

FEATURE

Reimagining digital transformation with industry clouds

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A REPORT FROM THE DELOITTE CENTER FOR INTEGRATED RESEARCH

Organizations can leverage industry clouds to enable strategic transformation and stay on the cutting edge.

COMPETITION IS AT the heart of transformation. It requires continuous innovation and new ways to grow profits. Digital transformation helps organizations innovate faster and better. And therein lies one of the greatest challenges: pursuing digital transformation means building a race car and entering a never-ending race. In this race with no pit stops, you're repairing, adjusting, and upgrading your car for a mid-track swap, because speed matters.¹

If this analogy makes digital transformation sound extremely challenging, that's because it is. Deloitte introduced a [digital transformation framework](#) organized around five imperatives: experience, insights, platforms, connectivity, and integrity. This five-pronged framework gives organizations a common language that can be used to facilitate enterprise collaboration in pursuit of true strategic transformation.² Industry clouds can help advance this strategy.³ These cloud-enabled business solutions are designed to help you standardize foundational components common to your competitors, so you can focus more on the capabilities that differentiate your business. They allow organizations to adapt to ever-changing conditions with nimbleness, scalability, stability, and optionality,⁴ including the option to cocreate industry clouds when you can't find the right solution for your organization.

As much as 64% of the US\$1 trillion cloud market could benefit from industry clouds—a US\$640 billion potential market.

Emergence of industry clouds

Industry clouds are fast gaining adoption as hyperscalers (like Google, Amazon Web Services, and Microsoft) and niche players embrace business-as-a-service models.⁵ The industry cloud market is maturing quickly across industries (figure 1). Based on our analysis, we estimate that as much as 64% of the US\$1 trillion cloud market⁶ could benefit from industry clouds—a US\$640 billion potential market.⁷

So, what are they, and why do they matter? Industry clouds are developed by cloud vendors, software providers, and system integrators. They're modular building blocks that speed up the development of industry-specific digital solutions. With industry cloud, you have a continuously evolving digital core, on top of which you can build differentiated capabilities. Industry clouds provide a blueprint for industry-specific transformations. They enable organizations to modernize and innovate one tech capability or business use case at a time. This allows for a more incremental, agile modernization approach as opposed to a multiyear, risky, and expensive wholesale replacement of existing systems.⁸ Change can focus on the user journeys that matter the most, like client experience, reducing anti-money-laundering checks, or more accurately tracking baggage through security. Additionally, organizations can leverage some of the latest technologies from industry clouds, including artificial intelligence (AI) and machine learning models, Internet of Things, 5G, cyber, blockchain, augmented and virtual reality, and others.

It means you enter the race with the best possible car and make modifications to prebuilt equipment with an expert crew, rather than building your car and team from scratch. Such solutions are emerging in every industry and are continuously evolving to address new sector challenges and incorporate the latest digital capabilities.

For example, in the high-tech electronics space, organizations use industry clouds to accelerate change to business processes like product strategy and innovation, connected enterprise business planning, manufacturing, and everything-as-a-service offerings. With an industry cloud, a high-tech electronics company might build a data-enabled product design powered by new technologies like AI and [digital twins](#). They could use these tools to predict, test, and define new features that improve product usability. This allows organizations to embrace bold strategies

and engineer incrementally with industry clouds. Separately, they can use constant customer feedback to build differentiated capabilities that can reduce risk and accelerate development with new, agile, and innovation-focused ways of working.

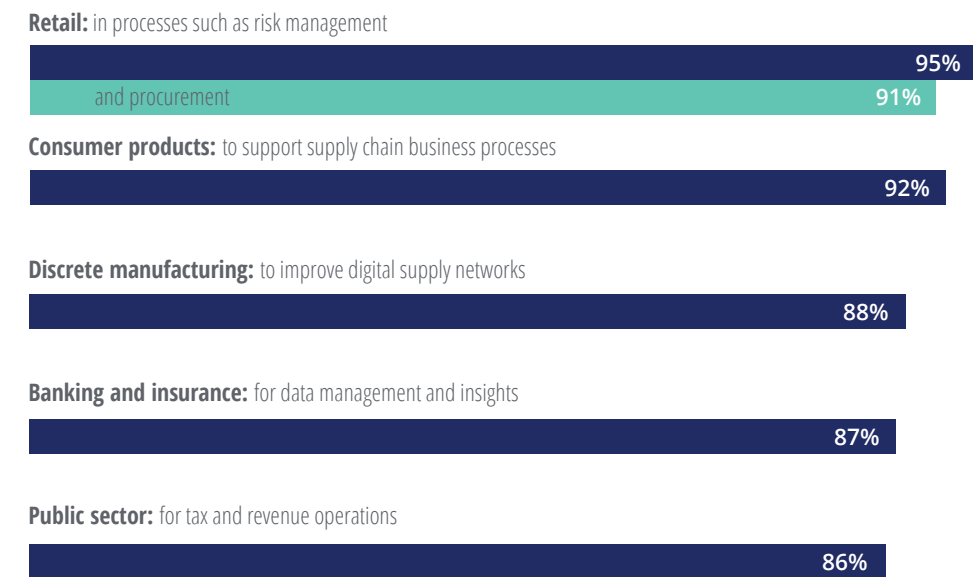
Define your strategy first

It may seem counterintuitive to use an industry cloud to drive your organization's ability to win. If everyone has access to the same solutions, how can you differentiate? Let's return to professional car racing. Every team has access to the same car parts, but you don't have to upgrade the entire car yourself. What puts one team in a winning position is selecting the components best suited to their needs, and then tuning and maintaining them. It's how the driver trains and how they use that

FIGURE 1

Five industries with high interest in adopting industry cloud solutions for end-to-end digital transformation priorities

Percentage of respondents by sector that expressed interest in industry cloud



Deloitte visualization of data based on: SAP News Center, "Emerging opportunities to deploy industry processes in the cloud," October 16, 2018.

technology to create proprietary insights and innovative solutions. In this case, industry cloud is a more powerful engine—one that you can upgrade while you're driving. The competitive edge comes from the tuning and application, where you may focus more on your engine versus tires. The race teams that are first movers and quick learners tend to tune their cars to gain advantage more quickly. And the leaders who've built and deployed a given digital capability on top of the industry cloud will likely get a further competitive edge. Organizations will need to navigate the tension between adopting accelerators and layering on unique competitive advantages.⁹

We can look at this balancing act by examining the future of the restaurant industry. Many are shifting to digital-first business models with use cases ranging from personalized dynamic menus to AI-enabled drive throughs that can help them increase revenue, improve experiences, or save on operations. The most strategic places to focus on would be those that offer the greatest revenue opportunity and drive customer demand (figure 2).

Organizations can use strategy to define their top use cases. From there, industry clouds can help organizations accelerate development for their top strategic use cases. For example, a restaurant looking to create dynamic personalized menus could invest in a cloud-enabled AI recommendation engine to speed up the core application. Then, they could use in-house teams to build on more proprietary user experience elements based on unique customer data. One global restaurant chain assembled a conglomerate of partners and was able to use this approach to prioritize four critically strategic use cases: customer sentiment sensing, elevated customer experience recommendations, a connected restaurant, and predictive maintenance. From there, they were able to leverage industry clouds to accelerate each of the five use cases. The customer sentiment sensing use case was accelerated with an industry capability that included prebuilt AI and machine learning models. This allowed the restaurant to differentiate by refining the solution based on customer experience data. It also allowed them to enhance digital apps, the digital drive-through, and pickup experience in a matter of months.

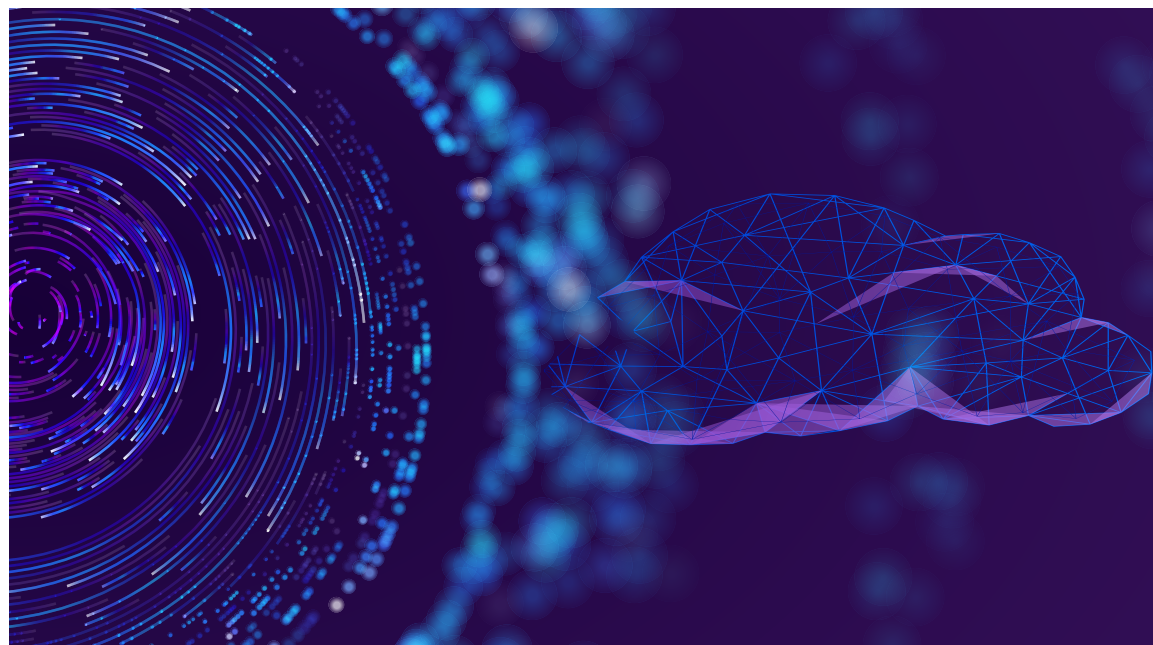


FIGURE 2

Industry clouds to enable the restaurant of the future

■ AI/ML ■ IoT ■ Blockchain ■ AR/VR ■ 5G



Note: The “restaurant of the future” is a Deloitte POV on the future of technology in the restaurant industry. It covers signature industry issues and key use cases to enable clients to tackle the issues they face.



Source: Deloitte analysis.

Implementing industry clouds typically requires a new operating model, one in which engineering pods are aligned to business product owners. Together, they design full-stack products and share business objectives. When embracing an industry cloud, internal resources should focus on the 20% where you plan to differentiate, and then adopt

industry cloud's prebuilt services to accelerate the rest (figure 3). Strategy, therefore, still plays a significant role in choosing which business capabilities to differentiate versus where to embrace existing and future industry clouds. The 20% that's differentiated is what you need to build yourself.

FIGURE 3

Rebalancing the buy vs. build equation

 Business strategy and internal build focus:	 External partner focus:
<ul style="list-style-type: none"> • Set competitive strategy for digital • Identify opportunities for industry clouds • Customize and layer in differentiated capabilities to derive competitive advantage • Build with integrated business and tech teams 	<ul style="list-style-type: none"> • Analyzing industry scenarios and opportunities • Creating whole-product, end-to-end, pre-integrated solutions • Continuously evolving industry clouds and capabilities • Increasing interoperability across technology platforms

Source: Deloitte analysis.

Use industry cloud to accelerate your capacity to change

Industry clouds not only allow organizations to shift internal resources to focus on their strategic ability to win, but perhaps more importantly, they can hypercharge an organization's capacity to change. While their maturity and speed of adoption varies by industry, these business accelerators can speed change for primarily two reasons. First, they provide building blocks for process redesign and modular technology capabilities that stay on the cutting edge. This preconfigured capability receives continuous innovation investment and allows organizations to achieve the adaptive digital core¹⁰ necessary to sustain change capabilities like nimbleness, scalability, stability, and optionality.

Second, they enable strategists and engineers to work together to redesign the enterprise with better integrated, agile innovation teams. In various cases, industry clouds have sped up the

development of digital solutions for life sciences, health care, and government R&D for vaccines and therapeutics.¹¹ They've allowed governments to quickly develop mission-focused¹² solutions, such as the Health and Human Services telehealth offerings with embedded cybersecurity like identity-as-a-service.¹³ In each case, organizations have been able to quickly spin up and scale digital platforms and applications while leaving room for future change.

Can't find what you need? Consider cocreating a new industry cloud to remain ahead

Industry clouds are at different levels of maturity, and not every use case will be available today, especially as the innovation baseline continues to shift.¹⁴ This is why organizations may want to partner with cloud providers and system

integrators to cocreate industry cloud services (see sidebar, "Platforms explained"). Certain cloud providers, especially the hyperscalers, have embraced this industry cloud partnership model to build out the breadth of industry offerings powered by their infrastructure. Effectively partnering with hyperscalers would require bringing together business strategy transformation and system integration partners with the expertise needed to stitch together multiple vendors and platforms around the use case. The benefits are often mutual, and surprisingly, you can gain advantage by moving first.

Here, first movers stand to gain a unique strategic value and advantage.¹⁵ For example, in 2019, Mayo Clinic and Google Cloud announced a decade of collaboration to transform the future of health

care.¹⁶ Since then, the Mayo Clinic platform business has announced three strategic initiatives focused on creating ecosystem-driven platform businesses. First, the Clinical Data Analytics Platform was designed to improve health care through data-driven insights by allowing ecosystem participants to analyze scientific literature and build common AI models without sharing data sets.¹⁷ Second, Mayo's "advanced care at home" model combines technology, innovation, and clinical expertise to deliver high-touch virtual care.¹⁸ Third, and most recently, a Remote Diagnostics and Management Platform with clinical support tools infuses AI into existing clinical processes to improve diagnostics and patient care.¹⁹ In each of these examples, Mayo Clinic recognized a strategic opportunity. It then used its dominant position to shape the future of

PLATFORMS EXPLAINED

Industry clouds can accelerate the platform imperative in Deloitte's five-pronged digital transformation framework. However, they also provide an opportunity to embrace platform and ecosystem business models.

- **Platform and ecosystem business models** enable competitors and collaborators to solve shared industry problems and monetize their solutions. Organizations like Amazon that use a retail platform to connect sellers, buyers, and logistics providers are employing a platform¹⁵ and ecosystem¹⁶ business model. Users benefit from a single, shared platform and creators share in the economic benefit of being part of the ecosystem.
- **Digital platform imperative** focuses on the location and management of information across an organization or its network to enable business agility, speed, information storage, processing, networking, and ways of working. Industry clouds address these needs with increasingly integrated technology—not just cloud, but edge, machine learning¹⁷ and security.¹⁸ Technology platforms are the enabling "glue" that holds the five digital imperatives together. Industry cloud capabilities are increasingly served up through these technology platforms but not always by the platform owners themselves and do not require commitment to one platform or another, given their modularized nature.

Note: Platform integrity should be an emphasis from the start. Industry clouds have the tools needed to enable the required controls on the platform (such as encryption). As data, AI and machine learning help create market opportunities; platform integrity can help you move faster, scale new services, and take advantage of the newest technology. To be effective, organizations should customize the controls to protect data and customers.

the industry, not just for the company but across its ecosystem. Mayo embraced a platform business model to advance that strategy. It will automate and accelerate the development of the digital platform by using industry clouds to bring together clinical workflows, diagnostic capabilities, data-rich and distributed environments, and specialized tools like image and speech recognition. In doing so, they've advanced strategic use cases. They've directed the innovation budgets and resources of strategic partners toward their shared benefit. They've also transformed business processes in ways that set new industry benchmarks while considering data interoperability and risks across ecosystem members.

Similarly, Morgan Stanley and Microsoft Azure announced that they would partner to build industry cloud solutions to advance digital transformation in the financial services industry. They're developing and codesigning new application infrastructure with common data models, cross-cloud connectors, workflows, application programming interfaces (APIs), and financial, industry-specific components and standards. This is in alignment with the bank's cloud-first and multi-cloud strategy to provide better service, insights, and connectivity to clients and to enhance employee and developer experiences.²⁰ This, too, is another example of both organizations benefiting from a solution that can strengthen the bank's entire business ecosystem and leave the vendor with a valuable, new offering.

These examples demonstrate that when organizations move first to create new industry clouds, they can have greater control over key business and strategy decisions.²¹

Start your engines

Ultimately, adopting existing industry cloud solutions and potentially cocreating new ones can allow organizations to focus time, energy, and resources on the areas where they differentiate.

Doing so frees up engineering capacity. It allows you to run the core business with custom tools that unlock the ability to continuously innovate new products and services and test strategies at the speed of a hyperscaler. It can remove structural costs by distributing them across the ecosystem of creators. It allows organizations to move away from the traditional "time and materials" thinking toward an "outsource to transform" model, which can free up capital for reinvesting into the business.

Digital transformation requires a balance of business, technology, and organizational strategies. Industry clouds are creating a new model to accelerate that strategic collaboration.

As your organization taps into the full potential of an industry cloud, consider the following:

- **Set your digital strategy and know where you plan to differentiate.** Understand what differentiates your digital strategy and embrace industry cloud anywhere your organization isn't differentiating to deliver core systems more effectively. Layer unique points of differentiation on top of this core to hypercharge value. When doing so, think through how business processes occur today and how they might change when digitized. Look for tailored solutions at the sector level. Viable industry clouds won't focus on financial services payments. They'll reengineer business processes with modular components for digitized commercial banking payments, property and casualty insurance payouts, or wealth management's cross-border payments.
- **Understand the industry's vision and shifting contexts.** The organization's strategic North Star should be a fixed, long-term strategy, but digital strategies can and should be expected to change and evolve as contexts shift. Organizations should sense market, technology, and cultural risks and opportunities to keep a pulse on what's still

differentiated and what's become commoditized. If your industry transformation strategy gives you exposure to another organization or industry, understand the associated risk. Bring cyber leaders in to develop build strategies early to minimize risk and enable client experiences that build trust.²²

- **Embrace an engineering mindset and work in a partnership model.** Business and IT leaders should cultivate an engineering culture. This means establishing vertical engineering pod teams that are agile, innovative,

and product-focused. Think about the best path to creating adaptive solutions even if that means looking outside of your organization to cocreate and explore new business models. Set up shared goals and measures for business and technology functions both internally and outside the organization.

At the end of the day, industry clouds are gaining traction, and harnessing their potential starts and ends with strategy. Your competitors will be using them. The race is on. Ignore the opportunity, and you might get lapped.

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Industry cloud leadership

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