

NUCLEAR ENGINEERING SERVICES LTD

EXTENSIVE INFRASTRUCTURE UPGRADE WITH MAJENTA

NES implements a NetApp and VMware virtualisation strategy, HP workstation refresh and Microsoft overhaul with the technical expertise of Majenta IT



Safety First

When it comes to handling nuclear waste, safety is the number one concern and Nuclear Engineering Services (NES) applies its expertise to some of the largest technical challenges within the industry. For example, the company is building two unique silo-emptying machines for use in a decommissioning legacy plant. These machines weigh approximately 400 tonnes each, and assembled from over 13,500 parts each, they operate on a rail system and remove waste materials using a hydraulic grab and tooling system.

NES can draw on more than 60 years' experience across the nuclear decommissioning, new build and defence markets, operating as a standalone contractor and within larger framework agreements. With all the required engineering skills in-house, the company ensures that its specialist design, manufacture, assembly, test and operator training services are tightly controlled through integrated project teams. It has sites in the West Midlands, Cheshire and Cumbria.

A Strict Regulatory Environment

When NES uses a component, engineers must provide an in-depth stress analysis of that item, no matter how small or seemingly insignificant. "We work to a higher standard than typical penalty clauses; failure is simply not an option," says Rob Bohee, IT Manager. "For example, the silo emptying machines can rarely be serviced after they are installed due to the overtly hazardous environment. Performance must be guaranteed. We therefore analyse every part in order to confirm its strength and performance potential. That is our value add: we verify quality."

Working under such a highly regulated regime means that the company must have reliable data storage. When its servers were due for renewal NES conducted a search for a suitably qualified supplier. "As a business we decided that a virtual infrastructure was the way forward. We were looking for reliable cost efficiency plus scalability, because NES is continually growing," continues Bohee.

Customer

Nuclear Engineering Services Ltd
www.nes-limited.com

Industry

Nuclear and Defence

Business challenge

- Ensure an ultra-reliable, cost efficient data storage environment

Keys to success

- Broad range of technical capability from Majenta Solutions
- Attention to detail and thorough documentation
- In-depth knowledge of suitable solutions

Solution

Provision of consultancy, NetApp storage solution, HP workstations and overhaul of Microsoft licensing agreement by Majenta Solutions

Business impact

- Robust and reliable data storage underpins business continuity
- New licensing agreement updates and streamlines provision of Microsoft software
- Bespoke hardware specification and provision of HP workstations ensures the best support for computer-aided design (CAD)



“Majenta Solutions comfortably passed all our due diligence tests and came up with a comprehensive, tailored plan using NetApp hardware with VMware virtualization and cloud software. NetApp is a top-end solution implemented by government departments and banks. Over the past few years it has become available to the SME market and this is fantastic for us, especially as the team at Majenta Solutions has such a thorough understanding of NetApp.”

A Robust Infrastructure

Majenta Solutions originally supplied and installed an environment to host 20 virtual servers at the Wolverhampton site, all set to deliver the highest level of data availability and with the eradication of single points of failure. Now NES has over 60 servers, including a growing footprint at the Risley office. All NES sites have a storage area network plus a development area. The company’s entire business data including customer, contract, engineering and financial information from twelve departments over three sites is stored on the network and integrates with the company’s existing infrastructure.

According to Bohee, virtualisation and consolidation has provided several benefits. “We now have the performance we need, providing data agility and data protection. Data is replicated off site through a nightly schedule with snapshots of data every two hours. This means that, even in the worst scenario, we would never lose much more than about four hours of work, which is a sustainable loss. We can access data from another site, which means that we improve our business resilience. For example, if we had to relocate staff members temporarily we could bring up all our critical applications. In addition, the system is intelligent enough to recognise duplicated documents therefore disk storage is kept to a minimum and this contributes to overall storage/cost efficiency.”

Software and Hardware Solutions

Rob explains that Majenta Solutions has assisted with the company’s licensing for Microsoft. “Over several years we had acquired a range of different, individual licenses. With consultancy and brokerage help from Majenta Solutions we first moved over to a volume license agreement. Immediately we benefited from software upgrades, some completely new applications that we’d not had previously and a web portal. Later, with further assistance from Majenta Solutions, we entered into a new enterprise agreement that was even more of an improvement for our 430 IT users.”

In addition Majenta Solutions provided advice with regard to choosing CAD workstations. “Our account manager helped us to scope out a baseline requirement which became a template specification for any purchase of engineering hardware. As a result Majenta Solutions provided HP workstations to suit our requirements exactly.”

“Recently we have committed to a proof-of-concept exercise of some brand new technology which will bring CAD functionality to Virtual Desktops – another innovation which could revolutionise the way we work and extend many of the benefits we have enjoyed with server virtualisation. This was also introduced to us by the Majenta team.”

Rob is still working on the company’s long term IT strategy. “Implementing a virtual environment was the first step; we have also tidied up software licenses and created clear hardware specifications. Throughout, Majenta Solutions has demonstrated real attention to detail, provided us with extremely thorough documentation and been easy to communicate with. This is all quite refreshing. We have an excellent relationship and I foresee that it will continue to grow and strengthen.”



“We work with Majenta Solutions because of their in-depth expertise across a broad range of technology. They are in the top category of suppliers.”

Rob Bohee, IT Manager, NES Ltd

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