



## White Paper

# Strategically Solving the DX Talent Gap with Third-Party Services

Sponsored by: Cisco

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## IDC OPINION

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Companies, across all sectors, working toward developing and executing digital transformation (DX) strategies today wrestle with a myriad of challenges, but opportunities are huge. How organizations view DX, plan their strategic investments, and identify and source the right talent and skills form a critical set of requirements to digitally transform. Their acute challenge is the lack of necessary digital skills in adequate numbers to engage in DX.

According to IDC's 2017 *Global Digital Transformational (DX) Leader Survey*, a lack of digital skills in the organization was cited as the single-largest challenge to implementing digital transformation. Specifically, 27.7% of respondents felt there was not enough organizational talent with digital skill sets and 69% stated they lacked the right people, knowledge, and technology to transform. Correspondingly, companies seeking to implement DX are creatively looking to other sources of talent to enable their digital strategies, with 94% looking outside the organization at third-party suppliers or seeking new hires.

Additionally, IDC forecasts \$6.3 trillion in direct DX investments over the 2017-2020 period. It is not surprising that \$2.6 trillion of this planned investment is being budgeted and spent exclusively on third-party services firms with expertise in DX. Organizations are looking to these strategic partners for help in implementing digital process technologies and capabilities, supplementing scarce digital skill resources.

## IN THIS WHITE PAPER

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This white paper covers the concept of digital transformation; IDC's DX spending guide and forecast; and digital capabilities required to transform business processes and key infrastructure elements, such as compute, networking, communications, and storage. The paper's focus then shifts to leveraging third-party services as a source of competitive differentiation when implementing DX, including key questions to keep in mind when selecting a services partner.

## DIGITAL TRANSFORMATION DEFINED

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Digital transformation is an enterprisewide, board-level strategic reality for companies serious about ensuring that their businesses are relevant and leaders in the digital economy (see Figure 1). DX is a multiyear effort with specific goals and objectives around markets and customers, revenue, and profit growth. Organizations that can build advanced DX maturity as a digital business will rule the day. It's not only in terms of delighting customers with superior products, services, and quality in real time;

companies will have created agile business organizations with advanced change management maturity that can maintain a leading position, moving with the dynamic business environment and extending their leadership positions in the industries and markets they serve.

## FIGURE 1

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### Digital Transformation Defined

#### TRANSFORM

New sources of innovation and creativity to enhance experiences and improve financial performance; simply modernizing the technology underpinning existing systems is not transformation.

#### DECISION MAKING

Using information to create an evidence-based culture. Companies should plan on doubling the productivity of their knowledge workers by using information more effectively.

#### WITH TECHNOLOGY

Digital transformation is not to be confused with digital technologies; however, it does use 3rd Platform technologies such as cloud, mobility, big data, and social as well as innovation accelerators including IoT, robotics, and 3D printing.

Source: IDC, 2017

Digitally transformed businesses have a repeatable set of practices and disciplines (a method or methods) used to leverage new business, 3rd Platform technology (such as cloud, mobility, big data, and social technologies), and operating models to disrupt businesses, customers, and markets in pursuit of business performance and growth.

### ACCELERATE DIGITAL TRANSFORMATION BY ADDRESSING ALL DIMENSIONS: ENTERPRISE DX TALENT IS SCARCE

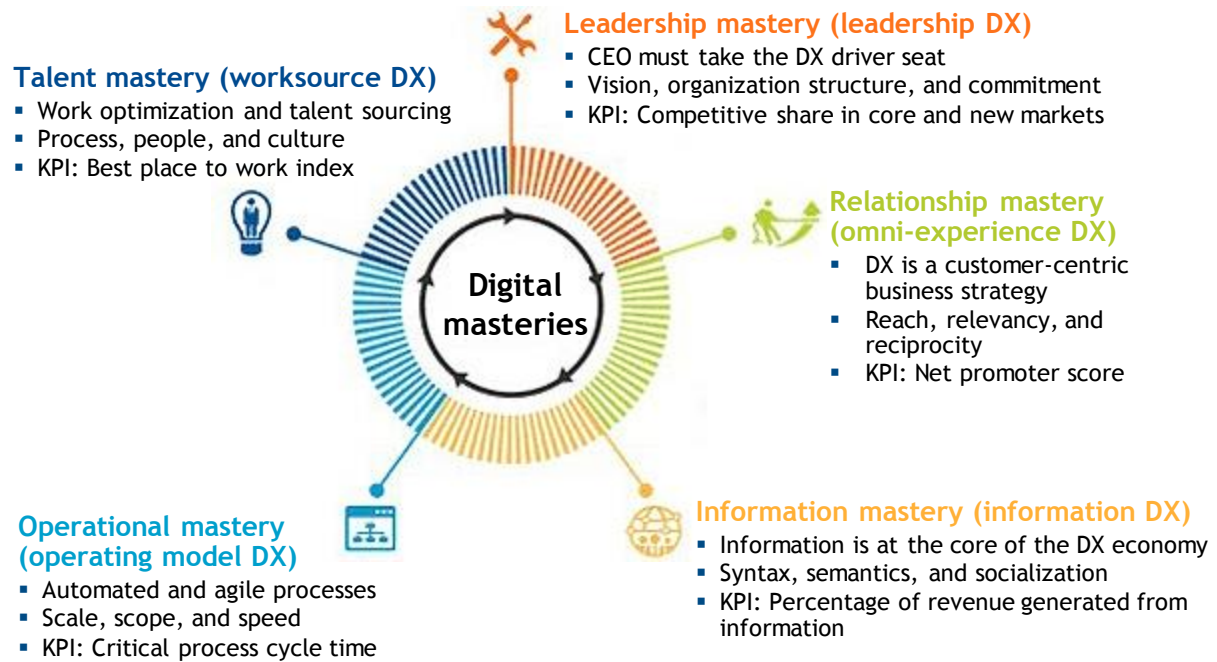
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For an enterprise to digitally transform, it must consider the five digital dimensions it needs to achieve on: leadership, relationship, information, operational, and talent in the context of the type of digital transformation it is undertaking (see Figure 2).

Of the five digital dimensions, talent acquisition and culture management are some of the top challenges for competing in the digital economy. The ability to create and sustain an innovative culture is what digital disruptors thrive on. Talent mastery (**worksource DX**) is about work optimization and talent sourcing where process, people, and culture need to be effectively aligned.

FIGURE 2

## Five Digital Transformation Dimensions



Source: IDC, 2017

## THIRD-PARTY SERVICES BRIDGE THE DIGITAL TRANSFORMATION TALENT GAP

Overall levels of DX investment clearly indicate execution of transformation efforts is held hostage by a lack of available talent.

According to IDC's Worldwide Semiannual Digital Transformation Spending Guide forecasts, service investment is, and remains, the single-largest DX investment category across 2017-2020 (see Tables 1 and 2).

**TABLE 1**

**Worldwide Digital Transformation Investment Levels by Category, 2017-2020 (\$M)**

| Overall  | 2017      | Category (% of Total) | 2018      | Category (% of Total) | 2019      | Category (% of Total) | 2020      | Category (% of Total) | Cumulative 2017–2020 | Category (% of Total) |
|----------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|----------------------|-----------------------|
| Hardware | 409,139   | 33.4                  | 473,400   | 33.0                  | 548,912   | 32.6                  | 644,442   | 32.3                  | 2,075,893            | 32.8                  |
| Software | 301,647   | 24.6                  | 357,907   | 25.0                  | 430,012   | 25.6                  | 522,444   | 26.2                  | 1,612,011            | 25.4                  |
| Services | 513,236   | 41.9                  | 601,709   | 42.0                  | 703,174   | 41.8                  | 828,569   | 41.5                  | 2,646,688            | 41.8                  |
| Total    | 1,224,022 | 100.0                 | 1,433,017 | 100.0                 | 1,682,099 | 100.0                 | 1,995,455 | 100.0                 | 6,334,593            | 100.0                 |

Source: IDC's Worldwide Semiannual Digital Transformation Spending Guide, May 2017

With over 40% of all DX investment allocated to services from 2017 to 2020, it is clearly indicative of talent shortages when pursuing DX projects across all five DX dimensions due to simple demand versus supply. In addition, over 50% of the services investment is directed exclusively toward developing and implementing enterprisewide digital operation capabilities (**operating model DX**). IDC sees between 2% and 2.5% of investment going toward hiring talent (**worksource DX**) over this same period.

**TABLE 2**

**Worldwide Digital Transformation Service Investments by DX Dimension, 2017-2020 (\$M)**

| Services        | 2017    | Category (% of Total) | 2018    | Category (% of Total) | 2019    | Category (% of Total) | 2020    | Category (% of Total) | Cumulative 2017–2020 | Category (% of Total) |
|-----------------|---------|-----------------------|---------|-----------------------|---------|-----------------------|---------|-----------------------|----------------------|-----------------------|
| Leadership      | 6,905   | 1.3                   | 10,073  | 1.7                   | 14,132  | 2.0                   | 23,881  | 2.9                   | 54,990               | 2.1                   |
| Worksource      | 10,403  | 2.0                   | 12,869  | 2.1                   | 15,797  | 2.2                   | 20,883  | 2.5                   | 59,951               | 2.3                   |
| Information     | 68,947  | 13.4                  | 82,000  | 13.6                  | 97,789  | 13.9                  | 119,436 | 14.4                  | 368,171              | 13.9                  |
| Omni-experience | 130,377 | 25.4                  | 153,070 | 25.4                  | 178,535 | 25.4                  | 206,456 | 24.9                  | 668,438              | 25.3                  |
| Operating model | 296,604 | 57.8                  | 343,698 | 57.1                  | 396,922 | 56.4                  | 457,913 | 55.3                  | 1,495,137            | 56.5                  |
| Total           | 513,236 | 100.0                 | 601,709 | 100.0                 | 703,174 | 100.0                 | 828,569 | 100.0                 | 2,646,688            | 100.0                 |

Source: IDC's Worldwide Semiannual Digital Transformation Spending Guide, May 2017

This is a clear indicator that companies cannot hire, train, and deploy enough direct digital talent from their workforce (in adequate numbers) to get the work done. There are far more digital initiatives than the resources available to support them.

These factors include the lack of adequate digital skill sets in organizations and the sheer breadth and depth of scope involved to realize enterprisewide digital change management, including the business strategies, technology updates, and cultural change management requirements. All of these take significantly more time and resources than strategy development or other areas of transformation planning and execution.

For this very reason, most enterprises strategically partner with third-party service providers today. The digital capabilities (explained further in this document) of these service providers should go beyond high-level business transformation. These partners bring mission-critical talent resources with in-depth operational and technology skill sets and enable digital process capabilities through technological enablement.

## **Build the Bench: Worksource Strategic Service Partnerships Provide the Right Capabilities for DX**

Any effective worksource capability is realized by combining five key elements:

- **Technology.** New or existing IT systems, databases, applications, and emerging technologies
- **Process.** Activities, procedures, services, and resources that produce a business outcome
- **Governance.** Responsibilities, accountability, organizational design, and KPIs to guide the life cycle of the capability
- **Talent.** Skills, knowledge, work styles, and sourcing methods of the new digital workforce
- **Data.** The business concepts, data, and context combined across, and beyond, the enterprise that supports new digital products and services

These elements are combined in the context of the enterprise's culture to produce a measurable business outcome. Again, it is critical for companies to assess what they have versus what they need to achieve on sustaining outcomes and then determine the best and right mix of methods and modes to source them – through both internal and external resources.

## **Core Digital Business, Operational, and Technology Capabilities for Worksource DX**

IDC has built a vast DX capability reference model and distilled the core worksource capabilities that target current and future needs for customer, information, and operating model transformation and are reconfigurable as the business environment evolves. The capabilities also allow customer-focused experimentation, discovery, innovation, agility, and flexibility. Companies harnessing these worksource DX capabilities will be provided a competitive advantage through superior execution and business services. In detail:

- **Cognitive and analytics:** Harness data, analytics, continuous sensing, and collective learning and recommendation to improve experience, efficiency, and effectiveness through intelligent self-correcting, self-optimizing, and full automation in a "sense, compute, and act" model.
- **Real time and always connected:** Integrate real-time, always-connected, open source, consistent data and synchronized processes into all aspects of digital enablement through leadership, culture, talent, technology, platform, process, and governance.

- **Platform delivery and operation:** Provide, enhance, manage, and monitor technology and business capabilities as an integrated platform of services, provided through a portfolio of products and services, and an ecosystem and marketplace of sharing, trading, and buying.
- **Systems integration:** Link and orchestrate information systems with connectivity and interoperability in a managed and secure platform environment to deliver consistency, speed, business value, and efficiency to the enterprise.
- **Back-office operations:** Operate enterprise systems in a consistent, standardized, predictable, and compliant way to ensure traditional operations and make data and functions available to new digital products and services.

How companies develop and build these out will require both internal talent and third-party provider capabilities.

## A PARTNERSHIP APPROACH FOR SUCCESS IN DX

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Partnership across people, process, and technology is critical for successful digital transformation. From a technology perspective, IDC sees that the technologies that create IDC's 3rd Platform (mobile, social, cloud, and big data/analytics) are cornerstones for DX. Within the 3rd Platform, there will be some foundational technologies that will be inherent to the success of DX, such as compute, storage, and the network, that must all be highly attuned to application and workload requirements. For example, in an IoT solution alone (an accelerator of DX), the ecosystem of providers is vast and growing across mobile, analytics, and social and encompasses partners across sensors, networks, gateways, clouds, platforms, systems, and services. To navigate this ecosystem is overwhelming for most enterprises with limited resources and time. And this is just the technology component without addressing people and process!

According to a recent IDC DX professional services study, enterprises are keen to turn to third-party professional services for help in aligning DX initiatives by leveraging strategy, assessment, deployment (application), governance, analytical, and training services. In addition, the same study cites that 75% of enterprises will turn to third-party services – systems integrators (SIs), telcos, cloud service providers (CSPs), hardware and software vendors, managed service providers (MSPs), or an industry-specific vendor – across the full life cycle of services, plan, design, build, operate, and manage for their DX initiatives.

Finding the right partner will be critical, and utilizing the capabilities provided in the aforementioned list is a first step to help evaluate the delivery capabilities of your partners.

## Tools and Capabilities to Drive DX

IDC has highlighted many core capabilities for the delivery of DX. These capabilities involve an investment in analytics and insight through automation, which helps accelerate the DX journey. Having the ability to have real-time or near-real-time insight into technology, people, and process drives to the core of DX.

Just as important as the capabilities listed previously is the incorporation of people and process into the discussion. As standalone elements, these tools are extremely effective, but when coupled with the right people and defined processes, it makes the conversation that much more powerful. These tools enable high-level engineers to focus on strategic tasks, innovation, and competitive differentiation. Third-party services firms have made the investment in developing these toolsets for their enterprise customers.

While many services firms have invested significantly in the development of these automated tools and platforms, it is critical to evaluate their capabilities for solving an enterprise-specific business initiative or challenge. Today, IDC sees the development of these resources as unique IP or an amalgam of industry best practices to create these capabilities. Understanding their effectiveness and power will be critical for the evaluation process.

## Cisco Services Enable the DX Journey

The Cisco Services organization spans service provider and enterprise networking, along with a portfolio that supports collaboration, datacenter networking, cloud, security, and IoT professional services. Services are organized into the categories of advisory, implementation, optimization (business-critical services), training, managed, and technical capabilities. Further, Cisco has formed a team that is focused on emerging technologies such as cognitive, machine learning (ML), big data, business intelligence, and data visualization technologies in support of the broader services portfolio.

As such, it is important to understand that Cisco Services delivers services beyond a narrow definition of box-attached professional services. Instead, these services offer DX skills ranging from high-level consulting to optimizing technology environments and operational models as well as providing efficient maintenance of the solution.

Cisco delivers services, via 12,000 professionals globally, and has certified approximately 3 million Cisco engineers, professionals, and administrators worldwide. The company also maintains 170 labs globally. Cisco leverages its 30-year history of networking deployments to populate a vast global knowledge base and has designed, built, and maintained networks for 23 of the top 30 companies in the world.

Over the past 10 years, Cisco has invested heavily in the development and creation of IP to support automation and advanced toolsets for insight, configuration, deployment, remediation, and uptime. While Cisco has automated much of its services delivery capability, the company believes it provides higher value to customers with a "human in the loop" to interpret the information and build knowledge into tools and automation.

Its global knowledge base provides Cisco the opportunity to share best practices, learning, and innovation in a globally consistent manner either in person, as a self-service, or virtually to help accelerate a customer's technology adoption but, more importantly, new thinking in operational best practices that can be translated into business outcomes. Coupled closely to its technology and architectural innovations is the launch of the new Cisco Digital Network Architecture (DNA) services, which provides best practices for technology and operational efficiencies and expertise that have been designed and incorporated into the services that Cisco can deliver in support of a customer's digital transformation journey.

The IP in automation and toolsets, and investment in the global knowledge base and R&D, is complemented by Cisco's investment in people for delivery. Cisco has recently refreshed the training curricula it provides to its delivery personnel, partners, and customers in support of DX. New software-defined modules, processes refinement, and delivery capabilities are part of the DX transformation that Cisco has taken upon itself in support of its own customers' initiatives. These skills are designed to help support, augment, and complement a customer's talent capabilities during a DX journey. Understanding that DX talent is in short supply, Cisco has taken on the challenge to invest in its people to ensure it can support its customers' DX journey.

## CHALLENGES/OPPORTUNITIES

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While there are significant potential advantages in working with an external third-party services provider to bolster the enterprise DX journey, there are also challenges that enterprises should consider, including:

- **Services organizations are still defining their own DX and DX services strategies.** Despite the fact of being home to the best thinking, some services companies are also working through with their own transformation as well as building out their DX strategy. This is a new line of business for many of the players, and it will take a while for approaches to solidify.
- **Services organizations need to build out "DX brand awareness."** This is a new area, and having a strategy in place is not enough. Enterprises need to understand the value proposition of a services player in the DX space. If they do not, organizations will be reluctant to turn to services players for much-needed DX skills.
- **Development of the relevant processes and hiring the right people within the services organization are ongoing.** Even when they have a DX services strategy in place, many services organizations are still wedded to close-to-the-box services and do not have the necessary people and processes to drive DX at their clients.
- **Services organizations are building out advisory capabilities.** This is closely linked to the previous bullet point. Many services organizations focus on integration services and tend to be underweight on the consulting side. People and processes are vital to support advisory services, but what is also required is an "advisory mindset," enabling technology-centric services players to start thinking and acting more like business consultancies without going down the business consulting route.

However, services organizations that execute well and have a clear DX strategy, coupled with the right people, processes, and capabilities, bring a lot of opportunity to the table:

- **Services players can help enterprises achieve DX goals sooner.** One of the key reasons for using a third-party services partner is speed of execution. Rather than relying on an internal team making things up as they go along, the services player can bring to bear a range of proven methodologies, deep technology heritage, and very skilled people – all working together to compress project delivery dates.
- **Services players can help enterprises achieve DX goals in a logical, strategic manner.** It is a question of not only how fast you get to your goal but also the way you get there. The methodical approach inherent to services companies ensures a well-documented, logical process that can serve as a blueprint for other, related projects in the future.
- **Services players can help enterprises achieve DX in a more secure way.** Services players not only consider the job in hand but also look at a range of adjacent issues, including security and regulatory compliance. This is a vital area in the always-on DX world.

## ESSENTIAL GUIDANCE

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- **Systems and design thinking.** Engaging in digital transformation requires understanding and managing complex systems thinking across strategy, people, processes, and 3rd Platform technologies.



- **Services as talent.** Recognize and evaluate digital talent requirements and gaps early in the digital journey planning process. Understand these gaps and develop service provider needs and requirements accordingly.
- **Tell and show due diligence.** When performing strategic third-party services provider due diligence, ensure providers demonstrate and showcase referenceable examples of holistic value creation through delivered capabilities aligned to desired business outcomes.
- **Have globally cosmopolitan partnerships.** Strategic partners must have global presence, understanding and managing transcultural issues while also developing and implementing neo-cultural digital capabilities for markets, customers, and stakeholders.
- **Invest for the outcomes.** As stated previously, IDC forecasts \$6.3 trillion in direct DX investments over the 2017-2020 period. It is not surprising that \$2.6 trillion of this planned investment is being budgeted and spent exclusively on third-party services firms with expertise in DX. Ensure your budgeting and resource allocation process provides adequately for the digital business capabilities that enable success.

## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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