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Success Stories

Activision Protects Data and Transforms Development with NetApp



ACTIVISION

KEY HIGHLIGHTS

Industry
Entertainment

The challenge

Gain more robust disaster recovery and backup solutions; optimize the testing, development, and upgrade process of Oracle® applications.

The solution

NetApp® FAS storage systems and NetApp SnapMirror® and FlexClone® technologies

Benefits

- Reduced disaster recovery (DR) test process by 80%
- Reduced database recovery time by 80%
- Reduced time to clone by 90% and cloning storage needs by 50%
- Enabled full compliance with Sarbanes-Oxley regulations

CUSTOMER PROFILE

Activision, Inc., is a leading worldwide video game publisher, developer, and distributor. The company creates interactive entertainment and leisure products that run on console game systems, personal computers, and handheld devices. (Source: www.activision.com)

THE CHALLENGE

Time for a change: storage complexity, outdated business applications, and minimal data protection

Activision had standardized on a high-end Hitachi FC SAN infrastructure to manage its corporate-wide business applications. It had a limited data replication or business continuity strategy and relied on a SAN-to-tape solution for disaster recovery. As the infrastructure reached its capacity, Activision realized that it could not cost-effectively upgrade its current solution to provide the performance and availability the company required.

Activision needed a modular storage environment to unify corporate departmental access across all company tiers. The infrastructure had to be easily deployed within the company's 12 game development studios and 2 main data centers and provide a unified way of communicating among all locations.

The company also needed a major refresh of its business applications. Activision had outgrown its original Oracle E-Business Suite, implemented in 1997. Some parts of the company were using different applications or even manual processes, making it difficult for Activision to gain a consistent corporate perspective on its operations, opportunities, and challenges. The company planned to implement the latest version of Oracle E-Business Suite, Oracle11i™, to automate manual processes, engineer the business to be more responsive to customers, improve supply chain processes, and gain overall efficiency. To test and develop these new applications efficiently, Activision needed to create several copies of production data. Unfortunately, its cloning process was unreliable, took days to complete, and required substantial amounts of storage.

Activision also needed to replace its manual DR process. "When we'd look at backup logs, we'd see half of them had failed," says Niel Armstrong, vice president of Information Technology at Activision. The company sought to automate and consolidate its backup processes and substantially increase its disaster recovery capability to comply with its auditing process and Sarbanes-Oxley regulations.

“With NetApp’s disaster recovery capabilities, Activision can now mirror all of its data and protect its intellectual property in all of its development studios. This is a significant addition to Activision’s overall infrastructure and has allowed us to fully comply with Sarbanes-Oxley requirements.”

Niel Armstrong

Vice President, Information Technology, Activision

THE SOLUTION

Activision uses NetApp’s solutions to build what it needs—and to protect what it has

Activision began by deploying a complete infrastructure from NetApp to manage its corporate-wide data and application assets. The company originally installed a NetApp R200 for backup and recovery at both its corporate office in Santa Monica and at its DR site in Burbank. The R200 in Santa Monica serves as the DR location for its corporate data. Due to the growing size of its games, the company recently upgraded its R200 in Burbank to a FAS6030 to manage backup and recovery in its 12 Burbank studios.

After moving to NetApp, Activision started work on a multi-million-dollar initiative to create global regionalized implementations of the Oracle E-Business Suite 11i across nine territories in Europe, Australia, and the United States. The company implemented and tailored applications, including those for order management, distribution, and financials. Armstrong estimates that Activision currently uses 40% of the Oracle modules available, and says that the company plans to continually expand that number to take greater advantage of the E-Business Suite.

When Activision first decided to go with NetApp, FlexClone was not yet available. However, says Armstrong, “When we heard about it, we immediately got excited about its potential. And sure enough, FlexClone has changed the game in how we implement, develop, and test Oracle E-Business Suite applications.” The Activision IT team takes a SnapMirror production image, then uses FlexClone to run a script that builds the Oracle volumes in minutes, and then proceeds to clone the database. The entire process takes a few hours, and creates clones that enable multiple teams to work simultaneously on development, integration, testing, and training activities.

NetApp SnapMirror replicates all Oracle databases, Microsoft® Exchange 2003 mailboxes, and other media-based applications at least once a day to the DR site in Burbank. This completely protects Activision’s intellectual property, ensuring that even if the company lost use of its systems, it wouldn’t lose more than one day’s worth of work. Soon after the new DR site was brought up, a power outage in Santa Monica forced the execution of the DR plan, which successfully restored Oracle 11i for all European sites within six hours, allowing operations to resume with minimal disruption during the same business day.

Activision deployed a FAS3000 series system in each of its 12 remote locations and utilizes NetApp SnapMirror for disk-to-disk replication to complete its DR architecture. The company creates Snapshot™ copies of data throughout the day, so the team can go ahead and work with the system, installing patches or updates as necessary, confident that it can roll back to a previous good copy if necessary. In case of catastrophic data loss, Activision keeps three copies of its production applications in three locations. But most of the time, backup and recovery requirements are minor.

BUSINESS BENEFITS

Better infrastructure, more streamlined development, and more reliable data protection

NetApp’s multiprotocol support makes it easy for Activision to change protocols to optimize applications. The company switched from FC SAN to iSCSI for its Microsoft Exchange 2003 environment, reducing port count on its switches, HBAs, and overall administration of its SAN infrastructure for that application. “Multiprotocol support also made it easy for us to switch from FC to NFS for our Oracle applications—and improve our performance,” says Armstrong.

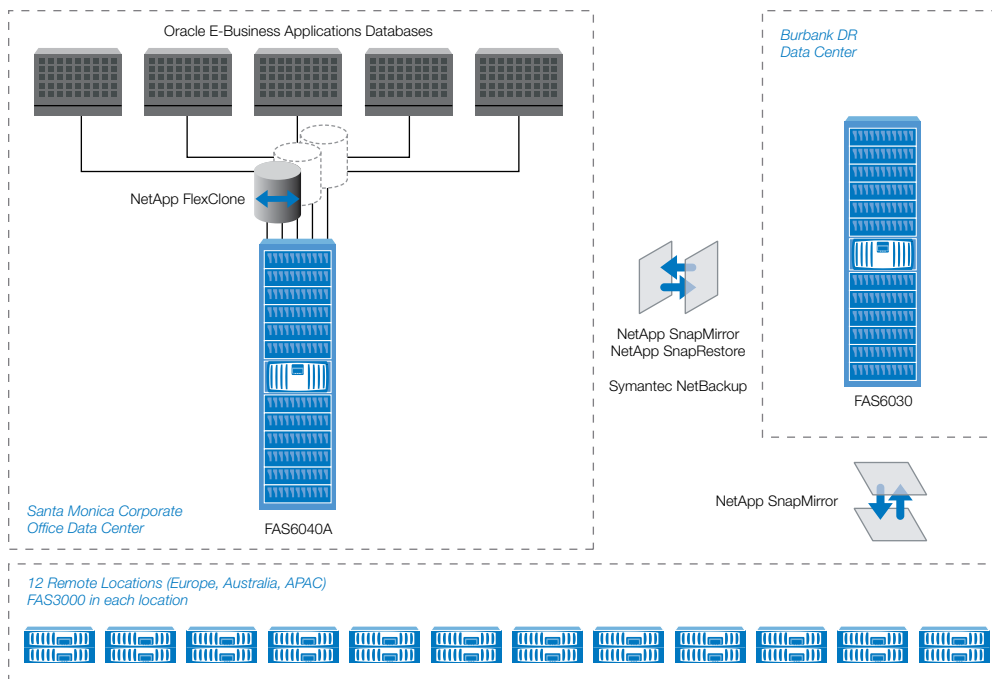


Figure 1) Activision deployed a NetApp FAS storage system and applications for backup and recovery at its corporate office in Santa Monica and at its DR site in its 12 Burbank studios. The IT team takes a SnapMirror production image and FlexClone runs a script that builds the Oracle volumes in minutes and then clones the database. NetApp SnapMirror replicates all Oracle databases, Exchange mailboxes, and other media-based applications at least once a day to the DR site in Burbank using Symantec® NetBackup™.

Activision has also dramatically reduced the time it would have taken to develop, test, integrate, and implement its Oracle applications. Using FlexClone slashed the time required to clone the production environment from a week to less than four hours. This doesn't just save time: Armstrong says that it has transformed the way Activision approaches the development process.

"With FlexClone reducing the time and cost of creating clones to a few hours, we've enthusiastically adopted a parallel development and implementation approach, with multiple types of activities all taking place at the same time," he explains. "For example, instead of having two cloned environments for the UK—which would have been our approach before FlexClone—we had upwards of 10 for various development activities, integration, training, and so on. Our project schedules are aggressive: FlexClone helps us keep to them."

This approach paid off. Citing the example of the UK Oracle implementation, Armstrong comments that although the launch had aggressive timelines, it went live smoothly, with no high-priority or urgent issues emerging postproduction. Even the user training process benefited from having users work with real information. "Don't underestimate the value of this," adds Armstrong. "Working with real data in a training environment is

far more meaningful, and helped reduce the anxiety and mistakes."

FlexClone also delivered substantial storage savings, because the FlexClone process uses pointers to existing data instead of laboriously filling storage space with duplicate data. Armstrong estimates savings of at least 50% for each of the company's 500GB production environments, which translates to savings on power, heating, ventilation, and air conditioning (HVAC) and rack costs of servers.

Activision now tests its DR infrastructure several times a year. Drills show that IT can rebuild the environment within four to six hours. "We couldn't even test before, because copying 500GB to a DR site would have taken a few days," says Armstrong. "With FlexClone, we can quickly create a copy of the system to test, and testing takes about four to six hours, all told." Armstrong provides a real-life example: Before NetApp, the team once had to recover a corrupted database. They pulled tapes and got back online within about 8 to 10 hours. A year or two later, after implementing NetApp, a similar problem occurred in Europe—and the system was back online within six hours. Recent improvements in Activision's Oracle configurations should cut recovery time to under four hours.

"With NetApp's disaster recovery capabilities, Activision can now mirror all of its data and protect its intellectual property in every studio. This is a significant addition to Activision's overall infrastructure and has allowed us to fully comply with Sarbanes-Oxley requirements," says Armstrong. "It's night and day from the manual environment we had three years ago. Plus, the new solution makes it easy to just go back and look when issues arise. This is very useful in times of high stress."

Despite the major increases in storage and backup capabilities, Activision hasn't had to increase IT operations headcount: It continues to have just two UNIX® administrators managing backup and storage. Powerful tools from NetApp have helped by making it easy for Activision's studios to manage their own storage, reducing the load on the central team.

The most frequently used recovery procedure is SnapMirror for Exchange's Single Mailbox Restore, used, as Armstrong says, "way too often." But this is good news, because it means mailbox restore is fast and easy, so users get back to work sooner and with less use of administrators' time.

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Niel Armstrong

Vice President, Information Technology, Activision

“Because it’s set up on a cluster, we can do e-mail maintenance during the business day. Nobody has to write code or modify scripts. And nobody has to come in on weekends to take care of it, which helps keep everybody happy,” says Armstrong.

Activision eliminated use of tape for its backups. It still does a traditional nightly incremental or full backup, but puts it on disk for archiving. “We keep our recent data on storage from NetApp. This way, we can restore much more rapidly, without waiting for an outside vendor to deliver tapes,” says Armstrong, who credits SnapMirror with making this switch possible.

SOLUTION COMPONENTS

NetApp Products

NetApp FAS6030 for DR

NetApp FAS3020 and 3040 series unified storage systems

NetApp FAS940C for business applications

NetApp NearStore® R200 for file exchange and DR

NetApp SnapMirror

NetApp SnapRestore®

SnapManager® for Exchange with Single Mailbox Restore software

NetApp FlexClone

Protocols

IP SAN (iSCSI)

NAS-CIFS

NAS-NFS

Environment

Solaris™ (for all Oracle applications)

Linux® (for all media applications for art, sound, motion capture, code, etc.; these are run on IBM Blade Servers)

Windows® (for Microsoft Exchange)

Oracle11i, Oracle Financials,

Oracle E-Business Suite 11i

Microsoft Exchange 2003

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