

TransUnion Interactive Raises Reporting Efficiency with Fusion ioMemory™ Solutions

Credit and information management company uses SanDisk® powered blades to slash reporting times while minimizing server footprint

Solution Focus

- Oracle Database
- Financial Industry

Summary of Benefits

- **6-9x faster** reporting
- **Performance** of several shelves of disks per Fusion ioMemory™ ioDrive® card
- **Easy implementation**
- **High ROI** from offloading reporting off SAN onto ioDrive cards
- **Best price-to-performance value**

The Challenge

TransUnion Interactive, Inc. (TUI) is a consumer subsidiary of TransUnion. With TransUnion Interactive, businesses can better acquire customers, strengthen long-term customer value and increase their bottom line. Through various sites, including TransUnion.com, consumers can benefit from online educational materials and easy-to-use tools designed to help them manage and control their finances.

TransUnion Interactive's IT department maintains a reporting environment in which the company gathers information from all of its websites. Examples include number of users visited, number of visits per user, which users pulled reports, statistics around monetary profiles, and so forth.

As the number of users and data volume began to grow, generating reports took an increasingly long time. Infrastructure Architect Tim Bojorquez told us, "Generating reports on our storage-based system took upwards of 30-45 minutes. With so many jobs being run daily, some business users were not receiving their reports until the afternoon."

TUI's Director of Infrastructure and Architecture Ramdas Kenjale, worked with Tim and his team to look for ways that TUI could cost-effectively improve the performance of its reporting system to ensure employees were armed with the information they needed to make decisions when they arrived in the morning.

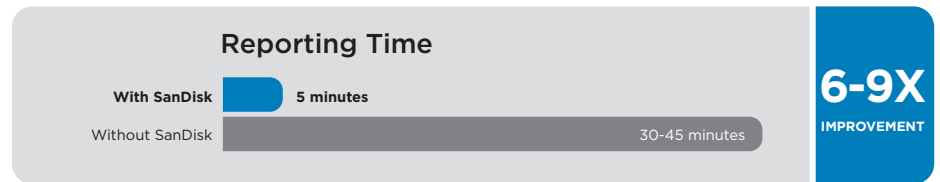
The Solution

Tim told us he had investigated SanDisk's Fusion ioMemory™ ioDrive® cards several years earlier. He was impressed by the performance, but it did not fit within the efficient blade architecture they had standardized on. "We needed a solid-state solution that would fit into our blade architecture," Tim said. "When we heard the ioDrive mezzanine product was available, we knew we could get the performance we needed. We implemented servers with the maximum PCIe slots and leveraged the Fusion ioMemory products' full capacity."

Powering Reporting Performance

To implement the system, TUI installed the ioDrive cards into the reporting blade server and moved the reporting databases off the back-end storage and onto the SanDisk-powered system. The results spoke for themselves.

“Reporting jobs went from going across the network to a hard disk-based NFS system to solid-state media located within the blade servers themselves,” Tim said. “Generating reports went from taking 30 to 45 minutes to about five minutes running off the ioDrive cards.”



“Generating reports went from taking 30 to 45 minutes off the back-end storage to about five minutes running off the ioDrive cards.”

Tim Bojorquez,
Infrastructure Architect,
TransUnion Interactive

“Reports run four to five times faster, at a minimum, than they used to,” Ramdas stated. “What this means is that everyone who uses these reports for their work—from Accounting to Marketing—has their reports at the beginning of the day. This means they are equipped with timely information to help them make the best decisions.”

Quick and Easy Implementation

TUI was also pleased with the ease of implementing the Fusion ioMemory products.

“Our storage-based reporting environment was already built on blades,” Tim told us. “A key factor in our decision to purchase the ioDrive cards was that we didn’t have to worry about redesigning our system. Implementing them required a simple installation and moving the data around a bit.”


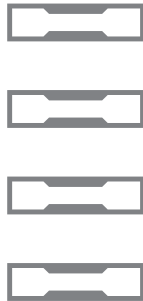
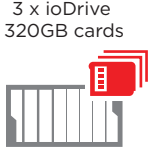

Excelling in Efficiency

TUI’s system was designed to maximize performance while saving maintenance, floor space, and energy costs. Adding ioDrive cards to the mix took their ROI to a new level.

“The ROI on the ioDrive cards is considerable. Without SanDisk, the IOPS necessary to support fast reporting under our current query load would have taken shelves of capacity,” Tim said. “We would have needed 10-12 shelves of disk storage and three times the money to equal the IOPS capabilities three ioDrive cards achieved with a single blade server. SanDisk was not only faster, but more cost effective.”

“The ioDrive cards are less expensive than competing solid-state products when priced on performance,” Ramdas added. “Performance was our primary goal, but the ioDrive cards enabled us to do more with less hardware, which is always a benefit.”

System Overview

System Before		System After	
Database servers	Storage (NFS)	Database servers	Storage (NFS)
			
Database Servers	Storage (NFS)	Database Servers	Storage (NFS)
<ul style="list-style-type: none">• 3 x blade servers quad-core 2.66GHz processor, 64GB RAM• OS: RHEL 5• Application: Oracle 11.2.01 in Oracle RAC	<ul style="list-style-type: none">• 4 shelves of 144GB, 10k RPM disks in RAID-DP (~5.5TB)	<ul style="list-style-type: none">• 1 x blade server, quad-core 2.4GHz processor, 96GB RAM• 3 x 320GB ioDrive cards• OS: RHEL 5• Application: Oracle 11.2.01 standalone	<ul style="list-style-type: none">• 4 x 144GB, 10k RPM disks (500GB)

Contact information

fusion-sales@sandisk.com

Western Digital Technologies, Inc.

951 SanDisk Drive
Milpitas, CA 95035-7933, USA
T: 1-800-578-6007

Western Digital Technologies, Inc. is the seller of record and licensee in the Americas of SanDisk® products.

SanDisk Europe, Middle East, Africa

Unit 100, Airside Business Park
Swords, County Dublin, Ireland
T: 1-800-578-6007

SanDisk Asia Pacific

Suite C, D, E, 23/F, No. 918 Middle
Huahai Road, Jiu Shi Renaissance Building
Shanghai, 20031, P.R. China
T: 1-800-578-6007

For more information, please visit:

www.sandisk.com/enterprise

SanDisk[®]
a Western Digital brand

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.

Summary

Implementing the ioDrive cards gave TUI the following benefits:

- 6-9x faster reporting
- Performance of several shelves of disks per ioDrive card
- Easy implementation
- High ROI from offloading reporting off SAN onto ioDrive cards
- Best price-to-performance value

Tim is thrilled with the SanDisk-powered blade system and told us, "We just purchased higher capacity ioDrive cards to grow the reporting environment and look forward to evaluating several other I/O constrained areas where the existing ones can be used."

About the Customer

TransUnion Interactive, Inc. is a consumer subsidiary of TransUnion. As a global leader in information and risk management, TransUnion creates advantages for millions of people around the world by gathering, analyzing and delivering information. For businesses, TransUnion helps improve efficiency, manage risk, reduce costs and increase revenue by delivering high-quality data, and integrating advanced analytics and enhanced decision-making capabilities. For consumers, TransUnion provides the tools, resources and education to help manage their credit health and achieve their financial goals. Through these and other efforts, TransUnion is working to build stronger economies worldwide. Founded in 1968 and headquartered in Chicago, TransUnion reaches businesses and consumers in 25 countries around the world.

The performance results discussed herein are based on internal TransUnion testing and use of Fusion ioMemory products. Results and performance may vary according to configurations and systems, including drive capacity, system architecture and applications.

©2016 Western Digital Corporation or its affiliates. All rights reserved. SanDisk is a trademark of Western Digital Corporation or its affiliates, registered in the United States and other countries. Fusion ioMemory, ioDrive, and others are trademarks of Western Digital Corporation or its affiliates. Other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).