Turkcell Chooses Virtualization Solution to Meet Increasing Demand for Data Services

Overview

Country or Region: Turkey
Industry: Telecommunications

Customer Profile
Turkcell İletişim Hizmetleri (Turkcell) is the leading provider of mobile services in Turkey, with a market share of 53 per cent and investments in nine other countries.

Business Situation
With more customers using smartphones and tablet PCs, Turkcell wanted to improve manageability and reduce the cost of its infrastructure to accommodate growing data volumes.

Solution
The company invested in Windows Server 2008 R2 Datacenter with Hyper-V virtualization technology for all its Windows-based servers, making Microsoft the second strategic virtualization vendor at Turkcell.
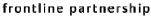
Benefits
- Low total cost of ownership
- Improved scalability
- User-friendly tools
- Greater flexibility

"Windows Server 2008 R2 Datacenter includes unlimited virtualization rights, so we can run an unlimited number of Hyper-V virtual machines."

Bülent Saltürk, Infrastructure Operations Division Head, Turkcell

The leading mobile communications provider in Turkey, Turkcell İletişim Hizmetleri (Turkcell) needed to upgrade its infrastructure to accommodate growing data volumes generated by customers using smartphones and tablet PCs after the launch of 3G services. Turkcell decided to support the growth in data usage by investing in Windows Server 2008 R2 Datacenter with Hyper-V. This gives the firm a highly cost-effective alternative hypervisor solution to its incumbent virtualization solution platform. Up to 400 virtual machines—one third of the total at Turkcell—have now been provisioned with Hyper-V for existing Windows-based servers with the help of HP and Microsoft Partner ADEO IT Consulting Services. The firm has also decided that all new Windows-based servers will be provisioned with Hyper-V. The solution is highly reliable and available, scaling easily to meet peaks in customer demand for data services.

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frontline partnership

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Microsoft

Situation

Turkcell İletişim Hizmetleri (Turkcell) is the leading provider of mobile services in Turkey, with 34.5 million subscribers and a market share of 53 per cent. The company, which is listed on the New York Stock Exchange, offers mobile voice and data services over its Global System for Mobile (GSM) telecommunications network. Turkcell is also a leading regional player, with market leadership in five of the nine countries in which it operates and about 65.3 million subscribers globally at the beginning of 2012. It won the award for Best New Product at the 2012 Global Mobil Awards for its Click to Talk application, which helps users place calls from within Facebook.

Mobile service providers worldwide face an increasing challenge to upgrade their infrastructures to cope with the large amounts of mobile data created by smartphones and tablet PCs. Turkcell is no exception. Its data and mobile Internet plans are competitively priced and popular with subscribers. Each day, Turkcell networks process about 1.6 billion call records so the amount of data managed by the company is significant—more than 500 terabytes and growing.

Bülent Saltürk, Infrastructure Operations Division Head, Turkcell, says: "At Turkcell, we're experiencing a surge in demand for data services. In 2012, after the launch of 3G services, we're expecting to handle three times more data than in 2011."

Turkcell has a reputation for sustainable business development through excellence in IT. In 2012, it launched its first cloud computing service Turkcell SuperBulut, which the company says will make a significant contribution both to the Turkish economy overall and to Turkcell as an enterprise solution provider. To support its

ambitions to offer cloud-based services to small and medium-sized enterprises, Turkcell initially invested in a 3rd party virtualization solution platform to reduce the load on its physical servers.

Saltürk says: "VMWare has a single area of specialization—virtualization—but the licensing costs are high. We needed to reduce our licensing costs, in terms of both capital and operating expenditure."

Solution

Microsoft is a long-term business partner of Turkcell and had already deployed Microsoft Exchange Server 2010 and Microsoft SQL Server 2008. During 2011, HP had emerged as the Turkcell preferred partner for its cloud services, offering to provide its business customers with infrastructure as a service (IaaS) and communications as a service (CaaS), drawing on Microsoft technologies. In a related development through the HP/Microsoft Frontline Partnership, Microsoft in Turkey had been engaging with Turkcell about how to reduce costs while improving the manageability of its virtual infrastructure. Microsoft wanted to position Windows Server 2008 R2 Datacenter with the Hyper-V virtualization feature for all Turkcell Windows-based servers as an additional hypervisor solution to a 3rd party virtualization solution. Windows Server 2008 R2 Datacenter provides robust rapid failover clustering that's easy to manage and automatically takes over in the event of a failed server, maintaining service so users experience minimal disruption.

Being both a consumer and enterprise service provider, the Turkcell online presence is of vital importance to business development. Turkcell chose Microsoft SharePoint technologies to build its website, which serves nearly 1 million

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Bülent Saltürk, Infrastructure Operations Division Head, Turkcell

unique users a day. The platform to support such a demanding load had to be highly available and high performing. Hyper-V met or exceeded the mobile service provider's expectations during the test phase and became the platform of choice for supporting the Turkcell public website.

Many Turkcell employees were using more than one computer. In an effort to reduce its carbon footprint, Turkcell decided to provide staff with virtual desktops running on Hyper-V, removing the need for these second computers. Hundreds of desktops were saved through the initiative, with more savings expected.

To further reduce costs and improve manageability, Microsoft and HP proposed using the Microsoft System Center suite of systems management products. HP also recommended using HP Converged Infrastructure and HP Insight Control with HP ProLiant DL580 rack mount servers for the complex data environment. Saltürk says: "We chose Microsoft Gold Partner and HP Software Business Partner ADEO IT Consulting Services as our systems integrator. Its experience and knowledge were important for the success of the project at the deployment stage."

Benefits

Faced with the challenge of managing increasing volumes of data, Turkcell wanted a second strategic virtualization vendor to their 3rd party virtualization solution. The HP/Microsoft Frontline Partnership offered a highly cost-effective solution based on Windows Server 2008 R2 Datacenter with Hyper-V for one third of the company's virtual machines. The system easily scales to adapt to the increased needs of data warehousing and transaction processing, and includes the System Center systems management suite of products for low total cost of ownership.

Unlimited Virtualization Rights Deliver Low Total Cost of Ownership
Through the combination of the System Center suite and Windows Server 2008 R2 Datacenter, Turkcell is making significant efficiency savings and achieving low total cost of ownership. Saltürk says: "Windows Server 2008 R2 Datacenter includes unlimited virtualization rights, so we can run an unlimited number of Hyper-V virtual machines on physical servers licensed with Windows Server 2008 R2 Datacenter. And it's a similar scenario with the Microsoft System Center suite of products with a single license. This is tremendous value, and it can really save us money on the virtualized environment because we need to invest in just one product."

Technology Scales with Business Needs
Windows Server 2008 R2 Datacenter with Hyper-V offers Turkcell the highest levels of scalability, reliability, and availability. This gives the mobile service provider reassurance that as it grows, the IT infrastructure will remain flexible and scalable, supporting the company's business functions.

With exponential growth in data as customers increasingly turn to tablet PCs and mobile devices, Turkcell has moved rapidly ahead with virtualizing its data center. Saltürk says: "We're moving forward with virtualization to expand our data services for customers and we're expecting to deploy the same HP and Microsoft solution for a second data center."

HP and Microsoft Tools Deliver Easier Manageability
Turkcell is using 400 virtual servers with Hyper-V and 30 physical Hyper-V hosts to support its Windows-based servers. Succeeding in a highly competitive regional market means that employees and

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For more information about Turkcell products and services, call or visit the website at:
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customers must have round-the-clock access to information. Any disruption in services can result in lost productivity and opportunities.

Saltürk says: "The combination of HP hardware with Microsoft software gives us great confidence about reliability and availability. They complement each other and are extremely user friendly."

Company Has Greater Flexibility to Meet Customer Data Needs
Turkcell is now able to make its data-center resources go further and respond to customer needs faster. Instead of assigning customer workloads to a fixed number of dedicated physical servers, which were often underused, Turkcell can dynamically allocate virtual resources as needed. Saltürk says: "With the Microsoft System Center suite automating many more processes, Turkcell IT technicians can concentrate on higher value work, especially as we have as many as 360 projects a year."

Microsoft Server Product Portfolio

For more information about the Microsoft server product portfolio, go to:
www.microsoft.com/servers/default.mspx

Software and Services

- Microsoft Server Product Portfolio
  - Windows Server 2008 R2 Datacenter
  - Microsoft Exchange Server 2010
  - Microsoft SQL Server 2008
  - Microsoft System Center Data Protection Manager 2007
  - Microsoft System Center Operations Manager 2007 R2
  - Microsoft System Center 2012 - Virtual Machine Manager
- Technologies
  - Hyper-V

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