



# SRI ECUADOR IMPLEMENTS RED HAT SOLUTIONS

A SCALABLE, RELIABLE PLATFORM TO PROVIDE ONLINE SERVICES TO TAXPAYERS

## FAST FACTS

Industry	Government, tax collection
Geography	Ecuador
Challenge	To develop a technology solution on a stable, secure, and affordable platform for an Internet-based tax return project
Migration Path	From proprietary software to Red Hat Linux 6, Red Hat Enterprise Linux 5, and from JBoss Application Server 2.4 to JBoss Enterprise Application Platform.
Software	Red Hat Linux, Red Hat Enterprise Linux 5, JBoss Enterprise Application Platform
Hardware	HP blades with dual-core AMD processors and quad-core Intel processors on a 64-bit architecture
Benefits	To promote and enable Internet-based tax return filing by taxpayers to reduce processing times and avoid increasing the customer service infrastructure at its own counters and bank tellers.



## BACKGROUND

The Internal Revenue Service – SRI – Ecuador’s tax management agency, provides services to over one and a half million taxpayers throughout the country’s 24 provinces. It maintains a workforce of 2,400 and recorded an annual income of over USD 5 billion as per 2007 data. SRI services include: taxpayer register, reception of tax returns, authorization of sales receipts, taxpayers’ claim and inquiry handling, and tax audit, among others.

SRI invested in information technology to provide over 15 different services through its portal for taxpayers and for the 60 applications on its Intranet for internal management, all Web-based. In addition, it keeps automatic information exchange processes with other government entities.

## CHALLENGE

SRI developed plans to implement a new tax service program that would promote voluntary compliance with tax obligations among its taxpaying customers. It investigated different ways to make it easier for its customers to comply with fiscal procedures and created easier processes.

In 2002, SRI decided to pilot an Internet-based tax return project aimed at encouraging taxpayers to submit their tax returns online instead of submitting papers through the banking system. This called for a technology solution that could offer a stable, secure, and affordable platform.

---

**“Our experience with open source has been successful. We have achieved an efficient, reliable, scalable and affordable platform. Having access to Red Hat’s source code has allowed us to customize the functionality of the products in terms of our needs. The success achieved with Red Hat solutions has encouraged us to explore open source solutions for other areas of our business.”**

**- Engineer Alejandro Subía, National Director of Technological Development at SRI**

---

## **SOLUTION**

SRI first began using Red Hat solutions in 1999 when it implemented Red Hat Linux 6 on Intel Pentium III processors for a variety of internal projects but mainly to implement the Internet-based billing issuance control system. It turned to Red Hat solutions after analyzing product capabilities and the freedom from licensing costs. This last detail allowed SRI to move ahead with the project as it avoided the red tape typical of government procurement, with the ensuing time saving.

After experiencing success with its initial implementation of Red Hat Linux 6, SRI analyzed Red Hat solutions for use in its Internet-based tax return project.

“SRI started a solution evaluation process that included Novell’s SUSE and Red Hat Solutions. Red Hat Linux was chosen for cost savings and reliability. Likewise, when we searched for an application server solution, we investigated offerings from Oracle, BEA and JBoss. JBoss was the option that best met the standards and budget set for the project. Thus, we opted for implementing JBoss Application Server 2.4,” explained Engineer Alejandro Subía, National Director of Technological Development at SRI.

With the combination of Red Hat Linux and JBoss Application Server, the Internet-based tax return system was implemented as a pilot project by the end of 2002. The project introduced the Internet as a massive interaction

platform with taxpayers for the first time. Three years before, in 1999, SRI implemented the Internet-based billing control system, but this is used by a limited number of users (authorized printing houses) in order to authorize sales receipt printing for taxpayers.

“From the beginning of the project, Red Hat has been the operating system of choice for our internal application servers and we’ve updated it with each new version released to the market. We are currently using Red Hat Enterprise Linux 5. JBoss has served as our primary J2EE application server, and today we rely on JBoss Enterprise Application Platform” said Engineer Patricio Albuja, Head of the Planning Department of the Technological Development Management at SRI.

Today, Red Hat Enterprise Linux 5 is used on 90 percent of the HP Blade servers with dual-core AMD processors and quad-core Intel processors on a 64-bit architecture. It supports the 60 Intranet applications and 15 Internet applications, and approximately 95 percent of SRI’s employees rely on Red Hat solutions daily to execute their job.



## BENEFITS

SRI has achieved the goal it set out to accomplish with its Internet-based tax return project and today, the number of taxpayers approaching bank tellers and SRI counters looking for help to submit their tax returns has dropped remarkably, especially high-income taxpayers that account for 70% of the tax collection aggregate.

“We’ve experienced hardware and software cost savings after migrating to Red Hat solutions. In terms of hardware, we were able to purchase servers with lower cost architectures, such as x86 in place of Sun’s Sparc, which was SRI’s primary platform. In terms of software, Red Hat offered the best total cost of ownership - TCO - against proprietary competitors,” commented Alejandro Subía.

Red Hat Enterprise Linux 5 and JBoss Enterprise Application Platform have provided SRI with a robust platform for reliable Internet services for its taxpaying customers.

“Our experience with open source has been successful. We have achieved an efficient, reliable, scalable and affordable platform. Having access to Red Hat’s source code has allowed us to customize the functionality of the products in terms of our needs. The success achieved with Red Hat solutions has encouraged us to explore open source solutions for other areas of our business. As a matter of fact, SRI’s planned software architecture up to 2011 mostly contemplates open source solutions as certain risks relating to support availability have been eliminated with the Enterprise version alternatives,” explained Engineer Subía.



## RED HAT SALES AND INQUIRIES

---

1-888-REDHAT1  
[www.redhat.com](http://www.redhat.com)