

Data and AI transformation begins with unified governance and integration

Discover what's new and what's next at IBM





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Data and AI transformation

Artificial intelligence (AI) is unlocking the value of data in new ways. Not only does it automate decisions, processes and experiences, it also enables business transformation and the opportunity for higher-value work.

To take advantage of AI, you must collect, organize and analyze data, and then infuse AI across the organization. IBM® leads information architecture initiatives with unified governance and integration at the core.

There's no AI without information architecture

With a unified, prescriptive information architecture, organizations can modernize their data estate and make it ready for an AI and multicloud world.

IBM **unified governance and integration** (UGI) platform solutions organize an analytics foundation for trusted, business-ready data prepared for insights and compliance. The breadth of the portfolio helps ensure your data is managed and ready to meet your business needs from its creation to its disposal.

“Bad data is simply paralyzing”

MIT Sloan 2017

81%

do not yet understand the data required for AI

Trends in modernizing your information architecture

Automation and machine learning (ML) have taken a front seat in the UGI roadmap for new and existing products to help simplify your journey to AI. This year we are innovating by addressing three trends in modernizing your information architecture:

- Leading with multicloud
- Accelerating app modernization
- Innovating our compliance accelerators

Read on to learn what's new and what's next in the UGI portfolio to organize your data for hybrid and AI applications. Explore these three trends that are driving enterprise modernization and compliance initiatives at scale.

Leading with multicloud

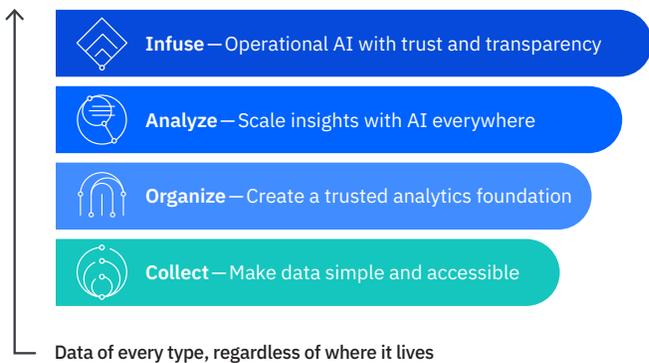
Enterprises are adopting a hybrid, **multicloud approach** to enable greater flexibility and application modernization.

These clouds offer a variety of delivery models, ranging from fully run and managed on your environment, to a fully-hosted, third-party implementation. As organizations increase the complexity of their multicloud architecture, they start to encounter the challenge of managing flexibility. You should be able to build, run and move applications freely on or off-premises—for all parts of your business.

Open architecture increases flexibility and decreases vendor lock-in

That's why IBM has built an open, Kubernetes-based architecture for applications. With common services to consistently deploy apps and workloads, and helps ensure interoperability across all clouds, on or off-premises, without a vendor lock-in.

Modernize your data estate for an AI and multicloud world



Leading with multicloud

With the new upgrades to **IBM InfoSphere® Information Server 11.7.1**, you can deliver seamless visibility, governance, and management of apps and workloads across clouds from essentially any vendor, including Amazon Web Services (AWS) and Microsoft Azure. The new generation of the IBM InfoSphere Information Server platform brings tailored design and automation to provide a simplified user experience, while delivering market-leading data quality, replication, governance and integration capabilities.

Having access to all your data on or off-premises – while continuing to own your data is critical. As you consider third-party hosted implementations, consider how owning your data supports your intellectual property (IP) guidelines.

Enterprise data catalog helps accelerate self-service analytics

A unified data catalog collects, governs and activates virtually all data for self-service and AI. **Gartner** predicts that by 2019, the analytics output of business users with self-service capabilities will surpass that of professional scientists.²

IBM unified governance and integration solutions now include the **IBM Watson® Knowledge Catalog**, a modern enterprise data catalog that can collect and organize your data and help curate, share and consume data for data users of any sort including data scientists and data governance professionals (*Figure 1*). No data migrations or uploads to the cloud are needed. It helps you manage your metadata and data assets your way.

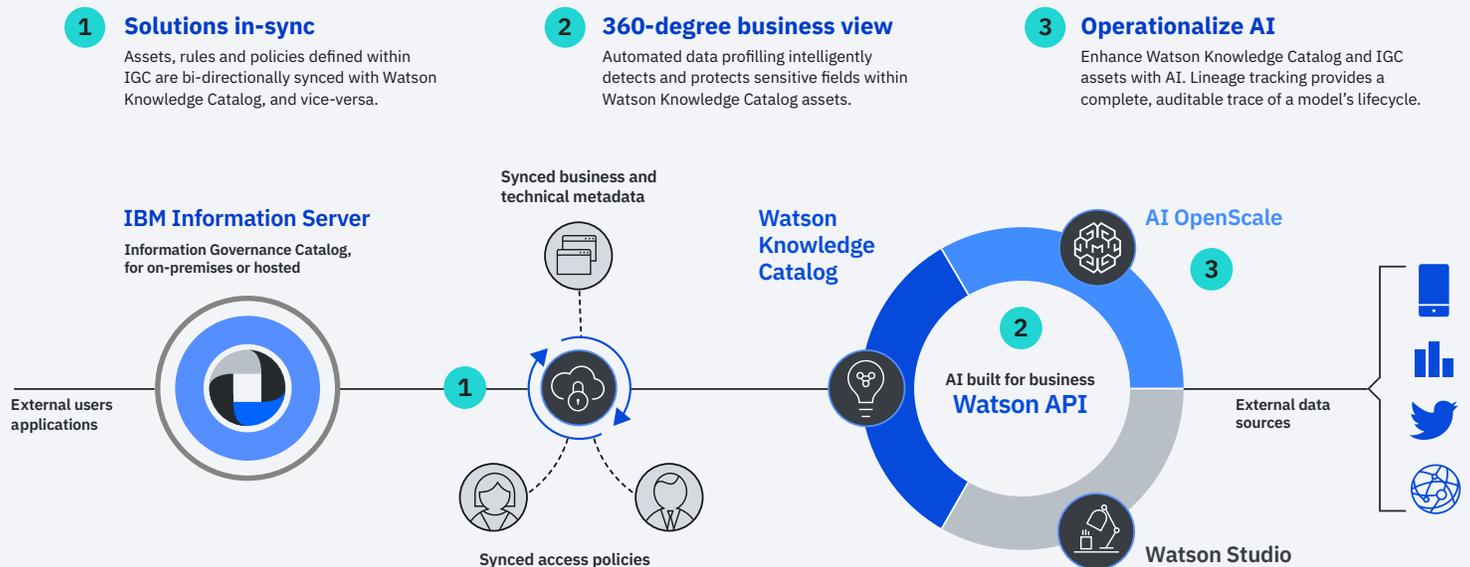


Figure 1: IBM unified data catalog offerings collect, govern and activate virtually all data for self-service and AI

Accelerating app modernization

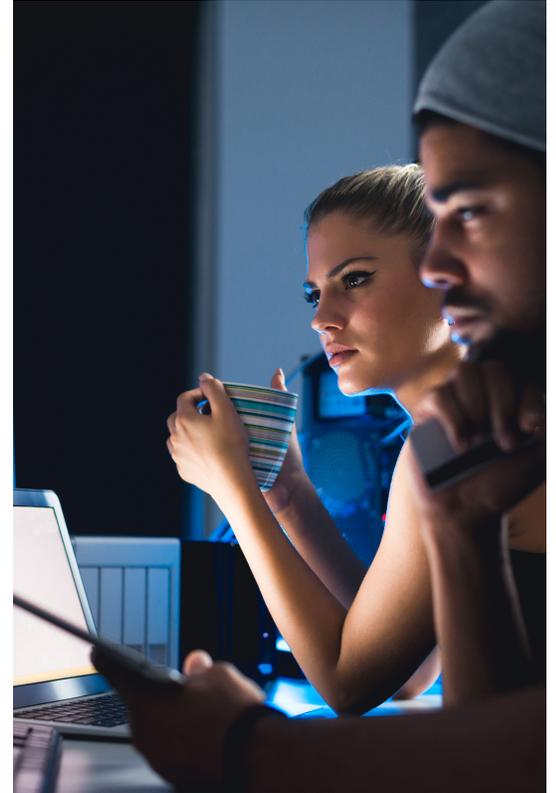
Application modernization is an area of great importance this year as test data management and DevOps look to accelerate time-to-market. Only **20 percent** of applications and workloads that exist today are cloud-enabled.³

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Organizations are making large investments in modernizing applications to increase efficiency, reduce cost and gain competitive advantage. Depending on the organization, application modernization considerations can manifest themselves in many ways. The two top considerations surrounding your data are test data management and connectivity.

Accelerate time to market with rapid testing and development

Enterprises have moved from manually testing after development to an agile methodology where testing and development happen concurrently. To compete, companies must ship software at higher rates – internally to provide business-critical data and processes, and externally to maintain customer satisfaction. Faster shipping requires quick and streamlined access to accurate data. Companies want their data to be secure and meet compliance regulations to protect customers and users.



IBM test data management solutions help customers deploy higher quality applications in less time and at a lower cost by provisioning and refreshing test data environments on-premises or in the cloud.

Accelerating app modernization

What's new with data automation

The latest solution in this area is **IBM InfoSphere Virtual Data Pipeline** (VDP) technology that delivers application-centric, service-level agreement (SLA)-driven automation to test data management and DevOps (*Figure 2*). The technology decouples the management of data to be used for testing and development from production infrastructure. The result is a single, simple solution that efficiently virtualizes all copies of production data for data protection, application development and testing analytics. VDP manages all of your data through a single platform—from only one golden copy of your production data. VDP allows IT administrators to access a single, masked, any point-in-time copy of your data through a self-service interface. Properly capturing, managing, and using data is made simpler with VDP.

Trusted master data across the enterprise

The other side of the coin is addressing connectivity. Connecting all business applications and data, no matter where they live, through flexible integration capabilities that can address your organization's unique integration needs is key. As the volume of mobile applications and mobile data continues to explode, your organization needs secure real-time access to manage them. **IBM InfoSphere Master Data Management** solutions have enhanced operational cache capabilities to help you to do just that; giving you better and quicker access to your golden record of customer and product data.

IBM InfoSphere Virtual Data Pipeline Benefits

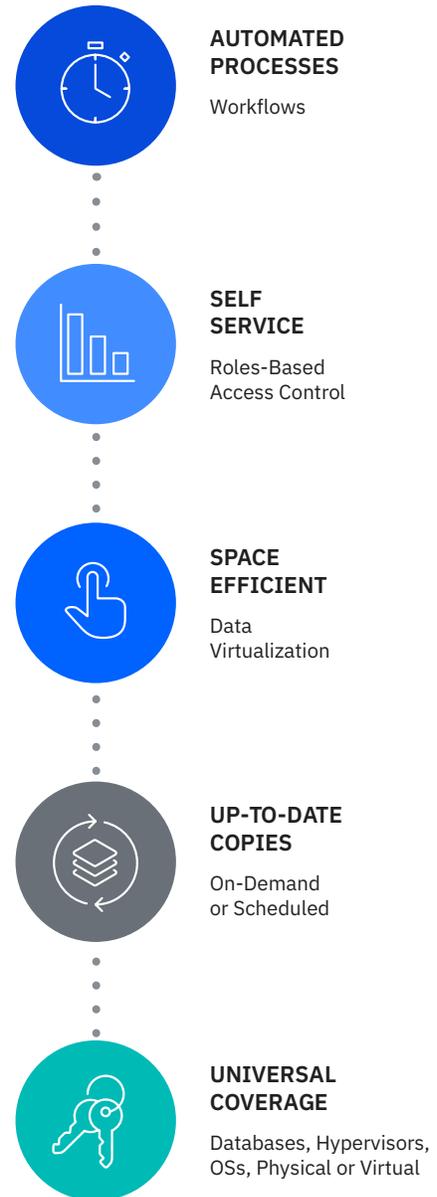


Figure 2: IBM InfoSphere Virtual Data Pipeline benefits.

Innovation in compliance accelerators

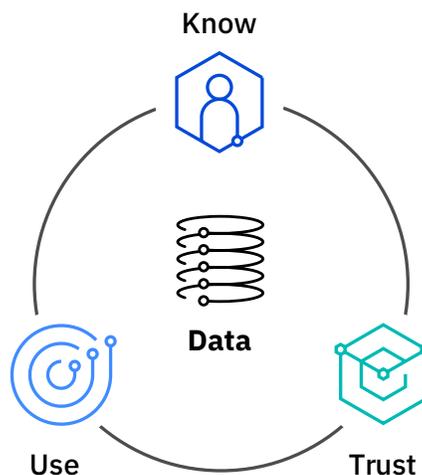
Reducing compliance risks

Global data privacy compliance regulations like the General Data Protection Regulation (GDPR), the California Consumer Privacy Act (CCPA) and the Lei Geral de Proteção de Dados (LPGD) in Brazil have put a focus on personal customer and employee data. While noncompliance to these regulations could lead to severe penalties, the regulations offer organizations an opportunity to transform and create new data-led business models. Meeting privacy obligations and **protecting personal data** requires the discovery and classification of different types of data across the business. Applying advanced ML and AI to these processes can accelerate the understanding or risk levels and definitions of data access controls across your organization.

What's next with compliance accelerators

IBM is introducing a new cognitive solution, **IBM StoredIQ® InstaScan**, that quickly leverages existing index for quick scans of cloud data sources through sampling to identify the areas of largest compliance risk. It also will check the compliance of your data sources, allowing you to set acceptable error levels to run confidence reports and remediate at the source.

Additionally, a new regulatory **industry model** was introduced. **IBM InfoSphere Regulatory Accelerator for IBM Cloud™ Private for Data** helps increase productivity by reducing the manual effort in discovery and extraction processes. It uses ML to extract key terms, definitions, policies and controls from regulatory taxonomies within a collaborative environment for data stakeholders. This environment consolidates all initiatives actively contributing to regulatory readiness.



Next steps

As you continue to evolve and prepare your information architecture strategy to achieve your data and AI transformation and compliance objectives, ensure that your vendors support you to:

Know your data: Automate how you discover, integrate and replicate all types of data.

Trust your data: Ensure quality, **governance** and lineage of your data regardless of where it lives.

Use your data: Transform your business into a data-driven culture with self-service data.

Ready to explore how one of these new IBM solutions fits into your information architecture? **Schedule a 30-minute consultation** with one of many thought leaders, distinguished engineers and unified governance and integration experts who have worked with thousands of clients to build winning data, analytics and AI strategies.

Learn more

Solution briefs

[What's new in IBM InfoSphere Information Server 11.7](#)

[IBM InfoSphere Virtual Data Pipeline for Test Data Management and DevOps](#)

[InfoSphere Master Data Management](#)

Announcement

[IBM Cloud Private for Data v1.2.1 brings industry accelerators, regulatory compliance acceleration, business reporting, and streaming analytics on hybrid cloud](#)

Experience

Video:

[IBM Watson Knowledge Catalog: Discover data and analytic assets to fuel AI](#)

Guided demo:

[IBM Watson Knowledge Catalog](#)

Webinar:

[Accelerate Testing and Development with IBM InfoSphere Virtual Pipeline](#)

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- 1 [MIT Sloan, Reshaping Business with Artificial Intelligence](#), September 2017
- 2 [Gartner Press Release, Self-Service Analytics and BI Users Will Produce More Analysis Than Data Scientists by 2019](#), January 2018
- 3 [McKinsey & Company, IT as a service: From build to consume](#), September 2016

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