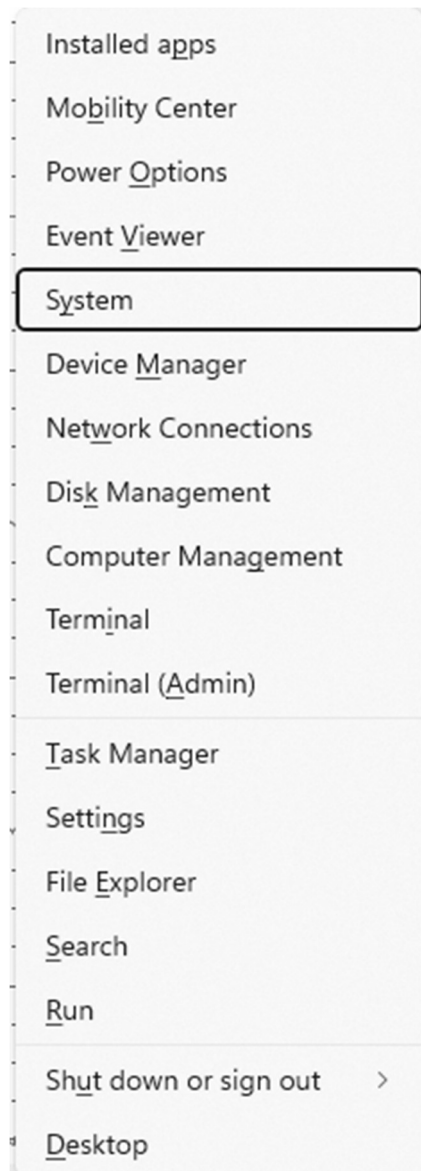
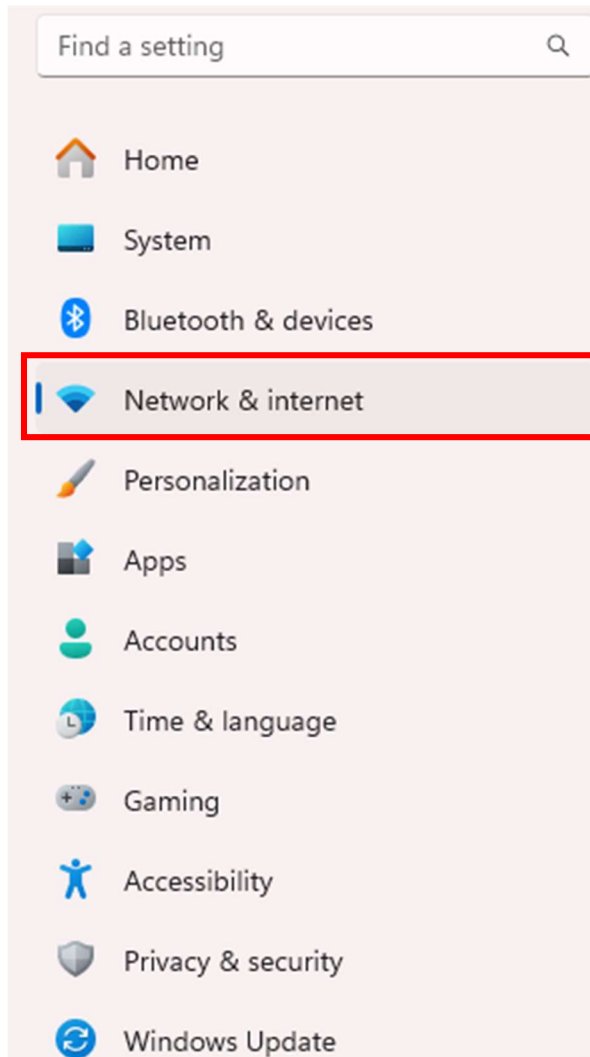


<b>Title:</b>	Turn Windows workstation into a mobile internet hotspot.
<b>Author:</b>	Amar Chhabra
<b>Synopsis:</b>	An internet connected Windows workstation can be utilized to disseminate an internet connection via a password secured wi-fi signal. This guide documents the process to enable this configuration.

A. Execute Windows key + “X” key sequence to access the System menu.



- B. Click on Network and Internet (in the sidebar) and Mobile Hotspot in main center menu.



## Network & internet



### Wi-Fi (ESAconnect)

Connected, open



### Properties

Public network  
5 GHz



### Data usage

62.68 GB, last 30 days >



### Wi-Fi

Connect, manage known networks, metered network

On ☒ >



### Ethernet

Authentication, IP and DNS settings, metered network >



### VPN

Add, connect, manage >



### Mobile hotspot

Share your internet connection

Off ☐ >



### Airplane mode

Stop wireless communication

Off ☐ >



### Proxy

Proxy server for Wi-Fi and Ethernet connections >



### Dial-up

Set up a dial-up internet connection >



### Advanced network settings

View all network adapters, network reset >

- C. On the Mobile Hotspot window slide the Mobile hotspot window from off to on. This enables the Windows machine as a mobile hotspot.

Wi-fi enabled devices can now connect to it utilizing the network name and password specified under network properties [specified in the green box].

**Network & internet > Mobile hotspot**

Mobile hotspot On ☒

Share my internet connection from Wi-Fi

Share over

Power saving On ☒  
When no devices are connected, automatically turn off mobile hotspot

Properties ^

Network properties Edit

Name: MSI 4521

Password:


Band: Any available

Devices connected: 0 of 8


- D. Note: Network properties, network name and password, can be changed/customized by clicking on the Edit button adjacent the Network properties title.

## Network & internet > Mobile hotspot


Mobile hotspot

On 

Share my internet connection from


Wi-Fi 

Share over




Power saving

When no devices are connected, automatically turn off mobile hotspot

On 

Properties




Network properties

Edit

Name:

MSI 4521

Password:



Band:

Any available

Devices connected:

0 of 8

- E. Network name and password can be changed/customized by editing respective fields in the “Edit network info” window and then clicking the “Save” button.

### Edit network info

Change the network name and password that other people use for your shared connection.

Network name

MSI 4521 ×

Network password (at least 8 characters)

••••••••

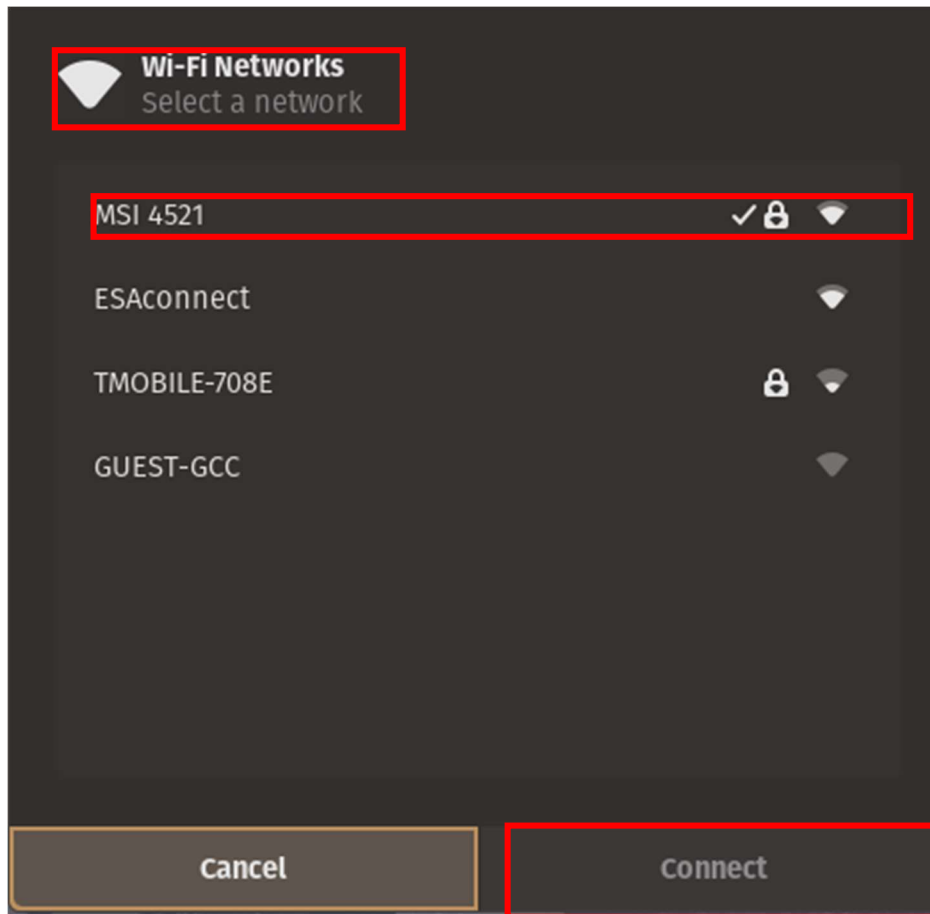
Network band

Any available ▼

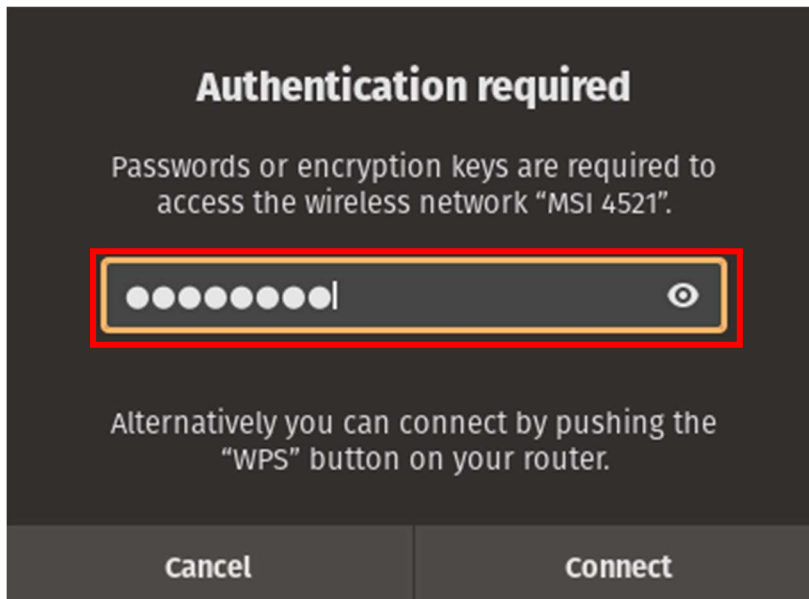
Save

Cancel

- F. To test this connection, we log onto the MSI 4521 network, and authenticate with the 3X3?116s password, with a Linux laptop running Pop OS via wi-fi. We select the MSI 4521 network by means of Graphical User Interface (GUI)



- G. Enter the network password, listed in step D above, to authenticate to the MSI 4521 network.



- H. Execution of the ifconfig, to output IP address of the Linux machine and ping command (to ping cnn.com 3 times) to validate internet connectivity via the Windows mobile hotspot.

```
achhabra@pop-os:~$ ifconfig
enp3s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether f0:76:1c:91:57:14 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 3810 bytes 296469 (296.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 3810 bytes 296469 (296.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlp4s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.137.131 netmask 255.255.255.0 broadcast 192.168.137.255
    inet6 fe80::8177:f278:fb5e:9e2a prefixlen 64 scopeid 0x20<link>
    ether [REDACTED] txqueuelen 1000 (Ethernet)
    RX packets 16220 bytes 21798132 (21.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 5832 bytes 678714 (678.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```



```

achhabra@pop-os:~$ ping -c 3 cnn.com
PING cnn.com (151.101.3.5) 56(84) bytes of data.
64 bytes from 151.101.3.5 (151.101.3.5): icmp_seq=1 ttl=59 time=18.8 ms
64 bytes from 151.101.3.5 (151.101.3.5): icmp_seq=2 ttl=59 time=15.7 ms
64 bytes from 151.101.3.5: icmp_seq=3 ttl=59 time=14.6 ms

--- cnn.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2062ms
rtt min/avg/max/mdev = 14.631/16.380/18.844/1.792 ms

```

- I. To confirm connection, of the Linux machine running Pop OS, to the Windows Mobile Hotspot we examine connection details. Connection is confirmed as the IP address of the Pop OS Linux machine, 192.168.137.131, is populated as a connected device in the Windows Hotspot window.

## Network & internet > Mobile hotspot

Mobile hotspot
On

Share my internet connection from
Wi-Fi

Share over
Wi-Fi

Power saving
When no devices are connected, automatically turn off mobile hotspot
Off

Properties

Network properties
Edit

Name: MSI 4521  
Password:   
Band: Any available

Devices connected: 1 of 8

Device name	IP address	Physical address (MAC)
pop-os	192.168.137.131	