# **02.1X Wired Configuration on Ubuntu** (Graphical Interface)

## Introduction

802.1X is a network authentication protocol that controls access to the network using EAP (Extensible Authentication Protocol)-based authentication. This tutorial explains how to configure a wired 802.1X connection on Ubuntu using the graphical interface.

## Prerequisites

- An Ubuntu system (version 20.04 or later recommended)
- Administrative access
- GIA Account
- Verify that the computer's network port is blinking, indicating it is active. If the port shows no activity, contact IT services by opening a support issue on Portale Supporto at <a href="https://myunivr.univr.it/">https://myunivr.univr.it/</a> /MYDESK using the category "Fault and Anomalies Other".

## **Configuration via Graphical Interface**

- 1. Open Network Settings
  - Click on the network icon in the top bar and select "Network Settings."
- 2. Select the Wired Connection
  - In the "Network" tab, locate the Ethernet connection and click the settings icon (0).

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#### 4. Configure 802.1X Authentication

- In the settings window, go to the "802.1X Security" tab.
- Enable the "Use 802.1X" option.
- 5. Enter Authentication Parameters
  - Authentication Method: PEAP
  - CA Certificate: Select the CA certificate /etc/ssl/certs/USERTrust\_RSA\_Certification\_Authority.pem
  - **PEAP Version:** Automatic
  - Inner Authentication: MSCHAPv2
  - Username: GIA username
  - Password: GIA password

#### 6. Configure Additional Network Settings

- In the "Details" tab, ensure that the "Connect automatically" option is checked.
- In the "IPv4" tab, set **Method** to "Automatic (DHCP)" and **DNS** to "Automatic."
- 7. Save and Apply Changes

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- Click "Save" and close the window.
- Restart the connection by disabling and re-enabling the Ethernet network.

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## **Connection Verification**

- Check the connection status in the network notification area.
- Open a terminal and verify connectivity with:

```
nmcli connection show --active
```

## **Debugging and Troubleshooting**

- If the connection does not work:
  - Ensure the credentials are correct.
  - Check the Network Manager logs:

```
journalctl -u NetworkManager --no-pager | tail -50
```

• Reconfigure the settings, making sure to select the correct parameters.

### Conclusion

By following these steps, you should be able to successfully configure a wired 802.1X connection on Ubuntu using the graphical interface. If you encounter any issues, contact IT services by opening a support issue on Portale Supporto at <u>https://myunivr.univr.it/</u>/MYDESK using the category "Fault and Anomalies - Other".