FUJITSU

Case Study
Diodes

»We've slashed the number of boxes in Oldham's central server room which means energy consumption has dropped and the air conditioning system is barely used at all. It has also enabled us to close our co-location facility and relocate« those resources giving us a significant monthly saving«
Paul Baxendale, Group IT Manager, Diodes

The customer

Country: United Kingdom
Industry: Technology
Founded: 1959
Employees: 500 (Europe only)
Website: www.diodes.com

The challenge

Diodes wanted to upgrade and virtualise its aging server infrastructure while also expanding the capacity of its storage platform.

The solution

Having partnered with Fujitsu previously on a laptop/desktop deployment, it invited the company to propose a solution. As a result, it installed numerous Fujitsu PRIMERGY servers across four European sites, combined with enhanced NetApp storage.

The customer

Diodes is a leading global manufacturer and supplier of high-quality application-specific products within the broad discrete, logic, and analogue semiconductor markets. The company serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, functional specific arrays, single gate logic, amplifiers and comparators among many others.

Its corporate headquarters, logistics centre and Americas' sales office are located in Plano, Texas. Design, marketing, and engineering centres are located in Plano; San Jose, California; Taipei, Taiwan; Manchester, England; and Neuhaus, Germany.

The challenge

Diodes was facing a number of issues across its European sites. The server estate consisted of aging, discrete machines and its shared storage platform had become insufficient for its growing data needs. Moreover, from a physical perspective, the company could no longer fit in the required hardware within its server room. Diodes needed to find a fresh approach to this fundamental part of its IT infrastructure.

"We couldn't deliver maximal advantage to the business because we were being hampered by the constraints of the IT environment," explains Paul Baxendale, Group IT Manager, Diodes. "We wanted to refresh the storage, get rid of all the old servers and create a more agile platform that would be less burdensome on energy consumption and cooling."

Diodes had already invested in NetApp for its storage needs and was happy with its performance but wanted to scale up the capacity. It was less happy with its incumbent server vendor and was keen to explore alternatives. The company had previously selected Fujitsu to equip almost 400 employees across Europe with laptops and desktop devices so naturally Diodes invited it to propose a solution.

The benefit

- Storage capacity for users has increased by 16 TB
- New environment has removed the need for co-location facility, resulting in significant monthly savings
- Reduced energy consumption and cooling contributes to TCO savings of £15k/month
- Improved disaster recovery, offering quicker time to recovery
- New server and storage platforms guarantee future-proof environment allowing Diodes to focus on the business

Products and services

- 5 x FUJITSU Server PRIMERGY RX200
- 1 x FUJITSU Server PRIMERGY BX400 S1
- 4 x FUJITSU Server PRIMERGY BX920 S3

"Price and performance are always key concerns but what really set Fujitsu apart is the depth and breadth of its offering. Basically, Fujitsu gives us a one stop shop for blade servers, NetApp storage, consultancy services and operational support," adds Baxendale. "It gave us a way to plan the project with a single vision, including licence management, services and installation. That was very attractive."

The solution
Fujitsu worked with Diodes to migrate its existing 50+ Windows and Linux servers to a new virtualised environment, while also upgrading its storage environment. There are now four Fujitsu PRIMERGY BX920 S3 servers at its primary Oldham site, three Fujitsu PRIMERGY RX200 servers at Warrington and two Fujitsu PRIMERGY RX200 servers at Neuhaus in Germany. These primarily host a virtualised VMware environment and are complemented by a single server in Munich.

"In terms of hardware provision, the project was straightforward but complexities arose relating to our limited in-house resources so being able to access Fujitsu's own expert resources was a great benefit," continues Baxendale. "Fujitsu was responsive and proactive, and I knew that if a problem presented itself I could pick up the phone and get in touch with the right person. This meant we eradicated issues at the planning stage so delivery and execution would be smooth."

One area that demanded assistance was the migration of a bulky Microsoft Exchange email archive. Fujitsu's advice helped Diodes ensure it was performed with minimal disruption to the business. Fujitsu was also responsible for configuring and testing the server and storage platforms before delivering and installing them at the various locations.

"We've migrated all our core business applications – ERP, finance, office, file and print as well as authorisation and Active Directory," says Baxendale. "We also support specialist manufacturing applications, which must be available 24/7. If we lose key systems it can directly impact our business within ten minutes so availability and resilience are crucial."

The benefit
The project has delivered multiple benefits for Diodes – from both an end-user and operational perspective. Most importantly, there is now 250 per cent more space for users whereas before the company was hitting storage capacity. Overall, the project has also delivered a 30 per cent reduction in total cost of ownership while improving service levels.

"We've slashed the number of boxes in Oldham's central server room from five full height racks to one single rack. That means energy consumption has dropped and the air conditioning system which used to run flat out all the time is now barely used at all," comments Baxendale. "It has also enabled us to close our co-location facility in Leeds and relocate those resources to Oldham. That gives us a monthly saving and simplifies resource management."

The new infrastructure also provides enhanced disaster recovery capability, reducing risk: "Risk management is critical because of our challenging service levels. The new disaster recovery functionality offers a quicker time to recovery and more comprehensive assurance."

Furthermore, the new server and storage platforms guarantee a future-proof environment for at least the next five years, allowing Baxendale and his team to focus on adding strategic value to the business rather than worry about system performance.

Conclusion
Diodes now enjoys a cost-effective, high-performing IT environment that meets its needs and helps it create more innovative semi-conductor products. With the current platform in place, it is looking to the future and other areas where it might partner with Fujitsu.

"If we start another project, I am confident that I can ring Fujitsu and speak to the right person in an instant. That gives us great faith in Fujitsu's ability to go the extra mile in order to make sure our needs are met."
Paul Baxendale, Group IT Manager, Diodes

Contact