

## REPORT REPRINT

# InterSystems eyes transactional and analytical workloads with IRIS Data Platform

**JAMES CURTIS**

**06 DEC 2017**

The company has launched the IRIS Data Platform, an all-in-one data management platform that enables both transactional and analytical processing capable of powering data-centric applications.

---

THIS REPORT, LICENSED TO INTERSYSTEMS, DEVELOPED AND AS PROVIDED BY 451 RESEARCH, LLC, WAS PUBLISHED AS PART OF OUR SYNDICATED MARKET INSIGHT SUBSCRIPTION SERVICE. IT SHALL BE OWNED IN ITS ENTIRETY BY 451 RESEARCH, LLC. THIS REPORT IS SOLELY INTENDED FOR USE BY THE RECIPIENT AND MAY NOT BE REPRODUCED OR RE-POSTED, IN WHOLE OR IN PART, BY THE RECIPIENT WITHOUT EXPRESS PERMISSION FROM 451 RESEARCH.



©2017 451 Research, LLC | [WWW.451RESEARCH.COM](http://WWW.451RESEARCH.COM)

InterSystems recently announced the InterSystems IRIS Data Platform, the company's latest offering that not only leverages its existing technology but also adds new functionality. The company is pitching InterSystems IRIS as a type of all-in-one platform that can specifically handle hybrid transactional and analytical workloads for data-centric applications. Moreover, for improved analytical capabilities, InterSystems is providing more than just BI, including the ability to run predictive models and machine learning.

---

## THE 451 TAKE

With InterSystems IRIS, the vendor is bringing together its existing technology innovations and adding new enhancements. For a company that has been around since the late 1970s, InterSystems is well qualified to deliver such a product given the longevity and maturity of some of its technology, particularly its object-oriented Caché database that sits at the core of InterSystems IRIS. Timing is also on the company's side here because we have seen an uptick in organizations' appetite for mixed-workload systems. With its loyal following, we would expect InterSystems to find success here, but the competition will certainly be stiff as vendors of NoSQL to relational to Hadoop-based systems are all eying this opportunity as well.

---

## CONTEXT

Coming up on its 40th anniversary, InterSystems has been a mainstay for some time in the healthcare industry, where it has built a loyal following. But as we have noted in previous coverage, the company has also made gains in other sectors such as financial services, retail and manufacturing. InterSystems has adopted a partner-led business model, which accounts for approximately 75% of its revenue. This partnership strategy may explain why the company may not share the same name recognition as some of its peers in the space, namely those in the NoSQL segment. Regardless, InterSystems boasts impressive annual revenue of about \$600m that, according to management, has been growing at a low-double-digit percentage for the past three years. The company operates in 80 countries worldwide and has approximately 1,500 employees.

## PRODUCTS

InterSystems offers four products as part of its portfolio: TrakCare, HealthShare, Caché and Ensemble. At the core, however, is the company's Caché offering, which has been its flagship product since 1997. Although Caché is technically classified as a non-relational object database, it does compete and share some characteristics with NoSQL databases.

While InterSystems will continue to offer and support its other products, its forward direction is with InterSystems IRIS, as it incorporates components of the company's other offerings. However, additional functionality has also been added. The company refers to InterSystems IRIS as both multi-model as well as multi-workload. It's multi-model in the sense that the platform can handle a variety of data types – object representations, relational and documents, for instance, effectively spanning both structured and unstructured data. For multi-workload, it can process transactional (OLTP) and analytical (OLAP) workloads.

At the core of the platform sits the Caché database that effectively serves as the persistent layer. And while InterSystems IRIS accepts different data types, all of the data is represented as a single master representation in what InterSystems calls its Globals data structure technology. The benefit, according to management, is greater performance when processing queries, for instance. The company highlights its strong data-durability capabilities in. As data is ingested into InterSystems IRIS, it lands on disk but also can be processed in memory.

Even though it's the same database that InterSystems has been peddling for many years now, there are several enhancements. One is that the company has completely redone document support within the database. Another is the scaling. The platform can scale vertically as well as horizontally, and specifically, InterSystems points to its enhanced sharding capabilities.

On the analytics front, InterSystems IRIS supports BI workloads, including multi-dimensional OLAP workloads. While not new, natural-language-processing capabilities have been enhanced. There is now the ability to ingest predictive models using PMML. Apache project support has likewise been added, including integrating the Data Sources API for Spark, which enables compatibility with existing Spark- or Hadoop-based systems such that the analytics can be pushed to the sharded data on Caché.

## USE CASES

InterSystems IRIS was announced in September and is expected to be generally available in early 2018. However, InterSystems has been working with several customers as early adopters. One use case includes an investment firm that was doing analytics on daily trading data. The firm is looking to leverage the new platform to reduce the number of systems in which it is moving data between, as well as carry out more advanced analytics on the trading data once it is ingested. Another customer – also in the financial services space – is employing InterSystems IRIS for its query performance capabilities. An additional scenario is a retailer using the platform to drive its digital transformation efforts – in particular by integrating disparate data systems from partners.

## COMPETITION

We have seen an increase not only in organizations adopting mixed-workload systems but also in vendors adding these capabilities to their systems. Interestingly, competition is coming from several areas. As noted, we expect many of the NoSQL providers, and particularly those with multiple data models, to compete with InterSystems. These include DataStax, MongoDB, MarkLogic, Couchbase, Aerospike, Redis Lab and FairCom.

There are also a few vendors delivering mixed-workload systems based on Hadoop or similar open source projects. These include Splice Machine, which offers a Hadoop- and Spark-based RDBMS system that leverages HBase and Apache Derby as part of its architecture. There is also Esgyn, an HP spinoff that is aligned with the Apache Trafodion project and has earlier ties to Tandem Computer's NonStop database offering. Another potential rival is LeanXcale.

The traditional relational database providers have certainly ventured into this arena as well. Oracle, IBM and Microsoft have all added in-memory functionality to their relational databases, thus enabling users to carry out analytics as well as handle transactional events. SAP HANA is an in-memory database that can be paired with the company's SAP Vora product, an in-memory compute engine built on top of Apache Spark to extend the analytical capabilities of the Spark framework. MemSQL is another player that has been actively positioning in the data-warehousing sector and has adopted a mixed-workload strategy. For cloud deployments, we would expect competition to come from enterprises blending cloud services to address mixed workloads, such as Amazon Redshift or Snowflake being paired with Amazon Aurora.

## SWOT ANALYSIS

### STRENGTHS

InterSystems has built a unified data platform that can handle both transactional and analytical processing based on the company's hardened and proven technology that it has been developing for nearly 40 years.

### WEAKNESSES

The company's profile is somewhat smaller compared with many of its competitors, perhaps because of its primarily strong presence in the healthcare vertical and its partnership strategy.

### OPPORTUNITIES

Systems that can handle transactional and analytical workloads are starting to pick up as enterprises are finding greater value in reducing both the time it takes to act on transactions as well as the types of analytics that can be carried out on those transactions.

### THREATS

With the increased interest among organizations for mixed-workload systems comes the emergence of many vendors looking to capitalize on this opportunity, thus giving InterSystems healthy competition going forward.