TransCore Speeds Workloads 10X with Storage that Paid for Itself in Nine Months

TRANSCORE CASE STUDY

Datrium™

TRANSCORE

Transportation
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Challenge
Lack of space on the company's Dell storage slowed applications and limited growth initiatives.

Results

- 10x lower latency
- Up to 7x capacity gains
- 95% less storage management
- Datrium paid for itself in just nine months
- Shifted focus to more strategic initiatives

> "I don't want to be in the storage business. I want to be advancing strategic initiatives and helping end users. Datrium lets me do that. It runs itself."

Kevin Smith
Director of MIS

Company Challenge

Lack of Headroom Holds Back the Business.
From San Francisco to New York, TransCore provides toll collection systems and RFID transportation tracking. In fact, TransCore was the first to deploy a toll system in the 1930s, and today 11 of the 15 largest toll agencies in the United States use its systems.

The company's Albuquerque plant handles end-to-end production of tolling and RFID systems, from design to manufacturing – requiring hundreds of applications to get the job done.

TransCore has been strategically virtualizing servers and desktops to reduce costs and complexity. However, with increasing virtualization, end users noticed spotty performance – especially on data-intensive applications such as AutoCAD and the enterprise resource planning (ERP) software. It's Dell direct attached storage neared capacity and just couldn't keep up. Kevin Smith, Director of MIS, knew it was time to upgrade to elevate the user experience and meet the company's growth goals.

Results

Confidence to Support Business Growth
Smith and the team considered solutions from Dell EMC, Nutanix and Datrium. With Datrium's Automatrix platform, the company would maximize storage headroom with always-on deduplication and compression. Plus, with data close to workloads, they would gain much-needed performance for the growing infrastructure. Smith also liked the ability to manage VMware and Datrium from one interface.

"In choosing Datrium, it was about partnering with a company with strong support and about increasing performance," Smith explained. "We wanted flash capability to run our applications faster."

Along with those advantages, Smith made the case to management that Datrium would deliver a lower total cost of ownership. The company wouldn't need to buy as much storage as with a traditional system and could virtualize more desktops with no performance drags. Smith additionally appreciated that he could add on easily as needed, rather than buying everything at once – an easier sell for the finance department.

As TransCore deployed Datrium, the capacity gains even exceeded Smith's expectations at an impressive 7X, thanks to the always on compression and deduplication.

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Performance, likewise, dropped a few jaws – especially running in Insane Mode. Latency improved by 5X-10X depending on the application. "Data-intensive computations that used to take four to five hours now take just an hour," Smith said. "Instead of people complaining about VMs being slow, they are now coming to me asking for more VMs because they're so fast."

Faster performance directly affects TransCore's supply chain and delivery to customers. Previously, it took minutes for applications to re-render graphics on virtual desktops. Now, that takes seconds. "Engineers can complete designs more quickly, which leads to quicker product delivery in the end," Smith said.

95% Less Time on Storage
When TransCore's IT team does need to spin up new VMs, they do so in approximately two minutes – compared to three days before. Along with eliminating LUN and artifact management, the team no longer has to shift workloads around and or check reports. In total, they reduced their overall storage management time by approximately 95 percent.

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Besides day-to-day time-savings, Datrium support keeps an eye on TransCore's system from afar and proactively notices anything out of the ordinary. When a server went down overnight, Datrium was the first to notice and let Smith's team know.

Cloning, Snapshotting for DR Strategy
Disaster recovery also factored in the company's choice of Datrium. TransCore takes advantage of Datrium's Cloud DVX to back up to Amazon Web Services (AWS). The team runs snapshotting and cloning every hour during the day for production servers, and once a day for VDI. "Because they're zero copy, that space-savings is huge," Smith said.

As they move all workloads to Datrium, they will no longer need offsite tape backup, which will further reduce their costs. Other future plans include leveraging replication with Datrium after the company adds a second data node to be used mainly for maintenance and failover. Smith also plans to evaluate Datrium ControlShift when available to orchestrate the DR failover to AWS.

On-Target with Payback Period
Based on projections, Smith expected Datrium to pay for itself in about a year. In fact, that happened in about nine months, when he considered the savings of replacing desktops with VDI, data reduction rates and adding cost-effective flash to increase performance.

"With Datrium, we don't need to buy nearly as much space now or in the long run, which keeps our storage costs down. And we have the throughput to advance VDI," Smith said. "I could report to our VP of Finance that we reached payback in nine months."

About TransCore
A leader in the transportation industry, TransCore provides innovative, technical solutions and engineering services for applications encompassing next-generation Open Road Tolling and Traffic Management Systems. The company operates award-winning tolling customer service centers for departments of transportation throughout the U.S. and internationally. A pioneer in Radio Frequency Identification systems used in the transportation industry, TransCore secures access for airports, hospitals, parking garages, border patrols, trucking fleets, and the rail industry.

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