Case study

Deloitte consolidates archiving with iCAS on HP CI

Integrated archiving solution meets data retention requirements while boosting performance and cost savings

HP recommends Windows.®

“iCAS on HP is a great example of a technology investment that pays real dividends. It is enabling IT to support the business by ensuring compliance while maximizing performance and efficiency in the data center.”

– Marco Rijpert, Chief Technology Officer for Deloitte Netherlands

HP customer case study:
HP Converged Infrastructure and iTernity's iCAS archiving software deliver higher performance, reliability and efficiency to ensure compliance
HP recommends Windows.

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More than half of Deloitte's business is focused on accountancy, which spans administrative organization and internal auditing, financial accounting, and research, as well as corporate analysis, corporate succession, and remuneration. The firm also offers comprehensive tax advice and strategic business consulting.

As a firm handling financial data and private client information, compliance with government regulations is of paramount importance. In the Netherlands, the law requires that Deloitte's documents, databases and content from its internal audit system all be retained for a minimum of seven years and, in some cases, much longer. In the past, Deloitte Netherlands relied on optical disk libraries to archive this information, but as these systems aged they began suffering frequent problems.

The legacy archive solution was part of a larger storage infrastructure comprised of 14 HP EVA Storage systems. To move files from the EVA Storage to optical disks, Deloitte used an internally developed Open Text archive server and EMC DiskXtender software. One of the problems with this approach is that it was not used as a true archive. Instead, actively used email files were being stored on the optical disks, which resulted in very heavy use of the disk library. As the disks filled up they often stopped working, and even during normal operation they were very slow.

Charlie Bos, storage manager for Deloitte Netherlands, explains, “The poor reliability of the optical disks became too much of a risk to the firm. It disrupted productivity for our business users and increased the possibility of non-compliance, which would be very costly. It also required IT to spend many hours fighting fires and working with the various vendors to resolve technical issues. We needed to simplify our archive solution while improving performance and reliability.”

Consolidating archive on a single, integrated platform

Deloitte Netherlands issued a request for proposal (RFP) to the major storage vendors, including HP. A key requirement was that both enterprise storage and archiving be provided on a single platform. The firm also required replication for backup and disaster recovery. Existing compliance certification was a major prerequisite.

After carefully evaluating the offerings presented by each vendor, Deloitte Netherlands selected HP for their high available, non-complex and easy to manage Converged Infrastructure solution in combination with AllianceONE Partner iTernity’s iCAS (iTernity Compliant Archive Software) on an HP Converged Infrastructure. The iCAS software runs on HP ProLiant DL980 servers in a virtualized Microsoft® Windows® Server 2008 R2 operating environment. Both primary enterprise storage and data archive are provided by HP XP P9500 Storage. Two XP P9500 systems are deployed in Deloitte’s twin Amsterdam data centers. The storage is also replicated to a third XP P9500 system located 75 kilometers away in Rotterdam. The XP P9500 systems support over 1.5 PB of which a certain percentage of the data is being replicated.

The iCAS software has replication built in, and it continually monitors the archive process across both paths in Amsterdam, as well as the link to Rotterdam. If iCAS detects any logical errors, the software is self-healing to ensure uninterrupted archiving to maintain compliance and mitigate any risks to Deloitte and its clients. In addition, iCAS has compliance certification and employs write once, read many (WORM) technology to ensure that once data is archived it can never be modified. And iCAS also prevents information from being deleted via the application before the specified retention period has expired.

Marco Rijpert, chief technology officer for Deloitte Netherlands, says, “Ensuring compliance is one of our highest priorities and the iCAS solution running on HP technologies provided the ideal solution to meet our needs. It provides us with one central archive for the full range of our applications and offers simplicity, reliability, performance and economy that other vendors could not match.”
Delivering >85% higher performance

Since implementing iCAS on HP, Deloitte has realized a significant performance improvement for accessing files from the archive. Before with the optical disks, response times were typically about one minute. Now, thanks to powerful HP ProLiant DL980 servers and high-speed 2.5-inch storage drives, response times are under one second.

Giacomo Van der Gaag, storage consultant for Deloitte, comments, “Performance is at least 85% faster. We had only six optical disk drives so if there were a lot of requests, jobs would queue up and cause extensive delays. We no longer experience that problem. Response from the archive is nearly instantaneous. It’s probably faster than a lot of companies’ primary storage.”

Conserving data center space and resources

By consolidating on the HP Converged Infrastructure, Deloitte has also recovered space in its data center and lowered power usage significantly. By replacing 14 EVA Storage systems and four optical disk libraries with multi-tiered XP P9500 Storage, Deloitte has reduced its data center footprint by approximately 16 square meters. The firm also eliminated two servers that managed the optical libraries and consolidated another four servers onto HP ProLiant DL980 servers.

“Power consumption went down by a factor of eight, which saves us about €3,500 per month,” reports Bos. “It’s a very efficient solution. We actually gained capacity and a third site for disaster recovery while saving space and money.”

Simplifying IT administration

Deloitte’s IT organization has also benefited greatly from the iCAS on HP solution. Having a single, integrated platform simplifies the skill set required to manage the systems. Instead of learning three or four different devices, staff only needs to learn one. This also makes troubleshooting much easier and resolving issues faster with one call to a single vendor.

IT also saves a tremendous amount of time due to improved reliability of the systems. Before, the optical drives were down so often that they required nearly constant attention.

“In the past, we needed to spend at least eight hours per week just putting out fires and dealing with problems on the optical disks,” says Van der Gaag. “Now we don't have to do anything. The system is extremely reliable, which has allowed us to save nearly one FTE from the time savings.”

In fact, because of all the mechanical problems associated with the optical disk libraries, uptime of the previous archive was barely 95%. Now, uptime is better than 99.99%.

Bos remarks, “Between the time spent dealing with the old archive and the repair costs, the savings have essentially paid for the new solution just one year from implementation.”

Rijpert adds, “iCAS on HP is a great example of a technology investment that pays real dividends. It is enabling IT to support the business by ensuring compliance while maximizing performance and efficiency in the data center.”
Customer at a glance

Name: Deloitte Netherlands
Headquarters: Amsterdam, The Netherlands
Founded: 1955
Telephone: +31 (0)882882888
Number of employees: 4,475
Annual revenue: EUR 638 million (Fiscal 2011/2012)
URL: deloitte.nl

Customer solution at a glance:

Application
Microsoft Sharepoint, Lync & Exchange, SAP, Deloitte Audit (internally developed Audit System)

Hardware
• HP ProLiant DL980 server
• HP XP P9500 Storage

Software
• iTernity Compliant Archive Software (iCAS)
• Microsoft Windows Server 2008 R2
• Microsoft Hyper-V