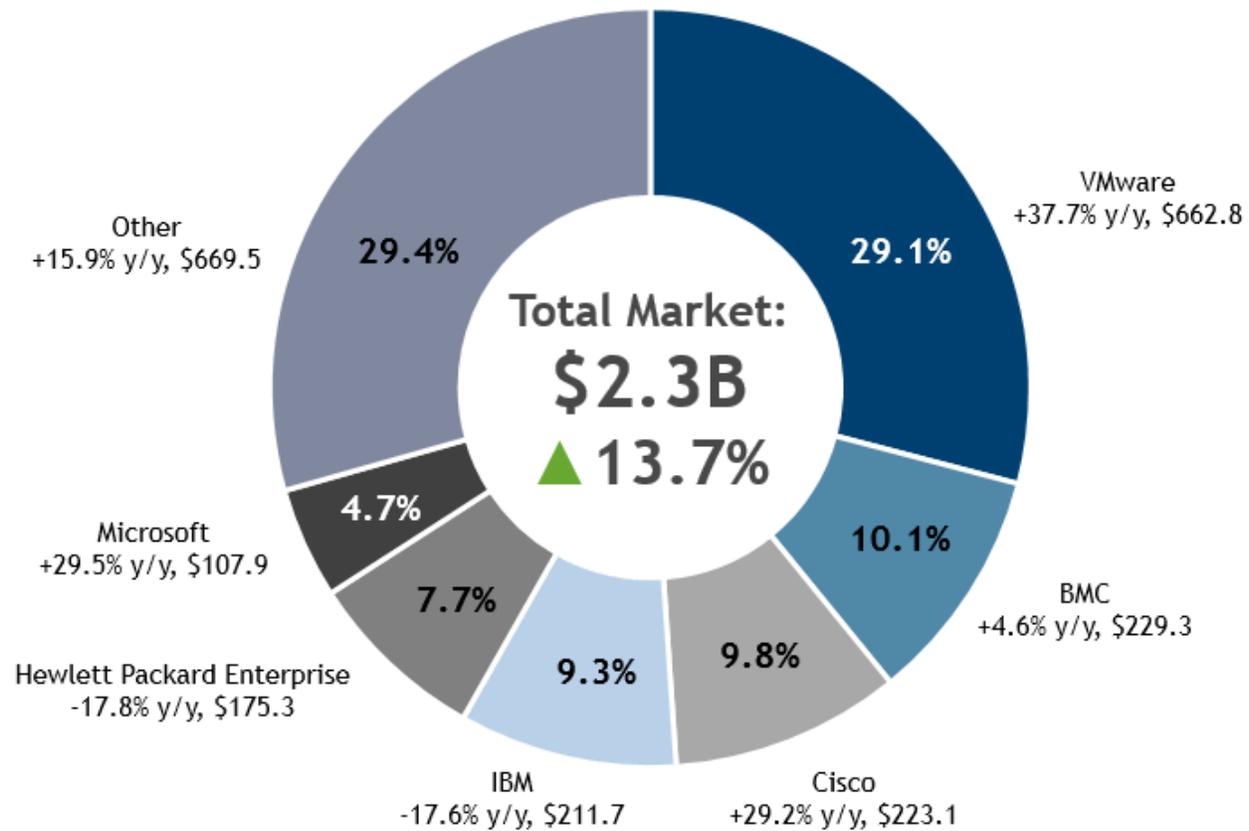Market Share

Worldwide Datacenter Automation Software Market Shares, 2015: Year of Suite Success

Mary Johnston Turner

IDC MARKET SHARE FIGURE

FIGURE 1

Worldwide Datacenter Automation Software 2015 Share Snapshot

Note: 2015 Share (%), Growth (%), and Revenue ($M)

Source: IDC, 2016

EXECUTIVE SUMMARY

In 2015, the worldwide datacenter automation software market grew 13.7% to total $2.3 billion when calculated in current U.S. dollars. VMware took the top overall position, with growth of 37.7% and a 29.1% share. BMC Software took second position, with growth of 4.6% and a 10.1% share. Regional growth, as measured in local constant currency, was relatively robust but slowed markedly when calculated in current U.S. dollars. Shares of vendors based in CEMA, Japan, and Canada were particularly hard hit by currency fluctuations.

This IDC study discusses 2015 market shares and market activity across the worldwide datacenter automation software functional market, which is a submarket of the worldwide workload scheduling and automation market as defined by *IDC's Software Taxonomy, 2015* (IDC #256767, June 2015).

"Overall, the 2015 worldwide datacenter automation software market continues to benefit from broad-based enterprise and service provider interest in virtualization, cloud, and DevOps automation," explains Mary Johnston Turner, IDC research vice president, Enterprise Systems Management Software. "Leading vendors have introduced simplified licensing models that allow customers to purchase robust datacenter automation functionality as part of comprehensive cloud management and DevOps management suites."

ADVICE FOR TECHNOLOGY SUPPLIERS

Demand for datacenter automation software and SaaS solutions continues to expand as more and more organizations recognize that modern application architectures and multicloud infrastructure strategies require IT operations teams to be able to rapidly provision, update, and scale distributed applications, as well as physical, virtual, container, and cloud resources to support digital transformation initiatives.

Successful vendors will continue to simplify and streamline the way customers license and deploy these sophisticated functions by offering well-integrated suites and bundles that enable customers to meet immediate management requirements, providing cost-effective access to emerging capabilities including datacenter automation for new personas and use cases.

Vendors should expect to see the following areas generate new business opportunities over the next several years:

- Container management automation and orchestration
- Cloud service brokers and automated service managers
- Full-stack application and infrastructure life-cycle automation and orchestration for DevOps and production workloads
- Fee-based automation and orchestration add-ons to public cloud IaaS and PaaS
- Hybrid/multicloud automation to ensure workload portability and provisioning consistency

Collectively, these emerging datacenter automation priorities will enable enterprise IT and service provider operations teams to more efficiently map workloads to infrastructure resources, enforce provisioning and resource utilization standards, and optimize infrastructure use and performance.

IDC expects that physical systems provisioning and patching automation as well as basic cloud infrastructure self-service provisioning will become table stakes as hardware vendors, software-

defined infrastructure vendors, and public cloud service (PCS) providers increase the amount of datacenter automation bundled into core products and services and make that functionality available to customers for no extra fee. Datacenter automation competencies will increasingly provide the basis of computing product and cloud service differentiation even if they do not always generate direct revenue.

Open source software will become increasingly important in this market and has the potential to disrupt the status quo as communities such as Puppet (formerly Puppet Labs), Chef, Ansible (acquired by Red Hat in October 2015), and Kubernetes gain traction in automating application and service provisioning and orchestration and extend functionality beyond their core server configuration automation uses.

IDC believes the most successful go-to-market strategies for datacenter automation software vendors will target specific use cases, personas, and business processes rather than focus on the detailed differences between how different automation and orchestration solutions are architected and deployed. Support for open source technologies and APIs will be critical as organizations look to reduce friction and tighten integration across complex multicloud environments.

Start-ups and innovators that can deliver rapid time to value for specific use cases, such as DevOps or hybrid/multicloud workload optimization, will have the opportunity to establish footholds among leading-edge technical teams and expand with the organization over time. Emerging vendors have the best opportunities to displace older, more static solutions when customers are considering to update or replace legacy infrastructure and applications.

MARKET SHARE

The worldwide datacenter automation software market totaled $2.3 billion in 2015 as measured in current U.S. dollars, representing an increase of 13.7% over 2015 (see Table 1). The top vendors by share were VMware, BMC, and Cisco. Introduction of new licensing models that feature advanced cloud and datacenter automation as part of comprehensive management software bundles and suites helped increase use and revenue. Currency headwinds negatively impacted calculation of non–U.S. dollar-denominated growth rates (for more information, see *IDC's Forecast Scenario Assumptions for the ICT Markets and Historical Market Values and Exchange Rates, Version 2, 2016,* IDC #US41483516, June 2016).

TABLE 1

Worldwide Datacenter Automation Software Revenue by Vendor, 2013-2015 ($M)

	2013	2014	2015	2015 Share (%)	2014–2015 Growth (%)
VMware	424.6	481.2	662.8	29.1	37.7
BMC	215.1	219.1	229.3	10.1	4.6
Cisco	130.2	172.7	223.1	9.8	29.2
IBM	244.5	257.0	211.7	9.3	-17.6
Hewlett Packard Enterprise	207.6	213.3	175.3	7.7	-17.8
Microsoft	71.5	83.3	107.9	4.7	29.5
Puppet	20.0	38.5	72.7	3.2	88.9
Citrix	36.4	40.1	49.2	2.2	22.7
ServiceNow	9.0	25.0	41.1	1.8	64.5
Dell	28.2	33.0	36.7	1.6	11.3
Parallels	15.9	21.0	30.1	1.3	43.4
Chef	9.6	15.1	26.8	1.2	77.3
RightScale	50.4	34.5	26.1	1.1	-24.4
Oracle	14.8	18.6	22.5	1.0	21.1
Adaptive Computing	22.9	24.8	22.5	1.0	-9.3
Automic	12.9	19.9	21.9	1.0	10.2
Red Hat	3.8	9.4	18.9	0.8	101.1
Micro Focus	16.5	16.2	18.1	0.8	11.4
Symantec	19.1	16.9	14.5	0.6	-14.1
CSC	27.5	14.0	14.4	0.6	2.8
NEC	7.7	13.3	13.8	0.6	3.5
EMC	10.4	12.1	13.5	0.6	11.4
Fujitsu	8.0	9.8	11.3	0.5	15.1
ASG Software Solutions	6.8	8.8	9.4	0.4	6.8
Hitachi	3.7	4.3	4.7	0.2	9.5
Other	170.7	202.6	201.3	8.8	-0.6
Total	1,787.5	2,004.5	2,279.6	100.0	13.7

Source: IDC, 2016

WHO SHAPED THE YEAR

The major vendors shaping the year for the overall datacenter automation software market include VMware, BMC, and Cisco. Several open source automation start-ups including Puppet, Chef, and Ansible also had significant impacts on the shape of the market. Specifically:

- VMware's strong growth in the market reflected the company's continued focus on datacenter and cloud management automation. VMware's products in this space include Site Recovery Manager, Service Manager, vRealize Automation, vCloud Air Hybrid Cloud Manager, and automation-related portions of vCloud Suite, vRealize Suite, and EVO SDDC. Since the 2012 introduction of vCloud Suite and the 2013 launch of vSphere with Operations Management, VMware has used its management software portfolio to differentiate vSphere and help maintain overall corporate revenue growth even as its core hypervisor market has matured and standalone hypervisor sales have flattened. VMware's shift to selling systems management software and vSphere licenses via unified suites and bundles has had a significant impact on IDC's estimates for the company's rate of revenue growth across several functional software markets as reported by IDC's Software Tracker. While IDC estimates that total vSphere unit sales continued to increase slowly in 2015, the success of VMware's suite- and bundle-based sales strategy has caused IDC to shift its allocation of estimated revenue across several functional markets in 2015. As a result, IDC's estimates for VMware revenue in 2015 show accelerated growth in several systems management software markets, while revenue allocated to the virtual machine and cloud system software functional market decreased (for additional detail, see *VMware's Shift to Suites Drives IDC's Tracker and Market Share Updates,* IDC #US41218716, May 2016).

- BMC continued to execute on its new Digital Enterprise Management architecture backed by a significantly updated and streamlined product portfolio featuring modernized automation, analytics, and user experience platforms that enable stronger cross-product integrations, easier product updates, and more intuitive, user-friendly interfaces. The company also discussed plans for developing a more flexible, reusable API-based platform to improve customer integrations. BMC has remained committed to both its datacenter automation offerings. Important new releases in 2015 included BladeLogic 8.7 Intelligent Compliance which extends BladeLogic's automated configuration and audit controls to address the needs of digital service security to more quickly patch vulnerabilities and more quickly and accurately document compliance reporting and audit requirements. BMC continued to update its Cloud Lifecycle Management solution as well.

- Cisco reinforced its commitments to datacenter automation with the March 2016 acquisition of CliQr, a privately held start-up provider of one-click cloud application deployment and management technology that will be used to streamline Cisco's broader datacenter portfolio by making the portfolio simpler for customers to automate and manage application policies across the entire datacenter stack. CliQr integrates with Cisco ACI to enable application portability for on-premise datacenters, private clouds, and many major public clouds. The CliQr technology will be primarily offered as part of the Cisco ONE Enterprise Cloud Suite, which bundles together a set of Cisco technologies and products to provide customers with a unified platform for datacenter and cloud automation.

Open source-based start-ups such as Puppet, Chef, and Ansible saw very high double-digit growth rates as more and more enterprise customers embraced open standards and tools to automate the life-cycle creation, management, and deployment of configuration and orchestration artifacts to support large-scale, consistent infrastructure control and provisioning. Typically, open source configuration automation users describe the benefits of these solutions in terms of increased IT operations efficiency

and configuration compliance. The more advanced users also note the role these technologies are playing with regard to accelerating application deployments, continuous delivery, and time to market for new revenue-generating applications. These open source solutions have become particularly popular among the systems administrators supporting DevOps and cloud computing platforms.

MARKET CONTEXT

IDC published a forecast for worldwide datacenter automation software in *Worldwide Workload Scheduling and Automation Software Forecast, 2016-2020* (IDC #US40427316, January 2016). Refer to this document for key market assumptions, market drivers, accelerators, and inhibitors.

The sections that follow provide context for the 2015 market shares in terms of overall market geographic region, operating environment, and deployment model allocations.

### Impact of Currency Exchange Rates

In 2015, the worldwide datacenter automation software market faced geopolitical and economic headwinds in several regions where currency fluctuations undercut local market growth when expressed in current U.S. dollars. Since the U.S. dollar strengthened tremendously against other currencies in 2015, the 13.0% current currency or "as reported" growth for datacenter automation software in 2015 is not indicative of the actual growth in software sales. Considering constant currencies, IDC is seeing stronger growth in license and subscription sales than what the current currency revenue estimates indicate for vendors that do business in currencies other than the U.S. dollar.

Worldwide Datacenter Automation Software by Region, 2015

The Americas continues to represent the bulk of datacenter automation software revenue, with a share of 68.3% in 2015. Figure 2 provides a snapshot of the market in 2015 by geographic region.

FIGURE 2

Worldwide Datacenter Automation Software Revenue Share by Region, 2015
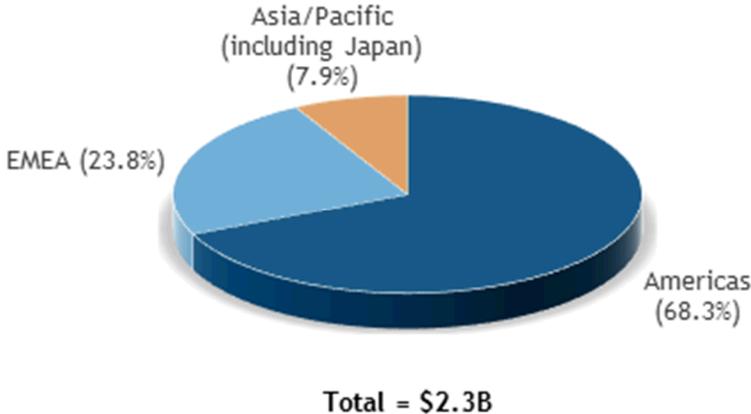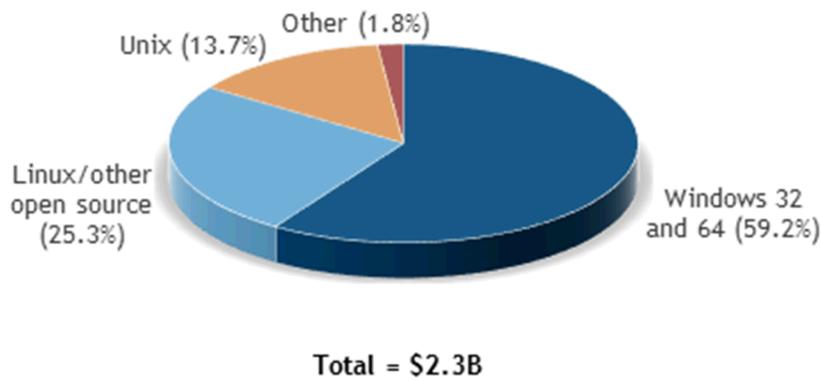

Source: IDC's Worldwide Semiannual Software Tracker, April 2016

Worldwide Datacenter Automation Software by Operating Environment, 2015

Figure 3 illustrates the worldwide allocation of datacenter automation software revenue based on operating environment in 2015. Windows represented the majority of the market, with a 59.2% share in 2015. Linux increased its share to 25.3% in 2015 compared with a 20.2% share in 2014.

FIGURE 3

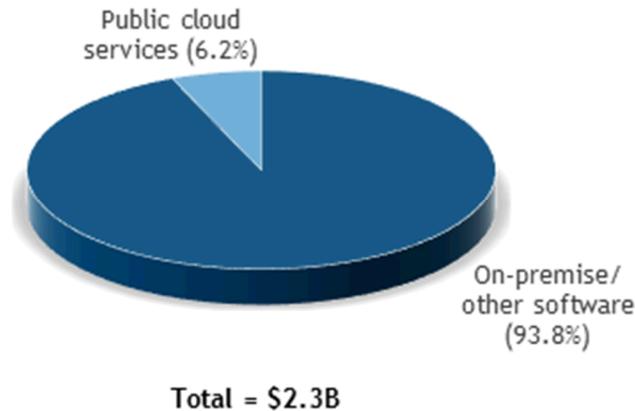**Worldwide Datacenter Automation Software Revenue Share by Operating Environment, 2015**

Source: IDC's Worldwide Semiannual Software Tracker, April 2016

Worldwide Datacenter Automation Software by Deployment Model, 2015

Public cloud services options for datacenter automation software have only recently become available and are generally limited to SaaS-based configuration automation, cloud brokering, and selected orchestration offerings. As a result, public cloud services represent a very small segment of the market. Figure 4 illustrates the public cloud services share of the market compared with on-premise and other deployment types. In 2015, PCS accounted for 6.2% of market revenue.

FIGURE 4

Worldwide Datacenter Automation Software Revenue Share by On-Premise/Other Software and Public Cloud Services, 2015

Source: IDC's Worldwide Semiannual Software Tracker, April 2016

Significant Market Developments

In 2015, the worldwide datacenter automation software market benefitted from increased use of dynamic development, big data, and infrastructure technologies that require increased automation and orchestration capabilities to provision, maintain, scale, and optimize a broad range of infrastructure, middleware, and application technologies. Acceptance of comprehensive management software licenses and suites that include datacenter automation licenses bundled with configuration, monitoring, and analytics have help increase adoption by providing customers with easy on-ramps for testing and evaluating the benefits of datacenter automation solutions included in the combined suites.

Cloud and DevOps teams increasingly make use of self-service automation and orchestration solutions to support continuous delivery and updates on modern applications. Increasingly, application release tools are converging with traditional operations orchestration and provisioning solutions to enable cloud and DevOps teams to support the full life cycle of their requirements from a common platform and workflow model.

Open source solutions will continue to impact sales of commercially licensed software, particularly among service providers that have sufficient internal development and technical talent to customize and support open source automation and orchestration solutions. IDC expects that vendors with mature datacenter automation software portfolios will continue to actively evaluate the acquisition of start-ups and innovators in order to refresh their portfolios to better support hybrid cloud, big data, containers, and DevOps.

METHODOLOGY

The IDC software market sizing and forecasts are presented in terms of commercial software revenue. IDC uses the term *commercial software* to distinguish commercially available software from custom software. Commercial software is programs or codesets of any type commercially available through sale, lease, rental, or as a service. Commercial software revenue typically includes fees for initial and continued right-to-use commercial software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure, or this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately. All of these are counted by IDC as commercial software revenue.

Commercial software revenue excludes service revenue derived from training, consulting, and systems integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of software included in a service that offers software functionality by a different pricing scheme. It is the total commercial software revenue that is further allocated to markets, geographic areas, and operating environments. The worldwide software market includes all commercial software revenue across all functional markets or market aggregations. For further details, see *IDC's Software Taxonomy, 2015* (IDC #256767, June 2015).

Bottom-up/company-level data collection for calendar year 2015 began in January 2016, with in-depth vendor surveys and analysis to develop detailed 2015 company models by market, geographic region, and operating environment.

Note: All numbers in this document may not be exact due to rounding.

MARKET DEFINITION

Datacenter automation is a submarket of IDC's workload scheduling and automation software functional market. Datacenter automation software includes software running on distributed, non-mainframe platforms that enables dynamic automated physical and virtual server and application provisioning, workload and VM allocation and reclamation, self-serve cloud provisioning portals and cloud service brokers, runbook automation, workflow orchestration, and software-defined datacenter and hybrid cloud resource optimization and provisioning including container management and orchestration. Configuration automation solutions, both proprietary and commercial open source, are also included.

Task-level automation capabilities included in software that is primarily focused on asset discovery, software license management, and software distribution are not included in this study because they are part of the change and configuration management software market. Task-level automation capabilities included in software that is primarily focused on service desk operations are not included in this study because they are part of the problem management software market.

The following are representative vendors and products in this submarket:

- BMC BladeLogic Automation Suite, BMC Atrium Orchestrator, and BMC Cloud Lifecycle Management
- Chef
- Cisco ONE Enterprise Cloud Suite (portions thereof)

- Docker DataCenter, Universal Control Plane (Docker Swarm) (portions thereof)
- Google Container Engine (Kubernetes)
- HPE Operations Orchestration, HPE Server Automation, and HPE Cloud Service Automation
- IBM Cloud Orchestrator
- Puppet
- Red Hat CloudForms and Ansible
- ServiceNow Cloud Management
- VMware vRealize Automation

RELATED RESEARCH

- *IDC's Forecast Scenario Assumptions for the ICT Markets and Historical Market Values and Exchange Rates, Version 2, 2016* (IDC #US41483516, June 2016)
- *VMware's Shift to Suites Drives IDC's Tracker and Market Share Updates* (IDC #US41218716, May 2016)
- *Worldwide Workload Scheduling and Automation Software Forecast, 2016-2020* (IDC #US40427316, January 2016)
- *IDC's Software Taxonomy, 2015* (IDC #256767, June 2015)
- *Worldwide Datacenter Automation Software Market Shares, 2014: Year of Cloud and DevOps* (IDC #256957, June 2015)

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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