ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Wireless networks: Wi-Fi

ETH Zurich operates an extensive Wi-Fi infrastructure for all major public areas providing coverage within ETH buildings as well as for large parts of the office space. The area-wide expansion is underway.

Wi-Fi technology

For regulatory reasons, Wi-Fi can be operated in two frequency bands. One band is in the 2.4 GHz range and the other in the 5 GHz range. The different frequency ranges have different characteristics, which can briefly be described as follows:

- 2.4 GHz band: better propagation, but lower throughput (slower)
- 5 GHz band: lower propagation, but higher throughput (faster)

Different SSIDs are used for each frequency band to enable users to select the ideal frequency band for their needs. The ending "-5" is used for the 5 GHz band.

SSIDs at ETH

ETH provides the following SSIDs (SSID = Service Set Identifier).

eduroam-5 / eduroam

"eduroam" offers access for members of universities from many countries around the world. Access to eduroam is via <username>@<home-university>. Visit the eduroam website[1] to find out which countries are taking part.

For ETH members the username looks like this: <netz-username>@<realm>.ethz.ch whereby "realm" is either staff-net, student-net or a realm defined by your ISG. In general, this is the preferred SSID, as it is also available outside ETH Zurich at many other institutions.

- Supported standards: IEEE802.11g/n and a/n/ac
- Encryption via WPA2-Enterprise

Installation programmes for the most common operating systems are available via the eduroam CAT website[2] to simplify the creation of the profile

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[1] https://www.eduroam.org/where/
[2] https://cat.eduroam.org/

eth-5 / eth

Authentication only for ETH members or clients managed by ETH. Similar to eduroam the username is <nethz-username>@<realm>.ethz.ch whereby <realm> is either staff-net, student-net or a <realm> defined by your ISG. Authentication using a host certificate is also possible.

- Supported standards: IEEE802.11g/n and a/n/ac
- Encryption via WPA2-Enterprise

public / public-5

Authentication only for ETH guests. To access the internet you need to register on the landing page ETH Zurich. Guests have the possibility to register themselves with their mobile-number; the access code will be sent in a text-message (a more detailed description of the self-registration process can be found in the following blog-post; centrally managed guest-access is described here)

With an IPSec-based VPN client, you can also connect to another institution without logging on.

- Supported standards: IEEE802.11g/n and a/n/ac
- No encryption of the Wi-Fi connection

IoT

This SSID is only for special cases e.g. clients that only support pre-shared key encryption. For further details, please contact your ISG.

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