Automation effectiveness – are you prepared to compete for the future?

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In the digital era, the need to quickly respond to customer expectations and aggressive actions of rivals demands a persistent transformative and agile approach – one that strategically automates business processes and IT operations, and readily adapts when needed.

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Introduction

Today's modern enterprises are under persistent threat of digital disruption. All now seek ways to transform to digital businesses that exploit innovative technologies to improve the customer experience, enhance workforce productivity, increase operational efficiency, and adapt when threatened by rivals.

The era of digital business is driving tectonic IT shifts toward process automation, agile cloud- and mobile-first application development, continuous integration and delivery, and the assimilation of IT operations into more efficient DevOps organizations, among others. Leading enterprises now seek an ongoing transformative approach: one that exploits these tectonic IT shifts, automates the delivery of customer value, and crafts new and unique competitive advantages over rivals.

451 TAKE

In recent years, enterprises have deployed a series of new on- and off-cloud platforms to efficiently develop, provision and deploy IT infrastructure, services and applications in what has become a hybrid IT architecture. To effectively compete in the digital business era, these platforms now require improved ways to integrate and orchestrate business and IT processes within and across them. However, this can be a complex and daunting effort. There are still too many tools. Do-it-yourself projects can be costly, and may be too rigid to adapt when change is required. We believe what is still needed is an IT strategy and a unified IT operations framework. It should integrate IT toolchains to enable their efficient data exchange and interoperability, and automate frequently used IT processes to assure rapid and flexible deployment of all the IT assets required of the modern digital business.
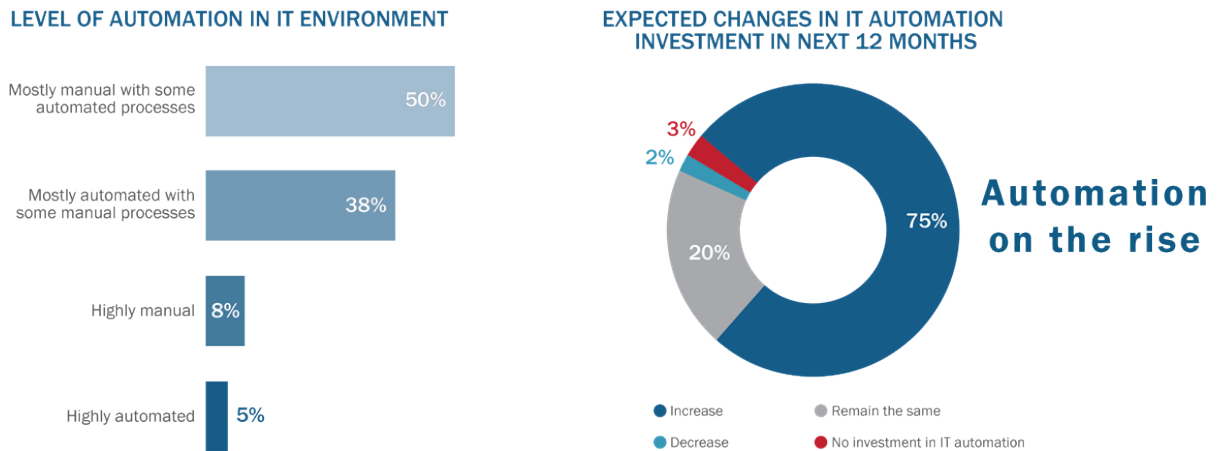
Details

Modern businesses that have embraced the digital era have implemented a near unmanageable multitude of technologies and services from a vast landscape of IT vendors, cloud and managed service providers. Each of them offers new means to provision and manage resources, services and infrastructure; develop and deploy software; and overcome anomalies and outages to keep business flowing.

Moreover, the exponential growth of IT innovations like container- and microservices-based applications, artificial intelligence and machine learning, and IoT add even more complexity. To cope, IT planners and operators must adapt and augment IT strategy and operations. Many now seek new means to manage and integrate their IT tools at hand, and augment them with technology to automate as many IT operations as possible, while unifying across complex hybrid IT ecosystems.

Many enterprise still lag. Figure 1 illustrates survey results of business and IT decision makers who were asked about their current and expected future automation efforts. Of the 881 respondents, 50% stated that automation in their IT environment is mostly manual with some automated processes; 75% say they expect IT automation to increase in the next 12 months.

Figure 1: IT environments: Currently more manual than automated

LEVEL OF AUTOMATION IN IT ENVIRONMENT

Mostly manual with some automated processes	50%
Mostly automated with some manual processes	38%
Highly manual	8%
Highly automated	5%

EXPECTED CHANGES IN IT AUTOMATION INVESTMENT IN NEXT 12 MONTHS

Automation on the rise

- 75%
- 20%
- 3%
- 2%

Legend:
- ● Increase
- ● Remain the same
- ● Decrease
- ● No investment in IT automation

Source: 451 Research, LLC

Among the transformative efforts needed to compete, enterprises must be able to plan and execute changes to their IT infrastructure and software systems quickly. Agile methodology is now common in software development, used to quickly design new code. Similarly, DevOps practices accelerate the means to bring code into production, and manage it over time. Agile concepts are now applied to IT automation and integration tooling that go even further to enable 'IT infrastructure agility' that removes the complexity of interoperability across all existing systems and data types, and finds a way to unify them.

IT automation has been underway for a number of years. Continuous integration and continuous delivery (CI/CD) automates the fruits of agile efforts, and provides the backbone for DevOps strategy. Application performance management (APM) continuously monitors performance and availability to maintain the required levels of service. And emerging AIOps uses analytics and machine-learning intelligence to analyze data collected from IT infrastructure to identify and react to anomalies in real time. These are all evolutionary and valuable. However, to enable IT infrastructure agility in the digital era, two – now mostly separate – technologies must come together within a uniform framework: digital automation platforms (DAPs) and hybrid integration platforms (HIPs).

A DAP is a set of tools and resources structured within a uniform framework to enable developers to rapidly design, prototype, develop, deploy, manage and monitor process-oriented applications. They compose rather than code applications, and are able to automate simple task-related workflows, dynamic unstructured collaborative activity streams, and even highly structured cross-functional IT and enterprise processes. HIPs represent the next generation of integration platform-as-a-service (iPaaS) technology to enable data exchange and interoperability across distributed and disparate on-premises infrastructure, software, cloud services, mobile devices and things that now compose modern hybrid IT architecture.

DAP and HIP technologies are converging in the world of IT operations, gradually enabling the unified IT operations framework needed to enable IT infrastructure agility and automation effectiveness in the digital business era. This will be the topic of a moderated panel discussion at 451 Research's Hosting & Cloud Transformation Summit (HCTS) 2019.