

## Federated Data Platform for Financial Service Providers

Delivering predictable performance independent of data volume, variety and distance

### BENEFITS

- Rich insights capabilities for big data analytics/AI/ML
- Better control and security of data by reducing data copies by 50-86%
- Enable 24x7 available infrastructure with near-zero RTO and RPO
- Faster, dynamic asset placement/migration for hybrid IT environment
- Seamless remote collaboration with federated NAS file services



### Challenges

Data has become an important business asset for the financial services market and its management is more of a business focus than an IT problem. Whether it is historical trade data for portfolio management, reported data for regulatory compliance, or insurance policy and claims data for risk management, financial service providers face the challenge of dealing with vast amounts of structured and unstructured data. The NYSE analyzes 20PB of data with 30TB of fresh data added daily.<sup>1</sup> Five years of US equity and options data is around 21PB and globally that would be roughly 42-50 PB.<sup>2</sup> The rise of unstructured data—social media, recordings, emails, etc.—adds to the volume and variety of data. With the spread of electronic trading across different regions and geo-diverse enterprises, data dispersion and siloed data repositories are real pain points for data managers resulting in the following challenges:

- **Limited value out of data:** Existing methods severely constrain the analytics/AI/ML platforms from gaining access to large amounts of data and need significant pre-processing to perform data reduction. This allows the data to be moved closer to the analytics platform as moving complete sets would take too much time. However, this results in analytics tools working with reduced or potentially inappropriate datasets, i.e., datasets that have expired or become irrelevant limiting true realization of their value.
- **Regulatory compliance:** In post-2008 era data governance policies (such as General Data Protection Regular-GDPR in the EU) and resulting sovereignty requirements dictate the data be stored within specified boundaries and accessed remotely without moving it. Conventional file transfer methods cannot meet these requirements by definition leading to inaccessible data and more local IT resources required (e.g., adding compute at the location of data), which results in additional costs.
- **Compromised business continuity:** Closing transactions from geo-diverse customers, brokers and traders requires infrastructures to be available 24x7. Explosive data growth and dispersion compromise business continuity strategies which are unable to meet the necessary Recovery Time Objective (RTO) and Recovery Point Objective (RPO) parameters.
- **Risk to cloud adoption:** Financial service firms are also adopting secure private and/or hybrid cloud strategies as they provide a scalable and pay-as-you-grow approach for federated data across the enterprise. But its adoption is hampered by tedious ingress with increased risk of placing incorrect workloads onto the cloud, expensive egress and potential risk of losing on-prem control safeguards.

In summary, various workflows in the financial services sector dictate the need for a federated platform for managing data assets dispersed across the globe to leverage their full business and operational value.

<sup>1</sup><https://www.cloudera.com/about/customers/nyse-ice.html>

<sup>2</sup><https://assets.kpmg/content/dam/kpmg/pdf/2016/01/data-management-trends-in-capital.pdf>

**The Vcinity™ Solution**

Vcinity’s Ultimate X™ (ULT X) solution empowers financial service providers to unleash the value of their distributed data assets across secure networks by providing faster, efficient access to or transfer of virtually any data, anywhere, any time. Vcinity’s technology and holistic approach maximizes compute, storage and network infrastructure by enabling access to data without needing to move it at all. It transfers data only if and when the use case (e.g., data migration or backup) demands it, thereby reducing copy sprawl and enhancing data security. Unlike conventional solutions, it does not pre-process data, so complete integrity of the source data is maintained. ULT X also delivers predictable performance independent of data volume, variety and distance and offers compelling benefits for the financial services market:

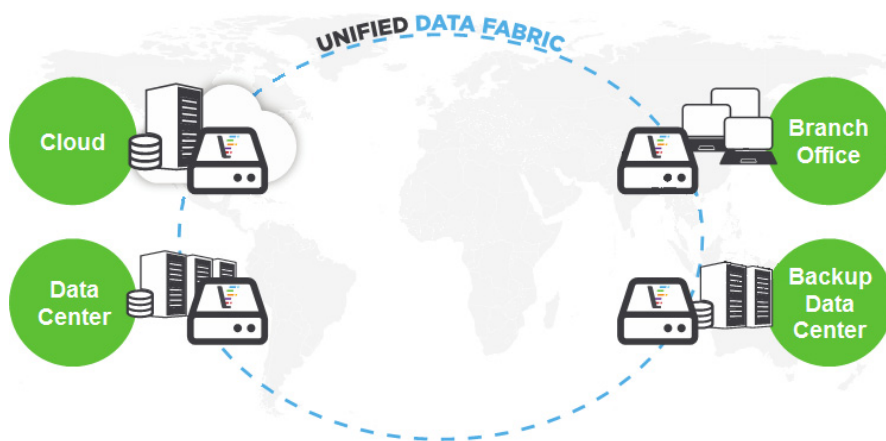
- **Rich insight capabilities:** Leveraging complete datasets for big data analytics/AI/ML platforms unleashes the value of the datasets in real time for critical use cases such as trading and quantities research, portfolio management, sentiment analysis, fraud detection or even insurance/loan underwriting.
- **Better data protection:** Access to large amounts of data without replicating it reduces copy sprawl—50-86% reduction in number of data copies—and offers better control of data. Additionally, encryption of data-at-rest and in-transit enhances data security. Accessing data remotely without moving it also facilitates data sovereignty compliance.
- **Near-zero RTO and RPO:** Instant or near-instant access to data at the backup site results in near-

zero downtime (RTO) and minimal performance degradation when the backup site is at a greater distance from the users. Synchronous replication of complete data sets (while maximizing connectivity to the backup site) enables near-zero RPO. This allows settling transactions across global, 24/7 available infrastructures with minimal financial impact.

- **Faster, dynamic asset placement and/or migration:** Faster migrations of workloads enable seamless adoption of colo/cloud/hybrid strategies through federated, scalable, and cost-effective data platforms. Dynamic multi-cloud compute is attained without pre-positioning the data ahead of time. Compute is federated to multiple cloud providers accessing data kept on-prem, in a colo or cloud.
- **Seamless remote collaboration:** Federated NAS file services provide standard network folders and/or storage shares across hybrid IT environments. This facilitates remote collaboration for a distributed workforce (e.g., branch office accessing central repositories of financial data, remote collaboration for the development of trading algorithms or remote data visualization).

**Key Performance Indicators**

ULT X recently enabled an AI platform in Virginia to process data in California without moving it. It has also proven its scalable performance by transferring 1 Petabyte in less than 24 hours over a 100Gbps fiber link across 3,000 miles and up to 12x improvement in data migration with predictable performance independent of distance.



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