Breaking Down Data Barriers in the Financial Sector

VMware and InterSystems partner to improve transaction speed and scale

Stakes are high in the fast-paced world of finance, which is why many are turning to the InterSystems® IRIS™ data platform on VMware® vSAN™–powered hyperconverged infrastructure. Now you can simplify IT and data management with concurrent transaction and analytic processing at scale.

When it comes to high-speed transactional trading, every microsecond matters. Uptime is paramount, sub-second latency is critical, and transaction volumes are always on the rise. Can your system deliver the performance and scale required? Can IT be counted on to support your trading ecosystem and still drive profits? The pressure is on as IT systems in the financial sector are expected to perform faster and more dependably than ever before. They must also provide analytics along the way to support pre-trade requirements, post-trade settlement, and the numerous other reporting requirements necessary in this heavily regulated industry.

To help streamline critical processes and meet increasingly stringent service-level agreements (SLAs), leading capital markets are turning to InterSystems' interoperability and analytics capabilities to support front-, middle-, and back-office processes. Running the InterSystems IRIS data platform on VMware vSAN helps to further simplify IT, reduce overall costs, and deliver the robust performance demanded today.

Transaction speed, scale, and analytics

Quickly and effectively share trading data by breaking down the information barriers—or data silos—that exist today. InterSystems IRIS, with its flexible integration and built-in support for standard APIs, delivers the interoperability needed on premises and in the cloud. A general-purpose data management solution, the IRIS platform delivers high performance at scale by simplifying architectures. It combines a persistent DBMS with in-memory performance for concurrent transactions and analytics, and intelligent distributed data-aware caching.

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vmware® | **InterSystems®**
Health | Business | Government

INTERSYSTEMS IRIS DATA PLATFORM		
UNIFIED-PLATFORM, DATA-INTENSIVE CAPITAL MARKETS APPLICATIONS		

Multi-Model	• Relational • Document	• Multidimensional • Object
Multi-Workload	• HTAP with Isolated Workload Processing • Unique Approach to Big Data Analytics • ACID Transactions and Real-Time Indexing	
Open Analytics	• Analytic SQL • Business Intelligence • Natural Language Processing	• Predictive Model Runtime • Connector Architecture
Interoperability	• Languages and Tools • Data Integration • Application Integration	• Composite Business Process Orchestration
Flexible Cloud | Hybrid | On-Premises Deployment Options		

Simplify IRIS infrastructure management while reducing costs

VMware vSAN provides an efficient, high-performance storage platform that enables InterSystems IRIS to simplify data management and deliver solid, predictable performance.

vSAN offers up to 150,000 IOPS per node with all-flash storage, and it supports the latest storage technology, such as NVMe. vSAN leverages policy-based management to eliminate or automate highly manual storage processes, and it increases agility by enabling admins to change SLAs on the fly and supports multiple RAID levels for performance or capacity savings. Organizations can scale incrementally, adding just a single node.
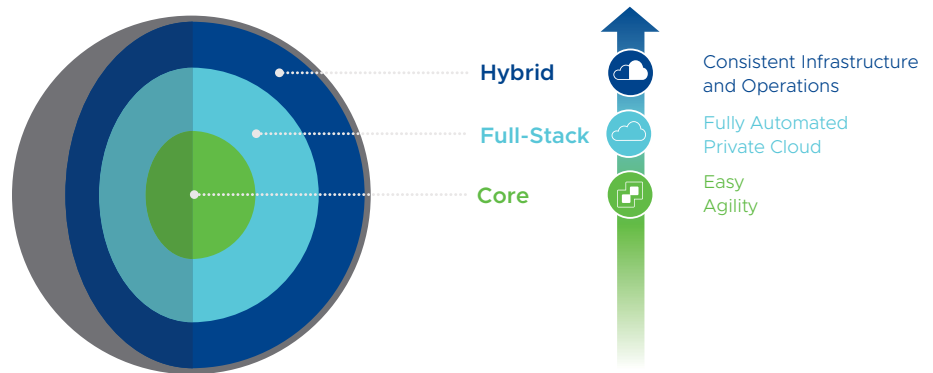
The VMware vSAN platform has been validated by InterSystems as a solution that meets partner and customer criteria for mission-critical workloads.

Performance that matters

InterSystems has vast experience in today's capital markets. It powers 15% of the world's equity trades and has a presence in 6 of the top 10 global banks. Similarly, VMware has a long history of providing software-defined data center solutions to organizations in the financial services market. Together, InterSystems and VMware have tested and validated the IRIS data platform on VMware vSAN to ensure this powerful solution delivers exceptional value while also meeting strict performance requirements.

Tested and validated finance solution delivers exceptional value and performance.

Hybrid — Consistent Infrastructure and Operations

Full-Stack — Fully Automated Private Cloud

Core — Easy Agility

Key benefits

Drive fast, reliable performance with a powerful joint solution that delivers:

- **A complete data platform**: InterSystems IRIS eliminates the need to integrate multiple development technologies. Applications require less code, fewer system resources, and reduced maintenance.

- **Freedom of choice**: InterSystems IRIS uses standard APIs to create data interfaces for true interoperability. VMware allows you to create vSAN clusters from commodity hardware, with over 500 ReadyNodes™, or jointly certified servers, from 18 OEM vendors, as well as a turnkey, jointly engineered appliance, Dell EMC VxRail. The inherent flexibility of both platforms means you have greater choice when it comes to running your data platform solution on your preferred hardware vendor or preferred cloud provider.

- **Massive horizontal and vertical scalability**: InterSystems IRIS data platform can scale up and out on VMware vSAN and in the cloud. VMware vSAN can scale up to 64 nodes per cluster and has native services with three of the top four cloud providers, Amazon, Microsoft, and IBM, as well as partnerships with hundreds of cloud providers for HCI-as-a-Service, including Rackspace, CenturyLink, and OVH.

- **Rapid deployment and simplified management**: Accelerate time to operation with fast, automated deployment, and simplify Day 2 operations and beyond with easy, familiar tools—vSphere® and vCenter®—and processes. Take advantage of vSphere Update Manager's (VUM) extension to storage for automated lifecycle management for compute and storage infrastructure.

- **Multi-layer security and compliance ease**: VMware vSAN delivers multi-layer, full-stack security for data at rest and in transit. vSAN offers software-based encryption for data at rest, and vSphere security features include AppDefense, a proprietary approach to application security, TPM 2.0 support, Role-based Access Controls (RBAC), and more. VMware HCI also seamlessly integrates VMware NSX® for micro-segmentation and other network-based security features. InterSystems IRIS makes it easier to address a broad range of financial service regulations including PCI and others.

Take the next step

For more information about running the InterSystems IRIS data platform on VMware vSAN, please contact your InterSystems or VMware sales representative or visit us at *vmware.com/vsan* and *intersystems.com/products/intersystems-iris/#try-intersystems-iris*.