Unlock your data at the speed of digital with IBM Digital Insights

A next generation data platform to lower data management costs and achieve business outcomes

CDOs and CIOs today are challenged to drive digital transformation using all relevant internal and external data sources.

Data management challenges and opportunities today

In the digital age, enterprises need to make key decisions in minutes, which is forcing organizations to rethink their data strategies. However, businesses face a myriad of data challenges that can prevent them from acting on new strategies:

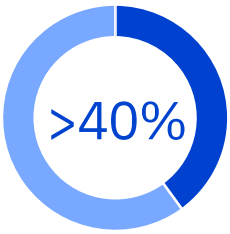
- The volume, velocity and variety of data are increasing exponentially every day.
- Data management can take up to 80% of a budget, leaving very little investment for high-value initiatives like AI.
- Clients need better, faster and cheaper ways to reduce data cost and complexity and increase data quality.
- Most organizations struggle to integrate siloed and outdated warehouses, which makes it difficult to effectively utilize vast amounts of semi-unstructured and unstructured data.

Savvy leaders in technology know that AI, data analytics and cloud-native innovations can fuel new opportunities, support data-driven business decisions and create cost advantages. To achieve data integration and management, organizations need a flexible data platform to drive intelligence and agility into processes that support data-driven decision-making. This process requires distinct data integration capabilities.

Even as enterprises create more and more data silos, they seek new approaches to deal with digital technology and analytic disruption. Businesses continue to move away from traditional data warehouses and data lakes. But to do so, they need to access, integrate and manage huge volumes of disparate data without increasing costs.

The goal is to use integrated, cleaned and governed data to build trusted AI, advanced analytics and operational efficiencies. Effective use of such rich data resources can produce better insights to bring high-value solutions to complex problems. Yet traditional data architectures don't support many AI, analytics and cloud functions.

Organizations need to access data for analysis and predictive modeling, then provide prescriptive decisions for both in-bound and outbound digital use cases—meeting the need to understand and respond to issues and provide recommendations.



of surveyed organizations have integrated their data across the enterprise and designed and deployed an enterprise-wide data architecture, according to a recent IBM Institute for Business Value study.[1]

Our approach

IBM Digital Insights is a data platform service

Digital Insights from IBM® is a data platform solution with analytics as a service for capturing, storing, analyzing and acting on data from proprietary, third-party and digital sources. The solution provides a common data platform for analytics, operations and digital use cases.

Digital Insights is engineered to easily integrate not only organizational data, but third-party data as well, such as from the Weather Channel® or Twitter. It can help create a 360° view of customer data that integrates traditional legacy data and digital data from appropriate General Data Protection Regulation (GDPR)-approved sources. With this approach, a single data lake with prebuilt digital, cognitive and analytic functions helps you dramatically simplify data management.

With near real-time and batch data ingestion, integrated technologies and accelerators, Digital Insights helps reduce data management costs through significantly increased capability and massive scaling. It's designed to consolidate multiple data warehouses and data lakes into one data platform capability. This feature offers greater flexibility so that businesses can manage the multiple use cases of data, which helps cut expenses. In other words, Digital Insights helps:

- Consolidate disparate platforms into a structured big data repository with advanced capabilities and tools, allowing you to cut costs and use data in new ways.
- Discover new revenue streams and business opportunities with enhanced data science capabilities.
- Improve and customize buyer engagement and experience through tuning cognitive processes based on digital insights.

The architecture can stand independently or be integrated in a broader digital framework. It consists of four layers: the experience layer, orchestration layer, insight platform layer and data platform layer, shown in Table 1. The resulting multitiered capabilities for capturing, storing and analyzing data, and building AI and advanced analytics, help organizations:

- Quickly draw data insights, which have historically been hard to obtain.
- Run advanced data analytics, leading to AI and self-learning automation.
- Perform analytics, digital and operational use cases tailored to the business and industry.

Digital Insights is designed to work with virtually any cloud provider, such as IBM Cloud® Private for Data solution, IBM Cloud Pak® solutions, Microsoft Azure, Amazon Web Services (AWS) and Google Cloud. Deploy on-premises, in a hybrid cloud or in multicloud environments.

IBM Digital Insights data and analytics as a service

Layer	Use case and intended benefits
Experience layer	**Enhanced digital experiences:** Build known and unknown profiles based on 360° views of interaction points from prospects and customers from the data platform.
Orchestration layer	**Digital interactions:** Deliver near real-time feedback and refinement for the cognitive process based on digital events.
Insight layer	**Monetization:** Derive actionable insights from a single source of truth and predict market and behavioral trends.
Data platform layer	**Cost reduction:** Ingest and curate internal and external data sources into data platform structures by industry and domain.

Table 1. Digital Insights layers, features and benefits by use case

Digital Insights provides a data and analytics foundation on hybrid cloud environments. This helps speed accurate decisions and improve business outcomes by extracting real-time customer analysis and insights from traditional, digital and third-party data.

Digital Insights industry-specific capabilities

IBM offers industry-specific functional capabilities of Digital Insights to address business needs. These options are built on a combination of consumption layer-specific data structures, APIs, purpose-built reports, analytics and data science models.

1. Advanced customer engagement

Designed to support integrated digital marketing, the advanced customer engagement option offers prebuilt, industry data and analytic capabilities built into Digital Insights. It helps companies understand customer buying behaviors and optimize engagements across the customer journey channels.

The advanced customer engagement option works as a digital interface through e-commerce sites to capture prospect data and give them prescriptive recommendations. For example, Digital Insights understands the 360° view of a customer. Using digital analytics, the interface provides options such as suggesting next best actions for consumers in a web marketplace.

2. Trade promotion automation

For managing and optimizing trade promotions, this option delivers prebuilt functions, industry models and analytics that support several main trade promotion management processes:

- Negotiate, modify and execute promotional contracts.
- Provide transparency to promotion budgets and lifecycle states.
- Optimize promotional criteria, for example, volume, profit and discount.
- Validate promotional compliance.
- Automate promotional payment claims.

Trade promotion automation is built using blockchain technology, process automation, just-in-time trade optimization through the IBM Watson® chat capability, and an industry-standard trade data model.

Build a foundation for new high-value business functions

The Digital Insights solution from IBM can help reduce data management operating costs up to 35% in a traditional data environment and achieve up to 3–5 times ROI within six months, based on our past client engagements.* Among other factors that contribute to these results are data consolidation and reduction in data warehouses, data marts and more.

Digital Insights offers flexibility, stability and community support

Digital Insights features and technology are built to be flexible, rich and stable, with wide community support. The platform uses Apache open-source and Apache-licensed components, which have the support of major contributors like IBM, Databricks, Netflix and Yahoo. Each component has been evaluated for its position in the marketplace, and current and projected feature sets. The governing principles are designed to:

- Avoid lock-in with vendor proprietary data management tools.
- Be compatible with the Hadoop ecosystem.
- Provide leading service and features.
- Use a common set of predesigned, industry-specific data structures, business terms and technical definitions based on IBM industry data models.

Immediacy, orchestration and AI for fast response

Digital Insights is designed to deliver key requirements that help you understand results and situations in near real-time and respond appropriately at speed:

- Data immediacy allows you to capture events and data insights in real time.
- Integrated AI features advise on the types of outbound responses to send.
- Orchestration, automation and services capabilities support quick outbound responses.

This IBM solution is engineered to easily integrate internal and external data sources. As data from digital channels becomes more available, the platform can continue to expand the view of customer data, integrating traditional and digital data from relevant sources, such as for regulatory compliance.

*Similar results can't be guaranteed for other clients.

Use cases

01

Yara uses a digital farming platform to feed a growing planet

Problem: The world's population is expected to reach 9.7 billion by 2050, according to the UN.[2] As climate change continues to put pressure on the Earth's ability to produce food, the agriculture industry is turning to technology for help.

Solution: In building the platform, Yara and IBM focused on creating and realizing a cloud-agnostic platform strategy that enabled consistent data governance and data security. It also focused on DataOps that allow its data scientists to focus on data models and innovation. The platform follows a pay-as-you-go commercial model.

Business benefit: The platform provides holistic digital services and instant agronomic advice to farmers across the globe, ultimately avoiding deforestation by increasing food production on existing farmland. The Yara digital platform aims to cover 7% of all arable land worldwide.

Read the case study at ibm.com/services/client-stories/yara.

02

Large health insurer redefined its data architecture with IBM Digital Insights

Problem: Health data is cumbersome. Privacy requirements are rigid, much information is still on paper and claims are difficult to process. These challenges are amplified for a health insurance company covering more than 40 million members.

Solution: Working with IBM, the insurer implemented Digital Insights to plan and build a data lake in the cloud. This new resource would serve as the foundation for a subscription-based healthcare analytics solution for this insurer, as well as future healthcare payers.

Business benefit: The platform enabled the company to start small in migrating its analytics to the cloud, creating common design patterns for data ingestion and curation. The final platform scaled the company's data foundation and architecture, and was optimized to help quickly onboard new products, analytic capabilities, and customers.

Read the case study at ibm.com/services/client-stories/health-insurance.

03

Global telecom adds real-time insights and predictive analytics with IBM Digital Insights

Problem: A global telecommunications firm with offices in 60 countries struggled with massive and disparate data volumes. The company needed a powerful solution to organize and consolidate data while cutting data costs.

Solution: Chief among several IBM open-source technology solutions was a digital lake from Digital Insights. This data-as-a-service approach provides data lifecycle orchestration, automating data pipeline, ingestion, governance and more.

Business benefit: The client achieved a single view of data from different platforms for self-service. This feature helped deliver near real-time insights and remediation for network faults and issue resolution, and faster access to algorithms that can predict churn and spot issues.

Read the case study at ibm.com/services/client-stories/telecommunications.

04

Biotechnology firm adds advanced capability and gets a 40% data costs savings

Problem: A leading biotechnology company, dedicated to developing medicines for people with serious and life-threatening diseases, had expanding costs from its marketing analytics data platform. Outdated capabilities and narrow data management constrained the curatable data. Insights were limited and there was no integrated solution to support AI and machine learning (ML) advances.

Solution: The company deployed Digital Insights on the Google Cloud. This enabled the client to ingest its full history of web analytics data and support curation of unstructured social media data.

Business benefit: The company expanded volume and variety of data curated for business users and enabled advanced analytical capabilities. It added click-stream analysis and near real-time analytics, supporting advanced use cases for a marketing data operations cost savings of 40%.

“82% of surveyed leading organizations use data to win customer trust. These leaders see that data transparency creates innovation possibilities—and new revenue.”

— Build Your Trust Advantage Study, IBM Institute for Business Value[3]

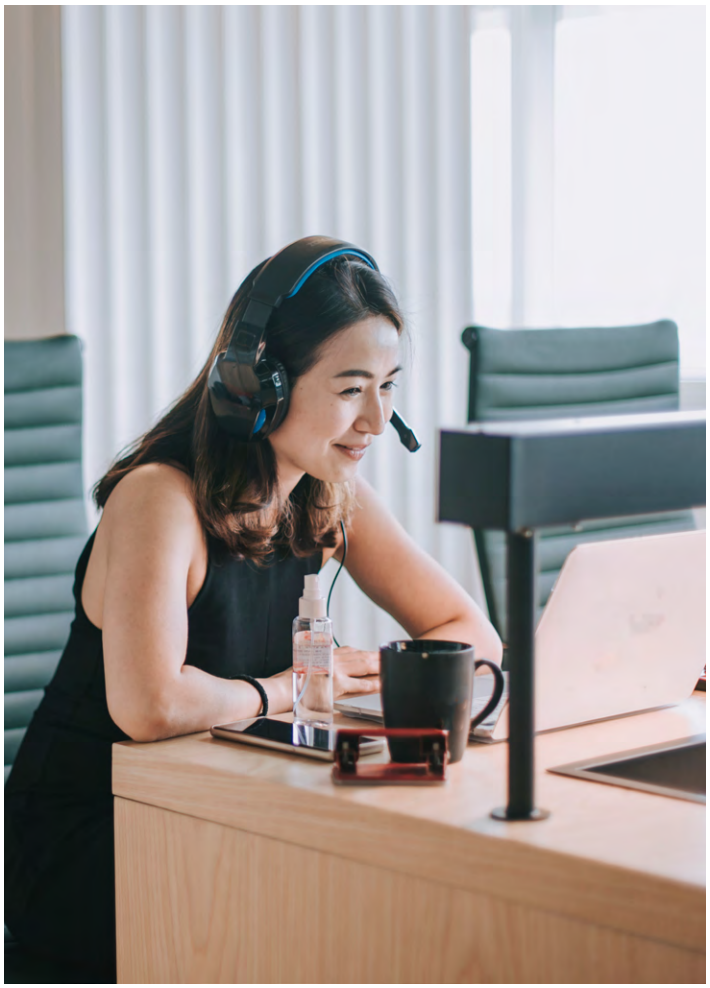
Why IBM?

IBM provides data strategy, consulting, architecture, transformation and ongoing management services to build next-generation data platforms. We help implement, configure, extend and evolve enterprise data, and then use the integrated data to define digital, operational, analytical, data science and AI use cases. IBM brings vast data transformation experience, methods, accelerators, industry skills and deep expertise in IBM Cloud, Microsoft Azure, AWS and Google Cloud platforms.

IBM is recognized as a Leader in Gartner’s 2020 Magic Quadrant for Data & Analytics Service Providers.[4] With thousands of data and analytics consultants, tens of thousands of analytics and big data engagements, billions of investments in data and AI, IBM is a trusted, go-to source for our clients for platform services because we’re uniquely positioned to help organizations build a modern data platform.

Digital Insights is part of the IBM Data Platform Services practice, helping you gain control of your data environment and start driving actionable insights in a digital world.

Learn more about Digital Insights at ibm.com/services/big-data-services, or call your IBM representative.



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1 "The Cognitive Enterprise: Reinventing your company with AI," *IBM Institute for Business Value*, February 2019.

2 "2019 Revision of World Population Prospects," *United Nations*, June 2019.

3 "Global C-suite Study 20th Edition, Build Your Trust Advantage Leadership in the era of data and AI everywhere," *IBM Institute for Business Value*, November 2019.

4 "Gartner, Magic Quadrant for Data and Analytics Service Providers," *Gartner Research*, Jorgen Heizenberg, Twiggy Lo, Gareth Herschel, Ehtisham Zaidi, Saul Judah, Robert Thanaraj, 10 February 2020.

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