

# eduroam

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*A Higher Education Information Security Council (HEISC) Resource*

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## What Is eduroam?

Eduroam is a federated wireless access service that allows researchers, staff, and students to access a secure Wi-Fi network connection using their credentials at their home institution or while visiting other campuses. When traveling to another institution that uses eduroam, users need only turn on their mobile device without guest account credentials to immediately gain authenticated Internet access. Some institutions have completely replaced their wireless network and only using eduroam to reduce the number of wireless networks and simplify getting online. Please read the [eduroam FAQ](#) to learn more.

## Who Might Use eduroam, and Why?

A federated service, eduroam allows any user from an eduroam institution to get network access at any institution connected to eduroam. It started in Europe, and over 70 countries now participate in eduroam as identity providers and service providers.

- **Identity providers (IdPs)** are responsible for authenticating the users. IdPs tend to be institutions with users that travel and need to be able to connect to Wi-Fi wherever they go. These institutions provide traveling users with access to encrypted 802.1x-protected networks. As a requirement of the eduroam federation, IdPs must also broadcast the SSID eduroam on their campus.
- **Service providers (SPs)** are institutions that offer access to scholars visiting their campus through an encrypted 802.1x protected network. This fosters easier collaboration between cross-institutional users by using an authenticated and traceable method.

## The Benefits of Using eduroam

Being able to provide users with the freedom to study and research wherever they are—at home or abroad—is one of the chief responsibilities of higher education institutions. Lowering the bar for access by deploying eduroam will help reduce connection anxiety for travelers. Additionally, the eduroam service often reduces the number of help desk calls from guests by providing a solution that mimics their home institution's wireless environment.

## Risks to Consider When Using eduroam

**Eduroam is *not* a VPN**, but a method to gain access to the Internet quickly so that a VPN can be used for secure communications. Until a VPN is used, data will be traveling over networks that are not in the control of their home institution.

**RADIUS, by default, will trust any certificate signed by the authorized certificate authority (CA).** Therefore, for IdPs, we highly recommend creating a single use self-signed CA and making it authoritative for your RADIUS connections. ([FreeRADIUS](#) is a commonly used open-source option in higher ed.)

**Eduroam requires some client-side configuration.** If an IdP has already deployed 802.1x on your campus, the tools for client configuration already exist. Otherwise, free software (e.g., [eduroam Configuration Assistant Tool](#)) is available to set up 802.1x client profiles on most modern operating systems and devices.

**Security concerns (e.g., abuse by a visitor using eduroam services) may arise occasionally.** The security section of the [eduroam-US FAQ](#) document addresses many of the concerns that a SP may have prior to participating in the eduroam service.

*Note: Neither EDUCAUSE nor HEISC recommends the use of a particular tool; institutions should use these tools at their own risk.*

### List of Institutions That Use eduroam

Eduroam is available [across the globe](#). Here are a few examples of [participating U.S. institutions](#):

- [Institute for Advanced Study](#)
- [Iowa State](#)
- [University of California Santa Cruz](#)
- [University of Colorado at Boulder](#)
- [University of Hawaii](#)

### Sustain and Improve Your Information Security Program

The Higher Education Information Security Council (HEISC) supports higher education institutions as they improve information security governance, compliance, data protection, and privacy programs. The HEISC *Information Security Guide*, created by practitioners for practitioners, features toolkits, case studies, effective practices, and recommendations to help jump-start campus information security initiatives. Don't reinvent the wheel—get the guide at [educause.edu/security](https://educause.edu/security).