Logistics Company Improves IT Uptime and Management

FlexPod technology gives Suttons Group confidence to invest in long-distance systems management

EXECUTIVE SUMMARY

Customer Name: Suttons Group

Industry: Logistics

Location: United Kingdom

Number of Employees: 800

Challenge
- Improve customer satisfaction
- Increase operational resilience
- Enhance efficiency

Solution
- FlexPod smart solution with Cisco Unified Computing System and Nexus switching, and NetApp FAS 2240 storage system

Results
- Downtime incidents reduced from once a week to practically zero
- Server deployment time reduced from minimum one day to 20 minutes
- Energy consumption reduced by 55 percent

Challenge

Suttons Group is a global transport and logistics company. It is headquartered in Cheshire, United Kingdom, and has operations in Europe, the United States, the United Kingdom, and Asia working predominately in the chemical, fuel, gas, and food industries. As a 60-year-old family business, the Group is one of Britain's most successful privately-owned logistics providers, with a worldwide reputation in bulk chemical logistics solutions. Its turnover increased by a third from 2010 to 2012.

As befits a rapidly growing company in a highly competitive market, Suttons is increasingly dependent on advanced IT systems to maintain its services and operations. Robert Sutton, IT director at Suttons Group, says: "One of the biggest challenges we have is in communicating across the globe. Our business never stops. We need information and systems to be available 24-seven-365 in any location."

However, the nine-person IT team was struggling to deliver that level of IT support. The logistics sector has not historically been very progressive in adopting IT and, in the case of Suttons, a growing need for computing technology had been met by buying increasing numbers of physical servers, housed in a server room at the company's head office.

By 2008, the company had more than 60 servers in this one location, all equipped with local storage and linked via a 1Gbps network. Virtualization had been introduced, using Citrix, but it was stretched with just a single 1Mbps line to serve around 100 head office users.

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> "The key benefit of moving to UCS is it allows us to do one-off implementations. It enables us to grow the business, scale sideways, and be flexible to what the business is demanding from us. It's simply a business enabler."

Robert Sutton
IT Director

At that point, two things conspired to change the situation. The first was that the business was concerned about having its IT systems housed at its headquarters, since the location was also used for temporary storage of hazardous materials. The second was that Suttons Group commissioned a study from its business advisers, KPMG, on future business strategy, which recommended new IT infrastructure and systems to support international growth.

These two considerations led to a decision to move the Suttons Group data center to hosted facilities in London, more than 300 kilometers away. Although the move represented an opportunity to update the infrastructure and overcome the IT problems the Group was facing, it also presented a challenge. Previously, the IT team had been able to attend to the data center hardware on site, but now they were worried about being able to exercise the same level of control remotely.

Solution

Suttons Group had been consulting with Cisco over IP telephony and voice-over-IP products. So when the time came to look for data center hardware providers Cisco was included in a shortlist of three, and a demonstration of the Cisco Unified Computing System™ (UCS®) was arranged. "I must admit, I had never looked at Cisco as a computing vendor," says Affy Bhatti, IT Infrastructure Manager, "but the demonstration pretty much made up my mind. I was especially impressed with the in-depth product knowledge of the Cisco systems engineer."

Specifically, Cisco® UCS met the requirements for a blade system that could be accessed remotely and would be fast and reliable, while a single point of management was a major plus. Robert Sutton says: "In addition, it was the simplicity of the system that impressed us the most. You configure once and it's plug-and-play."

But the clincher was FlexPod, a pre-designed and pre-validated base data center configuration combining technologies from Cisco and NetApp. With the design available in two options, Suttons deployed VMware vSphere (for back-end operations) and Citrix XenDesktop (for desktop virtualization). "A proven technology by the vendors I most wanted to work with: that was the real big seller," says Bhatti.

The solution was designed and implemented by CAE. As well as providing ongoing management and IT helpdesk support, the Cisco partner is also playing a key role in optimizing the company's disaster recovery arrangements.

Suttons procured a standard FlexPod design for high availability. Along with NetApp FAS 2240, the design incorporates two Cisco Nexus® 5548 Series Switches, Cisco Catalyst® 3750 Series Switches, Cisco Nexus 2248 Fabric Extenders, ACE Application Control Engine Modules for load balancing, and two Cisco ASA 5520 Series Adaptive Security Appliance firewalls.

It also contains five UCS chassis, eight UCS B250 M2 Blade Servers with 192GB of RAM, and 16 UCS B200 M2 Blade Servers, connected to two NetApp high-availability storage units via a 10Gbps link. Virtualization is via a VMware vSphere and Citrix XenServer, supporting Windows Server 2008 R2. The B200 blades support core Suttons Group applications that require physical hardware, but around 95 percent of the data center infrastructure is virtualized.

"We are trying to stay away from physical hardware because it does not allow you to be scalable on the fly," says Bhatti. Suttons Group runs SQL and Oracle as well as Microsoft Office applications, and has now transitioned its data center to FlexPod, decommissioning its older equipment except for one backup server. The Cisco equipment is covered by a Cisco SMARTnet® service contract.

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Results

"The most profound impact FlexPod has had on the business is that employees have started commenting about how their IT systems have not failed in a long time," says Sutton. "For me, that speaks volumes. We have uptime certainty and absolute stability."

Although this solution has reduced the number of issues the IT team has to deal with, the department's expenditure might actually go up, because the business now has the confidence to invest more in its systems. For the time being, however, workloads have been vastly improved with FlexPod. Previously it could take a few days to deploy a test server, whereas this can now be achieved in about 20 minutes, using UCS with Microsoft Deployment Toolkit, VMware, and Citrix XenDesktop.

This automated process, of creating identical user profiles or golden images, is helping boost productivity. "Before, deploying a single server would tie up an engineer for the whole day," says Bhatti. "Now, they can start the process and leave it running while they complete other tasks."

Energy usage has also gone down by an estimated 55 percent, even when systems are being fully utilized by virtualizing physical servers. Last but not least, Suttons is running a virtual desktop infrastructure (VDI) deployment with a group of 50 people. The objective is to be able to deliver a locked-down Windows 7 OS with a Citrix Receiver and Citrix XenClient, allowing the user to switch between thick and thin clients.

"The key benefit of moving to UCS is it allows us to do one-off implementations," says Sutton. "It enables us to grow the business, scale sideways, and be flexible to what the business is demanding from us. It's simply a business enabler."

Next Steps

Suttons is in the process of extending its VDI program across its worldwide workforce and is looking to improve its disaster recovery capabilities by building a second version of the London data center. After that it will be talking to Cisco about collaboration — the subject that led to its purchase of UCS and FlexPod in the first place — secure in the knowledge that its FlexPod-based data center is already optimized as a platform for the technology.

For More Information

To learn more about the Cisco architectures and solutions featured in this case study, please go to:
www.cisco.com/go/flexpod

Product List

FlexPod Components
- Cisco Unified Computing System (UCS)
  - Cisco UCS B250 M2 Blade Servers
  - Cisco UCS B200 M2 Blade Servers
- Cisco Nexus 5548 Series Switches
- Cisco Catalyst 3750 Series Switches
- Cisco Nexus 2248 Fabric Extenders
- NetApp FAS 2240 Storage System

Security and Load Balancing
- Cisco ASA 5520 Adaptive Security Appliance
- Cisco ACE Application Control Engine

Cisco Services
- Cisco SMARTnet

Software
- VMware vSphere
- Citrix XenDesktop 7
- SQL
- Oracle
- Microsoft Office
- Microsoft Windows Server 2008 R2

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