Top Applications for SSDs in Financial Services

Data Storage Solutions
The big data challenge
Everyone in IT knows that big data is a force to be reckoned with. The market is exploding with massive quantities of structured and unstructured data, which must be collected, sorted and stored safely. Trying to process all this data in real time, so it adds value to the organization, is like drinking from a firehose. Then there’s the challenge of mastering the complex tools and technologies used to collect and analyze big data and turn it into workable information and reports. Getting a handle on it all requires efficient storage systems—and that means solid state storage technology.

Compared with traditional hard-disk drives (HDDs), solid state storage systems greatly alleviate I/O bottlenecks and latency. Driven by non-volatile memory technology, advanced solid state drives (SSDs) can deliver faster response times and greater capacity without sacrificing reliability or accuracy. Across an array of application workloads, solid state storage (or a hybrid solution) provides the efficiency and uptime that businesses need to:
- Ensure that service level agreements (SLAs) are met for Tier-1 business-critical applications and increase application performance across the board.
- Scale applications up and out without compromising end-user response times—while using less hardware, power, cooling and data center space.
- Improve response time and throughput by caching the “hot,” most frequently requested data.

The enterprise SSD opportunity at a glance
Businesses in financial services industries are particularly reliant on efficiency and performance in their data centers. When your bottom line depends on dynamic information provided in real time, a split-second delay can be very costly. As more and more business functions move into virtualized environments or cloud-delivery platforms, any bottleneck in storage becomes a mission-critical concern.

When performance and microseconds count, the I/O improvements of solid state storage technology are especially valuable.
Top applications for enterprise SSDs

The following real-world examples illustrate how solid state storage technology solves key customer challenges across the financial services industry.

Financial Application Solutions

1. **Financial Analysis/OLTP**
   Financial analysis programs that run on SAP, Oracle database and/or MySQL must process high volumes of information quickly. Financial analysis firms depend on data to be there, be correct and always be delivered accurately. Solid state storage technology makes it happen. Reducing the response time on queries means that you don’t have to sacrifice accuracy for speed—and those faster transactions lead directly to more profit.

2. **Predictive Risk Analysis**
   Financial markets are all about understanding and managing risk. In order to visualize where risk is going to be, the more information considered the better. Solid state storage technology can help by alleviating the I/O bottleneck that comes from “random read” searches. The result is more bandwidth, more IOPS, and more capacity for users without sacrificing performance or accuracy.

3. **Risk Management**
   In addition to identifying future risk, solid state storage technology can accelerate the software that helps improve investment choices. Reducing latency allows the CPU to process more information, so that the calculation engine works better and delivers improved performance. The result is better decisions based on accurate information that was delivered in real time. Best of all, it can be achieved without a lot of new hardware and with a lower total cost of ownership (TCO).

4. **Business Intelligence**
   When selling financial services, you have to reach the right audience. Solid state storage technology helps financial organizations accelerate data analysis to identify core demographics and “look-alike” customers. Not only can SSDs help targeted algorithms run quickly, they can make them more robust and accurate by quickly pushing more relevant data into the calculations.
Why SanDisk for your enterprise storage solutions?

A leader in solid state storage innovation, SanDisk offers a broad portfolio of flash-optimized hardware and software solutions, so you can select what works best for you. Our cutting-edge hardware includes workload-optimized SAS SSDs and PCIe Solid State Accelerators (SSAs). SanDisk solutions can be used on their own for efficient storage scaling, with FlashSoft™ software for server-tier caching performance optimization, or with Membrain software for an in-memory database speed boost.

At SanDisk, we have a singular focus: to expand the possibilities of data storage technology. And enterprises all over the world are putting us to work.

Learn more about SanDisk storage solutions for the enterprise.
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