KPMG

Market speed

IT operating models in the age of the connected enterprise

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Digital solutions are becoming the oxygen which allows a business to breathe and run at market speed. Digital is now mainstream in almost every business and across every sector – it isn't just about the tech giants or unicorn start-ups that we all recognize. IDC predicts that by 2022 fully 80 percent of revenue growth will depend on digital offerings and operations[1]. This means organizations can live or die by the way they design and deliver technology services, respond to issues and manage expectations.

The future will be hyper-connected

According to Steve Bates, Principal in the US firm and global leader of KPMG's CIO Center of Excellence,

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Research and financial results are proving that the winning operating model of the digital era is a fully integrated front, middle, and back office, creating what KPMG calls the connected enterprise, all laser focused on the customer."

When designing a connected enterprise, front-middle-back office alignment is essential. But what does that mean? If we look at data, for example, a connected enterprise easily shares data throughout the organization by ensuring the chief information officer (back office) partners with the head of sales (front office) and the chief supply chain officer (middle office) to build both a customer- and company-centric data strategy. Companies demonstrating a greater ability to execute on a customer-centric strategy spanning the organization are eight times as likely as their less-successful peers to deliver experiences that consistently exceed customer expectations[2]. Customer-centric organizations are also 38% more likely to report greater profitability than ones that are not[3]. Connected enterprises are significantly more nimble and responsive to ever evolving customer behaviors and changing competitor strategies.

One of the key differentiators of a connected enterprise is a holistic approach to digital transformation and unleashing the power of technology across the value chain without the burden of it. "If you're like many organizations, you may struggle to deliver value to customers while delivering a meaningful return to the company. This is often due to a focus only on customer-facing operations," continues Bates. Fragmented digital infrastructure and lack of alignment between front, middle and back office functions – from customer service, to supply chain and operations, HR and IT - can impact the ability for organizations to deliver seamless customer experience and drive growth.

For example in the retail sector, retailers still organize by channel, with separate P&Ls, leadership, and incentives for stores and e-commerce. They invest heavily in front of house technology, but run separate applications, managing forecasts and inventory independently. This failure of alignment results in lack of inventory visibility across brick-and-mortar and online channels and inconsistencies in products and pricing across channels. Retailers struggle to "onboard" items, vendors, and content in their legacy applications fast enough to meet the "always available, immediately deliverable" expectations of customers. The result is supply chain and inventory management systems that cannot meet the commitments made by channels at presale or point-of sale leading to lower customer satisfaction and higher service costs.

To achieve the performance boost that a connected enterprise delivers depends on frictionless technology. Most of these are either provided by IT (e.g., technology architecture, agile methods, and secure platforms) or enabled by IT (e.g., responsive supply chain, advanced analytics). It is clear that the future of IT will be inexorably intertwined with this concept of the connected enterprise.

The rationale and promise of the connected enterprise powered by digital technology is real. However, in many cases, the IT function must go through its own transformation in order to be an effective business partner in a digital world.

[1] IDC Press Release, IDC Launches New Framework to Accelerate Digital Transformation and Help Enterprises Become Digital Natives (IDC, Oct 2017)

[2] A commissioned study conducted by Forrester Consulting on behalf of KPMG International, Sept 2018, of 1,299 global professionals involved with customer-centric strategy decisions at their organizations

[3] Harvey Nash / KPMG CIO Survey 2018 (Harvey Nash and KPMG International, 2018)

The market speed operating model

Multi-speed IT is not a new concept, but successfully scaling it outside the IT function remains elusive. While organizational agility, product velocity, and customer stickiness are hot metrics, measures such as cost effectiveness, service resiliency, and enterprise risk remain powerful drivers. For many CIOs, balancing the multiple sets of metrics has meant walking a line between investing in new ways of working and emerging technology while managing the legacy estate, workforce, and attempting to pay off technical debt. The results have often been incremental improvements, but not the meaningful change that moves the needle for the organization.

A connected enterprise is rethinking this paradigm by recognizing the power of giving everyone the ability to leverage technology systems and expertise to deliver cross-channel experiences, provide employees with enabling tools, and synchronize with partners and the broader digital ecosystem.

For the CIO, this means playing a more influential role as the enterprise technology evangelist and modern architect as well as the champion of breaking down the silos of central control as the builder of all things tech. This is a big shift in not just the culture of IT and the business, but in the structural layers of how products and services are ideated, designed, developed, and delivered.

To be clear, moving at market speed does not mean all technology services and capabilities should be managed as "products", meaning they are governed by a product manager, continuously evaluated for investment and customer performance, and have agile full-stack teams driving continuous development and release against business Objectives and Key Results (OKRs). For example, while the rush to the cloud makes sense for many use-cases, it may not necessarily be the best fit for applications that require high resiliency, low latency, and handle millions of transactions per day in a regulated environment. Conversely, a set of applications that are customer facing, generate rich data, must adapt to frequently changing requirements, and deployed across multiple platforms should be bundled and run through a modern delivery method. Each product and service moves at a different pace based on a variety of business metrics. "Fast" will not always be the right speed. The market speed operating model continuously evaluates those conditions and has the right methods, skills and architecture to adapt.

Key elements of a market speed organization:

Flexible

Success in moving to a market speed operating model will require a range of delivery pathways, and the right building blocks in place to select the best route to maximize value. Speed without flexibility can be a painful process. A flexible operation dictates how smoothly work flows across the ever changing terrain of demands. The market speed model employs more flexible governance policies and a broader supplier ecosystem that enables IT and the business to exploit new market opportunities through as-a-service and consumption based models. For many organizations this will mean redesigning rigid controls that protect against a universe of bad things happening, to an adaptive control set that looks at the potential risk of what might happen to prevent a successful outcome and designing around those specific risks.

Scalable

New delivery models will enable scalable capabilities. IT will need to broker capabilities from anywhere, anytime, through a mix of build, buy, borrow, and save to support new and rapidly changing technologies. Adding or scaling up services will simply be a case of expanding the automation footprint, without needing to recruit, train, and deploy more people. A component-based architecture will enable delivery at scale through low-code product assembly from a library of distributed patterns. For example, one insurance company transformed its monolithic, low resiliency underwriting, payment processing, and reconciliations system by deconstructing the functions into containerized components that allowed them to scale both horizontally and vertically in response to changes in workloads and customer demand. Not only did this reduce the risk of an enterprise-wide failure, it enabled the company to continually enhance portions of the value chain without disrupting the entire application[4].

Decidedly human

Success in driving market speed comes through a people and culture led approach – a decidedly human organization. New ways of working, breaking down barriers, and driving towards common goals all require empowered teams. In this new collaborative environment, there is a need to build human-centric skills. Focusing on softer skills – encouraging empathy, creativity, design thinking and emotional intelligence – complemented by relevant technical expertise will lead to new ideas, innovation, and competitive advantage. As automation eliminates many repetitive IT tasks, the focus will shift to building the right blend of skills across the organization to enable the future workforce to focus on more creative, challenging activities, to build engagement. For example, AT&T is undertaking a significant re-skilling of 100,000 employees in order to thrive in the next decade as an organization that is capable of delivering "software-defined networking."[5]

[4] Mendix blog "Why Your Application Should Be Built with a Component-Based Architecture" by Marshall Worster, Oct 2018

[5] AT&T invests over $1B to retrain 100,000 employees (HRDive, March 2017)

Designing a market speed model

When designing IT around the connected enterprise, it's important to note that "IT operating model" does not mean the "IT function." For many companies the future IT operating model is a complete ecosystem of federated IT services, business-led capabilities and external partners underpinning specific elements of the value chain.

While current components of the IT operating model, such as Service Integration and Orchestration, will remain familiar and central to the operating model of the future, evolution will depend on the capabilities of a market speed model:

Strategy and architecture

With the adoption of digital technologies at scale, this group of capabilities is undergoing wholesale change. IT strategy has become synonymous with business strategy and is an integral part of an organization's sensory nervous system. Instead of a static three-year plan, strategists in the market speed model emphasize a continuous review of product and service performance against stakeholder needs using OKRs. This means planning in smaller blocks, removing large monolithic investment strategies, and orienting around value chains versus project portfolios.

Architecture is no longer relegated to a group of techies hidden away in the basement. The market speed operating model elevates architecture to strategic importance; connecting and orchestrating the organization's digital technology and innovation agenda. The next generation of architects will have a profound influence on investment decisions, the governance and risk agenda, advising leaders on how work is performed, and will be closely aligned or embedded in the business. The market speed architect will rely heavily on cloud-native and distributed, or serverless, design and spend far less time analyzing the environment, instead focusing on helping the business connect through a marketplace of APIs and easily integrated platforms.

Digital delivery

This is the group of capabilities that support the organization's product architecture and provides methods to optimize delivery of products and services. Digital delivery is the engine that drives the market speed operating model. In order to accelerate input from the feedback loop and reduce rework, modern delivery practices take advantage of agile methods, frameworks such as SRE and SAFe, and leverage extensive automation of development, test, and operational toolchain. The future IT operating model does not do DevOps for DevOps sake, but uses these principles to effectively manage work across product and service types.

Business partnering and innovation

Business relationship management has been a part of operating models for some time. However, like many other capabilities supporting the connected enterprise, the relationship dynamic is being completely rewritten. When moving from a traditional supply/demand relationship, a broker/integrator dynamic, or even in a full DevOps model, there is a need for a robust approach for how business and technology teams work together. This includes the measures of success in terms of business metrics, developing a culture of trust, and encouragement to fail fast and continuously improve. Working closely with architects, designers, and engineers, the business partner role of the future will help keep the customer in the center, while helping the product team navigate the complexity of the enterprise.

To support innovation, the market speed operating model anticipates that many aspects of the traditional IT function will move into the business partner organization and enable the connected enterprise. While research shows that over 80 percent of executives feel that business units own incremental innovation (looking for ways to improve today's products, services, internal processes), the majority report that to achieve more complex and transformational results requires continuous collaboration with leadership functions like IT[6]. Innovation is core to the market speed operating model and intentionally leverages third parties and purpose-built teams to develop shared technology platforms, experimental architectures, data and analytics, and R&D capabilities.

Talent management

Over 65 percent of CIOs report lack of skills is holding back their ability to support transformation[7]. Not surprisingly most current or past IT operating models might have skipped - or assumed HR would be responsible for - IT talent management and the organizational design. The future of the IT workforce is built upon flexibility and a more holistic understanding of how work is performed and by whom. In connected enterprise companies, the CEO, CHRO and CIO collaborate to reinvent how they acquire talent, design a total workforce learning plan, manage employee engagement, and build better culture. Additionally, by meaningfully incorporating intelligent automation, machine learning and AI platforms into the workforce strategy, a cognitive shift occurs. Beyond simply automating rote activities, these technologies will enable workers to gain insights and increase productivity in ways that were previously impossible. Working at the speed of thought, these technologies will augment skilled professionals, enabling them to work faster with much greater throughput and efficiency, such as making judgments about the best tax treatments to apply to a set of company reports and accounts. This shift from slow or low value activities to more insightful, higher value creation directly contributes to the top and bottom line.

[6] Benchmarking Innovation Impact 2018 (Innovation Leader LLC & KPMG in the US, 2018)

[7] Harvey Nash / KPMG CIO Survey 2018 (Harvey Nash and KPMG International, 2018)

Powering up to market speed

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> **"CIOs are not being asked to keep the lights on any longer. They are increasingly reporting to the CEO and sitting with the board, being part of setting the strategic direction of the organization, architecting the seamless digital operating model and then monitoring the performance and achievements against targets"**
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> Steve Bates, Global Leader, CIO Center of Excellence, KPMG International
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As the lines between business and technology acumen continue to blur, IT functions have a unique opportunity to become more influential at all levels of the enterprise.

"CIOs are not being asked to keep the lights on any longer. They are increasingly reporting to the CEO and sitting with the board, being part of setting the strategic direction of the organization, architecting the seamless digital operating model and then monitoring the performance and achievements against targets," says Bates. To drive this process, CIOs need to take steps to disrupt their IT functions or face relevancy issues with their business partners trying to grow revenue or deploy capital effectively. The key to success is to create a blueprint for how the IT organization can turn from the organization that builds and connects everything, to the organization that houses the capabilities, governance, platforms, and partners that can run at any speed the customer requires.

What should organizations be doing now to prepare for this shift?

1. Recognize the power of the connected enterprise

IT's role in integrating the front, middle and back-office is critical. Without an integrated architecture powered by cloud, automation, and advanced analytics solutions targeted at specific customer metrics, the benefits of the connected enterprise cannot be realized.

2. Go deep on understanding the right product mix

The market speed model is dictated by the distinct needs of each product or service. Identifying, assessing, and then determining the right mix of technology, delivery, talent, sourcing, security, data, financial, innovation, and risk attributes will help define the design principles of the market speed operating model.

3. Prioritize cultural change over technical investment

Agile ways of working are only successful if teams trust one another, openly collaborate, and are not afraid to experiment and potentially fail. IT plays a core role in helping redefine the organization's ways of working. Start by aligning the C-suite on IT's core organizational principles (e.g., agility over methods, collaboration over control, community over hard lines).

4. Think beyond traditional IT capability models and organizational definitions

The connected enterprise requires end-to-end integration enabled by technology professionals everywhere. Scaling tech talent beyond traditional IT skills, certifications and silos requires a 360 degree view of talent, learning and competencies that include the business, third parties, and partners.

5. Evolve governance and risk management by "shifting left"

Speed, agility, flexibility, precision, security all depend on embedding governance and risk competencies across the value stream, as opposed to the end where it most often sits today. By shifting core activities such as cyber, legal and compliance, and internal audit upstream, or left, in the value chain, products and services teams immediately benefit from early counsel, review, and approval.

6. Integrate the C-Suite

Many organizations are investing heavily in IT transformation, but few are successfully scaling to achieve desired benefits. A primary root cause is that there are too many disparate programs, efforts, point solutions, and technology projects running in parallel, both within and outside of IT. The CIO should champion the connected enterprise and market speed operating model with the board and C-suite, and encourage tightly integrated and jointly governed investments to eliminate project sprawl.

Many organizations are experiencing significant challenges in gaining alignment and executing against these six points. Keep in mind, these ingredients aren't binary - an organization is not entirely "digital delivery" or not. Organizations need to find the proper scope, scale and plan to implement the operating model that results in connected enterprise benefits.

Why KPMG?

KPMG member firms recognize that CIOs and IT leaders face increasingly complex demands and challenges. Today, IT must advance the business, not just support it, with boards increasingly expecting returns on digital investments and the implementation of successful digital transformation strategies that will drive up agility, responsiveness and enhance the customer experience.

KPMG professionals can help CIOs, technology leaders and business executives to harness new technology and improve the strategic value of their technology investments. If your business is seeking ways to leverage technology as a source of innovation and competitive growth, KPMG member firms can help.

Related reading

This paper is part of KPMG's Future of IT series, exploring the six most important things that market leaders will do in IT over the next five years. For more on the Future of IT and to read other papers in the series, please visit **kpmg.com/Future-IT**.
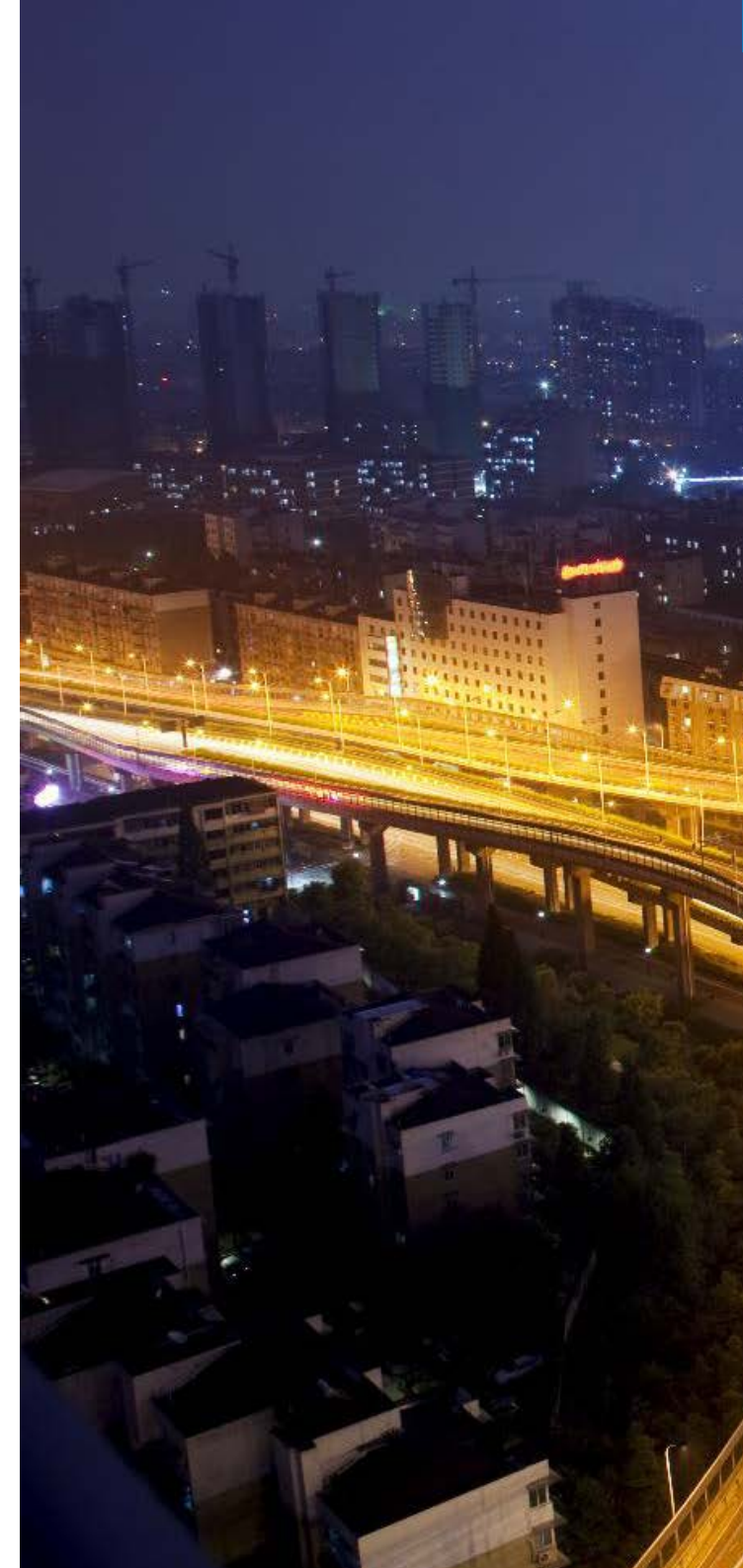
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