



A HP blade server solution provides the raw computing power a major research organisation needs to deliver high quality services to the scientific community.

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ENABLING EFFICIENT INFORMATION RETRIEVAL AND EXPLOITATION

To support research there is a growing need to collect and store the enormous amount of information that is being generated in ways that allow its efficient retrieval and exploitation. Our client is one of the few places in the world that has the resources and expertise to fulfil this important task. Funded by governments and external grants, this research organisation provides services that allow all facets of the scientific community to access data and run analysis free of charge.

Outgrowing facilities

To provide its services, the organisation stores vast amounts of data - currently around ten petabytes or 10,000 terabytes - and the volume of data that needs to be held is expanding significantly year on year. In addition, these analysis services require huge amounts of processing power. The organisation was outgrowing its facilities. "Data is being generated at an exponential rate" says the Head of Systems and Networking. "We realised that, with the expansion we were experiencing, we would soon run out of both space and power."

Our client studied a number of options, for providing the facilities the organisation would need in the future. In the end it was decided to use a commercial service provider to host their IT infrastructure. "With the explosion in information we are seeing, no-one knows how big our data centre will have to be in the future," comments the Head of Systems. "That made building our own data centre risky, so we opted for using a service provider."

Industry Research

Business Challenges

Overcome space and power restrictions

Meet increased demand from the scientific community for the storage and analysis of huge data quantities

Improve disaster recovery capabilities

Solution at a Glance

Host hardware and software at two commercial locations

Implement two active HP solutions comprising 40 fully populated HP BladeSystem c7000 Enclosures

640 HP blade servers

Results

More robust and higher availability infrastructure

More flexibility with two active sites

Greater computing power and faster access to data

Scope for future growth

Higher quality solution for the same budget as building a local data centre

Good track record

Our client set about selecting a service provider. At the same time the Systems and Networking team started designing the new system that would eventually be hosted by the chosen provider. "We put together a quite detailed specification for the servers, storage and networking we needed and invited a number of companies to tender," says the Head of Systems. "We didn't specify which vendor's equipment we wanted, but we did make a practical decision that, as we wanted to deploy the solution quickly, we would not accept any equipment we were unfamiliar with."

One of the companies they asked to tender was Viadex. "Viadex had been reliably supplying us with equipment for a number of years," says the Head of Systems and Networking. "With the solution needing to be implemented quickly, it was important to work with suppliers we could trust."

Viadex's consultants worked closely with HP and the end user to accurately specify the configuration that would be needed. For the servers Viadex proposed 40 fully populated HP BladeSystem c7000 Enclosures – a total of 640 blades.

Because of the volume of servers that were involved, and the fact that it was public money being spent, Viadex also worked with HP to provide the best pricing option they could. The careful attention to detail paid off when the research organisation selected Viadex to supply the servers.

"Viadex's proposal was commercially very sound," said the Head of Systems and Networking, explaining the decision. "We had used HP blade servers before and we were very comfortable with them. We were also confident that Viadex could deliver on time, because they had a good track record with us in the past. That was extremely important to us."

Tight deadline

With the decision to use Viadex taken just before Christmas, time was tight. "Obtaining the space and equipment was a massive project," he explains. "We had to get all the infrastructure installed and running in two new locations so we could start transferring systems over to them in March."

Viadex sourced all the servers, built and thoroughly tested them before delivery. Its experts then undertook the physical installation at the service provider sites in London that client had selected. With a number of other suppliers involved for the storage and networking part of the solution, it was important that Viadex kept to the timetable the client had set.

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Meeting high expectations

The research organisation now has an infrastructure that will enable it to continue to meet the high expectations the scientific community has for access to the data it holds. "Obviously the move to the two new locations has overcome the space and power problems we had," says the client. "However, we also now have a more robust solution that gives us a significant step up in computing power, delivers faster access to the data and gives us more scope for the inevitable growth that will occur."

Historically the client has operated with a passive disaster recovery site. The new locations, however, are both active sites. "Having two active sites gives us greater flexibility," says the Head of Systems and Networking. "We can run some services from one site and others simultaneously from both. Yet, if one fails, the other will pick up the workload without the users noticing. It's the best of both worlds."

Thinking back over the project, the Head of Systems and Networking is pleased with the final result. "For the money we have invested we could not have created a local data centre of the same quality as we now have," he says. "I was also impressed with the way Viadex handled its part of the project. It's staff were very professional throughout the process, from initial contact to the installation. They put forward a very well thought through, competitive proposal and they delivered what they promised."