



## Reshaping the Enterprise via Business-Facing Integrated Automation

Automation of infrastructure management must be tightly aligned and integrated with strategic objectives to ensure business relevance and deliver better customer experiences.

### Executive Summary

Companies the world over are contending with waves of digital transformation and new competitors inside and outside their native industries. The norm has changed. The size of the company is no longer a sign of stability and success – large companies are playing the mergers and acquisitions game to remain relevant to existing customers and expand beyond their traditional segments. Such companies need to elevate and broaden their value propositions and at the same time run in “mass customization” mode. To do this requires a solid IT platform, processes to leverage customer data and insights that reveal market directions and customer needs, wants and desires.

As businesses adapt to increasingly dynamic markets, winning in today’s connected world requires an intelligent, elastic and extensible IT infrastructure that can advance corporate strategy and execution. To elevate and broaden the value proposition, IT departments must automate to eliminate standard/repetitive processes, thereby freeing up employee bandwidth to focus on higher skilled areas. Doing this will enable the business to augment employee focus and outcomes enhancing product lines, boosting business unit performance and enabling the launch of new business models that were not possible with traditional IT.

Cross-industry customer data (both transactional and interactional) will soon become the fuel powering various large companies.

This white paper discusses the business drivers for automation including internal drivers, pitfalls and the road ahead, by evaluating automation’s business opportunity as well as stakeholders’ expectations.

### Automation’s Business Drivers

We believe companies need to align their automation agenda to run the business and change the business objectives. Otherwise, automation initiatives can very easily spiral into a number-chasing game of increasing the percentage of tasks automated within the enterprise. The worst case is to automate for the sake of automating.

Two key drivers for automating pivot around business performance improvement and business augmentation/digital transformation. Business performance improvement can be achieved through human productivity gains, adding organizational agility, driving accuracy, increasing predictability and preventing “issues.” Business augmentation and digital transformation can be achieved by connecting the physical and virtual, and leveraging automation to present real-time insights based on transactional and interaction-



al data. Digital native companies have leveraged Web-scale IT to bring mass customization as a competitive advantage that enables them to consistently deliver enriched customer experiences.

Not surprisingly, even though an increasing number of multi-industry conglomerates are applying customer insights to inform business strategy, oftentimes their own customers know more about their products and services than the conglomerate knows about its customers. This presents an interesting challenge, putting company employees at a disadvantage when dealing with customer issues or opportunities that emerge when interacting with them. IT needs, therefore, to take a service-led approach and prioritize which business for IT to automate for maximum impact, given its limited resources and time, balancing the business performance improvement and business augmentation/digital transformation agendas.

### Internal Automation Drivers

Enterprises tend to automate in isolated pockets, with the left hand not knowing what the right hand is doing. This often leads to issues, such as with application and infrastructure. The internal goal should be service-centric by steering towards an approach focused on integrated automation and business-facing automation.

Integrated automation revolves around being technology-agnostic, creating an integrated automated engine with the flexibility to integrate with existing legacy environments. Such a framework must also be able to simultaneously manage cloud and on-premises IT services.

Business-facing automation is all about powering a constantly-ready business, converging machine and user data to enable real-time business decisions. At the same time, this approach must accelerate time to market, augment current business models and help launch new business models.

### The Road Ahead: Pitfalls and Pathways

As most new technologies and frameworks must overcome the initial awareness/adoption phases, enterprises need to be clear about their objectives and the role of these new technologies/frameworks to meet corporate objectives, keeping in mind their business/IT landscape and maturity. It's not the total percentage of enterprise automation that matters; it's the service-led

enterprise-wide integrated automation in line with priorities of the business-facing IT that counts.

Automation is not only about removing or reducing human effort; it's also about elevating human effort to high-skill areas by automating standardized tasks. This way an enterprise can reach higher levels of delivering value (Web-scale IT) to users inside and outside the firewall.

As traditional companies (with physical world locations only) compete with omnichannel companies, they typically add virtual world capabilities. Such companies are on the path of building an elastic, modular infrastructure to deliver a seamless, insightful experience to their customers. Considering the volatility encountered and opportunities that emerge when companies diversify, particularly through mergers and acquisitions, the path towards automation becomes even more complicated since they need systems that can capture, process, analyze and leverage data across disparate entities to deliver enhanced customer value.

**Automation is not only about removing or reducing human effort; it's also about elevating human effort to high-skill areas by automating standardized tasks.**

In the dynamic digital marketplace, as more companies embrace M&As to stay competitive, building holistic infrastructure is quickly becoming the norm, as it allows sharing customer insights across the group companies. This will help build an intelligent cross-selling business model – continuous innovation and better customer experiences are critical in order to stay relevant. And to do so, companies need to focus their efforts on shifting human capital to higher-end business and IT imperatives by automating repeatable tasks and applying automated tools and techniques to augment mundane tasks and make digital models possible through Web-scale IT.

A business-facing integrated automation approach can play a major role in helping a conglomerate, or any enterprise for that matter, increase its level of connectedness across the organization.

Enterprise maturity in terms of documentation of various IT elements, including standardization, transparency and collaboration across teams, is a factor that limits or facilitates automation's

implementation and effectiveness. Change management becomes a core lever here, as automation can bring disruption to a comfortable and established (but not so efficient) way of working. Any such disruption can move organizations outside of their comfort zones (skills, roles, departments, etc.). This creates a certain level of resistance, mainly due to a lack of understanding of automation's benefits and the effort required for success. Another consideration is concern over the end state (i.e., post automation), where automation could diminish a team's or department's importance within the enterprise.

Leading enterprises are joining forces with business/IT partners to help them through this journey by sourcing key capabilities and entrusting them (with some predetermined rules) to deliver business-facing integrated automation. This allows the enterprise to focus on its core business and keep a close eye on market changes to ensure it adapts in time. Some enterprises tend to fall victim to internal challenges or – due to a complex multi-vendor landscape with too many interdependencies – are unable to carry out any meaningful level of integrated automation.

Many companies we encounter are in the process of implementing automation in their environments or evaluating options of implementing automation in their environments. It is important that before companies embark on their automation journeys that they identify the outcomes that they want to achieve. Among the main objectives of automating an environment are to achieve cost reductions/cost avoidance, enhance the end-user experience, provide an always-available infrastructure to support digital business transformation and increase service availability compliance.

It is therefore prudent to evaluate the state of automation in the current environment and then decide on an approach based on the objectives listed above. To do this, organizations need to evaluate the stakeholders' automation expectations. This can be classified as:

- **Expected:** Outcomes that need to be achieved to keep an environment healthy. Examples are correlation of monitoring events, automated monitoring, etc.
- **Needed:** Outcomes that are required to clamp down on costs and still deliver a base level of stakeholder satisfaction. Examples are patching automation, automated inventory, etc.

- **Desired:** Outcomes that stakeholders expect in an automated fashion. Examples are automated reporting, automated fulfillment of requests, etc.
- **Delightful:** Outcomes that drive a very high level of stakeholder satisfaction and support the organization in its digital business transformation journey. Examples are automated provisioning of an application anytime/anywhere, automated capacity predictions and the ability to apply business intelligence to IT service management.

The needs of the above vary across various industries.

- **In retail,** for example, business users are delighted if systems automatically recover from failure and complete their jobs on time to ensure that stores have the right level of inventory.
- **In an investment bank,** trade units would be delighted by automated deployment of applications and features to support new lines of trade and ways of settlement.
- **In healthcare,** automation of security controls that help providers remain compliant with security regulations is a highly desired outcome.
- **In travel and real estate,** firms would benefit immensely from seamlessly automating onboarding of contract staff.

When automation services are sourced, governance is critical. In many cases, some or most of the services delivered are offered by one or many service providers. Service providers are also developing or have developed capabilities that can benefit their customers. Typically, they use the following sourcing scenarios:

- **Proprietary:** Organizations that run very specialized businesses like SaaS vendors or telecom providers would partner with global services companies to help them build a custom automation roadmap by augmenting their teams with savvy experts.
- **Outsourced:** Many companies that have sourced a majority of their services expect the service provider to implement automation to meet their business objectives. And this can also be part of the deliverables in the outsourcing contract. In order to deliver against traditional service level agreements and user experience expectations, automation plans need to be baked into the master services

## **Quick Take**

### Delivering Enhanced End-User Experiences

#### Scenario 1: Empowering Workplaces to Deliver Enterprise Objectives

Patricia White, an experienced pharmacologist working in a pharmacovigilance department of an international nonprofit organization, starts her day with optimism. She is working on a high-profile case heavily focused on adverse drug reactions (ADRs), which are defined as any response to a drug which is noxious and unintended, including lack of efficacy. In the last month, she had many important e-mail conversations with regulators based on her work. She was expecting to consolidate her findings into a full-fledged report to send out to higher-ups before 12:00 pm that day. She logs into her lab workstation and to her disbelief she is unable to open her mail application.

Making matters worse, her entire office system crashes. Feeling anxious, with thoughts of losing her backed-up offline mail conversations and her inability to access key timelines, she suddenly realizes the self-service channel in her workstation is configured as a virtual desktop engineer. She invokes the virtual engineer and it provides information about the mail and office system's crash. Like an angel, the perceptive virtual engineer accepts her free text language and pops up two fixes to execute.

The virtual engineer resolves the crash and invokes the application back to life, including all of Patricia's personalized office settings. Not only did this solution bring user excitement, but it also enabled the organization to be more resilient by enabling her to fulfill her time-bound work and her reporting on ADRs. Given the high-profile nature of this case and the negative implications for not achieving the objectives, any public word of this unfortunate outage would have been detrimental to the company's image, particular in today's digital era where such word spreads virally!

#### Scenario 2: Automation-Powered, Always-Ready Infrastructure to Drive Top-Line and Market Stature

A leading telecom giant's business head, Jaspreet Khurana, envisions new, more attractive data plans to stay ahead in the game. To be the early bird and capitalize on the lack of rollout agility among competitors, he is looking for an overnight data plan rollout. This will enable the telecom giant to earn a lion's share of revenue amid stiff market competition in the data space. In his previous company, this would have been a two-month exercise.

Jaspreet discusses his out-of-the box idea with development lead, Vikram Sudev, and the IT lead, Jim Taylor. Vikram requires software alterations to enable the company's billing systems to launch this new offer. The application alterations require additional capacity and also additional peak load planning for the infrastructure on the application stack.

However, this enterprise built an elastic hybrid cloud and built catalogs to enable infrastructure provisioning. The service catalog helps Vikram to build server components precisely and easily. Servers are automatically hardened, validated, activated and readied for deployment in four hours. Vikram gets his changes made and tested using predefined test automation, and he then shows Jaspreet the new data plans the telecom can offer. Thrilled at how the always-ready enterprise works, Jaspreet deploys his plans. The company makes an additional 10% of revenue during the quarter compared with its competitors.



## **Quick Take**

### **Delivering Enhanced End-User Experiences (*continued*)**

#### **Scenario 3: Increased Service Availability to Consistently Support Business Agility**

Joe Wilson, a retail store manager, is getting ready for the Christmas/holiday season. Typically, he has seen his company's IT get stretched during this time of year. Last year, the store's application that transfers rates and discounts to the point of sale machines went down, and Joe and his team had to manually override the prices every time, which led to massive lines at the checkout counter.

Joe had made his displeasure known to his sales head for the region. When he arrives at the store in the morning, he sees a note from the service desk announcing changes to the rates application. Though Joe is not impressed, the entire Christmas

season transpires with no outages at all. Joe is delighted, and he sends a note to Gary Bloom, the new CIO of the retail chain, thanking him for IT's support during the season. Gary responds to Joe saying the company has invested in new software-defined infrastructure and automation. In the past, handling large volumes of data to apply discounting led to data storage issues and outages. Now this is automatically handled by the software and workflows developed by Gary's automation team – thus dynamically expanding storage as and when needed during peak season. Joe is impressed with the impact automation has made on the business' brand and loyal customer base.

agreement. Alternatively, companies can look at selected projects and call out automation separately in the contract.

- **Collaborative:** In a collaborative mode, where there are one or more service providers, it is natural for the client to own the automation strategy and design, and to embed or integrate the service provider's capability into the overall automation roadmap. This is applicable when the service provider is responsible for delivering a specific outcome such as a service desk or data center and already has developed capabilities to provide automation that delivers all of the needed, expected, desired and delightful outcomes.

In summary, organizations need to embrace automation very quickly if they have not already. The following are key steps that ensure a comprehensive agenda:

- **Decide your organizational objectives** for automation, such as costs, end-user experience, always-available infrastructure to support digital business transformation and increased service availability, or compliance posture.
- **Identify expected, needed, desired and delightful outcomes** that are important for stakeholders.
- **Decide which services must be covered in this agenda.**

- **Evaluate what capabilities partners or service providers have** in line with the organization's objectives.
- **Establish an automation roadmap and governance plan** that provides visibility on the planned versus achieved outcomes of automation.

#### **Moving Forward**

It's important to realize that by approaching automation as a business accelerator rather than an IT simplifier – as shown in Scenario 2 of the sidebar – organizations can more effectively achieve their business goals. Business-facing integrated automation can help enterprises streamline their efforts in line with their objectives and stakeholder expectations (as in Scenario 3).

Considering accelerating market dynamics, simply increasing the rate of change and automation internally without embracing a service-led, enterprise-wide approach could be counterproductive. It is important to join forces with a transformation-led partner for whom your enterprise journey makes business sense and has the wherewithal and necessary focus to make the automation journey worthwhile and productive. If your organization automates in such a service-led, enterprise-wide fashion rather than as an isolated technical exercise, the impact and opportunities will soon emerge for various stakeholders to behold.

## About the Authors

*Ramesh Ramakrishnan is the Global Lead for Thought Leadership and European Lead for Marketing and Alliances within Cognizant's Infrastructure Services business unit. In this role, he is responsible for increasing mindshare and driving demand generation programs by developing thought leadership assets and marketing positioning. In his more than 15 years of experience, Ramesh has worked at various leading global IT companies and had a brief stint with his start-up advisory firm in London. He has a PG Dip. from Chartered Institute of Marketing (London) and a bachelor's degree in chemical engineering from Annamalai University (India). Ramesh is a blogger at SAP's Digitalist Magazine and UK's Marketing Magazine and is featured regularly in various interviews at SAP's Future of Business, Forbes and Forrester. He was selected one of the Top 40+ Digital Strategists in Marketing by the Online Marketing Institute in 2014. Ramesh can be reached at [Ramesh.Ramakrishnan@cognizant.com](mailto:Ramesh.Ramakrishnan@cognizant.com).*

*Yogesh Gundurao is the Senior Director of Cognizant Technology Lab's Automation CoE. He has over 20 years of experience in IT infrastructure management, application support and IT service management. Yogesh is proficient in asset creation, driving innovation, cost reduction strategies, customer relationship management and managing projects aligned to business objectives. He is a technical leader in cloud computing, application development, ITSM processes and automation. Yogesh has worked for consulting companies like IBM and Infosys across India and Singapore. He currently heads the automation and analytics CoE for Cognizant's Infrastructure Services. Yogesh and his team are responsible for deciding Cognizant's automation landscape and reference architecture and strategy across infrastructure service offerings. His responsibilities include identification of areas of automation, development of IP within Cognizant and associated services – creating a business plan, developing customer acquisition strategy, go to market plan, presales and building capability. Yogesh can be reached at [YogeshSosale.Gundurao@cognizant.com](mailto:YogeshSosale.Gundurao@cognizant.com).*

---

## About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 100 development and delivery centers worldwide and approximately 219,300 employees as of September 30, 2015, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. Visit us online at [www.cognizant.com](http://www.cognizant.com) or follow us on [Twitter: Cognizant](#).



**Cognizant**

### World Headquarters

500 Frank W. Burr Blvd.  
Teaneck, NJ 07666 USA  
Phone: +1 201 801 0233  
Fax: +1 201 801 0243  
Toll Free: +1 888 937 3277  
Email: [inquiry@cognizant.com](mailto:inquiry@cognizant.com)

### European Headquarters

1 Kingdom Street  
Paddington Central  
London W2 6BD  
Phone: +44 (0) 20 7297 7600  
Fax: +44 (0) 20 7121 0102  
Email: [infouk@cognizant.com](mailto:infouk@cognizant.com)

### India Operations Headquarters

#5/535, Old Mahabalipuram Road  
Okkiyam Pettai, Thoraipakkam  
Chennai, 600 096 India  
Phone: +91 (0) 44 4209 6000  
Fax: +91 (0) 44 4209 6060  
Email: [inquiryindia@cognizant.com](mailto:inquiryindia@cognizant.com)