

Professional Services on the Brink of Disruption

Delivering Nonlinear Growth Through Digitalization



The industry is at an inflection point where digitalization will fundamentally change the underlying economics of service delivery, driving nonlinear growth and disrupting established business models.

Eric van Rossum
Global Vice President
Professional Services
Business Solutions
SAP America

Dear Customers and Partners,

The largest taxi company has no taxis, the largest hotel network has no hotels – these are real examples outside our industry where digitalization has transformed the industry and is disrupting business models of incumbent players. Translate digitalization to the professional services world, where talent is the asset – can we imagine a professional services firm that does not employ any talent? This futuristic view is closer than we think. Nearly 38% of the world's total workforce is now considered 'non-employee' workers which includes contingent workers, freelancers, temporary staff, and gig workers.¹ The key questions that professional services firms embarking on a digital journey need to address are:

- How is this trend and other digital forces impacting the professional services industry?
- Is the industry on the brink of disruption?

Professional services firms have long focused on linear growth and now need to break the linear dependency of revenue growth to headcount growth. Digitalization will break this, changing the underlying economics of service delivery, thereby changing the rules of the game for incumbents and opening the door for new competition and new business models.

The old and simple business model – where firms provided highly skilled professionals to clients, charged them out on a time basis, and the difference between the fees earned and the salary and overhead costs provided the profit – will not survive. Business models will become: **outcome-based engagements** as opposed to monetizing the effort involved; **Knowledge as a Service** delivery models requiring firms to provide affordable lifecycle services; and **open talent networks**, tapping into infinite capacity to source work through talent networks.

To better understand the industry disruption and business model changes driven by digitalization, we see four key areas being impacted by digitalization and transforming the industry:

- **Digitalization of expertise** lets clients access digitalized knowledge and experience structured in a way that they can find it, understand it, use it instantly, and pay for it on a usage or outcome basis
- **Digitalization of talent** is creating value by aggregating and integrating services from various providers into complete solutions that deliver value to their clients
- **Digitalization of service execution** leverages technology to automate and scale previously people-intensive services as well as create entirely new services which were not even possible before
- **Digitalization of customer engagement** will be impacted by business-to-consumer principles, consumerizing the way we acquire and transact with customers, driving self-service scenarios and automation of the front end

The above digital transformational areas will not only impact business models in the professional services industries, but also business processes that need to adapt to this new reality to be agile and responsive to customer needs.

The new digital reality will change the economics of service delivery. Democratization of information and transparency will shift the balance of power more and more to the customer and allow new entrants into the market. Disruption is real and requires professional services to adapt to the new reality.

This document offers our deeper perspective on digital transformation in the industry and how SAP can support your firm's digital journey. I thank you for your interest and look forward to working together to make your firm successful in delivering client value profitably in a digital world.

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NONLINEAR GROWTH

Envisioning the big picture: Delivering nonlinear growth through digitalization

The digital economy

In today's digital economy, there is immense pressure on professional services firms to do more for less. Firms are facing new price pressures and a wide variety of competitive threats that didn't previously exist. New entrants into the marketplace have changed the way firms deliver services, forcing them to adopt new approaches or face the reality of stagnant or declining revenue growth. Digitalization of four fundamental elements – **expertise, talent, service delivery, and customer engagement** – is forcing professional services firms to rethink their business models and focus on how to drive revenue growth without corresponding growth in their employee base, or in other words, drive nonlinear growth and disrupt the industry as we know it.

This new digital reality has a complex impact on professional services firms. On one hand, digitalization drives a great deal of transparency and price pressure. It increasingly demystifies service offerings and forces firms to rethink how they add value. It also fundamentally lowers the barrier to entry for a new breed of competitors, which can be favorable or not, depending on the firm's position in the market. On the other hand, digitalization provides professional services firms the perfect opportunity to achieve nonlinear growth and rethink their interactions with customers. It allows them to adopt new, innovative business models and scale their business in ways they could never imagine. It is important to recognize that, at the heart of all the threats and opportunities, there is a need for professional services firms to serve their customers better than ever before. Digitalization will make the professional services industry a better industry, to the delight of its customers.

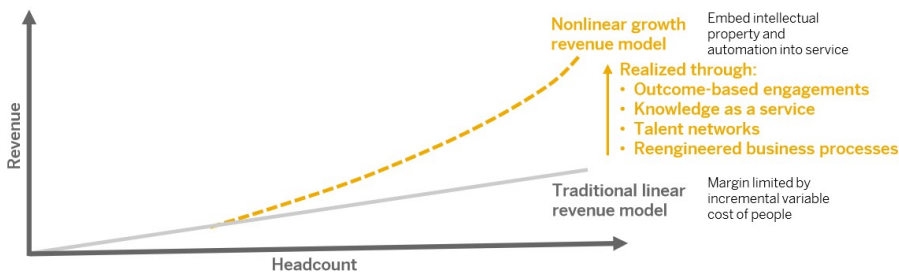
To succeed, firms will need to put in place a conscious digital vision with clearly articulated offensive and defensive strategies. In particular, they will need to address emerging business models such as driving outcome-based engagements, providing Knowledge as a Service, and sourcing work through external talent networks. To execute on this, firms will not only need to reengineer their business processes, but they will also have to evaluate if they have the right technology platform that can deliver on that vision.



Digital business models are disruptive. The rules have changed.

- **Deloitte** reduces time spent reviewing accounting documents by **50%** or more by combining a machine-learning algorithm with training provided by Deloitte U.S. domain specialists, allowing users to focus on value-added analysis and interpretation activities.²
- **IBM's** acquisition of The Weather Company demonstrates the importance of digital assets for professional services companies. IBM is using its weather data so that customers can better respond to consumer demand, business operations, and logistics. Use cases include weather data leveraged for insurance, retail, airlines, and the utilities industry.³
- **Karmarama**, a digital marketing agency which helps brands connect disconnected experiences, was acquired by Accenture Interactive in November 2016. Accenture is expanding its mobile customer engagement capabilities in the UK.⁴

NONLINEAR GROWTH IS HERE



INTO THE FUTURE

Embracing disruption: A glimpse into the future

Will the largest services firms of the future have no employees?

What could future change look like in the professional services industry? A recent study by the University of Oxford and Deloitte suggests that, by 2035, many employee roles of the services economy will be automated. It predicts that there is a 94% chance that the activities performed by accountants and auditors will be automated. Indeed, several other services jobs including security guards, call center workers, legal associates, computer programmers, and so on are all likely to be automated.⁵ Digitalization has already transformed several industries significantly, where pure technology companies are delivering products and services virtually.

To achieve nonlinear growth, services that can be easily codified in rules and therefore ripe for automation and delivery will be proposed to customers as an alternative to face-to-face engagements. It is likely that a core of high-value services will survive, but these will need to be more clearly differentiated in order to demonstrate the value of strategic/judgment-based solutions requiring face time with customers.



140 million

Full-time knowledge workers could be replaced by algorithms.⁶



By **2018, 20%**

of business content will be authored by machines such as legal documents, shareholder reports, market reports.⁷



Could it be possible that in

10 years, the largest professional services company will have

no employees?



DoNotPay, the world's first autonomous robot lawyer – has contested over 250,000 parking

tickets, winning **64%** of these in the US.⁹

OUR DIGITAL FUTURE: WILL AUTOMATION TAKE YOUR JOB IN 20 YEARS?⁸

94%

Accountants and auditors

89%

Security guards

75%

Call center employees



71%

Service technicians

66%

Legal associates

48%

Computer programmers



INDUSTRY DISRUPTION

DIGITAL WILL CHANGE THE RULES OF THE GAME

New entrants will enter the market, disrupting
incumbent business models

What does digitalization really mean in the professional services industry? How are new technologies contributing to it? There are four major digitalization trends empowering customers in the professional services industry.

1 EXPERTISE

Increasingly, it is common to find content encapsulating documented expertise in the online world. From journals to presentations, blogs, and YouTube videos, there is an explosion of codified knowledge in digital form. With the rapid progress in Big Data solutions and structured and unstructured search technologies that can crunch through all forms of content in milliseconds, customers can instantly find the knowledge that is most relevant to them and easily navigate between related artifacts.

Take the example of a lawyer who specializes in international joint ventures. If a customer is considering setting up a joint venture in an emerging market, such as Indonesia, the lawyer can instantly pull up a template of a joint venture agreement for that country. The lawyer therefore has to rethink what incremental value he can now provide to that client moving forward.

"Technology now allows us to find key documents quickly and at a much lower cost to clients. . . . We don't have to review all the documents potentially relating to a piece of litigation. We can quickly discount large swaths of them because the technology allows us to say the chances of finding something relevant in this specific group are very low."¹⁰

2 TALENT

In the professional services industry, often more important than the expertise itself is knowing who has the expertise. This is especially true in environments where information, concepts, and thinking are changing rapidly. Historically, companies have done a poor job at being able to digitalize the talent attributes of their workforce. They often scramble at critical junctures, trying to find out who the real experts might be, which requires multiple calls and/or e-mails due to a heavy reliance on "word of mouth." However, this is changing in the digital world. New networks are emerging outside the company walls that are capturing talent digitally in a more comprehensive and accurate fashion.

For example, LinkedIn captures talent information on **122 million** United States employees, or 37% of the U.S. digital population. Each person can select from over 45,000 standard skills in addition to over 380 million custom skills to add to their profiles.¹¹ There are also over a billion person-to-person endorsements that provide validation of skills and talent. Based on LinkedIn's massive growth and impact, there is a clear trend towards using a social network over a proprietary company database.

Another example is SAP® Fieldglass® solutions, which automate all the processes associated with finding, managing, and provisioning contingent and freelance workers, all of whom actively maintain their certifications and skill levels. With SAP Fieldglass solutions, SAP manages over \$25 billion in annual spend on contingent talent services.¹² For professional services firms, contingent talent provides a source of "infinite project capacity" while leveraging digitalization to automate the process.

The reality is that professional services firms differentiate themselves by providing services with a specific set of hard skills, which their clients lack. By leveraging digitalization for talent management, firms can gain an edge on the competition and respond much quicker to ongoing and new opportunities.

3 SERVICE EXECUTION



Firms are beginning to adopt digitalization in the way they deliver services. For example, audit firms are starting to leverage in-memory technology to automate audit processes. Traditional audits, which previously took weeks to analyze the integrity of financial reporting, can now be automated with more extensive results in just a matter of hours. This type of digitalization provides great savings for both the audit firm and the customer and represents a key differentiator against competitors. In another example of digitalization in this industry, call center support has moved from simple call handling to requesting that callers digitally enter information to streamline the handling of the calls. In this way, calls can be assigned to the right expert, or an automated solution may be provided.

Service providers that deliver security, janitorial, or laundry services are yet further examples. A large managed services company makes daily deliveries of clean uniforms to its customers in a wide variety of industries. The company is in the process of digitalizing its entire service cycle, from collecting new orders, purchasing the required uniforms, scheduling, and providing cleaning and delivery services. This will allow the company to track the uniform through the entire process, providing the best possible customer experience.

The future of consulting service delivery is also undergoing significant digitalization by leveraging mobile technologies. For example, as meetings are booked in calendars and phone calls are received, digital records can automate time recording and present this to the professional at the end of every day. In addition, location services on smart phones can now know exactly when professionals arrive at a client location and when they leave or take a phone call, further automating this process for better timeliness and accuracy in billing.

Travel expense capture is another area where we have seen significant advancements. When professionals check in at hotels, they can completely bypass the front desk. Upon automated checkout, a digitalized and itemized bill will automatically appear on their expense report. Other related expenses such as Uber taxi receipts, meals, and so on can now be automated to go directly into the individual's expense report. The vision of a perfect "hands-free" time and expense process is becoming a reality.

4 CUSTOMER ENGAGEMENT



Seventy to ninety percent of the B2B customer journey is completed before sales reps are typically engaged.¹³ B2B customers are very diligent in their online research for major purchase decisions. With the proliferation of online information for special areas of expertise, independent and customer reviews, etc., customers' major decisions on which firms to shortlist, invite to a project, or request to bid on a contract are determined even before any physical contact is made.

In addition, firms pride themselves on their expertise and rely on publications that demonstrate their thought leadership in order to create "pull" for their services. Not only is this content being digitalized, but the way customers interact with this digital content, what exactly they read, in what sequence, how often, who they forward it to, and so on can all be captured digitally to truly understand their interests and serve them better.

Finally, firms often struggle to find who inside or outside of their company has the best relationship with a potential prospect or customer to leverage during their sales cycles. As contacts increase, engagements and relationship history are digitalized, and it becomes easier to mine this information to find the ideal relationship to leverage for a prospect or customer. Deloitte's relationship and capital management in-memory application is a great example. The solution leverages millions of digitalized records tracking Deloitte personnel's individual relationships with customers and prospects around the globe. The application provides a weighted recommended list of contacts on a case-by-case basis that Deloitte can leverage to improve its success in sales cycles.¹⁴

INDUSTRY DISRUPTION

Rules of the game for incumbents will change: Industry disrupted

In the past, firms have relied on a consistent and simple business model that provided highly skilled professionals to clients, charging them out on a time and materials basis. The difference between the fees earned and the salary and overhead costs provided the profit. Firms can no longer depend on engagements of this type when, in many instances, aspects of the service they provide can now be performed more efficiently, digitally, perhaps even virtually, and at a lower cost. Digitalization will impact the professional services industry by creating a higher degree of transparency around price and service quality, and it will lower the barriers for new entrants.

As a result, firms are facing threats of new rivals that bring with them advanced and disruptive business models and pressure of commoditization of their core services. Despite the perception

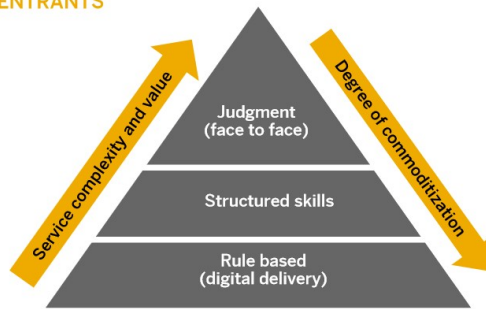
of some firms that their skills and reputation protect them, no industry is immune from digital disruption and the possibility of being challenged by an innovative startup. It is just as applicable to professional services as it is to any other industry, such as media and communications, or those impacted by models from the sharing economy, such as LawyersOnDemand and Zipcar, a car-sharing startup.

We can see evidence of disruption in the strategic consulting space. McKinsey & Company launched McKinsey Solutions, where software and technology-based analytics and tools are provided to customers to consume in self-service mode, providing ongoing engagement outside the traditional project-based model.¹⁵ This digital delivery model breaks from traditional engagements that are deeply rooted in human capital.

DIGITAL DISRUPTION MODEL OF NEW ENTRANTS

Leaner business models allow the disrupters to move upmarket and threaten core high-value services

Early disruptive market entrants take advantage of digital delivery with lower barriers to entry



Savvy entrants to the market are able to take advantage of lower costs and scalability of digital delivery to penetrate new customers and geographies. Initially, disruption will result in commoditization of those services that are highly rule-based and ripe for automation and digital delivery. Disrupters, however, will then move upmarket, armed with leaner business models and new technology. To protect high-value services, firms will need to demonstrate a considerable degree of differentiation and prove the value of strategic/judgment-based solutions requiring face to face engagements with their clients. Disruption is inevitable, but it is likely that a core of high-value work will survive, requiring custom solutions to complex, interrelated challenges across industries and geographies.



In classic consulting work, the share of work that is classic strategy is now about **20%**, down from **60%–70%** some 30 years ago.¹⁶



REIMAGINE EVERYTHING

THE DIGITAL ECONOMY OFFERS INFINITE NEW OPPORTUNITIES

In a digital world, new business models will emerge, disrupting the industry and requiring new processes for the way we work and deliver services



REIMAGINE BUSINESS MODELS

In the new digital ecosystem, the challenge for professional services firms is now how to offer expertise as a service, incorporating new business models to create the greatest possible value for their customers. At the same time, they need to differentiate themselves enough to build and preserve the long-lasting client relationships upon which they rely. To achieve this and thrive, successful firms will have to master three significant business model challenges: drive outcome-based engagements, provide affordable lifecycle services (Knowledge as a Service), and tap into infinite capacity by sourcing work through talent networks.

Outcome-based engagements

The simple "time and materials" business model that has proved highly profitable for professional services organizations in the past is being replaced by outcome-based models. Clients are increasingly focused on the business outcome of an engagement, rather than the effort involved, and are negotiating prices and relationships accordingly.

It's incredibly difficult for clients to judge a consultancy's performance in advance, because clients are usually hiring the firm for specialized knowledge and capability that they themselves lack. It's even harder for them to make a judgment after a project has been completed, because so many external factors, including quality of execution, management transition, and the passage of time influence the outcome.

Outcome-based contracts provide a more sophisticated pricing model that requires clear definition of outcomes and assessment of value creation. A basic version of this model is already common in offshore business process outsourcing and IT managed service firms. Increasingly, a wide spectrum of services firms are beginning to adopt it. Take the example of Serco, which, among other things, works with providers and partners to help job seekers get back to work as part of a UK government initiative, "The Work Programme." The company's revenue is based on the successful support of the long-term unemployed and their rate of return to work.¹⁷

While the demand for outcome-based services has been building over the years, digital technologies finally provide the key that unlocks this potential. Digitalization of service execution provides a way to improve service consistency and reduce risk, model the relationship between services and outcomes, continuously track outcomes, and provide tools for front-line professionals to simulate and modify their services to achieve outcomes.

Most importantly, this shift creates an opportunity for firms to finally break the relationship between fees and headcount in order to achieve the much desired nonlinear growth where revenue can be increased based on productized services and payments.



"Professional IT services vendors are moving beyond the era of labor arbitrage. To stay on track with this trend, Cognizant continues to invest in its IP portfolio to develop its nonlinear growth model."¹⁸



Cintas, a leading US-based multi-service provider for garment rental and cleaning services created a digital client experience by using an intuitive storefront across sales and service. Clients get a full view of Cintas' portfolio. The result is a 40% increase in incoming orders via mobile channels.¹⁹



REIMAGINE BUSINESS MODELS

Knowledge as a Service – Providing affordable lifecycle services

Professional services firms are typically focused on executing the precise scope of their current project or contract. In doing so, they sometimes lose the opportunity to engage and provide value to their customers beyond the current assignment. Increasingly, firms are realizing that they have valuable expertise and content that can benefit their customers beyond the immediate engagement, even though it may not be amenable to be sold as a traditional service engagement. Moreover, smaller clients, who cannot afford traditional service engagements, are still willing to pay for pertinent expertise.

Extensive “vaults” of experience and intellectual property have been the lifeblood of professional services firms. Providing access to digitalized expertise, digital transformation will rewrite the underlying economics for services firms, as this approach means that firms will be able to offer a much wider range of services at different price points. Developments in technology have unleashed new communication channels, allowing clients to access digitalized knowledge and experience structured in such a way as to be easy to find, understand, use instantly, and pay for on a usage or subscription basis.

Traditionally, intellectual property was only available for customers in formal engagements and was a key point of differentiation. However, more innovative service firms are unbundling their service lines and monetizing their institutional expertise. In this regard, professional services companies are no different than media companies, which have been through this dramatic journey over the last decade. Most traditional

media companies, such as newspapers, have had to consciously separate the value of their news or content from the need to distribute this through proprietary channels. One example is the Reuters news agency, which created the Polling Explorer platform, where other journalists can leverage their latest opinion polls and build on them by writing more in-depth news pieces.²⁰

In addition to providing their “vault” of intellectual property as a stand-alone offering, firms are also looking to package their expertise into more easily consumable offerings beyond the duration of a particular contract. A typical example is proprietary analytical tools or risk management tools, which continue to provide insights and value on an ongoing basis without the need of in-person engagement.

These services not only provide a new revenue stream, but they also generate additional traditional project services as well as lock the customer into a lasting relationship.

With the rapid development of digital technologies to source, manage, distribute, embed, and monetize expertise across multiple digital channels, it is possible to build companies and service lines earning billions with valuable intellectual property and a handful of engineers.



Hatch, a leading Canadian engineering services provider, intends to leave behind advanced sensors and measurement tools at the conclusion of its engineering projects in order to sense, analyze, and provide better advice to its customers in maintaining the engineering asset.²¹



McKinsey has an innovative new service line called **McKinsey Solutions**, which provides software, technology-based analytics, and tools that can be embedded at a client site.¹⁵

REIMAGINE EVERYTHING

Source work through a talent network



REIMAGINE BUSINESS MODELS

Source work through a talent network

While it is typical of professional services firms to hire freelancers and subcontractors to perform part of the work, the emphasis is usually on augmentation rather than primary reliance on the external talent to lead the work. Industry experts predict that by the end of 2017, nearly 45% of the world's total workforce will be comprised of contingent workers, including independent contractors, statement of work-based labor, and freelancers.²² However, with the cultural shift toward talented young professionals wanting to work as free agents and hyperconnectivity enabling these work practices, firms need to think beyond the traditional talent augmentation model. Firms now have the opportunity to provide exceptional client services based on an extended professional network that brings together best-of-breed experts from around the world.

Firms that are able to assemble leaner service solutions and qualified project teams at a lower cost than traditional competitors demonstrate how a flexible workforce is capable of providing high-quality outcomes. Furthermore, such firms do not typically carry the burden of expensive overheads and unutilized talent, or even costs of talent recruitment and training. The holistic management of the total workforce for flexible utilization of employees, recruits, and contingent workers is known as Total Workforce Management.

Digitalization of talent has made this revolutionary new business model possible by being able to identify, classify, and attract talent on an as-needed basis, while effectively integrating them into one team with powerful and virtual learning and collaboration platforms.



Eden McCallum's project teams are staffed with highly experienced freelance consultants. Its 300+ client base includes **one-third of the FTSE 100**, **one-third of the world's largest private equity firms**, and **50 of the global Fortune 500**. The company has delivered over 1,500 projects in strategy, operations, change, and organization, working in all major sectors and regions of the world.²³



Upwork is a freelance marketplace company, which has **over 12 million** registered freelancers that generate more than **\$1 billion worth of work annually** by performing a variety of part-time or full-time projects on behalf of **over four million** clients.²⁴

REIMAGINE EVERYTHING

Managing outcome-based relationships



REIMAGINE BUSINESS PROCESSES

In order to successfully drive new business models, firms need to realize that the business processes and best practices that got them to their leadership position today will not be sufficient to reach the top in the new digital world. Indeed, successful companies will have to entirely reimagine the key processes behind each of these business models in order to achieve true and sustainable success.

Managing outcome-based relationships

Unlike traditional time-based engagements, outcome-based engagements typically do not allow for deviations from the planned delivery, as the unplanned time spent may never be recovered in fees. This significantly raises commercial risks that firms need to manage.

Firms therefore need to establish a superior bidding process. This means that proposals must be accurate, and bids must be based on insights from past engagements to ensure the outcomes can be realistically delivered with the planned effort. Bid and proposal processes have to be more robust in terms of scrutiny and approvals and far more collaborative by involving the teams responsible for service delivery.

In order to ensure repeatability of outcomes, firms also need to establish a process for productized service delivery where services can be delivered to Six Sigma standards, irrespective of the people delivering the service. A key element of this is the modeling of various components of the overall service and their linkage to targeted results. In addition, digitalizing service execution, as previously discussed, will enable and accelerate the productization of service delivery.

Just as important, during the engagement there must be a focus on delivery against plan with effective change management and risk management processes as well as accurate forecasting of effort and costs. Implementing state-of-the-art performance-based engagement management requires new evaluation techniques, new management approaches, and improved real-time visibility and insight. Firms also need to put in place a process for defining, measuring, and pricing a standard catalog of outcomes to further streamline the sales and billing processes.

Finally, in order to deliver promised results under rapidly changing circumstances, the dominion of service delivery professionals needs to be completely redefined. Real-time information, analysis, insights, and simulations now need to be readily available for frontline professionals to encourage a culture that favors agility and responsiveness to achieve desired outcomes.



80% of projects' profitability is determined at the bid stage.²⁵



28% of organizations can enable the bid team to automatically analyze and reuse previous bids when creating a new one, while **84%** believe it is important to do so.²⁶



REIMAGINE BUSINESS PROCESSES

Monetizing Knowledge as a Service

Providing core expertise as a stand-alone offering appears to be easy, as such expertise is readily available. However, firms that intend to drive this new business model will have to overcome significant internal cultural barriers and concerns of cannibalization on their path to establishing this as a substantial stand-alone revenue stream. To be successful, content and expertise that are available for purely internal consumption need to be transformed and made appealing to external audiences, where such content will have to stand out in an open marketplace.

This means that firms need to establish a product development process to validate market fit, quality, profitability, and scalability before a digital service is launched. This will involve extensive prototyping and market testing to ensure that the offering is of a high standard and will have sustained market demand. This is crucial since the main interaction of the client with the firm is digital and allows limited opportunity to develop personal or organizational relationships that may be critical in resolving any unexpected client concerns. If the digital product does not deliver to expectations, the client will most likely not persist and will look for alternative services.

Success will also be driven by effective content management, packaging, distribution, and personalization – attributes that are not usually considered core competencies of today's professional services firms.

Since these services are exclusively developed for digital consumption, the services need to be packaged to be easy to find, instantly appealing, and personally relevant. Consumers can access and use this service seamlessly across many channels.

Firms need to establish an intuitive process for the digital purchase, consumption, and management of these new services, which have to be comparable with other consumer-grade services and experiences in the online world. The entire

process from deciding what to purchase, to paying for the service, consuming it, to potentially configuring or changing the services and subscriptions digitally needs to be smooth, painless, and immediately reflected in the services the client consumes.

Finally, as these services constitute discrete offerings that are leveraged in a broader context, it is important to ensure that these services can be easily and effectively integrated with the client's business processes. They should be highly pluggable across organizational boundaries and be deeply embedded and optimized for a specific client's process, thereby adding more value and reducing the risk of client churn.



"We're no longer selling only products or services – we're transforming to sell offerings. It's a usage- and subscription-based model rather than a one-off bump in revenues."²⁷



REIMAGINE BUSINESS PROCESSES

Sourcing expertise in the open talent economy

Digitalization has enabled the emergence of an open talent economy that brings together people and work in a borderless workplace. Talent is readily accessible on a global basis. Companies can staff their projects from an extended value chain with talent that is not employed directly by them so as to deliver on the firm's engagements. Firms that embrace this new business model will move beyond talent augmentation as their primary focus to fundamentally crafting and delivering new services led by external talent. They have to move beyond mere outsourcing and offshoring to complete reliance on people who have no formal relationships with them.

This significantly changes existing resource management processes, where organizations look for external talent only when demand cannot be fulfilled internally. Resource managers now need to tap not only into a firm's internal talent, but also identify best-of-breed contractors, alumni, freelancers, and open source talent, map them against current and future demand, contact them, and engage them anywhere in the world at any time.

Pulling together such a virtual workforce places special demands on a firm. Onboarding and learning processes need to be effective in integrating external talent to the company's culture and working methodologies, key internal knowledge, and expertise. This is important to provide a firm's clients a consistent brand and level of service. Once an engagement team is assigned, digital collaboration tools and networks provide a borderless workplace for effective virtual collaboration within the team as well as with partners and clients. External talent should be equally nurtured and developed as their internal counterparts in order to ensure the firm's success. **By 2025, online talent platforms could boost global GDP by \$2.7 trillion.**²⁸

The greatest challenge for firms will be to evolve their product offerings and the work they bid to fully utilize their network of external talent. If they don't do this, someone else will. The

product development and the bidding process need to be tailored to consciously consider the skills, talent, and availability of key external talent to lead and deliver new services that the firm might not historically be familiar with.

Finally, risk management processes need to be robust in order to ensure that only the right external talent with the right qualifications, certifications, and history are leveraged at a firm. Performance and issues related to the external workforce need to be quickly identified, allowing for appropriate actions to be taken. Perhaps an extreme example is Upwork, which provides a tool that captures snapshots of a freelancer's screen every 10 minutes, helping to verify that, on hourly jobs, work is being completed as invoiced to clients.



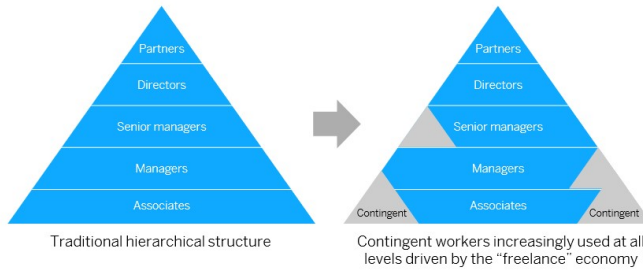
Upwork provides clients with a capture of a freelancer's screen every 10 minutes on hourly jobs for transparency.²⁹



SAP Fieldglass solutions provide a cloud-based vendor management system that manages over \$25 billion annual spend on contingent talent services. Contingent talent provides a source of "infinite project capacity" while leveraging digitalization to automate the process.¹³



The evolving workforce composition of firms



Digital disruption is already impacting workforce composition in professional services companies and the management of talent.

There is no consensus yet on the impact of digital and how it changes the way firms attract and retain talent. Jim Peterson, a former audit firm partner, predicts that fewer auditors will be hired in future. "Firms will no longer need armies of junior staff but instead will need the best algorithm design geeks in the world. They will audit large companies with a team that can fit into a conference room, rather than occupying an entire office tower."³⁰

This is supported by Ernst & Young predicting a reduction in the number of junior auditors to be hired by 2020 by as much as 50% due to artificial intelligence.³¹ Others predict that artificial intelligence will create opportunities to solve new and different problems to fuel growth, including James Chalmers of Pricewaterhouse Coopers.³²

As a result of changes in the types of resources and talent demand we are seeing an evolution from the more typical pyramid based structure of the firm with a narrowing of the base as less junior resources are required and fewer new entrants are being taken on due to automation (see figure below). The composition of the workforce is also being transformed due to increases in contingent workers. Firms are able to supplement their workforce and flex headcount by using contract workforce enabled by digital talent networks, thus reducing their permanent payroll staff and over time a more experienced contract workforce is in specialist disciplines such as Big Data and machine learning.

We are also seeing a change of attitude of the workforce as demonstrated by the Deloitte 2014 Millennial Survey: 70% of millennials see themselves as working independently at some point in their lives, rather than being employed by a traditional organization structure.³³



McKinsey Global Institute estimates that using online talent platforms can increase revenues by up to **9%** and reduce costs by up to **7%** for Professional Services firms.¹¹



SAP DIGITAL TRANSFORMATION FRAMEWORK

TECHNOLOGY PLATFORM

In a connected world where every company is becoming a technology company, smarter products and services will refocus commerce on business outcomes and blur industry lines

SAP DIGITAL TRANSFORMATION FRAMEWORK

Every company needs to think about the five pillars of a digital strategy

SAP understands the key drivers of services digitalization, and we also understand that the continuously changing requirements pose big challenges for businesses. The method of reimagining business models and business processes helps develop the digitalization road map.

We have built the SAP Digital Transformation Framework methodology to support professional services firms in driving transformation within their own organizations and in terms of how they interact with their clients and wider business networks. Embarking on the digital journey allows firms to address the challenges and exploit the opportunities presented by the digital economy.

As companies embark on this digital journey, they need an IT architecture that provides both stability and long-term reliability for the core enterprise processes, and at the same time allows for flexibility in areas where change is happening on a constant basis.

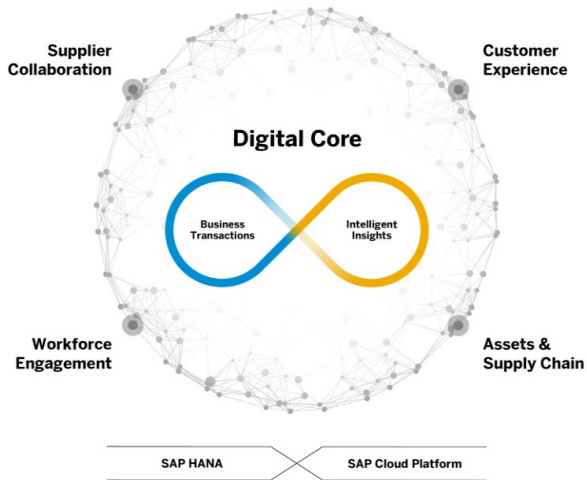
This concept, which is often referred to as “bimodal IT,” is brought to life through the SAP Digital Transformation Framework methodology, pictured below.

The five pillars of a digital services strategy are:

1. The digital core runs **core business** processes and brings together transactions and analytics in real time to be smarter, faster, and simpler
2. Smarter and engaged **workforce** across all employees
3. Outcome-based **customer engagement** designed for digital interaction and consumption
4. Develop **talent networks** for infinite capacity and flexibility through supplier collaboration
5. Harness **the Internet of Things** to drive real-time insights and new business model

Professional services firms must digitalize to grow profits and reduce costs by simplifying their operations. The digital economy enables firms to provide better and more profitable client service. Value creation often comes from edge solutions that are based on and coordinated by the digital core solutions. This constitutes the platform for innovation and business process optimization, connecting the workforce, the talent network, and your clients.

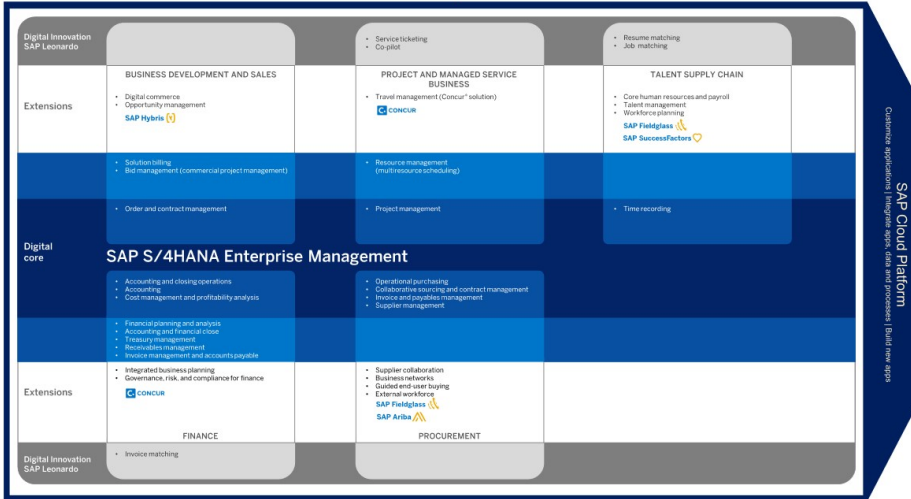
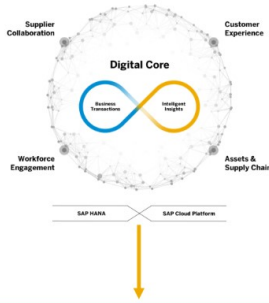
THIRD-GENERATION PLATFORM FOR PROFESSIONAL SERVICES



SAP PORTFOLIO WITH SAP S/4HANA AND SAP LEONARDO

SAP has innovated its portfolio to provide both for a stable digital core as well as flexible line-of-business (LoB) extensions.

In the digital economy, simplification and business innovation matter more than ever. To do this effectively, it's important to cover the end-to-end digital transformation journey, ranging from planning a digital innovation road map and implementation plan with proven best practices to the ability to run all deployment options and ultimately optimize for continuous innovation with a focus on outcomes.



Learn more about SAP solutions today and discover planned innovations by accessing the SAP road map for professional services here.



Professional services firms need to digitalize the fundamentals: talent, service delivery, and customer engagement.

1. Firms have long focused on linear growth and now need to break the linear dependency of revenue growth to headcount growth.
2. Firms will move to outcome-based engagements, knowledge-as-a-service delivery models, and open talent networks.

Digitally reimagine your business models through new business capabilities

Outcome-based engagements

Knowledge as a service

Talent networks

Typical business benefits*

	Business Development and Sales	Project and Managed Service Business	Talent Supply Chain	Finance	Procurement
	CMO/Head of Sales	COO	CHRO	CFO	CPO
	Reimagine processes to manage outcome-based relationships				
	Reimagine processes to monetize lifecycle services				
	Reimagine processes to source expertise in an open talent economy				
Outcome-based engagements	<ul style="list-style-type: none"> Increase win rates and mitigate risk with a superior bidding process Simplify customer engagement and value creation through solution selling 	<ul style="list-style-type: none"> Productize service delivery processes to help ensure repeatability Mitigate risk and deliver on plan with automated processes for engagement management 	<ul style="list-style-type: none"> Empower frontline employees with key engagement economics 	<ul style="list-style-type: none"> Help ensure overall engagement profitability and mitigate risk through real-time project financial performance Reflect new monetization models with usage-and outcome-based billing 	<ul style="list-style-type: none"> Manage and match risk and cost proactively against customer billing mechanisms
Knowledge as a service	<ul style="list-style-type: none"> Validate market fit, pricing, quality, and profitability of digital services with product development processes 	<ul style="list-style-type: none"> Base packing and distribution processes on digital consumption models 		<ul style="list-style-type: none"> Tune scalable quote-to-cash processes to requirements for digital acquisition, selling, and consumption 	<ul style="list-style-type: none"> Integration of procurement processes to offering development and delivery as a service Extend delivery as service solutions
Talent networks		<ul style="list-style-type: none"> Extend resource management beyond the four walls of the enterprise and engage external talent 	<ul style="list-style-type: none"> Extend internal talent and workforce management across internal and contingent labor 		<ul style="list-style-type: none"> Optimize contingent labor processes to manage suppliers, cost, and compliance

- On-time delivery: +10%–20%
- Inventory levels: -25%–30%
- Customer satisfaction: +10%–20%

- Offer win rate: +10%
- User project manager productivity and end-to-end process efficiency: +10%
- Utilization: +2%

- Lower time and attendance function costs
- HR full-time equivalents: -44%

- Audit cost: -20%–40%
- Days to close annual books: -40%–50%
- Cost of business and operations analysis and reporting: -3%–10%

- Cost of procurement: -15%–20%
- Worker acquisition time: -30%–40%
- Days payables outstanding on targeted spend: -2–5 days

	Internet of Things	Machine Learning	Analytics	Blockchain	Big Data
Digital Innovation SAP Leonardo	SAP Cloud Platform				
	Business Development and Sales	Project and Managed Service Business	Talent Supply Chain	Finance	Procurement
Extensions	<ul style="list-style-type: none"> Digital commerce Opportunity management SAP Hybris 	<ul style="list-style-type: none"> Service brokering Co-pilot Travel management (Concur® solution) CONCUR 	<ul style="list-style-type: none"> Resume matching Job matching Core human resources and payroll Talent management Workforce planning SAP SuccessFactors SAP Fieldglass 	<ul style="list-style-type: none"> Invoice matching Integrated business planning Governance, risk, and compliance for finance CONCUR 	<ul style="list-style-type: none"> Supplier collaboration Business networks Guided end-user buying External workforce SAP Ariba SAP Fieldglass
Digital Core SAP S/4HANA	<ul style="list-style-type: none"> Solution billing Bid management (commercial project management) Order and contract management 	<ul style="list-style-type: none"> Resource management (multiresource scheduling) Project management 	<ul style="list-style-type: none"> Time recording 	<ul style="list-style-type: none"> Financial planning and analysis Accounting and financial close Treasury management Receivables management Invoice management and accounts payable Accounting and closing operations Accounting Cost management and profitability analysis 	<ul style="list-style-type: none"> Operational purchasing Collaborative sourcing and contract management Invoice and payables management Supplier management

*Benefits are based on early adopters of SAP S/4HANA or conservative outside-in benefits due to moving from a traditional enterprise resource planning system to enhanced capabilities of SAP S/4HANA, as well as line-of-business and cloud solutions. 49055 (17/0) © 2017 SAP SE or an SAP affiliate company. All rights reserved. Information herein subject to change without notice. *Benefits are based on early adopters of SAP S/4HANA or conservative outside-in benefits due to moving from a traditional enterprise resource planning system to enhanced capabilities of SAP S/4HANA, as well as line-of-business and cloud solutions.

SAP CLOUD PLATFORM – PLATFORM AS A SERVICE

SAP Cloud Platform is the ultimate simplifier and the platform for innovation and digital business

Once the business models and business processes have been reimagined for digital services execution, the focus can be directed to harnessing the power of the digital platform to rapidly drive new innovations and transformation through Big Data and the new digitally connected networks.

Dream, develop, and deliver with SAP Cloud Platform

The SAP HANA® platform and SAP Cloud Platform give professional services firms the mobile, collaboration, integration, and analytics capabilities they need to dream big, develop fast, and deliver everywhere, with the following capabilities.

Application extensions

Extend current cloud and on-premise solutions for additional customization, enhanced business flows, and more.

Real-time analytics

Engage customers, optimize business processes, and unleash new revenues with real-time analytics apps powered by SAP HANA.

New cloud apps

Quickly build innovative consumer-grade and industry apps for today's always-on, mobile, social, and data-driven world.

Extended storage capabilities

Holistically manage all structured, unstructured, and infinite data streams with flexible combinations of data stream processing, in-memory technology, disk-based columnar storage, and Hadoop-based storage solutions.

Data footprint reduction

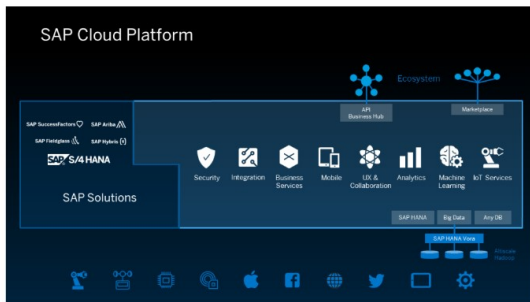
Significantly reduce memory footprint and TCO. In ERP systems, we have seen ~6x reduction by SAP HANA's dictionary compression. Removing aggregates and actual and historical data separation further reduces the footprint up to ~10x.

The SAP HANA platform is . . .

Real-time, in-memory platform • 10x data footprint reduction for ERP • Extended storage, including Hadoop • Open architecture • Developer friendly • Embeds mobile and analytics • Secure • Cloud ready

Accenture HR and Audit Compliance on **SAP Cloud Platform** provides us an excellent app for accessing the SAP SuccessFactors® Employee Central solution. It helps us address our data quality issues quickly and efficiently.³⁴

Enterprise Jungle has built an award-winning enterprise alumni and community management app on SAP Cloud Platform. It integrates with recruitment, CRM, resourcing and your human capital management system.



HOW DOES IT ALL COME TOGETHER? – EXAMPLE

Each of the five digital business pillars delivers individual business value, but next-generation business processes often span multiple pillars. This is the case with total workforce management, which balances client demand with available talent. On one side, you have demand – the opportunities and bids that eventually lead to projects. On the other, you have supply – people, internal or external – who can deliver on those projects. Total workforce management encompasses the processes related to matching this supply and demand while optimizing time and cost to staff.

DIGITAL BUSINESS SCENARIO: TOTAL WORKFORCE MANAGEMENT



Total workforce management

The graphic above shows a digitally enabled process for engaging the best resources from either internal or external sources to deliver profitable services from a client service request to successful completion of the engagement. An optimized workforce management process can provide improvements in efficiency through both increased utilization of internal resources and an ability to meet more client demands with contingent resources. This allows firms to take on more projects than would be possible with a purely internal workforce. Even small increases in utilization can have a dramatic impact on the bottom line. Benefits of this digital scenario are significant and can result in:³⁵

- **5%** higher average order value
- **3%–5%** higher utilization rates through better resource matching
- **5%–10%** reduced contingent spend through better control and visibility

Although digitalization has released the power that can be harvested from the open talent economy, only a small group of firms has mastered this process.

Globalization, shifts in workforce composition, and changing demographics are affecting the way companies must approach talent and resource management. Firms will need to reimagine their business models related to their talent and adjust their processes accordingly to stay competitive in the era of digital empowerment.



Only **31%** of services companies can easily identify, reserve, and deploy the right resources for the right projects.³⁶

Watch a video illustrating the scenario here:





FROM YOUR CURRENT STATE TO DIGITAL

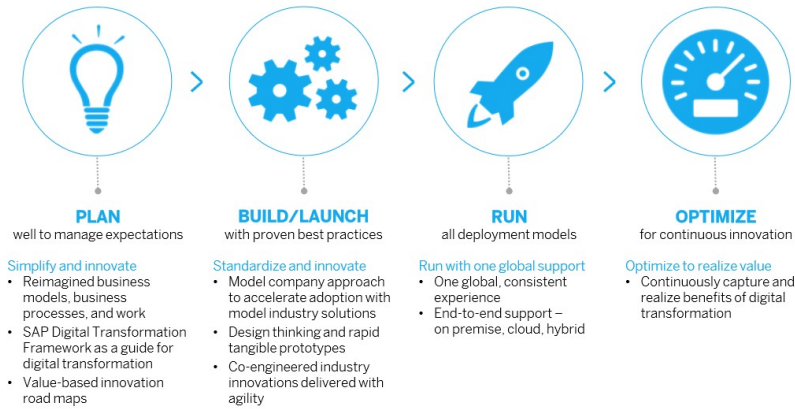
THE JOURNEY TO BECOMING
A DIGITAL PROFESSIONAL
SERVICES COMPANY BEGINS
WITH PLANNING A DIGITAL
TRANSFORMATION ROAD MAP

TRANSFORMING FROM YOUR CURRENT STATE TO DIGITAL

The keys to success

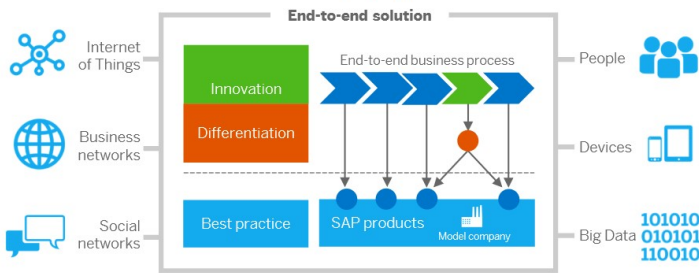
In the digital economy, simplification and business innovation matter more than ever. To do this effectively, it's important to cover the end-to-end digital transformation journey, ranging from planning a digital innovation road map and implementation plan with proven best practices to the ability to run all deployment options and ultimately optimize for continuous innovation with a focus on outcomes.

The end-to-end digital transformation journey



And to move forward with speed and agility, it helps to focus on live digital data, instead of Big Data, and combine solution know-how and industry-specific process expertise with data analytics so that the right digital reference architecture is defined and delivered. In that context, we believe that a model company approach is very relevant to enable you to transition from your current state to digital. Model companies represent the ideal form of standardization for a specific line of business or industry. They are built on existing SAP solutions using best-practice content, rapid prototyping solution packages, and additional content from customer projects. They provide a comprehensive baseline for rapid, customer-specific prototypes, cloud demos, and quick-start implementations.

Model Company Approach



SAP DIGITAL BUSINESS SERVICES

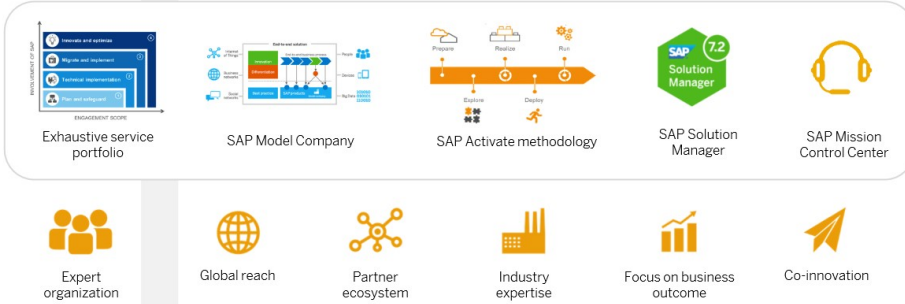
Enabling your success in digital transformation

SAP has a broad range of services to cover the end-to-end digital transformation journey, ranging from advising on a digital innovation road map and implementation plan with proven best practices to the ability to run all deployment options and ultimately optimize for continuous innovation. We provide both choice and value within our service offerings, allowing you to tailor the proper approach based on your specific company expectations and industry requirements.

- 25,000 professionals in 70 countries
- Serving customers in 130 countries
- Outcomes delivered as one team in one contract
- Projects connected in real time to global network of support functions through SAP Mission Control Center
- SAP MaxAttention™ and SAP ActiveEmbedded services to safeguard investment
- Consistent experience – on premise, cloud, or hybrid
- Standardized adoption of processes and tools
- Streamlined onboarding and ramp-up of stakeholders

From proposing a comprehensive digitalization proposal to realizing and running it, SAP delivers on the digital transformation promise to its customers on time, on budget, and on value.

SAP value delivery relies on unique differentiating assets:



SAP Digital Business Services deliver digital innovation with simplification and accelerated implementation, which is key to adoption and value realization. Continuous improvement is supported through ongoing assessment of real-life data insights and joint governance with customers.

SAP value delivery focuses on the following deliverables:



SAP COMPREHENSIVE ECOSYSTEM

Orchestrating the world to deliver faster value

Our comprehensive ecosystem for the Professional Services industry offers:

- Integration into a wide range of business services (suppliers, hotels, key vendors, travel, and more)
- Open architecture, with a choice of hardware and software
- Complementary and innovative third-party solutions
- Reach – partners to serve your business of any size anywhere in the world
- A forum for influence and knowledge
- A large pool of industry experts with broad and deep skill sets



BUSINESS NETWORK

- 1.9 million suppliers
- 200 major travel partners (air, hotel, car)
- 50,000 service and contingent labor providers

INFLUENCE FORUMS AND EDUCATION

- 32 user groups across all regions
- 40+ industry councils
- SAP community with >24 million unique visitors per year
- 1,800 members of SAP University Alliances

INNOVATION

- 1,900+ OEM solution partners to extend SAP solutions
- 2,000 startups developing apps for SAP HANA



IMPLEMENTATION SERVICES

- 3,200 services partners overall

PLATFORM AND INFRASTRUCTURE

- 1,400 cloud partners overall

CHANNEL AND SME

- 860+ utilities channel partners
- 4,800 overall channel partners

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Learn more

To learn more about how to utilize SAP's digital framework to develop your strategy, visit us online at <http://go.sap.com/solution/industry/professional-services.html>.

RESOURCES

Outlined below is external research that was used as supporting material for this white paper.

1. Ardent Partners and Fieldglass: "The 2016-2017 State of Contingent Workforce Management Report," Christopher J. Dwyer, http://www.fieldglass.com/resources/reports/2016_2017_state_contingent_workforce_management_report
2. "Artificial Intelligence, real results. Cognitive computing capabilities can help member firm clients make smarter, faster choices," Deloitte US, page 1. <http://www2.deloitte.com/bh/en/pages/about-deloitte/articles/gx-artificial-intelligence-cognitive-computing.html>
3. "IBM Plans to Acquire The Weather Company's Product and Technology Businesses; Extends Power of Watson to the Internet of Things," news release, October 2015. <https://www-03.ibm.com/press/us/en/pressrelease/47952.wss>
4. Karmarama acquisition November 2016. <https://newsroom.accenture.com/news/accelenture-acquires-creative-agency-karmarama-to-expand-its-brand-strategy-mobile-experience-capabilities-in-the-uk.htm>
5. "How Professional Services Can Disrupt Its Way Out of Automation," Knowledge @ Wharton, November, 2015. <http://knowledge.wharton.upenn.edu/article/how-professional-services-can-disrupt-its-way-out-of-automation>
6. "Disruptive technologies: Advances that will transform life, business, and the global economy," McKinsey Global Institute, 2013. http://www.mckinsey.com/insights/business_technology/disruptive_technologies
7. "Gartner predicts our digital future," Garner, 6 October 2015. <http://www.gartner.com/smarterwithgartner/gartner-predicts-our-digital-future>
8. "Will a robot take your job?" BBC News - Technology, September 11, 2015. <http://www.bbc.com/news/technology-34066941>
9. DoNotPay "Above the Law" <http://abovethelaw.com/2016/09/biglaw-automation-whose-job-goes-first>
10. "Outsourcing: Regulatory and Litigation Game-Changer" Richard Legga, e-disclosure manager, Mishcon de Reya, Raconteur, February 19, 2015. <http://raconteur.net/business/outsourcing-regulatory-and-litigation-game-changer>
11. "Managing Talent in the Digital Age," March, 2016 McKinsey Quarterly, Susan Lund, James Manyika, and Kelsey Robinson. <http://expandedramblings.com/index.php/by-the-numbers-a-few-important-linkedin-stats>
12. Fieldglass manages 25Bn\$ in global spend. <http://www.slideshare.net/Ariba/ariba-live2015breakout-ariba-procurement-and-fieldglass-integration>
13. Source: Forrester
14. ASUG News with Angela Alini, Deloitte. "Real Experience: Deloitte's SAP HANA Use Case," October 2013. <https://www.youtube.com/watch?v=Xvd8Jqb9XWY>
15. www.mckinsey.com
16. Harvard Business Review, "Consulting on the Cusp of Disruption," by Clayton M. Christensen, Dina Wang, and Derek van Bever. <https://hbr.org/2013/10/consulting-on-the-cusp-of-disruption>
17. SERCO part of Work Programme. <https://www.serco.com/media/pressreleases/2010/DWPframework>
18. Jennifer Harrel, research analyst, TBR, "Cognizant exceeds 20% growth as non-linear sales accelerate," November 7, 2013. <http://www.computerweekly.com/news/2240208642/Cognizant-exceeds-over-20-growth-as-non-linear-growth-accelerates>
19. Cintas Testimonial Video. <https://youtu.be/82UKSrtAU30360p>
20. Reuters. Polling Explorer. <http://polling.reuters.com>
21. www.hatch.ca
22. Ardent Partners and Fieldglass: "The State of Contingent Workforce Management," Christopher Dwyer, Ardent Partners, page 4. http://www.fieldglass.com/releases/2015_01_15/Fieldglass_2015TrendsWebinar_v8_2.pdf
23. Statistics from Eden McCallum Client Overview Web site, November 2015. <http://edenmccallum.com/clients>
24. Statistics from Upwork Website's About section, November 2015. <https://www.upwork.com/about>
25. Source: SAP Benchmarking. http://www.sap.com/bin/sapcom/en_us/downloadasset.2015-03-mar-17-15.bid-and-proposal-management-a-professional-services-solution.pdf.by:passReg.html
26. SAP and customer benchmarking.
27. Doug Curren, Director of Enterprise Applications, Platform Consulting, EMC², "Digitalization: Driving Business Model Transformation," Value View. <http://go.sap.com/docs/download/2015/10/bec5f1d4-4c7c-0010-82c7-eda71af511fa.pdf>
28. McKinsey Global Institute, "Connecting talent with opportunity in the digital age," http://www.mckinsey.com/insights/employment_and_growth/connecting_talent_with_opportunity_in_the_digital_age
29. Upwork Community Forum. <https://community.upwork.com/15/Freelancers/How-Do-Hourly-Contracts-Work-Exactly/td-p/103>
30. Count Down: The Past, Present and Uncertain Future of the Big Four Accounting Firms," by Jim Peterson published December 2015, 978-1785605819.
31. Technology Transforms Big Four Hiring Practices, Financial Times, May 09, 2016. "Given the rate at which technology is speeding up audit, the number of graduate recruits could drop by 50 per cent in 2020," Steve Varley, chairman and managing partner EY UK.
32. "Increased adoption of technology and artificial intelligence creates opportunities around solving new and different problems, we think that will fuel growth for the business," James Chalmers, Pricewaterhouse Coopers. <http://nicsiamoneynews.com/2016/05/09/technology-transforms-big-four-hiring>
33. Deloitte 2014 Millennial Survey. <https://www2.deloitte.com/au/en/pages/about-deloitte/articles/2014-millennial-survey-positive-impact.html>
34. Accenture Technology, Dan Kirner. <https://www.accenture.com/us-en/success-digital-sap-business-hana-finance>
35. "Total Workforce Management: Infinite Capacity, Ultimate Flexibility," Value View, SAP and SAP Benchmarking. https://dam.sap.com/mac/preview/a/67/OPOUP4ASUghHcymXSEAJlmJU0wSPSOMJwgXJxHPxAZOngmAZ/SAP_TWM_Value_View_Professional%20Services.htm
36. Source: SAP Benchmarking Digital Assessment Survey Aggregate Responses.

Note: All sources cited as "SAP" or "SAP benchmarking" are based on our research with customers through our benchmarking program or other direct interactions with customers

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