Equinox Creates a Fiscally Fit Data Warehouse with Fusion ioMemory™ System

Solution Focus

- Microsoft SQL Server
- Business Intelligence/Data Warehousing

Summary of Benefits

- 10-20x faster query processing
- 4-6x faster reporting
- Inform managers quickly and dependably, so they can perform their best
- Focus IT resources on higher return projects than performance improvements
- Cost is less than SAN, while lowering operating costs and adding room for growth
- In-place improvement of legacy reporting system

The Challenge

Voted Best Gym in America by Fitness Magazine, Equinox Fitness Clubs operates 48 upscale, full-service facilities in New York, Chicago, Los Angeles, Florida, Boston, San Francisco, Dallas, and Washington DC that cater to over 160,000 members.

Equinox's data warehouse allows managers at all clubs to run reports that help them with everything from monitoring their daily results to managing customer service and revenue opportunities. However, its single Microsoft SQL Server database was struggling to handle the hundreds of daily reports run by hundreds of unique users.

Equinox's Director of Enterprise Data, Elliott Cordo, told us, "Our data warehouse is critical to our operations. It is used by nearly everyone, from personal training managers, sales managers, and regional managers running reports for daily operations to power users reporting for in-depth analysis and strategy."

Job running time were growing and often not completing before business hours. When this happened, Equinox's IT team had to re-run them the following evening, which meant that managers didn't have the information they needed to run at their best.
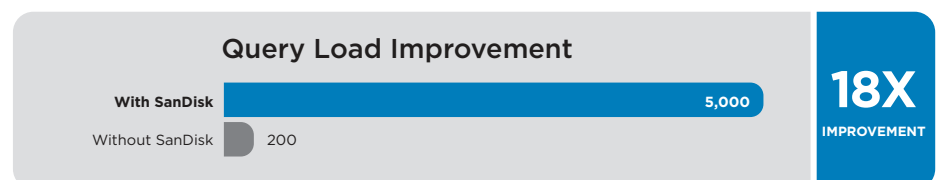
As the leader of a team whose company lifestyle brand emphasized innovation, Elliot knew he could devise a solution that would ensure that reports completed on time, without breaking his budget.

The SanDisk® Solution

A Data Warehouse Power-Lifter

Elliott selected the Fusion ioMemory™ solution for its superior performance and ease of deployment. A single Fusion ioMemory ioDrive® card added to Equinox's database system resolved the data warehousing performance issues.
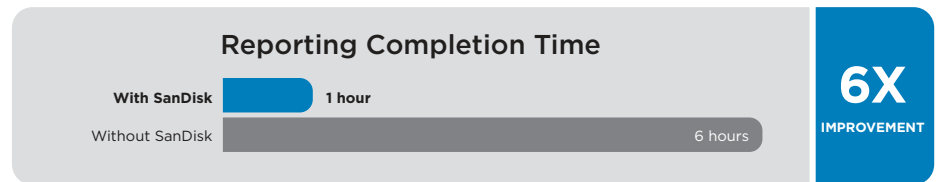
Elliott said, "Some of our query loads that used to run at a couple hundred rows per second now run at three to five thousand rows per second, regardless of whether operations are inserts or updates. Database performance is regularly ten to twenty times what it used to be."

Query Load Improvement

With SanDisk	5,000
Without SanDisk	200

18X IMPROVEMENT

Improving the database performance translated into dramatic improvement on reporting job time. Elliott said, "Our data warehouse load, which used to take four to six hours to complete, now completes in under an hour. We can now publish reports much earlier and dependably."

Reporting Completion Time

With SanDisk	1 hour
Without SanDisk	6 hours

6X
IMPROVEMENT

Lean and Mean Intelligence

Not only did the ioDrive solution offer unmatched I/O performance, it cost less than a disk-based system.

Elliott said, "Getting the I/O we needed from a SAN or NAS solution would take a refrigerator-sized system. A disk-based solution that just met our performance needs would have cost more than the SanDisk solution. The ioDrive cards give us so much more I/O headroom that we won't need to upgrade for performance for some time."

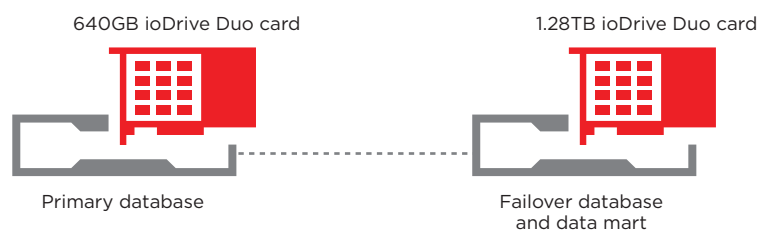Additionally, the SanDisk-powered system had lower operating costs.

Elliott told us, "Our old system had to support a sustained 2,000 IOPS. That takes a lot of conventional drives. Since installing the ioDrive card, I have never seen a significant queue, even under our heaviest loads. The Fusion ioMemory solution does this without the additional complexity of a SAN, which would increase colocation fees and use more power."
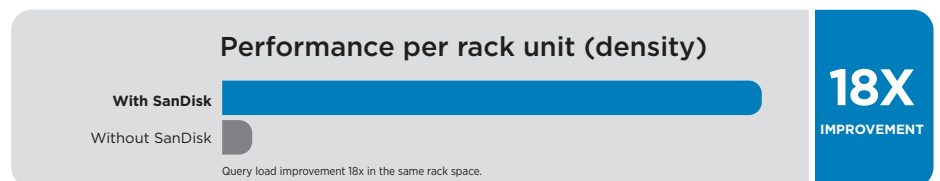
Shaping Up a Legacy Reporting System

In addition to its data warehouse, Equinox maintained a legacy reporting system that was being slowly migrated to the data warehouse. As a short-term fix, Elliott added an ioDrive card to the system. The results were remarkable.
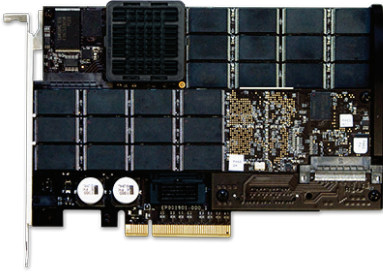
Elliott said, "A lot of reports on the legacy system could not render fast enough to make them functionally useful. We added an ioDrive card and the reports now run so fast that a lot of the users think we migrated them to the new platform ahead of schedule—and we didn't need to do a thing to the application."

Complete Data Warehouse in Two Servers

640GB ioDrive Duo card   1.28TB ioDrive Duo card

Primary database   Failover database
and data mart

• Two 2U HP DL380 servers, Dual Quad-Core,2.53 Ghz CPU, 32GB RAM
• OS: Windows 2008
• ioDrive Duo 640GB card stores all primary database data
• ioDrive Duo 1.28TB card stores failover database and some data marts

Performance per rack unit (density)

With SanDisk	
Without SanDisk	

Query load improvement 18x in the same rack space.

18X
IMPROVEMENT

SanDisk®
a Western Digital brand

Fusion ioMemory™ - ioDrive® Duo

This benefits more than just the business users. As Elliott noted, "Because we can now run legacy reports at high service levels, we can focus on projects with higher business return instead of putting out system slowness fires."

Summary

Implementing the Fusion ioMemory solution gave Equinox the following benefits:

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Faster reporting made Equinox a more powerful and flexible organization that was always armed with the latest intelligence. Elliott told us, "By ensuring reports always complete overnight, we greatly improve the effectiveness of our operations. Personal training managers can always be on the floor at 9:00am conducting business, knowing the active sales promotions and the members they need to contact. Sales managers can start the day with the latest customer and lead data instead of sitting in their office reviewing yesterday's results."

About Equinox

Equinox Fitness Clubs operates 48 upscale, full-service facilities in New York, Chicago, Los Angeles, Florida, Boston, San Francisco, Dallas and Washington DC. The company offers an integrated selection of Equinox-branded programs, services and products, including strength and cardio training, group fitness classes, personal training, spa services and products, apparel and food/juice bars. Since its inception in 1991, Equinox has developed a lifestyle brand that represents service, value, quality, expertise, innovation, attention to detail, market leadership and results.

In addition to the 48 Equinox Fitness Club facilities, Equinox has partnered with Pure Yoga, who has studios in Hong Kong, Singapore, and Taipei. Equinox operates two Pure Yoga studios in New York City. Named "Best Yoga" by New York Magazine, Pure Yoga opened its first location in 2008 on the Upper East Side, with the second location on the Upper West Side following in Winter 2009. Pure Yoga offers the best instructors in NYC, teaching over 100 scheduled classes per week across 27 different styles of yoga. It also frequently hosts master classes and workshops, integrating world-renowned guest faculty and unique yoga programs into multiple community events.

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At SanDisk, we're expanding the possibilities of data storage. For more than 25 years, SanDisk's ideas have helped transform the industry, delivering next generation storage solutions for consumers and businesses around the globe.