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LIFE WITHOUT OUTAGES

Removing Risk From Digital Transformation

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The term "digital transformation" seems to be everywhere these days. To some, it simply describes changes in IT tools as companies look to modernize internal functions, e.g., adding a new web-based CRM system or employing a new collaboration-based incident management platform. However, this is an incomplete, and even flawed, view of what digital transformation is actually meant to be.

THE TRUE PURPOSE OF DIGITAL TRANSFORMATION IS ULTIMATELY ABOUT BUSINESS SURVIVAL THROUGH DISRUPTION — THE INTRODUCTION OF A NEW WAY TO MANAGE IT.

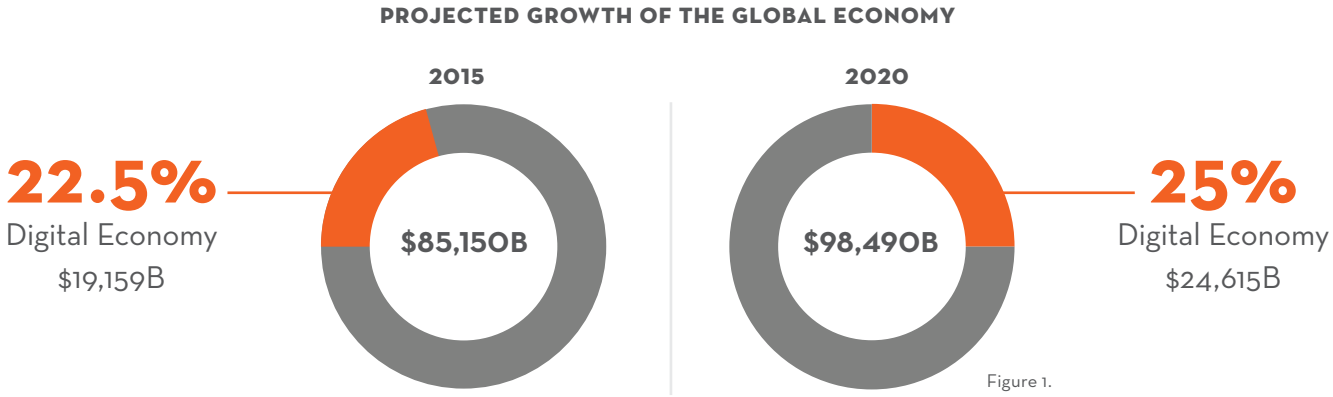


Figure 1.

As consumers, we see the results of digital transformation on a daily basis in the form of new services offered by companies across every sector. Mobile check cashing, self-driving cars, and even customer loyalty apps from fast-food chains like McDonald's and Taco Bell are all examples of services created by businesses that consider digital engagement as their primary form of customer interaction and innovation. These services are the result of corporate-led business mandates, and they're aimed squarely at keeping companies relevant and flexible in a modern economy powered by big data, instantaneous customer interaction and constant innovation.

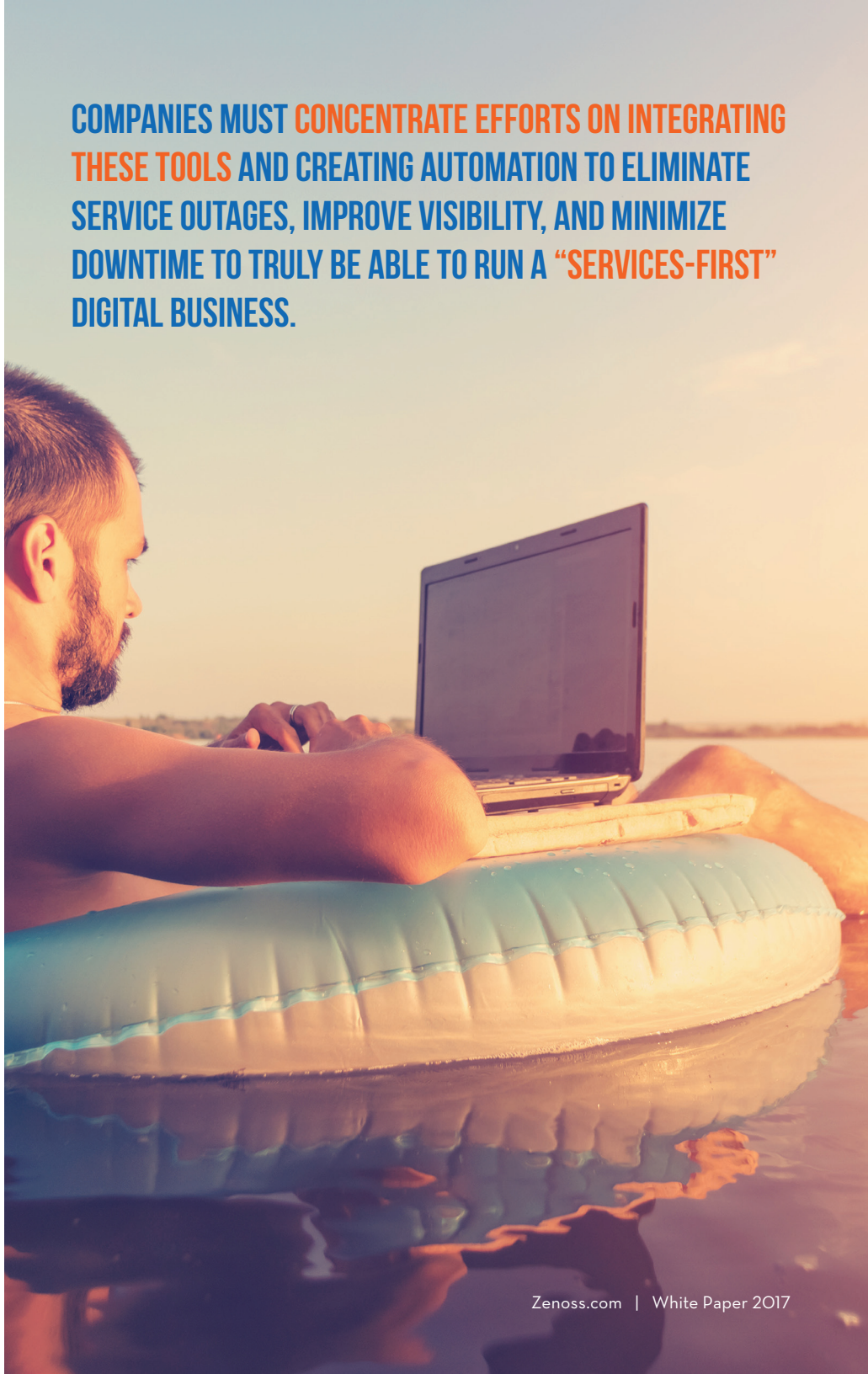
This fundamental shift in thinking, to a "digital-first" mindset, is not simply a trend. With CEOs like Michael Corbat of Citibank saying, "We see ourselves as a technology company with a banking license,"[1] — and global consulting firms like Accenture stating that, by 2020, the digital economy could account for a quarter of the world's economic output, i.e., more than $24 trillion[2] (see Figure 1) — it's easy to see why so much attention is being paid to digital transformation initiatives.

TECHNOLOGY IS NOW THE GROWTH ENGINE FOR COMPANIES IN EVERY INDUSTRY.

THE NEW ROLE OF IT

With technology now firmly at the center of so many companies' business plans, the stakes have never been higher for IT operations teams as they find themselves in the unenviable position of having to not only maintain a multitude of legacy systems but also simultaneously enable innovation. For every legacy service that companies (and their customers) rely upon, there may be an exponential number of new and groundbreaking services that they want to roll out, and IT operations is on the hook to support them all. Adding to this challenge is the ever-expanding mix of tools and platforms upon which those new services can be built and delivered. The flexibility and speed afforded by modern technologies like the cloud, containers and software-defined networking are met in equal parts by additional layers of complexity and an ever-increasing requirement of time and knowledge to invest with the addition of each new tool. Many would argue that we have passed the point beyond which humans can effectively manage the complexity of modern IT ecosystems while maintaining the ability to understand and mitigate risk. The only way IT organizations will be able to keep pace with business demands moving forward will be with automation and the streamlining of IT processes through Software-Defined IT Operations™. However, if the fundamental mission of IT is to keep services innovative, available and highly performant in a world where customer experience is king and abstracting complexity is the order of the day, no single tool is going to solve all of the problems inherent to the fundamental business shift required by this immense, complex growth.

COMPANIES MUST CONCENTRATE EFFORTS ON INTEGRATING THESE TOOLS AND CREATING AUTOMATION TO ELIMINATE SERVICE OUTAGES, IMPROVE VISIBILITY, AND MINIMIZE DOWNTIME TO TRULY BE ABLE TO RUN A "SERVICES-FIRST" DIGITAL BUSINESS.



DON'T FEAR CHANGE, PLAN ON IT

Over time, the components that make up any given IT environment are going to change. New technologies will be introduced, new processes will be implemented, and even the people who manage those systems will see variation. So, why should integration between these systems be the cornerstone of your digital transformation initiative? Simply put, until you recognize how each individual component within your IT ecosystem must interact with the adjacent technologies, you will never be able to software define key functions that will ultimately allow you to predict and eliminate service outages as a fundamental competency of IT operations.

For instance, look at the sheer volume of data that companies are now ingesting. There are myriad new tools designed to watch and catalog every action and change within hybrid, cloud and on-premises environments, providing organizations with more data now than at any other time in history. Yet only a fraction of that data gets used in a meaningful way. Ultimately, companies want to derive business insight from the information they're gathering. To that end, business intelligence (BI) tools and artificial intelligence (AI) algorithms promise to make sense of all of the 1s and 0s; however, those systems must still be told what data is important and from which ancillary systems to get it.

The same idea is true across many other modern technologies that IT departments are adopting. Orchestration and provisioning tools promise to offload the manual efforts of database and system administrators everywhere — but only if they can integrate them with the monitoring and incident management systems that alert to potential problems in the first place. Without any type of relationship model environment to manage these myriad systems and provide real-time insight, IT Ops teams will still manually compare and contrast each of these tools.

Application performance monitoring (APM) products help keep all eyes focused on customer satisfaction during the service delivery cycle — but how can they predict a problem before it occurs unless they are somehow connected to the infrastructure that supports that service and understand the system thresholds required to deliver satisfactory service levels?

The focus needs to be on the big picture:

Unifying the systems that **"KEEP THE LIGHTS ON"** with those that are transformational

Aligning all functional groups within IT and ensuring they have **CLEAR VISIBILITY TO INFORMATION ACROSS THE ENTERPRISE** to minimize downtime and eliminate alert fatigue

Developing new technologies and **DELIVERING NEW SERVICES FASTER**

Supporting services and ensuring they **MEET CUSTOMER EXPECTATIONS — MAKING IT INFRASTRUCTURE INVISIBLE** to the business

These are the golden rings toward which every IT operations team should aspire when seeking out true digital transformation.

THE STAKES HAVE NEVER BEEN HIGHER

While trying to unify the multitude of systems that IT departments must employ on a daily basis may sound like a daunting task, keep in mind that the cost of doing nothing could be catastrophic.

Recent headlines have highlighted just how important eliminating service outage risks have become in the digital age. In July 2017, Southwest Airlines suffered a systemwide outage to their reservation system. The 12-hour outage led to more than 2,000 canceled flights, nearly $82 million in lost revenue, a substantial dip in the company's stock value, and an untold hit in customer loyalty. All of this because of a faulty network router.[4]

And while it's rare that you hear about an outage from cloud behemoth Amazon Web Services (AWS), their Simple Storage Service (S3) outage in February 2017 may have cost businesses across the internet more than $300 million in lost revenue in just a few hours. Five days later, Amazon would publicly state, "While we are proud of our long track record of availability with Amazon S3, we know how critical this service is to our customers, their applications and end users, and their businesses" — a clear indication that predicting and eliminating risk would remain the primary focus of their business model.

Given the previous example, it comes as no surprise that Amazon has long recommended that monitoring be a top priority, along with collecting monitoring data from all parts of an AWS solution.[6] However, this advice obviously delivers value in any and all environments upon which you build your digital transformation initiatives. Being able to identify and respond to the demands of customer-facing services in a proactive way or to react quickly to impacted services is the highest and most important gauge by which customer-centric companies can hold themselves accountable and mitigate exposure to brand damage.

SUCCESS IS MORE THAN JUST CHANGE

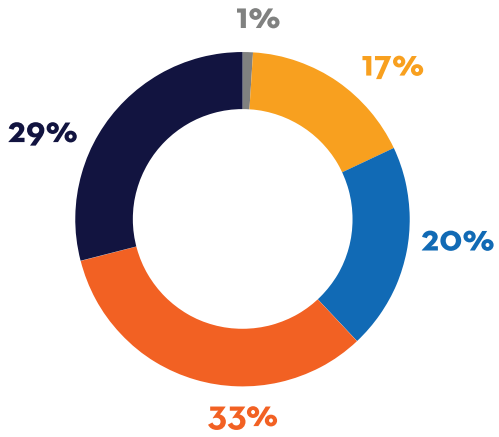
While a recent 451 Research survey stated that less than a third of enterprises have a formal strategy in place to digitize their business processes and technologies,[7] we at Zenoss have seen a number of our large customers find success by building on top of a flexible monitoring platform and working incrementally to tie IT functions together from there — eliminating disparate, sometimes redundant, and low-level tools with Software-Defined IT Operations.

For example, Huntington Bank, one of the largest bank holding companies in the U.S.,[8] recognized that their attempts to utilize separate tools for each of their IT monitoring functions had made communication between teams nearly impossible and left valuable information inaccessible to stakeholders outside of very specific IT silos. They made the decision to bring in a software-defined platform that could extend across the various tools and consolidate the views and information their teams utilized into one location to eliminate risk and deliver value. Once in place, they were able to slowly decommission dozens of redundant tools, integrate with other valuable sources of information like Dynatrace, and, ultimately, standardize the data sets upon which they could then perform business analysis.

Another example is the British Broadcasting Corporation (BBC). As one of the oldest, and easily largest, broadcasters in the world, the BBC has had to change substantially since it was founded in 1922. Today, consumption of programming occurs across any number of platforms (e.g., mobile OS, streaming services like Netflix and Amazon, as well as actual live video broadcasts) and an untold number of devices (e.g., PCs, televisions and mobile devices). In order to keep up with frequent new service launches, the BBC made defining monitoring policies a requirement for any new service. This allowed for much faster deployments of new services and created standardization practices for keeping those new services up and running. It was a savvy DevOps decision that allowed them to move closer toward automatically rolling services from development into production.

Companies with a formal digital transformation strategy

Figure 2.



If nothing else, one thing is certain in IT: **technology will continue to evolve.** So, adopting a flexible and extensible software-defined platform that allows you to start small, connect to (and between) many different types of technologies, and adjust your IT strategies and policies over time is the only practical way to start a digital transformation initiative. And, because it's impossible to predict what new technologies will emerge or become crucial to the delivery of your critical services, you must prepare for changes by seeking out tools that are open and provide multiple avenues for integration and customization.

SOFTWARE-DEFINED IT OPERATIONS

At Zenoss, we know that monitoring is important, but we also recognize that integration across the IT operations management (ITOM) ecosystem is the only way our customers can ensure success for their digital transformation initiatives. We want to help empower you to eliminate service outages by providing Software-Defined IT Operations — not only monitoring the critical infrastructure on which services rely but also acting as the connection point between many of the tools and systems that IT operations teams need to ensure service reliability, increase visibility, and understand IT's risk posture. Software-Defined IT Operations represents a unified solution — one that is focused on preventing and mitigating outages by collecting data from all elements of your dynamic environment and knowing how to use that data to eliminate risk and deliver value to your company. Digital transformation is a process, and it can (and often must) be approached incrementally. The Zenoss platform can help IT organizations build a modern, "services-first" digital business regardless of where they may be in that journey.

SOURCES:

[1] Mobile World Congress Keynote (2014)

[2] Accenture Strategy Report - Digital disruption: The growth multiplier

[3] IDC Info Brief: Thriving in the Digital Economy - February 2016

[4] Dallas Business Journal: Southwest Airlines computer outage costs could reach $82M

[5] Vanity Fair - Breaking The Internet - One Amazon Employee's "Human Error" May Have Cost The Economy Millions

[6] AWS User Guide

[7] 451 Research - 2H 2016 Voice of the Connected User Landscape: Corporate Mobility and Digital Transformation survey

[8] Wikipedia page entry on Huntington Bank

ABOUT ZENOSS:

Zenoss works with the world's largest organizations to ensure their IT services and applications are always on. As the leader in Software-Defined IT Operations, Zenoss develops software that builds comprehensive real-time models of hybrid IT environments, providing unparalleled holistic health and performance insights. This uniquely enables Zenoss customers to predict and eliminate outages, dramatically reducing downtime and IT spend.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