



EVEREADY INDUSTRIES INDIA LTD.

FAST FACTS

Industry:	Manufacturing
Challenge:	Converting a closely interwoven and complex distribution model into a unified solution to automate the sales & distribution backbone.
Solution:	Software: Red Hat Enterprise Linux, Oracle E-Business Suite 11i.5.9
Benefits:	Simplified management and complete freedom to scale up using low cost commodity hardware. Significant TCO reduction by saving on unnecessary licensing fees. Installing security patches and conducting routine server hardening checks reduced to a bare minimum.

Initially apprehensive about Linux, Eveready Industries has now achieved seamless integration of its mission critical ERP, Oracle E-Business Suite 11i with Red Hat Enterprise Linux AS version 3. The proven stability and maturity of Red Hat Enterprise Linux coupled with its optimum performance on Oracle solutions, gave Eveready the required confidence to take the Linux plunge.

Along with Enterprise Linux, a one of a kind 'active-active' two node cluster implementation enabled by the Red Hat Cluster Suite ensures maximum uptime with zero compromise on hardware resource utilization. Eveready is inching closer towards a completely scalar and bankable powerhouse, running exclusively on Red Hat Enterprise Linux.

INTRODUCTION

Eveready Industries India Ltd. (EIL) is India's leading manufacturer of dry cell batteries and flashlights, and the world's third largest carbon-zinc battery manufacturer. The flagship of Williamson Magor Group, Eveready started its operation in the year 1905. The company holds the distinction of setting up the largest torch manufacturing facility of its kind in South East Asia.

The first dry cell batteries sold by Eveready were imported from USA in a consignment valued at less than Rs 500. Today, Eveready has registered a turnover of Rs 800 crore, establishing a diverse product portfolio ranging from carbon zinc batteries, flashlights and rechargeables, to packet tea - which sell under the 'Greendale' brand. The company has established a power brand repertoire for itself, with its unforgettable "Give Me Red" media campaign. Eveready is now exploring ambitious plans of setting up a joint venture in China for manufacturing batteries.

CHALLENGES

An important factor that has contributed to Eveready's dominance in the market has been its investment in developing a formidable distribution network across the length and breadth of the country. Apart from a traditional urban distribution system comprising of distributors, retail stockiest, wholesalers and retailers, it reaches out to the rural sector through a unique van distribution system. Today, Eveready's products are available in more than 2 million shops, with the company's internal distribution system itself catering to 6,00,000 retail outlets through more than 3000 retail stockists and 1000 van operators.



At Eveready, the legacy environment consisted of a sales & distribution module designed on Oracle and Java, developed and implemented by PwC in 1999 at the sales branches. At the plants, a Materials Management System (MATMAN) was implemented based on Sybase & APT, by NIIT in 1992. A Financial & Payroll system was coded by the company's own internal development team, again on Sybase & APT.

Sybase servers ran on Sun Solaris, while Oracle-Java app servers were hosted on Win2K (earlier powered by Windows NT 4.0). Solaris was deployed on 10 application and database servers, while 14 branch offices and the Head Office internal LAN was configured on 25 Windows 2000 servers.

Understandably, the challenges associated with managing such a closely interwoven and complex distribution model were immense. A unified solution to automate the sales & distribution backbone became absolutely essential. Another cause of concern was the company's diverse geographical presence, which created the need for establishing a zero time-lag service & support model.

Moreover, the disparate nature of business applications and server environments made administration and maintenance an arduous task.

Arup Choudhury, GM- IT, Eveready Industries Ltd., explains, "Using technology to manage 15 sales branches and 9 manufacturing plants, plus an additional mobile distribution operation in rural sectors, is an extremely formidable task. Our legacy environment was disparate, built on a heterogeneous demand-based architecture. This created a need for establishing a single point of contact."

Eveready began to analyze the possibility of selecting a robust, scalable architecture that could adapt to virtually any deployment scenario, be it running a highly mission critical ERP solution on an Intel 64-bit platform, or powering mail servers and managing proxy's.

Dynamic growth created the need for immediate scalability of infrastructure, i.e. technology needed to scale both proportionately and rapidly. As the company's Solaris servers were running on expensive RISC-based hardware, increasing computing power implied an added strain on annual IT budgets.

A system that could support maximum users on inexpensive hardware became the need of the hour.

Eveready began looking for a mature stable platform to host its mission-critical ERP that could deliver enterprise class performance without the high capital expenditure and platform lock-in involved with UNIX-RISC machines.

SOLUTION

Having already experienced the benefits of using Red Hat Enterprise Linux on the mail-proxy end in 2002, Eveready was convinced that the solution was bankable enough to power its entire mission critical ERP infrastructure.

The company decided to invest in an expensive, but necessary ERP project, which could map the existing framework to a next practices model driven by new ideas being generated within the organization and being implemented to meet the business goals. To further this vision, Eveready chose to implement Oracle E-Business Suite 11i.5.9 on Red Hat Enterprise Linux AS v.3.

Eveready has managed to setup a ERP powerhouse on basic, low-cost Intel-based servers - i.e. Red Hat Enterprise Linux AS 3.0 powers Oracle 11i on two Dell 4-CPU Xeon MP 2.7 GHz machines with 4 GB RAM each, attached to an EMC shared storage box.

Today, Eveready has one testing & development server that runs Oracle 11i on Red Hat Enterprise Linux AS v.3 and two production servers running Red Hat Enterprise Linux AS v.3, which are networked to an external Storage Area Network (SAN) configured in a failover mode.

All services, including database, authentication, infrastructure, forms and web services, have been distributed among the two nodes. With the Red Hat Cluster Suite, these services get transparently transferred to the running node from the failed node with minimal delay, which is typically within a few seconds (Depending upon the number of services active at any given point of time).

Red Hat Cluster Suite provides an automatic failover solution from one node to the other. "We implemented the Red Hat Cluster Suite to ensure redundancy and 100% uptime," says Choudhury.



At the time of implementation, the Red Hat Engineering team wanted to design an ideal failover setup, which could leverage available hardware resources to the maximum. The teams jointly experimented with an active-active cluster setup, i.e. both servers would remain active simultaneously and host different services. All services are configured to run on Virtual IP, so that if one node fails, corresponding services will come up on the live node on the same IP.

Once the services which required to be failed over and the service related files which need to be migrated in the event of a node failure were identified, the Red Hat Engineering team coded failover scripts to implement an automatic solution.

Today Eveready has built a highly mission critical resource system to automate all functionalities of its day-to-day business on the Red Hat Enterprise Linux platform. The approximate budget allocated for the ERP project was Rs 5.5 crore (including hardware and networking costs). With stakes running high, Eveready wanted to ensure that the ERP initiative would achieve the desired ROI, making Red Hat Enterprise Linux & the Red Hat Cluster Suite an ideal solution to bank upon.

BENEFITS

For Eveready, Red Hat Enterprise Linux delivered complete assurance and freedom to both modify and retain components of its existing IT infrastructure. Today at Eveready, Red Hat Enterprise Linux is being used across a wide variety of applications, ranging from powering the company's mission critical ERP system to running mail servers.

Says Choudhury, "Red Hat Enterprise Linux has greatly simplified management and given us complete freedom to scale up using low cost commodity hardware, with absolutely no compromise in performance or reliability. Migration from our legacy environment was seamless, and all applications have been shifted to Oracle E-business Suite on Enterprise Linux successfully."

Looking back, Choudhury is glad that he tried Red Hat Enterprise Linux. Eveready's tryst with Red Hat Enterprise Linux first began in 2002, when the company installed Sendmail on its mail server, and Squid on its proxy server. With the number of mailboxes/users growing rapidly, the performance of the Sendmail server running Red Hat Enterprise Linux has still remained intact at Eveready. The overall benefits

leveraged by Red Hat on the mail server end made Choudhury conclude that Red Hat was the perfect choice for powering Eveready's mission critical ERP infrastructure. Probably one of its strongest benefits, Red Hat Enterprise Linux preserves hardware investments and guarantees the longevity of computing assets - so even if your organization expands, Red Hat Enterprise Linux can scale up without any fuss.

Switching from a 32-bit installation to 64-bit is as easy as a few mouse clicks on the Red Hat Network, at no additional charge. No expensive software upgrades necessary. Just watch your investments grow with Red Hat!

Choudhury explains, "We have managed to achieve a significant TCO reduction by saving on unnecessary licensing fees that are associated with proprietary Operating Systems. Linux provides a very robust kernel, which is extremely difficult to crack. Installing security patches and conducting routine server hardening checks have reduced to a bare minimum with Red Hat."

"Besides, we have plans for setting up a resource powerhouse with Dell's latest server lineup that uses Intel's 64-bit Nocona processors. Red Hat Enterprise Linux is truly way ahead of the competition in providing a perfectly scalable roadmap for 64-bit computing, in an era where others like Microsoft haven't managed to deliver a concrete enterprise-ready solution yet. Red Hat Enterprise Linux has already achieved significant benchmarks on Intel's 64-bit computing platform, giving us total hardware independence and safeguarding our investments for future upgrades," he added.

In addition to the superiority of Linux over proprietary operating systems, Eveready found Red Hat Enterprise Linux to be an ideal platform for Oracle deployments. The Oracle installation package consists of an exhaustive list of parameters which can be fine tuned for maximum performance on Red Hat Enterprise Linux. "The Red Hat Engineering team worked on fine tuning several kernel and environment variables, which further leveraged performance," adds Choudhury.

Dispelling the notion that Linux resources are hard to find, EIL is receiving support from all sides with Red Hat.



"Red Hat has delivered true enterprise class compatibility and support both onsite and remotely. Contrary to the belief that Linux support is difficult to source, we have received a bankable three-point support offering from all sides. Red Hat has established a strong presence in the east, and they provided us with timely implementation, training and support.

Additionally, Oracle also offered us end-to-end OS level support, like they do for all customers running Red Hat Enterprise Linux as a part of their Unbreakable Linux program. Even our ERP implementation partner TCS is supporting us on various Linux-related issues, making it collectively a three-pronged base for us to build on. That's the kind of confidence that helped us take the mission-critical plunge with Linux. It's almost impossible to go wrong with Red Hat, because there are so many entities backing it up today," reasons Choudhury.

FUTURE ROADMAP

After successfully implementing Enterprise Linux on the server end, Eveready is now closely looking at the possibility of a desktop migration initiative. As Eveready's ERP applications are browser based, there are no issues as far as compatibility on Enterprise Linux desktops is concerned. Once the Linux interfaces get accepted amongst users, Eveready is looking to frame a planned migration strategy to move to Red Hat Desktops from Windows. Besides saving in licensing fees, Eveready plans to inherit the benefits of Red Hat Desktops - i.e. the security, stability and simplified management.

Also on the agenda is a migration of Windows servers running Active Directory Server (ADS). "Our ADS has been configured on Win2K, running on 25 servers in total - one for each of our 15 sales branches, 9 factories and head office. With the success of Red Hat Enterprise Linux on the mission critical front, we are closely evaluating the possibility of migrating our Windows 2000 servers as well," explained Choudhury.

With strong benefits visible already, Eveready has purchased Linux-based storage servers like the latest Dell-Veritas offerings, to maintain a unified architecture. An extensive ROI calculation phase has already been initiated for the same. Eveready anticipates a recurring benefit in using Enterprise Linux, primarily because of the significant cost savings achieved in administering the low-maintenance Red Hat Enterprise Linux AS v.3. "Thanks to Enterprise Linux, today i am in a better position to justify the expenses incurred in technology," concludes Choudhury.

CONCLUSION

By implementing Red Hat Enterprise Linux to power its mission-critical ERP project, Eveready Industries has benefited from its flexibility, robustness, scalability, low TCO and security. The manufacturer has joined the ranks of numerous enterprises that have created a failsafe environment by powering their entire business critical infrastructure with Red Hat Enterprise Linux & Red Hat Cluster Suite. With Red Hat's unique 64-bit strategy, which requires no additional purchase for switching from 32-bit to 64-bit architectures (just a simple upgrade), Eveready, like many other enterprises today has showcased the benefits of planning a long term IT strategy with Red Hat.

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