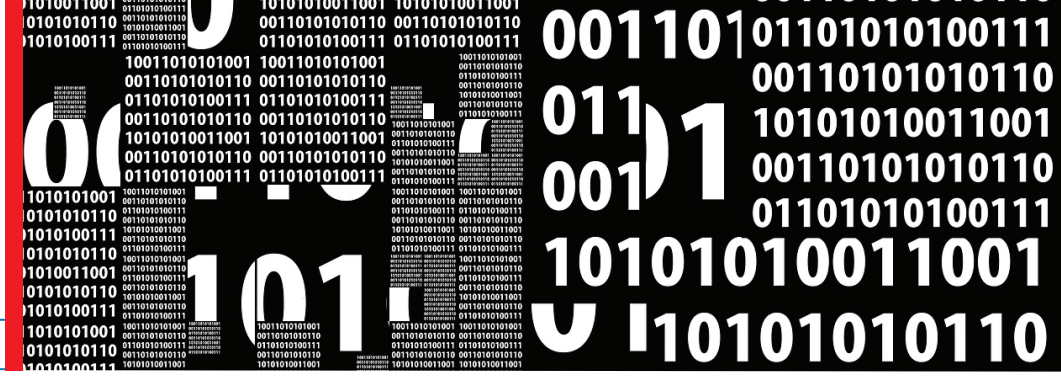
SANDISK
BUSINESS VALUE SERIES

SAP HANA

SOLUTION BRIEF



In a Flash: SanDisk® and SAP HANA Drive Business and Technological Transformation

Today, opportunities abound to use new tools — like flash storage for Big Data, business intelligence and analytics — that can help turn big data into big dollars. To take advantage of these opportunities, you have to rethink the legacy tools and business processes you use.

The need for speed at scale is paramount for enterprises. With mission-critical workloads and processing demands expanding at stratospheric proportions, the increased performance, lower latency and higher throughput of shared SANs is essential, as is their reliability and cost-effective scalability.

Enter SanDisk and SAP, which offer alternate choices not only for big data — but also high-performing, reliable infrastructures with massive scalability that enhance business productivity and profitability by enabling you to get to your data insights faster — and cost-effectively. SanDisk, the storage and memory giant, is driving this transformation with SanDisk ION Accelerator™, its SAP-certified, all-flash, shared enterprise storage platform for SAP HANA Tailored Datacenter Integration (TDI) environments. Part of an open, high-performance, scalable datacenter architecture, SAP HANA TDI is an in-memory database that, together with SanDisk ION Accelerator, will help you get to market first and claim the competitive high ground.

Access Data in a Flash

The need for speed at scale is paramount for enterprises. With mission-critical workloads and processing demands expanding at stratospheric proportions, the increased performance, lower latency and higher throughput of shared SANs is essential, as is their reliability and cost-effective scalability. Most legacy infrastructures focused solely on hard disk drives (HDDs) lack this sophistication and are dangerously insufficient. Their deficiencies have opened the door to flash, which adds cost-efficient performance and capacity across enterprise storage environments. Flash is playing an ever-expanding role in real-time analytics (online analytical processing or OLAP), online transaction processing (OLTP), enterprise resource planning (ERP) and e-commerce apps.

SanDisk ION Accelerator — powered by SanDisk's industry-leading ioMemory family of NAND flash storage devices and innovative PCIe architecture — conquers major pain points associated with OLAP and OLTP performance, including latency and throughput, both of which can significantly impact response time and lead to reduced productivity. With SanDisk ION Accelerator — unlike many HDD systems — writing to transaction logs does not bottleneck HANA's in-memory performance. It is also faster because its PCIe-based cards are closer to the CPU and application workloads so you can take advantage of your data in real time. With its ability to break through the input/output (I/O) bottlenecks of high-performance OLAP and OLTP processing, and ensure low latency, SanDisk ION Accelerator is one of the fastest options for HANA TDI deployments. In fact, when working in just a two-node HANA environment, a customer was able to load 128 million rows of data — 60GB of block data and 20GB of persistent data — in only 6.5 seconds*.

A Weapon of Mass Disruption

SanDisk ION Accelerator scales to meet your workloads' high storage growth

SanDisk®
a Western Digital brand

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

needs with far less infrastructure than its all-flash competitors. Supporting up to 32 SAP HANA nodes on a single ION Accelerator HA pair, it is possible to deploy multiple terabytes of SAP HANA in-memory database capacity, and leverage the performance of SanDisk ION Accelerator for all data snapshots, transaction logs and shared file system resources. SanDisk ION Accelerator provides massive scale for HANA solutions - scaling up to 32 HANA nodes - more than doubling what most competing solutions offer. This means you can stay on the same storage infrastructure much longer than with the competition, saving you hundreds of thousands of dollars.

SanDisk ION Accelerator works well with modern datacenters through a flexible platform that can be utilized by a variety of servers and networks and meet the high demands of virtualization — while providing reliability and high availability. It allows organizations to integrate their existing data management policies for tasks such as datacenter backup and disaster recovery into the shared storage tier. SanDisk ION Accelerator also provides business continuity via its recovery capabilities in the event of a HANA node failure. In a marketplace where the mantra is better and faster, the value of that fast recovery is manifested in less business interruption, and higher data integrity.

Cost definitely matters with faster ROI and reduced TCO always on the minds of C-suite executives. SanDisk ION Accelerator advanced storage should be valued for its effective cost for a given workload or performance — i.e., dollars per Input/Output Operations per Second (IOPS) versus dollars per GB. It adds performance across the storage environment, improves operational efficiencies and does so while increasing the ROI — unlike HDD systems where additional systems are purchased for performance only, creating underutilization and increasing capital expenditures. With only four storage processors of flash memory needed to manage up to 32 HANA nodes, IT is able to reduce its datacenter footprint to roughly a quarter of that required for most other storage environments. This results in significantly lower capital expenditures necessary to accommodate storage growth, and secondary cost savings on power and cooling, licensing and support.

Fast and Economical Data Insights

Faced with the many complexities of data access, analysis and management, SAP HANA TDI customers need a storage solution that keeps pace. Featuring industry-leading performance, unmatched scalability, reliability and an extremely competitive cost structure, SanDisk ION Accelerator is the premier storage solution for your HANA TDI deployments.

SanDisk ION Accelerator disrupts the storage model for SAP HANA in the best way possible. By providing better real-time insights and intelligence for massive, data-centric applications and workloads, these innovative technologies allow you to capitalize on opportunities, drive innovation, reduce costs and improve the bottom line. SanDisk and SAP are providing highly functional technologies for Big Data that are driving significant business benefits for you, and can help you prosper and grow in the competitive marketplace.

To find out more about what flash technology can do for your business, contact your SanDisk Sales Representative for a demonstration or proof of concept to see how SanDisk ION Accelerator can help you optimize your SAP HANA TDI environment.

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SanDisk®
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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.

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