



CASE STUDY



COMPANY

NAME: Scottish and Southern Energy (SSE)

INDUSTRY: Utilities

ENVIRONMENT: 2 new data centres replacing 2 existing data centres that were reaching end of life and running out of space

BUSINESS NEEDS:

- To migrate and deliver best practice and low risk data centre services to an organisation operating in a highly regulated industry sector
- Meeting demands for a risk-free, minimum environmental impact approach to data centre resource management and delivery of services

SOLUTION: Nlyte Data Center Infrastructure Management Suite

BUSINESS BENEFITS:

- Rapid and accurate mapping and migration of all data centre assets from two existing data centres to two brand new data centres
- Single point of knowledge of all data centre resources from hardware and software to power and cooling ensuring effective decision making and planning
- Eliminate the threat of IT process failures putting the public and employees at risk (e.g. by ensuring the assets and connectivity associated with business and safety critical systems are mapped and managed effectively)

INTRODUCTION TO SCOTTISH AND SOUTHERN ENERGY

Scottish and Southern Energy (SSE), headquartered in Perth Scotland is one of the largest energy companies in the UK. With over 19,000 employees, it is involved in: the generation, transmission, distribution and supply of electricity; the storage, distribution and supply of gas; electrical and utility contracting and other energy services; and telecoms. SSE supplies electricity and gas to over nine million customers within the UK's competitive energy market making it the second largest supplier of energy in the UK.

SSE is also the generator with the most diverse fuel source, with a total of over 11,000 megawatts of capacity. With 2,200 megawatts of that capacity being from renewable sources, it is the country's largest renewable energy generator. The company believes that doing business responsibly is the only way to create a successful, sustainable organisation for customers, employees, suppliers and shareholders and aims to provide the energy people need in a reliable and sustainable way.

One of SSE's key aims is to deliver its services at the highest possible standards of health and safety performance so that operations are carried out without any harm to employees, contractors, customers or members of the public. Their ultimate goal is injury-free working.

THE DATA CENTRE CHALLENGE

Increasing demands from the business for more and more IT services accompanied by an on-going program of acquisition, made it apparent that SSE's two existing data centres would soon run out of capacity and reach the end of their useful life. Simon Davis, SSE's Data Centre Manager responsible for the everyday management of all SSE's data centres and remote communications rooms realised that the current infrastructure could not ensure the continuing high level of IT service required to support the company's business goals and values. A decision was therefore made to replace the two data centres in Havant, Hampshire with two brand new, purpose-built data centres.

“Every data centre manager should have a data centre infrastructure management tool for the effective control of their data centre IT operations. They should know everything there is to know about what's happening to data centre IT assets and understand the impact of any action or change. Nlyte has enabled us to create a standard framework for running and managing our data centres and has given us the ability to introduce robust, best practice management processes that have transformed the way we work.”



Alongside this, the company decided to manage the Facilities and M&E functions under a managed service agreement covering all their data centre requirements. Simon Davis and his team would then be responsible for overseeing the migration of all equipment and services from the two existing data centres to the new data centres and for the on-going management of SSE's entire data centre estate, including power and cooling to the IT equipment. While the actual data centre build would be a multi-year project, it was felt that a new approach to data centre management also needed to be included as part of the plan.

“When assessing requirements for the project and what would be required to run both the migration and the new data centres in the most efficient, secure and safe way, we identified three main priorities” said Davis. “These were to understand and gain better control of the data centre environment, to introduce centralised planning and change management and to be able to immediately identify any potential risks to operational environment”.

In more detail, this meant:

- Managing an effective migration within budget and being able to subsequently plan, track and manage future changes and undertake risk and impact analysis from a central point
- Managing data consistency and accuracy - knowing exactly what was in the existing data centres down to a rack, server, and network level and understanding their physical relationships so that the move could be planned centrally. Infrastructure support, operating system support, application support, mainframe systems and the network team all held and managed their own information (mainly in spreadsheets and Visio reports) but there was no consolidated view, which made co-ordinated planning very difficult.
- De-risking everything going on in the new data centres - this required:
 - Introducing a solution that would predict and prevent all potentially process failures and help to quickly spot any energy supply risks
 - Ensuring that critical assets and their associated hardware and network dependencies were identified and managed appropriately

A decision was therefore made to acquire a data centre infrastructure management tool to help the migration to the two new data centres and to support the introduction of the best practices needed to support the new data centre environments.

THE DECISION MAKING PROCESS

When considering potential solutions, Davis and some of his team had previously used a variety of tools. However, their new data centre environment required the introduction of sophisticated best practices to ensure that their goals would be met. To do this, they wanted a solution with a centralised asset repository that would provide them with a real-time, single version of the truth across all data centres. It was also felt that the new system needed to be intuitive and easy for the wide range of users from across IT infrastructure support to use.

After an evaluation process involving representatives from across the teams, the Nlyte Data Center Infrastructure Management (DCIM) suite was selected. The Nlyte solution was found to be cost effective to buy and run and met all the criteria identified in the business case. The team felt confident that they would be able to run the new data centres within industry best practice guidelines from the start and immediately cut out the use of individually-owned spreadsheets and Visio reports for data centre infrastructure management.

DEPLOYMENT AND BENEFITS

The Nlyte DCIM suite, used to consolidate information about all existing assets, was a key part of the migration program enabling all data to be collected and ready for the migration according to plan and contributing to a successful, on-time project. Since the first of the new data centres went live, the Nlyte solution has become one of SSE's key data centre management applications. “I was delighted with the speed and efficiency with which we were able to deploy the Nlyte solution as part of our migration program” said Davis. “In addition, the thorough auditing service and the integration with our power utilisation information has delivered immediate benefits for our server and rack allocation processes, as we can identify suitable racks for deployment and connect immediately to the most appropriate power supply.”

Now up and running for both new data centres, the Nlyte solution provides immediate asset, power and usage information to data centre staff from a centralised, easy to use console. This allows the teams to manage change through a formal change control process based on accurate information with a clear view of dependencies and potential risks and impacts resulting in much higher quality, less mistakes and less re-work. All equipment from racks to servers to power strips can be deployed much more quickly and the service quality is higher.



In today's environment, power management has become much more visible in every organization and the minute by minute power management capability provided by Nlyte has enabled SSE to make better use of the data centre resources by spreading power and cooling requirements more evenly and efficiently according to actual values and predicted need rather than relying on manufacturer's standard guidelines. Introducing Nlyte has enabled the integrated IT and FM departments to jointly visualise, model and manage power usage in real time, helping them to manage costs more effectively and meet the agreed targets for data centre services. For example, being able to accurately see real-time power usage rather than working on manufacturer's plate values has highlighted that they can plan, in some cases, for up to 50% less power usage than previously thought.

THE FUTURE

Going forwards, Davis sees the integration between facilities management and IT becoming increasingly important. For example, connecting the functionality of SSE's Building Management System (BMS) and managing the overall costs of the data centre through a single management solution will add measurable value. His goal is to have a single data centre dashboard managing all data centre assets, tracking their power usage (for example through the Power Usage Effectiveness (PUE) measurement.

Davis also plans to increase usage of The Nlyte reporting capabilities, providing valuable information to some of SSE's wider IT support groups and to use the solution to capture and manage information from SSE's remote sites that are not currently managed centrally.

“Concludes Davis, “Every data centre manager should have a data centre infrastructure management tool. They should be in control of their data centre environment, should know everything there is to know about what’s going on in their data centres and understand the impact of any action or change within that data centre. Nlyte has enabled us to create a standard framework for running and managing our data centres and has given us the ability to introduce robust, best practice management processes that have transformed the way we work.”

FOR MORE INFORMATION

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About Nlyte Software

Nlyte Software is the world's leading software company focused on planning, managing and optimizing data centers. Nlyte Software enables enterprises to extend IT management software to include the physical layer with the logical and virtual layers of the data center, maximizing the financial benefits from the optimized utilization of assets, space and power. Nlyte's proven platform is used in the data centers of some of the largest and most valued companies in the world.