

Monash LaRDS News

Large Research Data Store (LaRDS) connects with eduroam

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News item

The central Monash University *Large Research Data Store* ([LaRDS](#)) and high performance computing (*Monash Sun Grid – MSG*) facilities are piloting connection using [eduroam](#).

Simultaneously, we are also piloting the introduction onto *LaRDS* of a simpler open-standards based 'network drive' technology called [SSH-FS](#) so as to overcome some of the limitations of other methods, while simultaneously providing greater data security and broader network reach external to the Monash network.

Background – What is eduroam?

Eduroam is a 'federated authentication' technology which allows us to verify a user's IT registration credentials against their home institution's user data-base, for researchers from any participating institution worldwide.

Eduroam is mostly widely known in conjunction with providing access for visiting staff to a university's wireless LAN services, but it can also be used for granting access to other IT services. The application described here in no way relies on accessing the services via wireless. Indeed, access to high performance systems is normally via wired gigabit ethernet network access.

For further information: <http://www.eduroam.org/>

What is the difference between AAF and eduroam?

AAF^[1] provides federated authentication for web-based applications, whereas *eduroam*^[2] provides federated authentication for common infrastructure services such as wireless network access and basic host-based services (i.e. non web-based services). It is expected that, in the fullness of time, *AAF*, *eduroam* and equivalent peer activities internationally, will eventually converge.

[1] The *Australian Access Federation (AAF)* is currently deploying a federated authentication environment for web-based applications, based on *Shibboleth* technology. It will provide a richer set of attributes about users, so that application operators can make finer decisions as to which users can access what services and resources.

[2] By contrast, *eduroam* is a more mature supported production federated authentication system, based on *Radius* technology. It is used extensively throughout Asia/Pacific, Europe and to a lesser extent Canada and the USA. It provides a more basic set of attributes about users, and hence is more suitable for more broadly based common infrastructure and host-based services.

So – how does this help?

Eduroam authentication

Research collaborators no longer need to obtain local user IDs from Monash to use these services. They use their normal username and password from their home institution. This means that they do not have to remember yet more usernames and passwords, and can continue to use the services regardless of whether they are at Monash, their home institution or elsewhere.

Individual system administrators still assign user access rights in the normal way, as regards who can access what files and what groups people are members of, etc.

SSH-FS network drive

SSH-FS is based on open international internet standards and hence provides the following advantages compared with other proprietary 'network-drive' technologies currently in use at Monash:

- all data is encrypted for increased security while traversing the network;
- safely traverses the public internet, whereas insecure technologies are blocked at the Monash border firewall;
- Windows, Mac and linux workstations are all supported;

and in comparison with *Novell Netware*:

- access to both the *LaRDS* near-line tape archive store, in addition to the *LaRDS* on-line disk store;
- access to data stored via *MSG* and various other *LaRDS* interfaces and applications;

and in comparison with *Microsoft Samba/CIFS/SMB*:

- Microsoft networking is not supported at Monash, is technologically complex, and hence displays unpredictable performance characteristics.

For further network-drive comparison details please refer to Table 1 in <http://www.monash.edu/eresearch/resources/land.pdf>

Interfaces supported

Access via *eduroam* authentication is supported on the following services:

- *Monash Campus Grid interfaces*:
 - **MSG login**
 - S/FTP, SCP
- *LaRDS interfaces*:
 - **SSH-FS network drive**
 - S/FTP, SCP