Excellence in the Digital Economy: A Blueprint for Success

An IDC Whitepaper

It might be hard to imagine in today's already digitally-powered business environment, but technology is poised to deliver a radically new system of commerce. In fact, IDC predicts that by 2020, 50% of the Global 2000 will see much of their business depend on their ability to create digitally-enhanced products, services, and experiences. This expansion of Digital Transformation at a macroeconomic scale signals a new, digital economy.

In this new economy, enterprises will be measured by their ability to hit and exceed a whole new set of demanding performance benchmarks enabled by 3rd Platform technologies and powerful Innovation Accelerators. Global leaders' Digital Transformation efforts will no longer just be "projects" or "initiatives", but will instead be core to what they produce and how they operate. Success will only be gained by enterprises that can adapt and become true "digital natives", instilling the right behaviors in employees and executives, and empowering them with the right tools to deliver ever-more impressive experiences to customers.

IDC
Analyze the Future

So how can business leaders help enterprises successfully navigate the emerging digital economy? Use this blueprint to learn how to better identify the tools, technologies, and strategies necessary to build a digitally native enterprise.

The Foundation: The Essential DX Trio

Enterprises must develop Digital Transformation, 3rd Platform technology, and IT leadership to thrive in the digital economy.

In the digital economy, the inter-dependence of Digital Transformation, 3rd Platform technology, and IT leadership will become the essential trio for success for businesses. Enterprises must cultivate all three principles in order to best serve customers and meet the demands of the digital economy. After all, Digital Transformation is a customer-centric business strategy.

Digital Transformation can broadly be applied to a host of principles and ideas, but in terms of the digital economy, businesses and leaders need to focus on two aspects:

- **Improved decision making** through more effective information use to create an evidence-based company culture
- **Enhanced experiences** created by harnessing innovation and creativity to improve customer, prospect, and employee experiences

Businesses need a thorough understanding of 3rd Platform technologies to capitalize on improved decision making and to deliver enhanced, customized experiences to stakeholders. The rapid acceleration of 3rd Platform technology adoption means that organizations need to actively be looking for ways to improve their operational efficiency and customer service - or be in danger of falling too far behind digitally native competitors to ever catch up.

Strong, seasoned IT leadership is also a must-have for every aspiring digital native enterprise. These are the kind of leaders will help drive transformation through the use of 3rd Platform technologies in their organizations. Successful enterprises are putting an emphasis on finding and retaining great IT leadership talent - and giving them more space at the decision-making table. With this three-part foundation in place, your organization is best equipped to become a digital native.

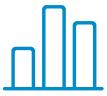
Measure your enterprise's progress towards digital native status by achieving these five levels of DX mastery:

- **Leadership Mastery:** Digital Transformation must come from the top down.
- **Relationship Mastery:** Creating a customer-centric business model is key to mastering relationship flows.
- **Information Mastery:** Business need to better capture, examine, and disseminate information at an efficient scale in order to succeed.
- **Operational Mastery:** Achieving scale, expanding scope and delivering speed are all key elements.
- **Talent Mastery:** It is crucial for businesses to create and sustain an innovative culture that optimizes work and talent.

While mastering these five elements to strengthen the foundation of your digitally native enterprise is important, you can't stop building once you've completed your foundation. Layers should be added to your core focus in order to build a flexible, efficient organization that can thrive in the digital economy.

The Bricks: 4 Pillar Technologies

The right technologies foster growth and leadership opportunities, which are critical to building digitally native enterprises. IDC considers the 4 Pillar technologies as essential to success for businesses trying to navigate the digital economy. These four technologies will continue to dramatically expand capabilities; here's how.



Big Data & Analytics

The amount of data available to collect and analyze to inform better decisions is already enormous, and growing. IDC research shows that the amount of high value data worth analyzing will double by 2020. To thrive in the digital economy, organizations need to view data as a strategic asset not only for internal decision support, but for generating revenue or for providing other desired value. In the digital economy, data is also digital capital. Organizations need to better understand what they can calculate about individuals based upon these collection points and understand that analysis can't always be acted upon as a business. **By 2026, IDC expects that a significant number of Global 2000 enterprises will have practices in place to prevent unintended consequences of these analytics, including reputational risks, non-compliance, and ethical decisions.**

Cloud

As cloud adoption continues to expand, the very concept of what clouds are, and what they can do will change in important ways. **Cloud services will become much more distributed, secure, industry specialized, and intelligent** – which means leaders will need to stay on top of how this technology is tailored and deployed in their organization. Enterprises are quickly realizing that the cloud is required for digital natives, and are investing heavily in response. By 2020, greater cloud spending for IT and cloud services will exceed $500 billion globally.

Mobility

For many business leaders, mobility might seem like an old concern, but smartphones, tablets, and wearable technologies allow businesses to continuously interact with employees, customers, partners, and other stakeholders in new ways, creating customized digital experiences. Business leaders need to assess the most appropriate business processes and focus areas where they can create these customized experiences. **This is a clear opportunity for strong IT leadership to pair with technology to create lasting Digital Transformation for an enterprise.** After all, the mobile market will move 2.1 billion units globally by 2019; customers are using mobile technologies, which means businesses need to as well.

Social

Social is the connective branch that better aligns businesses with stakeholders, in addition to aligning internal business units and lines of business. To become transformative in their use of social business, enterprises will need to solve for challenges to create openness and connectivity in their ecosystems in order to preserve alignment and deliver optimal experiences expected by customers. **IDC predicts that by 2020, 40% of e-commerce will be enabled or influenced by a consumer's social network in an automated way.** Now is the time for enterprises to focus on how to thread social networks throughout consumer experiences.

While these four technologies are important building blocks in creating a digitally native enterprise that can thrive in the digital economy, they aren't the only materials you will need. The connective elements that will more aggressively accelerate growth and success are also necessary to bind your strategic and tactical elements together.

The Mortar: Innovation Accelerators

Innovation Accelerators, as defined by IDC, are the next wave of 3rd Platform technologies critical to business transformation. Capturing growth in the rapidly scaling digital marketplace will require maximizing on these key growth drivers:

Cognitive/Artificial Intelligence (AI)

Many companies have already begun adding cognitive/AI components and functionality to their products to provide predictions, assistance, recommendations, and guidance on tasks within the software. IDC predicts that either machine learning analytic techniques or much broader cognitive/AI functionality will be included in upcoming versions of most enterprise software, including all business analytics solutions. This functionality isn't just for data scientists, but will be included for customer experience, supply chain, collaboration, human resources, or other applications, accelerating transformation across the entire business. **Organizations should be examining their current business processes to determine where cognitive/AI technologies will be deployed to achieve the best business outcomes.** One place to start may be with workforce; by 2019, 75% of workers whose daily tasks involve the use of enterprise applications will have access to intelligent personal assistants to augment their skills and expertise.

The Internet of Things (IoT)

The Internet of Things continues to gain momentum in organizations looking to foster DX. While many business leaders recognize the benefits that connected devices can bring to their operations to enhance experiences for consumers and for employees, questions around the security of both the devices and the data that they gather and use give them pause. As a result, **by 2019, more than 75% of IoT device manufacturers will improve their security and privacy capabilities, making them more trustworthy partners for technology buyers.** Business leaders should conduct a risk assessment to identify the perceived risks associated with data collection and IoT device activity. Measure the risks against the opportunity for an attacker to thwart established controls for data confidentiality, integrity, and availability and/or abuse device components to cause a potential public safety hazard. It's up to business leaders to guide this process and to encourage a company culture that embraces the transformative elements that IoT can bring.

Next Generation Security

Security is a pivotal topic for all organizations. The sheer amount of data collected and used in the course of business today, and the increasing number of high-profile security breaches reported globally, offer multiple areas of concern. How will digital natives use next generation security fight back? It starts with planning and choosing the right partners. Enterprises can benefit from professional services providers and cybersecurity vendors that understand the technology and can advise how to use it for DX. Many of these partners will also use other Innovation Accelerators to strengthen security offerings. For example, **by 2018, 70% of enterprise cybersecurity environments will use cognitive/AI technologies to assist humans in dealing with the vastly increasing scale and complexity of cyber threats.**

Robotics

New developments in robotics will have the potential to disrupt the business ecosystem for all industries and companies' IT functions. **Robotics is an area that will shape not only consumer-related decisions in the digital economy, but employee-related ones too.** By 2020, robotics growth will accelerate the talent race, leaving 35% of robotics-related jobs vacant, while the average salary for knowledge-based workers will increase by at least 60%. In order to make robotics an effective growth accelerator, business leaders should monitor the development of technology trends and constantly review the connectivity and bandwidth infrastructure required by robots for real-time access to cloud-based analytics, intelligence, and new task skills. They should also keep an eye on how governments and markets will shape the ways enterprises deploy robots, as government regulations and public sentiment will try to preserve jobs and reinforce standards around privacy and safety in robotics usage.

Augmented and Virtual Reality (AR/VR)

AR/VR experiences have been a mainstay of science-fiction, but this technology is beginning to make a significant impact on the way businesses operate. **IDC predicts that three out of 10 consumer-facing Fortune 5000 companies will experiment with AR or VR as part of their marketing efforts in 2017.** And by 2019, 10% of all web-based meetings will include an AR component, driving disruption of the $3 billion web conferencing market.

3D Printing

3D printing has grown from an experimental opportunity to a technology that can change the way IT and businesses operate. IDC predicts that by 2018, 3D printing will be a mainstream technology market with new participation from large and established document printing, contract manufacturing, and electronics vendors. Use cases and applications will vary widely from industry to industry, but in the digital economy, companies should begin thinking now about how to best use this growth driver to advance their own interests. For example, **by 2019, 25% of the top 2,000 global manufacturers will explore 3D print-capable smart robots to increase worker safety and reduce repair time by 30% in highly complex environments** in order to operate more efficiently and safely, providing better service overall.

Purposeful Digital Transformation, 3rd Platform technologies, and Innovation Accelerators are tools that help business leaders build digitally native enterprises that can thrive in the emerging digital economy; the question is, how to best use them?

The Foreman: How Business Leaders Put It All Together

There is a reason why strong IT leadership is one leg of the foundation of a digitally native organization; it takes vision, knowledge, and strategy to know which tools to deploy and in what ways. In 2019, enterprises worldwide will spend $2.1 trillion on technology and related services to implement and manage Digital Transformation initiatives – there is a tremendous amount of opportunity in the space, but there is also a large amount of risk. Knowing how to elevate current initiatives and move them forward will be key to creating and executing a Digital Transformation strategy.

To progress on this DX journey, savvy business leaders will need to understand how to combine these technologies to maximize value for their organization. Digital mashups, which are combinations of 3rd Platform technologies, will aim to deliver new digital experiences and products. IT and business leadership will need to closely examine where their businesses are, and where they want them to be, in order to create the right combination of resources to drive Digital Transformation – and ultimately, business success.

Using Your Blueprint for DX Success

The digital economy is here.

Enterprises must recognize the shifts in consumer needs and behaviors and adapt accordingly. Building a digitally native enterprise based upon the foundation of mindful transformation, 3rd Platform technology, and strong IT leadership, is key for success in the new digital economy.

Looking for expertise and guidance on your digital blueprint?
IDC has the research, expertise, and tools to help guide your organization to success in the digital economy. Learn more about our innovative research at **www.idc.com/3rdplatform**, or speak with us directly at thirdplatform@idc.com.