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How Data Is Becoming the Critical Business Agenda »

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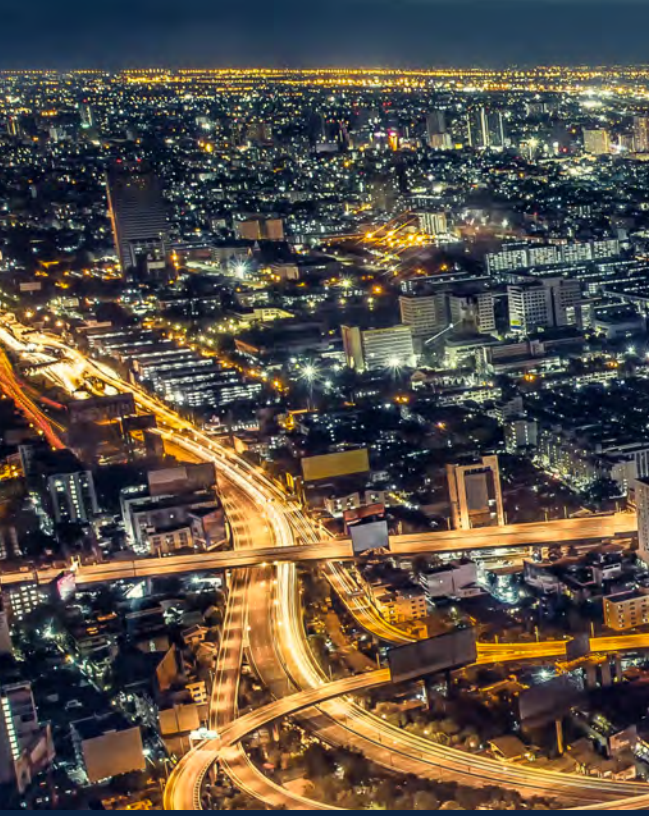


Digital Realty's annual Global Data Insights Survey was collected by a third party and conducted from May through June 2021. The survey garnered responses from 7,295 C-level executives as well as business and technology leaders, representing large multi-national companies across 23 countries and nine industries, with revenues ranging from $100 million to more than $1 billion.

According to McKinsey & Company, human-and- machine interactions and intelligent workflows will define the corporate world as much as the ubiquitous balance sheet — and prove just as indispensable — by 2025.[1]

Today, data is exploding. Digital Realty's Global Data Insights Survey points to five key imperatives for global enterprises:

1. **Data Is Pervasive.**
2. **Data is Becoming the Business Agenda.**
3. **Data Requires Aggregation and Control.**
4. **Data Is Localizing.**
5. **Data-First Strategies Win.**

It all points to data — data is becoming *the* critical agenda topic for all businesses, not just those with digital products, but every single business across the world.

It's happening in part because of the convergence of the physical and digital worlds. Even products traditionally lacking a digital component increasingly depend on data for sales, supply chains, service- related offerings, and more. "There's a physical/digital convergence starting to happen," explains Tony Bishop, Senior Vice President, Enterprise, Platform & Solutions at Digital Realty.

The result of this new reality: To remain competitive, business leaders must rethink data strategies at the global level, regionally, and locally as well as how those strategies relate to their industry and how they create value for their customers. To get there, leading firms must consider a factor called Data Gravity.

[1] Mckinsey & Company, The data-driven enterprise of 2025, January 2022.

An understanding of Data Gravity — that is, the tendency of data to attract more data at a given location — enables organizations to select the best geographies for storing and processing data and connecting to partners and customers. Getting this right will enable enterprises to:

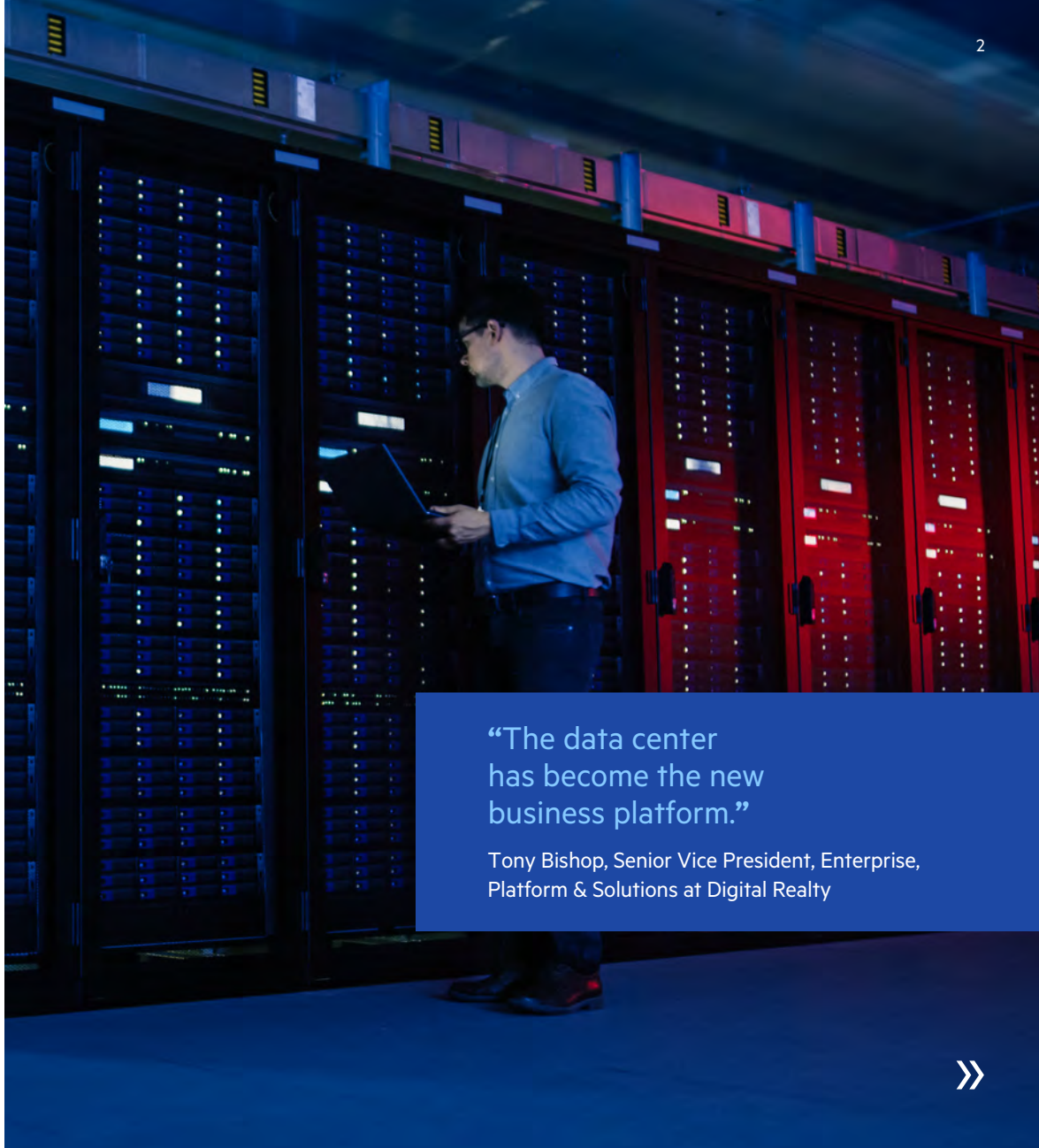
Integrate data, security, and controls in ideally located multitenant data centers

Unlock new intelligent workflows at centers of data exchange between employees, customers, partners, and ecosystems

Foster robust connected data communities to advance their business agendas

It all comes down to putting data at the heart of the business. “The data center has become the new business platform,” Bishop says. “What does that mean? It means the data center is the meeting place for people, process, and technology to come together.”

This e-book explores how global enterprises and service providers can apply data-first strategies to serve customers better and unlock trapped value in a data-first world.



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1 Data Is Pervasive

Data creation is multiplying at all points of business presence. In fact, it will hit 1.5 gigabytes per second for the typical enterprise by 2024, according to the "IDC Worldwide Global DataSphere Forecast, 2021–2025."[2]

Much of the new data comes from the convergence of physical and digital processes. A marker of this increasingly hybrid IT landscape is which assets organizations strive to keep secure. By 2023, 70% of security products will integrate three distinct systems — IT, OT, and IoT — according to Gartner.[3] The implication is that the hybrid business and corresponding hybrid IT models that combine physical and digital assets are accelerating enterprise data creation and aggregation needs.

Businesses are implementing hybrid IT models to address data performance, cost, and security concerns. At the same time, data sovereignty and other regulations exacerbate the requirements for data localization.

Moreover, according to Digital Realty's Global Data Insights Survey, almost half (47%) of global enterprises keep their data decentralized. In other words, for these organizations, data sprawl is happening at the edge and away from the traditional data center. It's another sign of hybrid IT environments.

The senior business leaders surveyed cited three top drivers for decentralization:

1. **Demand for faster processing**
2. **Requirement to get data closer to users and devices**
3. **Company IT strategy**

On the other hand, 52% of enterprises take the opposite approach for managing data: They keep data centralized. Their top three drivers include:

1. **Reduced budgets for processing**
2. **Company IT strategy**
3. **Demand for faster processing**

According to Dave McCrory, Global Head of Insights and Analytics at Digital Realty, both groups will need a deeper understanding of data to meet the business goals. "There's an evolution of using data within the business to make decisions," he says. "Not only accounting or payroll decisions but also much more sophisticated decisions such as 'Should a business expand or add new product lines?'"

The required sophistication starts with IT infrastructure, he continues. But it also includes the ability to perform analytics on an organization's unique data sets to reach insights as quickly as possible. This enables business leaders to react to real-world events as they happen. With that in mind, "Data is becoming the lifeblood of a business," McCrory says.

Digital Realty's survey shows that 75% of companies with more than $1 billion in revenue have a formal data strategy in place. McCrory says it's not about *if* there's a data strategy in place — it's about *when and at what maturity level*. Those that don't take action to release trapped data and insights run the risk of incurring unforecast costs and falling behind. But those that do stand to gain valuable business insights to enable faster decision-making and many other benefits on the road to digital transformation.

Accessing the opportunities that data presents depends on understanding the impact of Data Gravity, says Bishop. That's because the effects of Data Gravity impact the proximity, security, and connectivity of platforms and devices that need to communicate.

By 2023, 70% of security products will integrate three distinct systems — IT, OT, and IoT — according to Gartner.

[2] International Data Corporation, Worldwide Global DataSphere Forecast, 2021–2025, March 2021.
[3] Digital Realty, Data gravity Index 1.5, December 2020.

2 Data Is Becoming the Business Agenda

Strategy and value outcomes rely on data-driven insights to attract and retain customers, drive business growth, and develop new digital solutions, among other things. This is critical for business leaders as they work to understand territory traditionally left to data specialists.

"Because all industries are becoming information industries, businesses must redesign themselves," Bishop says. "They have to architect around data they can turn into intelligence, which translates into new opportunity and outcomes." He says many of those opportunities can come from connected infrastructure, including smart buildings and supply chains — all of which can leverage data and analytics capabilities to turn data into intelligence.

According to Digital Realty's survey, the top three value drivers for data-driven insights are:

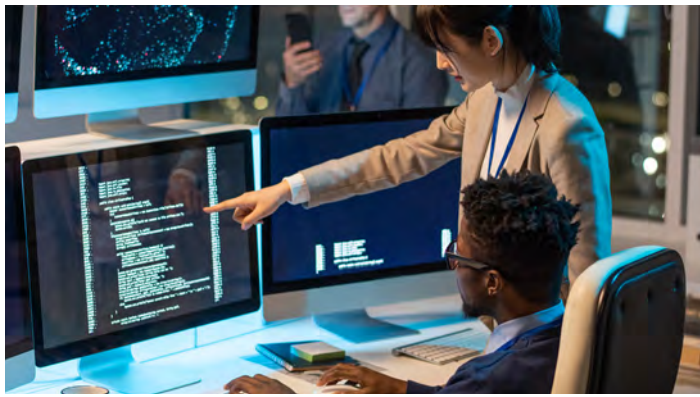
1. **Improving the customer experience (CX)**
2. **Implementing data location strategies**
3. **Providing new digital products or services**

It should come as no surprise that CX is at the top of the list, since the very essence of business is serving customers. The good news is that 80% of CEOs expect to increase investments in digital technologies,[4] according to Gartner, and 70% are betting on digital data products to grow.[5] According to the Digital Realty research, IT departments will allocate additional funds to address:

- **Analyzing data**
- **Using data to improve CX**
- **Expanding IT investment at new business points of presence**

However, budgets will increase only slightly, according to the survey. And these modest increases may not be sufficient to address the growing demand to meet data, analytics, location, and CX needs. That's partly because CX improvements must include geographic expansion that places hybrid IT infrastructure closest to the customers, McCrory explains.

Simply, the closer to the customer data gets processed, the more quickly the customer gets served. For example: Data-driven predictions of infection risks during surgeries; demand forecasts for supply chain opertations; and real-time customer microsegmentation are just a few of the use cases that can benefit from faster access to data and analytics. "Maybe you're saving a small amount of money by having the processing located somewhere else," McCrory says. "But what you're missing out on is the ability to process that data more quickly and get those answers across the network faster to provide a better customer experience."



[4] The Gartner CEO Survey: The CFO Perspective, June 2021.
[5] Gartner, *Driving Value & Innovation with Data & Analytics.*

3 Data Requires Aggregation and Control

There are many obstacles to developing data-driven insights, according to the Digital Realty survey. The top five obstacles are:

#1 **Lack of sufficient investment in data systems and/or infrastructure**

#2 **Lack of sufficient investment in relevant analytics tools**

#3 **Data privacy regulations**

#4 **Reluctance on the part of customers or clients to share data**

#5 **Lack of clean data**

The top three obstacles for achieving data-driven insights among companies with more than $1 billion in revenue are:

1. **Data privacy and regulation**
2. **Customers' reluctance to share data**
3. **Lack of investment in data and systems**

According to the Digital Realty study, executives across the board rated their company's ability to support connectivity, integration, and performance highly. For example, they score an average of 4.23 out of 5* in their ability to create, store, and process increasing amounts of data. The study found that most current company locations support three critical functions:

1. **Connectivity to networks, clouds, and IT providers**
2. **Integration for users, devices, and endpoints**
3. **Performance needed to process data**

However, executives rated themselves worse in the area of secure data exchange. For example, they average 3.93 (out of 5) in their ability to share data with partner ecosystems. That's a problem, because secure connectivity outside the enterprise is essential to meet the challenges of today's increasingly hybrid IT infrastructures.

With users and data growing exponentially, integrating the data to garner insights requires a secure ecosystem of providers and business partners, Bishop explains. "If you organize business around how data is created, aggregated, enriched, and exchanged, then you're able to see how this new physical and digital world comes together," he says. The result is a competitive advantage over companies that don't master this approach.

Businesses are getting the message. By 2024 over 70% of organizations will have deployed multiple data hubs to drive mission-critical data analytics, sharing, and governance, according to Gartner.[6] These hubs are critical for serving customers and connecting with partners as efficiently as possible.

> 70% of organizations will have deployed multiple data hubs to drive mission-critical data analytics, sharing, and governance.

[6] Gartner, Our Top Data and Analytics Predicts for 2021, January 2021.
* 5 = Excellent, 1 = Poor

4 Data Is Localizing

Enterprise workflows typically use 400+ data sources exchanged across 27 cloud products.[7] And as more and more locations, users, and devices create more and more data and exchange it with other devices and locations, Data Gravity emerges as a critical megatrend.

"The way we define *Data Gravity*? The idea that as you accumulate data, you attract more data," explains McCrory, who coined the term. "You also attract services and applications to consume that data."

90% of IT leaders say their organizations will maintain local copies of customer and transaction data for compliance in 2022, according to 451 Research.

Business growth and the need for compliance with regulations accelerate data localization, further increasing Data Gravity. Reflecting this reality, almost 90% of IT leaders say their organizations will maintain local copies of customer and transaction data for compliance in 2022, according to 451 Research.[8]

Data gravity can create bottlenecks that impede the efficient exchange of data and must be addressed in the design of any business strategy to drive successful outcomes. But it can also create opportunities in the presence of robust and data-centric IT architecture capable of handling the traffic, processing requirements, and connectivity needed to realize them.

"The growth in data, the growth in digitized processes drive the need for proximity — to have infrastructure close to where you do business," Bishop says. "It doesn't need to be based in the same building, but it needs to be within proximity. You also need to have a neutral meeting place where you can connect everyone and your data."

What Is Data Gravity?

It's common knowledge that data growth is accelerating rapidly.

As you accumulate data, you attract more data. You also attract services and applications to consume that data, and data interacts with more and more applications.

This has a constant, compounding effect until the gravity is too strong.

This is data gravity.

- Data gravity creates physics barriers that impede the efficient exchange of data.
- Data gravity slows you down, opens you up to security concerns, and contributes to poor customer experiences.
- With all that force, it's no surprise that there's less flexibility to respond to shifting markets and user behaviors.

[7] IDG and Matillion, Optimizing Business Analytics by Transforming Data in the Cloud, Oct. 2019., Intricately, The 2020 Intricately State Of Cloud Hosting Report, 2020.
[8] Infrastructure Imperative – IT Leader Survey," 451 Research, November 2019

5 Data-First Strategies Win

It's clear that companies can outpace their competitors when they reshape themselves to make data a central part of their business, not simply a cost center. They win customers, market share, and new opportunities to reimagine products and services.

But some leaders struggle to connect the dots from the data flowing through their systems from customers and partners with their business strategies. McCrory recommends getting started by examining Data Gravity.

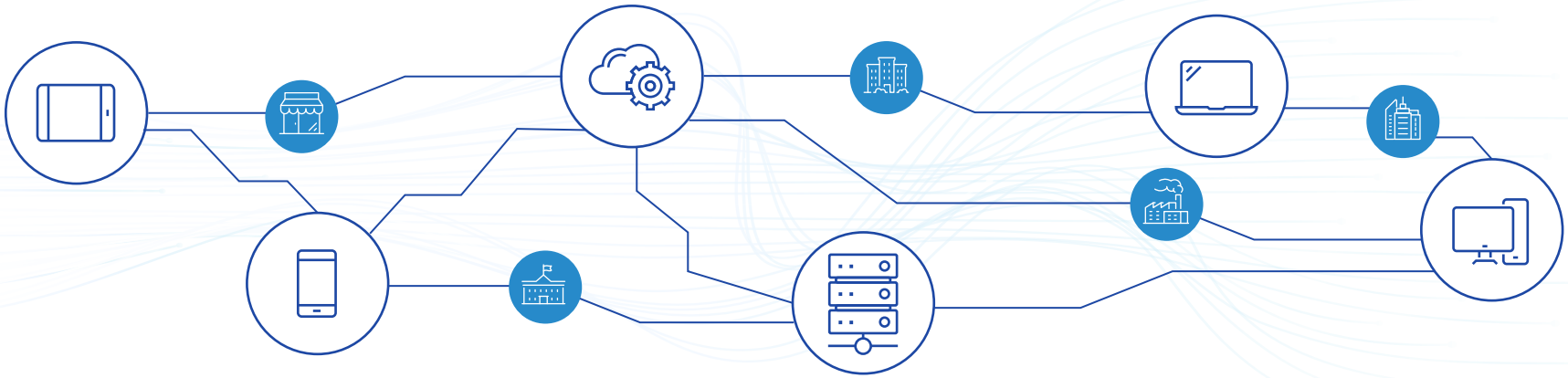
"Understand the concept of Data Gravity," he advises. To do that, business leaders can turn to Digital Realty's Data Gravity Index™, which provides a valuable tool that enables companies to benchmark their data strategies against those of their peers.

From there, McCrory says, get clear on what's happening with the data in your own business. For example, start with simple questions about a database: Who's in charge of it? What data goes into it, and where does it originate? What data is flowing out of it and to where? "It's not that complicated," McCrory says. "But understanding those data flows is a great beginning."

With such information, company leaders can determine whether they're processing data far from customers and slowing interactions. "It might be optimal costwise," McCrory says of such a situation. "But it may not be optimal for customer experience or the business."

McCrory points out that although data-first companies such as those in financial services have long known the value of such analysis, even companies in far-removed industries must undertake data-first business strategies. "And all of them are going to be pushed into it," he says. "It's just a matter of when."

In the end, where global businesses place and connect their data matters.



Unlocking Trapped Value

Given the reality of all industries' becoming information industries, an ever-expanding hybrid IT landscape, and connected partner and customer ecosystems, enterprises and service providers must now redesign their business strategies around data.

According to the Digital Realty survey, 75% of global companies overall have these strategies, indicating that a strong majority understand the benefits of adopting a data-first business practice.

The top three strategic areas for companies overall include:

1. **Using data to inform strategy**
2. **Having the capacity to create, store, and process growing amounts of data**
3. **Sharing data within the company**

As the study results show, it's not enough to just have a strategy to move and store data. Businesses also need strategies for analyzing data to act on it and for determining what actions to take. Simply put, digital leaders must treat data as a strategic lever and actively pursue ways to apply data-first strategies to serve customers better and unlock trapped value in a data-first world.

According to the Digital Realty survey, unlocking data's value must include:

Improving data infrastructure

Upskilling data capabilities

Investing in artificial intelligence/machine learning (AI/ML) technology

Companies with more than $1 billion in revenue also cited educating the C-suite on the importance of data as a top consideration. In other words, people are just as important as technology for global enterprises undergoing digital transformation.

A successful strategy includes creating data meeting places to support hybrid business models, according to McCrory. In addition, leading firms will integrate data, security, and controls in multitenant data centers to support critical localization needs. Those that don't will risk getting left behind.

These multitenant data centers can help foster intelligent workflows and data exchange centers between employees, customers, partners, and ecosystems. Critical attributes include:

Meeting global coverage, capacity, and direct connectivity needs

Enabling secure data exchange

Providing a meeting place where companies can connect

At the end of the day, says McCrory, there's no perfect solution for all scenarios. "There's no guidebook for all companies to go through a digital transformation and leverage data for business decisions, product decisions, and customer outcomes, because each business is different," he notes.

But understanding the concept of Data Gravity and following the Data Gravity Index™ to understand what others are doing are key to long-term success in unlocking the value of data.

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www.digitalrealty.com/platform-digital/data-gravity-index

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About the Survey

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DIGITAL REALTY®

About Digital Realty

Digital Realty supports the world's leading enterprises and service providers by delivering a full spectrum of data center, colocation, and interconnection solutions.

PlatformDIGITAL®, the company's global data center platform, provides customers a trusted foundation and proven Pervasive Datacenter Architecture (PDx™) solution methodology for scaling digital business and efficiently managing data gravity challenges.

Digital Realty's global data center footprint gives customers access to the connected communities that matter to them with more than 285 facilities in 50 metros across 26 countries on six continents. For more information, please visit **digitalrealty.com** or follow us on **LinkedIn** and **Twitter**.