



Modern business processes: Delivered as a service and measured by business outcomes

Are your BPS providers digitally transforming?

Digital transformation is impacting every market, and BPS providers are no exception. As they tackle their own digital journeys, you'll want to ask them these key questions:

What types of automation do you support?

New generations of automation tools are coming to market and they fall into three main categories: incremental improvements of existing tools (a.k.a. "better mouse traps") that integrate enterprise capabilities like promotion of code changes into testing on the way to production; tools that apply automation in novel ways, especially to IT maintenance tasks; and tools that use algorithms trained by machine learning. The first two are good for repetitive tasks where the inputs and outputs are both already structured. Machine learning offers hope for automating tasks that involve either judgement or the processing of messy, unstructured input.

What's your industry strategy?

Industry and regional expertise will become more important and will often be a fixed cost relative to the number of organizations served, in terms of legal compliance, best practice and developing industry-specific process templates and models. BPS providers are in a unique position to offer organizations industry-specific, pre-trained models that offer quick startup times. That's because they possess the complete trifecta of machine-learning requirements: data, industry expertise and the ability to do machine learning at scale. Indeed, many providers have been quick to use AI services themselves.

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With cloud-based services that include automation, scale and skilled professionals, you can reinvent business processes and digitally transform into an innovative operation.

When business processes operate better, business outcomes improve. But yesterday's emphasis on efficiency and cost effectiveness is no longer enough. What's needed now are digitally transformed business processes that use a cloud computing service model to accelerate agility and innovation.

Enterprises have little choice. They can either disrupt their business processes or be disrupted. The trick will be overcoming the many challenges associated with overhauling processes that support core business functions. But with intelligent automation, scalability that expands and contracts to meet business needs and an able workforce — all coalescing around a data-centric model — an enterprise can modernize its processes and transform into a 21st century business.

Cloud is what makes it possible. Early adopters that move wholesale to standard cloud-based services can simplify, standardize and squeeze costs out of their business processes. But as organizations move business processes to the cloud, they will need to make decisions. Do they aim to be like digital-native challengers that have built their businesses on digital platforms, rely on standard processes and shy away from self-reliance by integrating core business functionalities with third parties? Or should they focus on data center consolidation and upgrading their own infrastructure?

Scalability matters

The quest for flexible scalability is driving organizations to close data centers and migrate to cloud-based IT. But scalability is far from the only benefit. Increasingly, other cloud capabilities — including data insights, transparent consumption-based pricing and infrastructure as code — are helping organizations deliver simpler, more reliable products and services.

Cloud-based business process services (BPS) also give organizations access to dashboards that provide insights into key performance metrics and into their own data exhaust — the trails of data left by processes and users that can be used to improve the processes themselves, the customer experience and the bottom line. Finally, they can benefit from ongoing process improvements enabled by their provider's scale.

The do-it-yourself approach is increasingly competing with cloud-based services that base fees on consumption. These services charge low or negligible setup costs, and their transparent variable costs are often significantly lower than do-it-yourself fees, largely because of the cloud provider's scale. Adopting consumption-driven, outcome-based pricing agreements for business processes can dramatically change the cost of doing business, just as cloud-based IT consumption is transforming IT.

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How do you manage data exhaust?

Ownership of the data trails left by customers and business processes, as well as the right to process it, will become standard in BPS contracts. This will be used to not only benchmark the process and provider, but also drive process improvement. BPS providers will need to stay ahead of their customers' analyses. Organizations will still expect to have the full use of this data, along with access to aggregated data for their process or industry.

Are your services flexible and agnostic?

Digitally transformed organizations don't want to be locked into services from just one provider. Instead, they want the ability to move their data, including automations and organization-specific AI, among providers. This creates a new competitive pressure for all service providers, especially BPS providers.

Organizations that implement and operate everything themselves will find their fixed costs becoming a bigger component of their IT budgets. For example, many of the costs associated with operating a data lake, digital service or multichannel customer-experience practice have a large, fixed component in setup time, technology, platform, talent, security/privacy, regulatory compliance and change control. This means a significant transaction volume driving a tangible benefit is required to cover the initial investment.

Automating for innovation

Automation is not just about making processes more efficient or reducing labor costs — although it does achieve both of those benefits. Automation is also about speed, quality and agility, all of which are key factors to the long-term success of a business.

Automating business processes has always been the goal of organizations, from integration provided by middleware and now through APIs. These approaches continue to be useful but require trained IT resources and often have long implementation and payback periods.

With advanced [robotic process automation](#) (RPA), software robots, artificial intelligence (AI) and human workers can tap into an organization's digital fingerprint to provide a near-real-time, fully transparent and high-definition view of the business. This view, in turn, helps enterprises manage, improve and measure their vital back-office business processes and even create new ones that fuel agility and innovation.

RPA reduces the requirement for skilled technical workers by enabling the business (or at least the less technically inclined) to automate repetitive tasks. While these tools require no coding, the processes necessary for successful production deployment at scale are similar to those for software. This means RPA developers and operators should use the same methods their app development colleagues use, including [Agile](#), [DevSecOps](#) and continuous integration/continuous delivery (CI/CD). But these methods often incur hidden costs for on-premise RPA implementations in the form of setup costs. Cloud providers have an advantage in providing these services as they can do so based on standard models. Also, cloud-based infrastructure lends itself more easily to standardization and automation.

AI, often under the guise of intelligent automation, offers another way to reduce manual tasks. Several sub-fields of AI can be applied to solve business problems. Examples include natural language processing in a [digital agent](#) and cognitive optical character recognition (OCR) for data extraction. Because these AI applications are often packaged as separate tools from separate vendors, they require technical integration and high-quality data pipelines. These, in turn, require scale to operate. Larger organizations, due to their scale, typically enjoy better-than-average returns on automation.

Talent: a vital challenge

Attracting, hiring and retaining skilled technical workers is now a serious challenge. And it's expected that in the future, tech workers — already hard to find and expensive to hire — will become even more difficult to find and retain. The talent challenge is yet another reason to consider using a cloud computing service model for business processes.

The tech ecosystem is expanding, and organizations are adopting agile approaches that use small, self-directed teams. These are causing an explosion in the number of roles needed for digital transformation projects. Developers, analysts, product and project managers and others are still required, but now their colleagues include data engineers, data scientists and machine-learning specialists working alongside full stack engineers, site-reliability engineers and security specialists. Agile coaches and DevOps practitioners are rounding out those teams, too.

Retaining a small team (and especially a lone specialist) within a single company is far more difficult than retaining them in a service provider organization that offers a greater number of large-scale projects, a wider variety of peers to interact with and a plethora of career paths. Many organizations will find themselves both priced out of the market and unable to offer a competitively attractive work environment.

The data factor

The rapid pace of technology evolution, an ever-connected global economy and the adoption of advanced digital technologies have created enormous volumes of data for enterprises. Amassing, storing, securing and interpreting that data is critical, as is effectively applying it to business process improvement.

Done right, an automation strategy can help get at one of the key data challenges businesses face: discovering all the data that's invisible to systems administrators and others. This so-called dark data can lead to process inefficiencies, make legacy systems difficult to upgrade and help form unwieldy process and system silos. Certain AI techniques can shine the light on data. For example, AI-powered RPA bots can assimilate more complex processes requiring judgment and act as sensors on IT systems to expose dark data. Then, advanced algorithms can be applied to discern variations and consolidate the data. What remains is a digital fingerprint that, when mapped to the appropriate processes, can boost efficiencies across the enterprise.

But it's not just about discovering the data. Where data resides will become increasingly important due to technical, legal, commercial and ownership concerns. Organizations need to balance the growing demand for improved data security with a rising need for data-sharing and data's gravity — the concept of applications being attracted to the data to be processed. This gravitational field is changing direction as data centers are scaling down and data moves to the cloud, meaning the applications are following.

With Europe's General Data Protection Regulation (GDPR) now in effect, the U.S. government — or perhaps individual U.S. states — will likely be next to embrace strict data-privacy rules. That's due to both rising concerns about highly publicized data breaches and a public that views Big Tech with growing skepticism. Organizations facing the compliance costs of such regulation may want to hand this responsibility to a third party that can provide transparent privacy protection at scale, with attestation to privacy enforcement.

As data breaches become more expensive as well as more visible, expect insurers to intervene by mandating specific security practices, certifications and other requirements, just as they do for physical property. This, in turn, may motivate even more organizations to move their data behind the standardized interface of a cloud provider and have it processed automatically in a secured environment. Providers with fully automated processing and audit trails, or with strictly controlled human access to data (verified by a third party), should prove attractive to organizations looking to reduce the risk of holding their own data.

The future of BPS

The future will be provided as a service. Cloud-based business processes as a service (BPaaS) will help enterprises innovate, reduce time to market and improve customer experiences. Efficiencies and costs are also positively impacted, especially since BPaaS can be provisioned as end-to-end process platforms for specific functions or industries, such as human resource and capital management or customer services and support.



Startups are already betting on a cloud-only delivery model to minimize development costs and leverage DevSecOps for improvement. This increases agility, both their own and that of their customers. It's also a fast way to scale.

Organizations that consume services from a BPS provider's cloud can slash setup time from months to mere days. There's simply less to do, and what remains to be done is standardized. Best practices are already implemented and being improved upon, and the organization's journey is one of configuration rather than customization.

Expect to see advanced algorithms baked into AI tools and becoming part of the automated section of a process made operational by large services providers.

Consider the example of RPA as a service. An RPA implementation is a full-stack software solution, so using cloud-based RPA as a service limits the need for IT involvement. It also helps organizations reach speed quickly, especially if industry best practices in robotics change control are in place from day one. Cloud-based delivery also gets organizations out of the setup business and helps them avoid the “What is a bot, anyway?” discussion when comparing tool-pricing models. Instead, they can build and run software robots with relative ease, enjoying clear costs and benefits.

Following the as-a-service trend, AI is already being offered by cloud service providers. These offerings range from pure AI infrastructures or AI services to complete machine-learning labs. The Uber for AI may be Uber’s own Ludwig, a toolbox for training and testing deep-learning models. Although Ludwig faces challenges from tools offered by major cloud providers, it demonstrates how AI technology can be consolidated, simplified and democratized.

Expect to see advanced algorithms baked into AI tools and becoming part of the automated section of a process made operational by large services providers. And as the AI industry matures, organizations will no longer need to assemble their own solutions from a multitude of parts. Instead, they’ll be able to turn to AI providers for complete end-to-end solutions.

AI-assisted programming assistance is moving beyond mere code completion. This will lead to self-improving processes, in which AI suggests and makes enhancements to existing code. Already, machine-learning models can identify a program’s intent. Looking ahead, we can expect to see automation efforts find novel ways to break existing code and determine potential improvements. These improvements can be run through continuous-integration pipelines, with the results delivered to humans for approval. Neural networks can now create HTML code from mockups; soon they’ll be able to discover and repair navigation paths through a legacy back-end.

Natural language processing (NLP) as a standalone proposition is useful in BPS, and in some areas the technology can serve as a tool for innovation. For example, NLP can be used to build a simple chatbot. But organizations can also push the technology for data-driven approaches. These could include measuring customer interactions, discovering unmet demands (such as the ability to process product returns online), working with digital agents to make interactions more real-time (thereby improving customer satisfaction) and reducing the need for the call center staff to intermediate between customers and systems.

Business outcomes as a service

As digitally transformed business processes become more commonplace, the value of an end-to-end solution will be greater than the sum of its various tools, suites and technologies. For example, a wholesaler could benefit from an end-to-end solution that captures unstructured data — say, a paper remittance slip or bank statement — and then transforms it back into structured data, allocates it based on a machine-learning algorithm and finally routes and applies it directly to the system of record using RPA.

Similarly, a roadside assistance provider might use a mobile application with an embedded digital agent to quickly capture critical information about a customer issue. A machine learning system integrated with the call center could automatically examine and prioritize the calls, again without the need for manual intervention. The system also could use location data gathered from the customer's device to determine distance to a provider as well as current traffic and weather conditions that could then be shared back to the customer.

As more enterprises opt for BPaaS to support their digital transformations and fuel innovation, they'll expect intelligent automation, scalability and the full support of on-demand, skilled BPS professionals right out of the gate. They'll want as-a-service offerings that deliver measurable value and will ultimately expect that value to be directly tied to business results. It's not too soon to be thinking about BPaaS as *business outcomes as a service*.

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