



Cellcom Uses VMware Technology With Blade Servers to Create Virtual IT Infrastructure

Leading cellular company in Israel embraces virtualization technology to meet goals for business growth and provide superior customer service

RESULTS

- 13:1 server consolidation
- Server deployment time reduced from about two hours to twelve minutes
- Provided mainframe levels of reliability and data security at lower cost
- Optimized blade server utilization, increasing from 5-15% to 35-50%
- Reduced hardware costs
- Streamlined system administration
- Saved physical space for servers
- Lowered management and operating costs

Cellcom Seeks Best of Breed Server Consolidation Solution to Keep Up With Growing Business Demands

As is evident from its motto "Aim high and strive persistently to lead," Cellcom, the largest cellular company in Israel, is dedicated to providing innovative, efficient and cost effective solutions for its customers. That means having the IT infrastructure in place to scale with the company's fast growth.

Founded in 1995, Cellcom has 2.5 million customers and \$1.25 billion in average yearly revenue. David Barak, system NT expert for Cellcom, was tasked with building an efficient and scalable IT infrastructure to keep up with anticipated future growth. "We had an urgent need to reduce the number of hardware platforms we had to manage, and to conserve resources, such as space in the datacenter," explains Barak. "We also wanted a solution that would utilize some of our unused hardware resources, and work with our plan to deploy blade server technology."

Cellcom chose VMware technology to create a scalable IT infrastructure while lowering costs. "It is the best of breed product that meets our long-term goal of reducing the burden of managing hundreds of hardware platforms and servers. We knew it would solve our problems, giving us a more scalable infrastructure, and helping us get the most out of our hardware resources."

VMware Lowers Costs and Speeds Response Time

Cellcom chose VMware® ESX Server™, VirtualCenter and VMotion™ technology to meet its needs. With ESX Server, Barak and his team can create multiple virtual machines on each physical server. They are able to run multiple applications and operating systems, each isolated within its own virtual machine, so that each physical server is more fully utilized. The company has two ESX server licenses for quality assurance (QA) and development environments used in development of engineering and sales demos. Another four ESX server licenses run on HP BL20 p G2 server blades with storage area network (SAN) connectivity to an HP Enterprise Virtual Array machine. The virtual machines that run on the blade servers are VMotion enabled, giving

the IT team the ability to migrate a running virtual machine to a different physical server connected to the same SAN without service interruption. All of the virtual machines are centrally managed by a single instance of the VMware VirtualCenter management software.

Using ESX Server in conjunction with Virtual Center and VMotion, Cellcom has a robust data center management solution. It allows the company to centrally manage its pool of virtual machines residing on different physical servers, and move the virtual machines to different physical servers based on resource allocation needs. "VMware gives us the opportunity to quickly deploy new operating systems almost regardless of hardware availability, enhancing our ability to respond rapidly to the demands of our growing business," Barak says.

Using the VMware solution, Cellcom has realized benefits that include:

- **Optimization of Blade Servers.** Barak sought a server consolidation solution that would involve two cutting edge technologies: virtualization and blade servers. Barak explains that the two together result in an efficient use of resources, fast provisioning and unprecedented hardware availability.
- **Time Savings and More Efficient Server Management.** With the VMware solution, Cellcom can provision servers in minutes instead of hours, helping the company respond more quickly to customer needs and reduce time to market. Cellcom also saves time with the sophisticated centralized management features of Virtual Center. "Managing hundreds of hardware platforms was time consuming," says Barak. "With virtual infrastructure, it becomes much simpler to manage my server environment."
- **Improved Server Utilization and Server Consolidation.** Cellcom was able to consolidate servers by a ratio of more than 13:1 and increase server utilization from 5-15 percent to 35-50 percent.



VMWARE ESX SERVER, VMOTION AND VIRTUAL CENTER AT WORK

- Two VMware ESX Servers on HP DL 380 G3s
- Four VMware ESX Servers on HP BL20p G2 blade servers with SAN connectivity
- Servers are managed by a single VirtualCenter server
- Applications run in virtual machines: MSSQL, Oracle, MSCS, Citrix MetaFrame and others

- **Reduced Costs.** Barak says he anticipates costs savings because of the need for fewer servers and resources, such as heating and space for multiple servers. Cellcom also saves the time of managing multiple hardware platforms.
- **Zero Downtime Maintenance.** "The VMotion technology lets us migrate a server from one hardware platform to another without any service interruption, allowing us to schedule maintenance of the hardware without notifying users or taking down the systems residing on the server. This is particularly useful for small changes and improvements, such as modifications to an ESX server's software parameters," explains Barak.

With a fast growing business, it is important to have a scalable, reliable IT infrastructure. "With VMware, we are confident that we can support the company

and enable employees to do their jobs better. For example, with zero downtime maintenance, engineers can keep working. Faster provisioning also means we can more easily allocate resources for projects. We can also quickly respond to changing customer needs."

Barak said the powerful capabilities of virtualization technology will help Cellcom maintain its leading position in the market. "VMware provides a cost effective solution that enhances our abilities by giving us more flexibility. We can more quickly and easily respond to changes, helping us stay ahead of our competition and best serve our customers."

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*David Barak
System NT Expert
Cellcom*

www.vmware.com

VMware, Inc. 3145 Porter Drive, Palo Alto, CA 94304 USA
Tel 650-475-5000 Fax 650-475-5001