Automation: The Imperative for Digital Transformation

Why unified automation across application development, delivery, and operations is an imperative for surviving disruption.

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Introduction

We're all familiar with living in this age of rapid change, an era when manufacturing product lifecycles seem to be shrinking to single years, not decades, production supply chains are becoming shorter and regulations are tightening the screw. This is no time for complacency; businesses need to deliver at the speed of the customer or risk being isolated.

The reality of this pace of change is far worse than many of us realize. According to Wall Street journalist Peggy Noonan, 50 years ago the life expectancy of a firm in the Fortune 500 was around 75 years. Now it's less than 15 years and declining even further. Researchers from Washington University have arrived at a similar statistic: 40 percent of today's Fortune 500 companies are likely to disappear within 10 years.

So who will replace them? Researchers at Yale University believe three-quarters of the companies that will comprise Standard & Poor's 500 index in 2020 have not yet been founded. The answer, therefore, lies with digital disrupters: the emerging startups—often "two guys in a garage"—who are upending traditional business models and being driven by nothing more than Web access and smartphones.

What is this enterprise digital transformation, and who are these digital disrupters? Well, the next time you're in a European city, cast your eyes over the streets and count the number of traditional black, yellow and colored taxis you see driving around empty with their hire light on. Then consider the number of Toyota Priuses on the streets full of fare-paying passengers. This is Uber at work: The taxi app allows people to track their taxi's progress, pay with a mobile phone, rate drivers and vice versa. It is perhaps the ultimate example of a digital disruptor and digital transformation trend.

In fact, these digital disruptors are everywhere. WhatsApp is displacing telecom companies. Netflix has changed the home entertainment market. Airbnb is having a crack at the travel industry. Tesla's electric cars are parked on the front lawn of the "legacy" Detroit auto manufacturers. Even business-to-business organizations are under threat: Traditional enterprise resource planning (ERP) organizations offering on-premises finance and human resources applications are being challenged by emerging cloud-based solutions from startups like Workday.

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Digital Transformation: Are You Listening?

It doesn't stop there. Even the ubiquitous mobile application is beginning to look outdated—and it might not be something a simple update can fix. Apple's App Store alone features more than two billion apps, but according to the most recent comScore mobile app report, as many as 49 percent of U.S. smartphone users don't download any apps in a typical month. Chatbots are the emerging means of communication—artificial intelligence that acts on voice commands. You'll be familiar with them from devices such as Amazon Echo, Apple iPhone (Siri) and Google Now. You may have even hired a car recently that acts on voice-activated instructions.

This new era of voice recognition has the power to transform computing, change the way we interact with devices and potentially eliminate the abstraction of the user interface. It's being called "conversational commerce," and Gartner predicts 85 percent of customer interactions will be managed by chatbots by 2020.

Is this the end of the application economy? Far from it. We may be witnessing the move toward applications (or services) being aggregated together, transparently to the end user and activated by voice command. Instruct your mobile device to book a flight while you're driving and it will interact with your preferred flight app, book the hotel you previously rated highly, find you a restaurant and synchronize it all with your calendar.

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Coping with and Capitalizing on Digital Transformation

According to IDC research, worldwide spending on digital transformation technologies will expand at a compound annual growth rate of 16.8 percent through 2019 to a total of more than $2.1 trillion.

So how can your organization respond to this wave of digital transformation and ride the disruption that comes in its wake? The short answer is to be faster, more adaptive and more nimble. The phrase being talked about in every boardroom is “business agility”—adopting a strategy that allows the organization to respond rapidly to changes in internal and external environments without losing momentum or vision.

At its heart, business agility involves producing new product and service ideas faster than before, beating those ”two guys in a garage” at their own game and delivering innovative competitive solutions in a fraction of the time it used to take.

The question for every organization is, how? How can an organization with decades of legacy associated with its people, processes, technology and culture suddenly become a rapid agile innovator?

The answer lies in software. In this fast-paced application economy, software is at the heart of every business and driving every industry. To deliver the benefits of digital transformation and survive the disruptive outside forces lurking around practically every corner, you need to have the right software tools in place.

We frequently hear CEOs at their annual general meeting saying, “We’re not a bank, we’re a technology company,” or, “We’re not an airline anymore, we’re a technology company.” According to a report by the Harvard Business Review, 53 percent of organizations are investing in modern technology to develop digital products and services faster. In fact, it’s the number one action being taken to compete more effectively and deliver the benefits of digital transformation.

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Automation Unlocks the Door to Agility and Digital Transformation

While the answer to digital transformation and disruption lies in software, the obvious next question is, "Which software?" Many organizations start dipping their toes into digital transformation by targeting the straightforward automation and digitization of the existing manual and analog processes used to operate IT and businesses. The next step moves beyond simple replication of existing processes to create new sources of business value and customer engagement, often by using mobility, social media and big data analytics.

Many organizations recognize that the convergence of big data, social technologies, the Internet of Things, DevOps and mobile-first computing strategies requires a new, more unified and dynamic approach. Automation addresses the need for agility and meets digital transformation trends head on.

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Defining Automation

In the past, one set of tools and IT experts would typically orchestrate file transfers, ERP data integrations and workload schedules. Different teams and tools would manage various aspects of infrastructure provisioning, configuration automation, application release and service orchestration. In this era of digital transformation and disruption, that model can't last: There's no time for downtime. Organizations need a unified automation solution to help integrate and standardize processes while empowering developers and decision makers to work faster—in other words, to become more agile.

Today's digital processes demand the integration of multiple internal systems and
third-party services. They must link customer profiles, payment systems, personalization tools, pricing lookups and other processes quickly and reliably. Moreover, data residing in traditional databases and ERP systems must instantly link to queries and transactions launched in the cloud. Automation and orchestration accelerates and streamlines all of these processes while predictive analytics take that agility a step further, optimizing end-to-end processes and resource usage.

The market advocates automation. According to IDC's Enterprise Cloud and DevOps Management Survey, 46 percent of organizations agree that "increased use of automation" is among the most important drivers and requirements shaping their organization's overall IT strategy from today through 2020.

"They must link ***customer profiles, payment systems, personalization tools, pricing lookups*** and other ***processes quickly and reliably.***"

Examples of DevOps, IT Operations, and Business Process Automation

DevOps Automation

DevOps is where development and operations teams coordinate and collaborate more closely than in traditional siloed IT organizations. DevOps automation orchestrates existing islands of automation at an enterprise scale and automates handoffs between subject matter experts. Moreover, it ensures application enhancements are developed, tested and implemented in a secure manner across all environments, including production.

Ultimately, DevOps automation ensures a consistent, repeatable and continuous deployment process, allowing IT to meet the business demands more directly, encouraging innovation, revenue growth and customer loyalty.

ERP Automation

Traditional on-premises ERP applications were not built for this era of digital transformation. They don't adapt to change quickly, easily or cost effectively.

The capabilities of modern ERP automation tools change all that. Automation tools execute core business, application and infrastructure processes across on-premises, cloud and hybrid environments, reliably and without manual intervention. The result is a unified, flexible approach that enables your organization to run, build and transform its ERP environment and ensures visibility across the entire business.

Take Oracle E-Business Suite, a classic example of a large ERP platform that needs to adapt to disruption and digital transformation. Point automation tools or scripts have delivered some benefit but lack the end-to-end process automation, release automation, extensibility or auditing capabilities required for the future.

Unified automation manages all the business, application and infrastructure processes across Oracle E-Business Suite. Resources are released from manual business processing, errors are largely eliminated and issues are resolved faster for enhanced compliance. Ultimately, change happens at the speed demanded by business transformation.

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Big Data Automation

The world is swamped with data, but that data is only useful once it's understood. Automation simplifies and speeds up the integration and understanding of big data environments, ensuring timely, accurate and complete business analytics. Organizations also benefit from faster data integration cycles, immediate reporting distribution, faster implementation of new data warehousing processes and compliance across data flows.

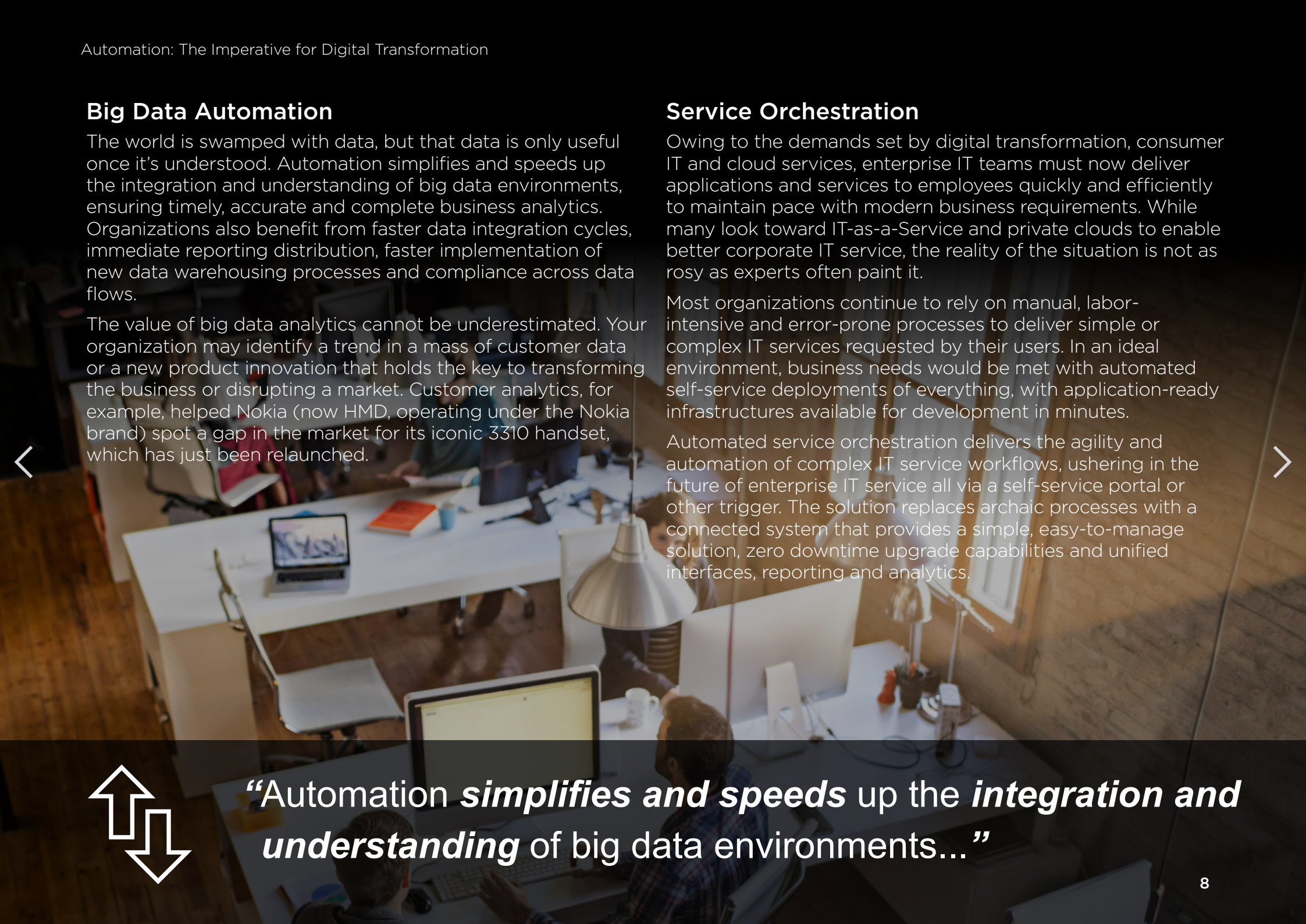
The value of big data analytics cannot be underestimated. Your organization may identify a trend in a mass of customer data or a new product innovation that holds the key to transforming the business or disrupting a market. Customer analytics, for example, helped Nokia (now HMD, operating under the Nokia brand) spot a gap in the market for its iconic 3310 handset, which has just been relaunched.

Service Orchestration

Owing to the demands set by digital transformation, consumer IT and cloud services, enterprise IT teams must now deliver applications and services to employees quickly and efficiently to maintain pace with modern business requirements. While many look toward IT-as-a-Service and private clouds to enable better corporate IT service, the reality of the situation is not as rosy as experts often paint it.

Most organizations continue to rely on manual, labor-intensive and error-prone processes to deliver simple or complex IT services requested by their users. In an ideal environment, business needs would be met with automated self-service deployments of everything, with application-ready infrastructures available for development in minutes.

Automated service orchestration delivers the agility and automation of complex IT service workflows, ushering in the future of enterprise IT service all via a self-service portal or other trigger. The solution replaces archaic processes with a connected system that provides a simple, easy-to-manage solution, zero downtime upgrade capabilities and unified interfaces, reporting and analytics.



"Automation ***simplifies and speeds*** up the ***integration and understanding*** of big data environments..."

Benefits of Unified Automation Enabling Digital Transformation

While each silo of automation can certainly deliver benefits on its own, unified integrated automation across workloads, applications and business processes can result in much more significant benefits both to IT and the business.

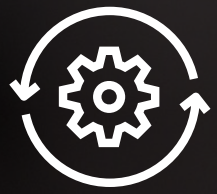
The IT Benefits of Unified Automation

- Consistent application configuration and performance across the development and production lifecycle
- Unified enforcement of configuration, data access and information location policies related to workload placement and use of public cloud resources
- More efficient self-service full stack provisioning and workload placement services for developers and line of business decision makers
- Improved IT operations efficiency via standardization, blueprint reuse and orchestration of complex tasks

Business Benefits of Unified Automation

From a business perspective, effective unified automation can be the difference between being agile and being a victim of disruption. Or it can mean the difference between delighting customers and losing revenue due to poor end-user service levels. In highly digitized businesses, the benefits of unified automation include:

- Accelerated time to market for new applications and cloud services due to faster development cycles and support for continuous integration, test and release
- Improved business agility and performance due to faster insight and the ability to handle rapidly increasing ranges and volumes of critical business data
- Reduced business risk and downtime due to eliminating human error and more consistent enforcement of governance and policies
- Increased business agility and decision making resulting from faster completion of critical processes, such as reducing the time needed to close and reconcile monthly and quarterly financial reports



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Drawing it All Together

No one wants to be a victim of the next Airbnb, Uber or Netflix. In this era of rapid change and disruption, digital transformation has never been more important. Innovation speed and agility will determine which businesses succeed and which fail.

Centralized management and monitoring of automated processes will be integral for end-to-end visibility and control of IT and business processes; rapid, accurate reporting will be imperative to ensuring regulatory compliance. Unified automation and orchestration enables IT teams to support SLAs and business requirements for continuous digital services delivery and operations. It also allows enterprise IT to lower ownership costs, reduce learning curves and provide the business with the speed and agility it needs to compete.

Digital transformation is driving rapid integration and automation across development, deployment, operational support processes and infrastructure. And it needs to be supported by modern, unified automation platforms. Make no mistake—digital transformation makes unified automation across every aspect of application development, delivery and operations an imperative for business success.

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