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EBOOK

Data strategy guide for Digital Businesses

How to overcome common data pitfalls that hinder growth and agile innovation

Table of contents

Fast-growing Digital Native Businesses face challenges extracting value from data

Digital Businesses understand the value of data. They often disrupt established markets, as they are adept at identifying unmet needs and continually raise the bar on customer experience. By reimagining products as value-added digital services and transforming customer experiences, they have reset customer expectations and redefined markets with great success.

These born-in-the-cloud businesses collect vast amounts of data as their organizations grow and scale. As a result, they can struggle with quickly extracting the maximum value from their data to keep pace with today's fast-evolving digital landscape. As their data volumes grow exponentially, organizations may feel overwhelmed with how to manage and connect their data.

Data may also be siloed, which can hinder the ability to make fast, informed decisions. The consequences can be significant; according to **Forrester Research**, organizations that have a system to promote data-driven

insights are 140 percent more likely to create sustainable competitive advantage and 78 percent more likely to fuel a revenue growth environment.[1]

Data is the cornerstone of digital transformation—fueling new insights and experiences that can move your organization forward. Data sits at the heart of business operations driving every application, process, business decision, unlocking new insights enabling a more personalized, value-driven customer experience. With a pressing need to empower their organization to use data to make better, faster decisions, leaders are embracing a fundamental truth: The journey to innovation begins with data, and successfully becoming a data-driven organization begins by implementing an end-to-end data strategy.

AWS provides the capabilities you need for an end-to-end data strategy that will serve you now and in the future. With built-in intelligence and automation embedded in all our data services, AWS makes the complexities of data management easier so you spend less time managing data and the underlying infrastructure and more time getting value from it.

1 "Creating a data-driven culture," CIO.com, March 31, 2022

This ebook will empower Digital Business leaders like you to:

Examine the organizational challenges that are hindering teams from unlocking the value of business data

Understand how developing an end-to-end data strategy can set your business up for short- and long-term success

Learn how your organization can adapt to breakdown and minimize data silos to fuel data-driven decisions

Learn how some successful Digital Businesses collaborate with AWS and partners to streamline processes and accelerate innovation

UNLOCKING THE VALUE OF DATA

Key challenges and considerations

Digital Businesses face a variety of challenges that can hinder their ability to rapidly and easily use their data to create new business value. In our work with Digital Businesses across industries, AWS has identified three of the most common challenges:

CHALLENGE 1

Current data strategies struggle to meet the changing needs of a growing business.

As a Digital Business grows and scales, it must adapt its planning and data management processes to support a bigger business. As growth compounds across marketing, product, operations, customer success, and other functions, not having an end-to-end data strategy can lead to more data silos, as well as hinder the efficient use of data within the business. Over time, this can impede effective collaboration, information flows, and even technology investment decisions. This in turn can lead to duplicate efforts and limited access to relevant, data-driven insights – conditions that ultimately slow the pace of innovation and time to market.

CHALLENGE 2

Agile development teams inadvertently create more data silos.

Agile development teams can accelerate software projects and deliver on business value by harnessing new technologies, tools, methodologies and data. However, without centralized data governance tools in place, they can inadvertently create more data silos – for example, if teams use different dashboards with different definitions of revenue (gross vs net). This makes it harder for employees to easily access and analyze data to solve problems or identify significant areas of opportunity.

CHALLENGE 3

Artificial intelligence is seen as a panacea as the business moves through different phases of scaling.

During the transition from startup to scale-up, rapid-growth companies face unique challenges when incorporating AI while rebuilding systems and processes. In the startup phase, flexibility and speed are paramount, often leading to ad hoc systems and decentralized data. At scale, they require more structured and scalable processes.

Best practices to realize the potential of your business data

Insights from AWS experts and customer-facing teams reveal what successful Digital Businesses are doing to unlock the true potential of their data. Companies that excel at quickly leveraging their data to generate business value demonstrate the following three best practices:

1 They think about their data assets with a product lens and implement an end-to-end data strategy

2 They are laser-focused on the specific competencies they want to build and outsource the rest

3 They reengineer business processes and level-up data-driven insights through artificial intelligence

To understand how to apply these insights to your business, let's explore the opportunity each best practice presents, as well as key considerations for adoption and how they help you generate relevant customer insights.

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1 Think about data assets with a product lens

Successful Digital Businesses think about their data assets as products by focusing on outcomes, metrics, and inputs over outputs. Their data strategy involves making near and long-term decisions that serve multiple stakeholders and foster impactful decision making. As you adopt this strategy, it's important to ensure that stakeholders can identify key business outcomes, define measurable success metrics, and focus on optimizing controllable inputs over outputs. The more specific the desired outcomes for the business, the better. For instance, "We need data to improve sales outcomes" is vague. In contrast, "We want to grow customer engagement with our outbound marketing content on social platforms by 20%" is actionable and measurable.

These data products are typically led by a data product manager. Alternatively, a product-minded data leader can consider the outputs of the data product, as well as the lifecycle of the data product, and recommend how to improve the product going forward.

To do so, they must consider the latest evolutions in data engineering and determine how to utilize the latest strategies and innovations. (For example, should they transform existing data, continuously integrate new data, or implement self-service access and analytics tools?)

Prioritization of projects is also critical to the delivery of business value from these data products – and in a timeframe that motivates teams. This requires clear and consistent communications between business and IT leaders as the business scales.

Don't have a data product manager? AWS can help.

If the scope of your data strategy warrants a full-time leader, consider adding a full-time data product manager role. If not, consult with a neutral third-party to work with your business stakeholders to help scope your data strategy and execution needs. This engagement should help enumerate and prioritize strategic business objectives requiring data and insights, data domains and data products, and establish key data strategy tenants.

AWS supports our digital native business customers with Data Strategy Workshops to help them think big, start small, and scale fast for a high priority use case. Attendees learn how to use Amazonian mechanisms to innovate with specificity and focus.

Learn more about AWS Data Strategy Workshops and AWS D2E data strategy now ›

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HOW SUCCESSFUL DIGITAL BUSINESSES PUT THEIR DATA TO WORK

To fully unlock the power of data, Digital Businesses need to build a data strategy that supports their data needs. By choosing a cloud provider that continuously innovates to bring you all the data tools you'll need with the right price performance for your use case, you will be able to build a data strategy that grows with you.

AWS can help your organization implement an end-to-end data strategy that makes data management easier at every step of the journey and is:

1. **Comprehensive:** Equipped with the right tools, with the optimal price performance for any user, type of data and use case.

2. **Integrated:** Able to integrate data that is stored and analyzed in different tools and systems to provide a better understanding of your business and enable you to predict what will happen.

3. **Governed:** Able to securely provide data access when and where your users need it to speed innovation

> **Given the massive demand for data products within organizations today, there's a tremendous upside for Digital Businesses to make significant data management improvements and accelerate the speed of data-driven insights.**

An end-to-end data strategy on AWS

Comprehensive

Integrated

Governed

Oportun leverages AWS services to increase the accuracy of sensitive data discovery by 95%

Oportun

Read the full story here ›

About Oportun

Oportun is a fintech lender and neobank with 1.9 million members. This mission-driven organization provides responsible, affordable financial services at scale to millions of people in the U.S. who are often poorly served by traditional financial services companies. At the core of its advanced credit decisioning engine is Oportun's ability to process and interpret large volumes of consumer data, including personally identifiable information (PII) from disparate sources. The security and integrity of PII is essential.

The challenge

Oportun needed a better way to quickly identify and remediate potential security risks to its members' personally identifiable information (PII). To realize its security goals – and satisfy regulatory mandates and member demands for privacy – Oportun needed a solution that would not burden its security team with false positives as it scanned data. It was also vital that Oportun's technical teams be able to articulate the financial impact of risk issues to a nontechnical audience across the enterprise.

Their approach

Over the past 8 years, Oportun has built several solutions on Amazon Web Services (AWS) and stored a considerable amount of data using **Amazon Simple Storage Service (Amazon S3)**, object storage built to retrieve any amount of data from anywhere. So, when the Oportun data security team started looking for a new data discovery offering for use with Amazon S3 buckets, it considered staying on AWS using **Amazon Macie**, which automates sensitive data discovery at scale. After initial testing indicated high speed and accuracy, Oportun implemented this solution.

The outcome

Oportun's data security teams noted that Amazon Macie implementation helped reduce data scanning time from days or weeks to hours, even hitting 30 minutes for smaller Amazon S3 buckets under 1 TB. Next, the company intends to utilize AWS capabilities to complement its current pipeline and add features, like observability and alerting, to improve risk monitoring and response. In addition to developing new tools, the team is planning optimizations to reduce its total cost of ownership.

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2 Focus on specific competencies, and outsource the rest

Successful Digital Businesses identify specific use cases that help differentiate their solution and continually raise the bar on customer experience. They work backwards from the stakeholder or end user, focusing on initiatives that can deliver near-term value while laying the groundwork for larger efforts to support the business and customer needs in a future state. By organizing and prioritizing deliverables both short and long term, you can better manage total cost of ownership and optimize return of investment.

Opportunities to transform your business with data exist all along the value chain. But making such a transformation requires you to see the full picture of your customer and business. With data spread across multiple departments, services, on-premises databases, and third-party applications, data needs to be integrated across silos to get the best insights. This involves:

- **Analyzing** existing solutions from a technology perspective; and identifying gaps and redundancies; and prioritizing new use cases across the data value chain and technology pillars.

- **Identifying** a future-state architecture and skills required to scale business outcomes and focusing on differentiated competencies

- **Automating and reducing** undifferentiated heavy lifting by leveraging AWS data services and complementary partner data solutions.

Need help developing an end-to-end data strategy? AWS partners can help.

Data solution vendors can play a key role in facilitating development of an end-to-end data and technology strategy optimized for your business. In most cases, it's better to conduct an unbiased third-party assessment and identify solutions that are well suited to each use case versus conducting such an assessment and developing a remediation plan internally for a neutral perspective.

To identify an AWS partner to support your business needs, visit awsmarketplace.com ›

Eventbrite simplifies infrastructure and reallocates resources using AWS services

eventbrite

Read the full story here ›

About Eventbrite

Eventbrite is a global self-service ticketing company that connects event organizers to people around the world through live experiences. The company makes it simple for users to showcase, promote, and purchase tickets for live events.

The challenge

Eventbrite had a customized stack that only a limited number of people knew inside and out. The company's aging database infrastructure was becoming an increased liability to the business, especially from an operational support perspective. Management wanted to improve reliability and sustainability by migrating to an industry-standard database.

75% fewer engineers needed to support the database

Their approach

Eventbrite pivoted its focus from new product development to technological and foundational improvements in the business, using Amazon Web Services (AWS). The company wanted to create a robust and scalable infrastructure. Eventbrite chose to implement **Amazon Aurora** because of its benefits as a managed database-as-a-service solution and its compatibility with existing AWS services. AWS network of partners, processes, and focus on Eventbrite's success were identified as exactly what the company needed to make this transition happen.

The results

By simplifying its infrastructure with AWS, Eventbrite reduced the number of engineers needed to support its database, freeing up these resources. In addition, transitioning to Aurora reduced the complexity of customization that Eventbrite had built up over the years. The resulting simplicity resulted in improved reliability and scalability. Finally, Eventbrite reallocated resources to application teams who are delivering new features and functionality for end users and proactively creating business value.

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3 Re-engineer business processes with Artificial Intelligence

Businesses are increasingly looking to extract value from smaller and more focused datasets. Thirty-six percent of businesses believe that focusing on a small set of key analytics or artificial intelligence (AI) projects can deliver the most value.[1]

Leveraging AI in this way is vital to maturing your business decision making from simply being "data-driven" to basing decisions on analytics powered by AI. This evolved approach enables the rapid learnings and decision making that business leaders need today.

When embedding AI, successful Digital Businesses focus on how to improve a key aspect of a process, rather than trying to overhaul their entire organization with AI all at once. Most find that by incrementally changing part of a domain – a core process, workflow, or function – they can improve performance more than if they deployed isolated, AI-powered analytics solutions. This focused approach to embedding AI also allows each AI initiative to reuse data wherever possible, as well as tangibly improve capabilities for a shared set of specific stakeholders.

Equally important, these focused, successful AI investments lay the foundation for ongoing innovation and adoption. Methodically building AI into key business processes can start an organic cycle of change and build momentum for AI deployment across your organization, as business leaders and employees start to appreciate its value and impact. This is vital because AI technology is advancing so rapidly; your Digital Business will need to view AI transformation as an ongoing initiative rather than a one-time effort. This will require helping your workforce adopt a mindset that embraces continuous innovation and improvement.

36%

Of businesses believe that focusing on a small set of key analytics or artificial intelligence (AI) projects can deliver the most value.[1]

HOW SUCCESSFUL DIGITAL BUSINESSES PUT THEIR DATA TO WORK

Success will also require overcoming barriers. Many Digital Businesses have already adopted a "data-driven" (rather than AI-driven) approach to decision making – and some have genuinely transformed how their organizations use data and analytics to serve their customers and improve operational decision making. But something is getting in the way of realizing a truly AI-informed business workflow. Often, this barrier is figuring out how their business needs to change – culturally, operationally, and technically – to embrace an AI-enabled future. Figuring this out involves:

- **Analyzing** a key workflow and identifying tasks punctuated by time-consuming, inefficient and manual sequences – and then explicitly calling out the reengineering roles and activities needed, including identifying automation needs, costs and cycle times and analyzing necessary skills and training.

- **Empowering** the right product managers to orchestrate the workflow – ideally, people who have the successful deployment of the system (and the needed business process changes) as their objective.

- **Building** modern data communities and collaborating with external partners – such as data providers, analytics vendors, or research institutions – to enhance the data capabilities of your business and simplify access to data sources at each workflow step. Ambiguity around data ownership, control, and usage rights often prevents companies from fostering strong data partnerships.

From data storage to analytics to machine learning and generative AI to end-user tools and solutions, AWS provides the right capabilities to address your AI use case so you don't have to compromise on performance, cost, or results.

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Jobcase scales ML workflows to support billions of daily predictions using Amazon Redshift ML

Jobcase

Read the full story here ›

About Jobcase

Jobcase is a community-supported work platform where more than 110 million registered members across the United States connect to help each other and find opportunities. While many job-search websites skew toward professional positions, Jobcase's search tools and social features focus on a broader spectrum of everyday roles, including hourly and service workers, tradespeople, and technicians. Identifying strong matches lets the company suggest quality jobs for members and helps employers hire qualified workers.

The challenge

Eventbrite had a customized stack that only one or two people really knew inside and out. The company's aging database infrastructure was becoming an increased liability to the business, especially from an operational support perspective. Management wanted to improve reliability and sustainability by migrating to an industry-standard database.

Their approach

To overcome these challenges, Jobcase migrated to **Amazon Redshift ML** so that it could perform its ML functions inside the data warehouse—no data movement required. The company began testing Amazon Redshift ML in December 2020 and deployed it to production in July 2021.

The results

Just four weeks after deploying the new models on Amazon Redshift ML, the company experienced up to five percent improvement in its engagement metrics for specific email and push notification channels. A five percent improvement in engagement metrics translates to an improved member experience and member retention and a corresponding increase in revenue. Jobcase can now perform model inference on billions of records in a matter of minutes instead of four to five hours.

5% **Improvement in engagement metrics just four weeks after deployment**
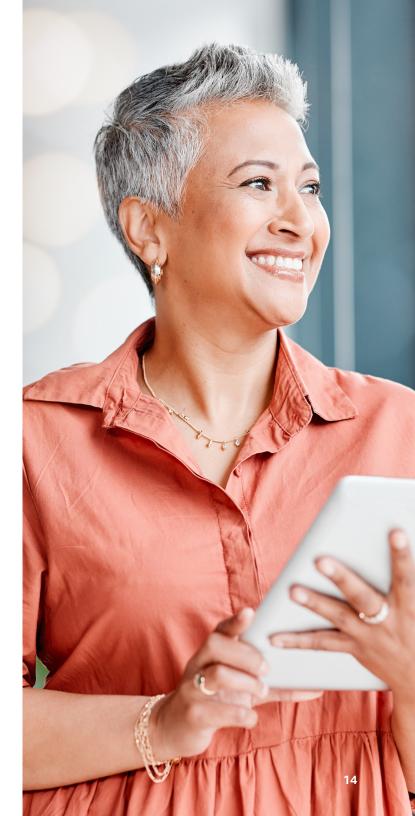
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AWS has the knowledge and expertise to be your technology partner

To demonstrate the transformative value of data in today's fast-paced digital landscape, innovate, and deliver exceptional customer experiences, Digital Businesses need to:

- **Clearly define business outcomes leveraging a product mindset**
- **Reduce the complexity of data silos**
- **Build a comprehensive, integrated, and governed data strategy**
- **Reengineer processes to add intelligence to decision making**

AWS provides knowledge, expertise, and relevant and proven technology to create end-to-end, modern data and machine learning platforms to enable your business to become both data and AI-driven. AWS solutions can help you collect and consolidate data, enable secure data access and data governance, apply advanced analytics, AI and ML for speed to value, and realize unprecedented business flexibility and agility, simplification and cost effectiveness.

If you prefer a "buy" approach to fulfill your data needs, you can also access data solutions vendors through the **AWS Marketplace**. By embracing these opportunities, your organization can elevate its data strategy, drive toward real business goals, and redefine markets with even greater success.

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When it comes to data, AWS-powered Digital Businesses know how to do it better.

Are you ready to learn more about why AWS is the best choice to help you unlock value from your data and turn real-time, data-driven insights into meaningful innovation? Want to explore how we can help you with infrastructure, tooling, and implementation support using the world's leading professional services and partner network?

Check out the new ebook, **10 stories of data-driven success**, to explore AWS Digital Business and software company use cases. You will learn how to transform your organizational data to improve customer experiences, improve decision making, future-proof applications and more.