



NetApp®

Success Story

WhiteWater West Drives Agility, Tackles Unprecedented Growth with NetApp and Microsoft



KEY HIGHLIGHTS

Industry
Leisure

The Challenge
Leverage flexible IT to accommodate intense growth that has resulted in a 10-fold increase in storage demands in less than 3 years.

The Solution
Forge ambitious growth path by virtualizing and streamlining with NetApp® FAS3210 storage and Microsoft® Hyper-V®.

Benefits

- Delivered 24/7 Exchange and SharePoint® services
- Reduced SharePoint storage by more than 60%, virtual machine storage by 85%
- Ran twice the servers, 260% more storage in 10% less space

Customer Profile

WhiteWater West is in the business of keeping people cooled down, having fun, and, for many, satisfied about their “need for speed.” Headquartered in Richmond, British Columbia, Canada, the designer and builder of more than 4,000 water parks and aquatic attractions worldwide leads the water-park industry. The award-winning company specializes in innovative water slides, AquaPlay™ interactive water-play structures, wave pools, and water-based amusement park rides.

With regional offices in Asia, Europe, the Middle East, and the United States, WhiteWater West serves global clients, including indoor and outdoor water parks, hotels and resorts, amusement and theme parks, and municipal aquatic facilities. The company has developed renowned attractions that include the world’s largest water park, Samsung’s Caribbean Bay in Korea; the world’s largest wave pool, Sunway Lagoon in Kuala Lumpur, Malaysia; and Atlantis Palm Island in Dubai.

The Challenge

Maintaining global information exchange

With WhiteWater West design and manufacturing teams and clients located around the globe, the company can’t afford to experience obstacles to critical information flow. When engineers and account representatives at headquarters schedule meetings with clients in China, send schematics to a customer in Germany, or deliver project updates to water-park managers in Africa, they depend on the IT infrastructure for the communications and delivery of data and imagery vital to project success.

The company, blazing an ambitious growth path, has experienced a 10-fold increase in storage requirements in recent years. With everything from 3-D CAD design drawings to high-definition marketing videos to project e-mail files growing exponentially, WhiteWater West required a more flexible, scalable IT infrastructure.

“Using NetApp deduplication, we can deploy 10 100GB virtual machines on 100GB of storage when other storage environments would require 1TB of storage. NetApp reduces our storage system, power and cooling, and other storage costs by tens of thousands of dollars.”

Dan Morris

Senior Systems Engineer, WhiteWater West Industries

In its Microsoft Exchange and Microsoft SharePoint environments, for example, one missed e-mail can mean that a design change or other client information never gets communicated. “WhiteWater teams work all over the world across time zones, so our e-mail and collaboration tools must be available 24/7,” says Dan Morris, a senior systems engineer at WhiteWater West.

To keep pace with change and realign its technology infrastructure to accommodate rapid business growth and mergers, in 2009 the company embarked on an e-mail consolidation and server-virtualization project. The direct-attached storage environment had reached capacity and the infrastructure that was central to e-mail services for 250 users at 4 WhiteWater West sites was difficult to protect, scale, and manage.

The company needed a future-ready shared infrastructure that would improve business agility and allow it to keep up its momentum in the water-park industry. WhiteWater West selected complementary NetApp storage systems to support its consolidation and virtualization project and help carve a pathway to future success. The company’s plans for NetApp storage included improving reliability, accelerating provisioning, streamlining backup and recovery, simplifying administration, and reducing costs.

The Solution

Forge ambitious growth path by virtualizing with NetApp and Microsoft

Working with Open Storage Solutions, Inc., a North American storage solutions provider and participant in the NetApp Partner Program, WhiteWater West deployed a NetApp FAS3210 storage system at its headquarters facility and a NetApp FAS2000 storage solution at its nearby Kelowna, British Columbia, site to support the new Hyper-V virtual server environment. Today the water-park pioneer runs 95% of its systems and stores 16TB of its data on NetApp storage.

The IT staff monitors and effectively manages the entire physical and virtual environment, including NetApp storage using Microsoft System Center Operations Manager 2007 software with the NetApp ApplianceWatch™ PRO management tool, available as a no-cost downloadable software pack. “Tight integration between Microsoft and NetApp technologies was critical to our decision to go with NetApp storage,” notes Morris.

WhiteWater West reduced infrastructure complexity by standardizing on Microsoft Exchange 2010 and virtualizing Exchange, SharePoint, Lync, and SQL Server® applications using Microsoft

Hyper-V Server 2008 R2. The IT team manages the environment via Microsoft System Center Virtual Machine Manager 2008 R2 and utilizes Live Migration and Cluster Shared Volumes in Windows Server® 2008 R2 Enterprise. The company helps protect these critical environments using NetApp SnapManager® for Microsoft SharePoint Server, SQL Server, and Hyper-V software.

WhiteWater West helps protect its business-critical e-mail environment using NetApp SnapManager for Exchange software, which is tightly integrated with Microsoft technologies. The IT staff creates validated, application-consistent Exchange backups for its 400 users and automates routine processes using the data-protection solution. NetApp Single Mailbox Recovery software enables retrieval of mailboxes, single e-mails, and attachments in minutes. The team uses the NetApp SnapMirror® product to replicate and migrate data across the multi-site, unified NetApp storage platform.

Business Benefits

Delivering data around the clock and around the globe

With the combined reliability and resilience of the NetApp storage systems and NetApp and Microsoft disaster recovery technologies, the WhiteWater West IT team can deliver the superior

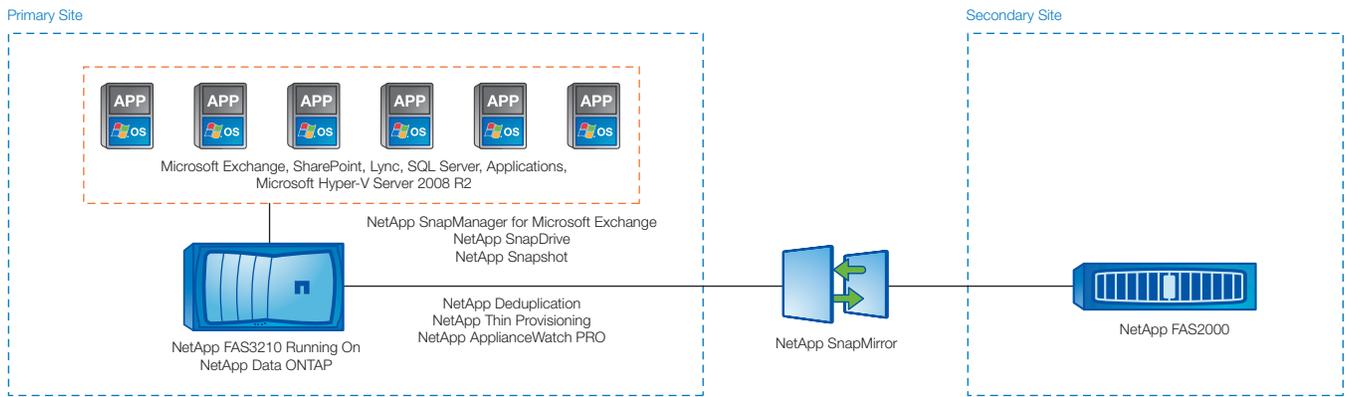


Figure 1) WhiteWater West storage infrastructure.

level of Exchange e-mail and SharePoint collaborative services its business units require. “Around the clock and across our global organization, WhiteWater employees and clients can engage effectively via a single, highly available e-mail platform,” notes Morris.

The firm’s previous backup processes involved checking daily to ensure that each backup had completed successfully to prevent potential e-mail-system crashes, for example. “With our integrated NetApp and Microsoft disaster recovery solution, we no longer spend time verifying backups, and in fact have never had a backup fail,” says Morris.

WhiteWater West uses NetApp Snapshot™ technology to back up data and virtual machines while applications are running, with no performance impact. The company cost-effectively maintains Exchange and other data online for 30 days and can restore a user’s mailbox in just minutes. All company e-mails are securely archived indefinitely on NetApp storage in the secondary data center to protect invaluable project information through all phases of design development to final inspection and certification of its water-park and aquatic attraction projects.

Improving bottom-line results with new efficiencies

WhiteWater West optimizes storage and IT staff resources and reduces costs with the powerful efficiencies delivered by the integrated Microsoft virtualization and NetApp storage solutions. With approximately 100,000 video files such as a 20-minute marketing video of Chime Long Water Park, the largest water park in Asia; 500,000 high-resolution design and water-park images of elements such as giant tipping buckets and high-speed slide towers; and countless other data files, efficiency strategies are imperative to meeting bottom-line objectives.

“The centralized management and combined efficiencies of Microsoft and NetApp virtualization technologies let us do more using decidedly less capacity,” says Morris. The Microsoft System Center suite enables the IT staff to streamline administration and centrally monitor applications, servers, and storage in the consolidated environment. NetApp ApplianceWatch PRO monitoring provides automated tracking of storage utilization.

Through NetApp deduplication, Morris reports achieving more than 60% capacity savings on SharePoint data and as much as 85% on Hyper-V virtual machines. Total storage savings from

NetApp deduplication exceed 6TB. “Using NetApp deduplication, we can deploy 10 100GB virtual machines on 100GB of storage when other storage environments would require 1TB of storage,” explains Morris. “NetApp reduces our storage system, power and cooling, and other storage costs by tens of thousands of dollars.”

WhiteWater West gains additional storage efficiencies using NetApp thin provisioning. Today, WhiteWater West runs twice the number of servers and 260% more storage capacity in 10% less rack space. By reducing storage requirements and related costs, the company can reallocate that budget to improving the business and its competitive stance. Examples of projects underway include integrating IM, VoIP, and videoconferencing for a new level of collaboration, and an advanced CRM system that will empower the sales force and support superior client services.

Keeping pace today and tomorrow

The company that recently celebrated its 30th anniversary in the water-park industry and has designed and built more water parks than any other firm in the world won’t be slowing down anytime soon. Its next project will be the biggest in the history of the organization—a \$21 million project. WhiteWater West is well positioned to continue as

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the industry leader. Consolidating and virtualizing with Microsoft Hyper-V and NetApp storage and leveraging integrated management with Microsoft System Center allow the company to continue to deliver the essential services that promote user productivity, customer satisfaction, and growth.

“NetApp has provided a storage solution that we can trust day after day, and that offers great features at the right price,” says Morris. “NetApp allows us to keep more data on less storage and provide greater uptime across our global lines of business. Most important, NetApp offers us the scalability and peace of mind to know that our IT infrastructure will enable us to continue to grow—and keep more and more recreational enthusiasts around the world splashing, sliding, and enjoying life.”

SOLUTION COMPONENTS

NetApp Products

NetApp FAS3210 storage systems

NetApp FAS2000 storage systems

Data ONTAP® operating system

SnapManager for Microsoft Exchange

SnapManager for Microsoft SharePoint Server

SnapManager for Microsoft SQL Server

SnapManager for Hyper-V

SnapDrive® software

SnapMirror

Snapshot technology

NetApp ApplianceWatch PRO

Deduplication

Thin provisioning

Protocols

iSCSI

NFS

Fibre Channel

Third-Party Products

Microsoft Exchange Server 2010

Windows Server 2008 R2

Microsoft Hyper-V Server 2008 R2

Microsoft System Center Operations Manager 2007

Microsoft System Center Virtual Machine Manager 2008 R2

Microsoft SharePoint Server 2010

Microsoft Lync 2010



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