

Real-Time Linux Advantage

Sahara India Pariwar

The Sahara India management chose Qmail, a Linux-based mailing system, for communication between its offices spread across India. The system has proved to be a great boon to the organisation, as it has saved costs and is highly scalable. There are other benefits too.



Sahara India Pariwar is a Rs 320 billion diversified conglomerate with varied business interests in public deposit mobilisation, housing, aviation, media and entertainment. It has launched projects in consumer products and information technology. The Sahara India Pariwar's business initiatives include Sahara Net, Sahara Hospital, Araria Jute Project, Sundarbans Project and a project on agriculture. Spread throughout India, the company has over 690,000 workers and 1700 establishments.

With over 1600 locations, and with e-mail becoming the primary means of communication, management of e-mail had become a significant challenge. Also there was an urgent need to bring all locations under a single, robust communication medium.

Sahara was looking for a mailing solution which could meet present and future e-mail requirements and at the same time handle other aspects of Internet communication and collaboration such as messaging, VPN, scheduling etc. Not only should the solution have low initial cost but the

total cost of ownership over a period of time should be low.

OBJECTIVE

An e-mail system, catering to the needs of today, capable of working in homogenous environment and scalable to the future demands.

This goal made the requirements of the e-mail system clear.

- Solution should cater to 1600 locations and scalable to 100,000 plus users with Sahara centralised manageability.
- Should work on low bandwidth
- Should enable effective mail traffic management
- Should enable efficient content management with extensive analysis and reporting
- Migration from multiple platforms

SOLUTION

The choice was between popular messaging architectures such as Lotus Domino, Microsoft's Exchange server, Netscape Messaging Server, Novell GroupWise, Postfix, Qmail, and Sendmail.

Contenders were narrowed down to Microsoft Exchange and Q-Mail over Linux. The following were considered as major factors influencing the decision:

- Cost of the package
- Cost of configuration and customisation
- Cost of the required hardware platform
- Security



Supriyo Mookherjee, AGM, Telecom, Sahara Net, Lucknow

“Sahara India is a large and multi-faceted organisation spread across India and set to expand its international presence. As an organisation we require a secure, stable and fast mode of communication by which we can interface to all our offices seamlessly. After implementing Qmail (Linux-based mailing solution) this thought has become a reality. Most amazing is the transition from paper correspondence to e-mails. Just before implementing Qmail, e-mail was used rarely and it was not accessible to every one in the organisation. But now e-mail is generating maximum traffic and the correspondence delay is reduced significantly. It is more stable and robust and can be fully customised to our needs. Today our 1500 offices are using e-mail.”

- Scalability
- Recurring cost

Q-mail was scoring well on all these criteria. But there were a lot of apprehensions based on the following reasons.

- Where is the support?
- Who will provide training?
- Who will manage it?
- Will long-term costs be reasonable?
- Would the technology sustain itself?

Sahara Net, along with its consultants, compared many aspects of the mail environment and decided to deploy Linux with Qmail architecture. The reasons for the decision were:

- Ruggedness of the solution
- High return on investment
- Scalability of the solution
- Scalability of the platform
- Ability to take risk
- Confidence generated by the vendor
- Confidence on technology
- Vision

THE DEPLOYMENT

Despite the complexity and magnitude of the project, Linux deployment helped trim costs without compromising anything.

The Sahara application is a Qmail based e-mail cluster and LDAP database. The server hardware infrastructure consists of Compaq

ML560/530 servers on a high-speed Internet backbone and ATM networks. The physical locations are connected by over 1600 VSATs, spread throughout the country. The backbone connectivity is provided by Bharti.

The Linux implementation is spread across the country over 12 servers working in cluster mode and providing directory services using replication and failover on LDAP. E-mail services were deployed over Qmail with cluster support. The Linux servers handle over 200 domains and over 20,000 users. The system is scalable to five million users and can be expanded to handle various collaborative applications of Qmail and Linux.

FINAL BENEFITS

Qmail at Sahara has been a huge success and it is providing direct value to their business.

- There is a 90 per cent reduction in initial licensing costs, recurring licensing costs, and the cost of a license for each node added.
- All the e-mail infrastructure over multiple servers and multiple domains is handled through remote management on a real-time basis. The e-mail service availability is 24*7*365 at a fraction of the cost, which is a huge business benefit.
- The system has scaled from 200 users to 10,000 users over a period of six months

without major hiccups, and is expected to touch 100,000 users soon.

- With the infrastructure in place, the Qmail server cluster provides instantaneous mails to heterogeneous group of companies located over a large expanse.
- Implemented on top of Linux, Qmail provides service with very low downtime, minimal interruption and easily managed mission-critical applications.

FUTURE PATH

- High availability through clustering
- Integration with corporate instant messaging
- Integration with VOIP
- Integration with scheduling
- Integration with calendaring **LFY**

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