**NetApp®**

*Success Story*

# Muscogee Creek Nation Casino Avoids Costly Downtime, Builds Multi-Tenant Private Cloud with FlexPod



## KEY HIGHLIGHTS

**Industry**
Gaming and casino management

**The Challenge**
Replace an aging, limiting IT infrastructure with a state-of-the-art, scalable data center.

**The Solution**
Deploy the FlexPod® data center platform with FAS3240 storage systems, Cisco® UCS® servers, Cisco Nexus® switches, and VMware® to establish a proven compute, network, and storage environment for a flourishing gaming business.

**Benefits**
- Saves several hundred thousand dollars an hour in lost gaming revenue by avoiding downtime
- Grows IT as a service for other gaming organizations
- Reduces time to deploy new services by up to 75%
- Recoups 30% of storage through deduplication

## Customer Profile

River Spirit Casino was originally established in 1984 as Creek Nation Casino, a Tulsa high-stakes bingo hall. Over time, River Spirit Casino has grown to become the largest Muscogee Creek Nation gaming facility in the state of Oklahoma. Today, Muscogee Creek Nation Casino offers a variety of gaming opportunities, including blackjack, poker, electronic games, and bingo at 10 thriving gaming properties across eastern Oklahoma, including its state-of-the-art casino in Tulsa, Oklahoma.

## The Challenge
### Accommodating rapid expansion

As the Muscogee Creek Nation's casino business grew and expanded to nine locations, the information technology (IT) team began to more closely examine each property's needs. For the growing enterprise, it was clear that any IT infrastructure had to offer high availability and scalability, as well as the flexibility to meet both internal business users' and casino guests' demands.

The core of the network infrastructure was located at the flagship facility in Tulsa. The combined solutions included a handful of disparate servers with outdated networking capabilities and without substantive storage. The Tulsa operation was just beginning to support the Muscogee Creek Nation's casino management system from Konami, which manages gaming activities and internal services, such as file storage and Microsoft® Exchange Server e-mail.

That's when Jeff Brooks, chief information officer, and Bryon Fowler, senior systems analyst, for Muscogee Creek Nation Casino were brought into the organization to build an infrastructure to support the newly renovated and greatly expanded Tulsa casino, and scale to support the company's eight additional facilities. The casino's management system by Konami houses approximately 40TB of data. In addition, the other internal systems for running the business stores close to 50TB, constituting roughly 100TB of information in total.

## The Solution
### Streamlined, highly scalable platform

Based on the vision of former CIO of Muscogee Creek Nation Casino, Dr. Jay Burgess, Brooks and Fowler worked with technology partner Presidio, Inc. to help identify requirements and assess various solutions that would provide the company with robust server, networking, and storage capabilities. "We relied

> ## "We were excited about deploying the prevalidated FlexPod solution with NetApp, Cisco, and VMware due to the environment's significant cost savings and ease of management."
>
> **Jeff Brooks**
> Chief Information Officer, Muscogee Creek Nation Casino

on a comprehensive research methodology with more than 160 key criteria, each weighted differently," says Fowler. "We went through many ways to structure how we could accomplish our goals. We researched what we would need to essentially build what we considered an internal private cloud. In the interim we wanted to quickly build out and support the flagship Tulsa facility. However, we also needed a solution that could accommodate future initiatives."

After meeting with numerous vendors, Muscogee Creek Nation Casino decided on FlexPod, a prevalidated configuration from NetApp and Cisco that delivers an optimized data center solution in a rack composed of leading compute, network, storage, and software components. For virtualization, Muscogee Creek Nation Casino chose VMware software. "Presidio's help and guidance throughout this process was invaluable," says Fowler. "After the decision was made to deploy a FlexPod solution, Presidio worked hand in hand with us on every design and implementation detail, successfully replacing our old infrastructure with a more powerful and agile environment."

Muscogee Creek Nation Casino deployed NetApp® FAS3240 storage systems as part of its FlexPod configuration in Tulsa and Okmulgee, with another FlexPod planned for its Muscogee data center.

Each configuration includes a NetApp FAS3240 storage system with Cisco Nexus 7000 Series switches, Cisco Unified Computing System™ (UCS) B200 M3 blade servers, and the VMware vSphere® 5 Enterprise Suite with VMware ESXi™ 5 hosts, vCenter™ server, and vCenter operations.

The organization plans to virtualize 70% of its infrastructure, starting with Microsoft Exchange and the Konami gaming software solution. Konami runs on a back-end Oracle®10*g*™ database with Oracle Data Guard for database protection. Microsoft SQL Server® databases are also central to casino operations and virtualization strategies. The Microsoft SQL Server databases run VMware vCenter and VMware Site Recovery Manager in conjunction with NetApp SnapMirror® technology to safeguard virtualized data.

### Significant management, small staff
The IT team manages the platforms through the NetApp Data ONTAP® operating system, NetApp OnCommand® Unified Manager, and VMware's management software. Approximately 28 IT professionals manage all 9 facilities, a fairly lean team for handling more than 50 applications and 100 terabytes of data across so many locations.
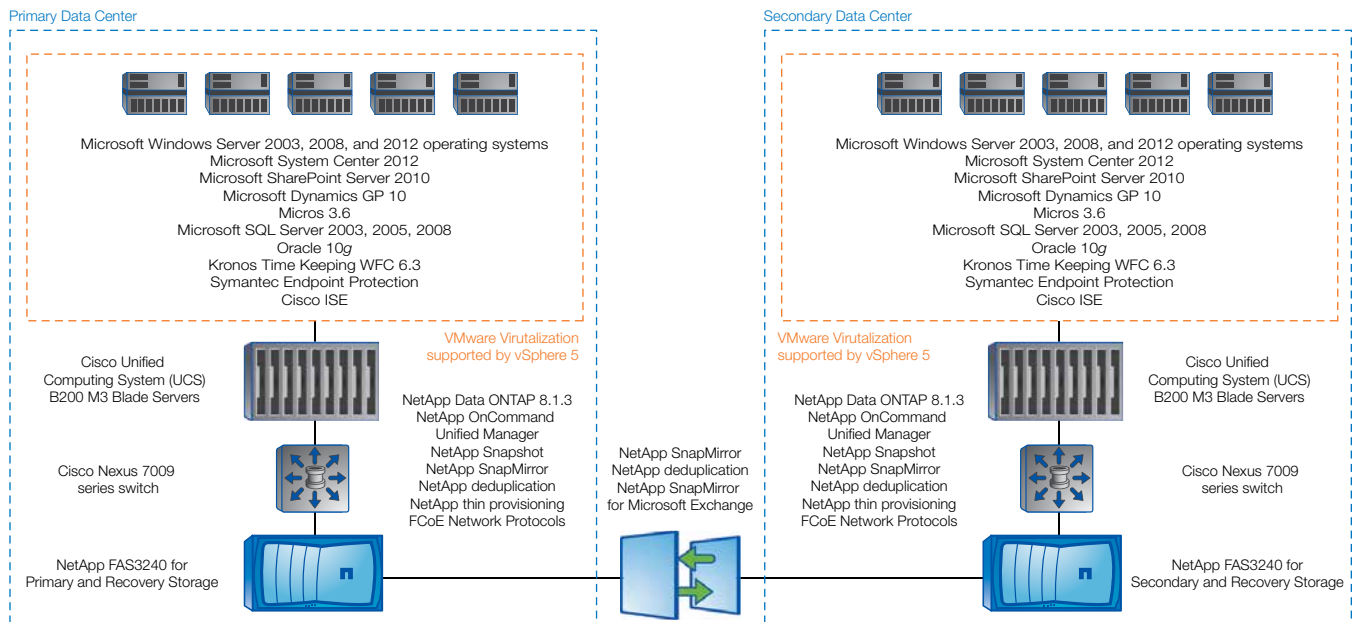
The staff leverages NetApp deduplication and compression to optimize the storage environment, recouping roughly 30% of

storage to utilize for other purposes. NetApp SnapMirror is deployed to replicate data from Tulsa to the secondary data center site in Okmulgee, providing full recovery capabilities without a single failure. NetApp SnapManager® for Exchange Server, in conjunction with VMware's backup and recovery software, provides content protection.

"We were excited about deploying the prevalidated FlexPod solution with NetApp, Cisco, and VMware due to the environment's significant cost savings and ease of management," says Brooks. "We can quickly provision storage within NetApp and stay within the same management software console instead of having to jump between different software packages. The enhanced manageability provided by OnCommand and VMware with FlexPod was instrumental in our decision to go with the platform."

### Collaboration, commitment foster success
At the time Muscogee Creek Nation's Casino was most in need of revamping and expanding its data center capabilities, FlexPod was in its infancy and few people in the IT world were aware of its power. To showcase the pretested, prevalidated, and integrated FlexPod solutions, Presidio worked with Cisco and NetApp to host Muscogee Creek Nation Casino decision makers at the

**Figure 1)** Muscogee Creek Nation Casino deployed NetApp FAS3240 storage systems as part of its FlexPod configuration in its data centers in Tulsa and Okmulgee. Each location includes Cisco Nexus 7009 Series switches, Cisco Unified Computing System (UCS) B200 M3 blade servers, and the VMware vSphere 5 Enterprise Suite with VMware ESXi 5 hosts, vCenter server, and vCenter operations.

NetApp Executive Business Center in San Jose, California.

During the meeting, the companies demonstrated how FlexPod—fully supported by NetApp, Cisco, VMware, and Presidio—would offer the casino a highly scalable solution to quickly support the rapidly expanding gaming environment envisioned by Muscogee Creek Nation Casino leaders. The solidarity among the vendors impressed Muscogee executives, and they could see the opportunity for genuine collaboration among all the vendors.

### Business Benefits
#### ROI in spades

For Muscogee Creek Nation Casino, provisioning new services was traditionally time consuming and costly. In the past, it took the IT team several hours to get a new server up and running with an application. For instance, deploying Konami gaming software, the casino's critical management system responsible for everything from tracking players to game revenue and performance, required six different servers with an hour and a half to two hours required per server for provisioning.

Now, new servers can be spun up to provision different gaming services in less than 30 minutes, making the business more agile and eliminating the need for the organization to continually

procure new servers—a process that in itself could take weeks. "In our FlexPod environment, we can spin up new virtual servers in less than an hour and quickly deliver the services our business users demand or the gaming experiences our customers want," says Fowler.

One of the biggest benefits for Muscogee Creek Nation Casino is the ability to virtually eliminate any concerns of systems going down. "Uptime on the floor is absolutely critical," says Brooks. It not only directly affects customer satisfaction, but it also can result in lost revenue and lost transactional histories.

Adds Brooks, "It's crippling to the business when our gaming operations go down. For instance, our Tulsa property contains 2,700 games. Collectively, all of our gaming locations together produce several hundred thousand dollars an hour. By avoiding just a few hours of downtime, our FlexPod solution pays for itself. Now there's an outstanding return on investment."

#### Winning big today and tomorrow

In the future, Muscogee Creek Nation Casino plans to build a charge-back model for its virtual private cloud that will extend to its own and other properties, as well as potentially to the government of the Muscogee Creek Nation.

The IT team also wants to analyze the big data coming from its Konami database to know which games are best for the business and which are enjoyed most by customers. From a business standpoint, the IT team at Muscogee Creek Nation Casino believes that the FlexPod solution will become increasingly vital to every area of the business, from gaming operations to marketing and finance operations. "We want this to be a blueprint that helps the Nation become more productive and efficient all around," Brooks says.

"Our gaming locations together produce several hundred thousand dollars an hour…By avoiding just a few hours of downtime, our FlexPod solution pays for itself. Now there's an outstanding return on investment."

**Jeff Brooks**
Chief Information Officer, Muscogee Creek Nation Casino

## SOLUTION COMPONENTS

**FlexPod Components**
NetApp FAS3240 storage system

Cisco Unified Computing System (UCS) B200 M3 blade servers

Cisco Nexus 7000 Series switches

**Virtualization Components**
VMware vSphere 5 Enterprise

VMware vCenter

VMware Site Recovery Manager

**NetApp Software**
Data ONTAP 8.1.3

OnCommand Unified Manager

SnapMirror

NetApp deduplication and compression

SnapManager for Exchange Server

**Protocol**
FCoE

**Third-Party Products**
Applications:
Microsoft Exchange Server 2010

Microsoft SQL Server® 2003, 2005, 2008, 2008 R2

Konami KCMS 3.21

Oracle10*g*

**Partners**
Presidio
*www.presidio.com*

Cisco
*www.cisco.com*

Another NetApp
solution delivered by:

**CISCO**

www.netapp.com

NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate business breakthroughs. Discover our passion for helping companies around the world go further, faster at *www.netapp.com*.

Go further, faster®

Follow us on: