Breaking Down Barriers for Data-intensive IoT Applications

VMware and InterSystems partner to provide interoperability and analytics at scale

When profits are on the line, your system must be counted on to perform. The InterSystems™ IRIS® data platform on VMware® vSAN™ delivers always-on operation for Internet of Things (IoT) applications—processing massive amounts of data in real time and at scale.

In an increasingly digitized world, and as more devices become connected and processes are automated, organizations in manufacturing, shipping, oil and gas, and similar industries are looking for powerful systems that can accommodate and make sense of the tidal wave of information coming through. As organizations move closer to autonomous operation, data volumes will only continue to grow as the number of connected assets and data points further proliferate. To compete and profit in this IoT era, your system must be up and running continuously, and operating at scale.

At the same time, your infrastructure should be as close to the data source as possible for real-time analysis and decision making; organizations can’t risk sending data over a WAN link. It must handle size, weight, and power requirements for remote or austere environments without sacrificing performance. Finally, because organizations can’t regularly have IT staff located on-site at remote locations, your infrastructure needs to be centrally managed from a core data center.

InterSystems and VMware have joined forces to deliver mission-critical performance and help you realize value from your IoT implementations through greater interoperability, powerful analytics, and simplified IT.

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A unified platform for fast data analysis

InterSystems IRIS data platform breaks down traditional data barriers by enabling you to collect, integrate, manage, and analyze structured and unstructured information. It supports a wide range of use-case scenarios, while embedding data and application interoperability. The IRIS platform integrates open analytics with consistent high performance for concurrent transactional and analytic processing at scale.

A Unified Data Platform

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Highly performant infrastructure at the edge

VMware vSAN provides a single, 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. VMware vSAN runs on over 500 ReadyNodes™, or jointly certified servers, including edge-focused, small-form-factor models. vSAN also enables admins to remotely manage HCI clusters at the edge, obviating the need for local IT staff.
Key benefits
Together, we provide a powerful and proven joint solution—ideal for high-performance IoT applications—that satisfies your need for:

- **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.

- **Rapid deployment and simplified management**: Accelerate time to operation with fast, automated deployment, and simplify Day 2 operations with easy, familiar tools, vSphere® and vCenter®. Take advantage of vSphere Update Manager’s (VUM) extension to storage for automated lifecycle management for compute and storage infrastructure. Finally, manage your remote deployments from your core data center, minimizing remote site visits.

- **Multi-layer security and compliance ease**: VMware vSAN delivers multi-layer full-stack security for data stored 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 regulations including GDPR compliance requirements and others.

Simple, always-on performance at scale
InterSystems is a proven leader in IoT implementations, supporting companies across the globe in a broad range of use cases. Similarly, VMware has a long history of providing software-defined data center solutions that span industries. Together, we have tested and validated InterSystems IRIS on VMware vSAN to ensure this powerful solution meets your specific requirements and delivers exceptional value through simplified data management and proven, reliable performance.

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.