CASE STUDY

janet futures

Science & Technology Facilities Council

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Making access easier for users at the Science and Technology Facilities Council

The Science and Technology Facilities Council has its headquarters in Swindon and operates or hosts world class experimental facilities around the UK. These facilities tackle some of the most significant challenges facing society such as meeting our future energy needs, monitoring and understanding climate change, and global security.

The research council was an early adopter of authentication and collaboration solutions, but is now aiming to simplify collaboration for both national and international partners.

The Scientific Computing Technology Group

"We aim to streamline access services using Moonshot technology, which will take the burden of authentication out of the hands of our users."

Dr Peter Oliver, Group Leader, Science and Technology Facilities Council

Image courtesy of Science and Technology Facilities Council

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Simplifying authentication across distributed computing grids

About the Science and Technology Facilities Council (STFC)

STFC was formed in 2007 and is one of Europe's largest multidisciplinary research organisations. The Council works with universities, other research councils, and international partners to promote fundamental research across the spectrum of discovery, from the secrets of the Universe to new materials and medicines.

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Around half of the UK-based facility time is used for experiments with international involvement and a significant fraction involves collaborations with industry. The Council is responsible for the provision of the technological infrastructure needed to deliver and keep its facilities at the cutting edge.

X.509 authentication too complex for users

STFC has been an early adopter of authentication and collaboration methods across distributed computing grids, and currently uses X.509 certificates

However, the research council has found that using X.509 to prove identity to a certification authority is too complex a task for many users.

Dr Peter Oliver, e-Science Group Leader at STFC, says: "Moonshot technology should makes things easier for our users, since it removes the need to generate, sign and revoke certificates. Handling certificates for a user now requires as much care as handling a passport. We have seen instances where users lose their access rights because the process is too complicated.

"The same users will then often borrow a colleague's certificate – which should not be possible, of course."

Another key reason for the STFC's interest in Moonshot technology is that it is internationally recognised by the International Grid Trust Federation (IGTF), which is deploying large scale distributed computing grids across the world to benefit science and engineering.

Easier integration with eduroam

Moonshot technology will be trialed by the STFC in early 2012, first locally and then extending to remote users and selected partners in Europe.

The Council currently uses the eduroam worldwide roaming access service, and Moonshot will integrate with that infrastructure, meaning less technology change and a familiar authentication process. The trial will also link authentication into authorisation, to control the resources that users have access to.

Once implemented, Moonshot technology will enable both national and international partners who collaborate with the STFC to use existing credentials from their own organisation for authentication.

Find our more about Moonshot

Moonshot is a Janet initiative in partnership with the GÉANT project and others, to develop a single unifying technology for extending the benefits of federated identity to services beyond the web, including Cloud infrastructures, High Performance Computing, grid infrastructures and other services such as email.

A pilot to explore the use of Moonshot technology is underway. If you would like to take part in the pilot or get involved in other ways, please get in touch. You can contact Dr John Chapman, Strategic Programmes, on 01235 822346 for an informal chat, or you can contact Janet Service Desk on service@ja.net or tel 0300 300 2212.

To learn more visit the Project Moonshot website: http://www.ja.net/moonshot