

ATLANTIS COMPUTING PROVIDES ULTIMATE USER EXPERIENCE WHILE REDUCING OVERALL SOLUTION COSTS BY 50%



To address their virtualized desktop performance issues, CDW deployed a software-defined storage solution from Atlantis Computing resulting in an **85% reduction in their storage capacity requirements** and a **70% cut in help desk related calls**.

CDW is a leading multi-brand technology solutions provider to business, government, education and healthcare organizations in the US, Canada and UK. Founded in 1984, CDW is a Fortune 500 company with multinational capabilities and employs more than 8,600 employees globally.

CDW provides virtualized desktops to 95% of their internal end-users with their Citrix XenApp implementation. As the deployment scaled, maintaining an acceptable performance through using networked storage became a challenge. Performance was unpredictable throughout the day and complaints were rampant amongst the users. With a company acquisition and an additional 20% of users added to the XenApp environment - it was time to fix the issue.

OFFLOAD THE SAN

Jonathan Eyton-Williams, CDW Head of Solutions, knew that conventional storage arrays were not going to be the most cost-effective solution. Upgrading their SAN would require CDW to spend over \$50,000, almost doubling the cost per XenApp session. With the existing EMC SAN's storage processors running at over 85% during certain periods of the day, if a processor were to fail, the remaining infrastructure would not be able to adequately pick up the load.

Atlantis provided CDW an alternative approach in addressing the storage requirements by handling IO directly from server RAM and freeing up the existing EMC SAN to increase performance it provided to other applications. "In our proof of concept testing, Atlantis offloaded in excess of 80% of virtual desktop IOPS. As a result, Atlantis reduced the storage capacity when provisioning virtual desktops by over 85%", said Eyton-Williams.

CHALLENGES

- Deliver a consistent desktop performance to more than 1,000 users
- Expand the number of virtualized desktops by 20%

PRODUCT

- Atlantis USX, Software-Defined Storage

"We reduced performance related XenApp help desk calls by 70% within 2 months of deploying Atlantis."

Jonathan Eyton-Williams
Head of Solutions
CDW

A CONSISTENT USER EXPERIENCE

Through the use of Atlantis, CDW user experience significantly improved, the impact of login storms at the beginning of the day were mitigated and the experience remained consistently high throughout the day. By providing over 300 IOPs per user and almost zero latency, CDW users saw a 40% reduction in the time it took to login and a 50% reduction in application launch times. This consistent user experience allows users to be more productive

REDUCTION IN INFRASTRUCTURE COSTS

The Atlantis solution required no external storage or SSDs for XenApp instances and provided predictable, linear scalability based on server resources providing risk reduction when increasing the number of users.

By eliminating the use of the SAN, CDW have calculated a saving of \$50 per user in storage CAPEX whilst freeing up the storage system to support other server workloads. With a 70% reduction in XenApp helpdesk calls, the net cost savings are around \$60 to \$110 per user - an incredible 45% reduction in costs.

REDUCTION IN OPERATIONAL COSTS

Another benefit to CDW of providing users with a consistently fast user experience is that the number of helpdesks calls dropped by 70%. Users typically call the helpdesk when something in the environment changes or when the performance starts to impact on their work. By providing users with a consistently fast user experience in addition to ensuring that desktops applications are available quickly - users stopped calling the helpdesk with calls dropping by 70% within 2 months of the software being installed.

STORAGE EFFICIENCY & FUTURE EXPANSION

Originally, each XenApp server used 30GB of storage for the PVS Write-Cache. The Atlantis solution removed the need for shared storage or SSDs for the XenApp instances, running them completely in server memory and provided predictable, linear scalability based on server resources. By eliminating the need for the EMC SAN storage from their XenApp configuration, CDW saw a 77% reduction in storage consumption.

Atlantis' ability to provide nearly unlimited IOPS from server RAM accommodated CDW's move to the most recent version of XenApp and Windows Server 2008 R2 and has future growth capacity for users and performance. Through the reduction in latency provided by the Atlantis solution and a subsequent reduction in CPU cycles, CDW were also able to add an additional 20% more users per server further reducing the need for additional server hardware to be purchased.

RETURN ON INVESTMENT

By eliminating the use of the SAN, increasing the density of users per server and achieving a 70% reduction in helpdesk calls, the net cost savings are \$50 per user - approximately a 50% reduction in total costs of the solution.



BENEFITS

- 85% reduction in storage capacity requirements
- Improved performance of XenApp sessions with 40% faster login times & 50% faster application launch times
- Improved server density to handle a 20% increase in XenApp users
- 70% reduction in help desk calls within 2 months
- Storage CAPEX cost savings of \$50 per user

VIRTUALIZED IT ENVIRONMENT

- Citrix XenApp 6.5
- VMware vSphere ESXi 5.1
- HP ProLiant BL460c
- VMware vSphere

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Jonathan Eyton-Williams
Head of Solutions
CDW

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