**eduroam**

Secure wireless internet

Do students, researchers or academics from your organisation increasingly visit other educational or research institutions? Then you should certainly use eduroam (educational roaming). Eduroam gives every user simple and secure access to their own wireless network and the networks of other participating organisations. So students and researchers from your organisation can surf wirelessly on the campus of another university or college. The access procedure always works via a user name and password which the user gets from his organisation. Eduroam is a joint initiative by TERENA (Trans European Research and Education Networking Association), Géant and the major European research networks.

**eduroam, available for education and research**

Eduroam is for students, academic staff and the personnel of educational and research institutions connected to the Belnet network. The eduroam service is interesting, certainly in the context of the associations and international exchange programmes that have led to an increase in the mobility of these user groups between various institutions. In order to use eduroam, the home and guest organisation must be connected to eduroam. An overview of already connected institutions in Belgium can be found at eduroam.belnet.be.

**By way of illustration**

A student from college X visits the library at University Y. Thanks to eduroam, he can surf University Y’s wireless network using his laptop, user name and password. A researcher can surf the internet in seconds using eduroam, while he attends a conference at a Dutch university.

**eduroam, seen internationally**

Eduroam transcends the borders of Belgium. Since its creation, eduroam has been a European project. Thus, you can also make use of eduroam at an increasing number of locations abroad. The website www.eduroam.org indicates which educational and research institutions are connected. Moreover, eduroam is already present in the United States and Asia. A number of institutions are also connected to eduroam in Australia, China, Taiwan, and Hong Kong.
eduroam, how it works

- **National level**

The eduroam service makes use of the RADIUS protocol that facilitates the sharing of data. Organisation A is host to a user from organisation B and this user logs in to the wireless network of organisation A. At that moment, the RADIUS server of organisation A will forward the user data (user name and password) to the RADIUS server of organisation B for verification. This is done via the RADIUS server of Belnet, which receives a request from the RADIUS server of organisation A. The Belnet server then immediately sends a request to the RADIUS server of organisation B. Thanks to the creation of a Transport Layer Security tunnel between the user and his or her organisation, the server of organisation B can securely verify its user. After verification, the RADIUS server of organisation A receives the message that the user is known within organisation B. And thus the user receives access to the wireless network of organisation A.
• **International level**

The same principle is followed when organisation B is an international organisation. The RADIUS server of Belnet, however, now also sends a request to the European RADIUS server, which in turn sends a request to the national node of organisation B. The national RADIUS server of organisation B then sends a request to the RADIUS server of the organisation itself. A tunnel is created between the users and their institution, through which the RADIUS server of organisation B sends the required information to organisation A. Hence, the home organisation of the user remains responsible for maintaining and checking the user name and password, even when the user is present at a guest organisation. This information is not shared with other connected institutions.
eduroam, your benefits

- **Increased mobility**
  The service increases the mobility of researchers, students and academics. Users from educational and research institutions have simple and secure wireless internet access at home or abroad, even from organisations other than their own.

- **Efficient registration**
  Users need only one account to surf wirelessly, both within their own institutions and in other organisations which use eduroam. Once the service has been activated for a user, there is no further administrative work. And you no longer have to create accounts for users from other organisations who use eduroam.

- **Accounts and access rights in-house**
  You have full control over the data concerning your own users. This information is not shared with other participating organisations. You decide yourself which access rights eduroam users have on your network. Via the online interface you manage your own configuration (register.eduroam.be).

- **Cost effective**
  Eduroam is available for no extra cost to higher educational and research institutions only.

«We save a lot of work when registering and managing all access rights to the internet for students and personnel.»

*Andres Henckens, Network Manager, Hasselt University.*

Hasselt University (UHasselt) and the Provinciale Hogeschool Limburg (PHL) together have approximately 8000 students and 1500 employees. Many of these personnel and students commute between the different campuses of both educational institutions. With 9500 potential users, the need is great for simple internet access. However, it is not an easy task to register and manage the access rights to the different wireless networks.

UHasselt and PHL decided to simplify the entire process and implement eduroam together. Andres Henckens (Network Manager, UHasselt) states that a secure start-up of the authentication process does require some work and expertise. You of course can call upon Belnet for help here. But once the service is up and running, eduroam is very user-friendly. This is truly a benefit for users who regularly commute between our university campuses and those of Maastricht. They need only request a unique user name and password, and they can go to work.

**Do you want more mobility for your users?**

More information is available from:

**Customer Relations:**
servicedesk@belnet.be
02/790 33 00

**Site national:** www.eduroam.be
**eduroam register interface:** register.eduroam.be
**Site international:** www.eduroam.org
**Site de monitoring:** monitor.eduroam.org