reduxio CASE STUDY

Technion

WORLD RENOWNED UNIVERSITY BOOSTS SAP

Industry: Education | **Location**: EMEA | **Use Case**: Virtualization, SAP

KEY HIGHLIGHTS

Challenges

+ Time consuming SAP EhP upgrades due to multiple systems being repeatedly installed and cloned.
+ Long SAP backup and recovery times.
+ Slow SAP queries for developers and testers.

Solution

+ Speed up cloning and reinstallation and reduce data recovery times for the SAP environment to seconds using Reduxio BackDating™ by deploying flash-based Reduxio HX550.
+ Reduce SAP latency and batch job run times with Reduxio Tier-X™ and NoDup™ flash-first, in-memory inmemory dedupe techbologies.

Benefits

Lower SAP Latency

Faster response to SAP databases with Tier-X™ flash-first service and inmemory dedupe technologies.

Up to 5X Faster SAP Batch Jobs

SAP reports, backups and restores are faster with automated flash-first tiering storage.

1-Second RPO for SAP

Recoverability of SAP modules reduced from up to an entire work day down to 1 second with Reduxio BackDating™.

CUSTOMER PROFILE

- Ranked in Top 100 Universities Worldwide
- Ranked #18 in the world in Computer Science
- Over 14,000 students and 2,400 faculty and staff

CUSTOMER ENVIRONMENT

The Technion Institute of Technology is a public research university in Haifa, Israel. Ranked amongst the top 100 universities in the world, according to the academic ranking of world Universities performed by the Institute of Higher Education of Shanghai Jiao Tong University, the Technion is also ranked 18th in computer science and 44th in engineering. Beyond providing world class under-graduate and graduate education to 14,000 students in 18 faculties, the university has been a power house in innovation and research. The institute's researchers and alumni have pioneered many inventions that have touched every human being, most notably the USB flash drive, the Lempel-Ziv data compression algorithm and instant messaging.

The university's Computing and Information Systems division manages a large set of application environments for core IT services. In addition, its staff supports many computer labs across the campus. The vast SAP® portfolio of solutions for higher education and research is used for managing every aspect of the organization. The SAP modules for ERP, data warehouse, CRM, web portal and many others are used to manage students and staff records, and access finances, logistics, supply chain and facilities databases.

The core IT services were virtualized on more than ten VMware ESXi 6 3-nodes clusters, and consolidated on a high-end traditional Fibre-Channel based SAN storage system.

SAP DEV & TEST CHALLENGES

One of the heavy users of the infrastructure at Technion is the SAP applications team responsible for development, test, and QA of SAP instances before deployment to production. As the test/dev workload increased the response times from the storage increased affecting the overall productivity of the team. SAP maintenance tasks had become painfully long.

A prime example of this was the SAP landscape process. SAP Enhancement Packages (EhP) are regularly implemented by the Technion to extend the functionality of the university's ERP system. A big challenge during a SAP EhP upgrade is the need to set up a complete SAP Landscape test environment that includes all SAP systems. This process requires many repeated system installations and copies during the upgrade and test of each SAP module - ECC ERP, Portal, BW, SRM, CRM and more. Overall, this process took hours in the SAN storage system. This led the IT department to look for new solutions.

"We realized we had to implement a new solution to speed up our SAP development and testing process. It was taking way too much time."

Zeev Schneider, Director of IT Infrastructures, Technion

After a review of different storage technologies and a rigorous testing phase, the IT team selected the Reduxio HX550 storage system for its SAP test and development activities.

SAP - JUST FASTER

The Reduxio HX550 system was configured into the existing 10GbE server network, and connected to the development and test VMware ESXi 6.0 3-nodes cluster using distributed virtual switches. All VMs running SAP development, QA and various sandbox environments were all migrated from the Fibre-Channel SAN system to the HX550.

"To stand up to the challenge, we used the Reduxio enterprise storage system to set up the SAP Landscape. During the SAP System installations, setup, upgrade and database backup and restore, we experienced a very fast and stable platform with plenty of disk space."

Zeev Schneider, Director of IT Infrastructures, Technion

The Microsoft SQL Server database backup and restore operations are now between three and five times faster than the conventional storage used before. During the SAP EhP upgrades the I/O intensive phases finish in a much shorter time than expected. For the users, all SAP applications (ABAP and JAVA) are now very responsive.

The Reduxio BackDating point in time recovery option added to a smooth work flow while testing the SAP EhP upgrade - protecting development environments from failures, as well as cloning environments from previous time points when needed.

"Using Reduxio SAN storage significantly shortened our deployment times. The BackDating feature pioneered by Reduxio gave our developers great flexibility to move back and forth in time in a process of development."

Zeev Schneider, Director of IT Infrastructures, Technion

Today, after the successful SAP EHP upgrade, the system is used as part of the SAP Landscape, especially for I/O intensive applications. With this new setup in place, Technion has overcome their hurdles in terms of speed mostly. No more slow down in SAP queries for tests, shorter time for SAP backups and recovery, and seamless upgrades on multiple systems. Below you can find the environment in Tehcnion that the HX550 was deployed on.

SOLUTION COMPONENTS

Reduxio Products

+ Reduxio HX550 storage systems

Environment

+ Ten VMware® vSphere 6 clusters
+ 20 VMware® vSphere hosts in various clusters
+ Virtualized Microsoft SQL Server 2012
+ SAP® R3, SAP® MaxDB
+ SAP® ERP and SAP Business Warehouse
+ Veeam® Backup and Replication v9.0
+ Microsoft® Windows Server 2012 R2
+ Microsoft® SQL Server 2012