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Biological E. Limited
Celebrating Life Every Day

Biological E.

Industry and Location
Pharmaceuticals | India

Product and Services
SUSE Linux Enterprise Server for SAP Applications
SUSE Linux Enterprise High Availability Extension

50%
reductions in IT expenditure

99.9%
uptime for mission-critical SAP applications

Biological E. benefits from the centralized control needed to succeed in the fast-paced pharmaceuticals market

Success Story

At-a-Glance

As Biological E. Ltd. looked to unify its pharmaceuticals business on SAP ERP applications, it wished to ensure top levels of performance and availability for the new solutions without breaking the bank. By selecting SUSE® Linux Enterprise Server (SLES) for SAP Applications as its strategic operating system platform for the new ERP landscape, the company has gained a rock-solid platform for core business systems, achieving 99.9% availability and saving 50% on overall IT costs.

Overview

Biological E. Ltd. is a privately held biopharmaceutical company based in Hyderabad, India, specializing in low-cost vaccine production. Established in 1953, Biological E. was one of the first private sector companies in India to manufacture biological products. Today, the company has grown to become a major supplier of vaccines and other pharmaceuticals to international development and aid organizations, including World Health Organization, UNICEF and BMGF. It also works within India to supply central and state government hospitals, public sector companies, the armed forces and retail customers.

Challenge

Biological E. is committed to providing customers with access to high-quality medicines at affordable prices. As a low-cost pharmaceutical provider, the company faces the challenging task of balancing strict quality standards with competitive operating costs — ensuring that its products are consistently produced and controlled, all while maintaining healthy profit margins.

To ensure that business runs as profitably and productively as possible, Biological E. needs strong visibility and control of every link in its operational chain. To achieve this, the company recently introduced an integrated suite of SAP ERP applications, used to manage business processes from sales and finance to materials and inventory management.

With end-to-end operations underpinned by SAP applications, Biological E. knew that guaranteeing high performance and round-the-clock availability for the new solutions would be key to continued business success.

Mr. Srinivasan, senior project consultant at Biological E. Ltd., says, “SAP ERP applications are absolutely critical to driving our day-to-day operations and must be

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> "With SUSE and SAP solutions supporting the business, we are confident that we can take best advantage of the growth opportunities that the market holds and guide Biological E. to even greater heights of success."
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> Biological E. Ltd.

kept up and running at all times. Even minor delays or downtime would have a major impact on the business: it would be extremely difficult to manage orders, orchestrate manufacturing processes and distribute products.

"Working with sensitive pharmaceutical products only adds to the pressure. We often have to meet tight delivery deadlines, and failing to do so would prevent doctors and pharmacists from supplying patients with essential medicines — not to mention put us at risk of regulatory penalties and reputational damage."

To keep its operations running smoothly at all times, Biological E. looked for a way to protect critical SAP workloads against the risk of downtime and to increase overall service availability — all while keeping a tight rein on operating costs.

Solution

To help design and deploy a rock-solid IT infrastructure for supporting its SAP ERP application suite, Biological E. turned to its partner SAT InfoTech. The latter recommended implementing SLES for SAP Applications on commodity x86 servers to deliver the perfect balance of top performance and reliability at a low cost of operation.

Srinivasan says: "We looked into several operating system and server configurations, and while many promised to deliver the features we were looking for, they came at too high a cost. In contrast, SLES for SAP Applications offered the right combination of flexibility and reliability, in addition to being very cost-effective; it was the ideal choice."

Another key deciding point for Biological E. was the fact that the SUSE Linux Enterprise (SLE) platform is optimized for running SAP applications and comes with the backing of expert support from SUSE.

"We appreciated that SLES for SAP Applications is fully validated and certified by SAP," says Srinivasan. "The strong partnership between SUSE and SAP gives us confidence that the solution will be well-supported and maintained, both now and in the future. And being able to call on the SUSE team for advice and support gives us great peace of mind that any issues or concerns will be swiftly resolved."

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Achieving high availability

Offering extreme high availability, SLES for SAP Applications is the ideal operating system for delivering continuous access to critical SAP applications and data. Taking advantage of the SLE High Availability Extension — an integrated set of open source clustering technology — Biological E. has established a highly-available, two-node cluster for SAP production systems.

In this configuration, Biological E. runs its entire SAP production system, including the database and all cluster-controlled instances, on a single cluster node. A backup of the main production system runs on a second cluster node. To provide for comprehensive replication and to support full redundancy, the company uses an active/active high availability configuration.

In the event of an outage, Biological E. may automatically resynchronize 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.

"SLE High Availability Extension helps us to ensure that our SAP landscape remains highly available at all times," says Srinivasan. "Our failover time is less than a minute, meaning that we can get key systems back up and run-ning with minimal impact on operations, ensuring that business continues as usual, no matter what."

The high availability configuration includes OCFS2 (Oracle Cluster File System 2) — an open source, symmetric and parallel cluster file system. With OCFS2, each application's files are available to all nodes in the cluster, and file access is coordinated through DLM. Nodes may concurrently read and write directly to storage via the stan-dard file system interface, enabling easy management of applications that run across the cluster. Biological E. can easily create an image of the shared application files, helping to provide effective disaster recovery in the event of a node failure.

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"SLES for SAP Applications ensures that our users can quickly and consistently access the information they need to make well-informed decisions. Teams gain fast insight into all areas of the business and can coordinate operations effectively. All of this helps Biological E. boost business performance and profitability."

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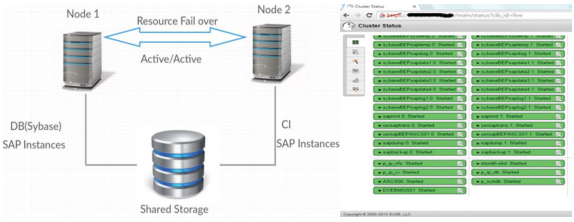
Senior Project Consultant
Biological E. Ltd



Boosting flexibility with virtualization

To support SAP development and quality assurance instances, Biological E. has provisioned distinct virtual environments for each instance on a single physical server, using Xen virtualization technology. Server virtualization enables the company to preserve its existing system architecture while using a more efficient physical infrastructure.

Srinivasan says: "With virtualization, we can easily scale up computing resources to test new SAP functionality or configure new versions on an as-needed basis and scale down again once this work is complete. This flexibility allows us to meet the changing demands of the business while keeping operational costs to a minimum."

Results

Today, with SLES for SAP Applications delivering outstanding uptime and performance for the company's SAP environment, Biological E. benefits from a unified view of enterprise-wide information and centralized control over operations.

Srinivasan says: "SLES for SAP Applications ensures that our users can quickly and consistently access the information they need to make well-informed decisions. Teams gain fast insight into all areas of the business and can coordinate operations effectively. All of this helps Biological E. boost business performance and profitability."

Tight control over costs

With SLES for SAP Applications, Biological E. has gained the stable and reliable platform that it needs to deliver optimum availability for SAP applications while reducing IT expenditure, thanks to lower investment, maintenance and licensing costs.

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Srinivasan says: "SLES for SAP Applications provides excellent availability, reliability and stability at a highly competitive price. Simplified licensing means that we require only one subscription per physical machine, helping keep software licensing and support costs low.

"With Xen virtualization on SUSE Linux, we can easily scale up our systems to meet increased demand without the need to invest in additional physical servers. This allows us to grow in a very cost-effective way. In all, we estimate that we have saved around 50% on IT costs thanks to SLES for SAP Applications."

Running a better business

Configured with the SLE High Availability Extension, the SUSE Linux Enterprise landscape at Biological E. delivers the round-the-clock availability that the company needs to stay on track for success in the fast-paced pharmaceuticals market.

Srinivasan concludes: "We are very impressed with the availability and reliability offered by the SUSE solution. We have been able to achieve uptime of up to 99.999% with SLES for SAP Applications, helping us sustain close to 24/7 operations.

"With SUSE and SAP solutions supporting the business, we are confident that we can take best advantage of the growth opportunities that the market holds and guide Biological E to even greater heights of success."

Benefits

- Cut IT expenditure by 50% through lower investment, licensing and maintenance costs.
- Delivered 99.9% uptime for mission-critical SAP applications.
- Ensures that business continues as usual in the event of downtime with near-instant failover capabilities.

Find out how SUSE can help you become an innovation hero!

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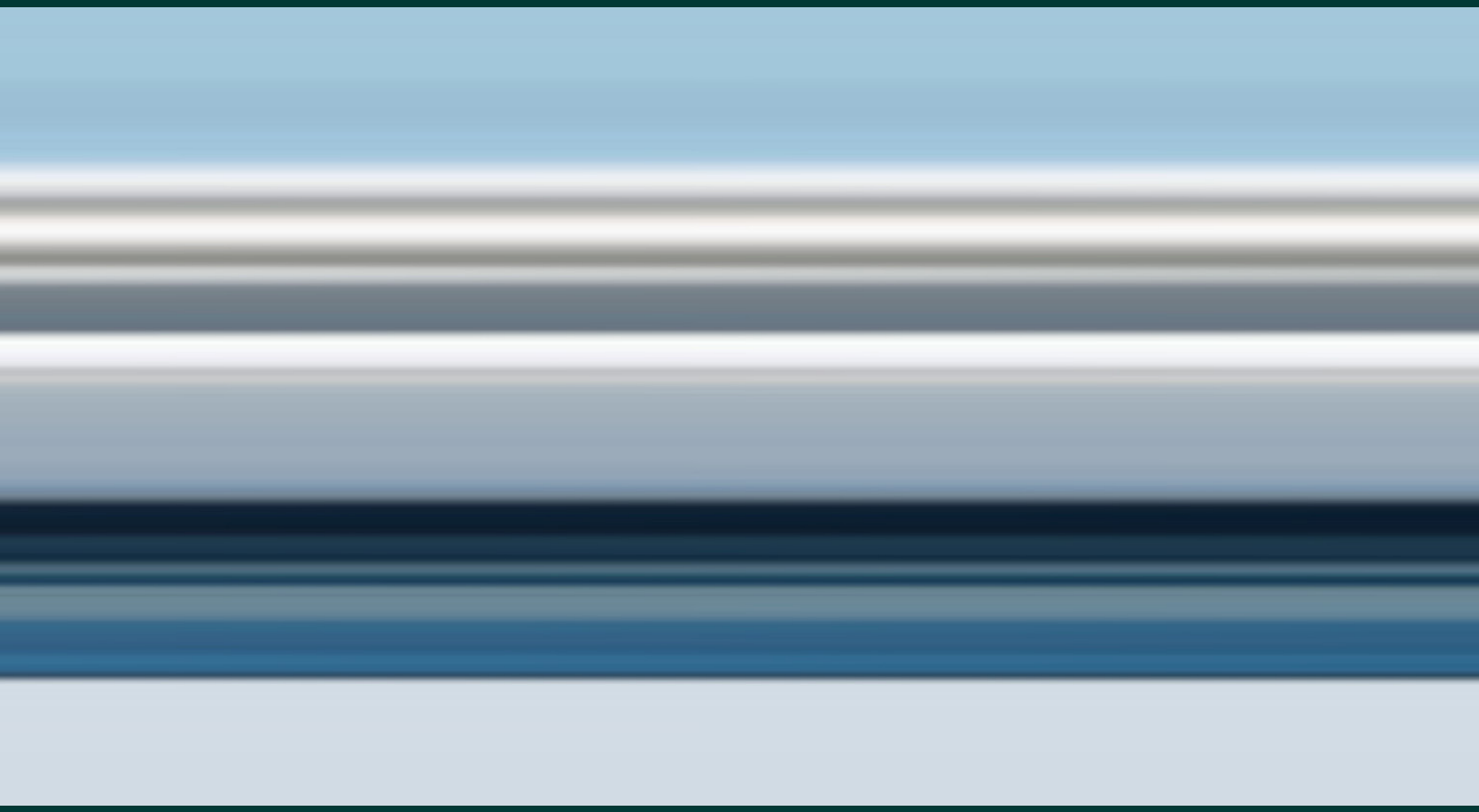

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