Informatica

eBook

Modernize or Miss Out: Why Cloud Modernization Is Key to Unlock AI Value

65% of Organizations Are Regularly Using GenAI — Are You?

Where data & AI come to LIFE™

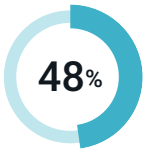
Contents

The Inevitable Reality of Cloud Modernization

Artificial intelligence (AI) is undeniably one of the most disruptive forces impacting our generation. Modern enterprises are leveraging the power of AI for improvements in many areas, such as advanced analytics, research, supply chain logistics and talent management.

With the initial push to adopt AI, particularly generative AI (GenAI), many CIOs are now realizing the synergy between AI, data and the cloud. This understanding sets companies experiencing transformation apart from those struggling with failed deployments, cost overruns and scalability.

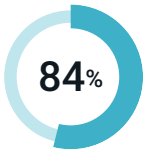
of respondents to a McKinsey survey reported that their organizations are regularly using GenAI, nearly double the percentage from the survey just ten months prior.[1]



of IT leaders picked improving data management practices as their top priority for IT modernization in 2024.[2]

of CIOs are worried about whether their organization has sufficient compute power and data center infrastructure to support GenAI.[3]

of data leaders recognize AI as a pivotal factor driving cloud modernization initiatives.[4]



agree that modernizing legacy data infrastructure to the cloud is essential to maximize AI benefits.[5]

[1] McKinsey, The State of AI in Early 2024: Gen AI Adoption Spikes and Starts to Generate Value, 2024.
[2] https://www.tierpoint.com/report/technology-it-modernization/
[3] https://www.cloudcomputing-news.net/news/ai-fuels-almost-30-increase-in-it-modernisation-spend-but-firms-are-unprepared-for-data-demands/
[4] Informatica, Insights from Informatica PowerCenter Customers: The State of Cloud Modernization, 2024.
[5] Ibid.

The Inevitable Reality of Cloud Modernization (continued)

While the potential of AI has undoubtedly captured the interest of the C-suite, two realities determine success the success of AI initiatives:

- AI needs high-quality, business-ready data to deliver its full potential. You can only unlock the potential of AI with a strong data foundation.
- Only cloud infrastructure provides the scalability, flexibility and computational power needed for data-intensive AI workloads. Moving your data workloads to the cloud is the easiest way to address this.

Acknowledging these realities prompts CIOs to treat modernizing their **data management** and cloud infrastructure as an urgent business imperative. These leaders also recognize that a failure to modernize their on-premises applications to the cloud will put them at a competitive disadvantage.

It's undeniable that AI is fundamental for business success. However, you will not get transformational outcomes without modern data management and cloud infrastructure, even with technology as powerful as AI. Keep reading to learn how to address hesitations around cloud modernization and the case for starting your modernization now.

Change Isn't Easy: Addressing Cloud Modernization Hesitations

CIOs and IT leaders understand the limitations of remaining on-premises. However, you may have hesitations about certain aspects of transitioning to the cloud.

For example:

- **Integrating mission-critical data**: You may fear a lack of control or data latency for mission-critical data in a public cloud.
- **Disrupting business operations**: You may be concerned about losing years of business logic developed on-premises or missing your mappings and workloads while moving them to the cloud.
- **Coordinating a holistic approach to cloud modernization initiatives**: While there is a need for flexibility and a phased approach, an ad-hoc approach to cloud modernization could create complexity and put your projects at risk.
- **Increasing costs and time-to-value**: AI requires a constant influx of data. Without careful planning and management, this can rapidly increase your costs and time-to-value, both on-premises and in the cloud.
- **Ensuring security and compliance**: 45% of leaders surveyed by MIT said data security, ethics and privacy are key limitations to their cloud readiness for AI.[6] Stricter regulations in certain countries and industries add to the pressure. You need a path to cloud modernization that can guarantee data security and compliance.
- **Avoiding vendor lock-in**: You might be concerned about the limitations of working with one cloud vendor. 89% of technical professionals and executive leaders reported a tendency towards a multi-cloud strategy to avoid cloud vendor lock-in and optimize their resource efficiency.[7]
- **Addressing unpredictability**: You may be uncertain about the impact of evolving AI technologies and the demands of data democratization on their engineering talent. You want a future-proof cloud modernization strategy, but that is difficult to achieve without clarity.

Given these hesitations, the question is: how can you modernize cloud systems and accelerate AI outcomes without compromising security, governance and budgets?

Despite 39% of data leaders citing security and compliance, data governance and technical complexity as the top three challenges to cloud modernization projects,[8] 84% strongly believe modernizing legacy data infrastructure to the cloud is essential to maximize AI benefits.[9] The resistance isn't towards cloud modernization but stems from the perceived disruption and uncertainty associated with such changes.

[6] MIT Technology Review Insights, Reimagining Cloud Strategy for AI-first Enterprises, 2024.
[7] Flexera, 2024 State of the Cloud Report.
[8] Informatica, Insights from Informatica PowerCenter Customers: The State of Cloud Modernization, 2024.
[9] Ibid.

Don’t Get Left Behind: AI Progress Gives Rivals a Head Start

Cloud infrastructure has evolved from a cost-saving measure to a critical driver of innovation, meaning modernizing to the cloud isn’t just a trend — it’s the future of business strategy. You can't afford to delay cloud modernization and AI adoption — and your peers aren't.

90% of data leaders are prioritizing modernization to the cloud to improve efficiency, achieve greater scalability and drive innovation,[10] and 71% of companies plan to increase cloud infrastructure spending for AI by 25% or more in the next two years.[11]

AI Doesn’t Exist Without the Cloud

Some capabilities of the cloud that support AI initiatives include:

- **Real-time data management**: Only the cloud can deliver real-time data streaming from the various data sources AI requires.
- **Unprecedented agility and scalability**: The cloud offers unparalleled scalability and flexibility so you can stay agile, adapt to market changes quickly and respond to customer needs efficiently.
- **AI-powered innovation and go-to-market**: Technologies optimized for the cloud — like AI, machine learning and advanced analytics — provide real-time insights and accelerate innovation across functions.
- **Enhanced security and compliance**: Cloud solutions offer advanced security features and compliance standards for robust data protection.
- **Cost efficiency**: The cloud can allow you to reduce your IT overhead with cost-effective infrastructure, streamlined operations, seamless updates and **consumption-based pricing**.

With your competitors moving to the cloud, can you afford to stay tethered to legacy systems? The time to innovate is now.

As AI swiftly transforms various sectors, including regulated industries like healthcare and financial services, establishing the proper cloud foundation to support it is crucial. Any delay, even a few months, could put your organization years behind the competition.

[10] Ibid.

[11] **MIT Technology Review Insights, Reimagining Cloud Strategy for AI-first Enterprises, 2024**.

The Risks of Not Modernizing to the Cloud Today

Legacy technology, unable to meet new digital requirements, can lead to project failures, delays, scale-backs or cancellations. At a technical level, on-premises workloads slow down processing, limit scalability, increase maintenance and operating costs and incur greater security risks. Legacy systems stalling modernization results in an average $4 million wasted investment per year and an 18-week delay on strategic projects.[12]

Delaying cloud modernization affects workplace dynamics and your company's culture around innovation. Your team may miss out on the labs, model marketplaces and pre-built solutions that cloud providers offer. They also lose the opportunity to work with cutting-edge new technologies and advanced data management capabilities in modern cloud platforms. Moreover, top talent prefers work environments where the cloud's scalable and elastic resources aid workload distribution, facilitate efficient collaboration and optimize performance.

These risks affect the goals of C-suite executives, senior technical decision-makers and infrastructure architects. **Nearly half (42%) of data leaders said failure to modernize will decrease efficiency, and 37% said it will reduce their speed and agility.**[13] Addressing them is crucial to ensure continued operational excellence and strategic relevance.

The Strategic Risks of Not Modernizing to the Cloud

For CIOs, failing to modernize to the cloud presents roadblocks to moving your organization forward. Let's look at some of the strategic risks of not modernizing to the cloud:

1) Competitive disadvantages

- **Loss of market share, delayed time-to-market**: Cloud infrastructure facilitates faster deployment of AI models and applications, allowing you to rapidly experiment, iterate and launch AI-driven innovations. Your cloud-first competitors can shorten time-to-market for new offerings, optimize operations, streamline decision-making and deliver responsive, personalized customer experiences.
- **Limitations in global expansion**: Cloud services provide a global infrastructure that helps businesses quickly expand their operations across borders without significant investments in physical infrastructure. Traditional IT structures face logistical complexities and higher operational costs, hindering international growth.

2) Inability to harness AI

- **Big data analytics and AI solutions**: With AI workloads, especially machine learning (ML) and big data processing, cloud platforms offer massive computational power and storage that are hard to match on-premises.

[12] https://www.cloudcomputing-news.net/news/ai-fuels-almost-30-increase-in-it-modernisation-spend-but-firms-are-unprepared-for-data-demands/
[13] Informatica, Insights from Informatica PowerCenter Customers: The State of Cloud Modernization, 2024.

The Risks of Not Modernizing to the Cloud Today (continued)

- **Continuous improvement**: Cloud platforms continually update their AI tools and services, including pre-built models, APIs and platforms, to accelerate AI adoption.

3) Operational slowdowns and risks

- **Higher operational costs and lower flexibility**: On-premises infrastructure requires an upfront investment, while cloud computing can significantly reduce the costs of purchasing, maintaining and upgrading hardware and software. Many cloud platforms offer consumption-based pricing to help optimize costs and ensure greater financial flexibility.
- **Integration challenges**: Cloud environments enhance cross-functional collaboration by centralizing data and making it more accessible. They also seamlessly integrate multiple data sources, breaking down data silos for a unified view that improves AI-driven decision-making. In contrast, on-premises workloads can restrict ease of access and **data integration**.

4) Data security and compliance risks

- **Latest security**: Cloud providers invest heavily in security and adhere to strict international compliance standards more efficiently than most individual companies can manage in-house.
- **Inadequate disaster recovery and business continuity options**: Cloud services typically include robust disaster recovery plans and automatic backup solutions. If you rely on in-house systems, you may have a higher risk of data loss and downtime.

The Risks of Not Modernizing to the Cloud Today (continued)

The Technical Risks of Not Modernizing to the Cloud

For senior technical decision-makers and infrastructure architects, failing to modernize to a cloud solution like the **Informatica Intelligent Data Management Cloud**™ (IDMC) in the age of AI presents several risks that can affect their immediate operational responsibilities and strategic influence within the organization.

1) Constraints on technical capabilities

- **Limited technological agility**: Innovation requires the quick deployment of scalable, flexible solutions, which is impossible with rigid on-premises infrastructure.
- **Lack of elastic compute power and scalability**: AI workloads require massive processing power. Only cloud platforms offer infinite and scalable computing resources.
- **Inability to access advanced AI and ML tools**: Cloud providers offer pre-built AI and ML frameworks and platforms — like AWS SageMaker, Azure Machine Learning and Google AI — to minimize development time and operational complexity.
- **Difficulty processing big data in real-time**: Storing and processing large-scale datasets on-premises is complex and costly, whereas cloud platforms are designed to perform real-time data analysis and AI model training on large datasets.
- **Constraints on data management capabilities**: Cloud environments often streamline AI and ML integration with flexible APIs that facilitate better integration, analytics and decision-making capabilities than non-cloud environments.
- **Inability to integrate with DevOps and MLOps pipelines**: Cloud platforms allow for smoother integration with DevOps and MLOps practices, making automating the management of AI models easier. On-premises infrastructure usually involves more manual processes.

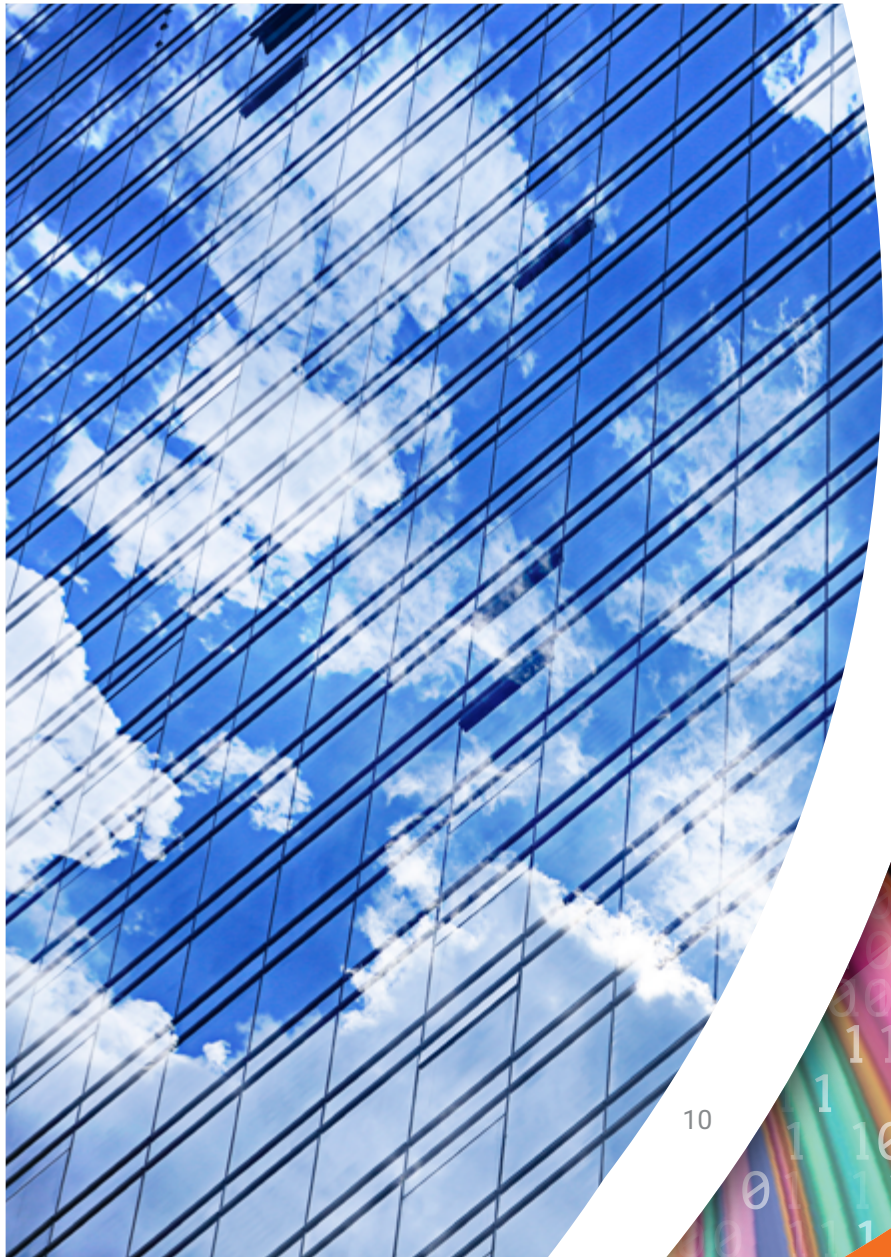
2) Lack of AI-powered capabilities

- **Unified data workflows**: Cloud platforms offer integrated AI, data storage and analytics ecosystems, simplifying workflows. Teams can seamlessly unify AI pipelines, from data ingestion to model deployment.
- **Operational insights**: Modern cloud platforms incorporate AI-driven analytics to enhance system monitoring, predictive maintenance and capacity planning. They utilize AI to identify trends, detect anomalies and assess risks within IT infrastructure.
- **Data analytics**: Cloud-based analytics platforms enable real-time analytics, predictive modeling and natural language processing (NLP).

The Risks of Not Modernizing to the Cloud Today (continued)

3) Increased costs and risks

- **Higher operating and maintenance costs**: Upgrades, maintenance and infrastructure can be substantially more costly on-premises than in the cloud. Physical data centers also require significant energy consumption and space compared to the cloud.
- **Higher security and compliance risks**: On-premises solutions may lack the resources to keep up with evolving security threats or regulatory compliance requirements, such as the General Data Protection Regulation (GDPR) or the California Consumer Privacy Act (CCPA). Cloud providers bake in robust compliance features that are auto-updated without burdening IT teams.



The Optimal Path to Cloud Modernization to Amplify Returns

Data readiness, supported by a centralized, cloud-based data foundation, is critical for AI initiatives. Unfortunately, many businesses seem unprepared for data demands. 60% of IT leaders are worried about whether their organization has sufficient compute power and data center infrastructure to support GenAI, while 54% do not have all the elements of a data strategy suitable for GenAI in place.[14] Only 18% of enterprises say they have a vector database that can store, manage and index vector data efficiently.[15]

Key data management capabilities are needed to enable GenAI. These include control over data storage, real-time data access, data sharing and usage, vector search to improve GenAI performance and a consolidated database infrastructure to prevent applications from accessing multiple versions of data.

Choosing a proven cloud-native data management platform with comprehensive capabilities and modular flexibility will help you avoid the pitfalls of cloud modernization.

Future-Proof Cloud Modernization for AI with IDMC

Modernizing to the cloud can accelerate AI adoption to enhance customer experiences, improve risk management and uncover new revenue streams. However, 72% of leading organizations note that managing data is one of the top challenges preventing them from scaling AI use cases.[16]

The right data management platform can help unlock the power of AI while maintaining the highest standards of performance, security, governance and cost-efficiency.

[14] https://www.cloudcomputing-news.net/news/ai-fuels-almost-30-increase-in-it-modernisation-spend-but-firms-are-unprepared-for-data-demands/
[15] Ibid.
[16] McKinsey, The Data Dividend: Fueling Generative AI, 2023.

Why Should You Modernize Your On-Premises Data Estate to IDMC Now?

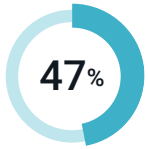
IDMC enables AI by providing a comprehensive cloud-native data management solution to help you manage, govern, integrate and analyze your data across multiple systems, applications and environments.

Do it Right: The Business Case for Cloud Modernization

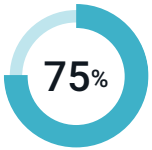
Nucleus Research investigated the cloud modernization strategy, migration costs and ongoing benefits realized by multiple customers who deployed **Informatica PowerCenter Cloud Edition**, an IDMC service, to avoid common cost centers associated with cloud modernization. Organizations of various sizes and industry specifications achieved a positive return with reducing ongoing operational costs by 50% and maintenance and administrative expenses by 75%.[17]

Enterprises that deployed Informatica PowerCenter Cloud Edition avoided common cost centers associated with cloud modernization and reported concrete economic benefits:

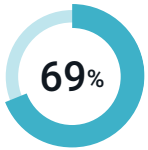
drop in time and cost realized by a commercial insurer for its modernization initiative.



reduction in ongoing operational costs for an academic medical center.



decrease in maintenance and administrative expenses for a health insurance provider.



decline in administrative costs for a financial services provider.

[17] Nucleus Research, Reducing Costs with PowerCenter Modernization, 2024.

Why Should You Modernize Your On-Premises Data Estate to IDMC Now? (continued)

Do it Better: Unbeatable Data Management Capabilities

IDMC offers comprehensive capabilities, including:

- **All-in-one platform**: IDMC efficiently manages virtually any data management use case. It features built-in **data quality** and governance with automated data discovery and cataloging. The platform enhances data processes through automated and intelligent data enrichment, integration and orchestration. Its self-tuning capabilities provide predictive insights for continuous resource and performance optimization, ensuring adaptability to changing patterns.

  Moreover, IDMC offers a comprehensive 360-degree view of data, enabling smarter analytics and faster decision-making. It includes intelligent anomaly detection to anticipate risks and lower downtime, and it automates processes to reduce manual intervention, minimize errors and drive efficiency.

- **Intelligent**: Powered by our AI and ML engine, CLAIRE®, IDMC is optimized for intelligence and automation. The challenge of continually needing to increase productivity is real. CLAIRE® eliminates a steep learning curve with its no-code experience to ensure optimal use of resources, quick upskilling of scarce data engineering resources and data democratization for business users.

- **Vendor-neutral**: IDMC lets you run, interoperate and support virtually all combinations of multi-cloud and on-premises hybrid infrastructures. Modernize and build data products with reference architectures like data mesh, data fabric and data lake houses.

- **Future-proof**: IDMC is cloud-native and AI-native at scale to handle virtually all enterprise workloads with elastic and serverless processing.

- **Modular flexibility and consumption-based pricing**: The modular structure of the IDMC all-in-one platform means you get access to advanced data management capabilities without the complexity of multiple vendors or point solutions. Flexible, consumption-based pricing lets you add on capabilities as needed. Control your costs with predictable, flexible pricing and volume-based incentives.

- **Security and compliance**: Built-in governance and AI-driven classification and risk assessments within IDMC help you better understand where sensitive data resides and how it is used, ensuring the highest level of security, trust and compliance with most industry certifications and attestations.

Start Your Cloud Modernization Now

Existing Informatica PowerCenter users enjoy an advantage with easy, cost-effective cloud modernization plans from **PowerCenter Modernization Service Offerings**. These services are crafted to mitigate risks, reduce implementation costs and expedite the migration to cloud environments. An expert cloud modernization team delivers these services remotely while offering expert guidance throughout the transformation journey.

Learn more about the **Informatica Intelligent Data Management Cloud** and how to get started with your **PowerCenter modernization** today.

About Us

Informatica (NYSE: INFA), a leader in enterprise AI-powered cloud data management, brings data and AI to life by empowering businesses to realize the transformative power of their most critical assets. We have created a new category of software, the Informatica Intelligent Data Management Cloud™ (IDMC), powered by AI and an end-to-end data management platform that connects, manages and unifies data across virtually any multi-cloud, hybrid system, democratizing data and enabling enterprises to modernize their business strategies. Customers in approximately 100 countries and more than 80 of the Fortune 100 rely on Informatica to drive data-led digital transformation. **Informatica. Where data and AI come to life.™**

Where data & AI come to

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