

IT Team Surprises End Users with Insane Performance Gains



MID-CONTINENT INSTRUMENTS & AVIONICS CASE STUDY



Manufacturing
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Challenge

End users complained of slow processing and printing with business-critical applications.

Results

- 2.8x capacity gains
- Performance that end users noticed immediately
- 60x faster exchange reboots
- Zero time on LUNs or storage management
- SQL Server virtualization with no hit to performance
- Lower acquisition and ongoing costs with capacity gains and hardware flexibility

“It’s not just happy users, but happy and more efficient IT staff. With Datrium, we run much more efficiently than we used to.”

Tara Crain
Director of IT

Company Challenge

Storage Bottlenecks Spur User Complaints

At Mid-Continent Instruments and Avionics, many of the company’s more than 170 employees rely on Microsoft Dynamics, which works in tandem with SQL Server. When end users began reporting slow performance during processing and printing, the IT team suspected its Dell EqualLogic storage was the bottleneck.

“Our real pain was sluggish performance and thus, unhappy users,” said Will Eckels, senior system administrator. “Most of our users are in Microsoft Dynamics 99% of the time, so slowness really affected productivity. We wanted to go out and find the fastest, smoking hot storage we could get.”

Results

2.8x Capacity Savings

The team discovered Datrium’s Automatrix platform, where all data resides in flash on the host, accelerating performance. And as the company adds servers, performance actually increases. Additionally, for the first time, the IT team had hope that it might be able to virtualize SQL Server on Datrium. “Before, we didn’t have confidence that any other storage or hyperconverged solution could handle virtualizing SQL without losing performance,” said Tara Crain, Director of IT.

With the move to Datrium Automatrix, Mid-Continent Instruments and Avionics runs 30 virtual servers off four hosts serving locations in Wichita, Kansas and Van Nuys, California. With always-on global deduplication and compression, the company achieved about 2.8x better data reduction versus its previous storage.

Speed that Users Noticed

Running perpetually in Datrium’s Insane Mode, the IT team found its “smoking hot” speed. End users, once vocal about poor performance, reported a striking difference – without knowing anything changed on the backend.

“One super-user said, ‘What did you do? Everything is running so well now,’” Crain said. “It was nice to hear positive comments for a change.” Those gains also extended to the California office, which normally saw slightly slower response times.

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Previously, the IT team rebooted Microsoft Exchange in the evenings because it typically took at least 12-15 minutes to complete. After the move to Datrium DVX, reboots finished in less than 15 seconds – approximately 60x faster. “On an Exchange reboot, the screen was back up so fast we weren’t even sure if it had rebooted. We were giddy to say the least. It was unreal,” said Tim Van Scyoc, Systems Administrator.

Zero Storage Management

The company moved from multiple data stores to a single converged system that simplified storage management and reduced stress. They eliminated any need to create LUNs, monitor storage or shift workloads. Likewise, they reduced 75% of after-hours patch management – giving Eckels and other IT team members back valuable evening time.

Beyond day to day time-savings, when any questions have come up, the team has found responsive, knowledgeable support from Datrium just a call away.

‘Happy Users, Happy IT Staff’

Datrium Automatrix also delivered attractive economics over other options the company evaluated. The ability to retain some of its existing server hardware – instead of a full swap – reduced acquisition costs and will keep costs down in the future. Additionally, capacity gains gave Mid-Continent Instruments and Avionics more space for the dollar.

The switch to Datrium Automatrix also enabled the company to move ahead with some of its goals. The team did, in fact, virtualize SQL with no hit to performance. In fact, printing from Microsoft Dynamics is approximately 3x faster. The company also gained greater peace of mind regarding recovery. Just a week before bringing in Datrium, a data restore took the Microsoft Dynamics AX database down for half a day. With Datrium newly installed, the team completed snapshotting in seconds. “The snapshotting is very, very impressive,” Eckels said. “We’re confident that we could recover from almost anything. Before, we would sweat and pray a lot, and worry that something might go badly.”

Ultimately, greater efficiency throughout the company contributes to faster response times and delivery to customers, which goes back to the bottom line.

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About Mid-Continent Instruments & Avionics

For more than half of a century, Mid-Continent Instruments and Avionics has been an industry leader in the overhaul, exchange, repair, design and manufacturing of aircraft instruments, avionics and advanced power solutions. Serving 57 countries, we support business and commercial aviation, unmanned aerial vehicles (UAV), defense and special missions markets. We manufacture more than 20,000 units per year and process more than 15,000 units in our overhaul, exchange and repair operation. Our customer base includes original equipment manufacturers (OEMs), fixed base operators (FBOs), instrument and avionics shops, flight schools and government agencies.

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