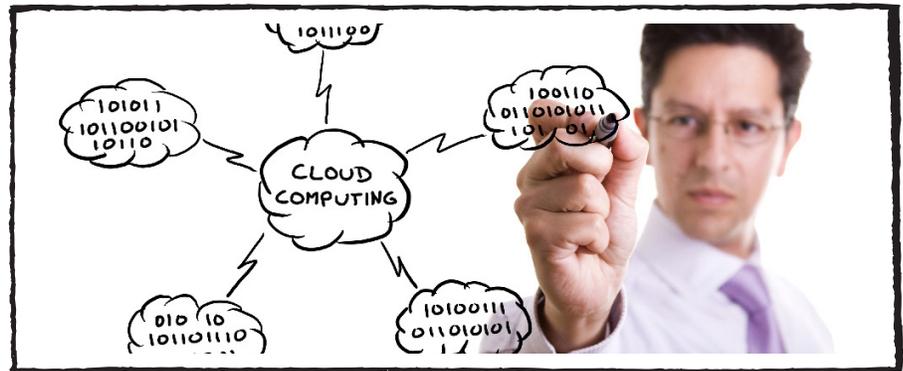**Success Story**

Atmosera Offers Clients Faster Performance and Increases Services Revenue with NetApp Arrays

atmosera

KEY HIGHLIGHTS

Industry
Managed cloud provider

The Challenge
Deliver business results faster for hosting clients with demanding workloads, such as virtual desktop infrastructure (VDI) and database batch processing.

The Solution
Provide high performance and reduced latency for clients with high I/O requirements by migrating their databases and virtual desktops to NetApp® EF-Series flash arrays, which integrate into the existing NetApp SAN architecture.

Benefits
- Increases revenue potential by up to 20%
- Reduces Microsoft® Dynamics backup times by 90%
- Executes Microsoft SQL Server® batch processing up to twice as fast
- Provides VDI clients with six-fold-faster logins
- Saves six hours of combined employee productivity every day

Customer Profile

Atmosera is a Portland, Oregon–based provider of fully managed infrastructure as a service (IaaS), private, public, and hybrid clouds as well as colocation. Known for its consultative approach, Atmosera delivers IT environments that reliably support its clients' business objectives. The company is committed to being an always-on, trusted application infrastructure partner, providing strategic guidance, integration engineering, and enterprise-class ITIL-based operations. Atmosera serves enterprises, government, and education organizations as well as technology companies offering software-as-a-service (SaaS) applications.

The Challenge
Providing responsive and reliable IT as a service

To deliver a complete solution with competitive service level agreements (SLAs), Atmosera has built a strong, closely knit ecosystem of technology partners. "Having a standardized architecture along with good vendor partnerships helps us be more responsive with both implementation and service," says Steve Knipple, CTO and vice president of engineering at Atmosera. "Most of

our clients are hosted on NetApp FAS storage systems in a VMware® vSphere® virtual environment since it offers a competitive deployment solution."

Maintaining high availability 24/7/365 is crucial to most enterprise clients as well as SaaS providers who compensate their customers financially if promised uptime metrics are not met. "Our clients want to know that their systems will be available all the time," says Knipple. "Proven reliability is the key reason we use NetApp."

Improving performance for databases and VDI

Most of Atmosera's new business involves deploying and managing private clouds for clients—a natural fit for the company's consultative approach. "Many of our clients aren't sure which applications and services to move to a private cloud, or how to do so efficiently," says Knipple. "They see us as a trusted advisor to help them guide the transition and improve performance and availability for their mission-critical applications."

As clients began moving more demanding workloads such as VDI and batch processing into their private cloud environments, some required

> ## "We're very pleased with the NetApp EF-Series flash arrays, and the ability to quote them into deals increases our potential revenue from private cloud services by up to 20%."

Steve Knipple
CTO and VP of Engineering, Atmosera

stringent performance SLAs. "We turned to NetApp to see how solid state drives (SSD) could complement our existing arrays and help us offer improved performance to current and prospective clients in a compact footprint," says Knipple.

The Solution
Adding flash storage meets new performance needs

To add performance for clients who need to accelerate latency-sensitive applications and databases, Atmosera deployed NetApp EF-Series flash arrays. Engineered to deliver business-critical applications with high availability and low latency, the EF-Series arrays bring together extreme performance and enterprise-grade reliability, availability, and serviceability.

"We looked at flash storage from various vendors and chose the NetApp EF-Series flash arrays primarily because of the company's excellent track record with us on support and responsiveness," says Knipple. "The vast majority of our clients have used NetApp FAS storage systems and had a really good experience."

The NetApp EF-Series arrays are also simple to implement and run. "The NetApp EF-Series flash arrays integrate seamlessly into our existing NetApp SAN architecture," says Knipple. "We simply present it to our VMware cluster as an additional storage option, allowing us to deploy EF-Series flash arrays for clients in a matter of hours. Intuitive administration of our NetApp systems helps us manage costs and keep our administrators more productive."

With consistently high I/O performance, the EF-Series arrays allow Atmosera to provide a significantly different customer experience than other managed services providers. "Our clients trust us to make the right technology choices for them, and we take that very seriously and back it with our SLAs," says Knipple. "The performance improvement we've enabled with NetApp EF-Series flash arrays is noticeable from the first login, and to date we haven't had any downtime."

Business Benefits
Offering market-leading SLAs for availability and performance

With a fully redundant architecture to provide high availability for dedicated client workloads, Atmosera can offer competitive SLAs for availability as well as performance. "With no single point of failure and enterprise-class reliability, NetApp EF-Series flash arrays help us offer high application availability for our clients' most critical workloads," says Knipple.

For Atmosera's SaaS clients using NetApp EF-Series flash arrays, load times have decreased for customer-facing websites, providing a better user experience. Complex queries execute faster against large datasets, improving transactional response times. Enterprise clients benefit from speedy performance for mission-critical applications.

One global retailer that hosts its Microsoft Dynamics EX enterprise resource planning system with Atmosera can now execute Microsoft SQL Server batch processing up to twice as fast. "This

client has an extensive, complicated supply chain, with large batch jobs running at regular intervals," says Knipple. "By augmenting their SAS-based array with a NetApp EF-Series flash array, we've reduced batch job execution times by 20% to 50% and reduced backup times by 90%."

Delivering business results faster

Atmosera provides IaaS for Oregon Freeze Dry, the largest diversified food freeze dryer in the world. The Albany, Oregon–based company maintains a large VDI deployment across its office and shop floor, and sought to improve performance by hosting its VMware Horizon View™ virtual desktops with Atmosera.

"We provide all of our 150 users with virtual desktops," says Troy Warren, enterprise systems administrator, Oregon Freeze Dry. "When we hosted VDI ourselves, we had a diverse and unpredictable virtual server workload that interfered with virtual desktop performance. We had difficulty providing fast enough login times—particularly first thing in the morning, when all the users came in—and applications were slow to load."

To improve the user experience, Atmosera recommended hosting the virtual desktops in a private cloud environment using a NetApp EF-Series flash array. "When we moved our VMware Horizon View virtual desktops to a NetApp EF-Series flash array, user logins immediately became six times faster, and application load times

"We've already given the business back more than six hours of combined employee productivity every day by improving virtual desktop performance and application load times."

Troy Warren
Enterprise Systems Administrator, Oregon Freeze Dry

dropped by 70%," says Warren. "Users were ecstatic, and we saw a marked decline in help desk support tickets."

Pleased with the improvement in performance for VDI, Oregon Freeze Dry plans to move other critical applications to the NetApp EF-Series flash array, including its Microsoft SQL Server–based data warehouse and its Microsoft Exchange 2013 deployment. "The NetApp EF-Series flash array is a great fit for our high-I/O workloads," says Warren. "We've already given the business back more than six hours of combined employee productivity every day by improving virtual desktop performance and application load times. That's an ROI that adds up pretty quickly."

Increasing revenue potential from cloud services

Flexibility is essential in managed services, and the ability to offer clients more performance-enhancing options is helping Atmosera grow its business and keep customer satisfaction high.

SOLUTION COMPONENTS	
NetApp Products	**Environment**
NetApp EF540 flash arrays with Intel® Xeon® processors	Applications: Microsoft Dynamics AX and other business-critical applications
NetApp FAS2240 and FAS3240 storage systems with the NetApp Data ONTAP® operating system and Intel Xeon processors deployed in HA pairs	Database: Microsoft SQL Server
	Operating Systems: Windows Server®, CentOS
NetApp SANtricity® Storage Manager	Server Platforms: Dell, HP
NetApp SnapMirror® software	Network: Cisco
	Virtualization: VMware vSphere, VMware Horizon View
	Protocols
	iSCSI, NFS

"We're very pleased with the NetApp EF-Series flash arrays, and the ability to quote them into deals increases our potential revenue from private cloud services by up to 20%," says Knipple.

"We're bringing on more and larger clients and having discussions we never could have had without a field-proven, well-supported enterprise SSD option."

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