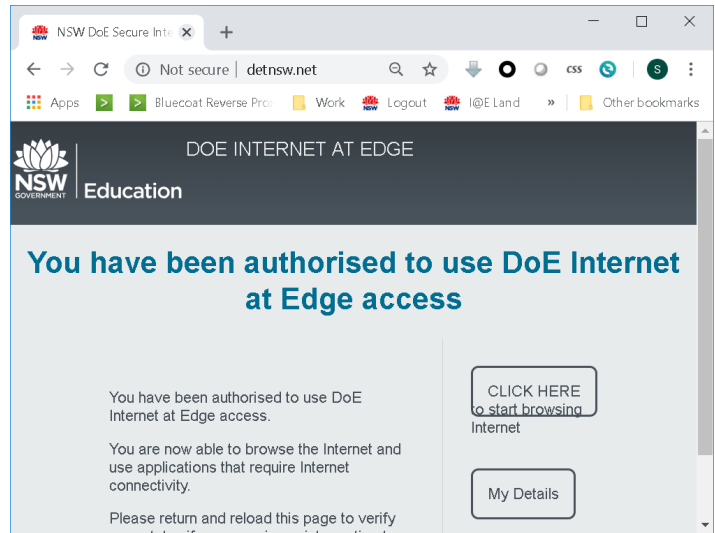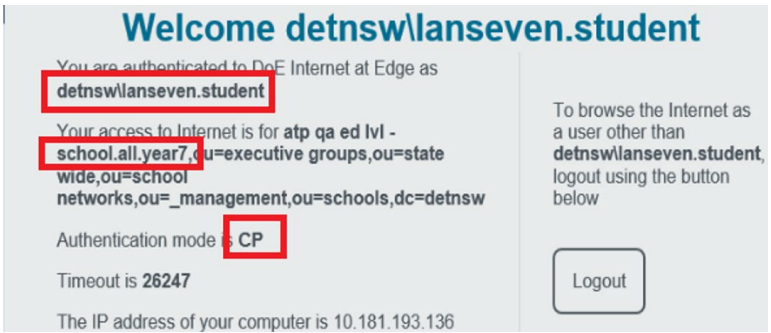| INSTRUCTIONS	SCREENSHOT | CLARIFICATION
Click **My Details** button.	
Check if username shown is that of the logged in user. Check that the user's group for Internet access is show and is correct. **My Details** page should show **CP** as Authentication mode.	
If username is different from the user 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**.	

INSTRUCTIONS	SCREENSHOT | CLARIFICATION
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 authenticationon** Otherwise, continue troubleshooting.	
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.** Otherwise, continue troubleshooting.	

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.
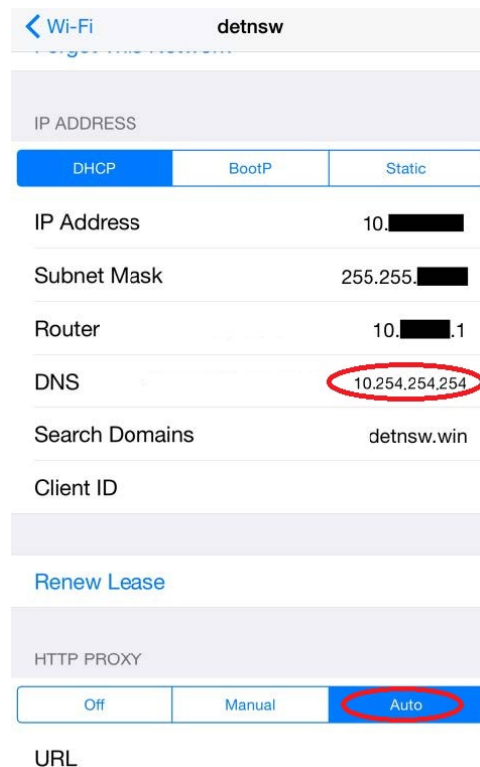
| Apple iOS devices	
Go to settings. Select Wi-Fi. Tap **detnsw.**	
Scroll down and verify settings are as shown.	

| **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. | |
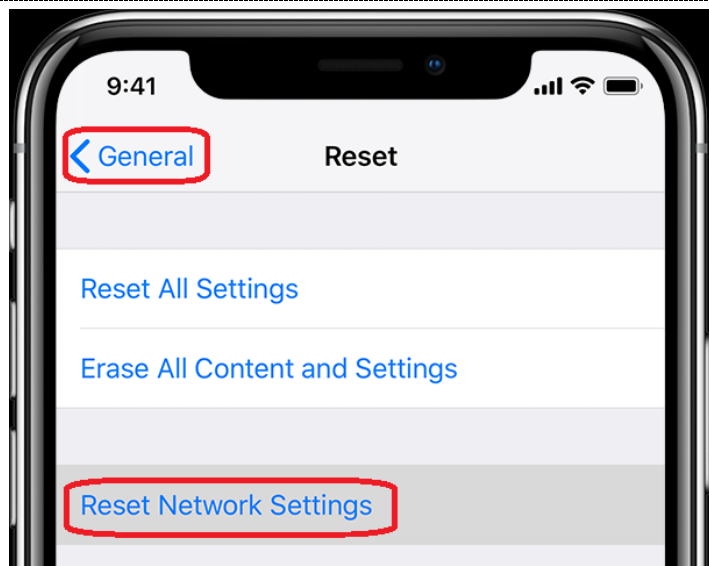
MAC devices

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.

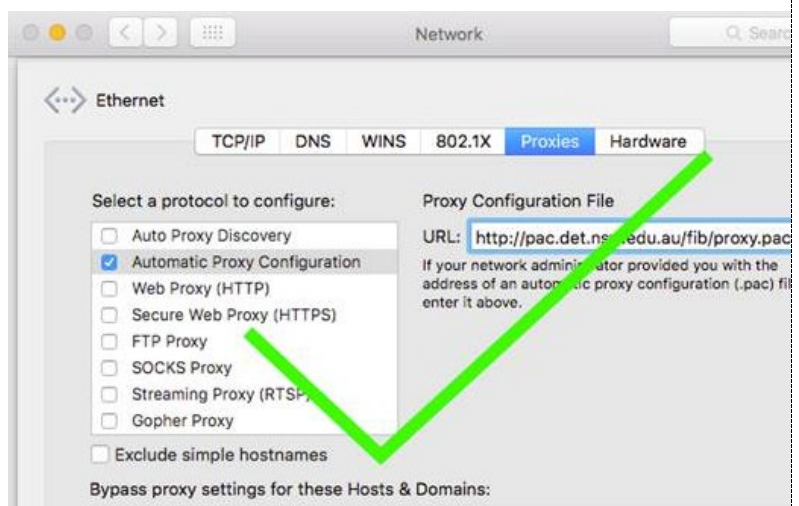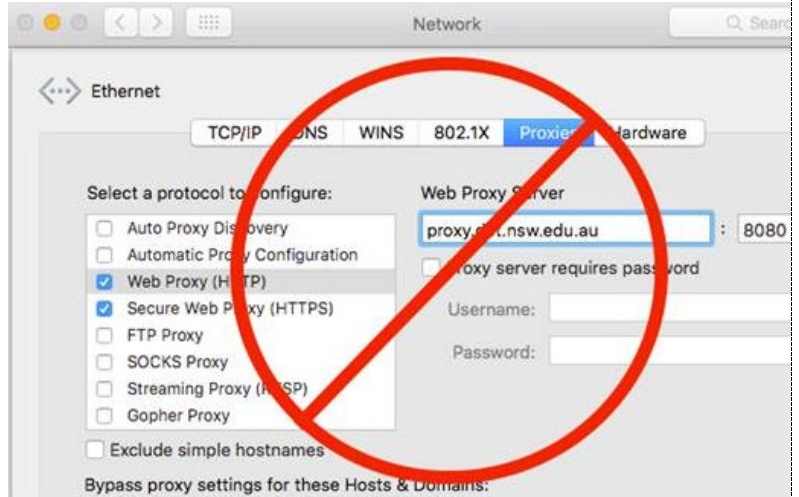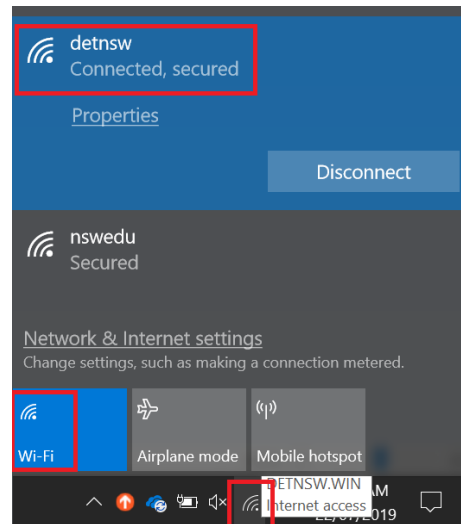|	
Select **Open Network Preferences** from the Wi-Fi button.	
Select **Advanced**.	
Select the **Proxies** tab. **Make sure the settings are as shown.** Click **OK**.	
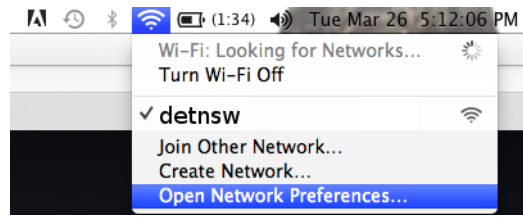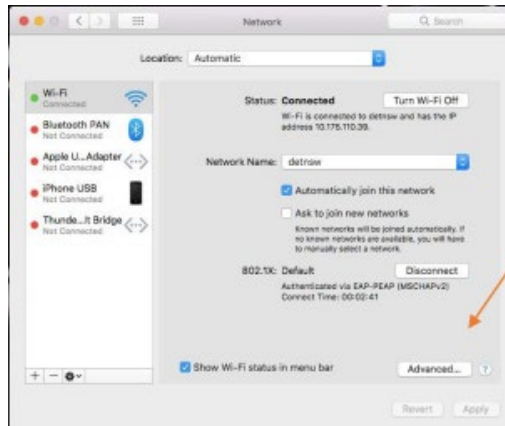
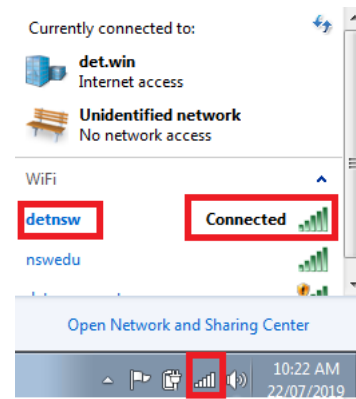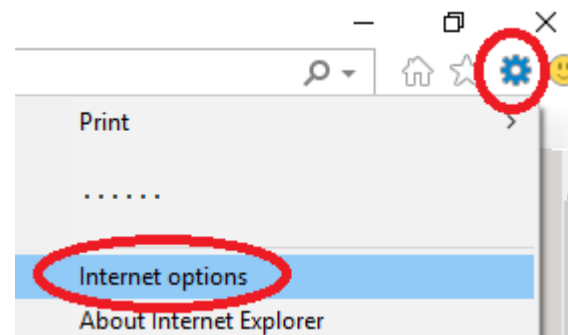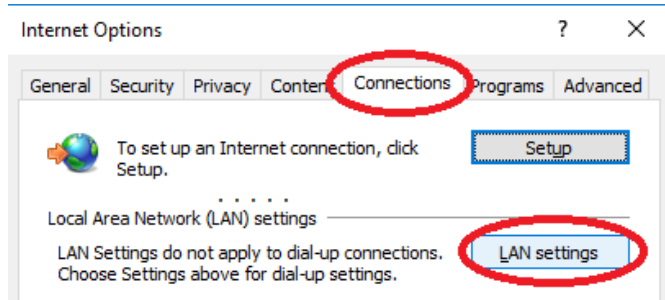| Windows devices	
The way to check/set proxy settings varies between Windows 7 and Windows 10.	
Windows 10 Verify that your device is connected to detnsw wireless SSID If not, select detnsw SSID and connect using your **firstname.lastname@detnsw** username and your network password	
Start Internet Explorer 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.	
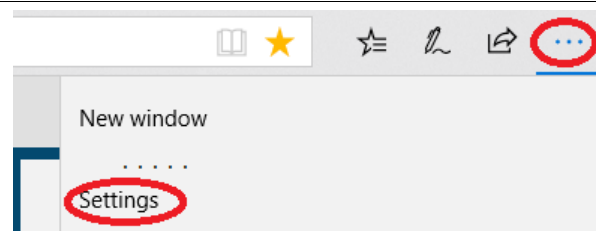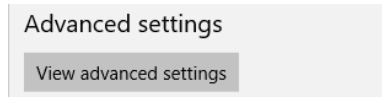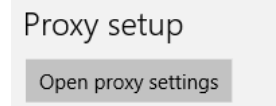
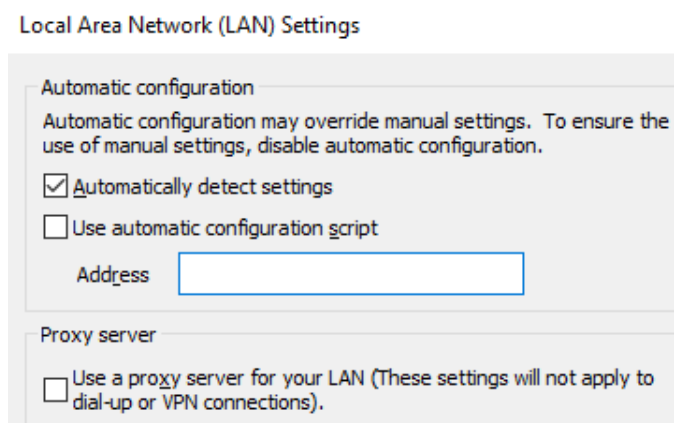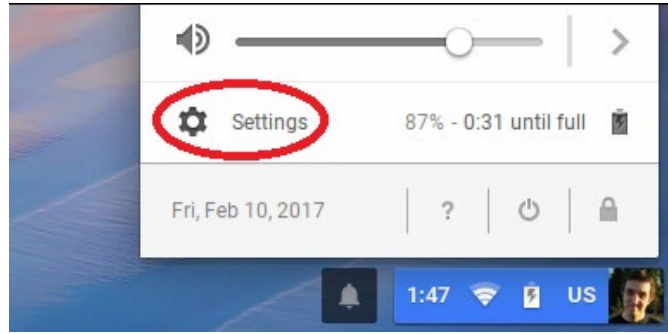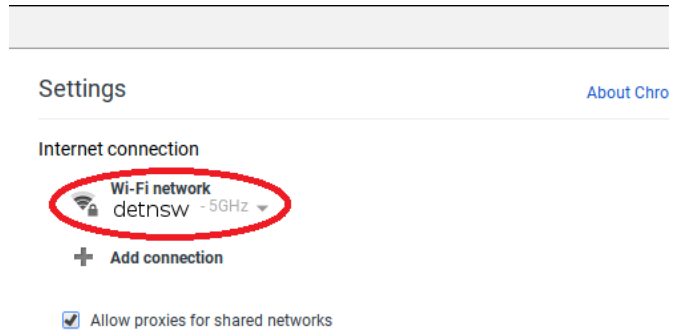|	
Windows 7 Verify that your device is connected to **detnsw wireless SSID**. If not, select **detnsw SSID** and connect using your **firstname.lastname@detnsw** username and your network password	
Start Internet Explorer and select **Menu / Internet Settings.**	
Then select Connections tab and click **LAN settings** button.	
Verify the settings are as shown.	

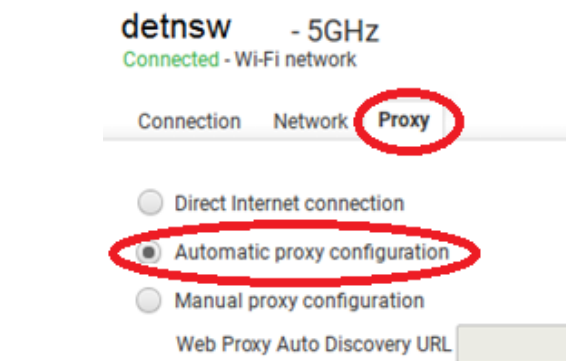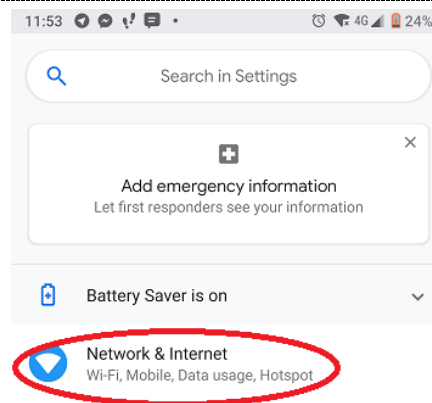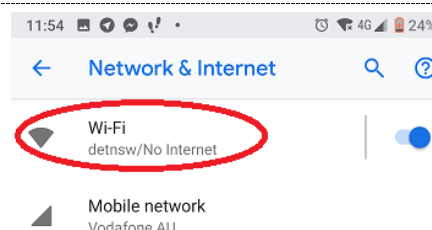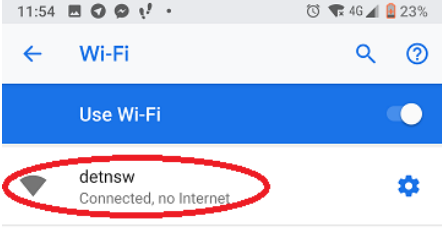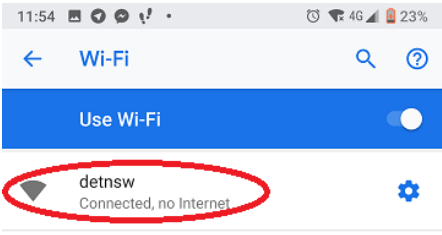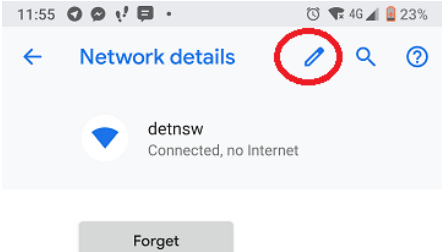|	
Chromebooks	
Click the panel at the bottom-right corner of your Chrome OS desktop and select **Settings**. Or click menu > **Settings** in a Chrome browser window.	
Click **detnsw** Wi-Fi network.	
Click **Proxy**. Click **Automatic proxy configuration**. Click the **Close** button.	
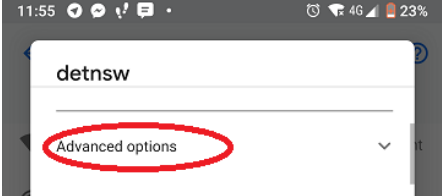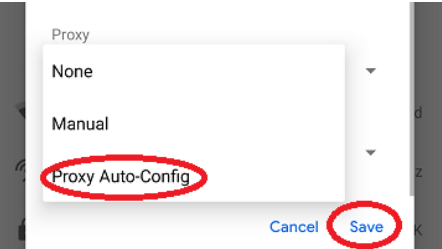
Android devices 9.0 and above	
Open **Settings**. Tap **Network and Internet.**	
Tap **Wi-Fi.**	

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