Ciclum Farma

To stay on top of Portugal's competitive pharmaceuticals market, Ciclum Farma must run distribution and sales activities as efficiently as possible, 24/7. The company selected SUSE® Linux Enterprise Server as its strategic operating system for SAP ERP applications, and uses the SUSE Linux Enterprise High Availability Extension to guarantee round-the-clock access to vital business systems.

The SUSE solution offers a rock-solid platform for core business systems, and has helped cut the total cost of operation for Ciclum Farma's SAP environment by 50 percent.

Overview

Ciclum Farma produces, distributes and markets pharmaceutical products throughout Portugal. The company focuses on products with off-patent active ingredients in the health care and pharmaceutical markets, with the core segments of generics and branded products.

In 2005 Ciclum Farma was acquired by the STADA Group—one of the largest generic pharmaceutical companies in Europe, with operations in 34 countries and annual sales of more than 1.8 billion Euro.

Ciclum Farma is committed to providing customers with affordable, high-quality medicines. The company currently maintains a product portfolio comprising more than 15 of its own brands, as well as a number of STADA-branded generics, which it markets directly to healthcare providers and pharmacies nationwide.

Challenge

As part of an effort to reduce public healthcare expenses, the government of Portugal introduced a new pricing policy for generic drugs in 2012, stipulating that any new generic product entering the market must be priced at least 50 percent lower than its branded equivalent. The move has cut sharply into the revenues of generics producers like Ciclum Farma, who need to work harder than ever to maintain their profit margins.

To ensure that business runs as profitably and productively as possible, Ciclum Farma must maintain tight control over all aspects of its operations. For this, the company relies on a broad suite of SAP ERP applications to ensure full control and efficiency in business processes from sales and finance to materials and inventory management.

António Damas, IT Manager at Ciclum Farma, said, "SAP ERP applications are critical to the smooth running of our business, and it is absolutely essential for us to keep them up and running at all times.

"If we were unable to access our SAP systems, the business would come to a halt: we would be unable to manage customer

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> **ANTÓNIO DAMAS**
> *IT Manager*
> Ciclum Farma

Ciclum Farma at a Glance:

Part of the STADA Group, Ciclum Farma produces, distributes and markets pharmaceutical drugs, namely generic products.

■ **Industry and Location**
   Pharmaceuticals, Portugal

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

■ **Results**
+ *Reduced IT operating costs by 50 percent through virtualization.*
+ *Delivered 100 percent uptime for mission-critical SAP applications in nine months since the solution has gone live.*
+ *Provided a flexible, reliable platform for supporting core business services.*

orders and get products out the door. Even small delays could have a huge impact, causing us to lose valuable business.

"The fact that we work with sensitive pharmaceutical products only magnifies this pressure, as failure to meet delivery deadlines could prevent doctors and pharmacists from supplying patients with critical medicines."

As its business expanded, Ciclum Farma found that its existing computing systems were unable to meet its demands for high performance and round-the-clock availability, and were becoming increasingly expensive and complex to maintain.

"Previously, we were running SAP ERP on a Red Hat Enterprise Linux cluster featuring two nodes and connected to an HP EVA storage array," said Damas. "The cluster had not been configured very well, and we were not using any sort of virtualization technology. This really limited our flexibility, both in responding to new business demands and guaranteeing continuous application availability."

To provide users with fast, reliable access to the applications they need around the clock, Ciclum Farma sought to better protect critical workloads against the risk of downtime and to increase overall service availability, all while keeping a tight rein on operating costs.

Solution
Ciclum Farma approached service provider Lusolabs for help in designing and building a highly available and resilient IT infrastructure from the ground up. The company chose to deploy two HP ProLiant blade servers, and selected SUSE Linux Enterprise Server as the strategic operating system for its SAP applications.

"We briefly looked at moving to a mixed Red Hat Enterprise Linux and Microsoft environment, where we would keep our SAP ERP applications on Linux and move everything else to Microsoft, as the licensing costs for SAP on Microsoft were quite high," said Damas. "This introduced a greater degree of complexity and cost than we were prepared to take on, which led us to the SUSE solution."

"SUSE Linux Enterprise Server offers the perfect combination of flexibility and reliability, in addition to being very cost-effective," said Damas. "Another key factor behind our decision was the fact that SUSE Linux Enterprise Server is fully validated and certified by SAP. The strong partnership between SUSE and SAP gave us confidence that the solution will be well-supported and maintained, both now and in the future."

Using the KVM virtualization technology incorporated into SUSE Linux Enterprise Server, Ciclum Farma has virtualized its SAP application workloads, provisioning distinct virtual environments for SAP production and development instances on a single physical server. Server virtualization enables the company to preserve its existing system architecture while using a more efficient physical infrastructure.

"Having KVM virtualization included with SUSE Linux Enterprise Server at no additional cost is a real advantage," said Damas. "Virtualization makes it easy for us to manage our SAP applications with minimal resources and helps us respond very quickly to changing demand, so we can provide a very agile and reliable service to users."

CONTINUOUS DATA REPLICATION
To meet the need for continuous access to critical SAP applications and data,

Ciclum Farma worked with Lusolabs to set up a high-availability, two-node cluster using the SUSE Linux Enterprise High Availability Extension, an integrated suite of open source clustering technologies.

The high-availability solution includes support for distributed replicated block devices through DRBD, a leading open source networked disk-management tool. Ciclum Farma uses DRBD to build single logical partitions from multiple physical disks that mirror each other and make data highly available.

DRBD supports both synchronous and asynchronous mirroring, and in the event of an outage, it automatically resynchronizes the temporarily unavailable node to the latest version of data, without any interruption to production. This helps increase SAP application availability, enabling vital production systems to stay online during planned or unplanned downtime.

"SUSE Linux Enterprise High Availability Extension gives us powerful tools for ensuring that our newly virtualized SAP environment remains highly available at all times," said Damas. "As we run a relatively small SAP landscape, DRBD allows us to maintain a high-availability configuration without investing in an additional storage area network. This saves us considerable cost and effort, which is a great advantage for a small company like our own with a limited IT budget."

Results
With SUSE Linux Enterprise Server, Ciclum Farma benefits from a flexible, robust operating system platform that offers strong performance and reliability for vital SAP ERP applications. This helps provide business users with rapid access to the information they need to accurately plan essential sales and distribution activities.

"SUSE Linux Enterprise Server ensures that our users have all the data they need right at their fingertips," said Damas. "The business gains fast insight into operations, and can process orders and run reports much quicker. This allows us to offer a very responsive service to customers, guaranteeing that their demands are met in a timely, effective manner and boosting overall satisfaction."
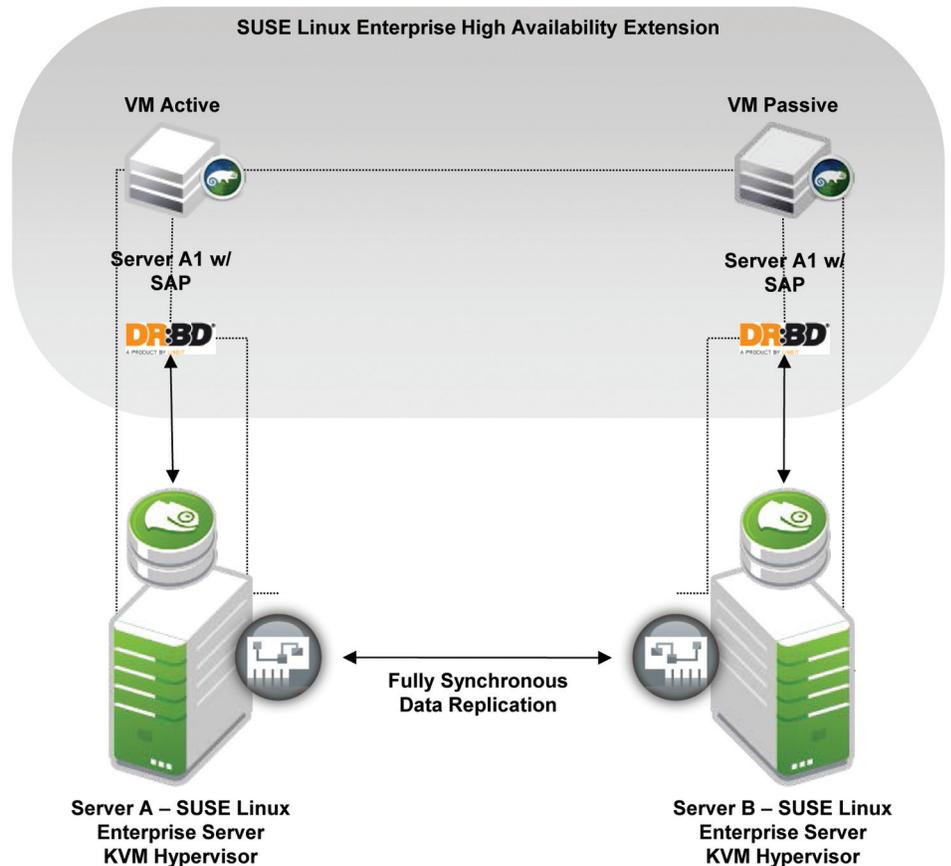
IMPRESSIVE COST SAVINGS

By migrating from Red Hat Enterprise Linux to SUSE Linux Enterprise Server and rationalizing its computing infrastructure through virtualization, Ciclum Farma has been able to achieve considerable cost savings.

"We estimate that we have reduced the total cost of operation for our SAP environment by 50 percent thanks to SUSE Linux Enterprise Server," said Damas. "Simplified licensing means that we require only one subscription per physical machine, which covers an unlimited number of virtual machines. This really helps us to cut down on software licensing and support costs.

"With KVM virtualization on SUSE Linux Enterprise, we can also delay investment in additional hardware systems, as the solution allows us to easily add more virtual machines as needed. This gives us room to grow, and do so in a cost-effective way, without requiring a great deal of effort or resources, which is a big plus for our small IT team."

MAXIMIZING UPTIME FOR CORE SYSTEMS

Configured with the SUSE Linux Enterprise Server High Availability Extension, Ciclum

SUSE Linux Enterprise High Availability Extension

VM Active

VM Passive

Server A1 w/ SAP

Server A1 w/ SAP

Fully Synchronous Data Replication

Server A – SUSE Linux Enterprise Server KVM Hypervisor

Server B – SUSE Linux Enterprise Server KVM Hypervisor

Farma's SUSE Linux Enterprise landscape delivers the high levels of availability that the business demands.

"In the nine months since implementing SUSE Linux Enterprise Server, we have been able to maintain 100 percent uptime for our SAP ERP applications," said Damas. "The high-availability cluster that Lusolabs has helped us to design and build ensures that we can sustain near 24/7 operations. "Even in the unlikely event that an entire server goes down, we can automatically transfer the workload to a secondary system and work to restore the affected production services while business continues as usual. This is an incredibly valuable benefit, and ensures that our employees can continue to meet customer demand and get products out the door no matter what."

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ANTÓNIO DAMAS
IT Manager
Ciclum Farma

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