

Three Data Capabilities Financial Institutions Need

“The use of data really is now becoming a mandatory tool to assist the customer, employee, and the CEO. Going forward, data will be embedded and detected on a real-time basis, driving decisions on efficiency, experience improvement, and margin gains. Financial services will look to large technology companies as the standard in data-responsive design and development, and will seek to automate not just measurement, but also improvement and process.”

– Rob Findlay, Founder of Next Money



When it comes to numbers—specifically, money numbers and customer interactions—you really don’t want to leave your data at the mercy of a legacy system that doesn’t let you mine your data for all the instant insights it can offer. This list will outline the top three challenges facing financial institutions as they modernize their architecture.

1. Reduce Complexity and Increase Reliability with a Clean Data Store

It is not uncommon to have data stored across dozens of various systems inherited for legacy reasons. Such systems are used to serve different department needs, such as risk management, portfolio analysis, trade flow, and regulatory compliance systems; and to meet the needs across different geographies. This makes it challenging to create a clean data store, let alone to gain a holistic view of the data and analyze it. Moreover, because of data duplication, business users may not be working with the most accurate and up-to-date data, and financial institutions may experience trust issues based on the inconsistent data produced from various access points.

DataStax Enterprise (DSE), the always-on distributed hybrid cloud database platform built on Apache Cassandra™, utilizes an innovative horizontal scale-out architecture that delivers true linear scalability. Compared to the traditional approaches of relational databases, DSE allows organizations to easily increase cluster throughput and cluster storage with much lower total cost of ownership (TCO) and reliable scalability by simply adding more commodity hardware. By consolidating all the data, information is easier to access and manage by different departments, thereby reducing response time and increasing customer satisfaction.

2. Unlock Financial Market Trends

To ensure accurate data analysis, no financial data can be lost and everything must be captured. By collecting and storing high-fidelity data, financial institutions can better empower data scientists, business users, and analysts to identify the trends and insights hidden in the vast amounts of market data, and optimize predictive algorithms and models to take proactive or immediate actions. Traditional relational and in-memory databases are structurally fragile and not suited to serve such demands of high availability because of their single point of failure due to their master-slave architecture. A distributed hybrid cloud database ensures that all data accessed is the most up to date and current, drastically reducing the risk of financial institutions accessing out-of-date data.

DSE is designed as an always-on database platform. It utilizes a masterless, peer-to-peer architecture so that data is always replicated to multiple machines in real time. No matter if it’s planned maintenance or an unplanned power outage, your applications will be up and running with every point of market data captured and stored.



3. Provide Always-On Applications for Global Users

For mission-critical applications, financial institutions cannot afford downtime. With the increasing growth of globally distributed users, maintenance hours and data center failures are no longer acceptable. DSE is built to be always-on so that financial data can be served back to client-facing applications, with no application downtime—no matter what.

The masterless architecture also enables data to be replicated across both multiple machines within a data center and various data centers in real time. This allows multiple data centers to be active and utilized to service user requests. This active-active architecture allows financial institutions to realize cost savings by distributing load across all data centers, as opposed to the traditional active-passive model employed by legacy technologies. By using multiple active-active data centers, it's possible to direct users to the closest geographically located data center to reduce latency. In the event of a data center failure, traffic can be redirected without loss of data or availability.



Financial institutions across the world rely on DataStax for their most mission-critical financial data that keeps business running. Institutions such as Capital One, ING, and Macquarie use DataStax to improve customer experience, reduce architecture costs, and modernize their architectures to outpace the competition.

About DataStax

DataStax delivers the only active everywhere hybrid cloud database built on Apache Cassandra™: DataStax Enterprise. The foundation for contextual, always-on, real-time, distributed applications at scale, DataStax Enterprise makes it easy for enterprises to seamlessly build and deploy modern applications in hybrid cloud. DataStax also offers DataStax Managed Services, a fully managed, white-glove service with guaranteed uptime, end-to-end security, and 24x7x365 lights-out management provided by experts at handling enterprise applications at cloud scale, and DataStax Distribution of Apache Cassandra, a production-certified, 100% open source compatible distribution of Cassandra with expert support. For more information, visit www.DataStax.com and follow us on Twitter @DataStax.

For more information on how DataStax helps companies with their data transformations visit www.datastax.com/banking.

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