

CAMBRIDGE UNIVERSITY MAKES THE GRADE THROUGH CONSOLIDATION WITH THE TRELLIS™ PLATFORM



A Vertiv™ Case Study



ABOUT THE COMPANY

Company

Cambridge University

Industry

Education

Business Needs

Solution

The Trellis™ Platform

The Challenge

For more than 800 years, England's Cambridge University has been one of the world's foremost research institutions. This breadth of leadership requires unified technology support across all areas. But its IT infrastructure hasn't always been integrated.

With more than 200 server rooms located around the campus across 120 departments, Cambridge University constantly found itself on the cutting edge of research, but facing challenges when it came to designing and running an integrated Data Centre Estate.

"We have been challenged to achieve higher efficiency by virtualising platforms and refreshing equipment throughout our campus via a common, centralised data centre space. We've begun implementing a program where we're seeking to combine the functionality of as many of these server rooms as possible into one facility, and to reduce our carbon footprint by 30% in the process, and by as much as 40% in IT energy costs."

- IAN TASKER, DATA CENTRE MANAGER, CAMBRIDGE UNIVERSITY

Tasker says the benefits of such a move include consolidated management, standardised service delivery and improved security and availability. The program, he notes, is voluntary: each department has the option of integrating its servers into the new data centre or staying independent.

Standardising vendors throughout the University has been a major aim of Tasker's group but the challenge continues. "We've encouraged faculty members to allow us to advise on hardware requirements," he says, but notes that it's a voluntary program. As a result, almost every major hardware manufacturer has a significant presence in Cambridge University's server rooms.

That heterogeneous environment represents an even greater challenge, especially with Tasker increasingly required to monitor the operation and performance of the servers wherever they're located.

The University faced the significant challenge of high operational costs and needed a dynamic solution to improve operational efficiency with more centralized management.

Business Needs

- Combine the functionality of multiple server rooms into one facility
- Reduce carbon footprint by 30%
- Reduce IT energy costs by as much as 40%
- Consolidate management and standardise service delivery
- Improve security and availability

The Future

Tasker has assumed control of the data centre building, and is in the process of migrating the multiple server rooms under the one roof. *“We still face multiple challenges before the centre is operating at full capacity, and not every department will ultimately have its facilities located there,”* he says.

“Running the Trellis™ platform will give us greater visibility into the full scope of our operations. And the better we can monitor what’s happening, the better we can control it. When that happens, we’ll be far closer to achieving our goals.”

The Solution: The Trellis™ Platform

Tasker realised he needed a data center infrastructure management (DCIM) system that would enable him to control multiple environments from one location. The solution, he knew, would have to allow him to do far more than just contact the servers; every facet of the disparate systems would have to be accessible.

“Vertiv™’s DCIM solution, the Trellis™ platform would let us look at the entire infrastructure through one pane of glass,” says Tasker.

“We could monitor power, cooling, IT equipment and so on. The Trellis™ platform’s reporting capability lets us maximise our usage over time.” The Trellis™ platform, he says, is a key element in reducing the school’s power usage effectiveness (PUE) throughout its IT server facilities. *“We can achieve higher efficiency by virtualising platforms and refreshing equipment, using the central data centre space best, implementing evaporative cooling systems. In short, the Trellis™ platform makes sure that we can operate the space successfully. It pulls in all the information and helps guide us.”*

The Trellis™ platform, he says, especially helps in providing a unified view of the equipment from multiple vendors. *“The Trellis™ platform works with output from the various machines. It configures and manipulates data from other sources, translates it into a unified language and enables the DCIM to drill down and compile the data.”*