



I D C T E C H N O L O G Y S P O T L I G H T

Unified Automation Enables Digital Business Agility and Innovation

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Adapted from *Rethinking the Management Software Landscape in the Era of Software-Defined Datacenters: Integration, Automation, and Analytics* by Mary Johnston Turner, IDC #DR2014_T4_MJT

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Innovation, driven by the convergence of virtualization, cloud, mobility, social media, and Big Data, is transforming every aspect of business and IT operations. In the past, business leaders defined functional requirements and then waited months or even years for IT teams to develop and execute. Today, business leaders and their technically savvy teams are racing to develop and deploy new mobile and social applications to engage with customers and streamline essential processes using DevOps strategies and pay-as-you-go cloud services — even as legacy applications and databases supported by traditional mainframe and client/server architectures continue to be mission critical. This IDC Technology Spotlight examines the role that unified workload, application release, and business process automation solutions play in supporting these increasingly complex business and IT environments. It also considers how Automic is addressing this set of emerging enterprise automation priorities and digital business transformation opportunities.

Introduction: The Global Digitization of Business Drives Need for Unified Automation

IDC's ongoing discussions with senior business and IT leaders show that many enterprise and government decision makers are still working to understand how the digitization of almost every aspect of their business is changing day-to-day workflows and creating new opportunities for business innovation. From mobility and DevOps strategies that drive continuous application development and deployment strategies to cloud, containers, Big Data, mobile, social, and the Internet of Things, IT leaders recognize they need to reduce friction across critical workflows, empower end users, secure and protect data, extract more value from information, and improve IT operations. The opportunities to transform business are extensive.

Specifically, IDC expects that:

- Worldwide spending on Big Data analytics will reach \$125 billion in 2015, with a significant portion of that spending focused on extracting value from vast social media data flows and identifying new markets, segments, and services to grow revenue.
- Broad adoption of mobile-first strategies will see spending on smartphones, phablets, and tablets drive 40% of worldwide ICT spending in 2015.
- More than 15 billion devices will be monitored as part of the Internet of Things in 2015, generating vast quantities of data exhaust that must be mined and analyzed.
- On-premise datacenter architectures will shift to hybrid cloud strategies that blend on-demand public cloud services with traditional applications, databases, and workflows. IDC expects more than 65% of enterprises will commit to hybrid strategies by 2016.

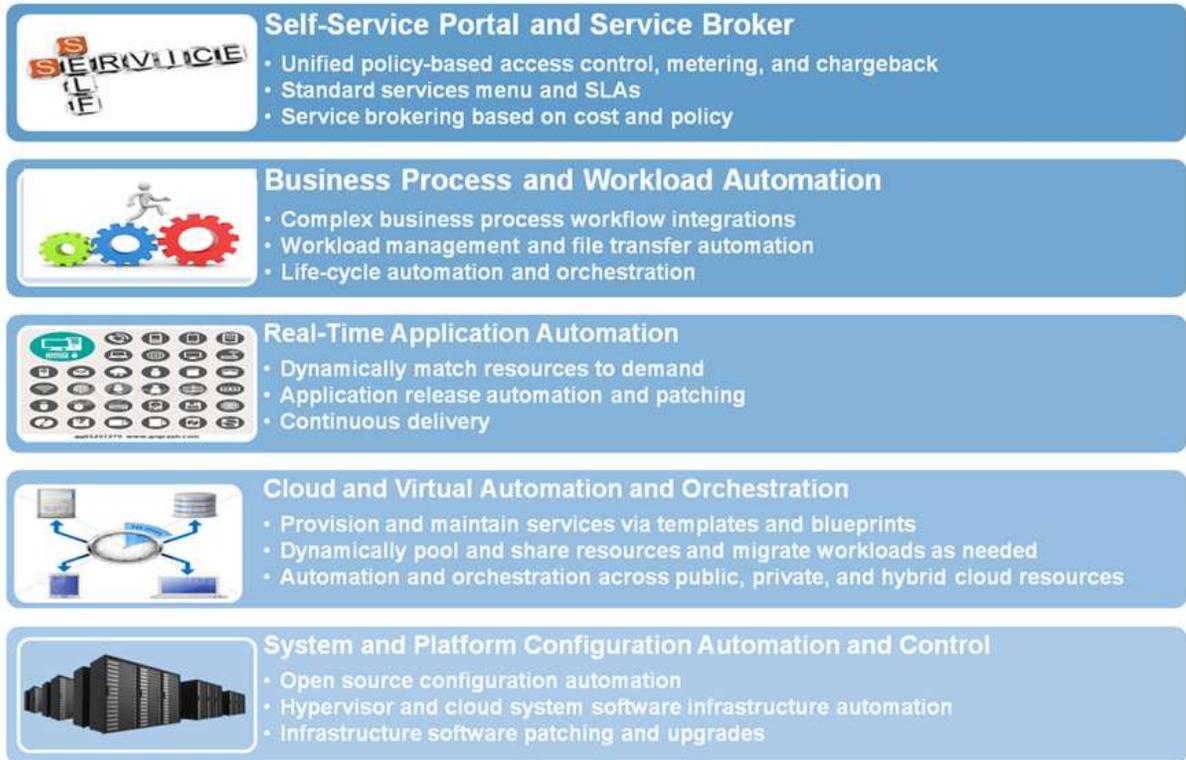
- Developers and end users will demand, and receive, the ability to automatically self-provision, activate, and manage a wide range of IT resources and cloud-based services. IDC expects that by 2017, 75% of IT organizations will be confronted by these types of requirements, fueled by successful end-user experiences with consumer cloud services.

Many organizations recognize that the convergence of Big Data, social technologies, the Internet of Things, DevOps, and mobile-first computing strategies — as well as end users' rising expectations for self-service and on-demand access to resources — requires a new, more unified and dynamic approach to data management, workload processing, DevOps release and resource management, and business process workflow optimization.

Automation is becoming the linchpin for effective enterprise-scale operations in environments that depend on rapid, large-scale data movement, analysis, and processing supported by on-demand resources and elastic on-demand availability and performance. As Figure 1 illustrates, opportunities to improve service levels, save money, and add value to the business exist across many IT operations, application development and release, and business process domains. Enterprises that take a unified approach to automation can accelerate business performance while reducing human error and improving the productivity of IT staff and developers.

Figure 1

Automation Opportunities Available Across the Enterprise



Source: IDC, 2015

Benefits of IT Operations, DevOps, and Business Process Automation

The productivity, business performance, and cost savings benefits of unified automation can be significant. For many organizations, automation has often been suboptimized at the level of specific departmental or technology domain tasks rather than viewed as an enterprisewide priority. Frequently, IT administrators will create custom scripts or take advantage of open source configuration automation solutions to simplify component- and device-level deployments and updates. Similarly, production control teams will rely on a combination of manual scripting with embedded application and third-party workload automation tools to streamline the processing of large batch data files and to link business process flows across different databases and computing platforms. Development teams will automate many development activities, particularly load testing or application release, or invest in self-service provisioning solutions for rapid setup and teardown of development infrastructure.

While each silo of automation can certainly deliver benefits on its own, unified integrated automation across workloads, applications, and business processes can result in much more significant business benefits, including:

- Enhanced productivity and cost savings for IT operations as a result of faster processes, shorter cycle times, better resource utilization, and the ability to meet processing windows and maintain SLAs
- Improved developer and test productivity and quality as a result of faster resource setup, deployment, testing, and innovation
- Accelerated time to market for new applications and cloud services because of faster development cycles and support for continuous development, test, and release
- Improved business agility and performance because of faster insight and the ability to handle rapidly increasing ranges and volumes of critical business data
- Reduced business risk and downtime as an outcome of more consistent configuration and integration of systems and the use of automation to eliminate human error
- Increased business agility and decision making from faster completion of critical processes such as reducing the time needed to close and reconcile monthly and quarterly financial reports

Unified workload, application, and business process automation can have wide-ranging impacts on the performance and productivity of today's highly digitized organizations. This is particularly important for organizations that are seeing annual increases of 10%, 15%, or greater in transactions and workload processing needs as they introduce more digital services and increase online engagement.

As noted previously, organizations that invest in a holistic approach to automation will see a range of cost savings, productivity, and business performance benefits. For IT and business decision makers who are considering upgrading their automation capabilities, it is important to choose solutions designed and architected for the digital online economy. Specifically, they should look for solutions that:

- Leverage a service-based software architecture that can simplify integrations across multiple applications and workflows. Such solutions allow for modernization of complex applications by streamlining and optimizing integrations across rapidly evolving end-user mobile and social applications and slower-moving back-end database and batch file systems.
- Empower end users, IT analysts, developers, and business analysts with self-service capabilities to the extent desired by the organization.
- Provide end-to-end process visibility and reporting that supports real-time query and drill downs to resolve issues and keep critical processes flowing.

- Enable role-based access control and integration with corporate cloud service portals and self-service provisioning engines.
- Integrate across modern and legacy processing platforms to enable efficient workload and process integrations across the organization.
- Scale rapidly as workloads, queries, and data sources expand and evolve, including Big Data and information from 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 a robust and extensible set of out-of-the box API integrations, plug-ins, and templates that allow customers to quickly stand up complex process flow automations.
- Offer modular deployment options that permit customers to begin their unified automation journey at any point and expand as needed over time.

IDC expects that the worldwide workload scheduling and automation software market will total more than \$5.8 billion in 2018. It is one of the fastest-growing system management software markets IDC tracks. The increasing convergence of traditional workload management tools with advanced DevOps automation and IT process optimization technology is identified by IDC as one of the top 3 drivers of this growth. Enterprises that want to reduce costs, improve business agility, and accelerate innovation need to seriously consider the benefits and opportunities created by unified automation approaches.

Considering Automic ONE Automation

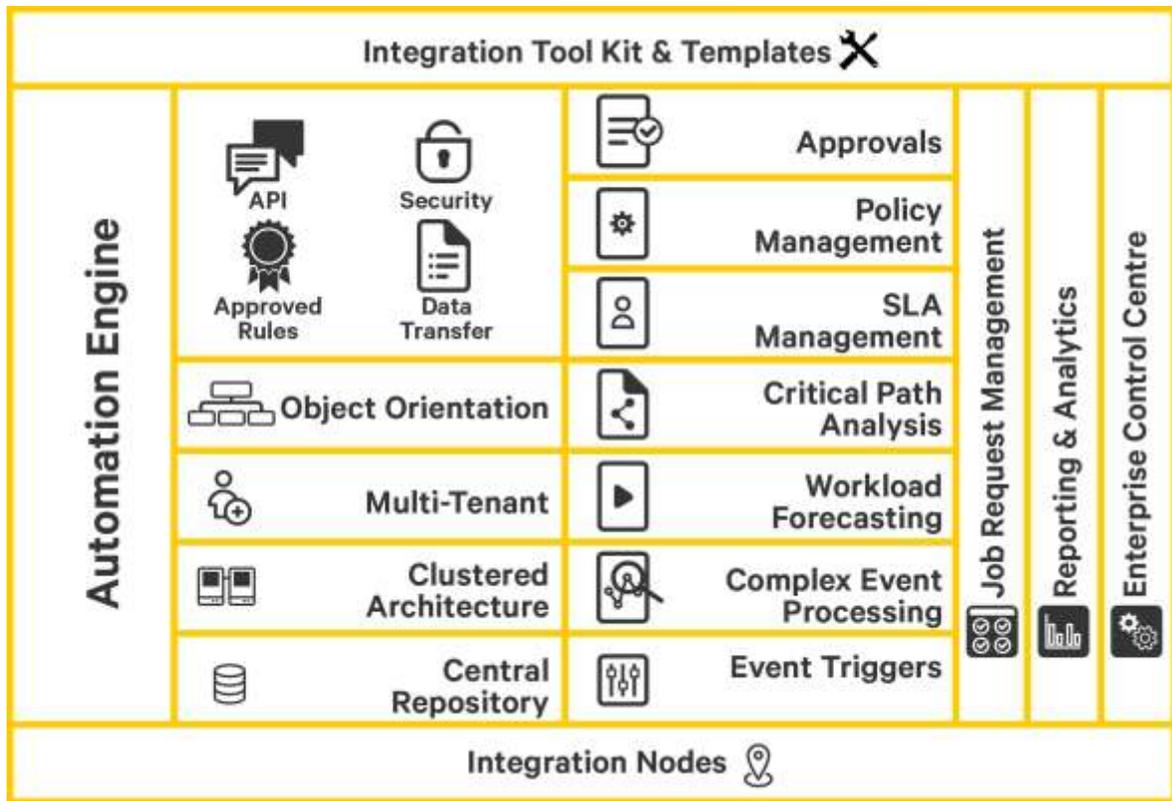
Automic has a long track record of assisting organizations with automating workload, business process, and DevOps workflows. The company's ONE Automation solutions are built on a highly scalable modular architecture that supports a wide range of infrastructure including mainframes and physical servers as well as virtual servers and private, public, and hybrid clouds. ONE Automation solutions offer a common object-oriented automation engine, a complex event processing platform, and a user reporting and control interface to define and manage automation capabilities, including workload automation and job scheduling, IT process automation and orchestration, file transfer automation, and application release automation. Customers can opt to begin their automation journey in a specific area and then extend it by using the same platform over time (see Figure 2).

Out-of-the box integrations are available for many leading software and cloud services partners such as the following:

- **IT service management:** HP, CA Technologies, BMC, and ServiceNow
- **Middleware and infrastructure software:** Oracle WebLogic, Java, JBoss, Puppet Labs, Chef, BMC BladeLogic, IBM WebSphere
- **Enterprise applications:** SAP, Informatica, Oracle E-Business Suite, PeopleSoft, JD Edwards, and Hadoop
- **Hybrid cloud compute services:** Amazon Web Services, VMware, Microsoft Hyper-V, OpenStack

Figure 2

Automatic ONE Automation Platform Architecture



Source: Automatic, 2015

Built-in tools are available to enable customers to integrate with custom applications and other systems.

Automatic's modular architecture and corporate focus on automation have positioned the company to work with a wide range of customers that need to streamline mission-critical workflows. Examples include:

- A mobile phone operator reduced new customer service activation times by 95%.
- A global energy company cut hours off large-scale, mission-critical SAP batch processing and reporting processes.
- A leading manufacturer has automated over 4,600,000 jobs a day across 230 locations worldwide, reducing failures by over 70%.
- An online gaming organization automated the release of 80 new applications into production every day.

Although many customers may already have implemented one or more domain-specific automation tools to address the needs of specific infrastructure domains, applications, workloads, or process flows, a ONE Automation solution can be deployed to fulfill a specific immediate need and then expand over time as customer automation needs mature. In many cases, Automatic finds its

technology is being used to tie together existing in-house IT infrastructure management and configuration tools, as well as preexisting application release automation solutions, to achieve centralized orchestration across the organization.

Challenges

While many Automic customers can quickly realize time and cost savings by implementing ONE Automation to address the automation needs of a specific workload or process area, many have yet to take the next step to implement a unified approach to their organization's full set of automation opportunities. In many cases, advocates for domain-specific automation products discourage consideration of alternatives or feel the costs to migrate to a new automation platform are too high.

To help its customers fully capture the benefits of unified infrastructure, workload management, application release, and business process automation, Automic needs to continue to educate and provide them with easy "on-ramps" for comprehensive automation solutions. In a hybrid cloud world where innovation is focused on Big Data, mobility, social technologies, and the Internet of Things, Automic needs to proactively provide customers with solutions that anticipate future requirements while continuing to integrate with critical legacy systems.

Conclusion

The IT operations and application development status quo is being disrupted on many dimensions by the advent of cloud, Big Data, DevOps, mobility, social, and the Internet of Things. Line-of-business decision makers have increasing influence over IT priorities and budgets and demand high levels of service with minimal downtime. New generations of applications and greater overall digitization of business are driving major increases in the volume and complexity of file transfers, data queries, and infrastructure provisioning requirements. Meanwhile, customer expectations are rising and the pace of business is accelerating.

To stay competitive, today's enterprises must find ways to streamline operations, handle greater volumes of data and queries, optimize infrastructure consumption, and empower end users. Automation can often help improve productivity and reduce downtime within any individual operational domain or process area. However, to reduce friction across the business and scale and react at Internet speed, organizations need end-to-end automation across infrastructure, workloads, applications, and business processes. Organizations that can overcome cultural barriers and organizational silos and take full advantage of unified automation opportunities are likely to gain competitive advantage in many markets and geographies.

A B O U T T H I S P U B L I C A T I O N

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