Case Study

Introduction

NewPage, a leading paper manufacturer of printing and specialty paper in North America with revenues of $3.1B in 2013, prides itself on delivering quality products and services—a mission that is dependent on achieving operational excellence and efficiency within IT infrastructure. NewPage has a team of ten system administrators who support 350 individual virtual machines (VMs) running mission critical applications such as ERP, Data Warehousing, SAP, and Honeywell’s OptiVision software that maintain key functions of the company’s production process. Although it was maintaining an impressive 95% virtualized infrastructure, the NewPage IT team was constantly looking for new ways to reach 100% virtualization.

Business Challenge: Technology Refresh, Data Protection, and Data Center Consolidation

For years, NewPage’s IT team had been plagued with a high-cost, outdated legacy infrastructure. An ever-growing physical server dependency meant that the company was facing huge costs whenever upgrades were needed. Replacing their DMX4 SAN would be a major investment for the team, costing upwards of $350,000. In addition, it had reached the end of its life. An original investment of $500,000, the 30TB DMX4 was costing the company $90,000 a year in support alone. These exorbitant costs put the NewPage IT team at a severe disadvantage when it came to scalability.

NewPage approaches 100% virtualization with HPE SimpliVity

“Best of both worlds” gained with hyperconverged solution

Objective

Virtualize key manufacturing and decision support apps, replace IT infrastructure, improve backup and disaster recovery, and reduce costs.

Approach

Implement a solution that approaches 100% virtualization and achieves ‘best of both worlds’ by implementing HPE SimpliVity’s hyperconverged infrastructure.

IT Matters

• Best of both worlds: cloud economics with Tier-1 enterprise capabilities
• 628TB IO capacity savings
• 25% increase in performance
• 92% reduction in cycle times
• Integrated data protection
• In-line dedupe, compression and optimization
• Hyperconverged infrastructure
• Globally unified management

Business Matters

• Achieved capacity savings of 24:1
• Value realized within one week
• Best of both worlds: cloud economics with Tier-1 enterprise capabilities
The aging and underperforming 50TB EVA8000, 46TB EVA4400, and 150TB VNX5500 were also due for a refresh. NewPage was becoming entrapped within its own stagnant infrastructure.

With 95% of NewPage’s core applications on VMware vSphere, the IT team knew full well the advantages of a virtualized infrastructure; however, the rigid “silos” of legacy compute servers as well as expensive, complex SAN-based storage were inhibiting the team’s ability to scale to meet business needs.

“The data warehouse boxes could not go onto VMware on the previous system” said Richard Gay, infrastructure architect at NewPage. “At 3.4TB, they were just too big.” It was the same story for Honeywell’s OptiVision as well. These large mission-critical applications were creating the foundations for a costly, long-term physical dependence that would only hurt NewPage down the road. As the legacy infrastructure’s physical requirements continued to increase, a 100% virtualized infrastructure seemed increasingly unlikely.

Additionally, the virtualized environment was becoming increasingly difficult to scale and manage, resulting in diminished productivity. The team of ten was spread thin managing their 166 RU legacy systems. “While the headcount was constant, the server count was always growing,” noted Gay.

**HPE SimpliVity Solution**

On the eve of a costly upgrade, Gay discovered Hewlett Packard Enterprise (HPE) SimpliVity’s data virtualization platform at the Gartner Data Center Show and was instantly hooked by the capabilities offered by the HPE SimpliVity system. The following week, Gay and his team scheduled a demo with HPE SimpliVity at their headquarters. After seeing HPE SimpliVity firsthand, the team immediately realized that the hyperconverged solution would satisfy all of their infrastructure needs and operate with greater overall efficiency than their competitors.

But would it meet the team’s already stretched budget?

In addition to the advanced scalability and ease of use with the HPE SimpliVity, the NewPage IT team saw a major cost advantage with the data virtualization platform. “For the same price that I spent on the SAN, I could buy seven HPE SimpliVity systems,” stated Gay. “I could basically do a hardware refresh of 80% of the center for the same price that we would have spent on one SAN.” In fact, the cost of maintaining the outdated, end-of-life DMX4 would ensure a ROI within two years of purchasing the four HPE SimpliVity systems. From a budget perspective, the decision to move to HPE SimpliVity was a no-brainer for Gay and his team.

With the HPE SimpliVity systems implemented at NewPage, Gay saw an immediate increase in the capabilities of both his team and the IT infrastructure. HPE SimpliVity system’s hands-free approach to IT infrastructure meant that Gay’s team was no longer spread thin dealing with time-consuming SAN management such as provisioning LUNs for performance, resizing them for capacity, or migrating them. “Everything being in vCenter means we don’t have to go into UniSphere to manage the VNX or go onto the Brocade fabric to rezone paths like we used to,” commented Gay. The NewPage IT team can now manage all of its mission critical applications within a single VMware pane thanks to HPE SimpliVity systems seamless integration with existing VMware setups.

**Benefits**

Since implementing the HPE SimpliVity data virtualization platform, NewPage has achieved almost 100% virtualization across its entire IT infrastructure as well as realized the efficiency, agility, scale, and economics provided by HPE SimpliVity’s best of both worlds offering—cloud economics with enterprise-class performance, protection, and functionality. Through a quick and painless transfer, Gay and his team moved 350 applications including a 3.4TB Microsoft SQL Server Data Warehouse application, Honeywell’s OptiVision manufacturing app, as well as a mixture of other community workloads (SQL, .NET, webapp) running in a siloed physical environment to VMware vSphere infrastructure.
"The HPE SimpliVity will allow us to better consolidate our datacenter footprint and save on electricity and air conditioning."

– Richard Gay, infrastructure architect at NewPage

“We were stuck at 95% virtualized, but now all of those apps that were previously thought to be too big and unpredictable are back on the table,” stated Gay.

HPE SimpliVity’s data virtualization platform—through inline deduplication, compression, and optimization—also allowed for NewPage to save 628TB in terms of IOs and physical capacity to date. NewPage has also achieved enterprise-class SLAs, exceeding 4hr RPOs and 24hr RTOs with minimal effort, as well as have enterprise-class DR capabilities with a second site 100 miles away backing up mission-critical data and applications. Their 166 RU legacy stack systems were also reduced to 12 RU, decreasing space and power costs.

The move to HPE SimpliVity has allowed NewPage to minimize costs while maximizing on the efficiency and scalability of its IT infrastructure. “The hyperconverged infrastructure keeps us from having to manage multiple vendors and helps avoid the multiple maintenance cost streams,” said Gay. “The HPE SimpliVity systems will allow us to better consolidate our data center footprint and save on electricity and air conditioning.”

Application performance has also improved. Key applications that were experiencing 2500ms latency are now achieving 25ms low latency on HPE SimpliVity. With almost all their VMware-integrated IT infrastructure virtualized on HPE SimpliVity, Gay and the entire NewPage team are now poised for success.

“Then we’re planning to do the same in our manufacturing environment.”

Key benefits include:

• Approaching 100% virtualization
• Cloud economics with enterprise-class capabilities
• Primary and remote data center both run key applications and both act as each other’s DR and backup site
• 628 TB IO capacity savings
• 25% increase in performance
• Achieved capacity savings of 24:1
• Value realized within one week
• 92% reduction in cycle times
• In-line data deduplication, compression, and optimization
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