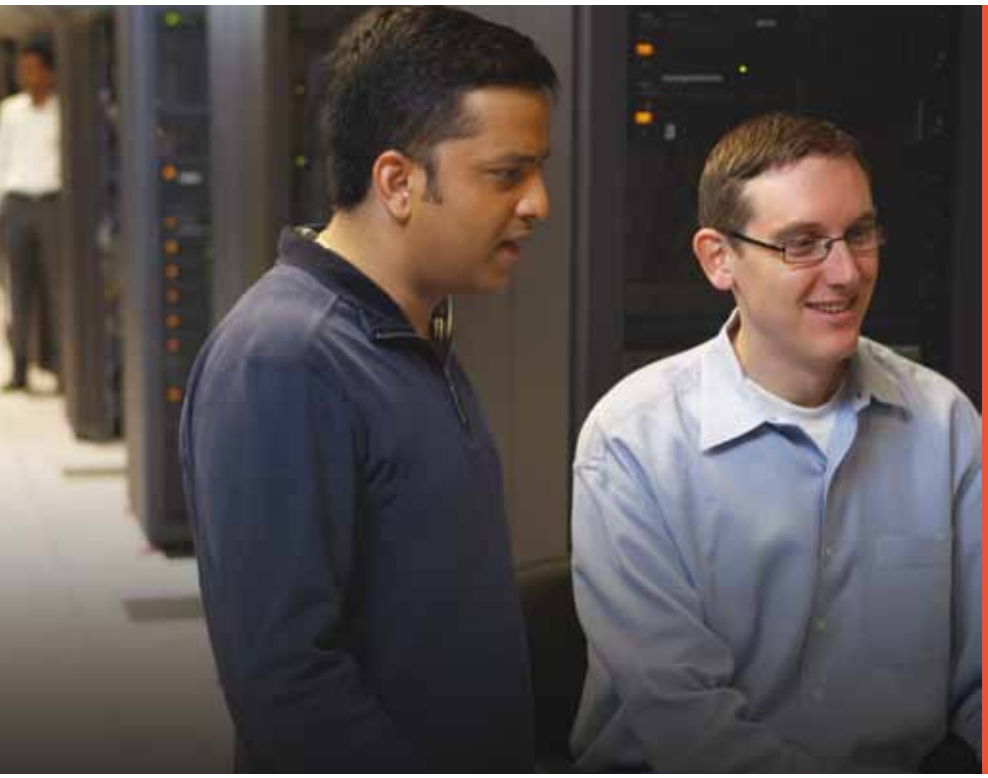
Hosting provider works with Microsoft and Dell to deliver a new cost-effective service to its customers

- Green efficiency
- Management
- Virtualization



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Dean Clark, Head of Technical Operations and Service Delivery, NetBenefit

Customer profile

Company:	NetBenefit
Industry:	Hosting Solutions
Country:	United Kingdom
Employees:	300
Website:	www.netbenefit.com

Business need

NetBenefit wanted to offer a more competitive and flexible service to its customers by cutting costs, reducing power consumption and simplifying management.

Solution

NetBenefit worked with Dell and Microsoft on its Technology Adoption Programme (TAP), creating a new service with Dell™ PowerEdge™ servers and Hyper-V™ virtualization from Microsoft.

NetBenefit

Benefits

- Project yields a powerful new customer solution
- Strategic relationship between NetBenefit, Microsoft and Dell
- Environment runs 184 servers on eight hosts, cutting costs
- Energy consumption is reduced

Upgrading an IT infrastructure to the latest software and hardware is only useful if you can make that technology work for you. Firms that develop relationships at a strategic level with tier one solution providers can find their challenges met faster with early access to the "next big thing."

"In our new environment, customers never see a dip in performance. With Dell PowerEdge blade servers and CSVs we can move guest servers onto the other nodes for scheduled maintenance without interruption."

Dean Clark, Head of Technical Operations and Service Delivery, NetBenefit

NetBenefit is a hosting provider that doesn't work to a template. It provides customers with tailored solutions and over 15 years it has grown into an international corporation with datacentres in the UK and Europe. For all this time, NetBenefit has used only Dell hardware and Microsoft software. In doing so, it has developed a strong relationship with both firms.

When Microsoft first released details about its virtualization technology – Hyper-V™ – Dean Clark, Head of Technical Operations and Service Delivery at NetBenefit spoke to Dell about how Hyper-V could help the business. Clark says: "Our customers are looking for high availability hosting. When Hyper-V was first released, we saw that it could help reduce server administration time and energy costs in the datacentre. Dell assisted us in getting an early look at this technology."

Dell helps NetBenefit join Microsoft Technology Adoption Programme

The company wanted to develop a competitively priced hosting service with Hyper-V that cut server management and hardware costs. Dell helped NetBenefit get on the Microsoft® Technology Adoption Programme (TAP) for Windows Server® 2008 R2, making it possible for them to bring this new offering to market faster. When Microsoft announced plans for Windows Server 2008 R2 with an updated version of Hyper-V, Clark again spoke to Dell consultants. He says: "We have a strong relationship with Dell at a strategic level. It was an easy decision to talk to them about how Hyper-V could bring benefits to our business."

NetBenefit given early access to Hyper-V

Clark and members of the IT team travelled with Dell to the Microsoft Research Centre in Redmond to see an early code release of Windows Server 2008 R2 with Hyper-V technology. Microsoft wanted key customers to test this version, report back and provide information on functionality that might improve the software. NetBenefit and Dell offered Microsoft important feedback on Microsoft System Center Virtual Machine Manager and the graphical user interface (GUI) associated with Hyper-V. Clark says: "We had an opportunity through Dell to see an early release of Hyper-V, which was invaluable. It strengthened our relationship with Microsoft, but, more importantly, showed us how this release could bring even greater flexibility and availability to our environment."

Technology at work

Hardware

Dell™ PowerEdge™ M610 blade servers with Intel® Xeon® Processors E5520

Software

Windows Server® 2008 R2 – Hyper-V™

Microsoft® System Center suite

Hyper-V and Dell PowerEdge servers run approximately 30 per cent more virtual machines

Environment runs 184 servers on eight hosts, cutting costs

Designing a powerful, energy-efficient environment

In the UK, NetBenefit used two node clusters running Windows Server 2008 and Hyper-V. Along with Dell, it upgraded these with a new version of Hyper-V to gauge what performance increases it might provide and how this could work in the NetBenefit environment. Together, they drew up a design for an architecture based on Hyper-V, then tested another version in this environment, before returning again to Redmond for final testing. The two companies designed an eight node cluster with Dell™ PowerEdge™ M610 blade servers and Intel® Xeon® Processors E5520, which became the basis for all of NetBenefit's Hyper-V deployments. Clark says: "We worked with Dell to design a commercially viable environment with Hyper-V and Dell PowerEdge blade servers. It's great to work with people who understand our environment and our business."

Energy consumption falls through efficient virtualization

NetBenefit has seen a decrease in energy consumption since deploying Windows Server 2008 R2, with the latest version of Hyper-V and Dell PowerEdge M610 blade servers. Improvements to Hyper-V include features such as core parking, which stops idle cores from drawing energy. The blade servers are designed with energy efficiency in mind, with policy-driven power and thermal management and standards-based Energy Smart components. Clark says: "Power distribution across the servers has fallen significantly with Hyper-V and Dell PowerEdge blade servers."

Downtime eliminated with Cluster Shared Volumes

As for all hosting providers, giving clients maximum uptime is the highest priority for NetBenefit. In Redmond, the NetBenefit team were particularly interested in the advantages Hyper-V Cluster Shared Volumes (CSVs) could bring to the datacentre. This allows for multiple active nodes, and along with the Live Migration feature, means that virtual machines can be moved between nodes without downtime. Clark says: "In our new environment, customers never see a dip in performance. With Dell PowerEdge blade servers and CSVs we can move guest servers onto the other nodes for scheduled maintenance without interruption."

Simpler management with Microsoft System Center suite

The team at NetBenefit has also been quick to take advantage of the increased management capabilities that Windows Server 2008 R2 and Hyper-V offer. NetBenefit uses the Microsoft System Center suite, specifically elements such as Microsoft System Center Virtual Machine Manager. NetBenefit previously used Microsoft Virtual Disk Services to add images to its machines individually, but with the upgrade life is much simpler. Clark says: "With Microsoft System Center Virtual Machine Manager, we can store all our images as virtual hard disks. On average, a manual installation takes an hour to complete. Now, we can roll out the same image to multiple machines at the click of a mouse, reducing the time it takes for us to get our customers online."

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Hyper-V and Dell PowerEdge servers run approximately 30 per cent more virtual machines

At the design stage, Microsoft and Dell work together to develop products that are more efficient, easier to use and more powerful. That's why Dell PowerEdge blade servers and the latest version of Hyper-V can make such a difference for hosters such as NetBenefit. Now, Hyper-V uses only one per cent of a server's memory, down from five per cent in previous versions. Clark says: "Our costs have come down, which has allowed us to maintain our competitive prices in a tough market. Processor and memory efficiency is improved, and, in combination with Dell PowerEdge blade servers, the latest version of Hyper-V has increased the number of virtual servers we can run in our environment by approximately 30 per cent."

Early access to Dell roadmap drives enterprise efficiency

The performance and energy-efficiency advantages are clear, but, for Clark, NetBenefit's close relationship with Dell is more valuable still. NetBenefit has a strategic relationship with Dell that has strengthened the hoster's relationship with Microsoft too. Clark and his team meet regularly with Dell account managers to discuss projects, along with the strategic and technological direction of both companies. Clark says: "We meet with Dell about once a month and have regular access to the Dell roadmap. We're already working with Dell to create a virtual platform based on its upcoming PowerEdge R910 servers, which will make our environment even more efficient."

Flexible customer solutions from consultation and collaboration

"We have improved our environment by making the most of Dell's expertise and resources," says Clark. The three organisations now work together to solve problems and make a real difference to NetBenefit's business, a dynamic that's crucial for NetBenefit because its business relies on delivering tailored hosting solutions to all its customers. Clark says: "Working with Dell consultants and Microsoft together, we've created a range of hosting services that allow us to tailor our service to our customers' business needs."

For more information go to:
dell.com/casestudies/emea and
dell.co.uk/casestudies

Microsoft NetBenefit

The Efficient Enterprise runs on Dell: efficiententerprise.com