



MARKET NOTE

Informatica Intelligent Cloud Services: Next-Generation iPaaS

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EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Informatica Intelligent Cloud Services

This IDC Market Note discusses the new architecture and functionality being delivered in the Informatica Intelligent Cloud Services (IICS) Winter 2017 release that has been available since December 2017. Although this release is an update to Informatica's already established integration platform as a service (iPaaS), it is a more significant change for the data integration and integrity (DII) software market incumbent. IICS is laying a new foundation in the cloud for Informatica, as it delivers integration capabilities unified by metadata intelligence, implemented in container-based microservices that allow for deployment in hybrid, cloud, and multicloud environments.

Key Takeaways

- Capabilities are being delivered in four distinct but unified clouds: integration cloud, master data management cloud, data quality and governance cloud, and data security cloud. Future releases will add cloud change data capture to the integration cloud and will introduce a new MDM Reference 360 Cloud.
- IICS Winter 2017 also delivers a new user experience for multiple personas in the organization, enabling self-service for the business user, ad hoc development for line-of-business developers, advanced development for integration experts, and solution monitoring for integration administrators. Solution templates and advanced asset management add to the usability and supportability, allowing for DevOps continuous delivery models.
- A new paradigm has emerged in digital transformation (DX) that is dynamic, decentralized, data driven, automated, and self-learning. Data integration and integrity software is also changing to meet these new demands, being brought to market as capabilities, transformed into decentralized microservices, unified by metadata, deployed in containers, and able to work with data at rest and data in motion.
- Informatica was an early mover in bringing data integration capabilities into the cloud, and IICS Winter 2017 is an early mover in the next-generation iPaaS and ahead of the pack.

Source: IDC, 2018

IN THIS MARKET NOTE

This Market Note discusses the Informatica Intelligent Cloud Services Winter 2017 release, announced in December 2017. Although this release is an update to Informatica's already established integration platform as a service, it is a more significant change for the data integration and integrity software market incumbent. IICS is laying a new foundation in the cloud for Informatica, as it delivers integration capabilities unified by metadata intelligence, implemented in container-based microservices that allow for deployment in hybrid, cloud, and multicloud environments. Capabilities being delivered in this release include cloud data and application process integration, cloud application programming interface (API) management, extended connectivity to cloud services, cloud master data management, cloud data quality and governance, and cloud data security. IICS Winter 2017 also delivers a new user experience for multiple personas in the organization, enabling self-service for the business user, ad hoc development for line-of-business developers, advanced solution development for integration experts, and solution monitoring for integration administrators. Solution templates and advanced asset management add to the usability and supportability, allowing for DevOps continuous delivery models.

IDC'S POINT OF VIEW

The past two or three years have seen dramatic changes in distributed computing in parallel with changing business needs driven by the digital transformation impetus. Changes are being driven by the need for real-time engagements and decisions, an order of magnitude increase in data, an increase in the speed of change, and the inexorable and rapid move toward the cloud. At the same time, exponential increases in computing power and cognitive/AI/ML technologies are enabling new solutions that weren't previously possible.

The new paradigm is dynamic, decentralized, data driven, automated, and self-learning. Data integration and integrity software is changing to meet the demands of the new paradigm, being brought to market as capabilities, transformed into decentralized microservices, unified by metadata, deployed in containers, and able to work with data at rest and data in motion.

Microservices architecture is a method of designing and building software applications as a suite of modular services, each performing a specific functional task, independently deployed and accessed via well-defined standard application programming interfaces. Containers are software-defined execution environments that can be rapidly provisioned and independently deployed in server and serverless environments. Microservices running in containers take portability and interoperability to a new level because the services function the same on-premises as they do in any cloud that supports containers. Independence and modularity also provides opportunities to design for elastic scalability and operational resilience.

Informatica is not alone in the move to delivering capabilities enabled by microservices deployed in containers and provisioned in an iPaaS. IBM's Watson Data Platform, SAP Data Hub, and Oracle Data Integration Platform Cloud all focus on delivering capabilities to market rather than products, and all run on a microservices architecture. The flexibility and portability of microservices running in containers provide organizations with opportunities to assemble DII solutions using DevOps techniques, ensure seamless migration from on-premises to cloud environments, and improve interoperability in hybrid and multicloud environments. Microservices are also providing market incumbents with a vehicle to bring deep data heritage and intellectual property into new operating environments and platforms.

The move to the cloud is in full force, with the population of organizations integrating data in on-premises only environments being one-third of what it was two years ago, and the number of organizations integrating data in hybrid environments has almost doubled. This is according to the results of a IDC survey in fall 2017 of data integration software users compared with a similar survey completed in fall 2015. The same survey illustrates that almost three quarters of respondents integrating data in hybrid and cloud environments claimed poor data quality in cloud services, limited API access, and corporate security and compliance policies as being among the issues they have faced in implementations. The biggest issue among all was a lack of knowledge and skills contained within their own IT departments on how to integrate with cloud services.

IICS is a next-generation integration platform as a service that is addressing these key issues with data, application integration, API management, and data management in the cloud, including data quality, security, and master data management (MDM) capabilities natively built for the cloud. Leveraging Informatica's deep data and integration heritage, IICS is also designed to serve multiple enterprise user personas, promote best practices in deployment by using templates, and enable DevOps methods for solution delivery. Templates are prebuilt logic for common data integration patterns such as data preparation, cleansing, and warehousing. IICS users can create their own solution templates and save them as assets within the platform that can then be reused by others throughout the enterprise, promoting consistency and fostering best practices. IICS exposes APIs that can facilitate DevOps practices including automation of solution monitoring and continuous delivery through integration with external source code control systems, release, and deployment pipelines. IICS is also extending support for cloud object data stores such as JSON, Avro, and Parquet.

The CLAIRE engine, Informatica's AI engine, is now part of the next-generation iPaaS as an endpoint, not in an integration pipeline but in the intelligent automation of data integration activities, trained by metadata and informed by people. CLAIRE is something that has been part of Informatica on-premises solution offerings since the introduction of Enterprise Data Catalog and has been seen in products that include the Intelligent Data Lake. In the cloud, the CLAIRE engine could potentially have access to metadata generated by many IICS implementations, learning best practices for data integration tasks such as mapping, transformation, movement, augmentation, federation, and aggregation, resulting in intelligent assistance during development and automation of mundane activities.

IICS Winter 2017 truly represents a next-generation iPaaS, not an incremental point release upgrade from IICS Summer 2017. It is a new platform with a new name and may require extra due diligence in testing and deployment compared with what might be required as new point versions are released. There is some comfort in knowing that it is being delivered by a software vendor that was one of the first movers in cloud data and application integration, and each of the new clouds is a reflection of Informatica on-premises products and capabilities that have been proven in the marketplace. Furthermore, Informatica as the provider of the platform service is responsible for ensuring continuity through upgrade cycles and will be held to service-level agreements with its customers.

The common theme of the next-generation iPaaS is unification of technology and user experience, delivering capabilities that speak to business value, with a move away from individual products into plug-and-play platforms. Microservices and container architectures are providing software vendors with the opportunity to unify what in the past has been disparate while also providing the opportunity to move quickly into hybrid and multicloud configurations to meet the demands of digital transformation. Change is constant, and therefore, constant change is a requirement for any software vendor. IICS Winter 2017 demonstrates that Informatica is responding to change.

LEARN MORE

Related Research

- *Data Integration on the DX Platform* (IDC #US41714417, January 2018)
- *DX Platform: A Framework for Integration and Orchestration Services* (IDC #US43383918, January 2018)
- *Introducing Decision-Centric Computing* (IDC #US43282917, December 2017)
- *SAP Opens Up with Data Hub* (IDC #US43183317, November 2017)
- *The DX Platform: Rearchitecting for Scale* (IDC #EMEA43147617, October 2017)

Synopsis

This IDC Market Note discusses the new architecture and functionality being delivered in the Informatica Intelligent Cloud Services (IICS) Winter 2017 release, available since December 2017.

"The common theme of next-generation integration platform-as-a-service (iPaaS) solutions is to deliver capabilities as independent microservices, unified by metadata and user experience and running in containers for portability across hybrid, cloud, and multicloud environments," said Stewart Bond, director of Data Integration and Integrity research at IDC. "Informatica Intelligent Cloud Services represents a next-generation integration platform as a service, laying a new foundation in the cloud with footings tied to Informatica's deep data heritage, and is built for the next generation of data solutions on the DX platform."

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