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Tutorial for configuring Wi-Fi on Windows 11 devices

How to connect to the Wi-Fi network



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There are several types of network you can connect to depending on your status.

Eduroam is a federated network shared between universities that lets staff and students access Wi-Fi even when they are not physically at their home institution.

This is a huge advantage, especially for anyone who needs to travel for work or study.

IMPORTANT: make sure all Windows updates are installed before trying to authenticate to the wireless network, otherwise the connection may fail!

For a higher level of security, you can install the certificate that lets you verify the authenticity of the access point you are connecting to. For example, an attacker could set up a rogue access point and use it to steal user credentials. Using the certificate guarantees you are connecting to an official device.

For instructions on installing the certificate, see the following slides.

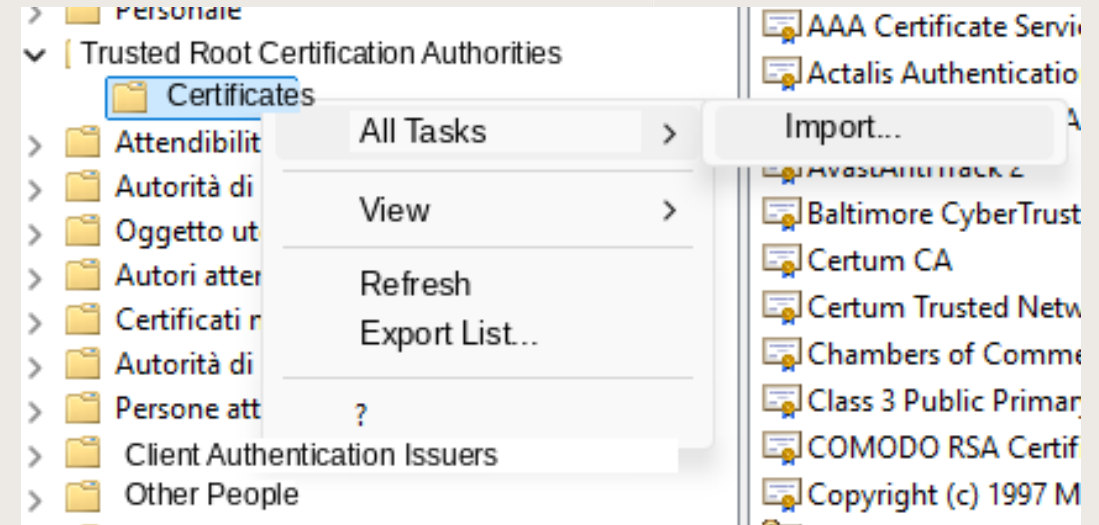
Prerequisite – Root certificate (certmgr.msc)



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For extra security, before connecting to eduroam you can install the root certificate that verifies the authenticity of the access point. Your computer must be connected to the network (e.g. via cable) to import it.

1. Download the root certificate file from the University website.
2. Press Win + R, type certmgr.msc and press Enter.
3. In the left-hand pane, expand “Trusted Root Certification Authorities” and select “Certificates”.
4. Right-click the folder > All Tasks > Import...
5. In the wizard, select the downloaded certificate file and confirm the “Trusted Root Certification Authorities” store.
6. Complete the import: the certificate will now be available among the trusted ones.
7. Then select it in the Wi-Fi network's PEAP settings, by ticking “Verify the server's identity by validating the certificate” (see Step 8).



⚡ Simpler alternative

Double-click the downloaded certificate file, click “Install Certificate...” in the window that opens, then follow the same wizard steps 2–7.

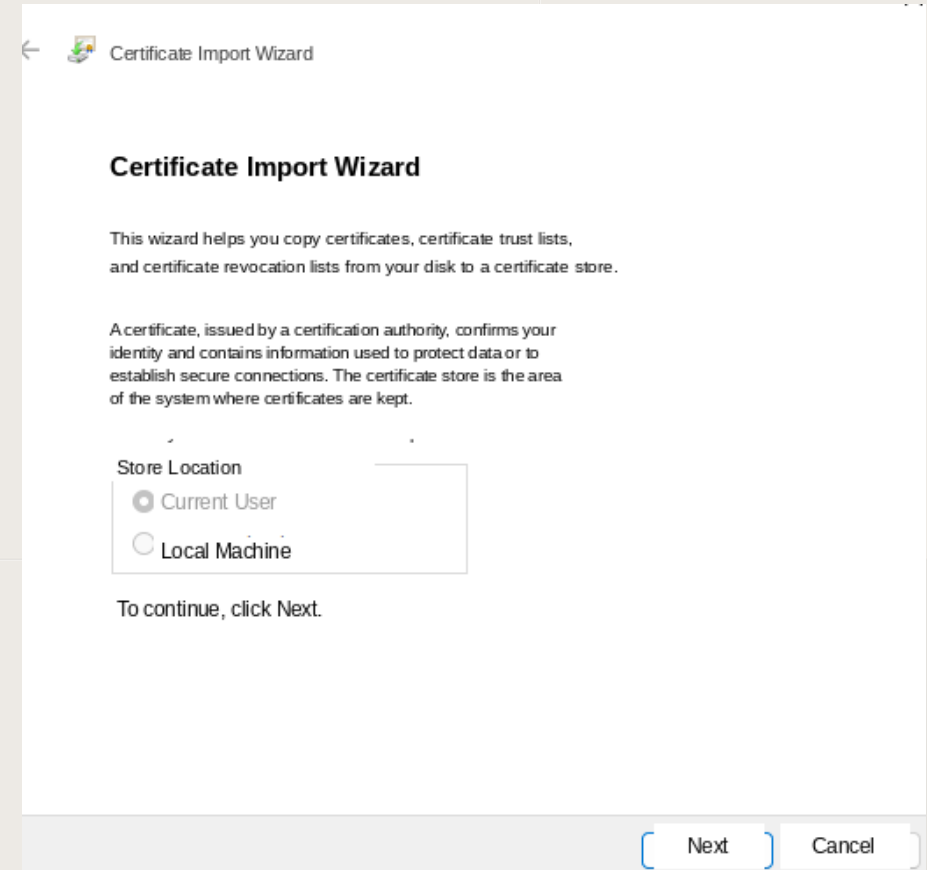
Prerequisite (continued) – Certificate Import Wizard



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After choosing “Import...”, the wizard opens. Leave “Current User” selected as the Store Location — or choose “Local Machine” if you want the certificate to be available to all users of the PC (requires administrator rights).

Click “Next” to continue.

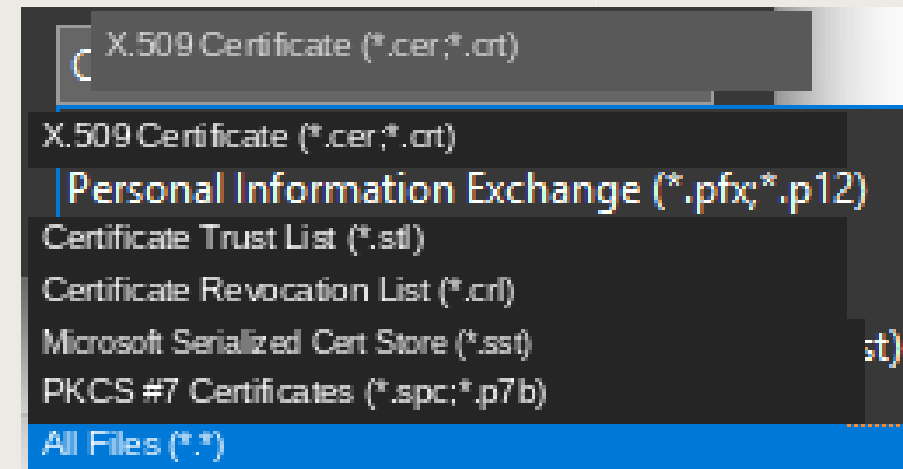
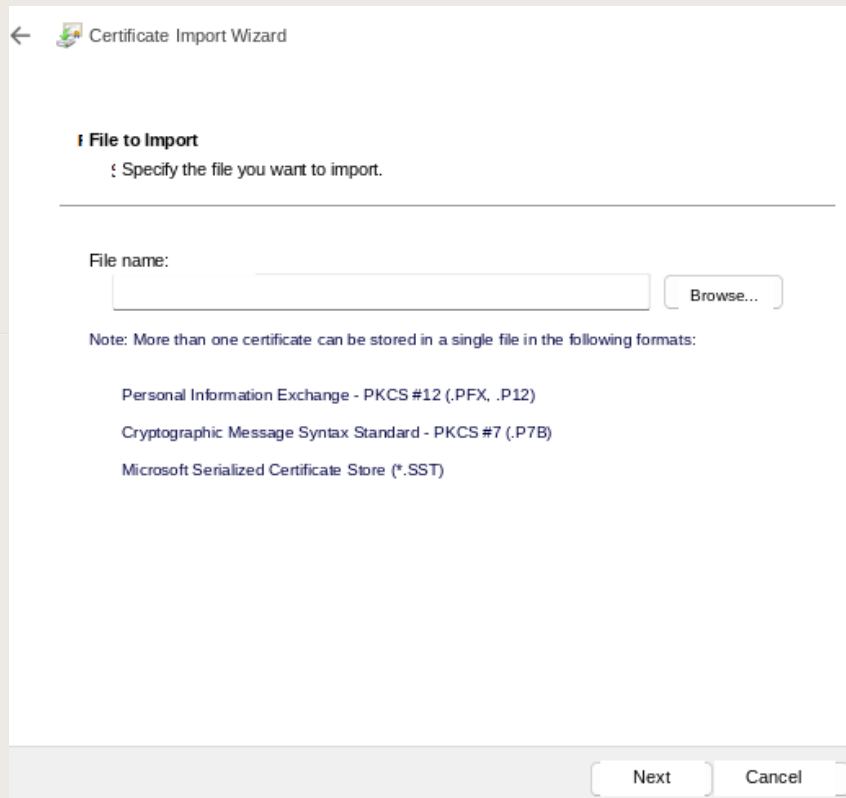


Prerequisite (continued) – Select the certificate file

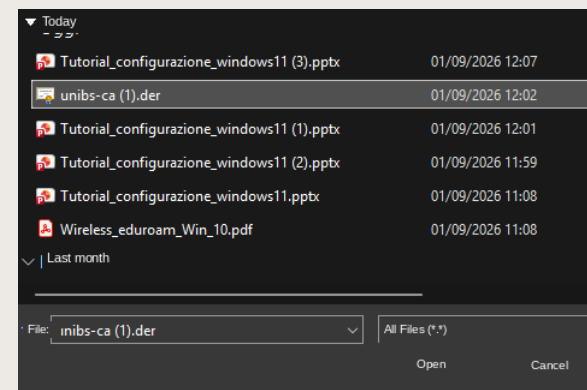


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1. On the “File to Import” screen, click “Browse...”.
2. In the file browser, change the filter (bottom right) from “X.509 Certificate” to “All Files (*.*)”, otherwise .der files won't be visible.
3. Select the certificate file (e.g. unibs-ca.der) and click “Open”.



Change the filter to “All Files (*.*)”



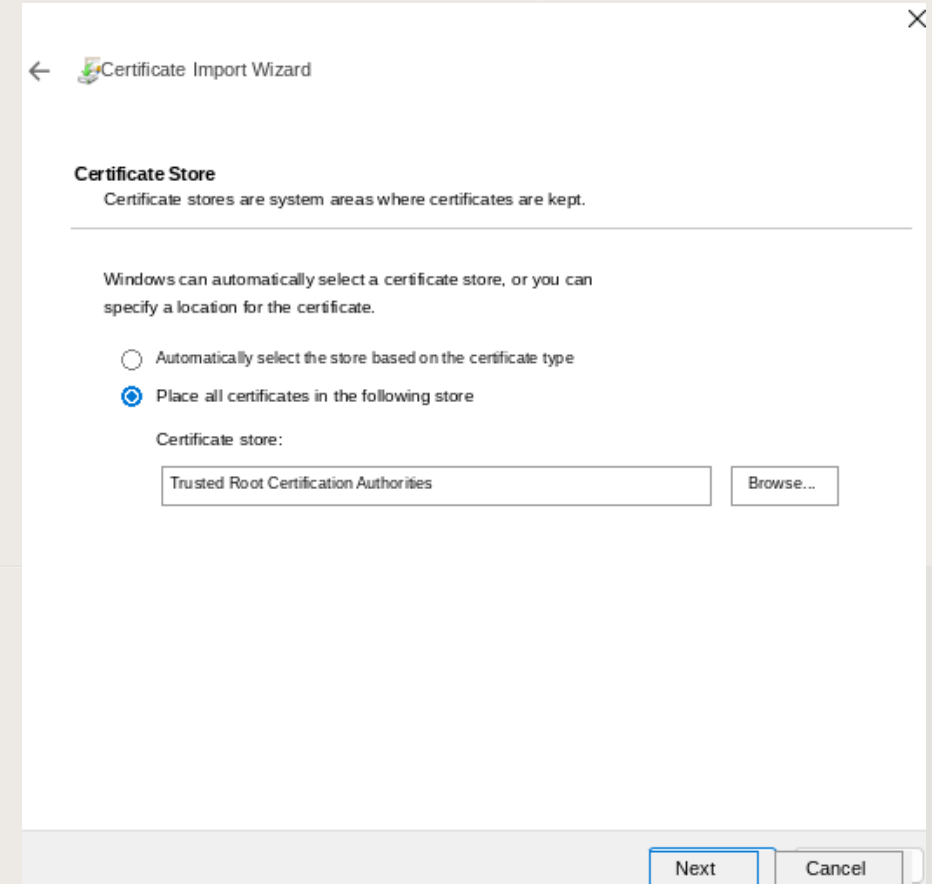
Prerequisite (continued) – Choose the certificate store



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Select “Place all certificates in the following store” and check that the Certificate store is set to “Trusted Root Certification Authorities” (use “Browse...” if you need to change it).

Click “Next” to continue.



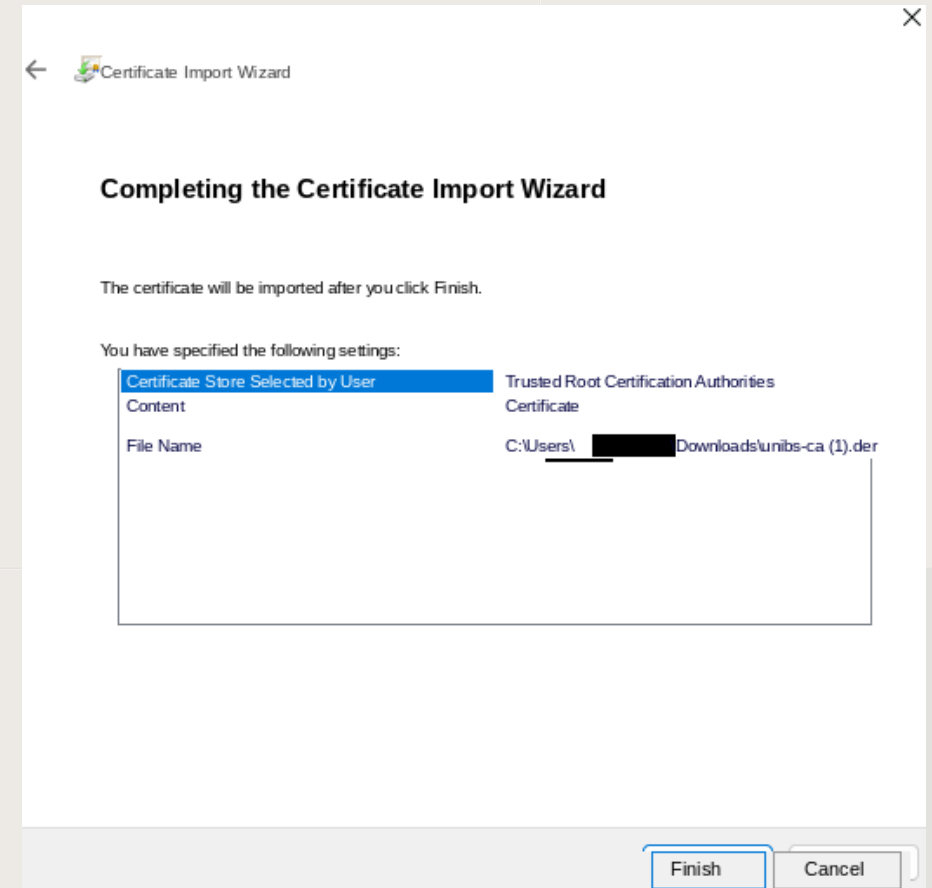
Prerequisite (continued) – Complete the import



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A summary of the selected settings is shown (store, content, file). Check that they are correct.

Click “Finish” to complete the certificate import.

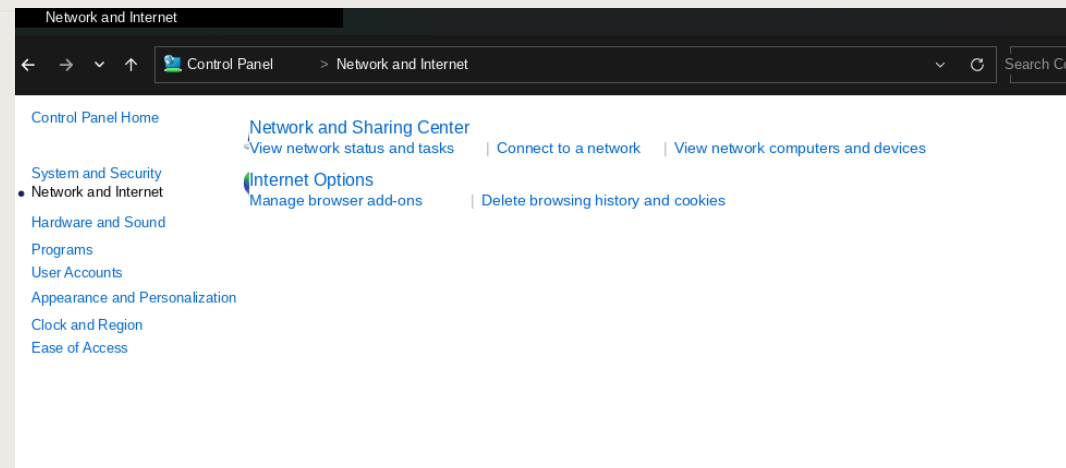
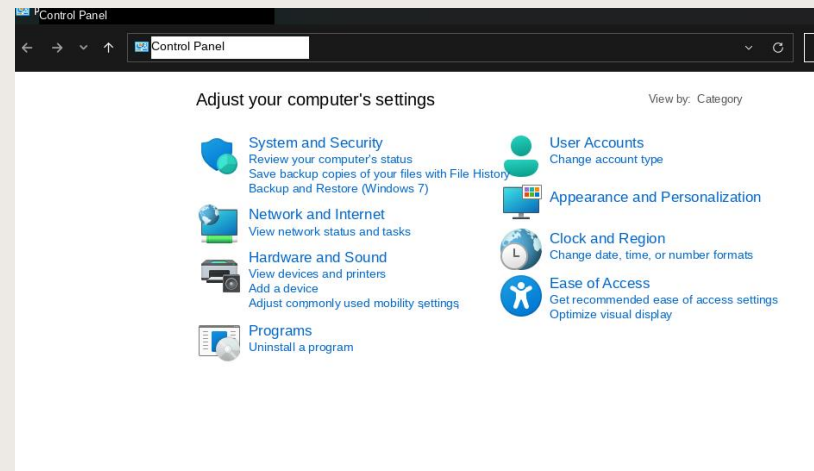


Step 1 – Open Network and Sharing Center

Press Win + R, type control and press Enter to open Control Panel. Click “Network and Internet”, then “Network and Sharing Center”.



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Step 2 – Set up a new connection



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Click “Set up a new connection or network”.

Change your networking settings

[Set up a new connection or network](#)

Set up a broadband, dial-up, or VPN connection, or set up a router or access point.

[Troubleshoot problems](#)

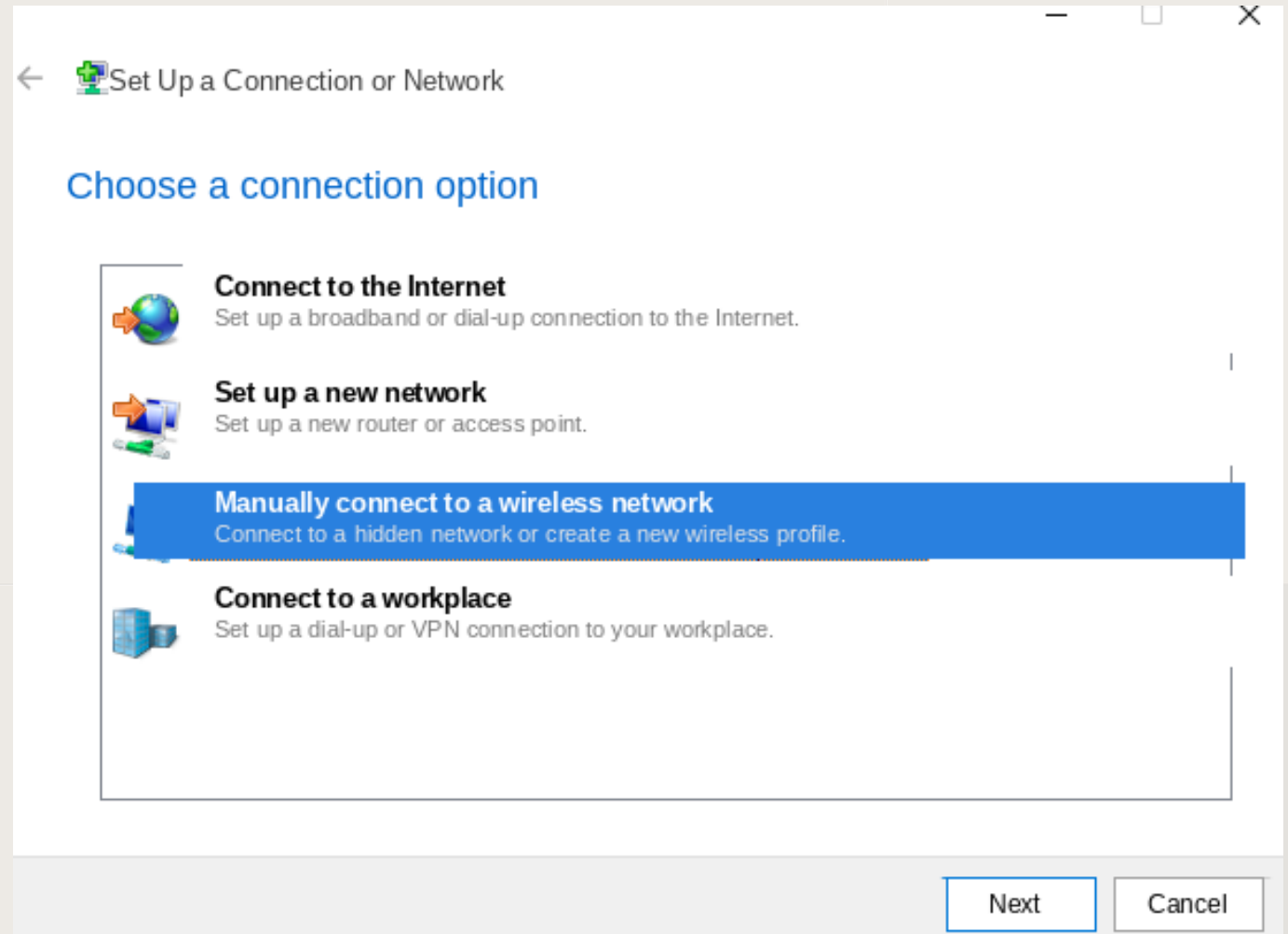
Diagnose and repair network problems, or get troubleshooting information.

Step 3 – Manually connect to a wireless network



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Select “Manually connect to a wireless network” and click “Next”.



Step 4 – Enter the eduroam network parameters



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Enter “eduroam” in the “Network name” field (case-sensitive). Select “WPA2-Enterprise” as Security type and “AES” as Encryption type, then click “Next”.

A screenshot of a Windows Network Setup window titled "Manually connect to a wireless network". The window contains the following fields and options:

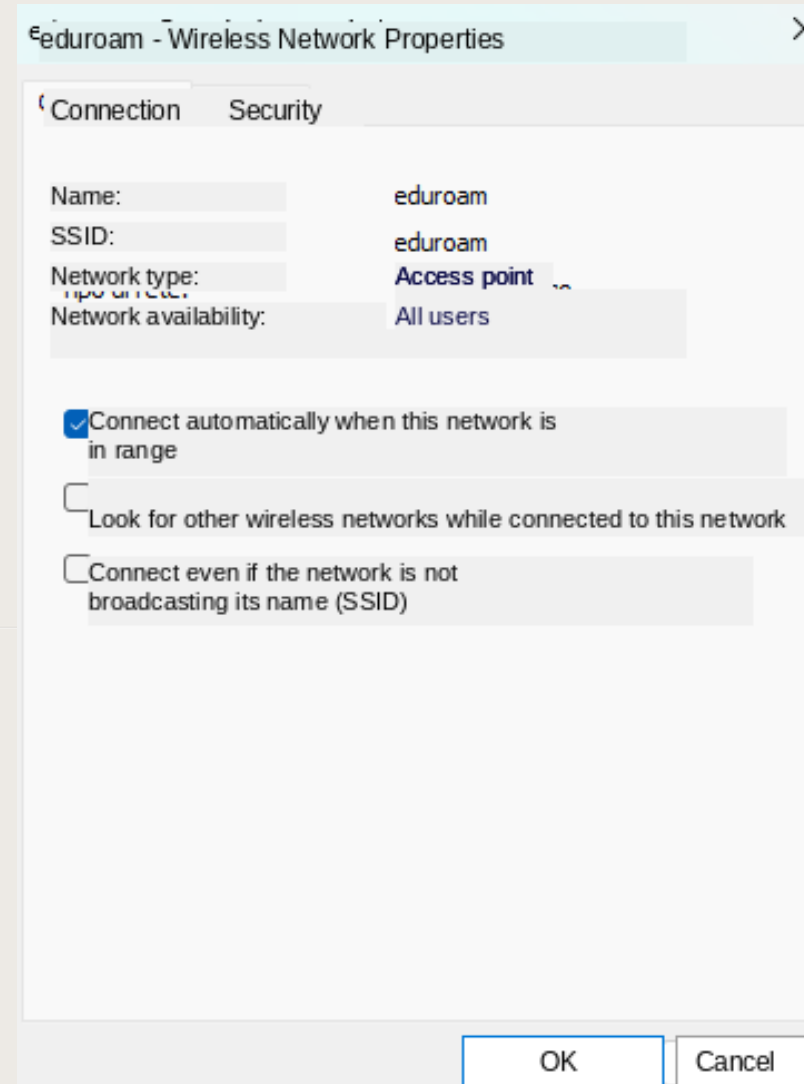
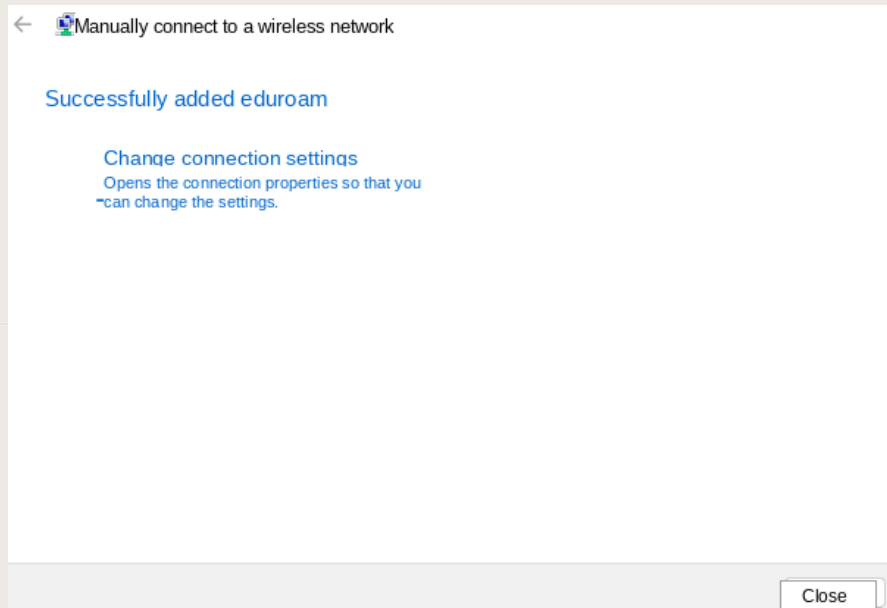
- Network name:** A text box containing "eduroam".
- Security type:** A dropdown menu showing "WPA2-Enterprise".
- Encryption type:** A dropdown menu showing "AES".
- Security Key:** An empty text box.
- Hide characters:** A checkbox that is currently unchecked.
- Start this connection automatically:** A checked checkbox.
- Connect even if the network is not broadcasting:** An unchecked checkbox.
- Warning:** A small warning icon followed by the text "Warning: this could compromise the privacy of your computer."
- Buttons:** "Next" and "Cancel" buttons at the bottom right.

Step 5 – Change the connection settings



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On the “Successfully added eduroam” screen, select “Change connection settings”. The “Wireless Network Properties” window will open (Connection tab): switch to the “Security” tab.



Step 6 – Set the authentication method



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Select the “Security” tab and check that the parameters match what you entered earlier (WPA2-Enterprise, AES).

As the network authentication method, choose “Microsoft: Protected EAP (PEAP)”.

A screenshot of the 'eeduroam - Wireless Network Properties' dialog box, specifically the 'Security' tab. The 'Security type' is set to 'WPA2-Enterprise' and the 'Encryption type' is set to 'AES'. Under 'Choose a network authentication method:', 'Microsoft: PEAP (Protected EAP)' is selected, with 'Settings' and 'azioni' buttons next to it. A checkbox labeled 'Remember my credentials for this connection each time I'm logged on' is checked. At the bottom, there is an 'Advanced settings' button and 'OK' and 'Cancel' buttons.

eeduroam - Wireless Network Properties

Connection Security

Security type: WPA2-Enterprise

Encryption type: AES

Choose a network authentication method:

Microsoft: PEAP (Protected EAP) Settings azioni

☒ Remember my credentials for this connection each time I'm logged on

Advanced settings

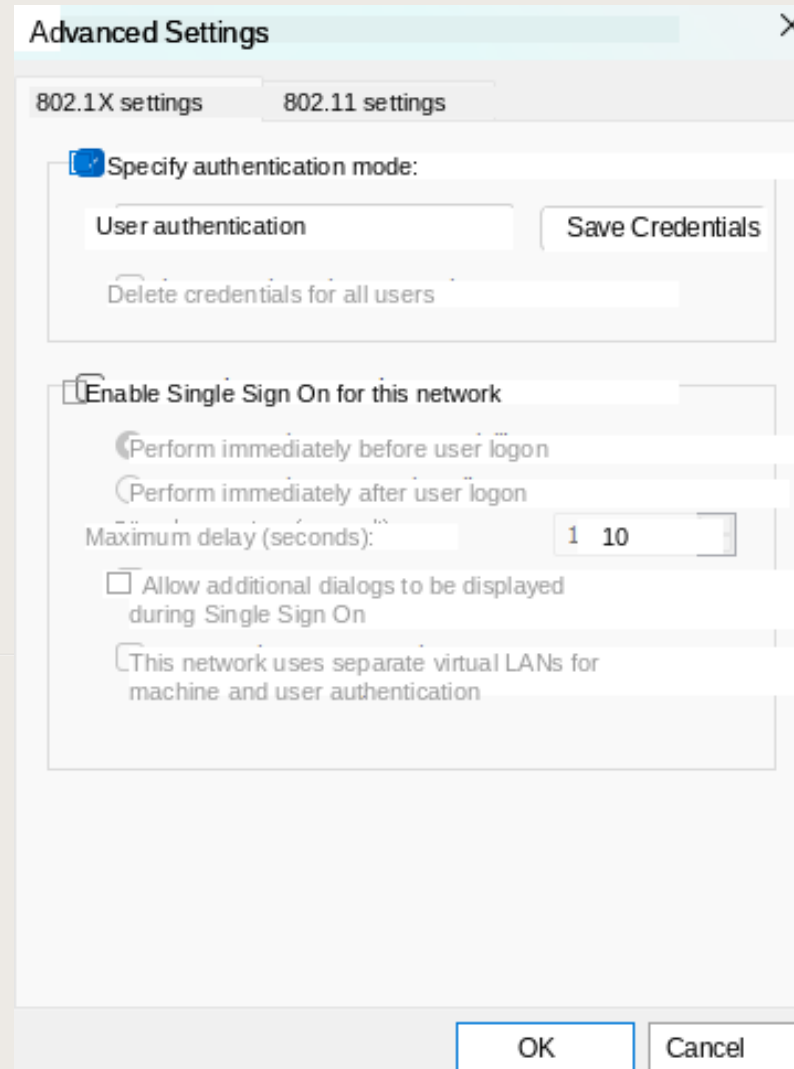
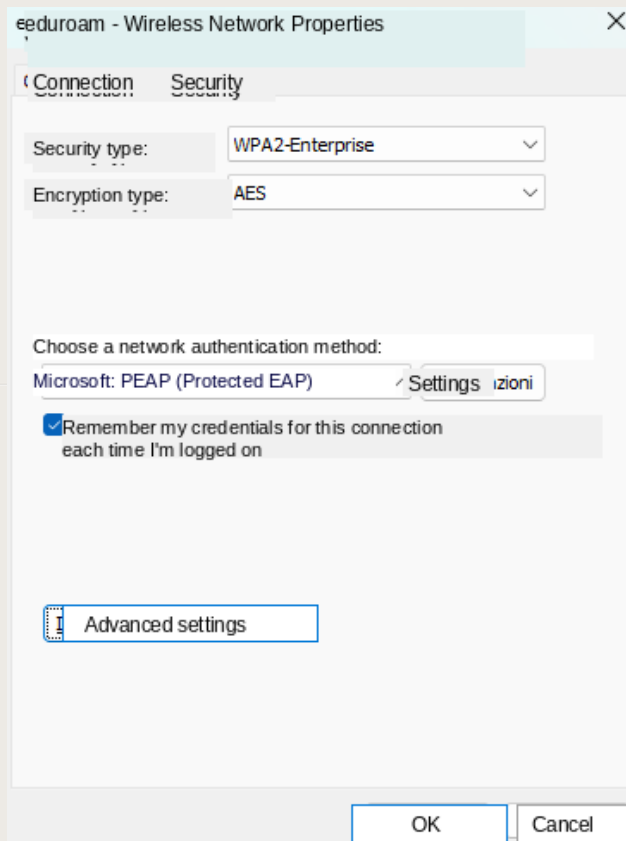
OK Cancel

Step 7 – Specify user authentication



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Click “Advanced settings”. In the window that appears, select “Specify authentication mode” > “User authentication”, then click “OK”.



Step 8 – Configure the certificate and EAP method

Click “Settings” and tick “unibs.it” among the Trusted Root Certification Authorities. Click “Configure” and check that the box is unchecked in the “EAP MSCHAPv2 Properties” window. Press “OK” to close all windows.



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PEAP Properties

When connecting:

☒ Verify the server's identity by validating the certificate

☐ Connect to these servers (examples: srv1;srv2;*\srv3l.com):

Trusted Root Certification Authorities:

- ☐ thawte Primary Root CA - G3
- ☐ T-TeleSec GlobalRoot Class 2
- ☐ TWCA Global Root CA
- ☒ unibs.it
- ☐ USERTrust ECC Certification Authority
- ☐ USERTrust RSA Certification Authority
- ☐ Veeam Backup Server Certificate

Notifications before connecting:

Notify user if server cannot be verified

Select authentication method:

Secured password (EAP-MSCHAP v2) Configure....

☒ ☐ Enable Fast Reconnect

☐ Disconnect if server does not present cryptobinding TLV

☐ Enforce Identity Privacy

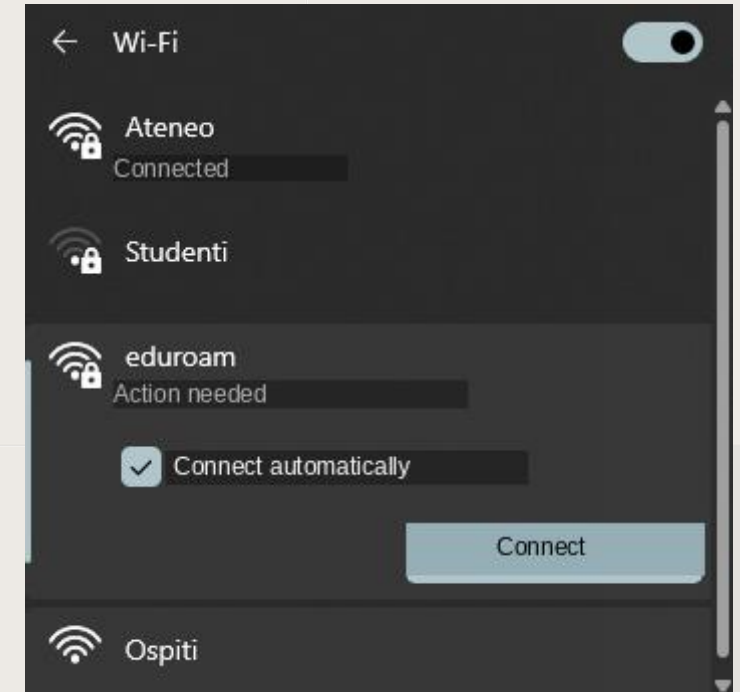
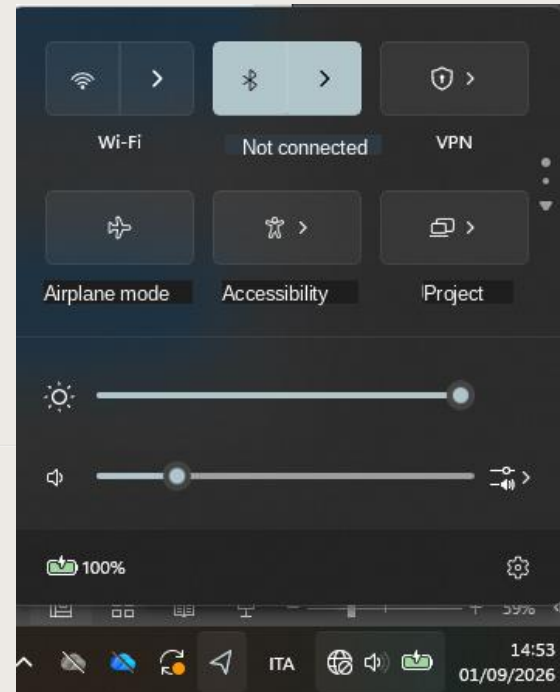
OK Cancel

Step 9 – Select the eduroam network



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Click the Wi-Fi icon next to the clock, then the “>” arrow to open the network list. Select “eduroam”, leave “Connect automatically” ticked and click “Connect”.



Step 10 – Enter your credentials and connect



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Windows asks for confirmation before connecting: click “Connect”. The “Windows Security” window will then open: enter your University username and password, the same ones used for the University portal, followed by “@unibs.it”, then click “OK” to complete the connection.

