NEXT GENERATION DIGITAL PROCUREMENT

UPGRADE YOUR THINKING.

DIGITAL PROCUREMENT:
THE FUTURE BEGINS TODAY

The procurement organization has been largely left behind in the digital revolution. That needs to change.

With digital, bots will automate and streamline manual, routine procurement tasks. Buying agents and advisors are expected to help people make the best purchasing decisions, delivering optimal value to the business. And the familiar frustrations surrounding procurement today will give way to a simple and intuitive buying experience that users will enthusiastically embrace. This is possible. This is the future. And it starts now.

Why Digital Procurement, and Why Now?

As digital disruption sweeps across all industries, companies face unprecedented competitive pressures. Digital is creating new channels for customer and partner interaction that are upending core business models and industry dynamics. In turn, companies see their future relevance and viability under fire.

Business leaders know their companies should become much more agile and efficient than they've ever been to survive and thrive in this new world. That's why companies are racing to embrace digital to transform key areas of the business. Customer-facing ones such as marketing, sales, and service, as well as many important supply chain functions, have been the prime targets.

To date, procurement hasn't commanded the same kind of attention or investment. True, companies have enthusiastically embraced eProcurement systems and even cloud-based procurement tools. But it's time to move beyond simply replicating the same tedious procurement processes with new software. Leading companies are taking the next step and create a true digital procurement organization.

A true digital procurement organization automates repeatable tasks to boost efficiency and potentially drive down costs. It equips stakeholders across the business with real-time access to insights and analytics through artificial intelligence (AI) and easy-to-use online tools. It deploys new and smarter ways to infuse data models to enrich day-to-day operations and decision making. And it transforms how buyers interact with suppliers and other third parties by serving as a platform for new levels and types of collaboration.

In essence, digital procurement enables the 'Amazon-like' experience employees now want—but currently aren't getting—in the workplace.

Why is Making Procurement More Attractive to Stakeholders so Important?

Stakeholders expect the ease and elegance from the "procurement" tasks they do at home as consumers on Sunday to apply to the work they do for the company on Monday. But current procurement policies and tools are geared toward driving a process—with a lot of rigor and controls—versus an experience or outcome. So it's not a surprise that stakeholders find the procurement process too cumbersome, slow, and rigid. In their minds, Procurement is an obstacle to be avoided rather than a useful tool.

Conversely, digital procurement is defined not by a rigorous process but by deep and rich data. It assumes business controls are built into AI models so users can do what they want to do without having to go through many painful steps. Thus streamlining and simplifying how people make and execute buying decisions, digital procurement encourages stakeholders to "embrace the process" instead of circumventing it in favor of the experience they prefer. In other words, users aren't necessarily fully aware of procurement's influence and guidance, and they don't feel like they're "going through a process." They simply see valuable information presented that they can act on. Compliance and controls are inherent and embedded in the model instead of being visible obstacles to be overcome.
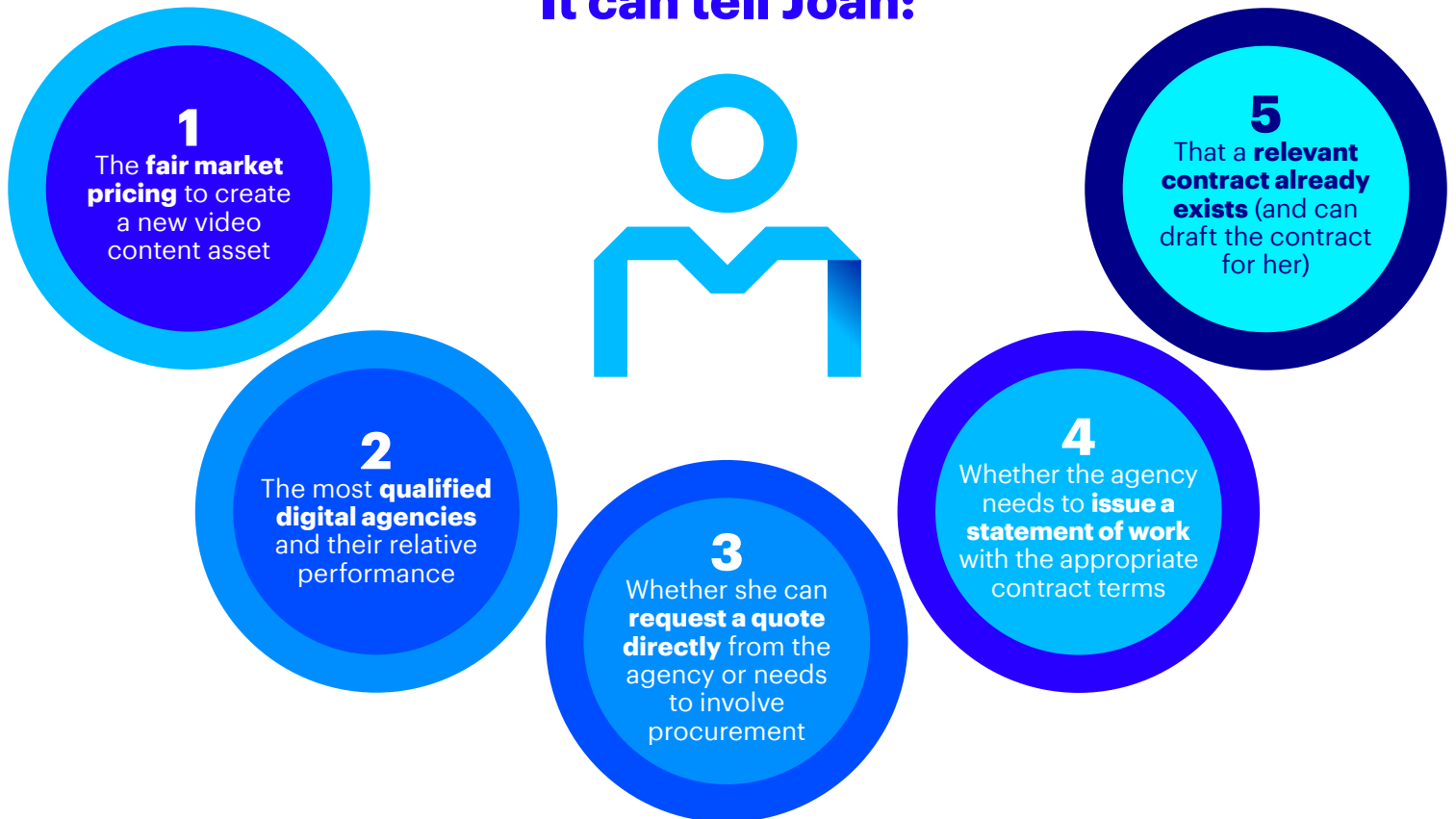
It's critical to increasing the procurement organization's influence over the half of the company's spend it doesn't control—and, by extension, increasing the effectiveness of how that spend is managed.

For example, consider Joan in the marketing department, who is responsible for the department's spend.

Via a dashboard on her laptop or mobile device, she has real-time visibility and information about all the department's past and current spend—how much, on what goods and services, and with which suppliers. But even better, she has access to an intelligent agent that helps guide her buying decisions. The agent draws on a vast array of transaction and contextual data, as well as market intelligence and category expertise it has learned from the company's category experts and its own experience, to help Joan through the buying process and choose the right approach.

It can tell Joan:

1
The **fair market pricing** to create a new video content asset

2
The most **qualified digital agencies** and their relative performance

3
Whether she can **request a quote directly** from the agency or needs to involve procurement

4
Whether the agency needs to **issue a statement of work** with the appropriate contract terms

5
That a **relevant contract already exists** (and can draft the contract for her)

Aided by this data-rich, analytics-driven, and AI-enabled process, Joan can execute her video project confidently, knowing she made the best possible decision for her department and the company.

Digital is the Foundation of Procurement 3.0

Digital procurement isn't just the next phase in IT's evolution. It's a genuine step-change—a dramatic departure from both procurement's use of technology and its operating model of the past few decades (Figure 1).

Today, the vast majority of companies have what we'd call a Procurement 1.0 organization. This is characterized by a focus on using technology to automate processes and record what has happened: a transaction executed, an invoice paid, an item purchased, a contract signed. And, unfortunately, it's also marked by systems of record (in the form of software) that generally have made the procurement process overly complex and unpleasant to navigate from a user's perspective.

Some leading procurement organizations are making strides toward 2.0, in which they're using technologies to dig deeper to get much more contextual information about what happened and why (see "Example: Capturing the Context"). Such information is critical: It's foundational to building AI-enabled predictive models that help improve future decision making, and are at the heart of a Procurement 2.0 organization.

Example: Capturing the Context

Recording the "why" and the context around specific past transactions is vital to making far more informed future purchasing decisions.

For instance, let's say your company needs a new boiler. Knowing that you bought a boiler two years ago from Acme Advanced Supplies (Acme) for $230,000 is useful information. But today, you're looking at the market for boilers and trying to determine who should provide the boiler for your next location and what an appropriate price should be. That means you also need two other key pieces of information: the alternatives that were considered as part of the purchase two years ago and the factors that led to the decision to choose Acme.

As it turns out, in addition to Acme, you bid this contract out to three other suppliers, and two of those suppliers' prices were lower and one was higher. One of the lower-priced suppliers offered a less-efficient boiler that would have actually increased Total Cost of Ownership (TCO) over the lifetime of the equipment. The other lower-priced supplier required customers to order spare parts through a non-preferred vendor. The higher-cost provider's product exceeded the needs of this specific project, making the increased cost impossible to justify. Acme won the business because its offering met all requirements and provided a low TCO option that also aligned with adjacent sourcing strategies for parts and maintenance contracts.

Within the next two to four years we'll see the emergence of Procurement 3.0. That's when procurement and the business will operate and interact with information outside their own data ecosystem, and intelligent capabilities will go beyond simply executing transactions to actually guiding (and in some cases, making) business decisions.

FIGURE 1: THE EVOLUTION FROM PROCUREMENT 1.0 TO 2.0 TO 3.0

3.0

Operate and interact with information **outside your own data ecosystem;** intelligent capabilities guide business decisions, not transactions

- **Cognitive guides sourcing strategy**
- **Real-time Twitter monitoring translates and interprets potential supplier risk**

2.0

Recording why decisions are made **in the procurement process;** the context; the context within your own universe of data

- **Who won / who lost / why**
- **Provides context for if / than**

1.0

Recording data and transactions through use of eProcurement technologies; digital process management

- **Who won**
- **Price paid**

Five Elements Are Key to Making Digital Procurement a Reality

With digital procurement, a company can dramatically improve procurement's speed, agility, and efficiency.

Digital procurement gives decision makers better visibility, reduces risk, and boosts compliance—ultimately increasing spend under management and driving more value for the business. But adopting digital procurement is a tall order. It requires what we call a "compound system of knowledge," which encompasses five key elements that most procurement organizations struggle to fully implement or operate.

DATA

TECHNOLOGY TOOLBOX

INTUITIVE USER EXPERIENCES

SKILLS AND TALENT

## NEW POLICIES, PROCEDURES AND OPERATING MODEL

Example:
How Digital Procurement Transforms the Way Companies Purchase Energy

Digital procurement can dramatically enhance the jobs of those who work in the corporate procurement organization. The energy spend category is a great example. Years ago, most companies received and paid bills from energy utilities without question, similar to how many consumers still pay their home energy bill today. However, competitive pressures on procurement organizations, combined with a proliferation of energy usage and pricing data, have created a digital revolution in the way companies procure energy.

Building Management Systems track temperature, humidity measurements, occupancy, and lighting levels against location-specific set points to ensure energy is not over-used (which leads to excess cost) or under-used (which can lead to occupant complaints). Such systems communicate with corporate control centers, which also monitor equipment such as roof-top units and refrigeration for signs of wear or malfunctions (which would otherwise lead to excess cost or early failure) and dispatch service technicians to resolve issues prior to equipment failure. Augmenting all these people, systems, and sensors is optimization software, which controls equipment cycling and set points across a portfolio of sites to take advantage of energy price signals that fluctuate hourly and vary by utility.

But next-generation digital procurement goes even further than that. Large corporate energy users today use hedging and purchasing techniques akin to those used by only the utilities in the past. In addition to monitoring real-time energy price signals, users keep tabs on forward (futures) price signals on a daily basis and apply multi-tranche layering strategies to slowly step into a contract price for energy instead of making an all-at-once purchasing decision (i.e., "Did I pick the right day or the wrong day to buy?"). In fact, the largest energy users are no longer price takers; instead, they forecast prices on their own and set production and purchasing schedules accordingly.

Next-generation procurement even can disrupt vendor business models. Large corporate energy users are increasingly buying power directly from renewable generators directly, bypassing traditional energy suppliers and utilities. Often times this energy is delivered "virtually" via a financially settled contract instrument. This leaves a utility company to still deliver physical power at a varying price but enables the end user to lock in a price independently through a third party. In other cases, the energy is generated onsite, eliminating the need for a utility company to be involved at all or offering a way to displace purchases made from the utility.
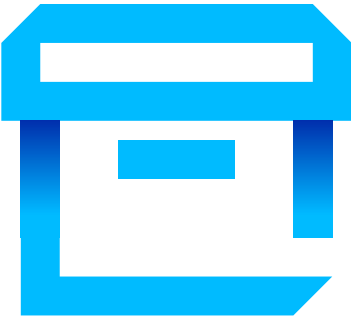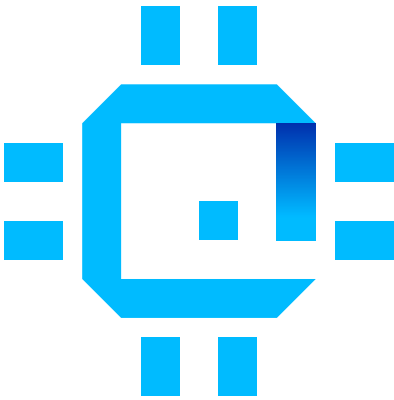
DATA

The main fuel for a digital procurement organization is data—and lots of it. Data underpins everything a company could do to predict the needs of people, know which goods or services are available to best meet those needs, determine which suppliers are the right ones, and identify the right price to pay.

But in most companies, procurement can't harness the explosion of data available about suppliers, pricing, the market, and other key factors to make more informed business decisions. Traditionally, they only gather transaction information and, maybe, line-item data. They're missing the contextual information surrounding purchasing decisions—especially the process data related to the steps they take to, for example, review and approve a requisition, set up a contract, or go through an RFP. They're also not tapping into the vast range of important external and third-party data.

To build a true digital procurement organization, companies should consider an intentional strategy to capture far more data internal and external—than they do today:

- **Everything the organization touches—not only in its sourcing process, but in any process generating data that's relevant to procurement and sourcing. This includes invoice and payment data to understand compliance with price and process, as well as process information, such as who approved a price variance and for how much.**

- **Data outside the organization, such as deep and broad category and market intelligence, which is arguably even more important. Such data is critical to developing the greatest insight into the TCO or pricing levers the company can consider when negotiating an individual contract. And it's vital to understanding which is the right item to buy and from whom. But due to the sheer volume of relevant data available, this is an area where most procurement organizations are particularly deficient. It's also a gap that's really hard for any one company to close on its own.**

The data procurement needs falls into two broad categories. The first is data that can be leveraged to create information that in and of itself has intrinsic value—for instance, a supplier profile, market overview, or descriptive analytics about the average price of a good or a service in a geographic market. The second is data that can be used to discover correlations between the characteristics of sourcing decisions and profit outcomes, and to build analytics-based predictive models and ultimately artificial intelligence. This is why a company should collect everything it can—the "X" that drives "Y" in a model is not always intuitive or obvious.

TECHNOLOGY TOOLBOX

If data is the fuel for digital procurement, technology is its engine. And by technology, we don't mean ERP-type systems (in the cloud or otherwise) designed to support a process. Rather, we're talking about technologies that harness and make sense of data—especially AI, natural language processing, analytics, and bots. By combining relevant data and these highly-advanced technologies, a company can automate and enhance a wide range of activities and processes—and, in some cases, go beyond simple automation to providing advanced intelligent support.

Think about plotting, on a two-dimensional matrix, every action and task that's executed in the end-to-end procurement process: Judgment complexity is on one axis, and the degree to which the input to that task or that action is structured versus unstructured is on the other (Figure 2).

Any activity or process that involves a high degree of both structured information (such as a supplier name, category, commodity code, discrete item description, or SKU number) and rules-based processing ("if X, then do Y") can and should be automated to accelerate execution and improve efficiency. This is the domain of bots.
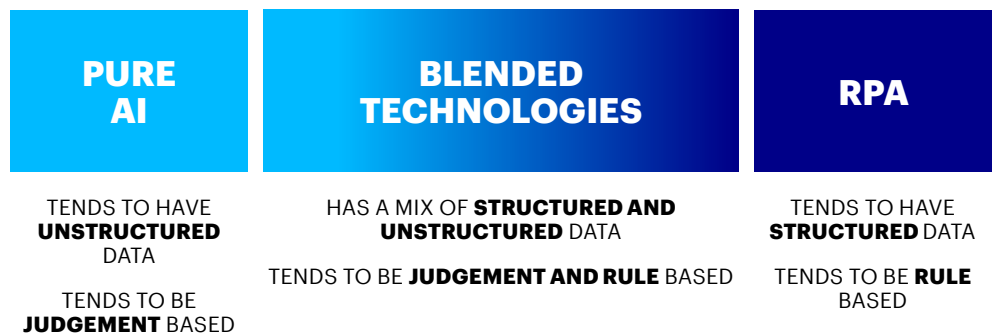
Here's a simple example: Using Robotic Process Automation (RPA)—a.k.a. bots—a company can automatically, with no human intervention, convert a requisition to a purchase order when all required fields are complete and accurate. Some existing procurement tools already support basic automation, such as automatically validating and assigning category and general ledger codes.
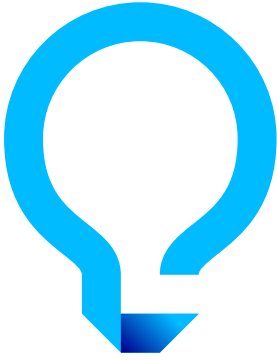
On the other hand, when an activity or process is subject to a high degree of judgment and involves a lot of unstructured information, automation takes the form of predictive models and artificial intelligence that intelligent agents rely on to help humans make better, more informed decisions.

For instance, when determining which suppliers to use in a sourcing event or spot buy, an intelligent agent will apply a complex model based on the sourcing and buying history of the items being sourced, supplier ratings and performance, and recent supplier pricing to recommend—and eventually choose—the suppliers that should be involved.

The technology needed to use data in such innovative ways exists today. And as it matures, it will move to the heart of virtually all procurement-related decisions.

FIGURE 2: AUTOMATION VERSUS INTELLIGENT SUPPORT

| PURE AI	BLENDED TECHNOLOGIES	RPA
TENDS TO HAVE **UNSTRUCTURED** DATA	HAS A MIX OF **STRUCTURED AND UNSTRUCTURED** DATA	TENDS TO HAVE **STRUCTURED** DATA
TENDS TO BE **JUDGEMENT** BASED	TENDS TO BE **JUDGEMENT AND RULE** BASED	TENDS TO BE **RULE** BASED

INTUITIVE USER EXPERIENCES

To fully benefit from digitalization of procurement, a company should provide an attractive, intuitive user experience that encourages stakeholders to use the online procurement tools. The more people who use these digital capabilities, the more effective they are in buying and the more data the organization can collect on specific transactions.

Without a compelling user experience, people will find a way around using the digital tools—whether by not buying something they really need because it's just too difficult or time consuming, or figuring out another way to get it.

In digital procurement, the ideal experience is akin to that delivered by Amazon.com, Inc or HomeAdvisor, Inc: There's a single dashboard or portal that serves as the starting point for every interaction, and that presents insights and information succinctly so the right decision or action is obvious to users. All the "messy stuff" happens in the background, far beyond the user's notice. By using intelligent algorithms, the system can provide recommendations to users instead of forcing them to manually search a database. That's much like how Amazon's product recommendations minimize the need for customers to sort through Amazon's offerings for other things they might want.
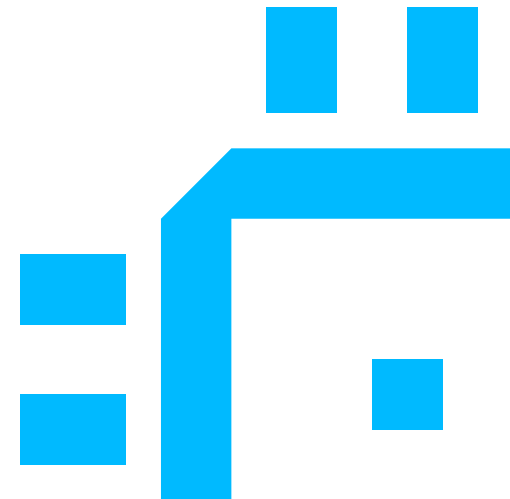
SKILLS AND TALENT

There's more to creating and operating a digital procurement organization than simply collecting more data and applying digital tools. Generating true value requires another key element, a cross-functional team of people with distinctly different skills:

- **Data scientists and AI experts who understand how to build and apply models to manipulate the data and tease out different correlations.**

- **Category/business experts who can advise whether those correlations are significant or simply coincidences.**

- **IT professionals who understand the technology tools and software applications, and how to integrate them to create a solution to a problem that actually adds value (not to mention how to incorporate them into the company's existing IT infrastructure).**

- **Design professionals who are adept at developing compelling experiences that make stakeholders want to use the tools provided rather than find ways to avoid them.**

The fact is, procurement should build deep skills across all four of these areas and combine them in ways that amplify outcomes. Investing in any one of them is not enough, nor is investing in all without a cohesive vision for how they work together to enable the digitalization journey. And this is an area in which most procurement organizations really struggle. Simply adding enough category and business specialists is hard enough. When you couple that with the huge challenge of finding and hiring qualified data scientists and technologists, it's easy to see that closing the talent gap is one of the biggest obstacles a procurement organization will face in becoming truly digital.

NEW POLICIES, PROCEDURES AND OPERATING MODEL

Digital procurement gives all stakeholders—company employees and suppliers—a new way to collaborate and interact, as well as access to more robust data and insights.

But to fully benefit from these new capabilities, a company should review its policies and procedures and ensure everyone understands their roles and responsibilities in the new procurement process and how they can make the most informed decisions. It's also likely a new or dramatically different procurement operating model will be needed to reflect the new ways of working.

Three Considerations for Moving Forward

As digital technologies continue to evolve and leading-edge capabilities such as AI become more accessible, the opportunities to vastly improve procurement's performance and contributions skyrocket.

A fully digital procurement model dramatically increases compliance, puts a far greater amount of spend under management, potentially increases overall savings, and significantly reduces risk. And it would do so seamlessly. In effect, it challenges the perception that working with procurement makes things harder, and that procurement only cares about saving money. But even more important, digital procurement is a competitive necessity: Continuing to run antiquated procurement processes can stunt growth and prevent organizations from pivoting to the new—whether that's selling new products, selling to new customers, or adopting new business models.

IT TAKES TIME

There's a very long runway to getting up to speed and actually using digital procurement capabilities. You can't just flip a switch and begin using AI to power buying decisions. In our experience, it typically takes three to five years to collect the relevant data, develop the necessary systems and processes, and build the underpinning analytics and AI. That's why it's critical for companies to begin moving today.

IT TAKES MONEY

Building a digital procurement organization also requires a big investment. Fortunately, digital procurement capabilities are increasingly available as a service, which could eliminate the upfront investment to build them, and also dramatically accelerate the transformation. Digital procurement as a service can provide the full complement of skills, technologies, best practices, and most important, the data necessary to transform a procurement organization.

IT TAKES VISION

Although the benefits of digital procurement are substantial and inarguable, it's a big departure from how procurement has traditionally operated. That's why a company should seek a champion who can define what the future procurement organization will look like and how the company can make it a reality. A critical part of that vision is the pace of change the company can accommodate. For example, while you may recognize the power of artificial intelligence and know that at some point you'll have it, first applying bots to automate routine, manual activities would generate immediate benefits.

The reality is, every industry today faces its own individual challenges. And, in response, companies have to think hard about what they need from their procurement organization.

That's something Accenture has been focusing on as we work with companies around the world to define—and prepare for—the future of procurement.

While the specifics may differ from company to company, they all know they should "do procurement differently" to support the changing needs of the business.

Transforming procurement into a truly digital organization—one that's data rich, analytics-driven, and AI enabled— is key to fulfilling that opportunity.

And the time to start is now.

About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world's largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 411,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

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