NetApp®

Mansfield Oil Keeps Fuel Deliveries Flowing: Without Planned or Unplanned Downtime

Mansfield

KEY HIGHLIGHTS

Industry
Energy

The Challenge
Run core business applications 24/7—without planned or unplanned downtime—to power superb customer service.

The Solution
Transform IT into a services-based organization by partnering with NetApp to deploy NetApp® FAS8040 storage systems running the NetApp clustered Data ONTAP® OS.

Benefits
• Improves customer service by eliminating downtime for core business applications
• Reduces time to market for new applications and services by 50% while improving quality
• Minimizes risk by increasing agility in hardware upgrades, data migrations, and disaster recovery
• Allows technology teams to focus on continual improvement versus maintenance

Technology-powered experiences
People think of petroleum products as a commodity, and they often consider only price when making purchases. But Mansfield Oil is working to change that. Every day, the company puts customers first by streamlining its operations and speeding delivery to supply energy when it's needed—at the lowest possible costs.

One of the largest privately owned companies in the United States by revenue, Mansfield is a leader in energy supply, logistics, and services in North America. The company delivers more than 3.5 billion gallons of petroleum products, ethanol, biodiesel, and diesel exhaust fluid to customers annually—approximately one full tanker truckload each minute of every day.

Technology plays a major role in keeping Mansfield competitive. The company maintains a rock-solid supply chain that enables rapid customer delivery and tracks more than 200,000 price changes daily to minimize costs for customers.

The Challenge
Improve availability for applications
For Mansfield to stay ahead of competitors and for its employees to provide the best possible customer experiences, critical business applications must always be available—without exception. For example, Mansfield manages its supply chain using an internally developed ERP system; analyzes deliveries using analytics software based on Microsoft® SQL Server® 2012; and collaborates using Microsoft SharePoint® and Lync® Server. Despite their mission-critical nature, these systems were experiencing outages that made it difficult for IT to support Mansfield's always-on objective.

The Mansfield Business Technology team began looking at a new model with the goal of exceeding business expectations. First, a new data center with exceptional availability had to be established so that the business could operate and serve customers without fail.

"We had a clear vision of what needed to change for us to become a true service provider to the business," says Hercu Rabsatt, director of infrastructure and service management at Mansfield Oil. "To start, we needed to move our primary data center to a new facility with sufficient redundancy to support our availability goals."

The Solution

Leverage contemporary storage solutions in a redundant configuration

Although a new, fully redundant data center was the right move, Mansfield didn't have the luxury of a long data migration. The cutover to the new data center had to happen over a weekend, and the business had to be entirely operational from the new facility on Monday morning. If data or systems were unavailable, fuel deliveries could grind to a halt.

After careful consideration, Mansfield selected NetApp to help safeguard availability and streamline the move to a new data center and disaster recovery facility. The company engaged NetApp Professional Services to deploy active-active, dual-controller NetApp FAS8040 storage systems running NetApp clustered Data ONTAP at both locations. NetApp SnapMirror® software replicates changed data blocks between the two clusters. Mansfield also virtualized most of its Microsoft Windows®-based servers with VMware® vSphere®, further improving agility.

"The relationship we have with NetApp—with our and their engineers working together as one team committed to the same goals—was critical to the success of our data center migration," says Rabsatt. "I've worked with just about every storage vendor out there, and to me, NetApp's responsiveness is unmatched. After that experience, we took all the other storage vendors off the table and standardized on NetApp for our Fibre Channel SAN workloads."

NetApp performed the clustered Data ONTAP Migration Service and used the NetApp 7-Mode Transition Tool to move data volumes to the unified clustered architecture. "The migration to NetApp clustered Data ONTAP was seamless," says Rabsatt. "Having the NetApp team involved from an architecture and design perspective was invaluable—with their help, we did everything right the first time."

The I/O speed of the NetApp FAS8040 controllers combined with NetApp Flash Cache™ intelligent caching allow Mansfield to maintain robust performance for its high-transaction SQL Server environment.

Business Benefits

Providing world-class customer service

Mansfield's IT department can now meet higher service-level agreements with the business—and stand behind them. As a result, both customer and employee satisfaction have improved.

"The ability to move data and workloads between NetApp controllers without affecting the business contributes to our ability to maintain a competitive edge," says Rabsatt. "We've had zero downtime for our core business applications since moving them to NetApp clustered Data ONTAP. We can always service our customers."

Responding to business needs faster and without downtime

The ability to test, scale, and move data nondisruptively is accelerating time to market for new applications and services. Mansfield can scale its storage to respond to unpredictable and changing business requirements by adding controller nodes or disk shelves without planned downtime.

"If we need to stand up a new risk analysis application to offer greater insight into transportation logistics, we can deliver it to the business in 50% less time with NetApp clustered Data ONTAP compared with our previous environment," says Rabsatt.

Focusing on quality and continual improvement

Mansfield has also gained increased agility in hardware upgrades, data migrations, and disaster recovery with clustered Data ONTAP, allowing the company's technologists to focus on service quality and continual improvement instead of reactive maintenance.

"NetApp technology allows us to be nimble and react quickly to the often volatile changes in the energy sector," says Rabsatt. "NetApp has been a key partner in helping us revolutionize our infrastructure for competitive advantage, tying our technology to our business strategy and remediating areas of risk. You can't put a price on that kind of relationship."

SOLUTION COMPONENTS

NetApp Products
NetApp FAS8040 storage systems with Intel® Xeon® processors

NetApp clustered Data ONTAP 8.2

NetApp Flash Cache

NetApp SnapMirror

NetApp deduplication

Environment
Applications: Microsoft Lync Server 2013, Microsoft SharePoint, internally developed ERP application

Operating systems: Microsoft Windows Server® 2012

Databases: Microsoft SQL Server 2012 R2

Virtualization: VMware vSphere 5.5

Server platform: HP BladeSystem

Network: Brocade

Protocols
Fibre Channel

CIFS

NFS

NetApp Professional Services
NetApp Clustered Data ONTAP Migration Service

NetApp SupportEdge Premium

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