

CASE STUDY

CSC ENABLES MAGNOX NORTH TO CENTRALISE ITS INFRASTRUCTURE AND REDUCE SUPPORT COSTS BY DEPLOYING WAN ACCELERATION



INGENIOUS

CSC's deployment of an innovative WAN acceleration solution is enabling Magnox North to achieve long-term cost-efficiencies, improve access to resources over the WAN, and introduce new bandwidth-hungry services.

PURPOSEFUL

Acceleration of the WAN links was achieved with no disruption to Magnox North's activities and no negative impact on users.

PASSIONATE

Joint team-working between CSC, Magnox North and Cisco personnel contributed significantly to the success of this ground-breaking project.

"In collaboration with CSC, we have smoothly transitioned into our new centralised and accelerated operational structure. In addition to reducing our long-term hardware support costs, we now have the WAN capacity to introduce new applications to support the business."

Ian Lewis
Head of Information Technology,
Magnox North Limited

Magnox North Limited is a Site Licence Company (SLC) that manages five of the UK's civil nuclear sites under contract from the Nuclear Decommissioning Authority (NDA). Magnox North's site operations include continuing electricity generation at two of its power station sites, and defuelling and decommissioning at the other three.

THE CLIENT'S CHALLENGE

A key element of the NDA's strategy is the implementation of a cost-effective, efficient and agile IT infrastructure at all SLCs. In support of this strategy, it approved budget for a hardware refresh project at Magnox North. The budget would enable replacement of around a third of the company's hardware estate across its five power station sites and three administrative locations.

Concerned that this partial replacement would lead to a constant cost drain over time, Magnox North decided to look for an alternative hardware investment solution that would reduce its long-term replacement and support costs, and also improve business productivity by enabling the deployment of new technologies such as videoconferencing.

When Magnox North was created as part of the separation of Magnox Electric Limited into two SLCs, a data centre for Magnox North was established at the CSC data centre in Maidstone, Kent. Magnox North therefore decided to build on that earlier investment by using the NDA-approved budget to centralise and consolidate the IT infrastructure from four of its sites into the same CSC data centre.

This would involve users at those four sites accessing all services over the WAN. Unless Magnox North could ensure LAN-speed connectivity for those users, they would suffer extended login and application access times, and productivity would be affected. In addition, the increase in WAN traffic could risk compromising service for users at all sites.

For CSC, therefore, a key aspect of the infrastructure centralisation and consolidation project involved finding a WAN acceleration solution that would maintain connectivity service levels for all users.

CSC SOLUTION

Following an investigation of WAN acceleration solutions, CSC selected Cisco Wide Area Application Services (WAAS) as its recommended option. A demonstration of this technology at the CSC Innovation Centre convinced Ian Lewis, Magnox North's Head of Information Technology, that this approach would maintain LAN-like speeds for users connecting across the WAN.

As this was one of the earliest implementations of Cisco WAAS in the UK, close co-operation and joint teamworking between CSC, Magnox North and Cisco personnel were vital for overcoming technical challenges and ensuring project success.

The Cisco technology was piloted at one of Magnox North sites. This enabled testing to take place in a live environment but isolated from Magnox North's day-to-day activities in order to avoid disruption.

Through an iterative process, the joint project team fine-tuned the Cisco WAAS solution and, following the success of the pilot, it is now being rolled out across the entire Magnox North WAN. This is speeding up network login times and access to shared applications for all 2,500 users across the company's eight sites.

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BUSINESS RESULTS

Implementing WAN acceleration technology has enabled Magnox North to centralise and consolidate servers for cost reductions over the long term, while maintaining and improving connectivity service levels for all users. The long-term cost reductions stem from:

- Lower support costs – supporting the servers in a single CSC data centre is more cost efficient than supporting them at four Magnox North locations
- Reduced hardware estate – for example, a single server now supports Magnox North's Lotus Notes application, replacing individual servers at each site and generating annual savings of £80,000
- Improved server utilisation through investment in more up-to-date hardware

Feedback from users has been very positive. On average, application access times are down by 80%, going from five minutes to one minute and, in some cases, to just one second. In addition, homeworkers are seeing the same percentage reductions in remote access login times.

All users have faster access to company-wide shared applications, such as SAP, that are hosted at the CSC data centre. Internet access times are quicker too, as access to the internet for all users on the Magnox North WAN is handled out of the CSC data centre.

Because Cisco WAAS works primarily by compressing files for transmission, it is creating capacity on the Magnox North WAN that can be used to carry other services. With an overall average traffic reduction of 62%, Magnox North will be able to achieve its aim of introducing company-wide videoconferencing services, without the costs of increasing WAN bandwidth.

Based on the success of the WAN acceleration programme at Magnox North, the NDA is considering the possibility of rolling out the technology across the rest of the UK's civil nuclear estate, in support of its strategy to ensure implementation of an efficient and agile IT infrastructure at all SLCs.



WORLDWIDE CSC HEADQUARTERS

The Americas

3170 Fairview Park Drive
Falls Church,
VA. 22042
United States
+1.703.876.1000

Europe, Middle East, Africa

Royal Pavilion
Wellesley Road
Aldershot, Hampshire
GU11 1PZ, United Kingdom
+44(0)1252.534000

Australia/New Zealand

26 Talavera Road
Macquarie Park
NSW 2113,
Australia,
+61(0)2.9034.3000

Asia

139 Cecil Street
#08-00 Cecil House
Singapore 069539
Republic of Singapore
+65.6221.9095