



## Solution Brief

# NetApp AI Solutions for Financial Services

Spark product innovation and revenues with AI

### Key Benefits

#### Power real-time risk mitigation

- Detect illegal or suspicious financial activity almost instantly when you feed, train, and operate your AI applications with the industry's fastest and most flexible all-flash storage.
- Faster performance results in successful trade execution and increased revenue.

#### Extract the most value from your data

- Gain deeper insights into your business with a simplified AI solution that enables you to harness and analyze data from multiple disparate sources.
- Accelerate the creation of models that help financial experts assess trends, identify risks, and ensure better information for prospective planning.

#### Grow without limits

- Start small and grow seamlessly—from hundreds of terabytes to tens of petabytes—without disrupting ongoing operations.
- Run an exhaustive array of simulations to test the robustness of your models.

### Challenge

Rules-based expert systems currently used to catch fraud have become too easy to beat. In addition to combatting fraud, financial services institutions are also challenged to make the right credit decisions, improve risk management, enable fast, insightful trading, and develop personalized services—all while elevating the customer's experience.

#### NetApp AI Solutions for Financial Services

To address these challenges, the financial services industry is increasingly relying on artificial intelligence (AI) and machine learning (ML) technologies. With NetApp® ONTAP® AI, banks and other financial institutions can leverage the deep insights gained from AI and ML operations to improve their defenses and better serve their customers.

ONTAP AI combines NetApp cloud-connected all-flash storage with NVIDIA servers for a high-performance, highly reliable, easily scalable solution that is proven to handle workloads such as credit risk assessment, large trade execution, natural language processing, fraud prevention, and cybersecurity.

ONTAP AI tightly integrates NVIDIA DGX systems and NetApp AFF all-flash arrays with state-of-the-art networking. The NVIDIA DGX systems are the world's first integrated AI systems that are purpose-built for enterprise AI. NetApp AFF storage systems deliver extreme performance and industry-leading hybrid cloud data-management capabilities. Together, they create a turnkey reference architecture that simplifies artificial intelligence deployments by eliminating design complexity and guesswork. Limitless scalability allows you to start small and grow your environment without interruption, while intelligently managing data from the edge to the core to the cloud and back.

#### Power Real-Time Risk Mitigation

AI can be a powerful tool in reducing risk, eliminating fraud, and protecting customer endpoints. To be successful, you need a data management solution that can keep up. ONTAP AI gives you all the performance you need to feed, train, and operate your applications so they can quickly and accurately detect illegal or suspicious financial activity across all areas of your organization.

NetApp AFF systems keep data flowing to deep learning (DL) processes with the industry's fastest and most flexible all-flash storage, featuring the world's first end-to-end NVMe technologies. The AFF A800 is capable of feeding data to NVIDIA DGX-1 systems up to 4 times faster than competing solutions. The AFF A800 storage system has been verified with nine DGX-1 systems and three DGX-2 systems. By adding more network switches and storage controller pairs to the ONTAP cluster, the architecture can scale to multiple racks to deliver extremely high throughput, accelerating training and inferencing. With this flexible approach, the ratio of compute to storage can be altered independently based on the size of the data lake, the models that are used, and the required performance metrics.



### Extract the Most Value from Your Data

All data is valuable, especially for financial services companies. With data coming in from multiple, disparate sources such as smartphones, call centers, transaction histories, and more, financial institutions must find a way to harness and extract the most value from it as quickly as possible. That requires powerful AI capabilities that reach from the edge to the core to the cloud—without adding to the complexities that are inherent in an AI environment.

Only NetApp offers data fabric technologies to satisfy the needs of complex, high-performance data pipelines with solutions that span your entire multicloud environment. ONTAP AI helps you simplify management of datasets, enabling you to reduce errors and operational cost with an AI platform that's built for the enterprise. With ONTAP AI, you can automate protection and theft prevention systems by using data, without incurring massive operational overhead. You can even address regulatory compliance requirements by leveraging your unstructured data.

### Grow Without Limits

Data is the most important component of AI operations. The more data you have, the better the results. Not only do AI applications require lots of source data, they also generate a lot of data through DL and ML processes.

To get you started, ONTAP AI offers 25 times more capacity than the closest competitor. Over time, you can grow as needed, with the ability to add compute, storage, and networking resources to clustered configurations without disrupting ongoing operations. Start with a 1:1 storage-to-compute configuration and scale out as your data grows to a 1:5 configuration and beyond.

NetApp's rack-scale architecture allows you to start with an AFF A220 and scale from hundreds of terabytes to tens of petabytes. And with NetApp ONTAP FlexGroup, up to 20 petabytes of single namespace can handle more than 400 billion files.

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### 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](http://www.netapp.com). #DataDriven