

IBM Cloud Pak for Data

Scale the value of your data and
accelerate your journey to AI

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Introduction

Fueled by data, AI is transforming how businesses operate and deliver value, while improving efficiencies across the organization. However, to successfully scale AI throughout your organization, you must overcome data complexity, talent scarcity and a lack of trust in AI systems. It's also important to remember that there's no AI without IA (information architecture).

To meet the demands of today and stay competitive tomorrow, these architectures need to be efficient and agile. Given the dynamic nature of AI, clients are looking to build collaborative workflows and automate their AI lifecycles across an array of contributors. The solution? An agile and resilient cloud-native platform that enables clients to succeed with AI irrespective of their unique data and cloud landscape, through capabilities such as:

- Ready access to data at its source and elimination of data siloes
- DataOps to create trusted virtual data pipelines for self-service
- A unified set of data and AI cloud services that are open and easily extensible

The AI Ladder: Implementing successful AI throughout your business

Through thousands of AI engagements, IBM has built a prescriptive approach to successful AI called The AI Ladder™. Consisting of four steps, or “rungs”, the ladder provides a framework to help clients turn AI aspirations into real business outcomes.

- **Collect:** Make data simple and accessible
- **Organize:** Create a business-ready analytics foundation
- **Analyze:** Build and scale AI with trust and transparency
- **Infuse:** Operationalize AI throughout your business

To deliver on the AI Ladder, IBM created a fully-integrated data and AI platform—**IBM Cloud Pak® for Data**—that can run on any cloud or on-premises environment.

This solution brief explains how the platform enables you to accelerate and automate the entire data, analytics and AI lifecycle, including how IBM Cloud Pak for Data can help you modernize your data and operationalize AI throughout your business.

IBM Cloud Pak for Data overview: A unified data and AI platform scalable for your needs

IBM Cloud Pak for Data is a fully integrated data and AI platform that enables organizations to work through all of the steps of the AI Ladder. Collect, organize, and analyze data; then infuse AI throughout your business. Cloud-native by design and built on Red Hat® OpenShift® Container Platform, IBM Cloud Pak for Data takes advantage of its underlying resource and infrastructure optimization and management. The solution fully supports multicloud environments such as AWS, Azure, Google Cloud Platform, IBM Cloud® and private cloud deployments. Its key integrated features span the entire analytics lifecycle: from data management, DataOps, governance and business analytics to automated AI.

Features of IBM Cloud Pak for Data

Integrated platform with a breadth of services

Speed time to value with a single platform that integrates data management, data governance and analysis for greater efficiency and improved use of resources.

Manage end-to-end data workflows to help ensure that data is easily accessible for AI. Make sure that your data is high-quality to deliver accurate, automated insights and decisions. Seamlessly build and manage machine-learning models across development and production in a collaborative environment.

Elimination of data siloes

Use data virtualization to query data more easily and more securely across multiple sources, on cloud or on premises. Exploit the combined processing power of those sources for massive query acceleration. Achieve the speed and scalability your business needs for today's and tomorrow's workloads.

By eliminating the complexities of integrating data of different types and structures, data virtualization provides cost savings in storage and resources. IBM Cloud Pak for Data provides a **25–65% reduction** in ETL requests, and with modern compression techniques such as Virtual Data Pipeline, you can also reduce the required storage of data copies.¹

Built-in governance and DataOps capabilities

Efficiently respond to changing regulations with embedded, sophisticated governance capabilities; these include automated discovery and classification of data, masking of sensitive data, data zones and data lifecycle management.

Automated AI and data science lifecycles

Manage the end-to-end AI lifecycle from a single platform. When you use the IBM Cloud Pak for Data services that support the automated AI lifecycle, you can govern your data, prepare your data, build AI models, deploy and manage your models at scale, govern your models, detect and mitigate bias and drift in your models, and understand how your AI models make predictions.

Accelerated insights with prebuilt AI and industry applications

With a suite of prebuilt applications and tools to build, run and manage your AI available through IBM Watson® technology, you can accelerate insights to predict and shape outcomes and infuse intelligence into your workflows. By freeing your teams from repetitive tasks, you can empower them to focus on more creative, higher-value work. With industry solutions for IT operations, customer service, risk and compliance and financial operations, IBM Cloud Pak for Data helps you innovate at speed.

A collaborative and governed user experience

As a self-service collaborative team platform, IBM Cloud Pak for Data enables all data personas to work together across a consistent user experience with a governed view of all data and AI workloads. Data engineers, data stewards, data scientists and line-of-business (LOB) owners can work through an integrated experience for faster business insights and innovation.

With a vibrant ecosystem of proprietary, open source and third-party services, IBM Cloud Pak for Data can consolidate modernized legacy services from disparate vendors, while significantly reducing your IT spend on software maintenance. It automates the software update process, as well as simplifying administration, upgrades and integration of point solutions.

Modern cloud-native architecture provided by Red Hat OpenShift

Cloud native architecture has prompted a paradigm shift in how software is developed and delivered—and it is not just reserved for public clouds. [Red Hat OpenShift](#) Container Platform helps realize these benefits anywhere through containerized services, container management and orchestration that can [lower IT infrastructure and development costs by up to 38 percent per application](#).

IBM Cloud Pak for Data is further optimized for enterprise deployments and helps reduce administration expenses with simplified provisioning and scaling, consolidated administration, automated IT operations, and seamless upgrades provided by Red Hat OpenShift. By reducing infrastructure management efforts by 65–85%² the platform helps customers free up infrastructure and administration resources to focus on more complex problems.

Running on Red Hat OpenShift also means that the platform can be deployed in almost any environment, whether on-premises or on the cloud. Because it's open at the core, IBM Cloud Pak for Data is always expanding with a growing ecosystem of proprietary, open source and third-party solutions.

Deployment models for IBM Cloud Pak for Data

Since the release of IBM Cloud Pak for Data more than two years ago, IBM has continued to advance new features and additional deployment and consumption models, including:

- IBM Cloud Pak for Data: A client-managed software platform that runs on any cloud
- IBM Cloud Pak for Data System: A preconfigured, hyper-converged system that combines storage, compute, networking and software and reduces private cloud deployment times to a matter of hours
- IBM Cloud Pak for Data as a Service: A “pay-as-you go” subscription model for a starter set of IBM Cloud Pak for Data services, fully managed on the IBM Cloud

Top use cases for IBM Cloud Pak for Data

Ensure trust and compliance across all data, AI and open source assets

As organizations continue to collect a tremendous amount of data from a variety of sources, any of these data sources could potentially contain sensitive data. Data is often relocated for warehousing, reporting, analytics, storage, testing, and application use; therefore data or AI models could potentially be copied multiple times over, resulting in misuse of sensitive data. In order to understand the amount of sensitive data living across the organization and mitigate associated risks, it is important to examine the entire data landscape to ensure all regulatory requirements for its correct usage are met. IBM is committed to helping

clients deliver data operations at scale to cover millions of data assets and confidently use them for insights with IBM Watson Knowledge Catalog, available as a service on IBM Cloud Pak for Data.

Simplify and automate your journey to cloud modernization

Business leaders understand the need to harness digital transformation to jump start growth, speed time to market, and foster innovation. This requires integrating processes across organizational boundaries and legacy systems, as well as scaling AI to achieve growth objectives. Intelligent workflows can help you accelerate that transformation by increasing the accuracy and speed with which business decisions are made. In order to fully implement intelligent workflows in your business you need AI-infused solutions that run on a modern IT and application infrastructure and can help you:

- Build and run anywhere with consistency.
- Develop and consume cloud services anywhere and from any cloud.
- Enable DevSecOps to boost productivity, security and speed of deployment.
- Access and govern your data regardless of its type or location.
- Automate, predict and modernize workflows.

Choose IBM Cloud Pak for Data to further optimize your data and AI workflows with seamless automation for provisioning, monitoring and managing containers at scale.

Unify the tools, processes and talent required for enterprise data and AI

IBM Cloud Pak for Data delivers seamless integration across tools and a unified experience across the platform, accelerating time to value and minimizing talent silos to enhance collaboration and efficiency. Eliminate duplicative point solutions while delivering a fully integrated experience across the critical data and AI capabilities your team needs to be successful. The Red Hat OpenShift platform helps ensure that services will be provisioned in the most efficient way possible. Persona-based views provide unique viewpoints of the same platform meaning all of the personas working on or with your data can collaborate within a shared experience. This single tool also helps with talent and training because users, regardless of role, can utilize a consistent UI for different tools within the platform.

Digitally reinvent and future proof your data and AI strategy

While many competitors claim to have an integrated platform, in reality, these are often individual point solutions cobbled together to give the illusion of a complete solution. IBM Cloud Pak for Data delivers a full suite of leading data and AI capabilities within a fully integrated platform and experience. Optimize your existing infrastructure and investments with a growing catalog of fully containerized services—from IBM, the open source community and other third-party vendors—that can be flexibly provisioned as business needs evolve. Tap into unprecedented expertise and experience to build a solid data and AI strategy for today and the future.

IBM Cloud Pak for Data version 3.5 updates



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The latest release of IBM Cloud Pak for Data, version 3.5, continues to improve on the platform by bringing more capabilities that drive innovation with digital transformation and cost reduction through operational efficiency.

Delivering full-stack automation, the latest updates on Red Hat OpenShift Container Platform can help you to lower your IT infrastructure and development costs. Additionally, a new feature, IBM Cloud Pak for Data OpenShift Operator, simplifies installations and lifecycle management while also automating provisioning, seamless patching, upgrades, and scaling. All these improvements help deliver faster time to operation and time to value. With the addition of resource quotas for platform management, you can expedite the identification of where resources are and adjust usage levels based on the ever-changing needs of your business. Using the new unified operations dashboard, your teams will be able to cut down on the time needed to identify and resolve problems across your workloads.

As you look to innovate your workloads, IBM Cloud Pak for Data version 3.5 can offer major advantages that provide the stepping stones for transformational change. Watson Machine Learning Accelerator, a new base service, makes deep learning easier and faster. Moreover, the introduction of OpenPages provides you with a market-leading offering in risk management. OpenPages provides an integrated governance, risk and compliance suite—this is an area gaining prominence and importance every year. As your enterprise seeks to further address governance, risk and compliance, the Knowledge Accelerators introduced in version 3.5 can help by providing industry specific content for DataOps and data governance, and reduce opportunities for risk by leveraging well-established and clearly documented structures.

The latest additions to IBM Cloud Pak for Data can help you stay ahead of the competition by speeding time to value, while delivering insights faster with accelerated AI and an expanded ecosystem of services.

Next steps

Take the next steps to learn more about IBM Cloud Pak for Data.

[View the webinar](#)

[Sign up for the trial](#)

[Learn more](#)

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Statements regarding IBM’s future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

- 1 Forrester Consulting. New Technology: The Projected Total Economic Impact™ Of IBM Cloud Pak For Data. February 2020.
- 2 The Business Value of Red Hat OpenShift.

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