

Market Share

Worldwide IT Automation and Configuration Management Software Market Shares, 2017: Hybrid IT Drives Growth

Stephen Elliot

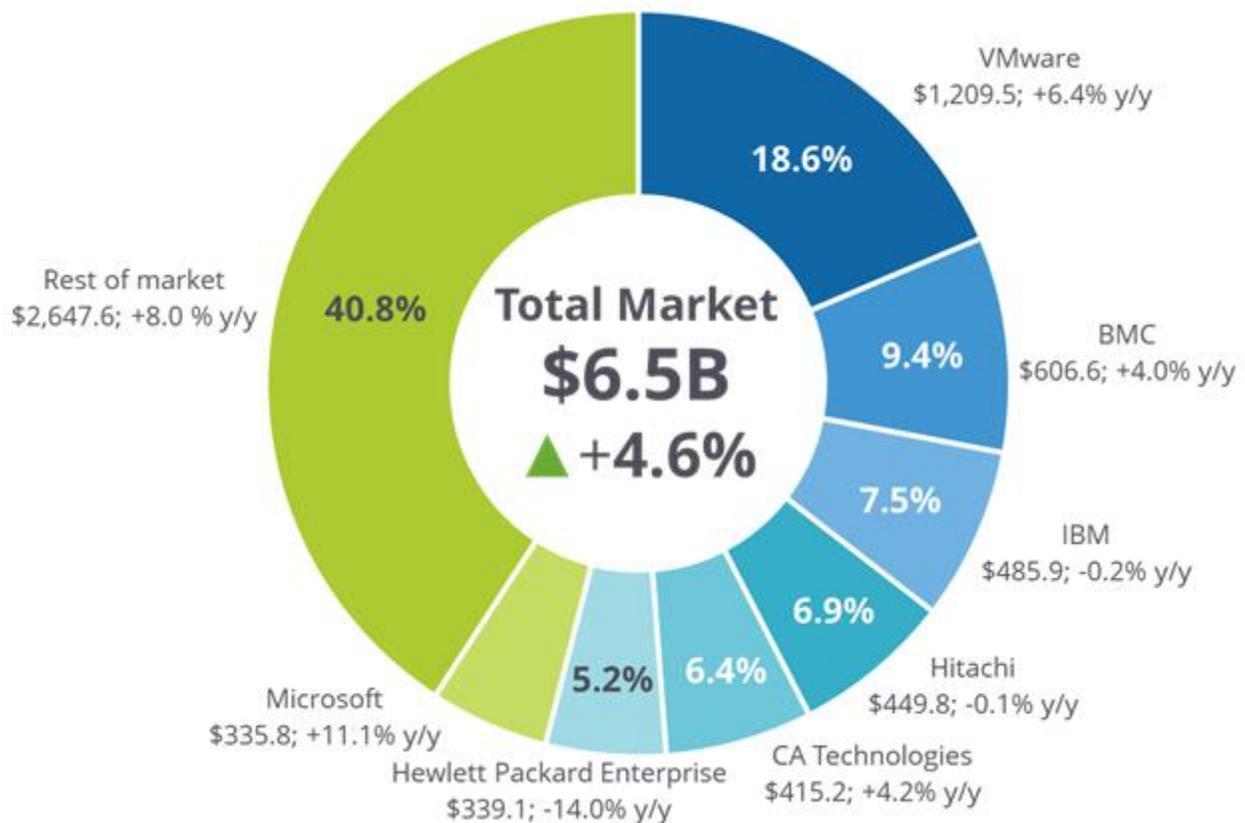
Tim Grieser

THIS IDC MARKET SHARE EXCERPT FEATURES VMWARE

IDC MARKET SHARE FIGURE

FIGURE 1

Worldwide IT Automation and Configuration Management Software 2017 Share Snapshot



Note: 2017 Share (%), Revenue (\$M), and Growth (%)

Source: IDC, 2018

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC Market Share: Worldwide IT Automation and Configuration Management Software Market Shares, 2017: Hybrid IT Drives Growth (Doc # US44014318). 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

This IDC study provides a competitive analysis of the worldwide IT automation and configuration management (ITACM) software market for calendar year 2017. The study includes worldwide market revenue and growth rate for the total market in 2017 as well as vendor revenue, market shares, and growth rates of the leading vendors. A three-year history showing vendor revenue data and trends for 2015-2017 is provided.

This is the first market share document for the newly defined ITACM software market, which incorporates revenue for software and SaaS solutions previously reported in the workload scheduling and automation software market, together with portions of revenue from the previous change and configuration management software market. For more details, see the Market Definition section and refer to *IDC's Worldwide Software Taxonomy, 2017* (IDC #US42961816, August 2017).

The worldwide IT automation and configuration management software market reached \$6.5 billion in 2017, growth of 4.6% from 2016, as measured in current currency. Refer back to Figure 1 for a summary snapshot of the total market and leading market share vendors in 2017. A detailed list of vendors active in this market (refer to Table 1), a snapshot of 2017 market revenue by geographic region (refer to Figure 3), and a snapshot of 2017 market revenue by operating environment (refer to Figure 4) are also provided.

This IDC study provides a competitive analysis of the worldwide IT automation and configuration management software market for calendar year 2017.

According to Stephen Elliot, program vice president, Enterprise System Management Software, "The worldwide IT automation and configuration management software market achieved moderate growth in 2017. IT executives continue to invest in automation across infrastructure and operations and development teams. Private, hybrid, and public cloud investments, when combined with automation investments, are driving higher ROIs and faster business outcomes."

ADVICE FOR TECHNOLOGY SUPPLIERS

The worldwide IT automation and configuration management software market grew at a mid-single-digit rate in 2017, expanding to support the automation and orchestration needs of DevOps, digital enterprises, hybrid cloud architectures, and microservices-based applications. As the focus of the market pivots away from traditional workload management and job scheduling solutions toward the automation of infrastructure and application configuration, provisioning, DevOps life-cycle operations, and orchestration of cloud and software-defined datacenter environments, IDC expects market leaders will continue to expand the technologies they support. Tools to simplify the creation, updation, and deployment of standardized infrastructure and application profiles provide enterprise IT teams with the

opportunity to streamline operations, reduce human error, and more rapidly respond to the needs of dynamic digital and mobile applications.

Growth areas are expected to include:

- Infrastructure and application configuration workflow orchestration and template management
- Container management automation and orchestration
- Automated cloud service provisioning, migration, and optimization
- DevOps life-cycle support
- Fee-based automation and orchestration add-ons to public cloud IaaS and PaaS

Workload management software will remain a stable but profitable market for vendors that continue to invest in support for big data and analytics, complex ERP workload management, and self-service reporting and workflow controls. However, IDC believes pure-play workload management solutions will gradually see growth opportunities erode as datacenter automation vendors and open source-based innovators step up to help orchestrate complex workload management flows. Vendor acquisitions and market consolidation are expected.

Conversations with infrastructure and operations (I&O) teams reveal some critical decision points as they modernize their management tools:

- The preference is for consistent views and operations that cross environments so that, for example, monitoring solutions appear the same for infrastructure, applications, and logs. This consistency helps users make meaningful comparisons between environments such as applications performance on-premise versus performance in the cloud.
- Management software must be able to support analytics capabilities to more quickly identify the root causes of problems and take proactive measures to prevent impending problems from impacting users. Currently available software technology can take in and process enormous volumes of both structured and unstructured machine-generated data.
- The automation of technology processes and the orchestration of multiple processes are critical and increasingly required to enable scale for I&O teams as software delivery cycles increase.
- Machine learning and advanced analytics can provide automated baselining, dynamic thresholding, anomaly detection, event consolidation and correlation, and predictive alerting. Cognitive/AI capabilities are increasingly being applied to functions such as natural language interfaces and pattern recognition. These capabilities provide added dimensions for users to help better understand where issues are occurring or likely to occur in the future.
- SaaS delivery is a growing point of interest for I&O teams as they consider the level of overhead they are willing to support and the efficient delivery of certain IT operations management (ITOM) capabilities that SaaS offers.
- Roles-based staff and executive dashboards are created with design thinking methods, and as DevOps drives teamwork and faster cycle times, there is increasing levels of collaboration between I&O and development teams.
- Integrated analysis of data pools is carried out across traditionally separate IT silos from across networking, storage, databases, and applications that transcend traditional and modern (i.e., microservices, containers, and functions as a service) environments/architectures.
- IT automation and configuration management tools are being seen by savvy IT executives as a way to embed the competitive advantages of speed and quality; as such, investments

continue to address traditional IT environments and modern application architectures. The reality is that both environments are critical to business success.

MARKET SHARE

According to IDC estimates, worldwide IT automation and configuration management software revenue grew by 4.6% to reach \$6.5 billion in 2017. VMware was the market revenue and share leader in 2017, with \$1.21 billion in revenue and 18.6% market share. BMC Software was second with \$607 million in revenue and 9.4% share, IBM was third with \$486 million in revenue and 7.5% share, Hitachi was fourth with \$450 million in revenue and 6.9% share, and CA Technologies was fifth with \$415 million in revenue and 6.4% share. Table 1 provides a list of vendors having at least \$10 million in IT automation and configuration management software revenue in 2017.

Table 1

Worldwide IT Automation and Configuration Management Software Revenue by Vendor, 2015-2017 (\$M)

	2015	2016	2017	2017 Share (%)	2016-2017 Growth (%)
VMware	1,108.20	1,136.90	1,209.50	18.6	6.4
BMC	548.1	583.4	606.6	9.4	4
IBM	525.3	487	485.9	7.5	-0.2
Hitachi	396.8	450.1	449.8	6.9	-0.1
CA Technologies	401.2	398.4	415.2	6.4	4.2
Hewlett Packard Enterprise	456.2	394.1	339.1	5.2	-14
Microsoft	253	302.1	335.8	5.2	11.1
Cisco	278.4	314	309	4.8	-1.6
NEC	231.6	279.2	286.5	4.4	2.6
Fujitsu	231.6	279.2	247.1	3.8	-11.5
Other	1445.8	1579.6	1804.8	27.8	14.3
Total	5,876.20	6,204.00	6,489.30	100	4.6

Table 2 displays 2015-2017 revenue and market shares for IT automation and configuration management software deployed on distributed systems, principally Windows, Linux, and Unix.

Table 2

Worldwide Distributed IT Automation and Configuration Management Software Revenue by Vendor, 2015-2017 (\$M)

	2015	2016	2017	2017 Share (%)	2016-2017 Growth (%)
VMware	1,108.20	1,136.90	1,209.50	20.3	6.4
BMC	475	512.1	534.6	9	4.4
Hitachi	361.5	414.5	416	7	0.4
Hewlett Packard Enterprise	456.2	394.1	339.1	5.7	-14
IBM	345.6	333.9	336.5	5.7	0.8
Microsoft	253	302.1	335.8	5.6	11.1
Cisco	268.4	303.4	298.4	5	-1.6
NEC	218.3	265.6	273.3	4.6	2.9
CA Technologies	231.6	240.8	257.7	4.3	7
Fujitsu	218.1	264.5	234	3.9	-11.5
Other	1365.5	1495.4	1719.2	0.3	13.0
Total	5,301.30	5,663.30	5,954.40	100	5.1

Source: IDC's Worldwide Semiannual Software Tracker, April 2018

WHO SHAPED THE YEAR

This Excerpt was prepared for VMware but also included the following vendors: BMC, CA Technologies, HP, IBM and others.

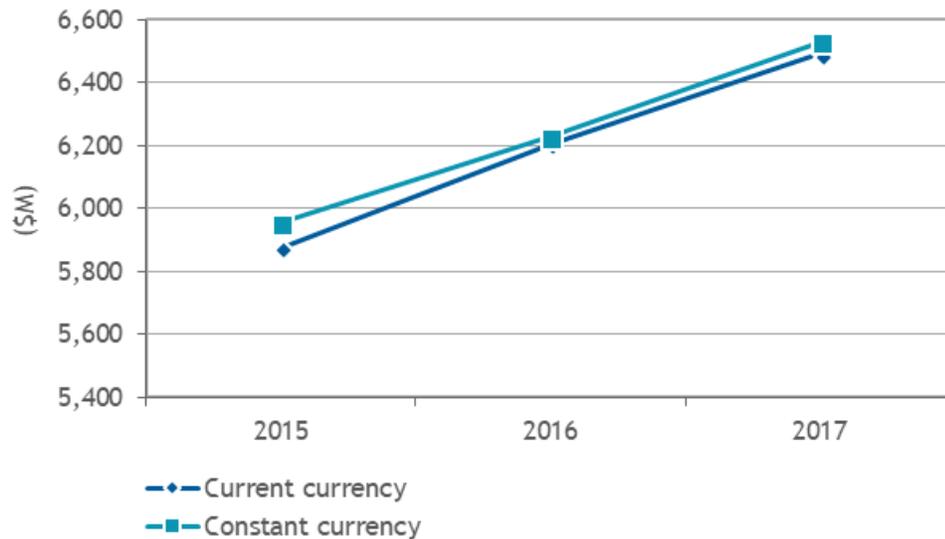
- VMware led the market in 2017 with \$1.21 billion revenue, representing a market share of 18.6%. VMware continues to take a strategic focus on its management portfolio, spreading R&D investments across core management suites (vRealize Suite and vCloud Suite) that can enable a lower TCO for its franchise products across datacenter, desktop, networking, security, telecom, and storage products. VMware has increased in sales posture on management capabilities over the past three years and continues to use Enterprise License Agreement (ELA) renewal cycles as a way to position management tool capabilities for the Global 2000 and midmarket accounts.

MARKET CONTEXT

Key growth drivers and inhibitors that can impact vendors in this market include rate of cloud adoption, changes in software licensing and spending, and variations in currency exchange rates. In 2016, IDC started including constant currency measures in our Market Share documents to provide an indication of overall market developments excluding the effects of fluctuating exchange rates. The valuation of the U.S. dollar was relatively stable over the course of 2015 and 2016 compared with most other currencies and continued to be stable in 2017. Because the valuation of the U.S. dollar, compared with most other currencies, dropped in 2017 compared with 2016 (as opposed to strengthened in 2016 compared with 2015), the impact of exchange rates on year-over-year growth in this 2017 document is opposite to what we reported in last year's documents. Figure 2 provides a comparison of constant and current currency totals for IT automation and configuration management software for 2015-2017.

FIGURE 2

Worldwide IT Automation and Configuration Management Software Revenue, 2015-2017: Current and Constant Currency



Source: IDC's Worldwide Semiannual Software Tracker, April 2018

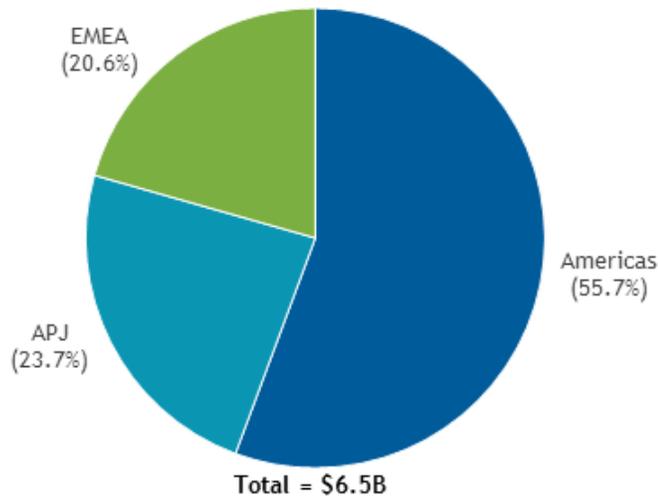
Vendor revenue in this market was impacted by regional conditions. Figure 3 provides a snapshot of the market in 2017 by geographic region. The Americas region had the largest share, with 55.7% of the worldwide IT automation and configuration management software revenue. Asia/Pacific (including Japan) realized 23.7%, and EMEA had 20.6% market share.

Figure 4 provides a snapshot of the market in 2017 by operating environment. The Windows operating environment had the largest share, with 49.8% of the worldwide IT automation and configuration management software revenue. Open source was second with 23.0%, Unix was third with 16.7%, and mainframe was fourth with 8.2% market share.

Figure 5 provides a snapshot of the market in 2017 by deployment type. On-premise/other software had the largest share, with 94.8% of the worldwide IT automation and configuration management software revenue. Public cloud services had just 5.2% share.

FIGURE 3

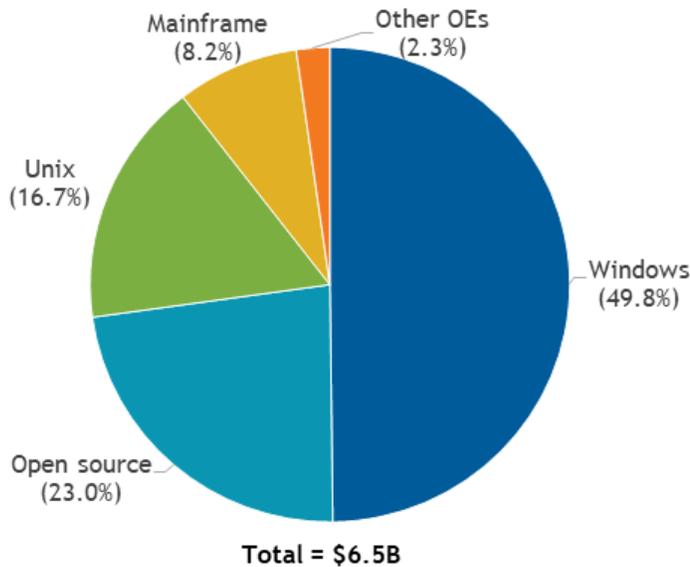
Worldwide IT Automation and Configuration Management Software Revenue Share by Region, 2017



Source: IDC's Worldwide Semiannual Software Tracker, April 2018

FIGURE 4

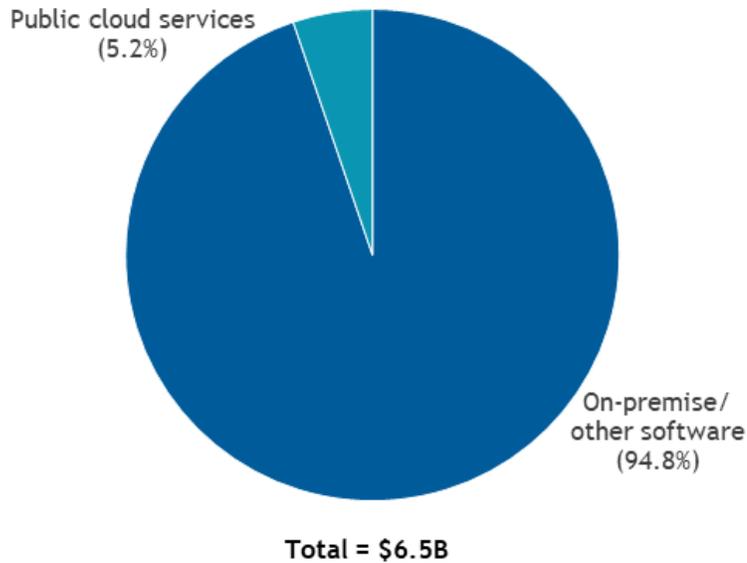
Worldwide IT Automation and Configuration Management Software Revenue Share by Operating Environment, 2017



Source: IDC's Worldwide Semiannual Software Tracker, April 2018

FIGURE 5

Worldwide IT Automation and Configuration Management Software Revenue Share by Deployment Type, 2017



Source: IDC's Worldwide Semiannual Software Tracker, April 2018

Significant Market Developments

The IT automation and configuration management software market saw signs of market convergence and consolidation in 2017. Pressure on the market came from several directions, including:

- Market consolidation due to acquisitions and equity buyouts such as CA Technologies' acquisition of Automic and, on a smaller scale, the acquisition of Adaptive Computing by ALA Services
- Ongoing maturation and slowing growth of many established datacenter automation products that were built for traditional physical and virtual environments but are not flexible enough to support cloud and DevOps environments
- Increasing availability of unpaid options such as open source and embedded automation functionality included in system management platforms sold as part of hardware SKUs
- Public cloud-driven changes to the monetization model for automation as orchestration, provisioning, and migration functionalities increasingly sold as part of a compute services offering that generate no recognizable IT automation and configuration management software revenue
- The emergence of DevOps and Agile development methodologies that is pressing infrastructure and operations teams to respond to increasing speed and business pressure and have visibility and cost controls over the private, hybrid, and public cloud infrastructure choices

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. 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, 2017* (IDC #US42961816, August 2017).

Bottom-up/company-level data collection for calendar year 2017 began in January 2018 with in-depth vendor surveys and analysis to develop detailed 2017 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

IT automation and configuration management (ITACM) software and SaaS solutions manage the configuration, provisioning, placement, migration, and workload management of on-premise and cloud-based physical and virtual systems, applications, and the workloads these systems support. This includes system configuration and image/template management, system and application provisioning, scaling, and automation for deploying and maintaining images, operating systems (OSs), middleware, and applications onto physical and virtual servers whether located on-premise or in public cloud services. It also includes workload management and automation solutions and emerging cloud service brokering, optimization, and self-service provisioning solutions used to enable cloud and software-defined datacenter systems and applications management.

The worldwide IT automation and configuration management software market is made up of two submarkets: workload management (formerly called job scheduling) and datacenter system and application control (formerly datacenter automation). For more information, see *IDC's Worldwide Software Taxonomy, 2017* (IDC #US42961816, August 2017).

RELATED RESEARCH

- *IDC's Forecast Scenario Assumptions for the ICT Markets and Historical Market Values and Exchange Rates, Version 1, 2018* (IDC #US43651518, April 2018)
- *Worldwide IT Automation and Configuration Management Software Forecast, 2018-2022: First Look* (IDC #US43534918, February 2018)
- *IDC's Worldwide Software Taxonomy, 2017* (IDC #US42961816, August 2017)
- *Worldwide Workload Scheduling and Automation Software Market Shares, 2016: Vendors Pivot to DevOps* (IDC #US42827217, July 2017)

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