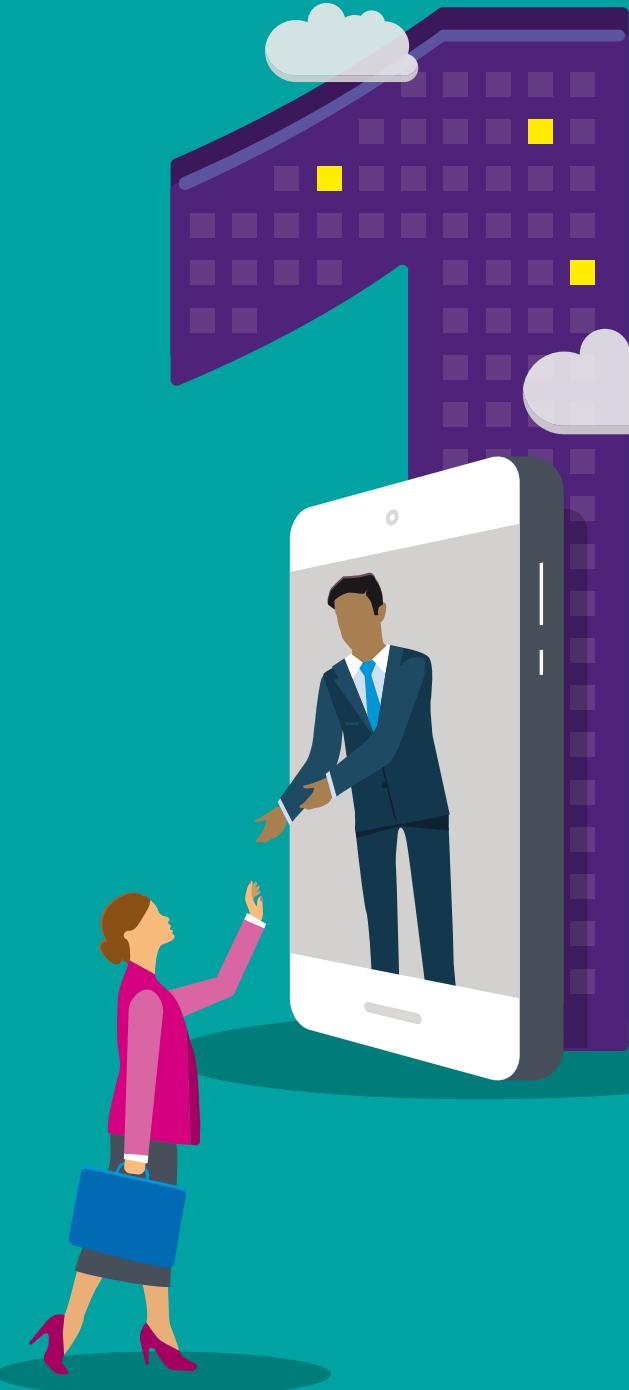




Next generation IT operating models

Part one: broker

October 2017





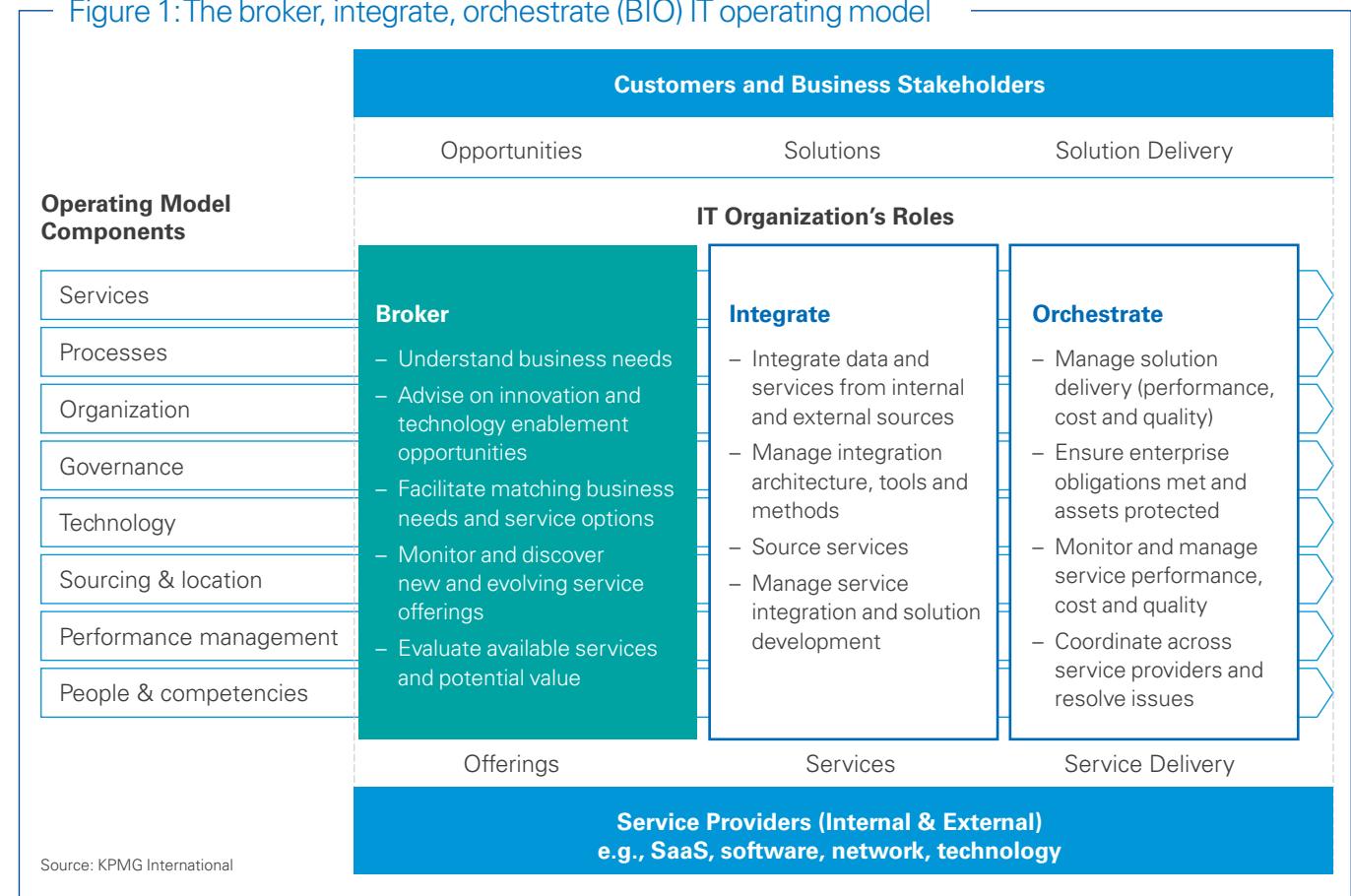
Introduction

Today, most organizations are somewhere along a digital transformation journey employing disruptive technologies to innovate across products, services, and business models¹. CIOs have been struggling to keep up with the insatiable demand for new digital capabilities from their business stakeholders. In fact, many have been watching their business counterparts increasingly turn to external providers for the technology enablement they need. In response, some CIOs have adopted multi-speed IT, increased their use of agile methodologies, or even created standalone digital units separate from the traditional IT organization. But these are only stop-gap measures. What's really needed is adoption of an entirely new IT operating model.

KPMG first introduced its next generation IT operating model in late 2014 encompassing three new roles for IT: broker, integrate, and orchestrate (see Figure 1)². This is not just a new name for the traditional plan, build, run legacy IT operating model. Where plan, build, run also described a functional organization structure comprised of technical silos, the broker, integrate, orchestrate (BIO) model describes roles that are independent of any organizational structure. In fact, we believe that the IT BIO model can support a variety of functional / organizational structures based, for example, on a line of business, product/platform, or channel alignment. One thing is clear – whatever new organization structure is implemented, it will break down the traditional technology silos while requiring new skills.

In this, the first in a series of three reports, we will take a closer look at the role of 'Broker' in the new operating model and the implications for CIOs.

Figure 1: The broker, integrate, orchestrate (BIO) IT operating model



1. "By 2020, 50% of the G2000 will see the majority of their business depend on their ability to create digitally-enhanced products, services, and experiences." IDC Worldwide IT Industry Futurescape, Nov 2016
2. See "Next Generation IT Operating Models", KPMG Institutes, August 2016, <http://www.kpmg-institutes.com/content/dam/kpmg/advisory-institute/pdf/2015/next-generation-it-operating-models.pdf>



The broker role harnesses the emerging digital ecosystem

Digital transformation has changed the role of IT in most organizations in three significant ways. First, technology is no longer just an enabler for the business, but a critical component of the customer value stream and a source of revenue. Whether they are consumers hailing a ride from their mobile phone or businesses using the Internet of Things (IoT) to provide incremental value-added services on top of existing products, both are directly interacting with IT products and services. This makes IT a direct and necessary contributor to competitive differentiation. Secondly, the speed at which IT must deliver new or enhanced digital capabilities is now measured in hours or days, not months or years as in the past. A major online retailer deploys code changes to production servers on average every 11.6 seconds!³ Lastly, there is a rapidly expanding ecosystem of vendors, products, services, and talent that can deliver digital capabilities to the business, often without involving the IT function. In the most recent Harvey Nash / KPMG CIO Survey, one out of ten IT decision makers said that over 50 percent of their firm's IT spend was controlled by or managed outside the IT function⁴.

The emerging digital ecosystem

Disruptive technologies and the commoditization of IT have spawned ecosystems of technologies, apps, and service providers that have fundamentally altered how organizations acquire and deploy technology capabilities as well as monetize their digital assets. Most prominent among these are SaaS solutions which are expected to grow to more than \$112 billion by 2019 and the Internet of Things (IoT) which is expected to have over 20 billion connections by 2020 according to Gartner⁵.

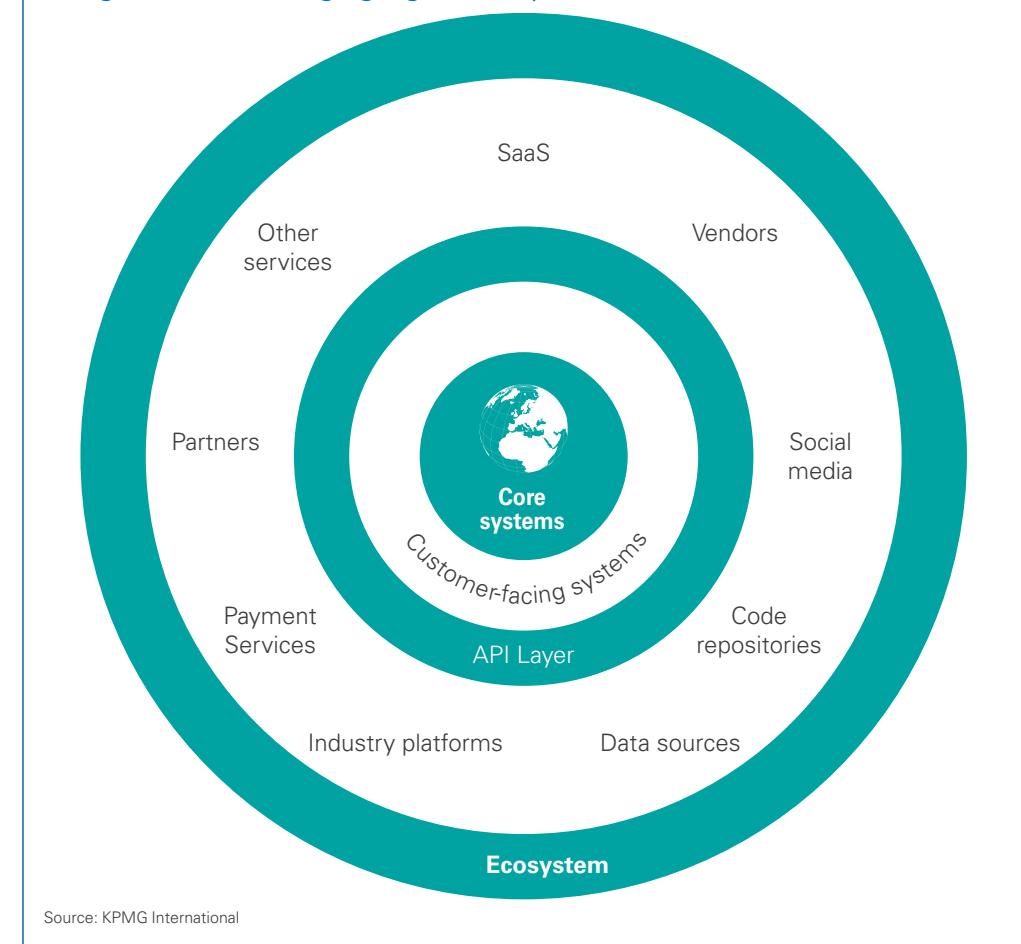
Ecosystems have given rise to platform business models where value is created by facilitating transactions through connections, providing a way for organizations to create new revenue streams by exposing their digital assets to external partners, as well as collaborate with individuals and other entities to co-create new products.

3. See Velocity 2011: Jon Jenkins, "Velocity Culture" on YouTube

4. For additional related data and insights from the survey see the full report "Navigating Uncertainty", Harvey Nash / KPMG CIO Survey 2017. www.kpmg.com/ciosurvey

5. "Gartner Says 6.4 billion connected "things" will be in use in 2016, up 30% from 2015" Gartner Press Release, November 10, 2015. <http://www.gartner.com/newsroom/id/3165317>

Figure 2: The emerging digital ecosystem



Source: KPMG International



The broker role harnesses the emerging digital ecosystem cont...

IT must respond by changing its operating model and acting as a broker to sensitize the business to the available opportunities. It must harness the rapidly expanding ecosystem to quickly deliver technology-enabled innovation and digital solutions to its business partners.

To fulfill these goals, the broker role performs three major functions:

- Proactively engage the business in a partnership and shape demand
- Leverage emerging technologies to drive innovation
- Promote and manage a solutions portfolio

01

Proactively engage the business and shape demand



The day when business strategy and technology strategy could be developed independently and then “aligned” is over. Technology plays such a critical role in digital business that it requires a single digital business strategy. As a result, IT must have a much closer relationship with the business to develop a common understanding about market opportunities, customer needs, value propositions, and the competitive landscape along with emerging technologies and how they might be used to drive innovation. In the broker role, it is important for IT to:

- **Facilitate development of the digital business strategy.** IT will work as a consultant and trusted advisor to the business to facilitate the development of an enterprise-wide integrated digital business strategy and related roadmaps as well as a rolling planning process to identify and sequence the required digital capabilities.
- **Simplify and digitize business processes.** IT will need to work cross-functionally to simplify and digitize business processes wherever possible to gain efficiencies and agility.
- **Shape demand.** IT will need to work closely with key business stakeholders to understand the strategic and tactical needs and map them to existing services in the current portfolio whenever possible. When they can't be met, IT will help source the most appropriate solution.

The outcome should be an integrated digital business strategy and related roadmaps that will drive digital business transformation efforts.

This approach is based on the increasing commoditization of technology and enables IT to leverage the growing ecosystem of cloud-based services. With less time spent on provisioning and operating infrastructure, CIOs can spend more time on strategy and innovation efforts, and because IT works with all functions, business units, and geographies it can identify opportunities where solutions can be leveraged, help share best practices, and work to standardize and optimize business processes.



02

Leverage emerging technologies to drive innovation

Emerging technologies have caused significant disruption across a broad range of industries and companies providing huge financial benefits for some and near death for others. Survival in today's digital business world requires that all organizations develop transformational capabilities to change the business or face marginalization and even extinction. In its role as broker it is important for IT to:

- **Advise the business on innovation and technology enablement opportunities.** IT must work closely with the business to help it understand emerging technologies and ecosystems and how they may be leveraged to create new opportunities for innovation in products, services, business models, and customer experience to gain competitive advantage.
- **Monitor and discover new and evolving service offerings and technologies.** IT needs to maintain an R&D capability with dedicated funding to discover and gain experience with emerging technologies and services and assess their potential usefulness within the business. As part of this effort IT should maintain an innovation lab where cross-functional teams representing IT and its business partners can test out new technologies. Some firms have partnered with vendors, academic research centers, and start-ups as another path to exploring emerging technologies, while others have set up venture capital like funds to gain an early advantage in ferreting out promising new technologies.
- **Host an incubation center.** As promising technologies are identified during the R&D process and mapped to potential opportunities, IT can provide an incubation center where innovative ideas can be prototyped and piloted to validate their suitability. Those that pass can be moved into the service portfolio and scaled where appropriate.



03

Promote and manage the solutions portfolio



The go-to place for technology enablement is the service portfolio, the repository of comprehensive, valued-added business services that are either procured or developed in response to the needs of the business and managed throughout their lifecycle. In its role as broker IT should:

- **Facilitate matching business needs and service options.** The IT broker leverages its knowledge of business strategy, business processes, and market offerings to assist the business in selecting the most appropriate products and services to meet its requirements, wherever possible choosing standardized services rather than unique, customized approaches.
- **Evaluate new services for potential value.** In cases where business needs cannot be satisfied within the existing service portfolio, IT works to identify and evaluate potential solutions from the rapidly growing ecosystem of cloud-based service offerings (SaaS) to determine if their performance, quality, cost, and value are suitable. If one is found it is procured and added to the service catalog where it can be leveraged with other business units in the future.
- **Initiate development of new service offerings.** As a last resort, if business needs cannot be met from the current service catalog, or procured externally from a SaaS provider, IT will initiate the development of a new service offering by contracting with a strategic partner or an internal development organization.

In performing these three functions, IT ensures that the business has digital technology capabilities it needs.



Key broker players

Perhaps the biggest challenge confronting CIOs as they transform the IT operating model is the human capital component. The broker, integrate, orchestrate roles have profound implications for existing positions and skills – see Figure 3. New positions and skills are required, some current IT positions need to evolve, and some are reduced or even eliminated. Key players in the broker role include:

Business relationship managers

In this model, business relationship managers (BRMs) evolve to take on a more strategic role and are embedded within the business. The BRM is a senior level technology executive with extensive business and industry experience. As a partner the BRM works closely with business unit leadership in a consultative capacity to:

- **Educate on new technologies.** Keeps business executives informed on emerging technologies and their capabilities and proactively brings ideas for technology-enabled innovation.
- **Facilitate integrated strategic planning.** With a thorough understanding of technology and the business, the BRM works closely with business leaders to develop an integrated digital business strategy. They will help drive IT priorities with analytics about customers and competitors.
- **Measure performance on business outcomes.** The BRM will develop new IT performance metrics based on value delivered and end customer outcomes rather than traditional IT metrics around project performance and system availability.

Figure 3: Broker role key players and outcomes

Function	Key players	Desired outcomes
Proactively engage stakeholders	Business relationship manager Enterprise architect	<ul style="list-style-type: none">– Integrated digital business strategy– Roadmaps– Demand shaping
Leverage emerging technologies to drive innovation	Emerging technology engineer Agile developer	<ul style="list-style-type: none">– Stakeholder education– Opportunities for emerging technologies– Incubate innovation
Promote and manage the business service portfolio	Product manager Service portfolio manager	<ul style="list-style-type: none">– Promote use of standardized products & services– Maintain the service portfolio– Acquire new services to meet business needs

Source: KPMG International



Key broker players cont...

Enterprise architects

Existing architectures have evolved organically and are now overly complex and restrictive. Initially designed to avoid risk they have become barriers to change and innovation. The rapid introduction of disruptive technologies like cloud are also demanding architectures change. Next gen operating models require next gen architecture that leverages existing investments while facilitating speed, agility, and real-time business continuity.

As a result, enterprise architects must:

- **Develop a pluggable architecture.** As technology change continues to accelerate, architects need to design modular architectures to accommodate new technologies.
- **Simplify and standardize.** Architects need to drive usage to standard package functionality in key domains like CRM, ERP, and supply chain while reducing the number of applications in the portfolio.
- **Design for resiliency.** The public cloud remains vulnerable to significant outages. Architects need to design architectures that are “self-healing”, i.e. that have built-in mechanisms to detect significant degradations or outright outages and automatically re-route workloads to alternative sites or reduce functionality to maintain acceptable performance.

Agile developers

Most development will be done by teams and managed as part of formal business change programs. The broker role will require a small team of agile developers to:

- **Assist with proofs of concept (POC).** Part of the broker role is to drive innovation by exploring emerging technologies and working closely with business partners to test out how new technologies can be leveraged to deliver business value. Those experiments that demonstrate potential will be transferred for further development into a working prototype.
- **Develop prototypes.** POCs that show promise are developed into working prototypes where they can be further tested and demonstrated to the business and even selected customers before making a decision to commercialize and scale it at which point it would become a formal program.



Key broker players cont...

Product managers

In a digital business, software is a critical component of most products, services and customer experience and delivers tangible business outcomes. As a result, a new role of product manager has emerged with end-to-end accountability for software components in the customer value chain. The product manager serves as the proxy “customer” to the team developing and deploying the product to ensure that it meets business goals and maximizes the return on investment. In the broker role product managers:

- **Set the vision for the product.** Product managers analyze market and customer data along with business goals to develop an overall vision for the product.
- **Build a roadmap for product development.** Markets are dynamic and constantly changing. Products must evolve to remain relevant. The roadmap tells the story about the likely growth of the product to meet these changes.
- **Monitor and analyze product performance.** Once a new product is deployed, product managers monitor performance to ensure that it is meeting business goals and that customers are using it as expected and make changes to the product roadmap if necessary.

Service portfolio managers

The service portfolio is comprised of the service pipeline (planned or under development), existing services (the service catalog), and retired services. This service portfolio is managed by a service portfolio manager who should:

- **Define and analyze new or changed services.** Defines the desired outcomes of a proposed new or changed services, analyzes the impacts on existing services in the service catalog, and determines the assets required to offer the services.
- **Initiate change process for approved services.** Submits formal change proposals to change management, and initiates the design stage for new or changed service when appropriate.
- **Review the service portfolio.** Assesses the service portfolio at regular intervals to ensure that all service providers (internal and external) are offering economically viable services aligned with the service strategy.

This is a representative sample of new and evolving roles required for IT organizations to perform the role of broker but is by no means all-encompassing.



Next steps

Changing the IT operating model is an enormous challenge with very high stakes. It is further complicated because IT must continue to support existing portfolios including retained infrastructure and legacy applications during the transformation. For some time, IT will be operating with a hybrid model as infrastructure and operations migrate to the cloud, legacy applications and services are retired, modernized or replaced, existing skill sets are upgraded or acquired, and stakeholders adjust to the new approach.

For many, the biggest single challenge concerns the human capital element. IT organizations will get smaller even as demand increases due to the convergence of several secular trends. These include the virtualization and/or migration of infrastructure to the cloud which will shrink or even eliminate data center footprints and associated operations staff, the increasing automation of many processes and functions through digital labor; the evolution of applications development away from large waterfall project-based work to smaller, cross-functional agile teams; and the ongoing assumption of former IT functions by the business. In addition to shrinking, many of the remaining roles will require new or evolving skills.

As a first step, begin by assessing your current staffing and skills against the requirements of the Broker role and conduct a gap analysis. Key questions to ask are:

- How can your existing IT staff be developed to take on new roles and what skills/training will they need?
- How can IT create opportunities to recruit internal candidates from the business?
- How will your talent management capabilities have to change to ensure that you have access to the needed skills both internally and externally?
- How can you satisfy the most immediate needs while you build your capabilities?

This will identify candidates for training as well as what new skills need to be sourced.

The second step is to assess your current emerging technologies and innovation capabilities. Do you have in place the expertise, dedicated resources and separate funding to evaluate disruptive technologies and their impact on your industry; business model(s), products and services? Key questions to ask are:

- How will emerging technologies play in your business and your industry?
- How are your competitors reacting to digital disruption?
- How can you develop strategic relationships with your vendors, venture capitalists, academic or research institutions?
- How can you secure a dedicated budget for R&D?

In part two of our series we will explore the 'integrate' role.



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