

Westcoast gains agile IT and drives down cost with HP Converged Infrastructure

“As the UK’s largest HP Distributor, we are in a unique position to provide solutions based on converged infrastructure. By combining market leading products such as HP ProLiant, HP Storage, HP Networking, and Microsoft, we deliver cost effective solutions that are easily managed.” Alex Tatham, sales and marketing director, Westcoast Ltd.

WESTCOAST

Objective:

Boost performance, enhance scalability, lower power consumption and simplify management.

Approach:

Assessed several HP server blades for performance and power usage and designed a converged infrastructure.

IT improvements:

- Consolidates the server estate with blade technology and introduces Microsoft virtualisation to create additional rack space
- Lowers power usage and reduces cabling and cooling requirements
- Enhances application performance by 54 per cent when running on blade technology within a virtualised environment
- Increases storage capacity at two locations, delivering scalability, safeguarding mission-critical data and ensuring business continuity
- Offers a comprehensive redundant networking capability to all sites, maximising network availability

Business benefits:

- Reduces power consumption by 51 per cent saving £72,000 per annum, making a major contribution to lowering Total Cost of Ownership (TCO)
- Creates sufficient rack space to accommodate additional servers without incurring more data centre service charges, supporting future business growth
- Simplifies management of the infrastructure, releases time for more productive tasks and innovation

HP customer case study:

Westcoast Ltd. deploys HP Converged Infrastructure at its data centre to boost performance and reduce power consumption by 51 per cent

Industry:

Wholesale distribution



Westcoast Ltd, a leading supplier of IT products to the computer reseller and retailer networks within the UK and Ireland, provides advanced hardware and software solutions as well as creative credit, logistics and marketing services to over 5,000 customers. Established in 1984, Westcoast’s portfolio spans the computing spectrum from desktop PC and notebook products to high-end server, storage, networking and printing solutions, as well as consumables and peripherals. As an HP Distributor, it supplies a comprehensive range of HP solutions.

“By offering customers the whole HP portfolio, we are one of the largest distributors of HP within the UK,” reveals Paul Harman, commercial manager, Westcoast Ltd.



“With our converged infrastructure, we are experiencing the benefits that HP claims and we ourselves advocate. We are saving power, space and money but gaining application performance and simplified infrastructure management to the betterment of the business.”

**Phil Le Blond, solutions manager,
Westcoast Ltd.**

Rising data centre costs drive change

Based in Theale, near Reading, Westcoast operates a number of offices across the UK and Ireland. The business also rents space and services from a data centre provider in Reading whilst the head office accommodates a disaster recovery facility. All sites have been equipped with HP server, storage and networking technologies for many years. Over the last decade, the business has grown substantially and the company is looking to turnover in excess of £1 billion during the current financial year.

Accommodating such growth has had a significant impact on the business's IT infrastructure. To manage both the existing and projected business growth, Westcoast needed to expand computing power and storage capacity within its data centre. However just increasing the number of HP rack-mounted servers had some serious financial implications.

“If we had simply upgraded our data centre with comparable server technology, the charges levied by our data centre service provider would have virtually doubled,” explains Andy Lyonette, network manager, Westcoast Ltd. “This massive hike in costs was primarily due to the additional rack space required to accommodate new servers and the predicted increase in power consumption.”

Westcoast philosophy

After reviewing this predicament, Westcoast decided to look at alternative ways to fulfil its requirements. One idea was to move to a converged infrastructure

approach where the business would upgrade the existing server, storage and network landscape then bring all server, storage, and networking resources together into a common pool. The business would use virtualisation based on the Microsoft Platform to deliver the required increase in computing power by separating the applications, data, and network connections from the hardware, making it easier and faster to reallocate resources to match the changing needs of individual applications. The company had sufficient in-house expertise to design and deploy a suitable solution.

“It only seemed natural to stay with HP technology,” Phil Le Blond, solutions manager, Westcoast Ltd. “After all, as an HP Distributor, we are constantly informing customers about the merits of a converged infrastructure approach and the cost and space advantages offered by shifting to more energy-efficient HP blade technology.

“Creating an infrastructure with considerably less cabling and management demands marks a step change in running data centres,” adds Le Blond. “Combining this approach with the introduction of blade technology and server virtualisation makes a converged infrastructure a reality.”

Blade computing offers Westcoast the benefits of increased performance with physical consolidation, lowering energy costs and space requirements. Server consolidation through virtualisation then allows the company to run multiple servers on a single device further reducing power usage, rack space, cabling, cooling requirements and, most importantly, costs. These advantages have dramatically improved data centre efficiency.

“The potential savings and improved manageability of a converged infrastructure are very real and is already changing the way data centres are designed and managed,” continues Le Blond.

Creating the Converged Infrastructure

Westcoast's converged infrastructure strategy involved assessing various HP server blades for performance and power consumption, consolidating to an appropriate number of physical servers and introducing virtualisation to boost server utilisation. During the assessment exercise Westcoast employed HP Power Distribution Units (PDUs) to monitor the servers' power consumption and help it to make an informed decision.



The HP Converged Infrastructure solution implemented by Westcoast involved deploying an HP BladeSystem and an HP Storage P2000 G3 Modular Smart Array at the data centre and disaster recovery site. The BladeSystems contain a total of 22 ProLiant BL460 G6 c-Class server blades whilst the storage devices safeguard mission-critical data to ensure business continuity. Westcoast has also deployed an HP Networking solution to link all sites. Each site has two HP E3500 core switches in a redundant configuration and 50 HP E2610 switches delivering edge connectivity to all sites. Moreover, HP Virtual Connect Flex-10 technology allows the company to connect network interface controllers (NICs) in the servers to a Virtual Connect Flex-10Gb Ethernet module, enabling each port to be allocated to four connections – called FlexNICs. The bandwidth of each connection can be adjusted for varying workloads.

Within the data centre, six physical ProLiant server blades act as a Microsoft SQL Server Cluster under a Microsoft Windows Server 2008 R2 operating system. In addition, 16 server blades operate as a cluster in a virtualised Microsoft Hyper-V Windows Server environment, delivering scalability as the business grows. The virtualised environment currently runs 120 virtual servers but has a capacity to support approximately 160 virtual hosts. “Westcoast chose the Hyper-V virtualisation environment as it provided the most cost effective and flexible solution,” comments Harman.

Customer solution at a glance:

Primary applications

- Data centre operations

Primary hardware

- 22 x ProLiant BL460 G6 c-Class server blades
- 3 x HP BladeSystem c7000 Enclosure
- 2 x HP Storage P2000 G3 Modular Smart Array (MSA)
- HP 5m Multi-mode OS3 SAN Director Switches
- 4 x HP E3500 Switch Series
- 50 x HP E2610 Switch Series
- HP Virtual Connect Flex-10

Primary software

- Microsoft Windows Server 2008 R2
- Microsoft Hyper-V Windows Server

HP Services

- HP Technology Services

“After advising customers about HP technology and seeing them benefit from successful deployments, we were completely confident about implementing an HP Converged Infrastructure solution for our business,” states Lyonette.

Performance increases whilst power usage falls

Today, Westcoast exemplifies an organisation that has fully embraced the converged infrastructure approach to satisfy its data centre, storage and networking requirements. Working closely with HP,

the company's 15-strong technical solutions team is constantly using its own infrastructure solution to impress resellers, retailers and dealers across the UK and Ireland.

"As the UK's largest HP Distributor, we are in a unique position to provide solutions based on converged infrastructure. By combining market leading products such as HP ProLiant, HP Storage, HP Networking, and Microsoft, we deliver cost effective solutions that are easily managed," declares Alex Tatham, sales and marketing director, Westcoast Ltd.

Within its data centre, Westcoast has witnessed a considerable transformation with respect to server performance and power consumption and has created ample rack space to support additional computing power for the foreseeable future. The new HP storage environment is currently handling approximately 9TB but offers a maximum capacity of 40TB, delivering sufficient scalability to support further business growth.

"After consolidating our old server estate with HP server blades and virtualising the environment, recent results from our power consumption monitoring exercise indicate that power usage has fallen by 51 per cent. This equates to £72,000 per annum and makes a significant contribution

to lowering Total Cost of Ownership (TCO)," says Lyonette. "Moreover, latest estimates show that application performance increases by approximately 54 per cent when running on an HP BladeSystem under Hyper-V."

Westcoast has also noticed that the new converged infrastructure is much simpler to manage. "In the past, we frequently travelled to the data centre to deal with various server issues," says Lyonette. "With a virtualised blade environment in place, we visit the data centre less often to manage the infrastructure at the physical level, releasing time for more productive duties."

Compared to the earlier infrastructure, Westcoast now has a modern, highly scalable, and more efficient server and storage environment. Enhanced storage devices protect mission-critical data whilst a new HP Networking infrastructure, with built-in redundancy, safeguards business continuity.

"With our converged infrastructure, we are experiencing the benefits that HP claims and we ourselves advocate. We are saving power, space and money but gaining application performance and simplified infrastructure management to the betterment of the business. We are in effect living evidence that these claims are true," concludes Le Blond.

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