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IDC TECHNOLOGY SPOTLIGHT

Digital Business Transformation Depends on Automation

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Businesses around the world are rapidly embracing digital transformation (DX) strategies designed to take advantage of innovation in cloud, big data, DevOps, and social media to strengthen online and mobile customer relationships, streamline complex business processes, and create innovative revenue opportunities. This IDC Technology Spotlight examines the role that integrated automation of workload management, service orchestration, and application release activities plays in ensuring consistent end-user service levels and overall business agility. It also considers how Automic's automation portfolio is addressing this set of priorities and opportunities.

Digital Transformation: Disruption and Opportunity

In today's information economy, businesses in all industries are investing in digital transformation programs to access new markets, interact with customers, and gain deeper insights into buyer and competitor behaviors. Powered by big data, agile development, API integrations, social media, automation, and cloud, business today depends on rapid and flexible access to computing, storage, and networking resources that can meet the ever-changing needs of legacy applications and modern cloud and mobile innovations.

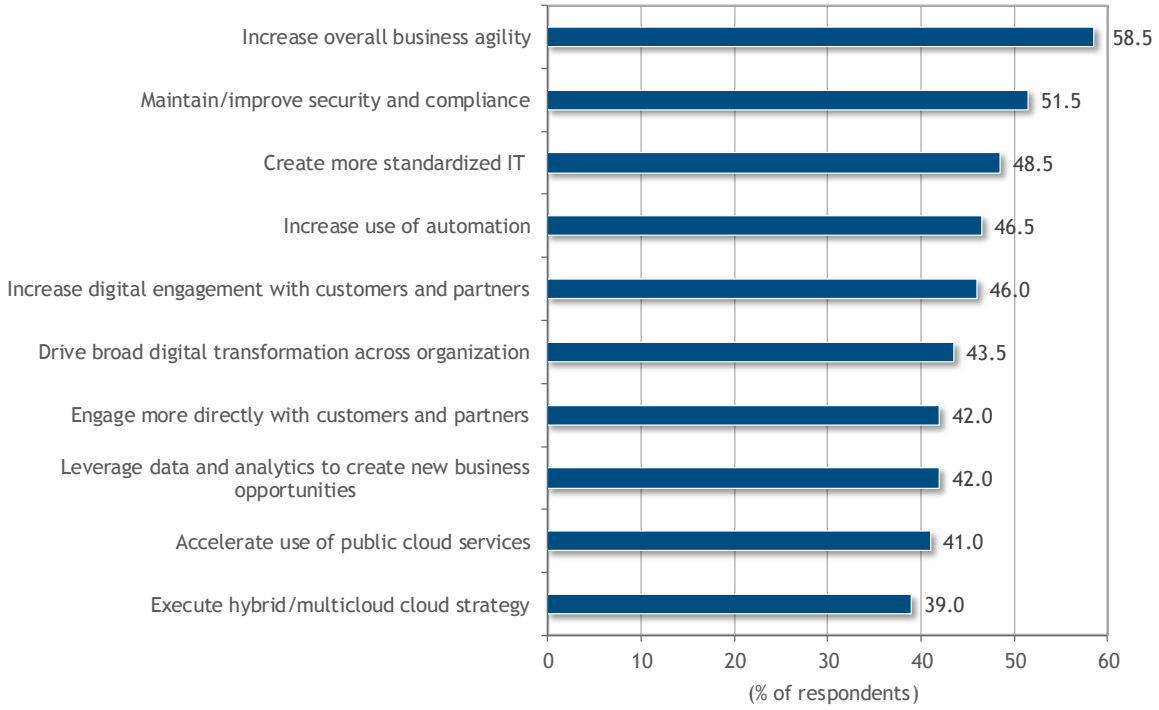
IDC predicts that worldwide spending on DX technologies will expand at a compound annual growth rate (CAGR) of 16.8% through 2019 to total more than $2.1 trillion. For many organizations, the first steps toward DX may target the straightforward automation and digitalization of existing manual and analog processes used to operate IT and businesses today. 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. These transformation efforts frequently rely upon agile DevOps methodologies to quickly develop, deploy, evaluate, update, and innovate applications. The availability of on-demand, large-scale cloud-based infrastructure, development platforms, and analytics tools are helping further accelerate the transformation process.

As might be expected, the impact of DX on IT strategies is profound. IDC's research shows that enterprise IT teams feel significant pressure to provide developers and line-of-business (LOB) decision makers with on-demand, consumer-like digital experiences that allow them to innovate and bring new online offerings to market more quickly than ever. This pressure is seen clearly in terms of how IT decision makers describe their top priorities. As shown in Figure 1, increasing business agility, improving security and compliance, creating more standardized IT environments, and making greater use of automation are top drivers across many industries.

FIGURE 1

Top Enterprise IT Strategy Drivers Through 2020

Q. What are the most important drivers and requirements shaping your organization's overall IT strategy from today through 2020?



n = 200 enterprise IT decision makers

Source: IDC's *Enterprise Cloud and DevOps Management Survey,* July 2016

To effectively address these priorities, IT teams need to invest in new automation solutions and to rethink and restructure formerly separate processes and workflows. Historically, one set of tools and IT experts might have been used to orchestrate file transfers and ERP data integrations and workload schedules, while different teams and tools would take responsibility for various aspects of infrastructure provisioning, configuration automation, application release, and service orchestration. In fast-moving digital environments, businesses cannot afford downtime and need unified integrated automation platforms to help integrate and standardize processes while empowering developers and LOB decision makers to work as quickly as possible.

Benefits of Unified Automation Enabling Digital Transformation

Today's digital business processes often integrate dozens of internal systems and third-party services. They must link customer profiles, payment systems, personalization tools, pricing lookups, delivery scheduling, and many other elements while providing end users with a transparent, fast, and easy-to-navigate process. Information residing in traditional structured databases and ERP systems must instantly link to queries and transactions launched in the cloud. Automation and orchestration of workflows, data integration and normalization, workload processes, and application release and update processes are required, as are predictive analytics to help further optimize end-to-end processes and resource usage.

DevOps processes accelerate the rate of change and drive much more frequent updates and changes. The availability of cloud services provides rapid infrastructure access, but it also creates challenges around maintaining security and compliance and managing data protection. The line between application release and service orchestration is quickly blurring.

As a result, application release tools are converging with service orchestration solutions to enable cloud and DevOps teams to work more efficiently. By unifying infrastructure and public cloud selection with application release, developers are able to use the same interface to select the mix of resources most appropriate to their requirements. Similarly, workload automation technologies are becoming more tightly linked to service orchestration and application release activities to enable real-time digital business and eliminate downtime; to support rapid, unpredictable scaling; and to become more and more user-friendly.

Unified automation of workload management, service orchestration, and application release activities provides vital enabling technology for almost every dimension of transformation. Using a shared automation platform has a number of IT benefits, including:

- Consistent application configuration and performance across the development and production life cycle
- 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 LOB decision makers
- Improved IT operations efficiency via standardization, blueprint reuse, and orchestration of complex tasks

From a business perspective, effective unified automation 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 development, 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

To be fully effective, unified automation process flows need to be built into application and business logic and be accessible via developer-friendly interfaces. DevOps teams must be able to compose process models once and apply them as needed using templates and blueprints. These blueprints must be defined and customizable on the fly by developers and business analysts, without the need for expensive and hard-to-find automation experts.

Developers and business analysts expect a consumer-like on-demand experience that is intuitive and easy to consume. They want to be able to choose from command line interfaces, GUIs, scripts, and APIs depending on their specific requirements. They also expect that automation activities will render consistently once deployed, regardless of whether they are driving applications deployed in-house or in public clouds.

It is important for IT operations, developer teams, and business decision makers that want to implement more unified end-to-end automation to choose solutions designed and architected to support DX. Specifically, they should look for solutions that:

- Empower end users, IT analysts, developers, and business analysts with full stack self-service capabilities including blueprints and templates to support efficient, tested automation tasks and workflows
- Provide end-to-end process visibility and role-based reporting that supports real-time query and drill downs to isolate failure and keep critical processes flowing
- Integrate across modern and legacy processing platforms to enable efficient workload and process integrations and service orchestration across the organization
- Scale rapidly as workloads, queries, and data sources expand and evolve, including support for big data workloads and file transfers across many sources spanning traditional systems and databases as well as mobile, social, and the Internet of Things
- Support hybrid architectures that include workloads and data hosted in the datacenter, in colocated hosted datacenters, and on public cloud platforms
- Deliver rapid time to value via robust and extensible API integrations, plug-ins, and templates that allow customers to quickly stand up complex process flow automations

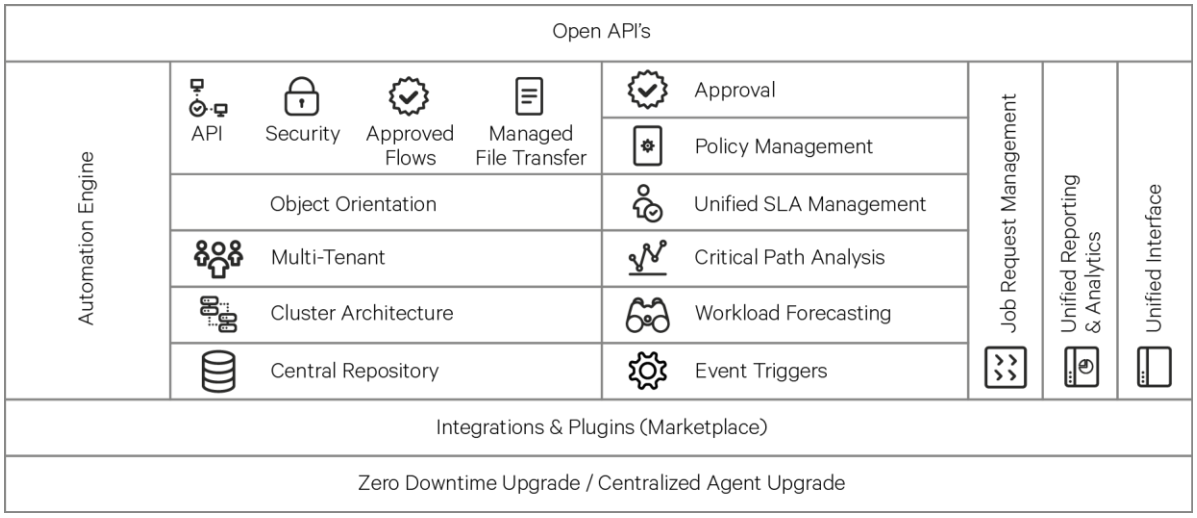
Rapid execution of complex digital business processes requires much more than just rapid infrastructure provisioning or efficient workload automation operating in isolation. Just as developers can benefit from unified automation, IT operations teams are able to work more efficiently and deliver more consistent SLAs by integrating service orchestration and workload management automation to help coordinate and streamline complex workflows and data transfers that span modern and legacy systems as well as on-premise and public cloud resources. Unified automation across the full application development, workload management, and service orchestration spectrum is needed for efficient transformation.

Considering Automic V12

Automic, a worldwide provider of unified workload management, service orchestration, and application release automation software, addresses the needs of digital business developers, LOB analysts, and IT operations teams. The company's flagship Automic Business Automation Platform (shown in Figure 2) serves as an orchestration and automation backplane to unify a company's full portfolio of infrastructure, workload, data, and application release automation solutions.

FIGURE 2

Automic Business Automation Platform



Source: Automic, 2016

The recently released Automic V12 extends the company's unified automation solution in ways that address the needs of DevOps teams and digital business initiatives. Some of the most relevant new features are:

- Zero-downtime upgrades for servers and agents that intelligently determine when to update based on awareness of workload and operational schedules
- A unified user interface that provides enterprise visibility of processes and can be customized for the unique needs of IT operations, developers, and LOB analysts
- Intuitive, blueprint-driven provisioning for application deployments that can be applied directly by developers as needed
- Unified reporting and analytics that provide management insights into processes
- SLA management that allows organizations to identify, monitor, and control critical processes
- Open API-based integrations linking Automic Workload Automation V12 with Automic Release Automation V12 and Automic Service Orchestration V12 to allow operational teams to consistently manage all types of automation tasks across public and private clouds as well as traditional virtual and physical systems and mainframes
- ChatOps support for approvals, deployment status updates, and deployment invocations are now available via corporate IM clients, which are often favored by developer teams that don't want to leave their development platforms to get status reports
- Secure sharing of automation artifacts across public or private cloud processes via new secure private vaults within the Automic Marketplace

Digital business transformation is making automation across all aspects of application development, delivery, and operations a requirement for business success. Automic's V12 updates address the needs of digital business and offer customers updates that are important for driving greater synergies and efficiencies across IT operations, development teams, and LOB decision makers.

Challenges

DX, DevOps initiatives, agile development, and the use of public cloud platforms all challenge the status quo and can be very disruptive to traditional operations processes. Many organizations struggle to shift from traditional silos of automation and may lack the process expertise required to get the most value out of unified automation solutions.

In many cases, getting IT operations and developers on the same page requires CIO-level vision and leadership. By setting clear goals and tracking business impacts, leadership teams can build support for the operational transformations that are needed to support digital business efforts.

Conclusion

Every business of every size risks fundamental disruption because of new technologies, players, ecosystems, and ways of doing business. Innovation speed and agility will determine which businesses succeed and which fail.

Centralized management and monitoring of automated processes from a unified interface will be integral for end-to-end visibility and control of IT and business processes; unified reporting will be imperative to ensuring regulatory compliance. Unified automation and orchestration not only will enable IT teams to support SLAs and business requirements for continuous digital services delivery and operations but also will allow enterprise IT to lower ownership costs, reduce learning curves, and provide the business with the speed and agility it needs to compete.

DX will drive rapid integration and automation across development, deployment, and operational support processes and infrastructure, and it needs to be supported by modern, unified automation platforms.
