

CONQUERING THE LAST MILE OF DIGITAL TRANSFORMATION

ACHIEVING BUSINESS PRIORITIES WHERE TECHNOLOGY TRANSFORMS INTO DIGITAL REINVENTION

SITUATION ANALYSIS

While businesses of all sizes continue to increase investments in digitization and digital transformation projects, Moor Insights & Strategy (MI&S) finds many business and IT executives underwhelmed with the results. Despite the unprecedented data generation of new technologies and deployments, many businesses have struggled to effectively utilize this data for making informed decisions that align with their desired business outcomes.

This market-wide dynamic has led many organizations to iterate on digital transformation projects, focusing on what MI&S refers to as digital reinvention—outcome-focused strategies that are customer-persona-based and enabled by technology.

This IBM-sponsored research brief will explore the challenges organizations face in delivering customer experiences and business outcomes in the technology-centric organization. Further, it will guide organizations to better enable a business outcome focus while controlling risk through a unified "everything-as-a-Service" (XaaS) experience and consumption model.

DIGITAL TRANSFORMATION—HOW WE GOT HERE

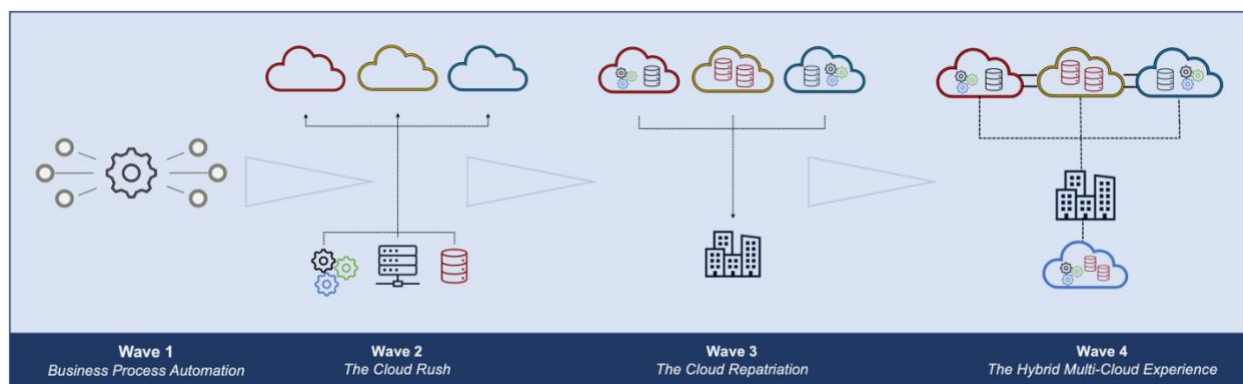
While digital transformation has become a popular term over the past few years, the reality is businesses have long been using technology to drive the automation of business processes with a focus on faster outcomes. In the early 2000s, web-based interactions streamlined customer experiences, marking the first shift that fueled faster outcomes for business leaders.

Organizations started to expand utilization of cloud services when the real benefits were realized. Proven functions like business continuity and increased infrastructure capacity prompted innovative entities to realize their potential in enhancing time-to-value, market responsiveness, competitive threat response, and customer demand. The cloud

experience enabled exponentially speedier business outcomes that MI&S sees as the second wave of digital transformation.

By the mid-2010s, a third wave emerged in response to an overreliance on the cloud. Organizations considering concerns such as cost, data security, and multi-cloud complexities began repatriating workloads. This correction aimed to maintain public cloud advantages without the associated drawbacks.

FIGURE 1: FOUR WAVES OF DIGITAL TRANSFORMATION



Digital transformation in the enterprise
Source: Moor Insights & Strategy

The fourth wave of the cloud operating model was born out of this challenge of trying to replicate the cloud experience on-premises. Organizations prioritized driving further connectivity and automation across the entire digital landscape—traditional infrastructure, private cloud, public cloud(s), the edge—and the apps and data distributed across these environments. In essence, this fourth wave is the concept of hybrid-cloud finally realizing its full potential, resulting in end-to-end business transformation.

THE LAST MILE IS THE HARDEST MILE

While digital transformation has been somewhat evolutionary, organizations are finding greater urgency in their digitalization efforts. Growing discontent stems from tech-focused rather than outcome-driven projects due to siloed automation. And during this time, digital upstarts have moved from market nuisances to market disruptors. The global economy has undergone a digital shift, and many of today's established businesses are digitally reinventing themselves to survive and thrive.

This digital reinvention is the *fifth wave of transformation*, perhaps the most critical to organizations and quite possibly the most disruptive to enterprise IT organizations. While earlier waves of digital transformation dealt with relatively more straightforward elements, the more challenging aspects can't simply be addressed by the repatriation of applications and data on legacy infrastructure. A balanced approach is required to achieve the cost and simplicity of "the cloud" along with the performance and security requirements of on-premises deployments—a consumption-based, hybrid approach to business outcomes.

FIGURE 2: THE TRAITS OF DIGITAL REINVENTION



Digital reinvention is the fifth wave of digital transformation.
Source: Moor Insights & Strategy

Through its discussions with business and IT executives, MI&S has distilled four common traits of the reinvented business:

1. The reinvented business is **data-driven and highly predictive**.
2. **Intelligent automation** drives business and IT.
3. Zero-trust security is a business design concept, and the environment is **risk-aware by behavior**.
4. In an ever-changing world, **the reinvented business and the infrastructure on which it runs are resilient**.

Further, the above should all be achieved while moving toward a sustainable future. The modern business driven by automation doesn't just achieve better outcomes—it reduces emissions through adherence to regulations and company goals of a greener business.

Although some can look at these traits as somewhat nebulous, it is crucial to understand that the days of platitudes and slogans are over. By 2026, it's estimated that half of the average company's revenue will come from new digital products and services that don't exist today. Because of this, these traits are critical to businesses surviving—and thriving—in the very near future.

And the only way to thrive is through a hybrid environment powered by optimized consumption-based models tuned to deliver faster outcomes, more agile operations, and the securest of environments, regardless of data origination or locality.

THIS LAST MILE MAY BE HARDER THAN WE THOUGHT

In terms of reinvention, this last mile is undoubtedly the most difficult for most organizations to travel. While previous waves of transformation dealt with simpler aspects of change, data changes the equation. Data is generated everywhere and by everything. And this data is on the move, in use, and shared between applications, business units, partners, and clouds.

Why does data create such a challenge for organizations? There are a few reasons—the first of which is utilization.

Business intelligence drawn from data fuels progress, propelling businesses forward. To obtain valuable insights, deploying intensive deep analytics and artificial intelligence (AI) workloads is essential. Enterprises turning to AI today need access to a full technology stack that enables them to train, tune, and deploy AI models, including foundation models and machine learning (ML) capabilities. However, there's a skills gap in today's market that finds data science professionals a rare commodity. This creates an imperative opportunity for organizations to explore offerings that allow access to validated foundational models, data governance, and AI tools with scale and speed—ensuring that your data is delivering on valuable insights for faster outcomes and doing so with utmost security and governance.

The second factor is cost. Deploying AI and deep analytics tools can be costly. The right combination of hardware and software finely tuned for a specific organization is extremely expensive. And, if an organization is fortunate to find the right team of IT

professionals and data scientists to deploy, tune, and maintain hardware, AI frameworks and algorithms and language models can make this data journey come to a halt during budget planning. Creating a cost-effective infrastructure that facilitates the entire data and AI lifecycle becomes pivotal in this process.

And finally, the third factor: Compliance and security are complex challenges when considering the shift to a data-driven enterprise. Regulatory requirements, sovereignty laws, and ensuring the security and privacy of data as it travels from the point of origin to the cloud(s) and partners and between business units is a challenge that most organizations need help managing effectively.

When considering these challenges, enterprise organizations must find partners that can help deliver success. Very few IT solutions providers have a technology portfolio complemented by decades of experience in navigating these challenges for the world's largest organizations.

ACCELERATING INNOVATION ON DEMAND

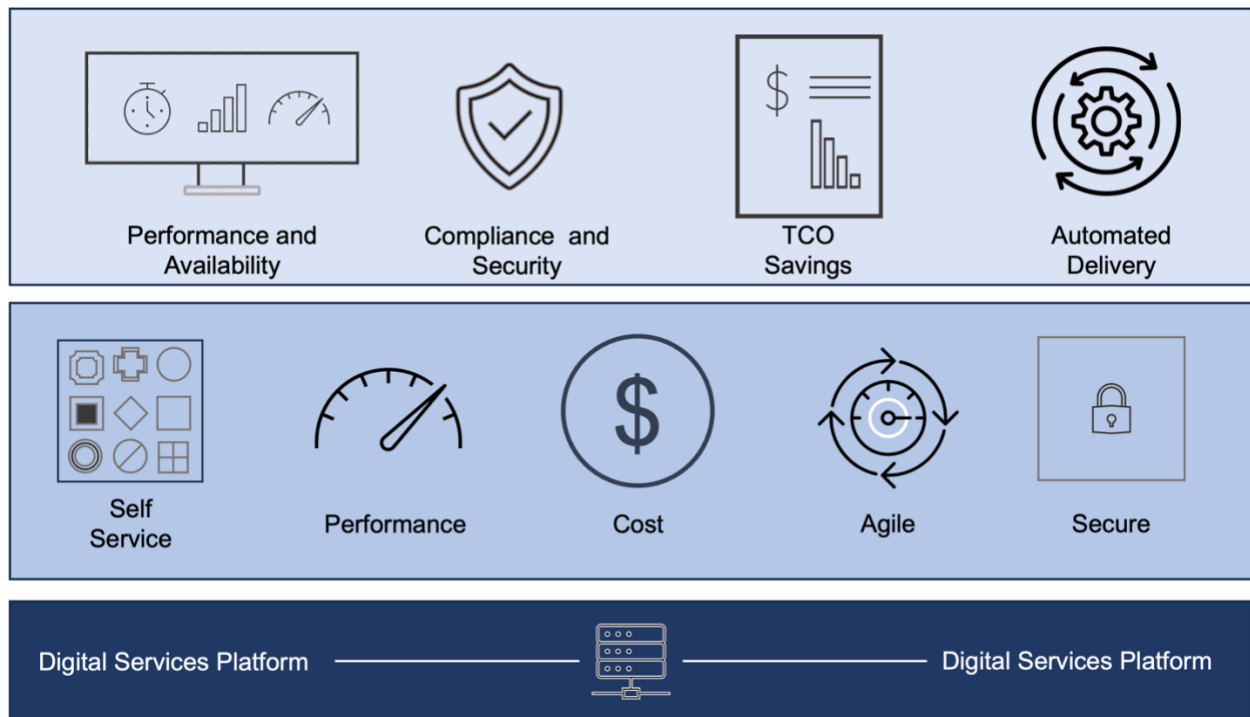
Tension exists between the business unit and IT. As the focus has shifted from technology to business outcomes, the business has a seat at the planning table. And the company competing on different fronts in the marketplace is less concerned with the challenges of IT around budget, staffing, infrastructure, and security.

The cloud has conditioned business users to expect services and functions to be readily available at any time, on demand, and with a consistency that spans user experience, performance, and cost. Business users demand the power of the cloud without the risk of the cloud—on-premises. Business users demand IT-as-a-Service.

On the other side of the tension equation is an IT organization that cannot invest in the technologies that can deliver such an environment through the traditional delivery models. So, how exactly does an IT organization short on staff, technology, and budget provide an environment that enables:

- Workloads that run anywhere, at any time
- Data that is generated, moved, and used freely without risk of exploitation.
- AI that can be utilized at scale by anyone.
- Application and workload environments that can be instantaneously instantiated by developers, data analysts, and business users without requiring IT.

FIGURE 3: DIGITAL SERVICES PLATFORMS ACCELERATE INNOVATION



Digital services platforms speed business and drive down costs.
 Source: Moor Insights & Strategy

The answer is a cloud operating model—a **digital services platform** that delivers a unified everything-as-a-Service (XaaS) experience and consumption model. Such a platform allows business users to consume IT services as needed, when needed, without burdening an IT organization that is also being asked to transform.

This digital services platform is a combination of hardware, software, and services that can tailor to the needs of a specific customer. Further, the ideal solutions provider has a breadth of portfolio complemented by world-class service resulting from deep experience in delivering IT solutions to the market.

XAAS—THE FOUNDATION OF DIGITAL REINVENTION

Time to value (TtV) is the key metric businesses use when measuring the success of a product or service. It represents the time it takes for an organization to realize tangible benefits from a project or deployment.

Unfortunately, MI&S estimates the failure rate of digital transformative projects, based on conversations we’ve had with business and IT executives, to be around 75%.

Machine learning (ML) projects being slightly higher. Although just anecdotal, these numbers are still shocking. The challenges leading to failure are typically related to outdated or unoptimized hardware, lack of qualified professionals, and high costs.

To overcome these challenges and future-proof the business, MI&S advocates for XaaS as the future of technology consumption. By properly deploying XaaS solutions, organizations can significantly reduce TtV for projects like AI/ML and advanced analytics, while eliminating barriers to successful AI deployment in the enterprise.

WHAT MAKES A GOOD XAAS SOLUTION AND PROVIDER

A good XaaS solution and provider must excel in two areas. First, they must provide a consistent user experience for consuming services, irrespective of the service and location. Second, they should deliver a cloud operating model through automation, abstracting complexities and enabling easy provisioning, securing, and resilience with minimal human intervention. This outcome-focused approach allows IT to focus on consulting rather than just technology.

MI&S believes that the ideal XaaS solution and provider combine hardware, software, cloud enablement, and ecosystem partnerships with extensive experience in the market. While there are a lot of innovative companies delivering solutions in the market today, MI&S sees one company in particular that could significantly impact the XaaS space—IBM.

With its infrastructure powering core data and processing for many of the world's most prominent enterprises, IBM demonstrates strong performance, security, and reliability. Moreover, the company has an extensive portfolio of traditional IT solutions, complemented by its acquisition of Red Hat, giving it a strong software offering. IBM's expertise in hybrid multi-cloud capabilities further enhance its potential to deliver effective XaaS solutions.

IBM is the only company that can claim a position as a top cloud provider to help drive hybrid operations and on-premises offerings. The company has also developed strong partnerships with other cloud providers, putting it in a unique position of strength in terms of hybrid multi-cloud capabilities.

And finally, IBM has the services experience and scale to deliver such solutions at the largest global organizations. With the recent launch of Watsonx, its integrated AI and data platform, the company can offer a seamless, efficient, and responsible approach to

AI deployment across a variety of environments globally. Its framework will empower customers to train, fine-tune, and roll out AI models, encompassing foundational models and machine learning proficiencies to span an entire enterprise. This ensures data reliability, operational velocity, and regulatory adherence—a crucial component when thinking about youraaS capabilities.

Considering the strategic alignment of IT solutions providers with the concepts outlined in this brief, IBM shines as an ideal contender, ready to take the lead in this space. By any criteria, the company has an unmatched combination of technology, cloud, and services. And this is bolstered by an uncanny ability to always be at the forefront of what's next. Compute, AI, security, quantum—there isn't a technology trend that MI&S can think of that didn't show IBM as a leading innovator.

A DIGITAL REINVENTION CHECKLIST

Before jumping into the digital reinvention phase, MI&S has compiled a list of things to consider based on our experience working with business and technical executives:

- **Focus on the end state (outcomes).** Too many projects in the transformation realm begin with technology and how it can support the business. Instead, focus on what success looks like and map this back to what the underlying technology stack should look like.
- **Build a network of advocates.** Being outcome-focused only works if there is diversity of thought. Gather stakeholders' feedback from around the organization to get alignment on strategy and tactics and clearly define successful outcomes. This inclusion drives a shared vision and creates a dynamic where stakeholders are vested in your success.
- **Take a clean-sheet approach.** While your organization may have previously invested in digital transformation projects, keep the past from influencing the future. An organization will never explore the full potential of digital reinvention if constantly concerned with how such initiatives will coexist with legacy.
- **Consider the cultural impact.** While successful technology deployments often become the focus of digital reinvention, understanding the human impact is critical to driving success. How are jobs changed? What functions are no longer required, and how does this impact employee buy-in and adoption? Considering and managing these factors is critical to success.

- **Measure and calibrate.** Put the proper mechanisms (and cross-organization stakeholders) in place to guide and measure the success of your efforts. Scope creep and deviation are common in projects grander in vision and scale.
- **Assess your skills gap.** In this end state, does your organization have the right people with the right talents? If not, how do you provide the training to mitigate the risk of failure? What additional resources are required?
- **Choose the right technology and choose the right partners.** Focusing on business outcomes is critical. However, the success of these outcomes maps directly back to the technology stack powering your reinvention efforts. Make sure it's the right choice. Consider the four pillars discussed earlier in this brief and what innovations are on the horizon that we don't even know about. Do you have a XaaS solution that delivers the agility required for future-proofing? Are you investing in a company you know will enable your organization to quickly embrace and extend these new technologies? If not, keep looking.

While each organization is unique, MI&S believes these considerations are critical to developing a digital reinvention strategy for surviving and thriving in this digital economy.

SUMMARY

While digital transformation has delivered a lot of value to organizations of all types (and sizes), its full potential is unrealized. This is due in large part to the technology-first focus that most enterprise organizations have taken with such projects.

Digital reinvention—digital transformation's last mile—is about how enterprise organizations shift focus to business outcomes, and how technology can allow it to thrive against digital disruptors and established competitors in this shift to a digital economy. The result is a data-driven business that is highly performant through automation, security, resilience, and an IT environment delivered through XaaS.

XaaS is the foundation of digital reinvention. It is the underlying technology that allows for an outcome-focused approach to reshaping the business. With XaaS, the right technology is delivered for the right workload to help a business user achieve faster results and time to value—measured by when new services are delivered, how customers consume those services, and the reduction in costs associated with delivering to the market.

Because of the role XaaS plays in reshaping the future, MI&S believes that companies must put a lot of consideration into selecting the XaaS solution that best fits their needs. Those considerations should be capability, security, futureproofing, and cost.

In a crowded XaaS space, there is one company poised to capture this opportunity—IBM. MI&S believes, in terms of portfolio, capability, and experience, the company could quickly take a leadership position in the XaaS space. Further, XaaS could be a significant market expander for IBM by opening its technologies to organizations that could not previously consume for cost or technical reasons.

MI&S believes digital reinvention requires organizations to look at things differently, such as by:

- Shifting from technology to business outcomes
- Taking a clean sheet approach to reinvention
- Focusing on connecting data, applications, people, customers, and partners more seamlessly and securely

This is the key to achieving the final mile in digital transformation.

Finally, think of the possible outcomes digital reinvention can deliver. The future is full of potential if we are unincumbered by the past. MI&S believes by combining an outcome-driven approach with a fresh look at the technology powering the business, success will be a natural derivative.

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