

# Cognitive computing & robotic process automation

## The fourth industrial revolution

Robotic process automation or RPA, machine learning, and artificial intelligence are opening up opportunities for cost savings, reducing errors, increasing scalability, and sharpening compliance. Cloud can help you take advantage by virtualizing resources, connecting discreet systems, and crunching big data at incredible speed. In theory, this combination can help free your business from repetitive tasks and empower your people to be more innovative and strategic. But to harness this exponential opportunity, organizations may need to rethink business cases and operating models wherever people and technology intersect.



### Our perspective

#### The impact of bots and cognitive technologies

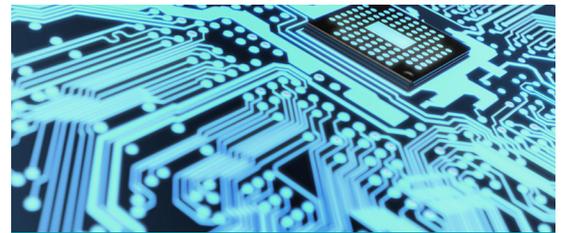
Modern analytics can yield actionable insight into what has already happened, what is happening now, and what is likely to happen next. But that's just the beginning of what's possible. Robotics spans a spectrum from the routine process automation of repeatable tasks to cognitive technologies where machine learning can develop voice and data recognition capabilities that learn and improve as they recognize new patterns that get coded into new rules. Today's voice-activated assistants may tomorrow be extracting and structuring information requiring perception and judgment.

#### Where bots work best

For all of its potential, it's still essential to focus efforts where cognitive technologies can work best. Bots do tend to do these things well: Gather, collate, and validate data; synthesize and analyze data; record and transport data; calculate a value and decide what to do next; communicate with and assist people; orchestrate and manage activities; monitor, detect, and/or report on performance; and learn, anticipate, and forecast behaviors or outcomes. The more bots can do for you in these areas, the more time you can free up for your people to perform higher value investigative, innovative, and due diligence tasks. But is your organization ready for this way of working?

#### How to organize for success

RPA has potentially exponential benefits. Harnessing those benefits demands new operating and talent models, new business cases, and a firm hand guiding transformation efforts. Routine rules-based tasks can be encoded; algorithms can be built to perform most effectively. "Cobots" can provide a machine intelligent extension that complements the human capabilities of your organization. So while automation can bring big dividends, be careful not to underestimate the organizational transformation imperatives required to put it on a solid foundation.



### Unveiling what's next

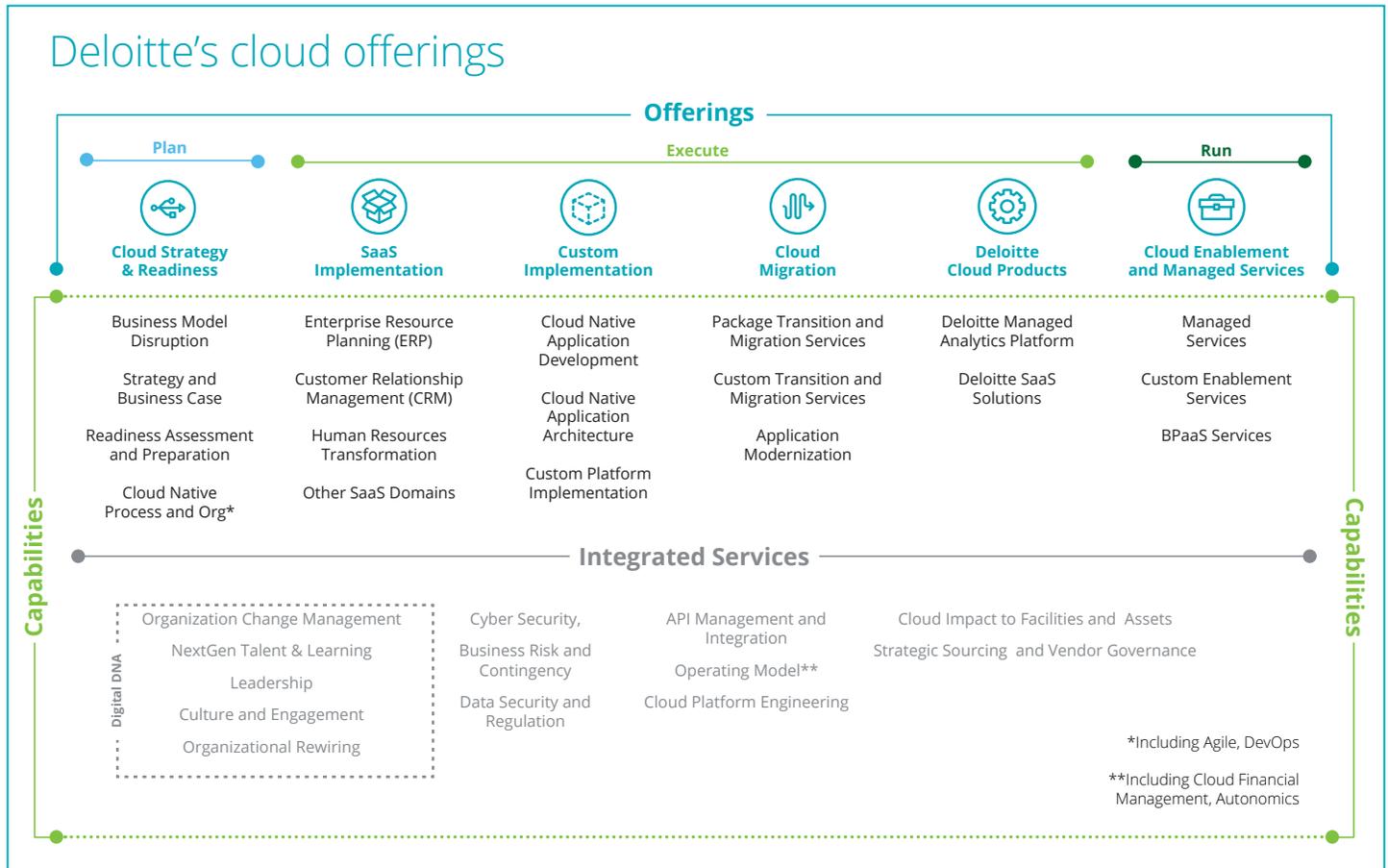
The low-hanging fruit for RPA and cognitive computing starts with enterprise-level governance, centralized cost control, and automation and optimization of routine shared services and back office tasks. What lies ahead is likely a fourth industrial revolution: plugging cognitive tools into today's RPA can automate high-value activities ranging from workforce management to customer engagement to real-time compliance and risk controls. It's important to place business outcomes and workforce integration at the fore, both informed by industry and functional knowledge.

What's the reward for those who succeed? Moving more functions to cloud technologies securely and compliantly can enable you to improve speed to market, gain greater control of scalability and costs, and spend less time on configuring. It can be a powerful step toward focusing more time and energy on innovative new releases and enhanced customer experience.

How to get there?  
Talk to Deloitte about cloud.

# Advance your business, exponentially

Disrupt. Transform. Repeat. That’s the new normal. Done right, cloud not only drives that reality—it can turn it into your advantage. Deloitte’s end-to-end capabilities and deep understanding of you—your business, industry, and dynamics—help to amplify the transformative value of cloud, beyond cost-cutting. You can become agile and disrupting. You’re not just using cloud. It’s helping to advance your business in ways you never imagined.



## Get in touch

**Larry Albin**  
Principal, Deloitte Consulting LLP  
lalbin@deloitte.com, +1 212 313 1600

**Tom Galizia**  
Principal, Deloitte Consulting LLP  
tgalizia@deloitte.com, +1 415 783 5475

As used in this document, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms or their related entities (collectively, the "Deloitte Network"), is, by means of this communication, rendering professional advice or services. Before making any decisions or taking any action that may affect your finances, or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.