Analyst Perspective

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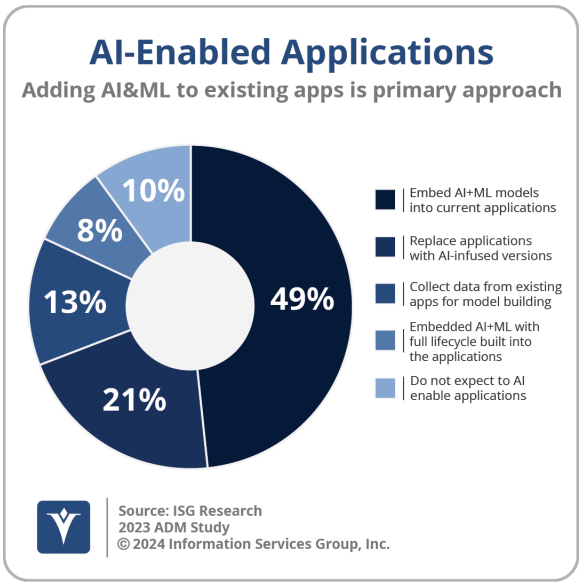
InterSystems Smart Data Fabric Supports Intelligent Applications

The increasing importance of intelligent operational applications driven by artificial intelligence (AI) is blurring the lines that have traditionally divided the requirements between operational and analytic data platforms. Operational data platforms have traditionally been deployed to support applications targeted at business users and decision-makers to run the business, with analytic data platforms typically supporting applications used by data and business analysts to analyze the business. Intelligent applications that deliver personalization and recommendations generated by machine learning (ML) and AI require a combination of operational and analytic processing functionality. This requirement, combined with the excitement about generative AI, is playing into the hands of data platform software providers such as InterSystems.

InterSystems was founded in 1978 and provides database management, integration and application development software for multiple industries including healthcare, banking, financial services and manufacturing and logistics. InterSystems IRIS, the company's data management software, is based on a smart data fabric architecture that provides a unified platform spanning data management, interoperability, transaction processing and analytics. InterSystems IRIS combines an application integration engine with a multi-model database. This combination of data management and integration capabilities is an important feature that helps customers manage the increasing volume and complexity of data. The multi-model database functionality is also integral in enabling IRIS to support use cases that require hybrid data processing to deliver intelligent operational applications. It enables data to be stored once and then accessed as tables, objects, documents, key-value, or multidimensional arrays. Developers can access data as any model type without the need for abstraction layers or replication between models. While IRIS provides the bulk of InterSystems' revenue, the company is particularly well-known in the healthcare sector, where it also offers the HealthShare interoperability platform and TrakCare healthcare information system, both of which are underpinned by IRIS. InterSystems also provides cloud-native applications for asset management, and supply chain orchestration. Cloud-based services are increasingly important to InterSystems. IRIS is available on multiple clouds and can be consumed as a managed service, while the company has also delivered composable cloud services providing

discreet aspects of the overall IRIS functionality targeted at specific functional requirements or use cases.

As I previously described, the emergence of intelligent applications does not eradicate the need for analysis of data in a data warehouse or data lake separate from operational data platforms that support applications used to run the business. It does, however, significantly impact the requirements for operational data platforms to support analytic processes, including ML inferencing. Almost one-half (49%) of participants in ISG's 2023 Application Development and Maintenance Study are planning to embed AI/ML models into current applications, while a further 21% are planning to replace existing applications with AI-infused versions. InterSystems' support for intelligent applications has recently been boosted by the general availability of InterSystems IRIS Cloud SQL and InterSystems IRIS Cloud IntegratedML, which are managed services designed to make it easier for application developers to build real-time applications with SQL and embedded ML models. Specifically, InterSystems IRIS Cloud SQL is a cloud-native, software-as-a-service (SaaS) offering providing relational database-as-a-service functionality for ingesting, processing and performing SQL queries on data. It is designed to enable developers to quickly build applications that rely on SQL-based analytics. InterSystems IRIS Cloud IntegratedML extends the functionality of IRIS Cloud SQL with capabilities that automate the development, tuning and deployment of ML models. The company's cloud services portfolio also includes InterSystems FHIR Cloud Services, enabling healthcare organizations to access, transform, share and use healthcare data using the Fast Healthcare Interoperability Resources (FHIR) standard.



These cloud services are designed to facilitate adoption of InterSystems IRIS by providing an on-ramp for developers to start working with its full range of functionality. They also provide an entry point for enterprises to familiarize themselves with the potential advantages of InterSystems' smart data fabric architecture. Data fabric is a technology-driven approach to managing and governing data across distributed environments. I assert that by 2027, three-quarters of enterprises will adopt data fabric technologies to facilitate the management and processing of data across multiple data platforms and cloud environments. InterSystems' concept of a smart

data fabric builds on existing data fabric architecture by embedding analytics capabilities, including data exploration, business intelligence (BI), natural language processing (NLP) and ML, providing a single source of truth for data consumers via a consistent metadata and semantic layer. The complete capabilities provided by this smart data fabric approach are delivered by InterSystems IRIS, but the smart data fabric also provides a common backbone that is exposed as smart data services, such as IRIS Cloud SQL and IRIS Cloud IntegratedML.

InterSystems' capabilities for addressing both operational and analytic processing contributed significantly to the company's Exemplary rating in Ventana Research's 2023 Buyers Guide for Data Platforms. The general availability of IRIS Cloud Services facilitates adoption of the smart data fabric approach for enterprise developers and strengthens the company's position in relation to intelligent operational applications. InterSystems has been relatively quiet about its plans for generative AI to date, so look forward to hearing the company articulating its use of, and support for, generative AI in 2024. I recommend that enterprises considering data platforms to support the development of intelligent operational applications include InterSystems in their evaluations.

Regards,

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To read more perspectives by Matt, visit https://mattaslett.ventanaresearch.com.

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Matt Aslett leads the software research and advisory for Analytics and Data at Ventana Research, now part of ISG, covering software that improves the utilization and value of information. His focus areas of expertise and market coverage include analytics, data intelligence, data operations, data platforms, and streaming data and events.