UNIFYING COMMUNICATIONS

M Dados, a hosted services provider based in Portugal, implements a virtualized environment based on high-performance Dell™ PowerEdge™ blade servers—reducing the number of required physical servers by 40 percent while helping simplify management, business continuity, and scalability.

CHALLENGE

To deliver services based on Microsoft® unified communications, M Dados needed a high-performance hardware infrastructure that included the latest quad-core Intel® Xeon® processors.

SOLUTION

The company implemented a new environment based on Dell PowerEdge blade servers running VMware® virtualization software to support these services.

BENEFITS

- Virtualization helped reduce the number of required physical servers by 40 percent while also helping to reduce server provisioning time from days to hours and to reduce the risk associated with hardware failures.
- Energy-efficient Dell PowerEdge blade servers meet high performance demands while helping simplify management and scalability.
- Dell/EMC storage can scale cost-effectively to help meet growing data requirements.
- Comprehensive Dell support helped ensure a seamless transition.

Related Categories:
Blade servers, case study, Dell PowerEdge blade servers, M Dados, Microsoft, unified communications, virtualization, VMware

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The evolution of unified communications—where e-mails are accessed over the telephone and calls are made using a PC—can offer huge business opportunities for hosted service suppliers. Yet the demands for providing such unified communications are high. The software is processor intensive and relies on high-performance servers, which can be expensive to power and complex to manage.

These challenges were a concern for M Dados, a hosted services provider based in Portugal offering leading-edge communications technologies. The company, a subsidiary of the José de Mello Group, planned to roll out a suite of services based on Microsoft unified communications using solutions such as Microsoft Exchange Server 2007, Microsoft Office Communications Server 2007, and Microsoft Office Communicator 2007. The suite enables businesses to unite desktop telephony, e-mail, instant messaging, fax, Internet, legacy phone networks, and voice mail. Implementing and optimizing new services like unified communications, however, requires high performance with a small footprint, low energy consumption, and simplified management.

CONSOLIDATING ON HIGH-PERFORMANCE BLADE SERVERS

Dell has worked with M Dados for seven years, helping meet all of the company's IT requirements over that time. Manuel Castelo Branco, IT administrator at M Dados, and the team keep track of Dell's newest server and management software and update the data center with new technology on a regular basis. Three years ago, for example, Jorge Gonçalves, technical director at M Dados, rolled out VMware ESX Server virtualization software on Dell PowerEdge 1855 blade servers. He liked the performance and manageability of the blades so much that he upgraded to the PowerEdge 1955 blade server model when it became available and added a Dell/EMC CX500 storage area network (SAN) that is easy to scale and delivers business continuity.

Castelo Branco says, "At the time, adoption of VMware was the best thing that could have happened to us." Suddenly, the company was running three or four

virtual machines on a single physical server, helping consolidate its server footprint. The IT team was also provisioning new servers in a few hours instead of a few days, helping significantly improve the company's ability to react to customer demands.

Castelo Branco turned to Dell for the right server hardware to deploy a Microsoft unified communications environment. "Because Dell understands our business needs, it delivers the right solutions quickly," says Castelo Branco. "Due to its alliance with Microsoft, it was able to offer a suitable IT solution to successfully deliver a unified communication infrastructure."

According to Microsoft, servers supporting a unified communications infrastructure required a minimum configuration of dual-core processors at 2.6 GHz and 4 GB of RAM. Says Castelo Branco, "Dell PowerEdge M600 blades had the power to deliver a Microsoft unified communications environment, offering dual- or quad-core Intel Xeon processing and more than enough RAM."

Dell Global Infrastructure Consulting Services proposed a design that included the latest Dell PowerEdge M600 blade servers featuring quad-core Intel Xeon processors paired with a Dell PowerEdge M1000e modular blade enclosure. The enclosure is one of the most energy-efficient, flexible, and manageable blade units available. In addition, it is designed to support the next generation of Dell blades.

It does not take Castelo Branco long to calculate the savings from virtualization. "By choosing VMware ESX Server 3.5 Update 2 software running on Dell PowerEdge M600 blade servers, we can deliver our Microsoft unified communications environment with 40 percent fewer servers," he says. Six Dell blades are doing the work of 10 high-end physical servers, which each would have required dual-core Intel Xeon processors and at least 4 GB of RAM.

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> —Manuel Castelo Branco
> IT administrator at M Dados
> January 2009

Castelo Branco expects significant savings in energy consumption from the Dell blade servers, even when compared with other blade offerings. "We've done our homework," he says. "We could be seeing energy reductions that are 19 percent higher than with other blade solutions." He adds, "The performance has been excellent and there hasn't been any downtime."

ENHANCING BUSINESS CONTINUITY AND SCALABILITY

Because the new unified communications environment runs virtualization technology, the risk associated with a hardware failure is significantly reduced—if one server fails, the virtual machines can be switched to another physical server in real time. Day to day, this environment enables the IT team to respond quickly to sudden increases in data loads on individual servers, and to perform hardware upgrades and maintenance with very little impact on its business-critical operations.

The blades are engineered to scale easily with demand. A key factor here is the Dell PowerEdge M1000e enclosure, which has additional I/O slots and switch options to help meet increasing demands for I/O consumption. Likewise, the Dell/EMC CX500 SAN, which has 4 GB of memory cache and holds up to 17.5 TB of data with Fibre Channel drives, can scale to help meet the company's growing data requirements.

"Success in our market depends on reacting instantly to customer needs," says Castelo Branco. "If they want a new service or to add a few hundred e-mail boxes, we have to do it fast. The Dell infrastructure supporting M Dados ensures we are agile enough to take advantage of business opportunities when they arise."

SUPPORTING A SEAMLESS TRANSITION

Just like previous Dell deployment projects, Dell is supporting M Dados, helping create the new unified communications infrastructure. For example, Dell is configuring the systems and handling the certification side of the project to help ensure the work remains on schedule. And because M Dados has Dell ProSupport for IT, the environment will remain highly available both now and in the years ahead. "Dell was the only company that offered us a full support package," says Gonçalves. "The excellent level of service and the fact it can deliver solutions quickly without using intermediaries were key reasons for choosing Dell."

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