



BILCARE RESEARCH COST-EFFECTIVELY SCALES FOR BUSINESS GROWTH WITH RED HAT ENTERPRISE LINUX WITH INTEGRATED VIRTUALIZATION

FAST FACTS

Company	Bilcare Research	
Red Hat partner	Taashee Linux Services	
Industry	Pharmaceutical Research and Healthcare Industry	
Geography	India	
Business challenge	To set up a scalable and cost-effective system infrastructure for core business that is easy to deploy and enables ease of management of a heterogeneous IT infrastructure with little impact on existing IT services	
Solution	Bilcare Research virtualized its entire infrastructure on Red Hat Enterprise Linux Advanced Platform with integrated virtualization, providing on-demand business scalability, while achieving significant cost savings and increased operational efficiencies	
Software	Red Hat Enterprise Linux Advanced Platform with integrated virtualization and clustering technologies, mySAP Business Suite of Applications, Microsoft Exchange, Microsoft Active Directory, Microsoft SQL Server	
Hardware	IBM Blade System, load balancers	
Benefits	Attained a highly cost-effective and consistent virtualized IT infrastructure; reduced costs with a reduction in power, space, and management overhead costs; improved operational efficiency; and achieved on-demand provisioning time for new machines	

BACKGROUND

Bilcare Research partners is an innovation-led solutions provider that partners with the global pharmaceutical and healthcare industry to improve patient healthcare outcomes. An R&D driven organization, Bilcare Research focuses on developing cutting-edge solutions that enable the pharmaceutical industry to realize significant qualitative and measurable cost and time benefits in the 'drug discovery to market' value chain.

Bilcare Research has a global footprint with modern manufacturing and R&D plants located across U.S., Europe, India and Singapore. The company has revenues of \$165 million, more than 500 employees, 12 offices, more than 500 pharmaceutical customers. Bilcare Research drives its continual innovation process with a unilateral focus on addressing the key concerns and challenges of the pharmaceutical and healthcare industries.

BUSINESS CHALLENGE

Bilcare's business growth in the last three years led to a horizontal growth in IT systems and applications. The emerging focus of Bilcare on technology solutions and services for its customers required a scalable and cloud IT landscape to host its mission-critical systems. Bilcare also wanted to optimize its IT spending, leveraging existing IT assets, with no augmentation of its IT team due to reduced budgets.

Taashee Linux Services, a Red Hat Partner and the virtualization implementation partner for Bilcare, understood that in an effort to optimize IT resources, any selected solution had to leverage the existing IT infrastructure comprised of Microsoft Active Directory, Microsoft Exchange, and Microsoft SQL Servers. In addition, the final solution had to ensure maximized manageability of servers with installation and post-installation support.

Ease of migration of enterprise applications, performance, scalability, and stability of the virtualized platform were the key concerns for Bilcare as it explored new solutions. As Bilcare's business continued to grow, the increasing software licensing costs directly affected the organization's margins. Bilcare's key priority was to build a scalable infrastructure that could grow on demand, without having to make a significant investment in excess capacity.

"Our main concerns were on server utilization, performance, and continuity," said Manoj Arora, CIO, Bilcare Research. "We wanted a robust solution with minimal footprint and without any new complexity for up-time availability during and after our virtualization project."

Bilcare wanted a cost-effective solution that provided operational agility and enterprise-class reliability and performance. The technology leadership team at Bilcare had prior experience in virtualization on UNIX and other proprietary platforms of operating systems and hardware. They were convinced on the benefits of virtualization, but needed to validate whether x86-based virtualization would meet its enterprise needs. Published benchmarks for Red Hat Enterprise Linux Advanced Platform with integrated virtualization exceeded the company's expectations, giving the Bilcare team the confidence to make an informed decision.

SOLUTION

The IT team at Bilcare considered various solutions with Taashee Linux Services including VMware, Microsoft Hyper-V, Citrix XenServer, and Red Hat Enterprise Linux with integrated virtualization, and determined that Red Hat provided the most robust solution.

After carrying out various performance and reliability tests with the assistance of Taashee Linux Services, Bilcare decided to go ahead with Red Hat Enterprise Linux Advanced Platform with integrated virtualization for its high performance levels in para-virtualized environments and lower costs in licensing and subsequent support requirements, thereby reinforcing the overall cost advantage with Red Hat Enterprise Linux.

In the first phase of installation, approximately 15 servers including Microsoft Exchange, Active Directory Server, file servers, web servers, SQL servers and other specialized application servers were virtualized. Taashee successfully consolidated each of Bilcare's physical servers onto two physical servers with 16 cores and 32 GB RAM each.

"The hardware-assisted virtualization offered by Red Hat delivered enterprise-class performance and reliability resulting in an uninterrupted shift to a virtual environment."

-Manoj Arora, CIO, Bilcare Research

In phase two, Bilcare smoothly migrated its SAP applications to Red Hat Enterprise Linux Advanced Platform with integrated virtualization. The transition was seamless for the business users, and made the deployment landscape homogeneous, while increasing operational efficiency for the IT team.



Overall, Bilcare will consolidate its entire production environment deployed on about 35 physical servers to six virtualized host servers, with planned capacity available in the virtualized environment for future growth.

BENEFITS

Even as Bilcare's existing infrastructure transitioned over to Red Hat Enterprise Linux most of the network and security infrastructure remained the same. "We did not have to rewrite any of our existing network and firewall policies," said Arora.

Red Hat Enterprise Linux Advanced Platform with integrated virtualization helped Bilcare to reduce its server footprint. The number of physical servers was reduced from 35 to six servers. Since Red Hat solutions are based on open standards, Bilcare is not locked into any specific operating system or hardware. Bilcare's experience in a variety of hardware platforms, combined with the increasing reliability and computing power of Red Hat Enterprise Linux, made the decision easy.

"The clustering technology included in Red Hat Enterprise Linux Advanced Platform is a significant value add," said Abhishek Datt, CTO, Taashee Linux Services Ltd. "Without additional investment, Bilcare will get a proven fault tolerant system capable of automatically migrating virtual machines when hardware or system failures occur on the clustered physical servers."

The availability of a wide range of hardware and drivers certified by Red Hat, as part of its robust ecosystem, made the Red Hat solution more attractive than competing offerings.

Taashee Linux Services assisted Bilcare in developing template-based provisioning of Windows and Linux virtual machines to ease the task of provisioning new servers. With drag-and-drop features, virtual machines could be migrated live, from one physical host to another, in a matter of minutes as opposed to weeks in the physical environment.

Virtualization also brought in significant savings in power and cooling needs. The Red Hat solution was significantly lower in costs when compared with competing solutions. Another benefit was that configuration and settings from the physical world could be migrated to the virtual world without any changes or additional complexity.

"The hardware-assisted virtualization offered by Red Hat delivered enterprise-class performance and reliability resulting in an uninterrupted shift to a virtual environment," said Datt.

Due to the integrated virtualization approach in Red Hat Enterprise Linux, the Bilcare IT team did not require additional training or resources while transitioning from the physical to the virtualized environment. "The same IT team, which was managing our physical infrastructure, is now managing the entire virtualized infrastructure, and with greater ease," said Arora.

Virtualization platform capabilities, costs, and ability support with existing Linux resources played an important role in deciding the virtualization technology. "We may have not attempted such a widespread virtualization deployment without the Red Hat Enterprise Linux integrated virtualization offering and TCO therein," said Arora.



ABOUT TAASHEE LINUX SERVICES LTD.

Taashee is a 100 percent Linux and open source software (OSS) company. Taashee uniquely offers a one-stop solution for all Linux and OSS related projects. We have a dedicated team of certified Linux engineers and passionate developers to handle any kind of projects related to implementation or development on Linux.

Taashee helps its customers to fully utilize the power of Linux and open source technologies. These results in higher stability, higher security and higher performance with lower cost and lesser administrative overheads compared to Microsoft based solution. Even for long-time UNIX users, who are stuck with limited and proprietary solutions, Taashee offers migration services to switch over to Enterprise-grade Red Hat.

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