

# Guide to connect to SIM wifi on Ubuntu (and other Linux Distros using the Terminal)

1. You will need to create a Network Profile using nmcli
  - nmcli is a default network manager tool that is preinstalled on Ubuntu, Fedora and other Distros.
2. Open your terminal and type in:

```
nmcli device wifi list
```

IN-USE	BSSID	SSID	MODE	CHAN	RATE	SIGNAL	BARS
	60:53:75:E6:37:B7	SIM_LLF2025	Infra	149	540 Mbit/s	100	██████████
	60:53:75:E6:37:B9	--	Infra	149	540 Mbit/s	99	██████████
	60:53:75:E6:37:B8	SIMWiFi_AWS	Infra	149	540 Mbit/s	100	██████████
	60:53:75:E6:37:B8	MH_PubAuth	Infra	149	540 Mbit/s	100	██████████
	60:53:75:E6:37:B8	eduroam_aws	Infra	149	540 Mbit/s	100	██████████
	60:53:75:E6:37:B8	SIM_WiFi	Infra	149	540 Mbit/s	94	██████████
	60:53:75:E6:37:B1	eduroam	Infra	149	540 Mbit/s	94	██████████
	60:53:75:E6:37:B4	SILEExams	Infra	149	540 Mbit/s	94	██████████
	60:53:75:E6:37:A0	SIM_Guests	Infra	149	540 Mbit/s	94	██████████
	60:53:75:E6:37:A0	SIM_WiFi	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:37:A5	SIM-Birmingham2025	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:37:A7	eduroam_aws	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:34	SILEExams	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:35	SIM-Birmingham2025	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:37	SIM_LLF2025	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:3A	SIMWiFi_AWS	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:3B	MH_PubAuth	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:3C	eduroam_aws	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:3E:3D	SILEExams	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:37:A9	eduroam	Infra	6	260 Mbit/s	84	██████████
	60:53:75:E6:37:A7	SIM_LLF2025	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:A1	eduroam	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:3E:31	eduroam	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:A2	eduroam	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:A8	--	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:AA	SIMWiFi_AWS	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:AB	MH_PubAuth	Infra	6	260 Mbit/s	82	██████████
	60:53:75:E6:37:BB	MH_PubAuth	Infra	149	540 Mbit/s	100	██████████
WPA1	WPA2 802.1X						
	60:53:75:E6:37:BC	eduroam_aws	Infra	149	540 Mbit/s	100	██████████
WPA1	WPA2 802.1X						
	60:53:75:E6:37:B0	SIM_WiFi	Infra	149	540 Mbit/s	94	██████████
WPA1	WPA2 802.1X						
	60:53:75:E6:37:B1	eduroam	Infra	149	540 Mbit/s	94	██████████

- Take note of the SSID of the school wifi (SIM\_WiFi)

```
nmcli device
```

DEVICE	TYPE	STATE	CONNECTION
wlp0s20f3	wifi	connected	school-wifi
lo	loopback	connected (externally)	lo
p2p-dev-wlp0s20f3	wifi-p2p	disconnected	--
enp0s31f6	ethernet	unavailable	--

- Take note of your interface name. Your interface name will be different from mine, usually, it is the one that is at the top that is connected to nothing or your hotspot. If you cant find your interface name, use your phone as a hotspot and try connecting to the wifi on your phone first using the command: Nmcli device wifi connect <"Your SSID> password <password<

3. Then set up the network profile:

```
nmcli connection add type wifi \
ifname xxxxxxxxxxxx \ #this is the interface name of your wifi card on your device,
It should look like a bunch of string and characters.
con-name school-wifi \ #this is the connection name, you can set this as anything
ssid "SIM_WiFi" #this is the SSID that we got from Step 2.
```

4. Now you have to configure the network with the correct

```
nmcli connection modify school-wifi \
wifi-sec.key-mgmt wpa-eap \ #SIM uses WPA Enterprise Security Protocol
802-1x.eap peap \
```

```
802-1x.identity "your_student_id" \ #your username should be  
<simstudent\username>  
802-1x.password "your_password" \  
802-1x.phase2-auth mschapv2
```

5. Certificate Handling

```
nmcli connection modify school-wifi 802-1x.ca-cert ""  
#SIM doesnt usually require a certificate so you can leave this content inside the ""  
blank
```

6. Get the connection up

```
nmcli connection up school-wifi  
#a successful connection should look like the screenshot below.
```

```
[player@Athena:~$ nmcli connection up school-wifi  
Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/  
ActiveConnection/10)]
```

7. If you encounter any issues, view the logs using this command to troubleshoot  
`journalctl -u NetworkManager -f`