



# TransUnion Interactive Raises Reporting Efficiency with HP IO Accelerator

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 HP IO Accelerator card
- **Easy implementation**
- **High ROI** from offloading reporting off SAN onto HP IO Accelerator 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.

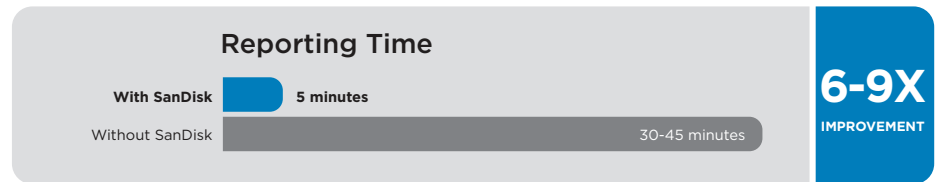
## The Solution

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 HP 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 HP IO Accelerator mezzanine product was available, we knew we could get the performance we needed. We implemented the HP BL680 server with the maximum PCIe slots and leveraged the Fusion ioMemory products' full capacity."

## Powering Reporting Performance

To implement the system, TUI installed the HP IO Accelerator 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 HP IO Accelerator cards.”



*“Generating reports went from taking 30 to 45 minutes off the back-end storage to about five minutes running off the HP IO Accelerator 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 HP IO Accelerator 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.”


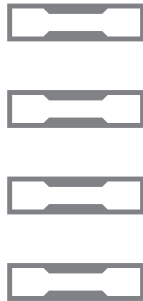


### Excelling in Efficiency

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

“The ROI on the HP IO Accelerator 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 HP IO Accelerator cards achieved with a single blade server. SanDisk was not only faster, but more cost effective.”

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

## Summary

Implementing HP blade servers with HP IO Accelerator cards gave TUI the following benefits:

- **6-9x faster** reporting
- **Performance** of several shelves of disks per HP IO Accelerator card
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- **Best price-to-performance value**

Tim is thrilled with the SanDisk-powered blade system and told us, "We just purchased higher capacity HP IO Accelerator 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.

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

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