Imperial College London

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VIRTUS
Data Centres

IMPERIAL COLLEGE LONDON

Imperial College London delivers world class education and research in the areas of science, engineering, medicine and business. Inter-disciplinary working and external collaboration is a key part of the College's success, helping it to understand, inform and advance industry, commerce and healthcare sectors with the UK, and beyond.

Business Challenge:

In 2014, Imperial College decided to review their Data Centre provision due to a number of technology considerations, as well as the rising real estate costs and a lack of opportunity for growth in line with the College's aspirations. Its site at South Kensington was home to the College's two Data Centres which form the backbone of its technology infrastructure, supporting 8,000 staff and 15,000 + students. Having both Data Centres in one location did not afford them the resilience they needed to safeguard their assets and give staff and students a reliable platform from which to carry out their studies and research.

With the College reliant on technology to help its employees and students function on a daily basis, ensuring the current provision is future proofed to enable them to continue their valuable work and research is vital.

The College also needed to overcome the challenge of unpicking through the intricacies and interdependencies that currently exist within the two on-site Data Centres.

The VIRTUS Solution:

In partnership with Jisc, VIRTUS provides a shared Data Centre under a frameworkagreement that simplifies the procurement process. Jisc's vision is to create a shared environment, where members can share data sets under one roof, collaborate and ensure the UK is at the forefront of academic and global medical research.

To make the transition as smooth as possible, Imperial College took a phased approach and designed a dual-zone network so applications and information can be moved across safely and securely with minimal disruption, the theme of the project being "keeping it safe". It is also important for the College to leverage its existing investment and maximise the efficiency of the project.

After an initial 'Phase I' deployment of 16 racks, in a 160kW enclosure at Cat C level for Core ICT services, Imperial College have since grown their partnership with VIRTUS, with 'Phase II' delivering two enclosures for Research Computing at 919kW in total, quickly migrating their High Performance Compute deployment.

'Phase III' of the deployment is now ongoing, with the caged area ready to receive Hosted Research Services, and a 'Phase IV' deployment is in planning, looking at which services that are left on-premise are cloud candidates and which are suitable for co-located services.

Benefits

Moving to the VIRTUS LONDON4 has given the College an increased level of resilience and protection longer term, through improved availability and disaster recovery capabilities, should one of the Data Centres suffer an outage. Interdependencies that once existed within the on-site Data Centres can be separated, which will eliminate single points of failure, making the new solution more robust and scalable in line with future growth and dependencies placed on the network.

Being part of the Jisc framework benefits the College from not only a financial point of view but will provide a commercial advantage. The College's core team of ICT staff have been fully involved in the project from day one and despite a change in working practices, they have been committed to the transformation and excited about the benefits it will bring for the future.

As part of the transformational project, Imperial College are looking to continue to leverage existing investment in tools and technologies, review the options for cloud services and continue to migrate to a co-lo Data Centre model.

"Students and staff were consuming information in a very different way than even a few years ago. The 'always on' environment meant applications and devices connected to the network needed to be available and working at all times, in order to facilitate this digital transformation. Our current environment was simply not robust enough to cope with this change in working patterns and expectations. The ability to be part of the Jisc framework through the Data Centre and to take advantage of the collaborative environment was a key consideration and would give us a solid platform for future growth."

Paul Jennings, Head of ICT Service Operations at Imperial College London