



## MARKET SHARE

# Worldwide Datacenter Automation Software Market Shares, 2016: Year of Market Disruption

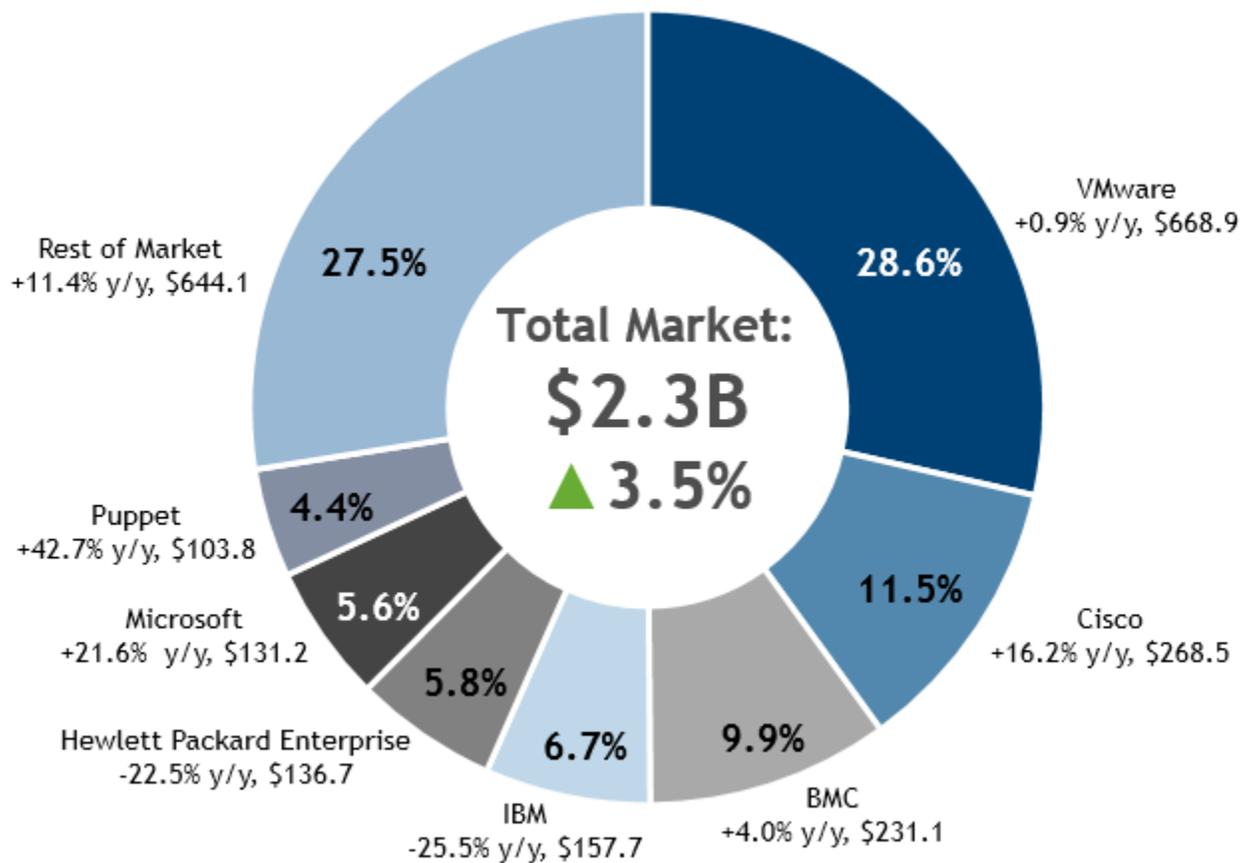
Mary Johnston Turner

THIS IDC MARKET SHARE EXCERPT FEATURES VMWARE

## IDC MARKET SHARE FIGURE

FIGURE 1

### Worldwide Datacenter Automation Software 2016 Share Snapshot



Note: 2016 Share (%), Growth (%), and Revenue (\$M)

Source: IDC, 2017

## IN THIS EXCERPT

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The content for this excerpt was taken directly from IDC Market Share: Worldwide Datacenter Automation Software Market Shares, 2016: Year of Market Disruption. (Doc # US41372217). All or parts of the following sections are included in this excerpt: Executive Summary, Market Share, Who Shaped the Year, Market Context, Appendix and Learn More. Also included is Figures 1, 2, 3 and 4 and Table 1.

## EXECUTIVE SUMMARY

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In 2016, revenue for the worldwide datacenter automation software market increased 3.5%, a significant decline from growth rates seen in recent years, as calculated in current U.S. currency. IDC believes this slowed rate of growth is the result of a significant downturn in the license renewals and upgrades for legacy provisioning and configuration solutions combined with competitive pressure from unpaid open source alternatives and the trend toward public cloud infrastructure service providers monetizing automated configuration and provisioning functionality as part of compute charges rather than standalone usage fees.

Total worldwide market revenue was \$2.3 billion led by VMware, Cisco, and BMC. Longtime players IBM and Hewlett Packard Enterprise (HPE) saw double-digit percentage losses in revenue as they shifted software development priorities. Emerging vendors such as Puppet, Chef, ServiceNow, and Red Hat saw strong double-digit growth.

This IDC study discusses 2016 vendor shares and market activity across the worldwide datacenter automation software market, a submarket of IDC's functional workload scheduling and automation software market.

"In 2016, the worldwide datacenter automation software market entered a transitional cycle marked by the retirement of many traditional solutions and their replacement by a new generation of paid and unpaid software and cloud service options," explains Mary Johnston Turner, research vice president, IDC's Enterprise Systems Management Software. "Market growth slowed substantially as customers found more and more of their datacenter automation requirements can be met by unpaid open source and advanced software-defined automation capabilities embedded in advanced infrastructure platforms and public cloud-based infrastructure services."

## ADVICE FOR TECHNOLOGY SUPPLIERS

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While growth opportunities continue to exist within the worldwide datacenter automation software market, technology suppliers should use this year's slowdown as motivation to double-check that they are investing in the right areas. Specifically, IDC sees continued demand for:

- DevOps life-cycle automation and CD/CI integrations
- Automated cloud service provisioning, migration, and optimization
- Software-defined infrastructure provisioning and control
- Fee-based automation and orchestration add-ons to public cloud IaaS and PaaS
- Server-side support for IoT configuration and provisioning automation

Open source software will become increasingly important in this market and has the potential to disrupt the status quo as communities such as Puppet, Chef, and Ansible gain traction in automating application and service provisioning and reach beyond core server configuration automation to include full-stack provisioning, updating, and migration.

IDC expects baseline physical and virtual automated server configuration and provisioning to continue to become more tightly integrated with core computing hardware and hyperconverged platforms and cloud services, continuing to drive down growth of more traditional datacenter automation offerings. Traditional players are already exiting the legacy market (e.g., HPE-Micro Focus spin-merge) even as they invest in a new generation of modern, API-driven control platforms. The continued adoption of public cloud IaaS that embed selected datacenter automation functionality for free as part of a compute service will also continue to act as a drag on software and SaaS revenue growth in this market.

IDC believes the most successful go-to-market strategies 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. Start-ups and innovators that can deliver rapid time to value for specific use cases such as DevOps, IoT, or hybrid cloud and containerized workload optimization will have the opportunity to establish footholds among leading-edge technical teams and expand with the organization.

## MARKET SHARE

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As shown in Table 1, the worldwide datacenter automation software market totaled \$2.3 billion in revenue in 2016, which represented an increase of 3.5% in current U.S. currency over 2015. The top vendors by share were VMware, Cisco, BMC, IBM, and HPE. These top 5 vendors together represented over 62% of the market, indicating that the market continues to consolidate. However, for the most part, the growth story features a number of newer entrants including Puppet, Chef, Red Hat, and ServiceNow. These vendors have focused on enabling DevOps and cloud use cases and are positioning to play a role in IoT integration and automation.

**TABLE 1****Worldwide Datacenter Automation Software Revenue by Vendor, 2014-2016 (\$M)**

	2014	2015	2016	2016 Share (%)	2015–2016 Growth (%)
VMware	481.2	662.8	668.9	28.6	0.9
Cisco	177.7	231.1	268.5	11.5	16.2
BMC	219.1	222.2	231.1	9.9	4.0
IBM	256.9	211.6	157.7	6.7	-25.5
Hewlett Packard Enterprise	214.2	176.3	136.7	5.8	-22.5
Microsoft	83.3	107.9	131.2	5.6	21.6
Puppet	38.5	72.7	103.8	4.4	42.7
ServiceNow	25.0	41.1	70.6	3.0	71.6
Chef	15.1	26.8	45.8	2.0	71.2
Citrix	40.1	49.2	39.5	1.7	-19.7
Other	431.3	461.1	488.2	20.8	5.87
Total	1,982.5	2,262.8	2,342.1	100.0	3.5

Source: IDC, June 2017

**WHO SHAPED THE YEAR**

This Excerpt was prepared for VMWARE but also included the following vendors: Cisco, BMC, IBM, Hewlett Packard, Microsoft and Puppet.

The shape of the datacenter automation software market was impacted by actions by established players and newer entrants alike.

- VMware continued to dominate the market as measured in revenue with a share of 28.6%. During VMworld 2016, the company introduced a series of new products, technology previews, and betas that demonstrated its commitment to evolving its infrastructure portfolio to support the needs of DevOps teams, container-based workloads, software-defined datacenters, and multicloud enterprise management strategies. These included SDDC Manager as part of VMware Cloud Foundation, Cross-Cloud Architecture for workload portability, and Cross-Cloud Services for multicloud management. These new initiatives had a limited impact on 2016 revenue but have the potential to accelerated VMware growth in 2017.

## MARKET CONTEXT

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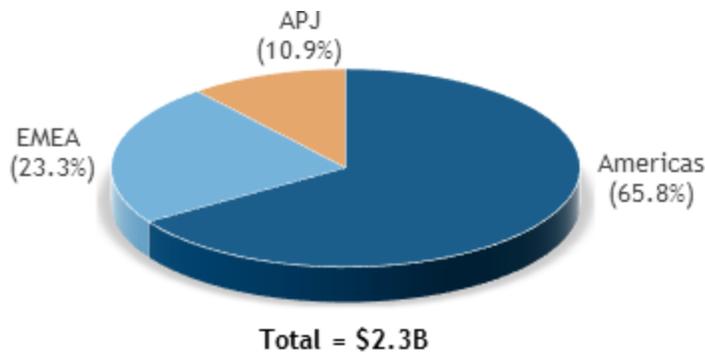
In 2016, the worldwide datacenter automation software market continued to be most active in the Americas region. Linux had the fastest growth rate in terms of operating environments, and delivery via SaaS continued to represent a small slice of the market.

### Worldwide Datacenter Software Revenue by Region Snapshot, 2016

Figure 2 illustrates the worldwide allocation of datacenter automation software revenue on a regional basis in 2016. The Americas region led the market, with 65.8% of total revenue, followed by EMEA with 23.3%. APJ represented 10.9% of the market revenue.

**FIGURE 2**

### Worldwide Datacenter Automation Software Revenue Share by Region, 2016



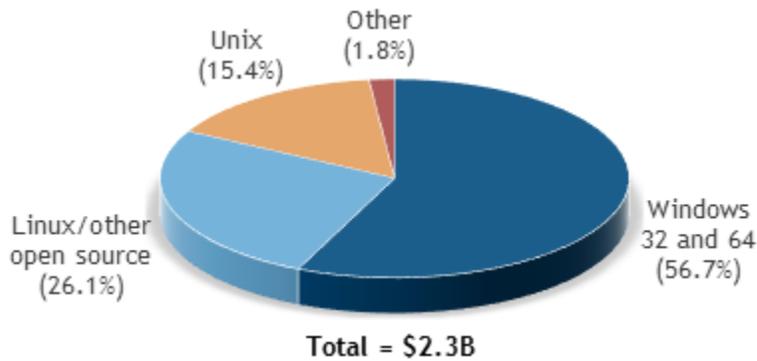
Source: IDC, June 2017

### Worldwide Datacenter Automation Software Revenue by Operating Environment Snapshot, 2016

Figure 3 illustrates the worldwide allocation of datacenter automation software revenue based on operating environments in 2016. Windows continued to represent the majority of deployments with 56.7% share. Linux represented 26.1% of revenue, and Unix represented 15.4% of revenue.

**FIGURE 3**

**Worldwide Datacenter Automation Software Revenue Share by Operating Environment, 2016**



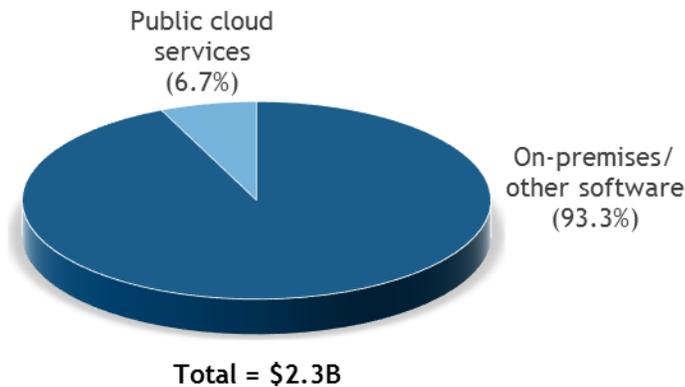
Source: IDC, June 2017

**Worldwide Datacenter Automation Software Revenue by Deployment Type Snapshot, 2016**

Figure 4 illustrates that public cloud SaaS-delivered data center automation software is still a small part of the market but represented 6.7% of the total market in 2016. This revenue represented a range of standalone SaaS-delivered solutions from pure SaaS players such as RightScale and ServiceNow to emerging offerings such as Oracle Management Cloud.

**FIGURE 4**

**Worldwide Datacenter Automation Software Revenue Share by Deployment Type, 2016**



Source: IDC, June 2017

## Significant Market Developments

During 2016, several traditional legacy vendors recognized that it was time to cycle down investments in more traditional datacenter automation products. In some cases, they sold off the assets or included them in larger spinout and merger agreements.

Emerging players such as Ansible, acquired by Red Hat, and CliQr, acquired by Cisco, started to gain traction as important technical contributors to broader automation portfolios. SaaS-based offerings such as ServiceNow's cloud management solutions and Oracle Management Cloud's orchestration platform began to get attention from serious buyers.

Collectively, the players in the datacenter automation software market recognized that the market dynamics have fundamentally shifted with little new profit to be found in traditional on-premises server provisioning and migration automation. As the market looks to 2017, IDC expects DevOps and cloud management will continue to be the major drivers.

## METHODOLOGY

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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. 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 sometimes operating environments. For further details, see *IDC's Worldwide Software Taxonomy, 2016* (IDC #US41572216, July 2016).

Bottom-up/company-level data collection for calendar year 2016 began in January 2017 with in-depth vendor surveys and analysis to develop detailed 2016 company models by market, geographic region, and operating environment.

The data presented in this document is IDC estimates only.

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

## MARKET DEFINITION

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The workload scheduling and automation software market includes two specific submarkets – workload management (formerly job scheduling) and datacenter automation (formerly distributed server/workload automation) – that together constitute the entire functional market as described in *IDC's Worldwide Software Taxonomy, 2016* (IDC #US41572216, July 2016).

## Datacenter Automation Submarket Definition

Datacenter automation includes software running on distributed, non-mainframe platforms that enable dynamic, automated physical and virtual server provisioning; container provisioning and orchestration; workload and VM allocation and reclamation; self-serve cloud provisioning portals; runbook automation; and workflow orchestration products. Task-level automation capabilities included in software that is primarily focused on asset discovery, software license management, and software distribution are not included here 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 here because they are part of the problem management software market.

The following are representative vendors and products in this market:

- BMC BladeLogic Server Automation and BMC Cloud Lifecycle Management
- IBM Tivoli Provisioning Manager and IBM Cloud Orchestrator
- HPE Operations Orchestration, HPE Server Automation, and HPE Cloud Service Automation
- VMware vRealize Automation and vRealize Orchestrator
- Puppet
- Chef
- Red Hat Ansible and CloudForms

## RELATED RESEARCH

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- *IDC's Forecast Scenario Assumptions for the ICT Markets and Historical Market Values and Exchange Rates, Version 1, 2017* (IDC #US42418817, March 2017)
- *Worldwide Workload Scheduling and Automation Software Forecast, 2017-2021* (IDC #US41373317, February 2017)
- *IDC's Worldwide Software Taxonomy, 2016* (IDC #US41572216, July 2016)
- *Worldwide Datacenter Automation Software Market Shares, 2015: Year of Suite Success* (IDC #US40425216, June 2016)

## 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.

## Global Headquarters

5 Speen Street  
Framingham, MA 01701  
USA  
508.872.8200  
Twitter: @IDC  
idc-community.com  
www.idc.com

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