Intervención General de la Administración del Estado (IGAE)

Keeping Spain's Government Budget Highly Available and Protected with Solutions from Symantec and Sun

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IGAE, the Spanish government's general comptroller office, faced increasing demand on its IT infrastructure and turned to Symantec and Sun to enhance availability while streamlining management. Results include 99.9 percent availability, elimination of planned downtime, 99 percent faster storage allocation changes, elimination of .PST files, and a virtually 100 percent success rate for backup and recovery.

THE CHALLENGE

"What does the government do with our money?" Almost every taxpayer in the world has this question.

In Spain, taxpayers turn to the Intervención General de la Administración del Estado (IGAE), based in Madrid, to get answers. IGAE is the national government's central accounting office, controlling and administering public funds.

Three factors have increased the pressure on IGAE and its IT infrastructure in recent years. One is a growing citizen demand for transparency in government spending. Another is an expectation that financial information should be available 24x7 due to the advent of Web portals. The third factor is Spain now participates in European Union (EU) government, which requires an additional layer of financial spending and administration.

These pressures translated into specific needs in IGAE's IT infrastructure. In 2002, IGAE needed to increase the availability of IT services and upgrade and simplify IT management. In 2005, the organization needed to control spam. In 2006, it needed a way to control the growth of email storage, and enhance the ability to search email information.

THE SOLUTION

To increase availability, IGAE deploying a disaster recovery data center within ten kilometers of its main data center in Madrid. The two data centers are connected by optical fiber cable.

In 2002, IGAE enhanced availability by clustering its financial management applications using Veritas™ Cluster Server HA/DR software, a part of Veritas Storage Foundation™ HA software. It also uses Veritas Storage Foundation for Oracle software to simplify management of its Oracle 9*i* database.

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Manuel Alonso
Assistant Director of
Information Technology
IGAE

Veritas NetBackup's backup and recovery success rate has been nearly 100 percent.

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Manuel Alonso
Assistant Director of Information Technology
IGAE

To enhance data protection, IGAE standardized on Veritas NetBackup™ software enterprise-wide in 2002. It also began using Veritas Storage Exec™ software to manage user storage quotas in its Microsoft Windows environment.

Spam became a growing problem, and in 2005, IGAE deployed a Symantec Mail Security 8300 appliance at the gateway and Symantec Brightmail™ AntiSpam software on its email servers to block unwanted email.

To gain control over email storage, IGAE implemented Symantec Enterprise Vault™ software in 2006. Symantec Consulting Services assisted in deployment.

THE RESULTS

"The combination of Veritas Cluster Server and Veritas Storage Foundation is our most valuable Symantec solution," says Manuel Alonso, assistant director of information technology at IGAE. "These two products enable us to achieve availability of 99.9 percent."

IGAE uses Veritas Cluster Server HA/DR to manage four server clusters of three nodes each on its Solaris platform. Each cluster is in a 2:1 campus configuration, with the two active servers in the main data center failing over to a passive server in the disaster recovery data center. Cluster Server integrates with Hitachi TrueCopy, which mirrors storage data between the two centers.

With Veritas Cluster Server, IGAE's recovery point objective (RPO) is virtually instantaneous, and recovery time objective (RTO) is between two to four hours.

"Thanks to Veritas Cluster Server, planned downtime has been eliminated," Alonso says. "And all clusters are managed from a single pane of glass, reducing administration time an estimated 50 percent. It was very important for us to control all clusters from a single point, and with the facility of use Cluster Server provides."

Symantec Storage Foundation for Oracle virtualizes and streamlines administration of IGAE's multivendor storage environment. Administrators can make allotment

changes on the fly in minutes that previously took hours to make, and required application downtime as well. "We take advantage of many of the product's features, but one of the most important is improved performance," Alonso says. "We achieve high rates with the chosen solution, as well as the ability to avoid data corruption in case of link failure by using I/O fencing. In the past, adding volume meant stopping the service, as well as reallocating. Now this is a smooth process that only takes a couple of steps, and most important, can be done while the system is online."

Sun Microsystems, a Symantec Global Strategic Partner, provides outsourced storage management at IGAE and introduced the idea of using Storage Foundation. "Sun is very helpful in managing our storage and supporting our IT needs," Alonso says.

"Symantec Enterprise Vault is our second most valuable Symantec solution," Alonso notes. The solution has enabled IGAE to offload hundreds of gigabytes of email from servers to an archive, where Enterprise Vault's compression and single instance storage have reduced email volume by 70 percent.

The IT team used the .PST Migrator option of Enterprise Vault to discover and migrate .PST files from desktops and email servers to a secure archive. There Enterprise Vault makes the full text of all messages and attachments searchable. "Email from five different locations has been consolidated in one," Alonso says.

Employees can search and access archived email from desktops or over the Internet through Microsoft Outlook Web Access. If they are working remotely with one of the organization's laptops, they can take a copy of their archived email with them using the Enterprise Vault Offline Vault option.

Spam had been an increasing problem, and IGAE had no antispam solution. It deployed Symantec Mail Security 8300 appliance at the gateway and Symantec Brightmail AntiSpam on its email servers, and as a result, "our Symantec solution is stopping 80 to 90 percent of spam, and employees are much more productive," Alonso says.

Veritas NetBackup protects 30 terabytes of data, successfully keeping backups within an overnight backup window. IGAE uses a disk-to-disk-to-tape strategy and NetBackup is achieving a near 100 percent success rate for backups and recoveries. The NetBackup Vault option automates tape management, and the Agent for Microsoft Exchange keeps Microsoft Exchange available during backup.

"Symantec solutions give us a greater level of control," Alonso sums up. "We count on them for high availability, better email management, spam control, and reliable backup and recovery."

All that is transparent to Spanish taxpayers and government employees who, when they log in, can successfully find the budget information they wanted waiting, virtually whenever they need it.

SOLUTION AT A GLANCE

Key Challenges

- Ensure high availability of data and services to users
- Reduce storage management time while increasing storage uptime
- Increase control over email storage growth
- Enhance email searchability
- Eliminate .PST files
- Minimize productivity loss to spam
- Enhance data protection while accommodating rapid data growth

Solution

Symantec data center management enabling high availability, automated storage management and centralized data protection

Symantec Products

- Veritas Storage Foundation™ HA
  - Includes Veritas™ Cluster Server HA/DR
- Veritas Storage Foundation for Oracle
- Veritas Storage Exec™
- Symantec Enterprise Vault™ with Offline Vault and .PST Migrator options
- Symantec Mail Security 8300
- Symantec Brightmail™
- Veritas NetBackup™ MP5 with Vault option and Agent for Microsoft Exchange

Symantec Services

- Symantec Consulting Services
- Symantec Essential Support Services
  (for Veritas Cluster Server)
- Symantec Basic Maintenance Services
  (for other solutions)

Symantec Global Strategic Partner

- Sun Microsystems (www.sun.com)

Technology Environment

- Applications: Software AG Natural and Adabas
- Databases: Oracle 9*i*
- Server platform: Sun Fire E20K, Sun Fire 15K, Sun Fire 6800 running Solaris 8, 300 Dell, HP, NEC running Microsoft Windows Server 2003
- Storage: Sun, Hitachi Universal Storage Platform (USP) 600, Hitachi Thunder 9500 V series
- Tape Library: Sun StorageTek L700E and L20

Business Results

- Business continuity clustering achieving:
  – 99.9% availability
  – Virtually instantaneous recovery point objective (RPO)
  – 2-4 hour recovery time objective (RTO)
  – Elimination of planned downtime
  – 50% reduction in cluster administration through centralization
- 99% faster storage allocation through changes made on the fly in minutes instead of hours, with downtime eliminated
- 35% reduction in email store, with .PST files eliminated
- 80-90% of spam blocked
- Virtually 100% success rate for backup and recovery jobs