

An abstract, isometric illustration of a cityscape composed of numerous 3D rectangular blocks of varying heights and colors (shades of red, orange, and white). A dense network of glowing yellow lines crisscrosses the scene, representing data connections or infrastructure. A large, dark, angular shape, resembling a stylized arrow or a data path, points from the top left towards the center of the image.

The State of Data and AI in the **Americas**

Global Data Insights Survey

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Executive summary and introduction

Artificial intelligence (AI) technology is disrupting business as usual, especially in improving and enhancing customer experiences, data analysis, risk forecasting, operational approaches, and more.

As exciting as AI is, to truly capitalize on new AI initiatives, enterprise leaders need a strategy for implementation. This strategy must include a Hybrid IT infrastructure that fuels those initiatives.

Against this backdrop, Digital Realty commissioned the second edition of the Global Data Insights Survey, with responses fielded between October 30 and December 4, 2023. The goal is to gain insights into how enterprises are creating business strategies and redesigning legacy IT infrastructures to support their AI ambitions and goals.

In this report, we focus on input from **IT leaders in the Americas** — the U.S., Canada, Mexico, and Brazil — to understand how data and AI readiness strategies are benefiting their enterprises.

According to IDC, the Americas is expected to spend the most on generative artificial intelligence (GenAI) implementation from 2023 to 2027, accounting for 59.4% of spending in 2023 and 58.0% in 2027.¹ In order to gain a competitive edge in this challenging business landscape, IT leaders must harness technologies that can transform their businesses.

Our findings echo that the Americas are ahead of the curve, not only in spending but also in AI maturity and implementation.

As enterprises in the Americas reach for global advantage, the findings in ‘The State of Data and AI in the Americas’ show the necessity of leaning into AI for insights and innovation and of recognizing the need for data and AI-ready infrastructure.

Let’s dive in and discover the insights to achieve your data and AI objectives.

Steve Smith

Managing Director, Americas, Digital Realty

About the survey

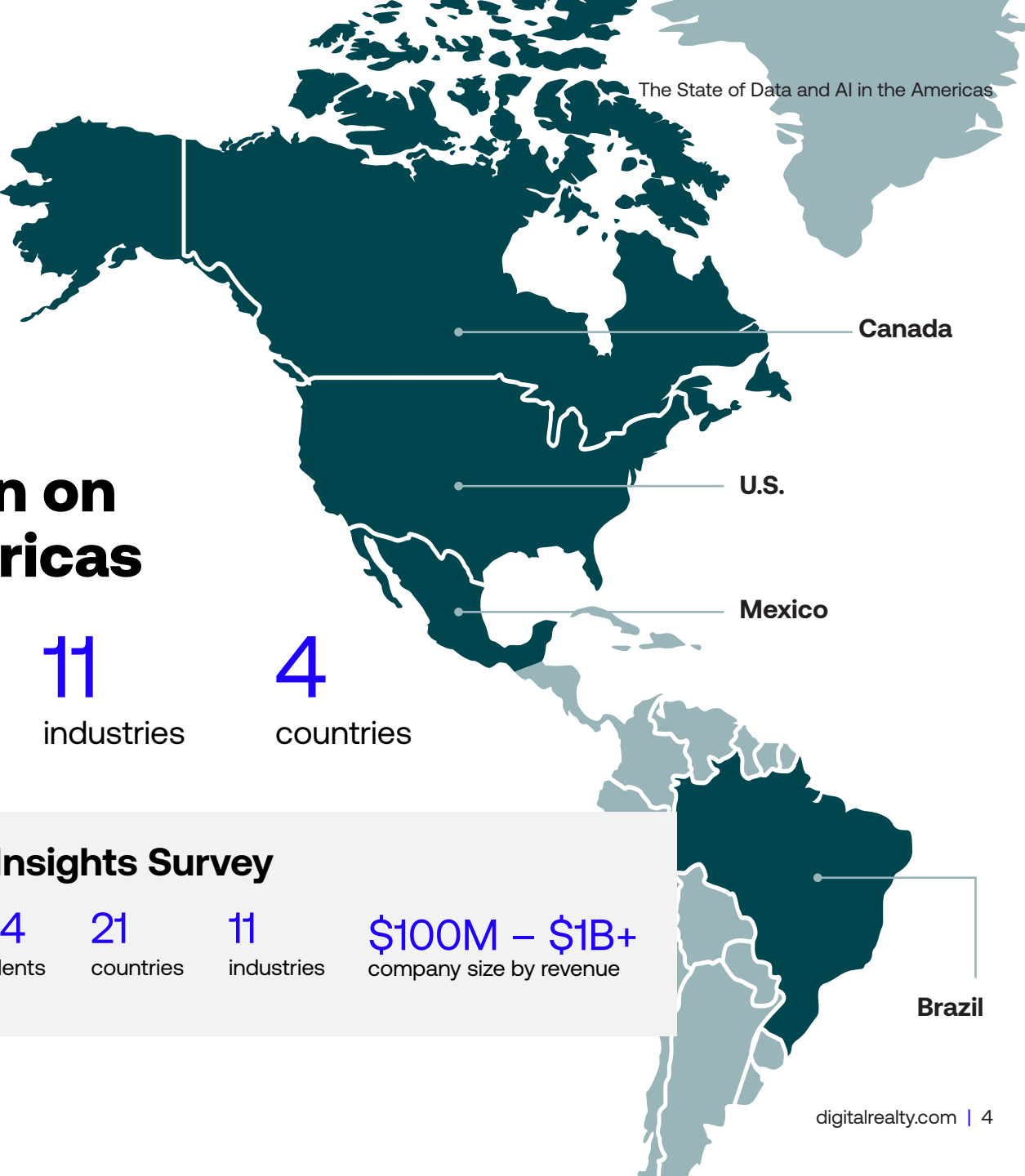
AI raises the stakes for enterprises and IT leaders. AI initiatives are data-intensive, fueled by a nearly endless stream of data, often ingested in real time or near real time. IT infrastructure that doesn't account for Data Gravity compromises successful AI innovation and puts companies at risk of being left behind.

To understand what it takes to succeed in this new era, we surveyed respondents from across the globe to discover how they are rethinking data strategies — prioritizing data investments, localization, and insights — and tackling unique challenges at a regional, local, and industry level.

Honing in on the Americas



Global Data Insights Survey



Key findings

IT leaders in the Americas know that to use AI and data-driven insights, they need to invest in data processing, storage, infrastructure, and analytics tools. While many face similar challenges, they are all on the path to building a sustainable, data-centric future that will position them well for the global AI revolution.

1. Data-first strategies advance AI innovation

70%

of companies across the Americas are executing a formal data strategy for their current or planned IT locations

69%

are actively executing a formal AI strategy to either achieve operational efficiency or launch a business or service offering

2. Data is pervasive and growing

53%

of IT leaders in the Americas are investing in data systems, infrastructure, and analytics tools to be better positioned to draw insights from data

3. Data localization matters more than ever

78%

of companies in the Americas follow a distributed data approach

74%

are tying a data location strategy to their AI strategic plans

4. Data drives the business agenda

58%

of IT leaders in the Americas expect data-driven insights to increase customer satisfaction in the next two years

63%

say that improving the customer experience is what they most expect from executing their AI strategy

Data Gravity: A growing challenge and opportunity

Data Gravity refers to the idea that data has mass. As that mass grows, it becomes increasingly difficult to move or replicate.

Data Gravity is the attractive force caused by enterprise data creation and exchange, drawing from applications, servers, and other sources. As a data set grows, it attracts applications and services, creating a virtuous cycle of more data creation.

Data growth attracts applications and services

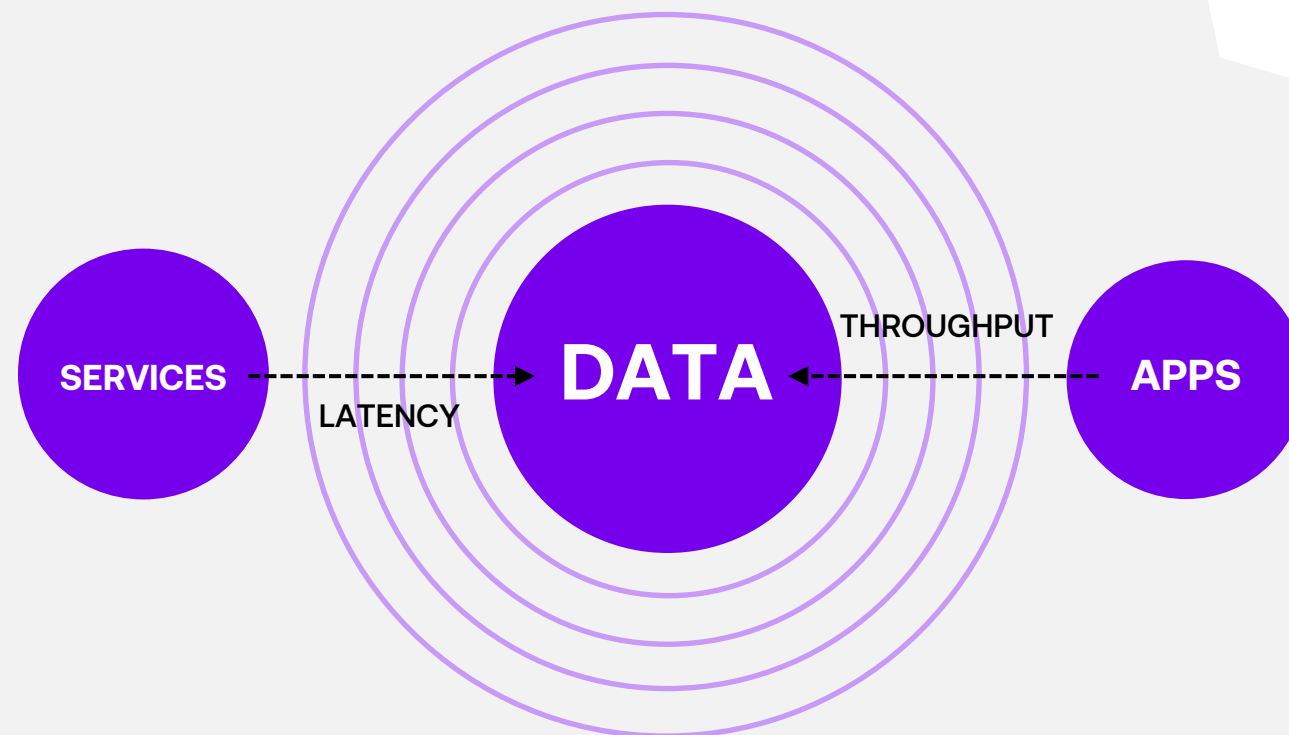


Figure 1: Patented Data Gravity Formula, McCrory and Bishop, Digital Realty

Trend 1

Data-first strategies advance AI innovation

IT Leaders in the Americas set their sights on revolutionizing their industries with AI-powered strategies

Executing a formal data strategy tops the priority list for IT leaders — with AI and Machine Learning (ML) as the key to unlocking insights

Businesses across the Americas are already realizing the value of implementing strategies specific to how their data is managed, governed, and used. 70% of respondents are **actively executing a formal data strategy that specifies the requirements for current or planned IT locations.**

Does your company have or plan to have a formal data strategy specifying the requirements for current or planned IT locations?

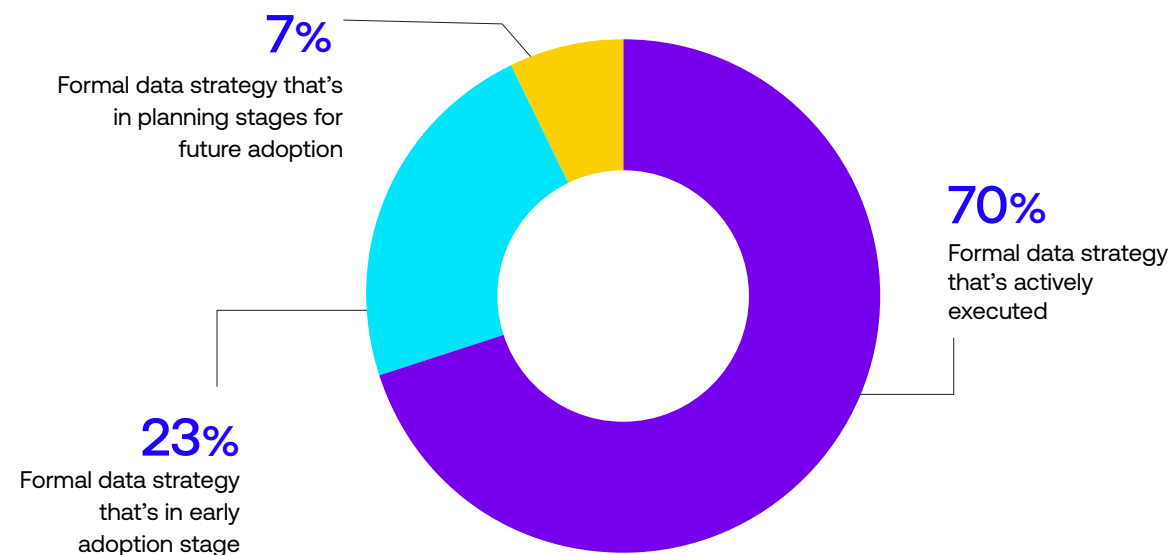


Figure 2: Digital Realty, *Global Data Insights Survey*, August 2024

Global spotlight: Americas leads in IT location strategy

70% of IT leaders in the Americas are executing a formal location strategy, placing the Americas ahead of other regions — followed by 65% in both Europe and Asia Pacific (APAC) respectively.

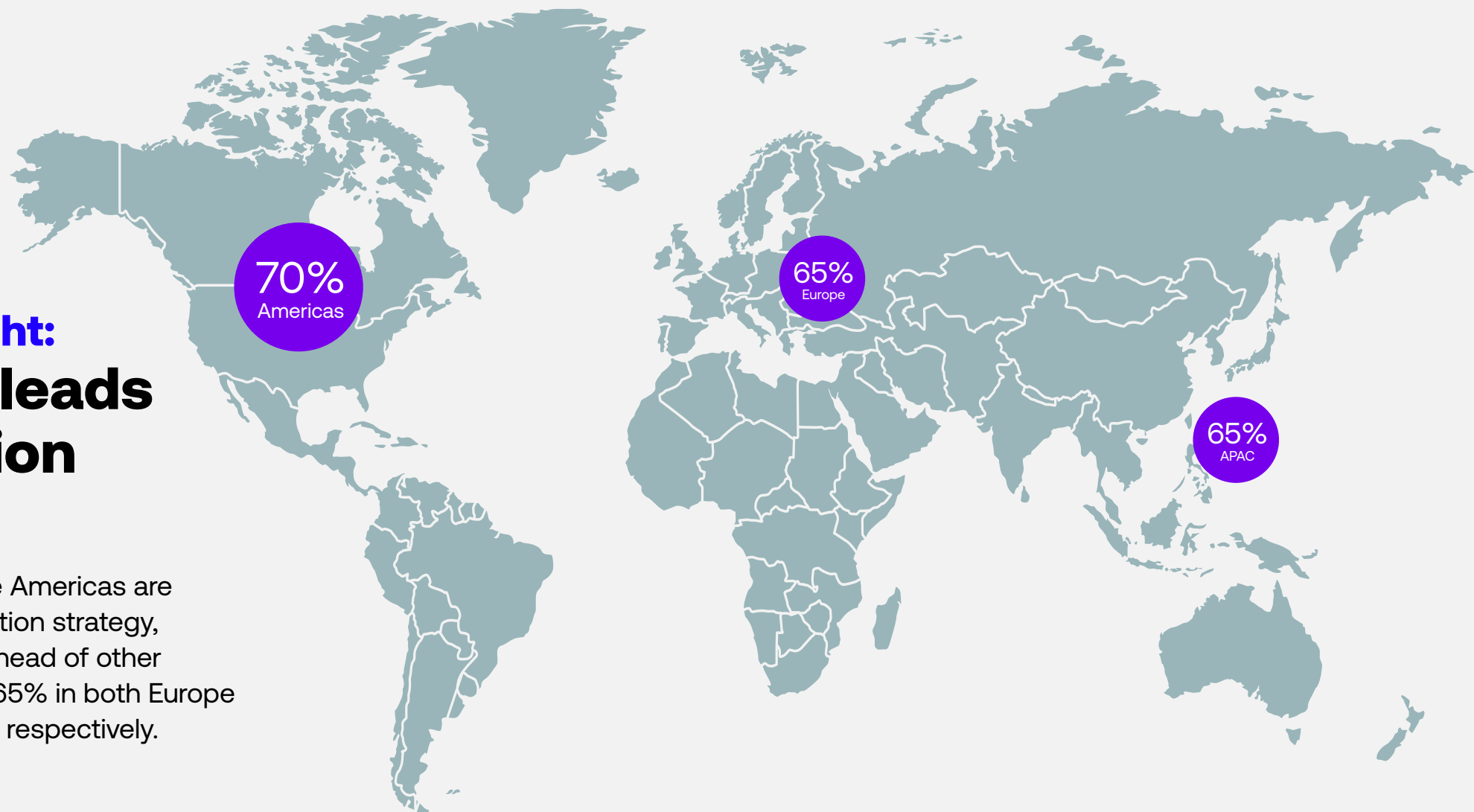
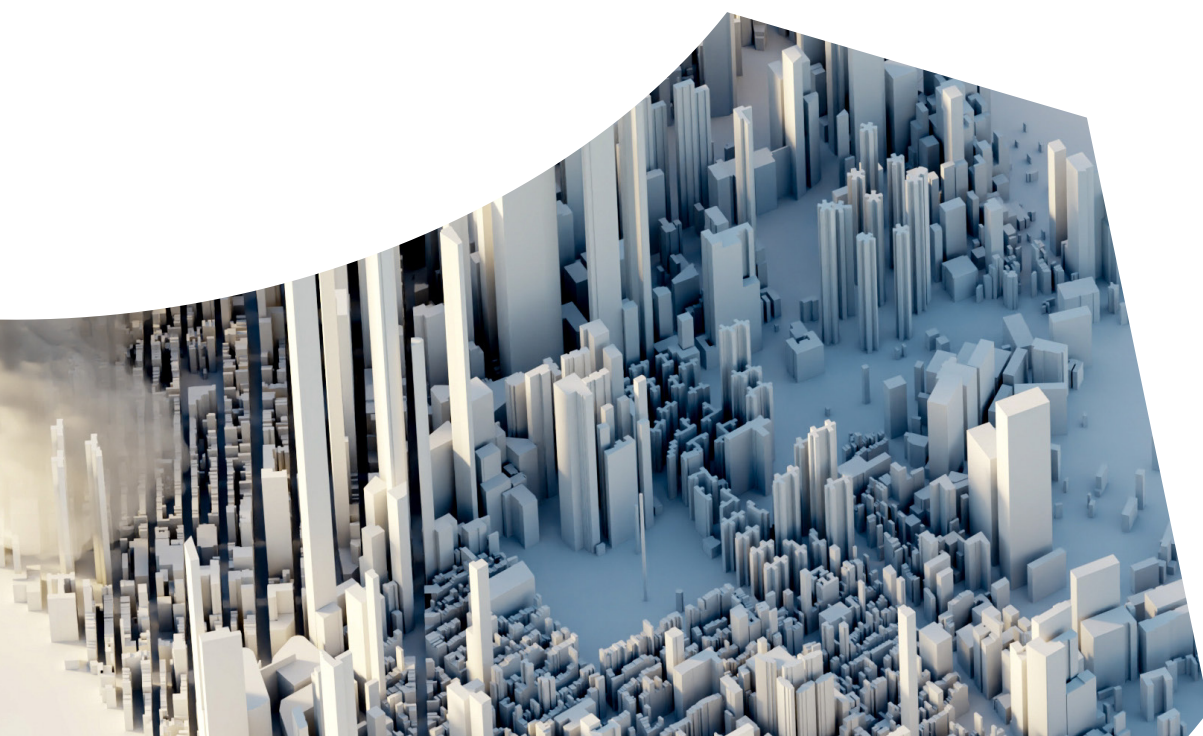


Figure 3: Digital Realty, *Global Data Insights Survey*, August 2024

Data strategies are the required precursor to AI innovation, but leaders need to leverage the right tools to extract data insights. **45% of business leaders in the Americas plan to invest in AI/ML to achieve data-driven insights.** These technologies find new information in data that wasn't available before. This information leads to useful insights that change the ways organizations use data to better serve customers.



When it comes to achieving data-driven insights, what do you consider the most critical requirements your company must implement?

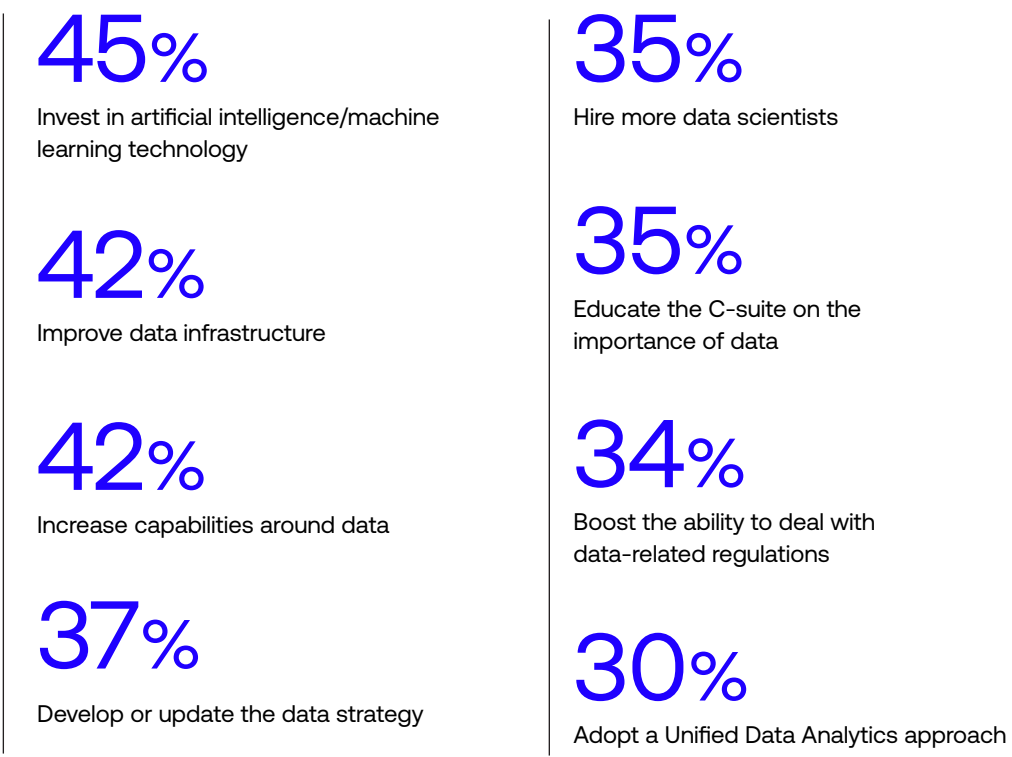


Figure 4: Digital Realty, Global Data Insights Survey, August 2024

Industry spotlight:
AI maturity analysis

IT leaders in the **retail sector** are confident in their utilization of AI, with 70% ranking themselves advanced in maturity.

Those in **logistics and transportation** rank themselves slightly lower on the AI maturity scale at 65%, with only 21% rating themselves at a 5 and 44% choosing a 4 rating, suggesting this sector hasn’t found their adoption yet “transformative.” Those in **financial services** rank similarly, with 22% ranking 5 and 40% ranking 4 (62% total).

The Americas is charting the path of AI maturity

As evidenced by the rise of large language models (LLMs), AI adoption has increased tremendously — and IT leaders in the Americas are charting the path.

63% of IT leaders in the Americas rank themselves on the more mature side of AI adoption and utilization (ranking their organization a 4 or 5). At 72%, the U.S. leads this region.

On a scale from 1 to 5, where would you rate your company or organization in terms of AI maturity, with 1 being no AI utilization and 5 being transformative/a firm part of the business model?

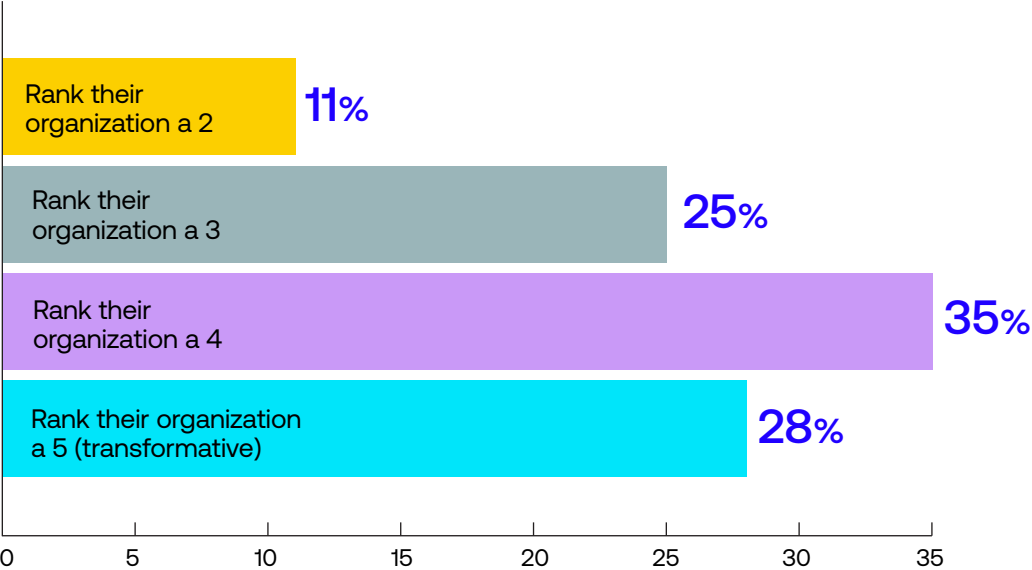


Figure 5: Digital Realty, Global Data Insights Survey, August 2024

Half of IT leaders in the Americas actively deploy a trained AI model

Launching a new AI initiative requires a step-by-step process that includes:

1. Cleansing the data
2. Training, testing, and validating the AI model
3. An inference stage
4. Deploying the trained AI model

51% of companies in the Americas have **deployed and monetized their trained AI model** while 24% are at the inferencing stage. This means enterprises are reaping the benefits of AI workflows, but they're also learning the impact that these data-intensive workloads have on their IT infrastructure.

In which stage of AI strategy would you classify your company currently?

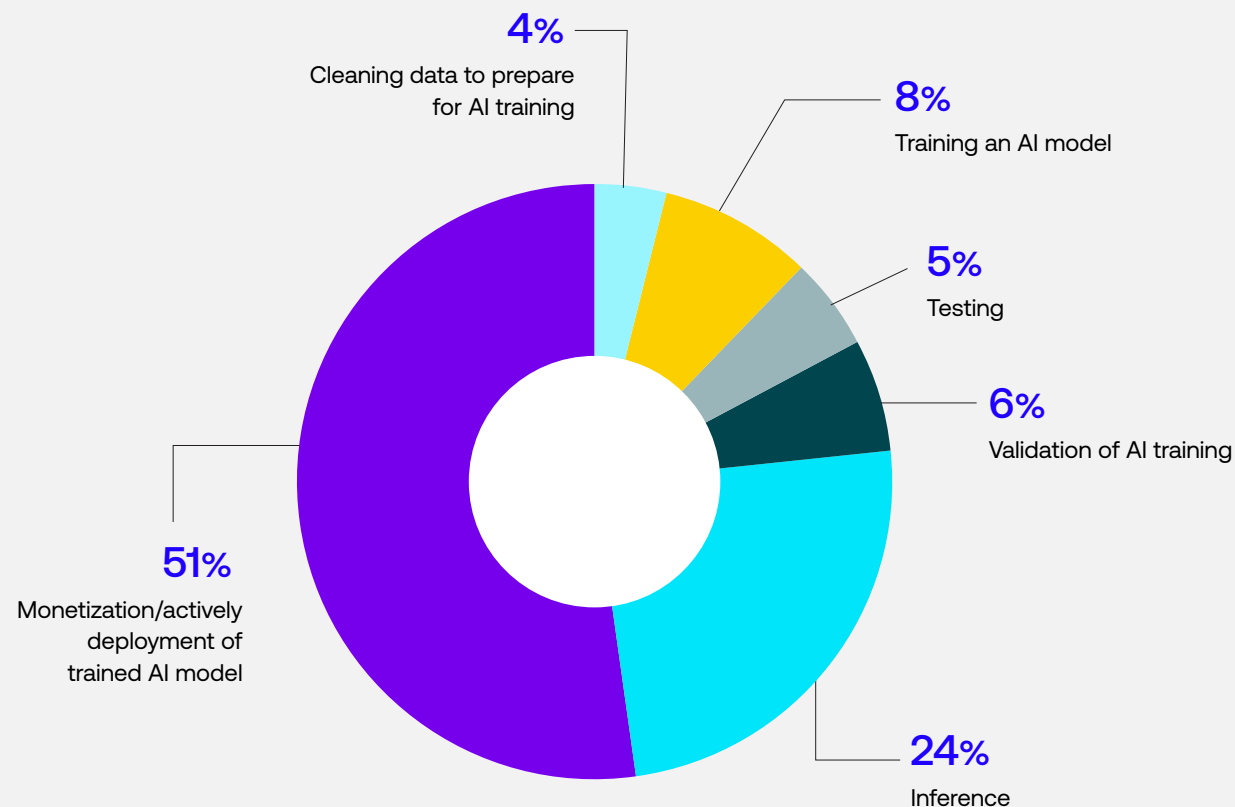
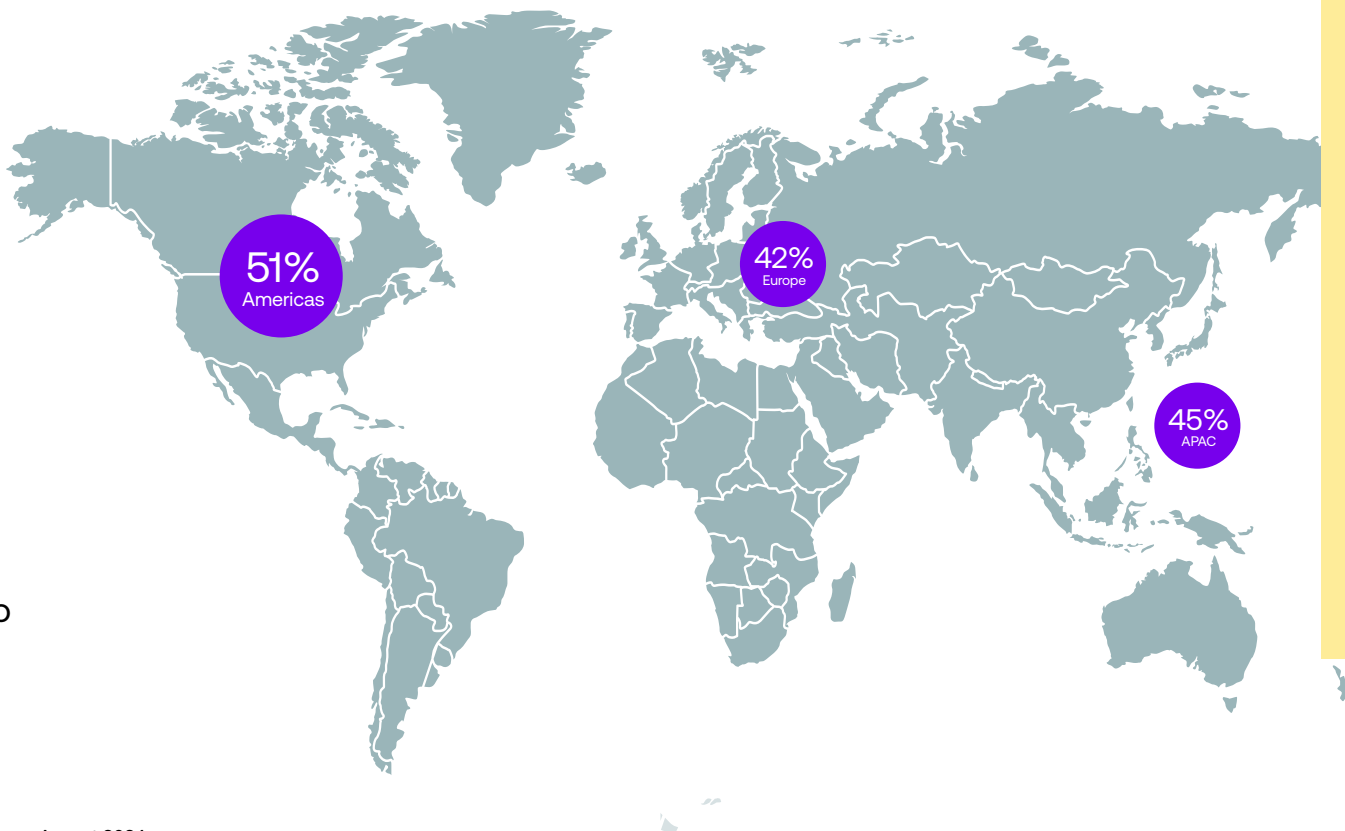


Figure 6: Digital Realty, *Global Data Insights Survey*, August 2024

Global spotlight: Americas, and the U.S., leads AI deployment

At 51% the Americas is the global leader in AI deployment and monetization, compared to 45% in APAC and 42% in Europe.

In the Americas, the U.S. leads with 57% of companies having deployed and monetized their AI model, followed by Canada (55%), Mexico (49%), and Brazil (33%).



Country spotlight: AI use cases vary across the Americas

- 51%** The **U.S.** leverages Unified Data Analytics and AI programs
- 52%** **Canada** foresees risks in their organization or industry
- 55%** **Brazil** leverages AI to automate human intensive tasks
- 44%** **Mexico** plans to use AI in the future, but are not currently doing so

Figure 7: Digital Realty, Global Data Insights Survey, August 2024

Developing and executing formal AI strategies isn't without bureaucratic challenges

While seven out of ten (69%) of those surveyed across the Americas are executing a formal AI strategy, 58% say that a critical challenge is lack of leadership knowledge or support.

Executing a formal AI strategy is critical to business differentiation in the Americas. But without a clear path forward, organizations may find themselves struggling to realize the vast benefits AI offers.

What challenges have you found in developing an AI Strategy?

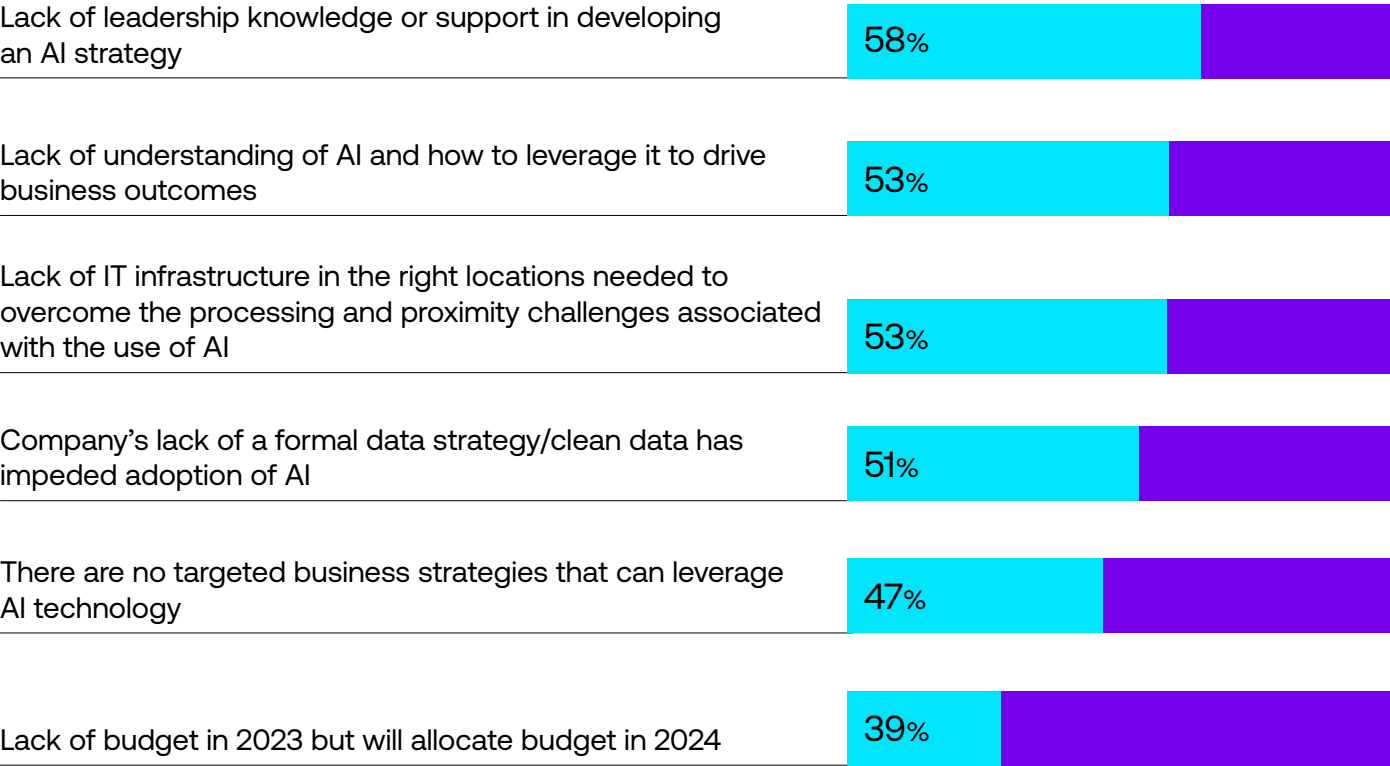


Figure 8: Digital Realty, *Global Data Insights Survey*, August 2024

Trend 2

Data is pervasive and growing

Challenges with Data Gravity and
legacy infrastructure can slow down
the boldest of ambitions

AI requires a unique data-ready environment

There are a few key components to building a successful AI strategy. But those actively executing AI strategies and deploying AI models that generate revenue say there are two critical requirements (tied at 55%) that contribute to their success:

- Ensuring that their **infrastructure can handle the power and energy demands** to store, process, and host vast quantities of data
- Ensuring that performant **AI workloads are located near data and users**

However, the biggest obstacle IT leaders in the Americas face when drawing insights from their data is **lack of sufficient investment in data systems, infrastructure, and analytics tools**, experienced by over half (53%) of respondents.

What are the top three obstacles your organization faces when drawing insights from data?

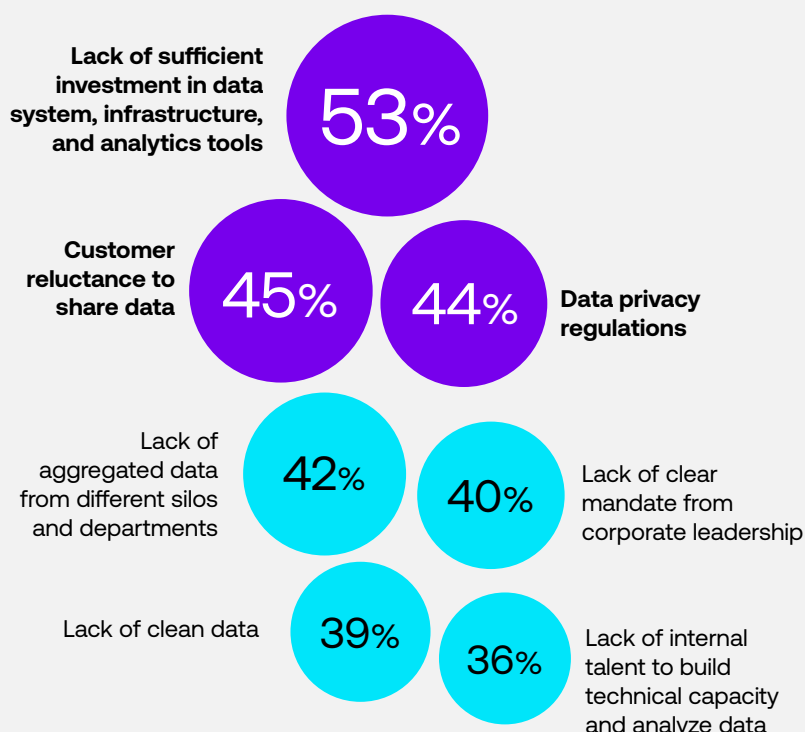


Figure 9: Digital Realty, *Global Data Insights Survey*, August 2024

Country spotlight: varied obstacles across the Americas

58% Both the **US** (58%) and

56% **Canada** (56%) say their biggest obstacle is a lack of sufficient investment in data systems, infrastructure, and analytics tools

51% **Brazil** sees their biggest obstacle being a lack of clear mandate from corporate leadership

49% **Mexico** sees their biggest obstacle being a lack of aggregated data from different silos and departments

Lack of storage a top obstacle when implementing AI

While many in the Americas are implementing AI strategies, the biggest infrastructure challenge they’re facing **is a lack of data storage required to house the massive data sets AI requires**, experienced by 63% of respondents. America’s IT leaders are feeling the pain point of Data Gravity as legacy IT infrastructure isn’t up for the challenge of AI intensive workloads.

Industry spotlight: barriers to AI adoption

While the biggest challenge for the Americas is a lack of data storage required for AI, only one industry ranks this challenge as their biggest: the **financial services** industry (72%).

Manufacturing (66%), **retail** (65%), and **logistics** (60%) all rank a lack of a reliable interconnection solution as their number one obstacle.

What are the main infrastructure or business challenges your organization is facing when adopting a formal AI strategy?

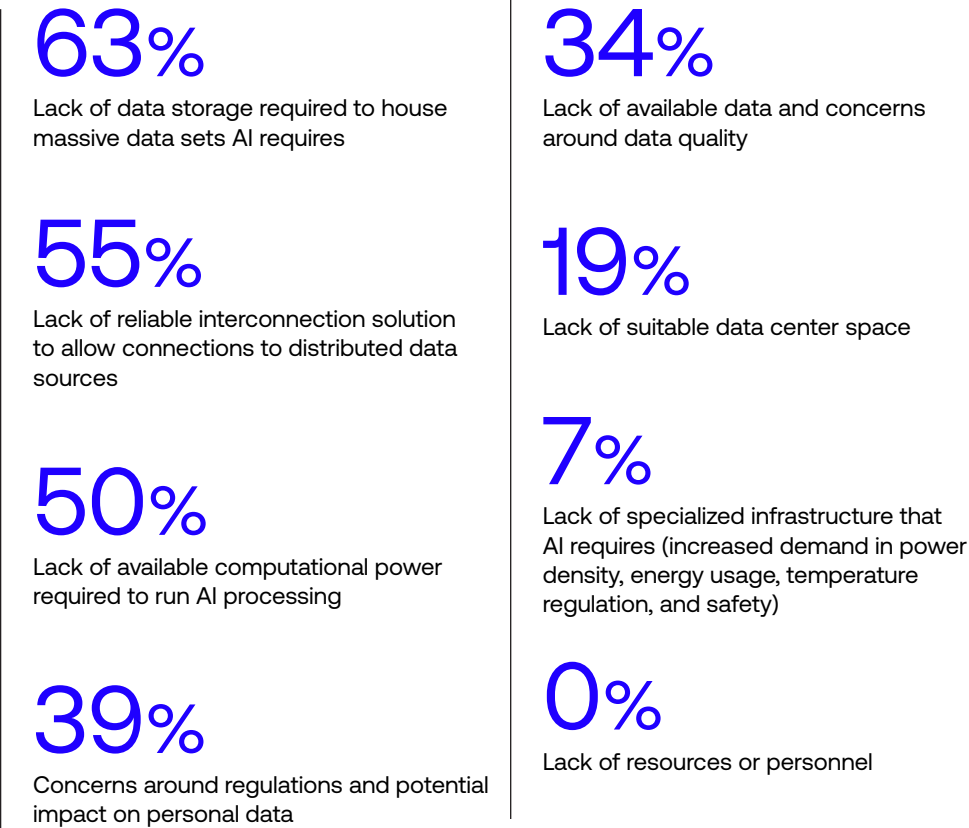


Figure 10: Digital Realty, *Global Data Insights Survey*, August 2024

Trend 3

Data localization matters more than ever

As companies from the Americas expand globally, where they place their data matters — for compliance, and to capitalize on AI's value

Realizing the value of distributed data

To combat the challenges of Data Gravity, taking a distributed approach will properly allocate high-latency storage and processing capacity to accommodate AI workloads. Three out of four (78%) companies in the Americas are currently following a distributed data approach — keeping pace with companies globally.

Individual countries, with the U.S. taking charge, realize the value of a distributed data strategy:

86% U.S.

76% Mexico

72% Canada

68% Brazil

62% of companies in the Americas employ IT infrastructures that include server and/or data centers across one to ten locations — which is comparable to 60% of global respondents — and they're planning on expanding.



In addition to their current locations, 60% of IT leaders in the Americas plan to expand to one to five additional locations in the next two years — which is comparable to 57% of global respondents. Additionally, 22% are planning expansion to six or more locations.

Industry spotlight:
retail leads in expanding IT footprint

IT leaders across industries plan to expand by one to five locations in the next two years. Here's how the industries stack up, with retail in the lead.

- 74%** retail
- 60%** financial services
- 50%** manufacturing

At how many additional points of presence will your organization most likely deploy IT infrastructure in the next two years?

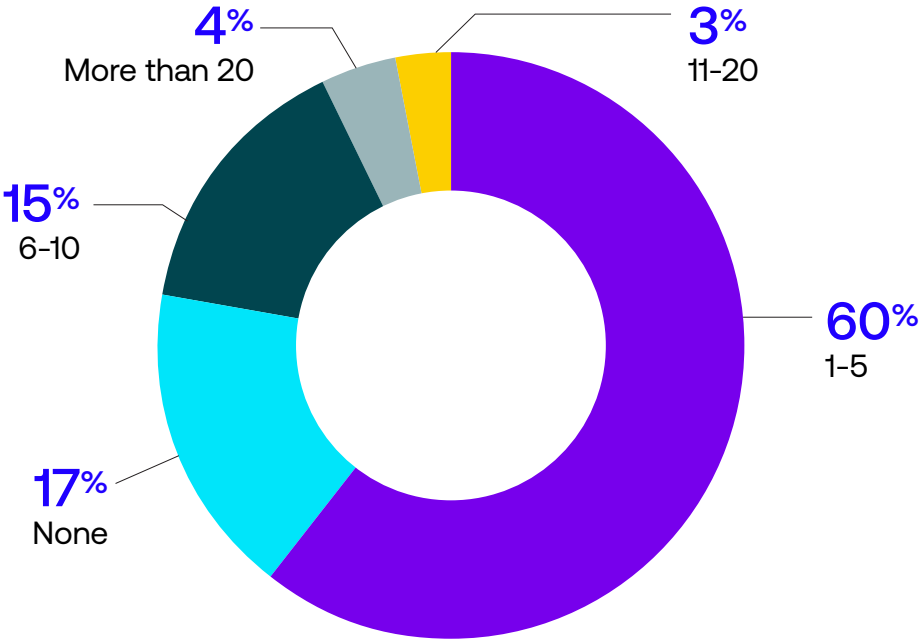


Figure 11: Digital Realty, *Global Data Insights Survey*, August 2024

A distributed approach allows data to be processed at the edge — and mitigates the effects of Data Gravity

Those who are taking a distributed approach to data do so because it allows data to live closest to those who need it most, say 46% of respondents in the Americas, a slight edge over 43% worldwide.

Moving data closer to those who need it can reduce Data Gravity and improve overall data efficiency — especially with new AI initiatives.

What are the top 3 reasons your company follows a distributed approach?

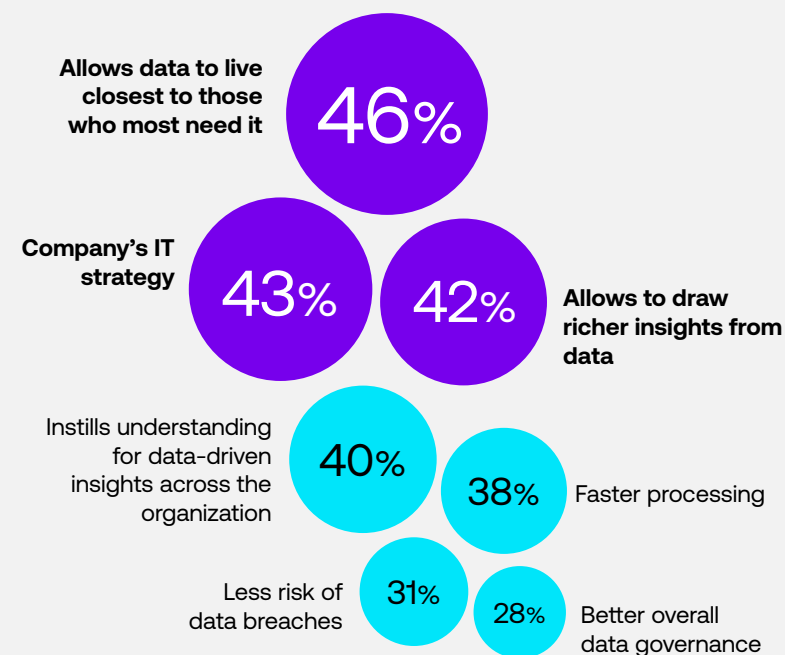


Figure 12: Digital Realty, *Global Data Insights Survey*, August 2024

End-user privacy is a top benefit for data location strategies

When expanding IT footprints globally, companies in the Americas need to comply with local data regulations. The top requirement cited for expansion is to **maintain local copies of customer or transaction data (39%)**.

As IT leaders adopt a distributed approach, they need to ensure data consistency and integrity, especially as they evolve their AI initiatives.

74% of companies in the Americas are **tying a data location strategy to their AI strategic plans**. The outcome is compliance and in-country localization for end-user data privacy

Companies in the Americas are supporting AI initiatives by **deploying AI projects across many, or 26% to 50%, of their locations and/or colocations globally (35%)**.

However, there's still room for expansion, as only 20% have deployed projects in less than a quarter of their locations.

What percentage of your company locations and/or colocation sites globally does your organization currently deploy AI projects (training and/or inference)?

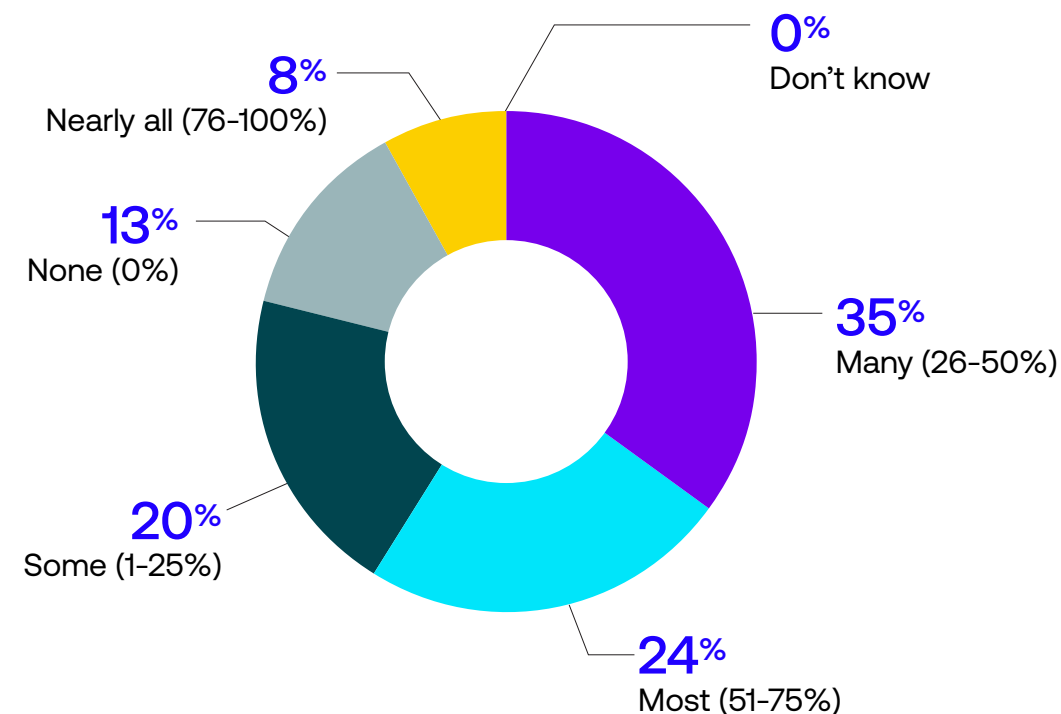


Figure 13: Digital Realty, *Global Data Insights Survey*, August 2024

Trend 4 **Data drives the business agenda**

Data-driven insights key to
improving customer experience
and satisfaction

IT leaders in the Americas are maximizing how they extract insights from data. Over the next two years, they expect those data-driven insights to **increase customer satisfaction and improve the customer experience (58%)**.

Driving customer satisfaction is a

higher priority in the Americas than it is globally, with only 51% ranking it in the top.

Echoing these findings, Americas IT leaders expect the biggest value from executing their AI strategy to be insights that improve customer experiences (63%).

Which strategic outcome does your organization expect from data-driven insights in the next two years?

58%

Increase customer satisfaction and improve experience through insights

52%

Develop new products and services to increase revenue and profit growth

51%

Mitigate risks and cybersecurity breaches

50%

Improve data and infrastructure location strategy

45%

Optimize business processes and supply chain

45%

Prepare for emerging technologies like AI

Industry spotlight:
monetizing data-driven insights

Manufacturing (62%) and **financial services** leaders (64%) plan to use their data-driven insights to increase customer satisfaction and improve the customer experience.

However, **retail** leaders (64%) will use their insights to develop new products and services.

Figure 14: Digital Realty, *Global Data Insights Survey*, August 2024

Drawing insights from data greatly impacts IT budgets

To realize data and AI success, IT leaders need to focus on how they’re supporting their data. This is why the largest segment (30%) believe that analyzing and drawing insights from their data will have the biggest impact on their IT infrastructure budget. The Americas region sees this having a greater impact than its peers in APAC (25%) and EMEA (20%).

Country spotlight: budget impacts

The **U.S.** (37%), **Brazil** (30%), and **Mexico** (26%) expect their budgets to be impacted most by analyzing and drawing insights from their data.

Canada (29%) cites budget is impacted most by collecting data, which aligns more closely with EMEA and APAC. This suggests that regulations, like GDPR, have a greater impact on budgets around the world.

Which of the following do you expect to have the biggest impact on your IT infrastructure budget in the next two years?

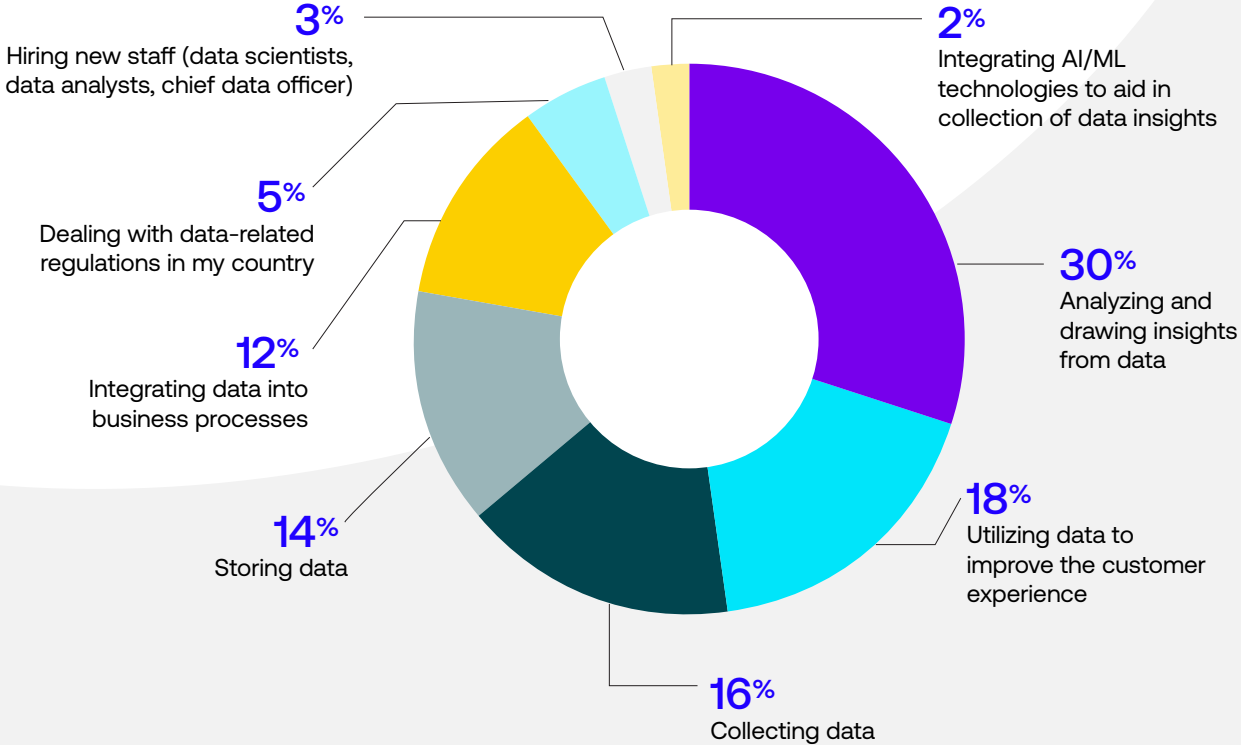


Figure 15: Digital Realty, Global Data Insights Survey, August 2024

Data center providers are key to tailored infrastructure deployments

To realize strategic outcomes and to support their data strategy, IT leaders in the Americas say the top requirement data center providers need to fulfill is to **support their tailored infrastructure deployments, matched to business needs** (46%). A one-size-fits-all data center solution isn't enough — they need a partner who can provide custom support to meet their data strategy goals.

Choose the top 3 requirements your data center providers need to fulfill to support your data strategy.		
1.	Provide support for tailored infrastructure deployments, matched to business needs in terms of scale or connectivity	46%
2.	Enable secure data exchange between users, networks, clouds and IT providers on a single data center platform	45%
3.	Provide global coverage, capacity, and direct connectivity needs across major metros on a single data center platform	43%
4.	Operate deployments as one seamless, secure global data center infrastructure	36%
5.	Interconnect and host data analytics, staging, and storage next to network hubs and ingress/control points on a single data center platform	34%
6.	Enable dynamic discovery, secure multi-cloud access and interconnection	34%
7.	Provide a meeting place for companies to connect their business platforms and collaborate	31%
8.	Provide interconnected ecosystems to rapidly add networks, clouds, and partners	30%

Figure 16: Digital Realty, *Global Data Insights Survey*, August 2024



Foreword

Introduction

Trends

Next steps

The State of Data and AI in the Americas

Build digital infrastructure foundations

for data and AI success

Enabling platform growth and AI-ready architecture requires a new digital infrastructure foundation. A data and AI-ready IT framework should support these four strategic IT foundations:



Network

As network traffic shifts, companies must establish the right network foundation to connect data, users, and applications. This network foundation must:

- Consolidate and localize traffic
- Segment and tier traffic
- Interconnect networks, cloud, and service providers
- Deploy, interconnect, and host SDN edge



Security

Against the backdrop of heightened cybersecurity threats, enterprises must secure controls and infrastructure in a distributed manner to ensure seamless global security. Enterprises need to secure, control, and protect infrastructure in order to:

- Implement ingress/egress control points
- Host IT and security stacks at ingress/egress points
- Securely, direct connect SaaS security/data services
- Enhance security posture to reduce vulnerability points



Compute

Given that most data remains outside of public cloud, enterprises require distributed and secure hybrid infrastructure that enables them to transact, process, and enable data and AI-driven insights. This distributed infrastructure should be designed to:

- Host analytics adjacent to network and data aggregation points
- Accelerate compute-intensive workloads with GPU/DPU
- Enable microservices with virtualization and containers
- Scale processing with clustering and high-performance interconnects



Data

Siloed data and distributed data workflows are nonperformant on legacy hardware. Data infrastructure that localizes data aggregation, staging, analytics, streaming, and management at critical global points of business is necessary for optimal AI-ready workflows. This infrastructure should:

- Host data adjacent to network and analytics aggregation points
- Optimize data exchange between users, things, networks, and clouds
- Enable real-time intelligence across distributed workflows locally and globally
- Create secure B2B data exchange to unlock new business opportunities

To be data and AI-ready means first solving your Hybrid IT journey. This means placing your digital infrastructure foundations and connecting them in a distributed, data-centric manner.

The PDx® Hybrid IT Journey

With our patented Pervasive Datacenter Architecture (PDx®) Solution methodology and library, you can now colocate and interconnect digital infrastructure foundations locally to enable centers of Data exchange.

- The PDx® solution Library includes pre-validated use cases supporting the Hybrid IT journey. These use cases represent problems that enterprises need to solve on their Hybrid IT journeys.
- The PDx® Solution Library is organized around the implementation of four Hybrid IT initiatives: Work, Cloud, Data, and AI.

Spotlighting PDx® use cases

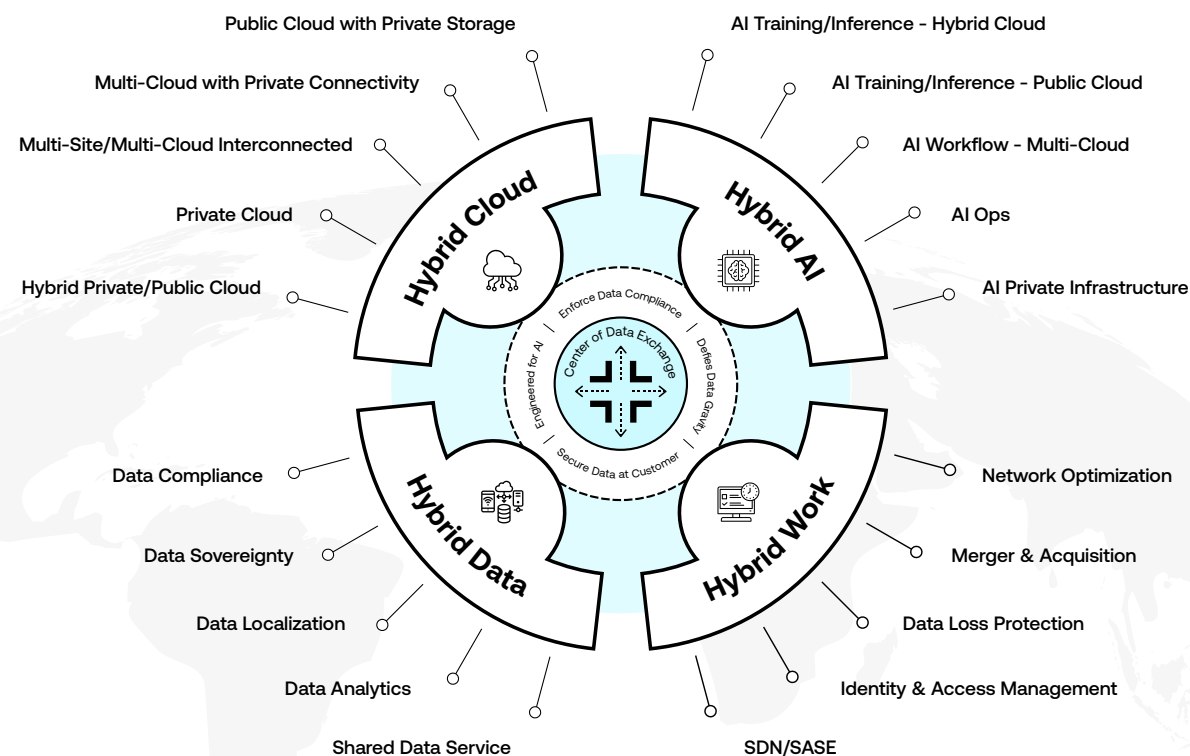


Figure 17: Digital Realty, Pervasive Datacenter Architecture®

Begin your data and AI-ready strategy

At your desk tomorrow

- Understand core business objectives
- Get your data house in order
- Future-proof IT architecture
- Pick the right partner

Get started with Digital Realty today

1. Request a strategy briefing
2. Engage in a solution workshop
3. Co-produce a validated design
4. Co-develop an implementation plan

Learn more

Discover how our AI-ready architecture can help you unlock data insights to propel innovation.
sales@digitalrealty.com

Looking for global insights? **Download Global Data Insights Survey: Empowering the Data and AI-Ready Enterprise** to discover how IT leaders across the globe leverage data and AI to fulfill their enterprise strategies and gain competitive differentiation.



About Digital Realty

Digital Realty brings companies and data together by delivering the full spectrum of data center, colocation, and interconnection solutions. PlatformDIGITAL®, the company’s global data center platform, provides customers with a secure data meeting place and a proven Pervasive Datacenter Architecture (PDx®) solution methodology for powering innovation and efficiently managing Data Gravity challenges. Digital Realty gives its customers access to the connected data communities that matter to them with a global data center footprint of 300+ facilities in 50+ metros across 25+ countries on six continents.

To learn more about Digital Realty, please visit **digitalrealty.com** or follow us on **LinkedIn** and **X**.

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