Sony Italia

Aiming to shrink its physical infrastructure and reduce costs, Sony Italia virtualized 12 physical servers running Windows and Linux. As virtual machines, they now run on a SUSE® Linux Enterprise Server cluster using built-in Xen virtualization technology.

Overview

Sony Corporation is one of the world's leading electronics companies, producing a vast array of advanced consumer and professional technologies across computing, audio-visual devices, semiconductors and electronic components. The corporation operates on a global basis, employing approximately 147,000 people in total. Sony Italia, headquartered in Milan, employs approximately 250 people.

Challenge

Several years ago, Sony Europe consolidated most of its IT infrastructure to two data centers in the U.K. Most of the shared applications for the European operations, including a major SAP ERP solution, are managed from this central point of control.

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PAOLO BARNA
Manager, Operations & Security Systems
Sony Italia

To ensure high performance and ease of maintenance for its country-specific systems, Sony Italia opted to keep its own local server infrastructure. As time passed, growth in data volumes and user numbers put significant pressure on these servers, resulting in reduced performance and reliability. With limited budgets, replacing all 30 physical servers was out of the question, and Sony Italia also had concerns about rising heat output and electricity consumption in the data center.

Server virtualization was the ideal solution, enabling Sony Italia to preserve its system architecture, while using a more compact and efficient physical infrastructure. Following an initial phase of virtualization for around half its infrastructure, the organization was keen to extend the benefits—but needed to find a more cost-effective option.

Solution

Aiming to complete the virtualization of its infrastructure, but finding the cost of additional licenses too high, Sony Italia worked with Jan Kalcic, a SUSE specialist, to create a solution based on SUSE Linux Enterprise Server with built-in Xen virtualization. The addition of SUSE Linux Enterprise High Availability Extension ensured a resilient clustered solution.

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Sony Italia at a glance:
Division of the Sony Corporation

■ **Industry and Location**
  Electronics, Italy

■ **Products and Services**
  SUSE Linux Enterprise Server with Xen virtualization
  SUSE Linux Enterprise High Availability Extension

■ **Results**
  + *Consolidated 12 physical servers to virtual machines running on two physical servers*
  + *Saved an estimated 60 percent on server acquisition costs*
  + *Reduced TCO by cutting power and cooling requirements*

> "Using Xen virtualization with SUSE Linux Enterprise Server meant that we could buy two large physical servers instead of 12 smaller ones—saving at least 60 percent on initial acquisition costs alone."

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"We were already using Linux alongside some commercial UNIX systems, and it was very compelling to be able to deploy a Linux distribution with built-in virtualization at no extra cost," said Paolo Barna, manager, Operations and Security Systems, Sony Italia. "SUSE Linux Enterprise High Availability Extension gave us powerful clustering tools to make sure that the new virtualized environment would be extremely reliable."

Sony Italia installed two new servers running SUSE Linux Enterprise Server in a high-availability cluster. These host more than 12 virtual Linux and Windows servers. In normal conditions, the workload is balanced across the two physical servers to ensure optimal performance. In the event of a hardware problem or network issue on one of the physical servers, the other can automatically and seamlessly take over the entire virtual workload while the fault is fixed.

Sony Italia used PlateSpin Migrate to simplify the migration from the old physical infrastructure to the new virtual machines. PlateSpin Migrate enabled live virtualization of active systems, minimizing business disruption and accelerating the process.

Sony Italia plans to extend its use of Xen virtualization on SUSE Linux Enterprise Server, replacing the current technology on up to 10 physical servers.

Results

By replacing 12 older physical servers with just two new ones hosting Xen virtual machines on SUSE Linux Enterprise Server, Sony Italia has reduced its costs and freed up valuable space in the data center. The company avoided having to buy, maintain, power and cool ten new machines—and with 64-bit virtual servers running on the highly tuned SUSE Linux Enterprise Server platform, the new two-server cluster offers all the performance Sony Italia needs.

"Using Xen virtualization with SUSE Linux Enterprise Server meant that we could buy two large physical servers instead of 12 smaller ones—saving at least 60 percent on initial acquisition costs alone," said Barna. "We will also achieve significant savings in electricity for powering and cooling the new infrastructure."

Server virtualization also enables Sony Italia to create new IT resources faster and more flexibly. Rather than purchasing new hardware to meet emerging business requirements, then painstakingly installing the correct operating system, security patches and application software, Sony Italia can simply create a new virtual machine using an existing environment as a template.

"One of the great benefits of Xen and SUSE Linux Enterprise Server is that we can create a completely new virtual server for the business within just five hours," said Barna. "This is a great way to provide new test and development environments."