Hybrid Cloud Data Management

Integrate, Cleanse, Govern, Master, and Secure Data Across Public Cloud, SaaS, and On-Premises Systems.

Cloud is a strategic initiative for organizations, large and small. Most organizations likely started their journey to the cloud years ago, moving on-premises applications, such as CRM, to SaaS-based applications. But this was just the beginning. With the emergence of public cloud platforms, such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform, companies are looking to significantly reduce their data center footprint by redirecting workloads to public clouds.

The primary drivers behind this mass migration to public cloud are:

- **Cloud economies:** Reduction of upfront capital investment, paying for just what you need, when you need it

- **Cloud elasticity:** Infinite scalability at high performance, easily expanding and contracting capacity on demand

- **Cloud agility:** Rapid addition of new capabilities, freeing up technical resources to focus on business differentiation rather than commoditized infrastructure

However, successfully migrating to cloud is a complex and time-consuming undertaking. Like most successful journeys, it requires careful planning, a good roadmap, guidance, and tools. For most organizations, certain workloads will remain on premise into the foreseeable future. Consequently, enterprises will evolve towards a hybrid cloud architecture, which results in data management use cases such as hybrid data warehousing or hybrid application integration.
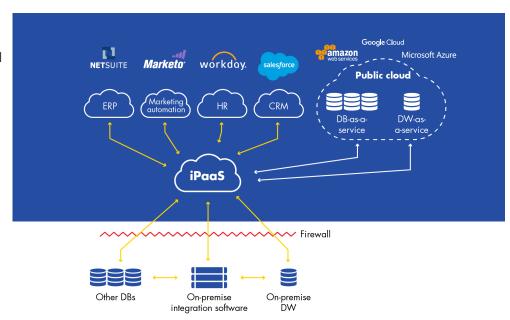
Benefits

- Hundreds of out-of-the-box native connectors to data systems on premise and in the cloud, including Amazon Web Services, Microsoft Azure, and Google Cloud Platform

- Performance at scale to integrate and manage petabytes of data on demand

- Data lineage delivers data visibility for improved productivity, reduced risk and improved quality, governance, security, and mastering

- Operational confidence through single point of control for production data flows to ensure the rapid delivery of mission

Figure: Hybrid Data Warehousing Architecture

Hybrid Cloud Data Management Challenges.

Data about a single customer may reside both in the cloud and on premise. To successfully manage your environment, you must address these key challenges.

Connectivity

Hybrid cloud architecture results in data residing in disparate locations, such as SaaS applications, public cloud data services and applications, and on-premises data systems and applications. To derive business insights from disparate data silos and manage operational end-to-end business processes, you must successfully connect to all data systems, using:

- High-performance out-of-the-box native connectors to any data system

- An abstraction layer that separates logic from the underlying system and enables reuse

- A secure method for transmitting data between cloud and systems behind the firewall

Scalability

It's no secret that data sources are rapidly increasing in variety, complexity, and volume. New cloud data sources such as IoT, web logs, and social media are leading to an explosion of data in your environment. Hybrid cloud data volumes require a data management solution that is:

- Inherently designed for performance at scale, offering capabilities such as clustering and push-down optimization, which leverages the processing power of underlying data services

- A native cloud solution, such as iPaaS (integration platform as a service), which supports infinite capacity cloud elasticity

Data Visibility

Data lineage, the life story of your data, is essential for gaining better visibility of data flows across your environment. To successfully manage a complex data architecture in hybrid cloud, your data management solution must be based on a metadata-driven architecture:

- Metadata-driven visual design offers insights into data flows cross cloud and on premise, enabling you to manage change, reduce risks, and increase code reuse

- Metadata is the foundation of data quality, governance, compliance, security, and mastering initiatives.

Operational Control

Your business relies on timely, trustworthy, connected data. Your hybrid cloud data management solution must provide the operational confidence to ensure that mission-critical data is delivered as expected for analysis and applications, including:

- A single point of control ensuring production data is moving across cloud and on premise

- Admin tools that monitor production data flows end-to-end to flag and resolve issues early

Informatica offers an industry-leading data management solution, which delivers performance with scale and is designed to address hybrid cloud data management challenges, connecting to any data system and application, increasing productivity, and ensuring all your data is clean.

Informatica's solution allows you to optimize integration workloads based on data location, integration pattern, user persona, and geographic location. You can quickly move integration workloads back and forth between on premise and the cloud to protect investment and maximize flexibility.

Learn more about Informatica's hybrid cloud data management solution.

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