DENVER BRONCOS | PROBLEM SOLVED

The Denver Broncos NetApp FAS2240 storage systems accelerated disaster recovery for multiple sites and seamlessly scaled to meet the increasing data needs of operational demands.

Efficient NetApp IT Empowers Denver Broncos to Invest in the Future

Facing growing data demands to enable support of its professional football team's digital playbooks and collaboration space, the Denver Broncos found security in NetApp's recovery solutions, which provided for data scaling and for streamlined maintenance that wouldn't interrupt important daily operations.
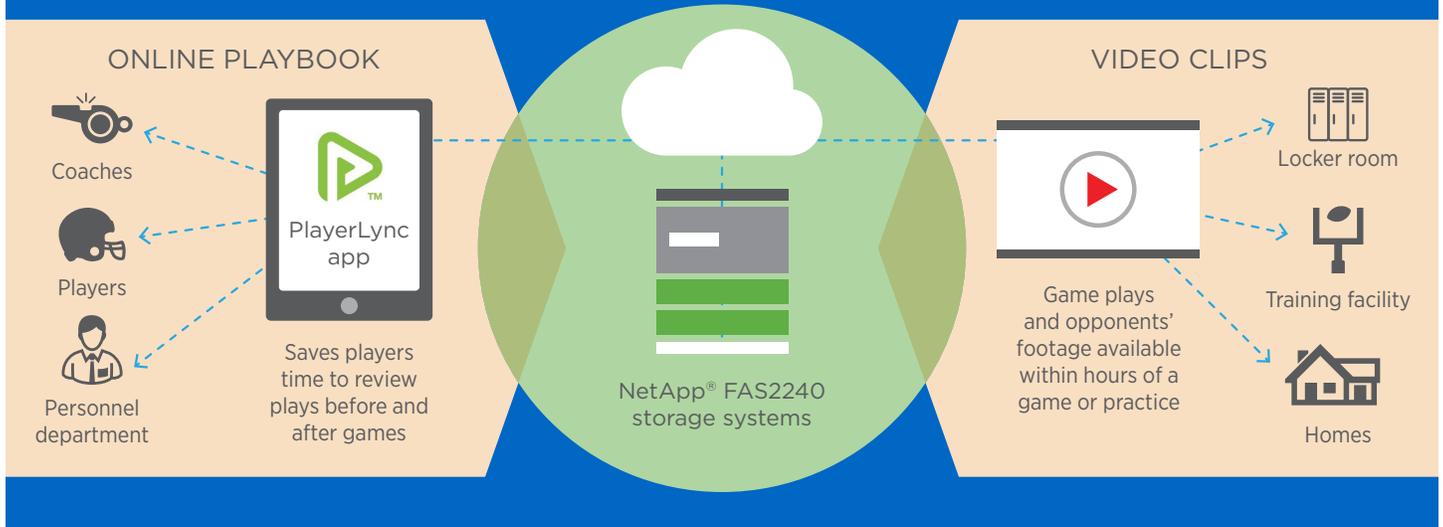
Another NetApp solution delivered by:

PEAK
RESOURCES, INC.

Up to

25%

reduction in storage requirement

Eliminates off-site tape storage and accelerates recovery of critical Broncos data

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NetApp®

PREPARING FOR THE NEXT GAME

NetApp®

ONLINE PLAYBOOK

Coaches

Players

Personnel department

PlayerLync app

Saves players time to review plays before and after games

NetApp® FAS2240 storage systems

VIDEO CLIPS

Game plays and opponents' footage available within hours of a game or practice

Locker room

Training facility

Homes

CUSTOMER PROFILE

The Denver Broncos are a professional football team based in Denver, Colorado. Owned by Pat Bowlen and managed by the Denver Broncos Football Club, the team is a member of the West Division of the American Football Conference (AFC) in the National Football League (NFL). The Broncos play at Sports Authority Field at Mile High and have four players in the Pro Football Hall of Fame: John Elway, Floyd Little, Gary Zimmerman, and Shannon Sharpe.

CHALLENGE

Maintaining a competitive football edge

The Denver Broncos are one of the most successful teams in NFL history, winning three Super Bowls and eight AFC Championships. With an intensely loyal fan base, the team has succeeded in selling out every home nonstrike regular-season game since 1970 and growing its waiting list for season tickets to 32,000 fans.

The Denver Broncos organization depends on an advanced IT infrastructure to operate both on and off the field. The organization of approximately 300 employees operates out of offices at both Sports Authority Field at Mile High and the UC Health Training Center, a state-of-the-art facility where the team trains. Day to day, the Broncos IT staff leverages technology and delivers IT services that streamline operations, help the team maintain its competitive edge, and foster a positive experience for fans.

Activities such as negotiating trades and securing draft picks depend on management's ongoing access to the organization's Microsoft® Exchange Server e-mail system. On game day, key applications that control the scoreboard and audio systems that players and coaches rely on must remain available. New initiatives such as a mobile video application for fans demand a flexible,

high-performance infrastructure that won't let fans down.

To meet current operational needs and carry the organization forward, the IT staff established that it needed to upgrade the storage environment. "We're a relatively small shop with enterprise needs," says Russ Trainor, Denver Broncos vice president of Information Technology. "We run opposing team videos at the UC Health Training Center, deliver digital playbooks via Apple iPads to our team and coaches, and create a highly collaborative communication environment for a sizable game-day staff at the stadium. Our IT and storage demands for both performance and capacity are continually growing."

High performance, efficiency, and high availability were top criteria for the new storage solution, along with the flexibility to accommodate 10GbE connectivity when the time was right. The IT team wanted to
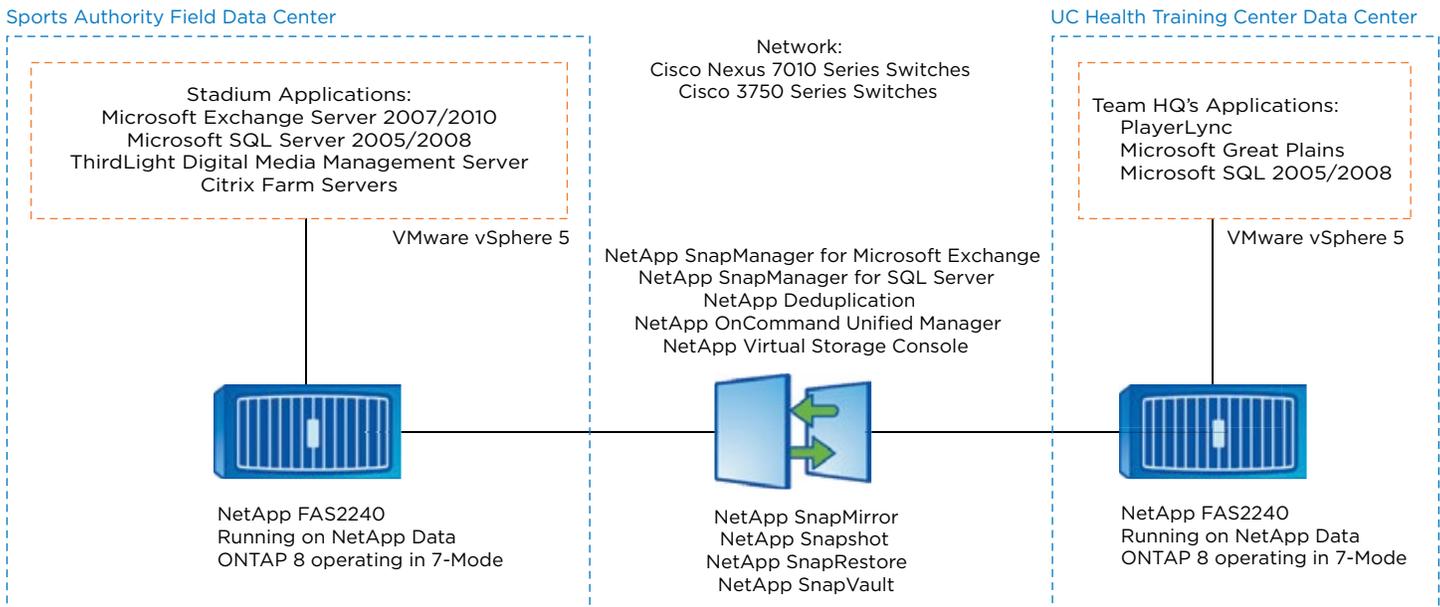
NetApp®

Sports Authority Field Data Center

Stadium Applications:
Microsoft Exchange Server 2007/2010
Microsoft SQL Server 2005/2008
ThirdLight Digital Media Management Server
Citrix Farm Servers

VMware vSphere 5

NetApp FAS2240
Running on NetApp Data
ONTAP 8 operating in 7-Mode

Network:
Cisco Nexus 7010 Series Switches
Cisco 3750 Series Switches

NetApp SnapManager for Microsoft Exchange
NetApp SnapManager for SQL Server
NetApp Deduplication
NetApp OnCommand Unified Manager
NetApp Virtual Storage Console

NetApp SnapMirror
NetApp Snapshot
NetApp SnapRestore
NetApp SnapVault

UC Health Training Center Data Center

Team HQ's Applications:
PlayerLync
Microsoft Great Plains
Microsoft SQL 2005/2008

VMware vSphere 5

NetApp FAS2240
Running on NetApp Data
ONTAP 8 operating in 7-Mode

Figure 1. Denver Broncos deployed NetApp FAS2240 storage systems in the primary and secondary data centers running Data ONTAP 8 operating in 7-Mode and stores more than 50 terabytes of data. The NetApp solution supports the new PlayerLync application, the organization's Microsoft Great Plains accounting software, and the ThirdLight digital media management server.

step up its backup, restore, and disaster recovery capabilities. Integration with existing Microsoft, Cisco®, VMware®, and other technologies was imperative. In addition, the new storage solution had to provide ample room to grow for years into the future.

SOLUTION
Supporting players, coaches, staff, and fans

The Broncos IT team deployed NetApp FAS2240 storage systems in the club's primary data center at Sports Authority Field at Mile High and its secondary data center at the UC Health Training Center. PEAK Resources, Inc., a technology solutions provider based in Denver, Colorado, and participant in the NetApp Partner Program for Resellers, assisted the Denver Broncos with designing,

deploying, and implementing best practices for the NetApp solution. "We worked closely with PEAK Resources, from designing the platform to disk configurations, plugging in cables, and setting up the communication protocols for the system," says Trainor. "PEAK Resources provides superior technical skills and excellent customer service."

The NetApp platform runs on the Data ONTAP® 8 architecture operating in 7-Mode and stores more than 50 terabytes of data, with the ability to seamlessly scale to a capacity of just under 1 petabyte. NetApp deduplication helps optimize the storage environment by reducing storage requirements by up to 20 to 25%. 🐦 "The NetApp FAS2240 system offers us the efficiency and manageability we need today,

plus the flexibility and scalability to support delivery of new, diverse IT services as Denver Broncos needs change," says Chris Newman, IT architect for the Denver Broncos.

The NetApp solution supports the Broncos' Microsoft Exchange Server 2010 environment and the team's Microsoft SQL Server® 2008 environments, which are fully virtualized on VMware vSphere® along with 95% of the organization's infrastructure. The Broncos Club recently upgraded its wired and wireless network infrastructure at the stadium and training facility with Cisco Nexus® and 3750 series switches, Cisco 3500 and 3600 series access points, and Cisco 5508 and 2504 controllers. NetApp integrates with these technologies via OnCommand® plug-ins, robust APIs, and important technology partnerships.

■ NetApp®

"With a flexible, dynamic NetApp environment supporting innovative tools such as the Apple® iPad® running the PlayerLync App with digital playbooks, the entire Broncos organization can better support the Broncos team in taking on the opposition while we attract and retain fans for years to come."

Russ Trainor
Vice President of Information Technology, Denver Broncos Football Club

The NetApp solution supports the organization's new PlayerLync application, which provides digital video playback, playbook, and communication features to Broncos coaches, players, and the player personnel department as they prepare for the next game. The Broncos' NetApp environment also supports the organization's Microsoft Great Plains accounting software and the ThirdLight digital media management server, which enables internal employees, media, and sponsors to retrieve Broncos event photographs, its Citrix farm servers, remote-user servers and file shares, an event management application, security systems, various application servers, and more.

The IT team uses NetApp OnCommand management software to efficiently control NetApp storage systems as a single pool of resources across the SAN environment. OnCommand Balance will help the staff perform activities such as monitoring and optimizing

the performance of virtual servers. OnCommand Protection Manager, NetApp SnapMirror® technology, and NetApp SnapVault® technology help protect Broncos administrative staff and football team data through replication between data centers over the wire. Snapshot™ and SnapRestore® technology, the Virtual Storage Console, and SnapManager for Microsoft Exchange and Microsoft SQL Server protect data locally.

BUSINESS BENEFITS
Doing things better and faster in IT
NetApp OnCommand management software and a highly flexible data infrastructure enable the IT team to quickly and effectively manage and modify the storage environment to accommodate data growth and changing Broncos requirements. Also important, the staff can make even extensive changes to the environment without disrupting critical day-to-day Broncos operations.

"With our previous storage solution, we were very restricted in our data management, making it difficult even to grow CIFS share volumes," says Newman. "NetApp allows us to manage our data far more intelligently. 🐦 We can resize Microsoft SQL Server volumes on the fly, doubling the space while the virtual servers continue to run and employees continue to access important application data."

Smarter, streamlined storage management translates into a highly responsive IT organization. "We can simply do things better and faster with NetApp, and with no impact to the Broncos staff in costly downtime," notes Newman. "Whether our accounting team is managing financial data or Broncos players are viewing videos in our training facility on their iPads, they can keep doing what they're doing."

NetApp®

Protecting invaluable Broncos data

NetApp backup and recovery solutions help protect critical team and organizational assets with 90 days of local backups ready for quick restoration and remote, replicated data for recovery in the event of a disaster. The staff replicates data between the stadium and training facility 20 miles away, eliminating the need for physical storage space and tape backups while reducing the risks of a disaster.

"We no longer have to call the off-site tape storage company and spend valuable time and money waiting to recover lost data," says Trainor. "We just log into the NetApp OnCommand management console and in minutes can retrieve the requested files or data, which reduces capex and opex and helps us better serve the Broncos staff." With a comprehensive, reliable business continuity plan, the Broncos can protect vital training, medical staff, video team, media relations, advertising, financial, and other operations. They also secure critical, confidential data such as player medical records, playbooks, staff salaries, and corporate e-mails related to trade negotiations.

Early adoption and ongoing innovation

The flexible, secure NetApp storage environment and advanced storage management capabilities continue to support Broncos technology initiatives. For example, Broncos IT and video staff members recently collaborated to deploy Apple iPads to more than 130 mobile players, coaches, managers, and support staff. The iPad-accessible data resides on virtual servers running on NetApp. Via WiFi, the Broncos team can view clips of plays and opponent game footage within hours of a game or practice, whether in the locker room or training facility or at home.

The Apple iPads can also access collaboration and itinerary tools, as well as a digital playbook that is always current via the PlayerLync application. The online playbook eliminates the cost and complexity of producing 500-page hard-copy playbooks that required manual updates and reprinting several times per week. The online playbook stored on NetApp storage also gives players more time to review plays before and after games.

The IT staff has a clear understanding of their vital impact on operational

PROVIDES INFRASTRUCTURE TO SEAMLESSLY SCALE FROM

50 TERABYTES
↓
1 PETABYTE

efficiency and, most important, Broncos team success. "We're both early adopters of new technology and effective at leveraging proven technologies," says Trainor. "With a flexible, dynamic NetApp environment supporting innovative tools such as Apple iPads running PlayerLync with digitized playbooks and video, the entire Broncos organization can better support the Broncos team in taking on the opposition while we attract and retain fans for years to come."

LEARN MORE

www.netapp.com/products/storage-systems/fas2200

■ NetApp®

SOLUTION COMPONENTS

NETAPP PRODUCTS

NetApp FAS2240 storage systems

Data ONTAP 8 operating in 7-Mode

OnCommand Unified Manager

Snapshot and SnapRestore technology

SnapManager for Microsoft Exchange and SQL Server

Virtual Storage Console

SnapMirror

SnapVault

Deduplication

PROTOCOLS

CIFS

iSCSI

Fibre Channel

THIRD-PARTY PRODUCTS

VMware vSphere

Cisco Nexus 7010 series switches

Cisco 3750 series switches

Cisco 2504, 5508 wireless controllers

Cisco 3500 and 3600 series access points

Microsoft Great Plains

ThirdLight

Citrix

PlayerLync

PARTNER

Peak Resources

ENVIRONMENT

Applications: Microsoft Exchange 2007, 2010

Database: Microsoft SQL Server 2005, 2008

Server platform: Microsoft Server 2003, 2008

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■ NetApp®

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future. To learn more, visit **www.netapp.com**.