

Solution Showcase

Chef Enables Continuous Automation for Today's Digital Enterprise

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Abstract: The world of business is being impacted by digital transformation, as it changes both the way businesses deliver outcomes and what their customers expect. Chef's continuous automation platform—Chef Automate—enables IT to shift from infrastructure provider to business outcome enabler.

- Digital transformation is impacting enterprises and how their IT organizations support them.
- There is a gap in the business outcomes and initiatives that companies report as their highest priorities, based on the age of the company responding. Younger, more agile “cloud-native” companies are focused on enabling growth as opposed to enabling stability and mitigating risk.
- Chef Automate is a continuous automation platform, which enables IT organizations to transform their software production methods using agile, lean, and DevOps processes to drive digital transformation.

Digital Transformation and the Impact on Enterprises

The world is transforming around us, with digital devices and information entering our lives from almost every angle. Digital technology is now embedded throughout the world we interact with, from our smartphones and tablets to our cars and the buildings we live and work in. This digital transformation not only impacts how we live our lives but it fundamentally changes our expectations for technology access, both at home and at work.

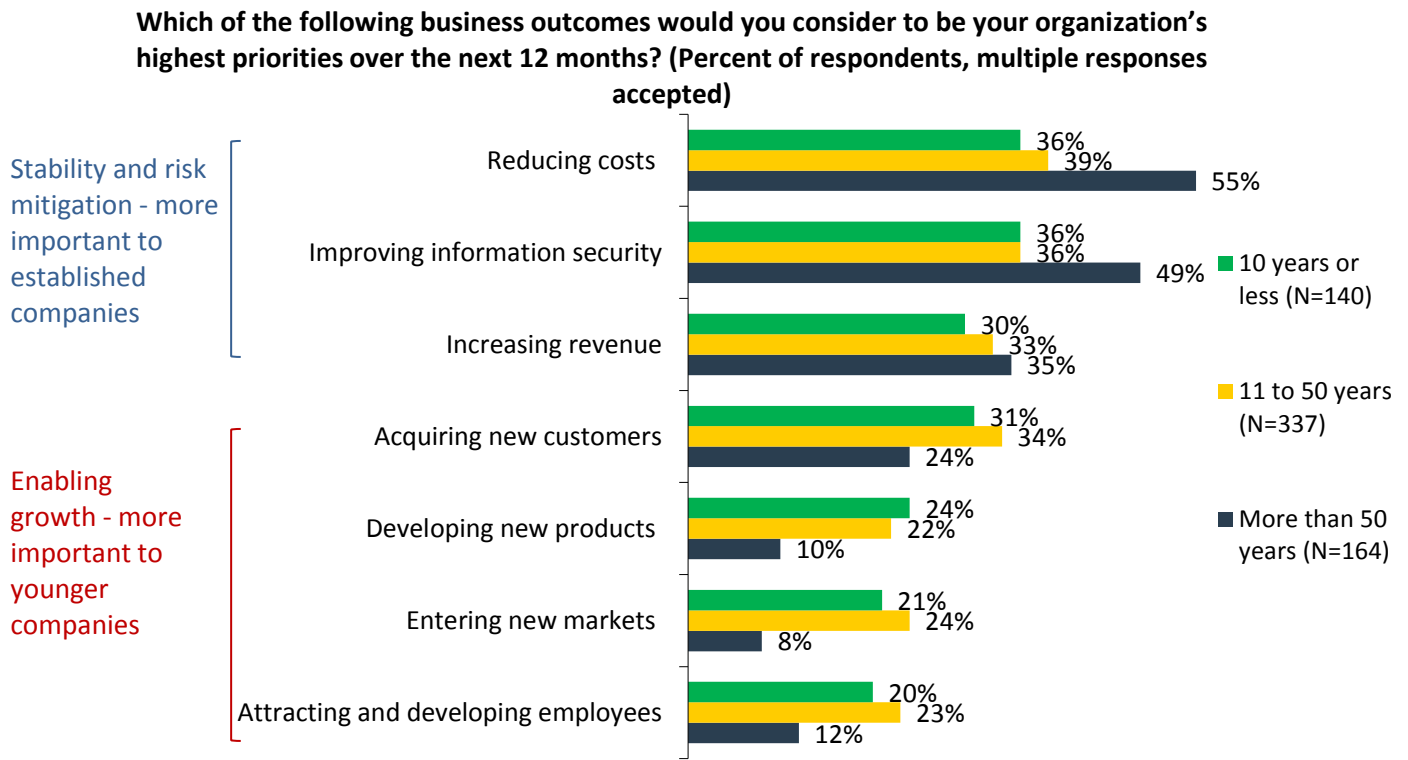
Enterprises and enterprise IT organizations need to transform how they work to harness the possibilities created by these digital advances. The end-users of IT and even the developers who support IT see applications, not the supporting infrastructure, as the endpoints of the digital business. But organizations can't stop there in their digital transformation efforts.

IT is at a crossroads today, shifting from a cost center that supports the business to a differentiator and business enabler. Enterprise IT needs to go beyond merely adapting to digital transformation to harnessing it to meet business initiatives. This crossroads will force organizations to shift away from simply providing stability and risk mitigation for the IT systems supporting the business to providing a platform for business growth. To understand how the shift is occurring, we can look as ESG research data about business initiatives and IT.

ESG Research Shows the Business Initiatives Driving IT

Digital transformation directly impacts how enterprises operate, but this impact varies between different organizations, especially between organizations of different ages. In a recent ESG research survey of IT decision makers at midmarket and enterprise organizations, one of the questions we asked was what business outcomes organizations would consider to be their highest priorities over the next 12 months.¹

Figure 1. Top 2017 Business Outcomes, by Age of Company



Source: Enterprise Strategy Group, 2017

The top three responses of organizations' highest priorities for business outcomes in the next 12 months were **reducing costs, improving information security, and increasing revenue**. These results are aligned with the overall initiatives to drive stability and mitigate risk, which are very important to established companies. But we also see a significant shift when we break down the responses by organization age. For newer organizations (i.e., those less than 50 years old), which are often more prepared for digital transformation, we see a trend toward priorities that favor enabling growth as a business outcome. Some of the growth initiatives cited included acquiring new customers, developing new products, entering new markets, and attracting and developing employees (see Figure 1). These younger organizations showed strong preferences for these business outcomes as high priorities.

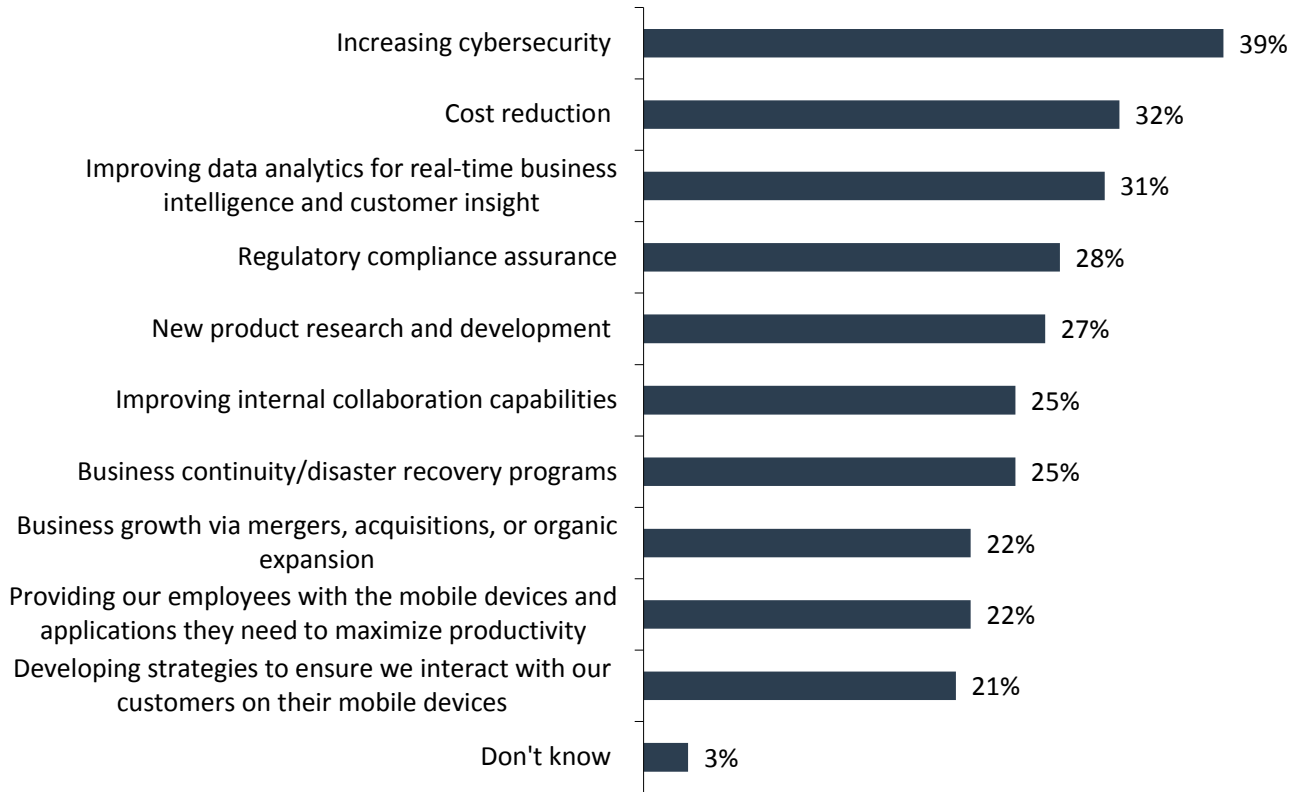
The prioritization of enabling growth is often achieved only when a company has reached its stability and risk mitigation goals and can focus on leveraging technology to drive growth as a business outcome. There is a need in many organizations for additional tools or processes to help them shift their business outcomes from stability to growth, from adapting to change to leveraging change.

¹ Source: ESG Research Report, [2017 IT Spending Intentions Survey](#), March 2017. All other ESG research charts and references in this solution showcase have been taken from this research report.

How does this focus on business outcomes affect the role of IT? What are the business initiatives that actually drive technology spending within companies and how does the age of the companies impact those initiatives? ESG research asked respondents to choose the business initiatives they believed would drive the most technology spending in their organizations over the next 12 months (see Figure 2).

Figure 2. Business Initiatives Driving IT Spending in 2017

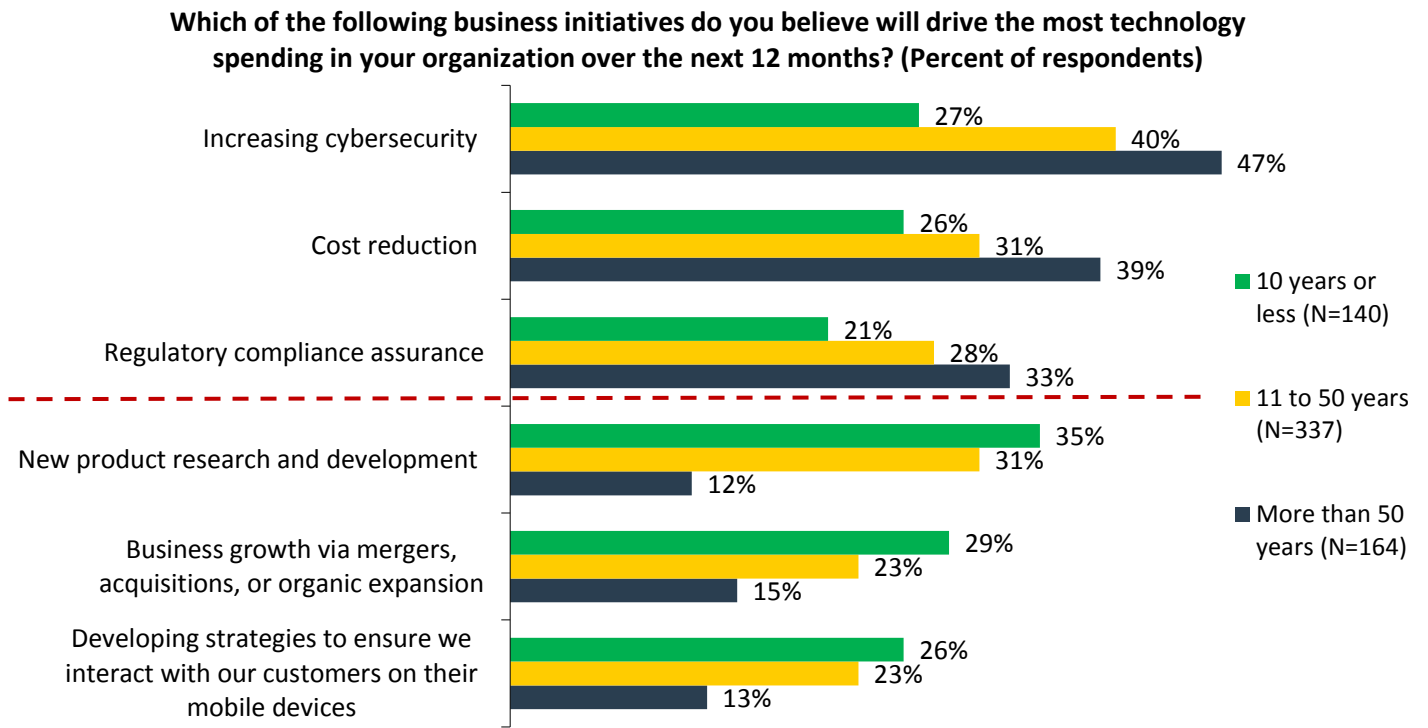
Which of the following business initiatives do you believe will drive the most technology spending in your organization over the next 12 months? (Percent of respondents, N=641, five responses accepted)



Source: Enterprise Strategy Group, 2017

Three of the four top responses were related to stability and risk mitigation: increasing cybersecurity, cost reduction, and regulatory compliance assurance. These are consistent with the results about organizations' desired business outcomes. The overall pool of respondents showed less interest in the growth drivers for technology spending, such as improving data analytics, new product research, and new mobile device strategies. But if we look at the results based on company age, we again see the shift away from stability and toward growth (see Figure 3).

Figure 3. Top Business Initiatives, by Age of Company



Source: Enterprise Strategy Group, 2017

The importance of initiatives related to stability, especially those related to cybersecurity and cost reduction, grows for organizations that are older than 50 years. Younger organizations, especially those 10 years or under, showed a much stronger preference for key business growth drivers. Organizations 10 years or younger, the ones that generally are the most agile and lean in terms of IT, showed preferences for growth initiatives of two and up to three times the numbers of companies that are older than 50 years.

While the ESG data does show a significant difference in prioritization of business outcomes and initiatives across organizations based on their age, one thing is constant across companies of all ages: IT must drive the business outcome change at their companies and become leaders in digital transformation.

Enterprise IT needs to transform both its process and culture to embrace this new continuous operations concept. On the application development side, organizations have adopted DevOps processes and continuous delivery models, which has greatly impacted how application development meets the needs of the digital business. But what about operations and systems management? In those cases, the tools of the past, the standard virtualization and automation of manual processes, are not enough to meet the needs of digital transformation. What organizations need is a new process and a new set of tools that are agile and continuous enough for managing the digital world.

Enter the concept of continuous automation.

Leveraging Digital Transformation with Continuous Automation

To help IT develop the capabilities needed to become more lean and agile, companies need to consider the idea of continuous automation. At its core, continuous automation is the set of tools and processes that allows organizations to *detect* issues and anomalies, *correct* the defects in applications and infrastructures, and *automate* future processes based on past learnings. Automation is vital to creating effective digital transformation processes allowing software to be

developed faster and workloads to be delivered quicker. Continuous automation applies the continuous delivery model to automation, enabling IT to automate configuration and defect detection processes to application infrastructure. This is true for both traditional platforms, such as bare metal and VM platforms, as well as modern cloud-native or container-based applications. The Chef Automate toolset enables IT to deliver services in conjunction with developers with Chef becoming the common language in which the teams can communicate—removing roadblocks across platforms and applications. This improves the outcomes of the developer's work, with increased efficiency, speed, and reduced risk.

The result of a shift to continuous automation is a transformation of IT from infrastructure provider to outcome enabler. In the digital world, IT cares most about the application and business outcomes. Chef helps companies transform their traditional “infrastructure-oriented IT” processes, where the infrastructure drives how applications are made, into “outcome-oriented IT,” where the outcomes drive the applications and the selection of the infrastructure to support it. But it's not about devaluing infrastructure. It is about automating to shift the administrator focus from the infrastructure to the apps and outcomes.

Chef's continuous automation platform, Chef Automate, enables companies to build, deploy, manage, and collaborate across all aspects of software production, from infrastructure through applications to compliance. Chef Automate is powered by three key open source engines: Chef, Habitat, and InSpec, where Chef acts as the engine for infrastructure automation, Habitat enables application automation for modern applications including applications in containers and composed of microservices, and InSpec provides compliance automation, allowing IT to specify compliance and security requirements as part of the executable code. All three come together to deliver continuous automation in a platform that allows IT to become more agile and lean, which changes how IT helps create and deliver applications to drive the business.

The Bigger Truth

For enterprises to truly become a “high-velocity” organization in the new digital landscape, they must transform IT and IT processes just like the world has digitally transformed around them. By leveraging speed and agility to transform their process and products, IT is well positioned to make that shift to become a business enabler. The Chef Automate platform delivers on the promise of continuous automation, and lays the ground work for IT to make the shift into the digital and cloud-ready world. IT itself needs a common platform, a common language that enables everyone, from developers through end-users to IT admins, to communicate at the level that is necessary to be agile and lean. Bringing all the application stakeholders together creates an environment for outcome-oriented IT, where success and lessons learned are based on the applications and the outcomes they drive. Chef is leading the industry in continuous automation, and that level of integration of automation, across the software production process, is what companies that want to lead in digital transformation must adopt.

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