

Swansea University secures access to world-class database

YubiKeys provided fast and reliable authentication.



Case Study



Industry

Education

Protocols

Yubico OTP, OpenRADIUS

Products

YubiKey Standard and YubiKey NEO

Deployment

Researchers

About Swansea University

Founded in 1920, Swansea University in Wales is a public university with more than 17,000 undergraduate and postgraduate students. The university's medical school was established in 2004 and works closely with government, industry, and the NHS to support a range of medical programs, clinical trials, medical imaging, research, and business development facilities.

Preventing healthcare data breaches is a top priority

The medical school manages a project called the Secure Anonymised Information Linkage (SAIL) Databank. Researchers from around the world connect to the SAIL Databank to collaborate, access, research, and publish academic publications and new knowledge discovery.

Due to the highly sensitive and confidential nature of the data, the loss or theft of records could result in severe damage to the school's reputation and overall trust in the research databank. In response, the school conducted an extensive study to identify security risks which could allow access to restricted data from unknown and unauthorized parties. The results concluded that strong two-factor authentication (2FA) was needed to ensure only authorized users could access records in the databank.

"The fact that the YubiKey emulates a keyboard made the deployment to remote users painless because there is no need to install drivers or specialist software, helping to also reduce support costs."

Simon Thompson, Systems Architect at Swansea University

YubiKey protects critical data with strong authentication

To ensure secure authentication, the security team implemented a two-factor solution to allow users to connect remotely via VMware Horizon sessions. The sessions are protected with username/password as one factor, and a YubiKey as the mandatory second factor.

After purchasing and testing the YubiKey, the Swansea team started deploying them to users in less than two days. Because the YubiKey worked out of the box with Microsoft Windows, Mac OS X, and Linux, users were up and running quickly regardless of which type of device they were using.

"The first time the YubiKey was introduced to the users, some were reluctant to add a step to their login process, but this was to be expected with any change in process. However, those who had been using other technologies, such as OTP generators, were very happy with the simple touch of the YubiKey." said Simon Thompson, Systems Architect at Swansea University.

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YubiKey offers scalable deployment with reduced support costs

While the YubiKey offers a great balance of usability and security, another important aspect for the university was reducing upfront and ongoing costs. While some technologies require additional expenses for the integration as well as the deployment, the YubiKey is a very affordable, is a one-time cost and the code for integration is free and open source.

"The fact that the YubiKey emulates a keyboard made the deployment to remote users painless because there is no need to install drivers or specialist software, helping to also reduce support costs," said Thompson.

After evaluating the success of YubiKey-enabled authentication in the SAIL Databank, other environments such as the UK Dementias Platform, Biobank, and the Avon Longitudinal Study of Parents and Children are all taking the same YubiKey approach to authentication based on Swansea University's successful experience.