

**Microsoft®**

 **Windows Server® 2008 R2**

 **Microsoft®  
System Center**

 **Microsoft®  
Forefront™**

**Black Book of  
Core Infrastructure  
References**

# Resources

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## **Microsoft** | Virtualization

For more information on Microsoft Virtualization, please visit: [microsoft.com/virtualization](https://microsoft.com/virtualization)



For more information on Microsoft Windows Server, please visit: [microsoft.com/windowsserver](https://microsoft.com/windowsserver)



For more information on Microsoft System Center, please visit: [microsoft.com/systemcenter](https://microsoft.com/systemcenter)



For more information on Microsoft Forefront, please visit: [microsoft.com/forefront](https://microsoft.com/forefront)

## **Microsoft** | Hyper-V Cloud

For more information on Microsoft Private Cloud, please visit: [microsoft.com/privatecloud](https://microsoft.com/privatecloud)

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# Overview

<b>Server Virtualization</b> <i>(Hyper-V)</i>	<b>Management</b> <i>(System Center)</i>	<b>Identity &amp; Security</b> <i>(Forefront)</i>	<b>DirectAccess/ BranchCache</b> <i>(Windows Server 2008 R2)</i>	<b>Desktop Virtualization</b> <i>(VDI)</i>
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**Rugby Organisation Improves IT Efficiency with Virtualised Private Cloud**

The Welsh Rugby Union, the governing body of rugby union in Wales, needed to upgrade its server infrastructure to increase availability, resilience and to simplify management and reduce costs. It also needed to reduce its energy consumption and CO2 emissions.

Working with Certus IT, a Microsoft Partner, the Union selected Microsoft technology, including Microsoft Hyper-V, to set up an in-house private cloud using virtualised servers. The organisation replaced ten servers with three hosts (two in Cardiff and one in Glamorgan) delivering better uptime, easier management and lower costs and power consumption. Now deploying a new server takes days not weeks and costs 75 percent less than it used to.

“My feeling was that around the licensing issues, Microsoft’s commitment, constant development and for future-proofing, Hyper-V was the best solution. It was also very cost-effective.”

*Craig Phillips, IT Manager, Welsh Rugby Union*

- The Welsh Rugby Union is the governing body of rugby union in Wales, responsible for running Welsh rugby, including 293 member clubs, the Welsh national team and National Leagues and Cups.
- They also own the 74,500-capacity Millennium Stadium in Cardiff.



**Fire Service Solves Bandwidth Limitations at Nine Area Headquarters with Virtualisation**

Strathclyde Fire & Rescue Service is the second largest emergency service in Europe, serving 52 per cent of the population of Scotland. Strathclyde is also the biggest fire service in Scotland. It has nine area headquarters (HQs) serving 111 community fire stations, many of which are in remote locations. With a vast geographical region to cover for protection against fire, Strathclyde Fire & Rescue Service was hampered by bandwidth limitations at several key sites.

Strathclyde Fire & Rescue Service in Scotland needed to reduce operating costs and reinforce its green credentials by virtualising servers. Bandwidth limitations at nine remote sites had reduced the potential for centralising support services. Using Hyper-V virtualisation technology, the fire service is consolidating physical servers by a ratio of 10:1 and reducing the amount of data-centre hardware, thereby improving its carbon footprint.

“The aim was to maximise business continuity and minimise the risk of downtime to business-critical systems, including resource availability and finance applications.”

*Tom Graham, Head of Technical Services, Strathclyde Fire & Rescue Service*

- Strathclyde Fire & Rescue Service is the largest in Scotland, protecting more than half the population.
- It has nine area headquarters managing a total of 111 community fire stations.

**Paul Smith**  
Retail

**Windows Server 2008 R2 Datacenter**

*Microsoft System Center Virtual Machine Manager 2008 R2, Microsoft System Center Configuration Manager 2007 R3, Microsoft System Center Operations Manager 2007 R2, Microsoft System Center Data Protection Manager 2010, Microsoft Hyper-V*

**Server  
Virtualization**  
May 2011

*Paul Smith*

**Global Fashion Retailer Saves Around £80,000 a Year with Data-Centre Technology**

Fashion designer Paul Smith opened his first shop in 1970 in the United Kingdom. Now, the company is a global brand with a retail presence in 35 countries, providing high-end clothing for men and women, plus accessories and household goods. When it built a new warehouse facility, it took the opportunity to redesign its server estate to better support the business worldwide. Using the Windows Server 2008 R2 operating system with Hyper-V technology, the IT team worked with Microsoft Gold Certified Partner Risual to create two new data centres. With virtualised servers and the Microsoft System Center family of IT management solutions, Paul Smith is cutting hardware and maintenance costs by around £80,000 a year, and carbon emissions by 30 per cent. The company now has a reliable, highly available IT infrastructure that helps its global retail operation remain competitive.

“Transitioning from physical to virtual servers cut our carbon emissions by 30 per cent, so we directly contribute to the company’s agenda for green strategies.”

*Lee Bingham, Head of IT, Paul Smith*

- With a retail presence in 35 countries, Paul Smith produces high-end lines of clothing, fashion accessories, and household goods.

**East Lothian  
Council**  
Government

**Windows Server 2008 R2**

*Microsoft System Center Virtual Machine Manager 2008 R2, Microsoft Hyper-V*

**Server  
Virtualization**  
October 2009



**U.K. Local Authority Saves £80,000 on Infrastructure with Virtualised Servers**

The IT team at East Lothian Council needed to expand its existing hardware capacity, but wanted to avoid the cost of a major computer room upgrade. It also aimed to reduce electricity consumption. By deploying the Windows Server® 2008 R2 operating system with integrated Hyper-V™ virtualisation technology, the council has saved £80,000 compared with the cost of an upgraded computer room, and significantly reduced its carbon footprint.

The cost of hardware, SAN technology, consulting, and software comes to £70,000. “Our original plan for an upgraded computer room would have cost £150,000 so we’ve saved around £80,000 by adopting Microsoft virtualisation software”.

“We will migrate most applications to four new servers, which will each run approximately 12 virtual machines. The virtualised capacity is 90 per cent less expensive to acquire than the physical machines that they replace.”

*Rod Adam, IT Team Leader, Server Management Team, East Lothian Council*

- Situated in south-east Scotland.
- Responsible for local government and services, including housing, waste collection, council tax collection, education, and social services.



### Royal Mail Virtualises Server Farm to Save £1.8 million in Four Years

The government-owned Royal Mail Group (RMG) in the United Kingdom operates the national postal service, which is facing the need to transform its IT infrastructure to meet new business challenges. The company decided to consider virtualisation of its existing Windows environment to achieve savings and improve management and monitoring of the infrastructure. Working with CSC and Microsoft Services, RMG decided to implement the virtualisation service with the Hyper-V feature of Windows Server 2008 R2 Datacenter and the Microsoft System Center suite of monitoring tools. The deployment, using HP hardware, has the capacity to host around 720 RMG servers, of which around 120 virtual machines – including production servers – have been migrated so far. By virtualising its server estate, RMG expects a return on investment in 19 months and savings of £1.8 million over four years.

"We were looking for a well-designed environment that was flexible and scalable enough to add a product or service without incurring significant cost. We wanted to use virtualisation technology so it could easily add or remove applications, making the business more dynamic."

*Adrian Steel, Head of Infrastructure Management, Royal Mail Group*

- The government owned Royal Mail Group (RMG) is responsible for universal mail collection and delivery in the United Kingdom.
- Delivers more than 70 million items every working day.



### Hosting Firm Builds Cloud Environment, Cutting Costs and Increasing Scalability

United Kingdom-based cloud service provider Outsourcery offers customers a broad range of services, including software applications, virtualised infrastructures, and unified communications. It wanted to develop its business by opening two advanced data centres to support expansion of hosted services to customers using a cloud delivery model. Outsourcery turned to the HP & Microsoft Alliance, which is a leader in providing managed end-to-end communications and collaboration solutions, including hosted Microsoft Dynamics CRM. Outsourcery expects to increase its business five-fold in the next 24 months, and forecasts that hardware costs will halve. Virtualisation will accommodate a much higher concentration of customers and services in its data centres—providing scalability and cutting costs for both Outsourcery and its clients.

"Using a hosted Microsoft solution from Outsourcery means companies can benefit from the latest communications, collaboration, and customer management tools without the costs of installing and running their own servers and software."

*Dan Germain, Director of Hosting Infrastructure, Outsourcery*

- Microsoft Certified Partner  
Outsourcery is one of the leading cloud service providers in the United Kingdom.
- Its offerings include hosted software and virtualised infrastructures.

**Wiltshire Council**  
Local Government

**Microsoft System Center Operations Manager 2007 R2**  
*Microsoft System Center Configuration Manager 2007 R2, Microsoft System Center Service Manager 2010, Microsoft Forefront Identity Manager 2010, Opalis*

**Management**  
April 2011



### Unitary Authority Set to Achieve 27 Per Cent Savings Target with IT Management Tools

United Kingdom (U.K.) unitary authority Wiltshire Council faced the challenge of bringing its outsourced IT service back in-house against a tight schedule. The council was also engaging in a Workplace Transformation Programme aimed at reducing costs and improving performance with new ways of working. In partnership with Microsoft Gold Certified Partner Silversands, it was among the first councils in the U.K. to deploy Microsoft System Center Service Manager 2010 to simplify IT service desk operations. With multiple sites, 5,000 client computers, and 500 servers, the council needed to bring IT in-house by the beginning of 2011. The council forecasts that System Center Service Manager, System Center Operations Manager, System Center Configuration Manager, and the Provance IT Asset Management Pack, will help it work towards achieving the 27 per cent savings target set for the IT department.

“Opalis provides us with an easy way to remove repetitive, time-consuming, manual tasks from our busy IT staff by automating data-centre operations through an easy-to-manage user interface.”

*Glen Holmes, Head of ICT Design and Delivery, Wiltshire Council*

- Wiltshire Council delivers public services to 466,000 people in south-west England.
- The authority was created in 2009 from a merger of the county council and four district councils.

**Carlisle City Council**  
Government

**Microsoft System Center Data Protection Manager 2007**  
*Microsoft System Center Configuration Manager 2007, Microsoft System Center Operations Manager 2007*

**Management**  
March 2010



### City Council Backs Up Critical Systems Every 15 Minutes, Ensuring Business Continuity

Carlisle City Council needed to safeguard its e-mail data more effectively to ensure rapid recovery if a disaster or human error occurred. The council replaced an HP solution with a cost-effective deployment of Microsoft System Center Data Protection Manager 2007. As a result, the council now backs up all e-mail messages every 15 minutes as opposed to once a day. In addition, data recovery now takes place without any downtime.

With the Microsoft solution, the technician time needed to manage backup and recovery has been reduced by up to 75 per cent, thereby freeing IT staff for higher value work.

“Data Protection Manager moves only the byte-level changes of the file servers it backs up, which means we no longer have to have any downtime.”

*David Strong, IT Infrastructure Engineer, Carlisle City Council*

- Carlisle City Council delivers public services to 100,000 people living in the city of Carlisle and the surrounding area of Cumbria in north-west England.



**Financial Firm Speeds Problem Resolution, Enhances User Experience**

As a provider of shareholder and employee services, Equiniti has to make sure its systems are available at all times. To reduce the effort required to ensure high availability, Equiniti deployed the beta version of Microsoft System Center Service Manager 2010. The company is reducing its change management efforts, with end-to-end traceability of all IT issues, and is providing a much higher-quality response, and faster resolution, to users.

When users do have to raise an incident, they get a better experience in resolving it. With the linkage between System Center Operations Manager 2007 R2, System Center Configuration Manager 2007 R2, System Center Virtual Machine Manager 2008 R2, and System Center Service Manager 2010, support personnel have much richer information, so they can make speedier fixes. "With System Center Service Manager, we're getting smarter with every call,"

"Equiniti has a phenomenal appetite for change, and System Center Service Manager will enable us to manage that change without disrupting our users' world."

*Mike Jolliffe, Chief Technology Officer, Equiniti*

- Equiniti is a leading provider of shareholder and employee services.
- Serving 57% of the largest companies in the United Kingdom.
- The company is based in West Sussex, England and has offices around the United Kingdom.



**Insurance Market Embraces New Licensing Enrolment, Cuts Costs by 43 Percent**

Based in London, Lloyd's is the world's only specialist insurance market with a 322-year history. Lloyd's wanted to increase its virtualised environment to cut operating costs, increase resource utilisation, and take advantage of its new data centres. The IT staff wanted to use the Hyper-V virtualisation technology and Microsoft System Center data centre solutions. However, the company's Microsoft licensing model did not meet its needs for securing and managing its data centres. Lloyd's found a cost-effective, simpler solution in the Microsoft Enrollment for Core Infrastructure (ECI) programme. Lloyd's is benefitting from increased licensing flexibility, which enables the IT department to respond more quickly to the needs of the business. It also saved £26,000 (U.S. \$38,000) on initial licence costs and another £44,000 (\$65,000) a year on maintenance costs over three years.

"Now that we can move ahead with expanding our virtualised test and development environment, we will be able to respond even faster to the opportunities, keeping our customers and their clients happy."

"ECI is not just a new licensing enrolment from Microsoft, it's a business enabler."

*Jamie Beadle, Manager of Application Services, Lloyd's of London*

- Lloyd's is a market where members join together as syndicates to provide insurance services to people and businesses in more than 200 countries.
- Lloyd's directly employs approximately 900 people.

## Principality Building Society

Financial Services

### Microsoft System Center Operations Manager 2007 R2

Microsoft System Center Data Protection Manager 2007

## Management

May 2010

### PRINCIPALITY BUILDING SOCIETY

#### Building Society Enhances Data Centre Performance and Cuts Costs

Principality Building Society replaced disparate, expensive security monitoring and application performance systems with Microsoft System Center Operations Manager 2007 R2. As a result, it has increased visibility of data centre performance and significantly reduced licensing costs. The organisation also deployed Microsoft System Center Data Protection Manager 2007, which has enhanced business continuity and cut administration costs. Previously, one Principality employee worked full time to back up the organisation's data. Now, just half of each day is spent on backup and half a day on higher value work. Jones says: "We are achieving an ongoing administrative saving with System Center Data Protection Manager based on faster, easier, and more automated backup processes."

"As well as reducing licensing and administration costs, System Center increases visibility of events across the infrastructure and helps us address any performance issues before they affect service."

*Marc Jones, Infrastructure Manager, Principality Building Society*

- Based in Cardiff.
- Seventh-largest building society in the United Kingdom.
- 51 branches in Wales and the Borders.

## Standard Life

Insurance

### Microsoft System Center Operations Manager 2007 R2

## Management

January 2010



#### Standard Life Cuts Operating Costs with New Server Management System

Standard Life, one of the United Kingdom's best known insurance companies—based in Edinburgh, Scotland—is a major asset management group with about 7 million customers. Listed on the London Stock Exchange and one of the FTSE 100 Index top companies, Standard Life has around 8,500 employees in the U.K., plus 1.5 million shareholders in more than 50 countries.

Standard Life needing to reduce operating costs, while deploying a best-of-breed infrastructure, the company evaluated a number of solutions. Standard Life chose Microsoft System Center Operations Manager 2007 R2 and deployed more than 700 physical and virtual servers in just eight weeks—far quicker than expected. IT managers estimate that the transformation will significantly reduce operating costs over three years and also provide a more stable and reliable infrastructure. The system management tools work well in a heterogeneous environment and Standard Life is evaluating pre-release Microsoft software for use outside the Microsoft estate for Linux and UNIX servers.

"Microsoft has now succeeded in producing an enterprise server management solution that integrates with non-Microsoft environments, while reducing cost and improving capacity."

*Andrew Gordon, Senior Server Architect, Standard Life*

- One of the United Kingdom's best known asset management companies.
- 9,500 employees
- 1.5 million Shareholders in more than 50 countries.



### **University Uses Hosted Filtering Solution to Reduce Spam by 85 Percent**

Edinburgh Napier University wanted to improve its system of filtering e-mail messages. The university's IT staff were creating manual rules to block spam, an effort that generated too many false positives and was not the most productive use of their time. A software upgrade would have required capital expenditures for associated new hardware. So Edinburgh Napier signed up to filter e-mail messages through Microsoft® Forefront™ Online Security for Exchange. Employees continue to access e-mail messages as they did before; for students, the service is combined with the Microsoft Live@edu suite of online applications.

The university has reduced spam by 85 percent and completely eliminated false positives. It has also lowered the administrative burden for IT staff by 93 percent. The system was flexible, easy to deploy, and did not require any additional investment of capital.

“Where our users formerly received on average 10 spam messages per day, with Microsoft Forefront Online Security for Exchange they receive 5 to 10 per week”  
*Scott Walkingshaw, Lead IT Developer (Servers), Edinburgh Napier University*

- Founded in 1964 in Edinburgh, Scotland.
- 14,400 students.
- 1,867 staff.
- 8 campuses.

### **Microsoft Forefront Endpoint Protection 2010**

*Microsoft Forefront Protection 2010 For Exchange Server, Microsoft System Center Configuration Manager 2007, Microsoft System Center Data Protection Manager 2007, Microsoft System Center Operations Manager 2007, Windows Server Update Services*



### **U.K. Building Society Cuts Costs and Increases Security with Antimalware Software**

Principality Building Society, founded in 1860, provides savings, investments, mortgages, insurance, and financial planning services to its 450,000 members from 51 branches across Wales and the Borders. As the seventh-largest building society in the United Kingdom, Principality has assets of more than £6 billion (U.S.\$9.6 billion). Being a major financial services provider, Principality needed to demonstrate an awareness of potential threats to its operating systems and computers—especially from malware and viruses.

Principality Building Society needed a replacement for its existing antimalware software, which was slowing down its computers and failing to integrate well with new servers. The society chose Microsoft Forefront Endpoint Protection 2010 for enhanced performance and better oversight of its security status. A cost-effective Microsoft licensing agreement and easier administration helped to improve security, while reducing operating costs.

“We’ve increased our security coverage with additional antivirus engines since replacing our existing systems with Microsoft Forefront software—and have the added benefit of spending much less on maintenance to ensure peace of mind.”  
*Marc Jones, Infrastructure Support Group Manager, Principality Building Society*

- Based in Cardiff.
- Seventh-largest building society in the United Kingdom.
- 51 branches in Wales and the Borders.

**Scott Wilson**  
Construction

**Microsoft Forefront Identity Manager 2010**

**Identity & Security**  
August 2010



**Construction Firm Streamlines IT Service Provisioning for Employees Around the World**

Large, distributed, global organisations face distinct IT challenges. Not least of these is how to identify users all over the world and give them fast access to the IT services they need. This is a key requirement for Scott Wilson, which provides strategic consultancy and professional services for the construction and environmental sectors. The company operates a global network of 80 locations and employs 6,000 people worldwide.

Global construction company Scott Wilson deployed Microsoft Forefront Identity Manager 2010 to achieve a single view of its 6,000 employees and control access to key IT services. Using the system, employees will request IT services and re-set their passwords remotely, reducing reliance on the United Kingdom (U.K.) helpdesk. This will result in 24-hour service availability, increased employee productivity, and significant administrative savings.

“Using Forefront Identity Manager 2010, people can do everything themselves online. As a result, we expect to make significant helpdesk savings,”  
*Robert Wallace, Systems Architect; Scott Wilson*

- Scott Wilson Group is a global design and engineering consultancy for built and natural environments.
- Head office in the United Kingdom.
- 80 offices.
- 6,000 employees.

**Shop Group Direct**  
Retail

**Microsoft Forefront Unified Access Gateway 2010**  
*Windows 7*

**Identity & Security**  
July 2010



**Shop-at-Home Retailer Helps Mobile Employees Work Efficiently from Anywhere**

Shop Direct Group is one of the largest online and shop-at-home retailers in the United Kingdom. The company, which employs 10,000 people, incorporates 11 well-known brands, including Littlewoods, Very, Woolworths, Marshall Ward, Kays, and Great Universal. With a strong heritage as a catalogue retailer, the Shop Direct Group goal is to make 70 per cent of its sales come through its Web sites. Shop Direct Group is embracing mobile working as a way to reduce office costs and increase flexibility for staff. To support this strategy, the company is deploying Windows 7 with DirectAccess on more than 800 portable computers. Mobile personnel can now access the corporate network seamlessly, wherever they're working. What's more, the IT team can update computers remotely, increasing security and minimising management costs.

- Shop Direct Group is one of the United Kingdom's largest online and shop-at-home retailers.
- It operates 11 well-known brands, including Littlewoods, Very, Woolworths, Marshall Ward, Kays, and Great Universal.

“Users no longer bring their portable computers into the office for routine maintenance. That saves us time and significantly reduces our management costs,”  
*Shop Direct Group*



### **BAA Airports Tests New Operating System to Help Cut IT Costs by 2012**

BAA Airports—the operator of six United Kingdom airports, including London Heathrow and several others worldwide—is owned by a consortium led by Grupo Ferrovial, a Spain-based firm specialising in infrastructure. Faced with the need to align the business with changing market conditions, BAA Airports is implementing a major IT overhaul and simplification programme to be completed by 2012. The organisation aims to cut operating expenses by approximately one third.

As part of a simplification strategy for its IT infrastructure, designed to cut operating costs and improve manageability, BAA Airports joined the Early Adopter Programme for Windows Server 2008 R2 and Windows 7. The deployment will take the business to the next level of efficiency and help reduce operating costs by 2012.

“The deployment of Windows Server 2008 R2 and Windows 7 will help us take our business systems to the next level. In addition, it will add significant value to our existing Microsoft technology stack.”

*Rob Thackeray, Technical Architect; BAA Airports*

- BAA Airports is responsible for operating six airports in the United Kingdom—including London Heathrow.
- Owned by Grupo Ferrovial of Spain.



### **Gaming Company Increases System Performance with Operating System and Server Upgrade**

Betfair pioneered the first successful online betting exchange in 2000, and it offers a portfolio of online gambling products and services. The company is the world’s leading betting exchange, and its betting platforms include a bookmaking operation in Malta.

Based in the United Kingdom, Betfair is the world’s biggest online betting community. To address issues with an aging operating system, such as system performance lags that negatively impacted employee productivity, the company decided to migrate to the Windows® 7 and Windows Server® 2008 R2 operating systems. Still early in its deployment, Betfair has increased system performance, improved user experience, and streamlined IT management.

Betfair employees have seen system performance improvements, including logon times and the time it takes applications to launch, since implementing Windows 7.

“Even with hardware that is two years old ..., we’re seeing a 20 percent increase in system performance for common workflow tasks, and that helps our employees stay productive”

*Ian Burgess, Head of Microsoft and Data Center Platforms, Betfair*

- Betfair is an online gaming company. Based in the United Kingdom.
- 1,700 employees + Processes 6 million financial transactions daily.

## NetBenefit Hosting

### Windows Server 2008 R2

Windows 7, Microsoft Hyper-V, Microsoft Active Directory Domain Services,

## BranchCache & DirectAccess August 2010



### Hoster Improves Services, Reduces Costs Through Companywide Operating System Upgrades

From its headquarters in the United Kingdom, NetBenefit provides customized hosting solutions to enterprise customers throughout the United Kingdom and France. In an effort to improve the service it provides its customers and to reduce costs, NetBenefit sought a way to maintain high levels of availability with its virtual servers even during periods of maintenance. At the same time, the company also wanted to consolidate and standardize its client operating system. Teamed with Dell, NetBenefit upgraded its server operating system to the Windows Server 2008 R2 Hyper-V technology running on Dell blade servers.

It also upgraded its client operating system to Windows 7. The enhanced features and tight integration of both the client and server operating systems enabled the business to bolster security, and to improve services for its customers while reducing costs.

“Now, if we have maintenance to perform ... our customers—both internal and external—will enjoy uninterrupted service, even when we upgrade their operating system.”

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

- Based in UK
- Provides customized, managed hosting solutions to medium and large companies in Europe.
- More than 700 customers.

## Warwickshire County Council Education

### Windows Server 2008 R2

Windows 7

## BranchCache December 2009



### Council Gears Up to Give Students Mobile Computers and Saves Thousands of Pounds

Warwickshire County Council offers technical support to 249 schools in the United Kingdom (U.K.). As computers become core teaching and learning tools, the council needs to provide solutions that serve the increasing demand for technology for students, even as budgets become tighter. The council also wanted to build an infrastructure for students to access the network from home. By adopting Windows Server 2008 R2 with the Windows 7 operating system, the council streamlined centralised services, and immediately saved an estimated £100,000 (U.S. \$148,000) a year in running costs, while decreasing its carbon footprint. The resulting infrastructure is now ready to provide the extra bandwidth needed as schools move towards equipping every student with a home computer. Ease of management means the council can increase the number of computers by four times without additional operating costs

“Twenty virtualised servers run on one physical server, so in addition to cutting electricity costs, we’ll buy less hardware—and those aren’t the only savings we’re going to see.”

*Chris Page, Technical Development Manager, Warwickshire County Council*

- Employs 35 staff who focus on providing ICT services to local schools – from technical support, to deploying advanced technology.

## The Co-operative Group

Retail industry

### Windows Server 2008 R2

Microsoft Desktop Optimization Pack, Microsoft Application Virtualization, Windows Server 2008 R2, Microsoft System Center Configuration Manager 2007 R2, Microsoft System Center Virtual Machine Manager 2008, Windows 7 Enterprise, Microsoft Deployment Toolkit 2010, Microsoft Hyper-V

Desktop Virtualization  
August 2011

## The co-operative

### Retailer to Save More Than \$3 Million Annually, Boost Reliability with Virtualization

The Co-operative Group is a diversified, consumer-owned organization that boasts some of the largest retail businesses in the United Kingdom. A planned September 2012 move to a new, environmentally sustainable building spurred the need for a more energy-efficient, agile, and reliable IT infrastructure.

By using Microsoft Application Virtualization, Hyper-V virtualization technology, and Citrix XenDesktop to create a virtual desktop environment, the Group is enabling flexible work practices and contributing to a 35 percent reduction in carbon emissions. It expects to save more than £1.9 million (U.S.\$3 million) annually on electricity and desktop support costs. IT will speed application updates and improve control over its computers while ensuring that the company's disaster recovery site always has the latest desktop images.

"Microsoft App-V and Hyper-V are essential to creating a cost-effective, dynamic, and reliable virtual desktop environment."

*Ian Cawson, Technical Architect, The Co-operative Group*

- The Co-operative Group is a retail company, employing about 110,000 employees.
- Based in Manchester.

## Lancashire Constabulary

Government

### Windows Server 2008 R2

Microsoft Hyper-V

Desktop Virtualization  
October 2009



**Lancashire Constabulary**  
police and communities together

### Managed Services Company Virtualizes to Improve Availability and Ease Administration

As one of the top performing police forces in England, Lancashire Constabulary concentrates on helping its frontline police officers deliver a good service. They work in the community, forging strong partnerships with agencies that can help make citizens feel safer. The constabulary is highly committed to neighbourhood policing and puts a priority on the personal development of its staff. An important ongoing aim is providing secure access remotely to the force's principal segregated networks for 5,000 concurrent police users, while maintaining the fidelity of their desktop experience.

Lancashire Constabulary needed to support frontline policing more effectively by giving officers easier remote access to segregated networks with different security classifications. The force is deploying Windows Server® 2008 R2 with Hyper-V™ virtualisation technology and Remote Desktop Services, thereby avoiding spending millions of pounds on third-party tools. The solution reduces time spent by officers at computers, freeing them for active policing work.

"By putting in VDI centrally, we no longer have to replace 1,200 desktops that had reached the end of their life cycles—it would have been a time-consuming and expensive project."

*Colin Fitzsimons, Senior Systems Engineer, Lancashire Constabulary*

- Lancashire Constabulary is responsible for policing and public safety in the county of Lancashire in north-west England.
- It serves a population of around 1.5 million people.

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