On Campus, Colocation or Cloud?

Higher education and research organizations faced with challenges for urgent digitization of their applications and data platforms, are now moving their IT infrastructure off-campus and into a purpose build data centre to ensure that their IT works harder for less.

David Watkins, Solutions Director, VIRTUS Data Centres

Data centres quietly reside at the heart of the modern university. Effective IT planning and wise investment in infrastructure means that institutions can deliver better services to students and staff – from remote learning and Big Data powered progress analysis, to High Performance Computing (HPC) and supercomputing required for research.

The explosion in data is putting increasing demands on IT infrastructure that is already over-stretched in many institutions forcing them to face the challenge of determining how to upgrade, replace and/or renew. In parallel, university leaders face physical limitations such as space constraints and energy efficiency commitments – and, of course, the ever-present issue of needing to manage their defined, immediate costs, and future IT infrastructure financial expenditure.

Choosing a strategy

How can universities ensure they choose the best IT strategy to make sure they can meet their needs of today, are able to scale for tomorrow and are ready for any unforeseen circumstances that the future may bring?

The fundamental starting point is to decide whether to stick with centralized, on campus IT infrastructure for data and compute functions, or to engage with an outsourced data centre provider or even a cloud solution

It's likely that the status quo is on campus, and serious investment has already been made into building and managing these facilities. But there are some serious upsides to taking the plunge and outsourcing the IT infrastructure.

Moving IT infrastructure off-campus and into a purpose-built data centre allows you to maximize efficiencies and cut costs. What's more, by moving your IT infrastructure off-campus, you can free up valuable space for other activities such as more teaching or research facilities. It also eradicates the challenge of supporting data centre electrical and cooling infrastructure, while also freeing up IT dedicated staff resources.

Specialist data centres

Many specialist data centres are purpose built to support High Performance Computing, crucial for today's requirements to manage and process vast data sets.

Premium providers like VIRTUS dedicate huge amounts of resource to developing the perfect environment for super computers and have experience of excelling in this field; institutions including Kings College London, Imperial College and the University of Bristol are already harnessing HPC deployments within VIRTUS data centres, to support their complex data processing requirements within a shared environment.

VIRTUS also brings a competitive advantage to research institutions. It offers the opportunity to be part of a wider education ecosystem where all organizations have a common interest – to benefit from shared facilities in which researchers can collaborate, increase energy efficiency and reduce costs.

In partnership with Jisc, VIRTUS provides the infrastructure for this ecosystem: a communal data centre environment provided in a framework where members can share data sets under one roof, collaborate and ensure that the UK is at the forefront of academic and global medical research.

The framework ensures that the procurement process is simple and straight forward, and that the quality of the data centre facility meets the key requirements of resilience, scalability and cost efficiencies. This is made possible as the combined infrastructure allows quicker localized connectivity, transforming how universities look at their data centre facilities.

Outsourcing also ensures that these institutions can support their environmental and sustainability goals. At VIRTUS we run on 100% renewable carbon-zero energy across our sites, so our customers can be confident they're choosing the greenest option possible.

There are many reasons why a university might decide to outsource its IT operations: to quickly add new capacity to keep up with the demand for services; substitute an ageing data centre; free up real-estate space for other purposes such as teaching; join an ecosystem to share facilities and data; or simply to cut costs.

There is lots to consider, but you're unlikely to stick with a single data centre strategy. 'Hybrid IT', a combination of in-house facilities, cloud and colocation, is already the dominant model of infrastructure deployment, and will likely remain so for years to come. The most important thing to remember is that you don't have to be tied into one solution – but can mix and match to serve your current, and changing, needs.

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David Watkins heads up the Solutions Team at VIRTUS Data Centres, working with customers to provide customized solutions. He has been at VIRTUS since 2009, where he was previously head of operations. Before VIRTUS, David was head of UKMEA data centres at Unisys.

Part of ST Telemedia Global Data Centres Group, VIRTUS Data Centres is London's leading data centre company and owns, designs, builds and operates the country's most efficient and flexible data centres. Located in and around London's metro, VIRTUS Data Centres leads the industry with award winning innovation in hyper efficient, ultra-high density and highly interconnected facilities which are designed specifically to offer the flexibility modern users need.

David blogs at https://virtusdatacentres.com/blog