



# Five Ways to Make Platform-Based IT Organizations Work

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Budget constraints are a fact of life for chief information officers, and they have coped in the past by leveraging digital capabilities to operate more efficiently and lower headcount. But today those budget constraints are amplified by the need to modernize the IT environment.

The dilemma that many CIOs find themselves in is how, under these budget constraints, to pay for vital modernization initiatives and avoid further headcount reductions.

The answer, we believe, is to transform the organization and change the ways of working by adopting a platform-based IT organization. This new setup promotes the agile collaboration of functional and technical experts so they can align on and implement business solutions, increasing speed to market and productivity by two to four times. These improvements can fuel the budget to modernize IT while accelerating value generation and maximizing customer/user satisfaction. With this in mind, we have identified five principles to make platform-based IT organizations work: semiautonomous decision making, client and user centricity, advanced IT and data capabilities, highly skilled teams, and agile at scale.

## **NEW WORKING MODELS**

Budget constraints are not the only challenge that CIOs face. They have been wrestling with a daunting array of obstacles related to digital transformation that weigh heavily on company performance. Now, COVID-19 has pushed these pain points to excruciating new levels. (See Exhibit 1.)

## Exhibit 1 - The Typical Pain Points Weigh More Than Ever on CIOs' Minds



### **Lack of coordination with other stakeholders**

Lack of coordination on roles and responsibilities between the business and other entities can inhibit collaboration



### **Poor connections between global and local teams**

Multiple dependencies that require back and forth between fragmented global and local teams can slow down implementation



### **Lack of agreement on ways of working**

Lack of agreement on "how" to work (e.g., group tools, methodologies, technical guidelines) can make delivering global and local products difficult



### **Limited skills at local level**

Limited expertise at the local level on globally defined technologies can impede collaboration



### **Issues with data quality**

Lack of industrialized business and IT capabilities to assess and improve data can hurt data quality across the landscape



### **Lack of control over data evolution**

Limited view and control over how "business logic" evolves and flows for master and transactional data (e.g., how the customer is defined) across the IT landscape causes quality issues with data products

Source: BCG analysis.

The good news is that technology advances are enabling new working models that can help companies address these challenges more effectively. By designing technology and the human organization around each other, a company can bridge the gap between being scalable (the province of technology) and being flexible (the province of humans). Now companies can also use standardized APIs and microservices for open-source collaboration, driving down transaction costs and facilitating innovation. Meanwhile, the advent of bionic learning allows companies to rapidly improve processes and create better outcomes. Machine learning detects patterns in big data, and then humans review them to make sure the numbers make rational sense.

## **DEFINING THE PLATFORM-BASED ORGANIZATION**

One of the best ways to ensure that these new working models function at their full potential and address pain points is to implement a platform-based IT organization. In a nutshell, a platform-based IT organization gathers people with a common interest in a specific functional or technical domain so they can work directly with one another on a

dedicated platform for a specific project. A platform-based IT organization is client-centric and fully aligned on business processes and flows.

The platform teams within a platform-based organization have end-to-end ownership (from design to run) and are empowered to make key decisions to deliver business value faster. These teams provide guidance and services to other business and technology teams to improve impact. And they facilitate collaboration across organizations, breaking down silos to share data and expertise.

Within a platform-based IT organization, there are four organizational units (two vertical and two horizontal) that regularly interact with one another: business platforms, technology platforms, communities of practice platforms, and transversal team platforms.

**Business platforms** are vertically integrated teams of business and technology people with end-to-end (E2E) ownership of a digital solution (front end, data, and back end) across the development life cycle in a distinct domain, such as sales and marketing, supply chain management, data management, or support functions. The E2E ownership encompasses the business flows and process steps, the associated IT services, and the people. The strategic needs of the business guide these platform teams, and the teams are accountable for the success or failure of the digital solutions they pursue. They practice agile ways of working, align on a solution, develop the solution in sprints, and scale up digital processes and engineering. Generally, these teams are allocated budgets incrementally each quarter, driven by business impact.

Business platforms are best suited to managing a fully digitized product or service, such as overseeing an airline's frequent flyer points. However, these platforms can also work alongside the physical business and improve the business flows there as well. For example, when dealing with

the flow of physical goods (for example, specialized product orchestration), the platform can manage the value chain and the delivery of goods, reengineering the processes along with the underlying technology. These platforms can also help manage human talent—for example, by developing maintenance and shift schedules that employees can access and share digitally.

We have identified 13 key design principles for these business platforms. (See Exhibit 2.)

**Exhibit 2 - Thirteen Key Design Principles for a Platform-Based IT Organization**

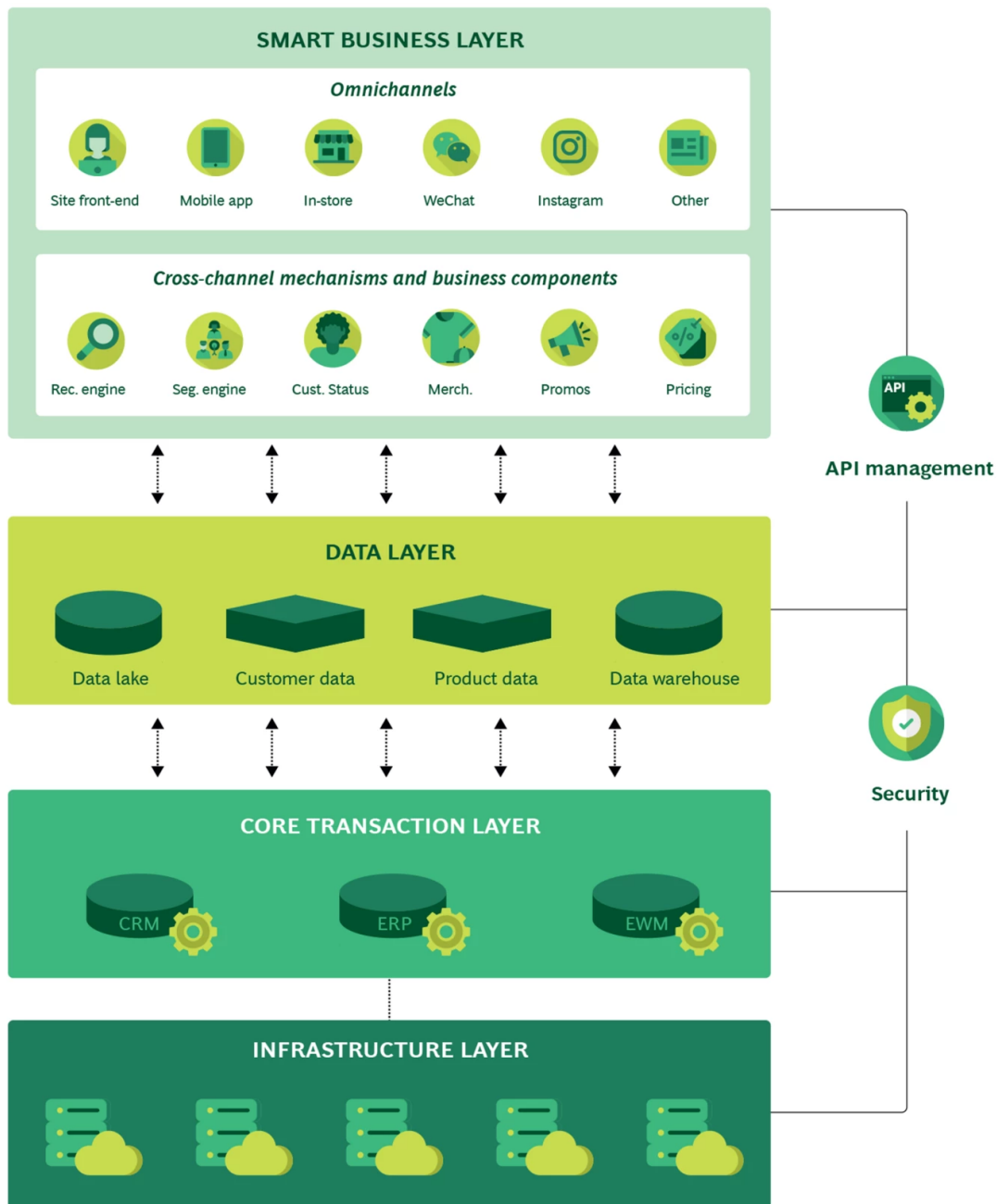
- |   |                                 |    |                                  |
|---|---------------------------------|----|----------------------------------|
| 1 | Product team clustering         | 7  | Agile product team working model |
| 2 | Agile scaling framework         | 8  | Run what you build               |
| 3 | Roles in the product team       | 9  | Involvement of business units    |
| 4 | Size of product teams           | 10 | Setup of product teams           |
| 5 | Layers in platform organization | 11 | Reporting of team members        |
| 6 | Platform leadership             | 12 | Reporting of platform owner      |
|   |                                 | 13 | Reporting of technology leader   |

Source: BCG analysis.

**Technology platforms** are vertically integrated IT service teams that develop and operate IT platforms to support the specific technology needs of business platforms. These teams have end-to-end responsibility for tooling, infrastructure, and technology standards. They practice agile ways of working, align on a solution, develop the solution in sprints, and scale up tooling, infrastructure, and tech standards (except in areas where the technical landscape prevents independent deployment in agile teams). These teams are also allocated budgets incrementally each quarter on the basis of business impact.

For technology platforms and business platforms to work together successfully, they need to be based on a common data and digital platform (DDP). The DDP's modular architecture separates data from core transactional systems like enterprise resource planning and customer relationship management, creates more modular interfaces between systems, and adopts cloud infrastructure for speed and agility. It also creates a digital front end that is more adaptable; it can evolve as customer, supplier, and employee needs change. (See Exhibit 3.)

### Exhibit 3 - The DDP Architecture Supports Agility, Speed, and Scale



Source: BCG analysis.

Note: API = Application programming interface; CRM = Customer relationship management; ERP = Enterprise resource planning; EWM = Enterprise warehouse management.

With a DDP, technology stacks have simple interfaces. Data moves faster and becomes a new source of competitive advantage. Agile teams can work in new, more collaborative ways. Powered by AI and leveraging open-source software and cloud services, the DDP can combine internal and external data in new ways, provide that data as a service to an



omnichannel smart business layer, and deliver new digital services to the frontlines every few weeks instead of every 12 to 18 months.

**Communities of practice platforms** involve horizontally integrated groups of digital experts (for example, product owners, engineering managers and directors, scrum masters) with common interests in specific topics (for example, UI/UX, quality assurance, integration). They build, share, and promote expertise and best practices in their topics across teams. They provide guidance to line managers who might not be experts in the topic, and they can support career development and training. The members of these communities include a sponsor from the leadership team and a community lead, who is usually a senior engineer. Core members are responsible for facilitating events and supporting the lead, while community members have a looser affiliation and participate according to their interest in the topic.

**Transversal team platforms** involve horizontally integrated teams that ensure governance and help coordinate a range of critical functions across the IT organization. These functions include the following:

- **Strategy and Planning for Data and Technology.** Teams coordinate the data and technology strategy's design and execution; they also manage the technology portfolio.
- **Enterprise Architecture.** They develop architectural guidelines for specific technology assignments. Guidelines are approved by a committee made up of the CIO and technology leaders.
- **Sourcing and Procurement.** They maintain strategic relationships with key technology vendors and establish sourcing and procurement guidelines for technologies and tooling. Guidelines are approved by a committee made up of the CIO and technology leaders.



- **Cybersecurity and Compliance.** They mitigate digital security risks through governance structures, policies, information security management, and data management.
- **Service Desk.** They orchestrate service desk operations by automating low-level requests and directing high-level requests to the appropriate product teams.
- **Data and Technology Transition.** They oversee the implementation of the target culture, organizational structures, ways of working, toolsets, and technologies.

## THE PEOPLE IN THE PLATFORMS

The platform's modular architecture allows autonomous teams to work at greater speed to create business value. But team members need the right skills and familiarity with new, agile ways of working. Because these talents are in short supply, companies need a systematic approach for identifying the skills they need to source and for defining the new jobs they need to fill.

Some skills, such as coding and data science, might already exist within the organization. These skills should be reinforced. But there are also new, much rarer skills that companies must seek out, including **cybersecurity skills** (for example, SecOps and identity and access management), agile talent (for instance, scrum masters), and infrastructure and cloud skills (for example, cloud engineering).

In some cases, hiring from outside the company is the best, most expedient option. But, given the rare nature of these skills and the salaries these candidates command, companies should make the most of the talent within the organization. By undertaking a digital knowledge review that combines self-assessments and manager input, and then

comparing the results with the competencies the company is looking for, a company can identify the best candidates for upskilling. Companies should tailor their upskilling programs and offer industry-recognized certifications to encourage participation. To further encourage employee engagement, companies could have employees codesign career paths with a manager and/or the HR department.

## **FIVE PRINCIPLES FOR NEW WAYS OF WORKING**

The organization needs the confidence to allow these platform teams to work freely to their full potential and not hobble them by enforcing old rules. We have identified five principles that will help companies cement new ways of working and make the platform-based scheme work.

- **Semiautonomous Decision Making.** Empower platform teams to make certain key decisions quickly and independently, while retaining companywide standards and policies to ensure governance and scalability. For example, platform teams can decide which tools to leverage during development, provided that the tools are cloud-native and allow for API services.
- **Client and User Centricity.** Design an IT organization that mirrors the business organization (for example, the IT supply chain platform interacting with supply chain business entities).
- **Advanced IT and Data Capabilities.** Leverage and mutualize state-of-the-art IT and data capabilities to enhance decision making across the enterprise (in areas such as architecture, infrastructure, portfolio management, and governance) on the basis of broadly established definitions, metrics, and artifacts.
- **Highly Skilled Teams.** Platforms require a drastic change in employee skills and behaviors. Companies

need to anticipate their talent needs and develop a recruitment plan as they upskill current employees.

- **Agile at Scale.** Encourage agile ways of working (with new roles, responsibilities, and decision rights, for example) within and across the organization in order to scale rapidly and adjust quickly to market changes. Ensure collaboration across the entire organization by creating cross-disciplinary (IT and business) teams that deliver iteratively, with feedback loops from the business to maximize speed and relevance.

The intertwining of technology and people that is at the heart of the platform-based organization is also fundamental to becoming a bionic company. A bionic company designs technology and the human organization around each other to transform operations and achieve outcomes such as new offers, new business models, and personalized customer experiences and relationships. We believe the company of the future will be bionic. (See Exhibit 4.)

## Exhibit 4 - The Platform-Based Operating Model Is an Integral Part of Being a Bionic Company



Source: "The Bionic Company," bcg.com.

### THE VALUE OF SPEEDY DEPLOYMENTS

A digital transformation is a daunting prospect. But with a platform-based IT organization, supported by a DDP architecture, the transformation can occur in manageable chunks, steadily and incrementally, using “speed boats.” A speed boat is a means of deploying part of the new organization or way of working in an accelerated, agile manner. These deployments require relatively low effort, have limited operational impact or dependencies on the rest of the organization, have high value and visibility for business and IT stakeholders, and can be launched in a standalone way, separate from the rest of the transformation.

In our experience, platform-based deployments significantly improve the customer experience and P&L. The benefits include better business and IT collaboration for improved product development; agile product launch cycles that speed time to market by two to four times; less overhead and

more built-in mechanisms for continuous improvement, which boost productivity two to four times; the digitization of operations and customer experience, which improves the cost-income ratio by 10% to 15%; and a more agile work environment that appeals to high-performing employees and aids recruitment.

For example, BCG worked with a large industrial goods company that responded to the COVID-19 business disruption by creating digital end-to-end (E2E) processes. It wanted to improve customer centricity, create integrated offerings, speed development, and boost efficiency. To those ends, we helped build a platform-based operating model on three pillars:

- **Technology.** We described a new DDP-based target architecture to create a seamless E2E customer journey. We assessed tech maturity and how changes in the tech architecture could solve pain points.
- **People.** We conducted a workforce survey of 3,200 internal and external IT staff. We baselined the roles, skills, and activities for more than 1,850 full-time equivalents, and then set goals for allocating the workforce to specific activities and skills.
- **Organization and Ways of Working.** We designed and planned the transition and created a detailed playbook to “stand up” the platform.

By setting up its platform-based operating model so quickly, the company accelerated its transformation toward being a bionic company. The new operating model allowed the business to decouple data and applications (making it possible to develop applications independently) and identify key capabilities to leverage across platforms to unlock value (both by reusing the capabilities and by scaling them across the enterprise).

The company's results have been dramatic across the board. Productivity increased 25% to 50%, time to market accelerated from 2-3 years to 3-12 months, the automation of DevOps reduced provision activities by 90% (thus improving agility), and IT run cost declined 20% to 30%.

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CIOs will continue to struggle to find a good balance between cost reduction and the innovation needed to foster value generation. But there are ways to manage this tension. The platform-based approach we describe in this article creates agility and success by facilitating the collaboration of functional and technical experts so they can align on and implement business solutions. By marrying the power and scalability of technology (through the DDP architecture) with human expertise, flexibility, and creativity, the platform approach takes organizations closer to being the kind of bionic companies that will own the future.

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