NetApp E-Series High-Performance Computing Solution for Financial Services

BACKGROUND

At stock exchanges around the globe, approximately 350 billion shares are traded each day, adding up to an average monthly trading volume of US$8.3 trillion.[1] With automated trading, shares are bought and sold in just milliseconds. To be successful, financial services companies need reliable, high-performance computing (HPC) solutions that can outpace the market and outsmart competitors.

CHALLENGE

In the fast-paced world of financial services, it's all about getting the best price. To do achieve this goal, traders like you need an HPC infrastructure that can handle millions of trades per hour. The addition of artificial intelligence (AI) capabilities brings a whole new advantage to the table, enabling better insight and projection to reduce risk and to increase profits for your customers. Imagine being able to track trends so closely that you can buy or sell shares before the market can respond.

To stay a step ahead of the competition, you need a high-performance storage solution that can keep pace with extreme compute power.

SOLUTION OVERVIEW

The NetApp® E-Series HPC solution features a complete line of highly reliable, high-performance storage systems. A modular architecture with industry-leading price/performance offers a true pay-as-you-grow solution to support storage requirements for the millions of trades that are made each day. The system is integrated with leading financial applications, so data is captured and analyzed from all sources, helping you make optimal decisions quickly.

THE SPEED YOU NEED

In the frenzied world of trading, whoever holds the power of compute wins. To remain a competitive force in the industry, you need to be able to instantly buy and sell shares. By adding AI capabilities that can analyze data faster than any human can, you gain an even greater advantage. To realize the full benefits of your extreme compute power, you need a high-performance storage solution that can keep up.

NetApp E-Series performance is optimized to support any number of workloads simultaneously and is capable of up to 1 million random read IOPS and 13GBps sustained (maximum burst) write bandwidth per scalable building block. Optimized for both flash and spinning media, the NetApp E-Series HPC solution includes built-in technology that monitors workloads and automatically adjusts configurations to maximize performance.

■ NetApp®

AROUND-THE-CLOCK RELIABILITY

In a business in which millions of dollars can be lost for every second of downtime, continuous availability is a must.

The NetApp E-Series HPC solution offers nonstop reliability with a fault-tolerant design that is proven to deliver greater than 99.9999% availability. With best-in-class redundancy, the NetApp E-Series HPC solution provides outstanding resilience, proven by more than 1 million systems deployed. Built-in data assurance features confirm that your data is accurate, with no drops, corruption, or missed bits—all the way from host to storage media.

Our extensive partner ecosystem helps us validate configurability, stability, interoperability, and reliability. You can be confident that your NetApp E-Series HPC solution has been tried and proven to deliver the 24/7 availability that your financial institution requires.

EASY DEPLOYMENT AND SUPPORT

Providing a stable, high-performance infrastructure to support high-frequency trading can be overwhelming. The NetApp E-Series HPC solution makes enterprise storage easy. As you scale your system, the NetApp E-Series HPC solution is easy to install and to manage as a single unit. Or you can scale your system to hundreds of units with IBM Spectrum Scale, Lustre, BeeGFS, and other file systems. The modular design enables your IT staff to nondisruptively add performance and capacity without complex deployments or migrations. Scripting enables dynamic system replication so that you can quickly configure new systems for faster deployment and can automate common tasks for easier management.

The NetApp enterprise architecture also features proactive monitoring and support to automate issue resolution and to reduce management overhead. Worldwide support and 4-hour parts delivery help keep your transactions flowing. NetApp also offers secure support options for sensitive sites.

LIMITLESS SCALABILITY

The increasing number of shares that are traded and the use of AI result in exponential data growth for financial services companies like yours. To keep pace, your company needs an agile storage solution that scales easily and seamlessly.

The modular design of the NetApp E-Series HPC solution offers a granular, building-block approach to growth. You can scale your system seamlessly from terabytes to petabytes by adding capacity in any increment—one or multiple drives at a time.

BUSINESS BENEFITS

Gain a Competitive Edge
• Buy and sell shares before the market can respond with a high-performance storage system that delivers <100 microsecond latency and 99.999%+ availability.

Simplify Data Management
• Easily integrate with your existing infrastructure and applications by using plug-ins, APIs, and orchestration tools.

• Grow as needed with price/performance building blocks that make small to large configurations cost efficient.

LOWER TOTAL COST OF OWNERSHIP

Without forethought, storage costs can easily spiral out of control. The price/performance-optimized building blocks from NetApp make small to large configurations cost efficient. And NetApp HDDs and solid-state drives (SSDs) are required to meet strict quality, performance, and interoperability mandates before they are accepted. This extra scrutiny results in failure rates that are 4 times lower than commodity HDD and SSD devices. NetApp E-Series also leverages industry-leading performance density per rack unit, resulting in lower costs for power, cooling, and support. All these benefits add up to significantly lower TCO.

MORE INFORMATION

To learn more about NetApp HPC solutions for financial services, visit netapp.com/hpc.

ABOUT NETAPP

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit **www.netapp.com**. #DataDriven