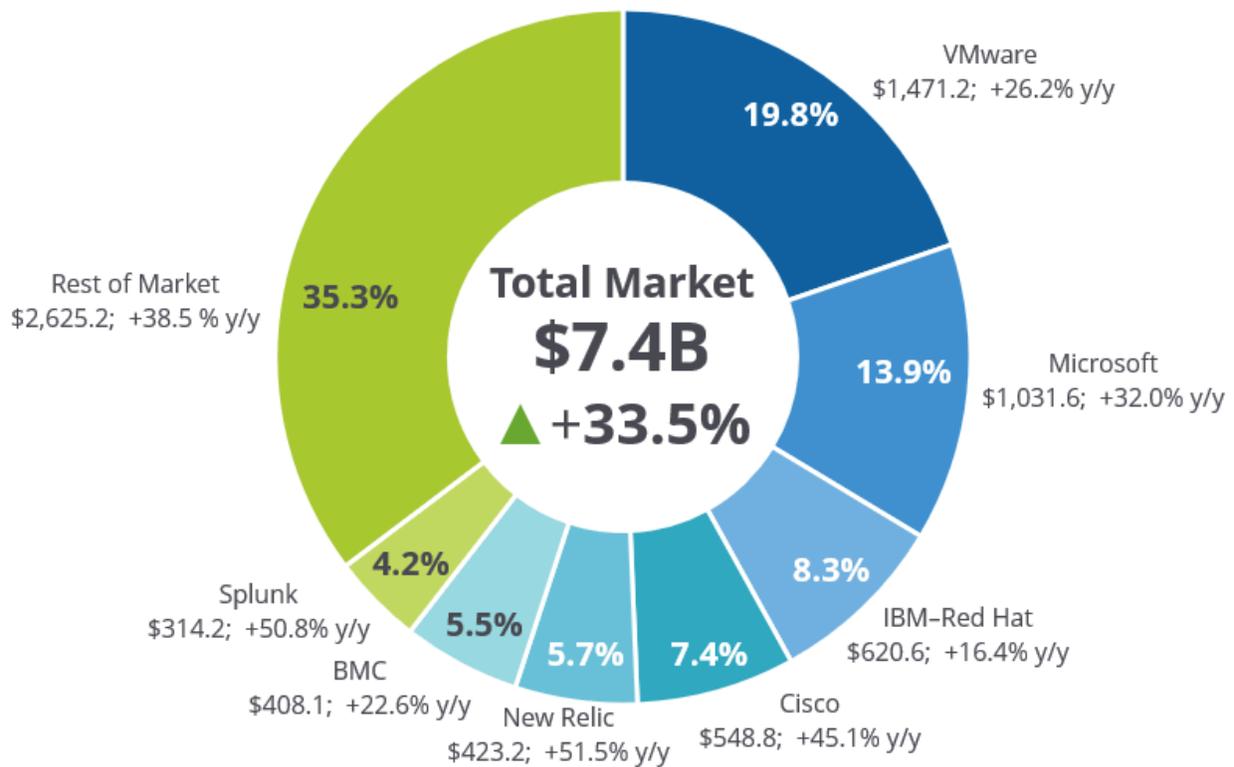Market Share

# Worldwide Cloud System and Service Management Software Market Shares, 2019: SaaS and ITOM Drive Growth

Mary Johnston Turner

## IDC MARKET SHARE FIGURE

### FIGURE 1

**Worldwide Cloud System and Service Management Software 2019 Share Snapshot**



Note: 2019 Share (%), Revenue ($M), and Growth (%)

Source: IDC, 2020

## EXECUTIVE SUMMARY

IDC estimates the worldwide cloud system and service management software market totaled $7.4 billion in 2019. IT operations management (ITOM) software and SaaS services, including infrastructure application performance management, capacity optimization, and log and event analytics, represented the largest segment of the market with 49.5% share of the overall market.

VMware led the market with an estimated $1.5 billion in revenue, representing 19.8% of the worldwide cloud system and service management software market. Microsoft was in second place with 13.9% of the market, representing an estimated $1 billion in revenue. IBM-Red Hat, Cisco (including AppDynamics), and New Relic rounded out the top 5 vendors. Refer back to Figure 1 for a summary snapshot of the total market and leading market share vendors in 2019. Refer to Table 1 for a detailed list of vendors active in this market.

This IDC study discusses 2019 vendor market shares and market activity across the worldwide cloud system and service management software market and provides a competitive view of selected products and vendors.

"IDC estimates that vendor revenue in the worldwide cloud system and service management software market, including SaaS and on-premises software, grew 33.5% in 2019, exceeding $7 billion for the first time," stated Mary Johnston Turner, IDC's research vice president, Cloud Management Software. "Enterprise demand for cloud system and service management software continued to increase rapidly in 2019. Customers continued to shift toward SaaS-delivered solutions for managing public, private, hybrid, and multicloud environments. Monitoring, observability, and analytics for performance, cost, and configuration control were top enterprise priorities."

## ADVICE FOR TECHNOLOGY SUPPLIERS

The cloud systems and service management software and SaaS market continues to evolve as enterprise cloud environments become more heterogeneous and support a larger share of mission-critical enterprise workloads. IDC's research shows that most enterprises continue to rely on a mix of traditional, private cloud, and public cloud infrastructure even as they increase use of containers and microservices and edge computing platforms. This situation is expected to be the case for a number of years.

Technology suppliers in this market need to support customer priorities for hybrid and multicloud architectures in ways that promote productivity, cost savings, compliance, and security. IDC's research on the impact of COVID-19 indicates that the infrastructure software and cloud software segments will be somewhat more resilient in an overall downward trending global economy. IDC expects enterprise buyers will continue to prioritize SaaS delivery models and ITOM solutions that allow proactive and predictive optimization of infrastructure resources, application performance, and overall cost management.

Enterprises will continue to explore the value of multicloud management control planes that reach across public and private clouds and unify management for virtualized and container-based applications. The ability for enterprises to evaluate, purchase, and deploy these newer control plane options will be impacted by limits on head count, training, and related IT budgets during much of 2020 and into 2021. Suppliers of all types of cloud system and service management solutions will need to demonstrate:

- Solid ROI and business value benefits
- Easy deployment capabilities
- Incremental usage-based pricing
- Strong security, compliance, and cost management capabilities

During the next one to two years enterprise customers will be struggling to balance ongoing support for critical innovation projects with the reality of constrained budgets and head count limitations. Cloud will continue to be strategic and cloud management systems and software will be needed to optimize those resources. SaaS-delivered solutions are likely to continue to see the greatest rates of growth.

## MARKET SHARE

The market for worldwide cloud system and service management software and SaaS increased an estimated 33.5% from 2018 to 2019 to total $7.4 billion. This market covers cloud infrastructure and application management encompassing public, private, hybrid, and multicloud architectures including bare metal, VM, and container-based environments.

As shown in Table 1 (refer back to Figure 1), the top 5 vendors by share were VMware, Microsoft, IBM-Red Hat, Cisco (including AppDynamics), and New Relic. Public cloud hyperscalers saw strong increases in demand for paid management solutions as did other SaaS-delivered offerings.

### TABLE 1

**Worldwide Cloud System and Service Management Software Revenue by Vendor, 2017-2019 ($M)**

|  | 2017 | 2018 | 2019 | 2019 Share (%) | 2018–2019 Growth (%) |
|---|---|---|---|---|---|
| VMware | 906.7 | 1,165.3 | 1,471.2 | 19.8 | 26.2 |
| Microsoft | 587.9 | 781.6 | 1,031.6 | 13.9 | 32.0 |
| IBM–Red Hat | 448.2 | 533.1 | 620.6 | 8.3 | 16.4 |
| Cisco | 253.8 | 378.2 | 548.8 | 7.4 | 45.1 |
| New Relic | 164.0 | 279.3 | 423.2 | 5.7 | 51.5 |
| BMC | 267.7 | 332.8 | 408.1 | 5.5 | 22.6 |
| Splunk | 133.7 | 208.4 | 314.2 | 4.2 | 50.8 |
| ServiceNow | 113.4 | 177.5 | 296.0 | 4.0 | 66.8 |
| Dynatrace | 89.7 | 153.8 | 275.6 | 3.7 | 79.2 |
| Datadog | 81.1 | 145.3 | 253.9 | 3.4 | 74.8 |

TABLE 1

**Worldwide Cloud System and Service Management Software Revenue by Vendor, 2017-2019 ($M)**

| | 2017 | 2018 | 2019 | 2019 Share (%) | 2018–2019 Growth (%) |
|---|---|---|---|---|---|
| Micro Focus | 66.0 | 129.4 | 141.2 | 1.9 | 9.1 |
| Oracle | 101.4 | 113.0 | 130.4 | 1.8 | 15.4 |
| Amazon Web Services | 56.7 | 78.2 | 122.6 | 1.6 | 56.7 |
| Flexera | 38.9 | 68.9 | 114.3 | 1.5 | 65.8 |
| Broadcom | 73.7 | 78.9 | 98.1 | 1.3 | 24.3 |
| Turbonomic | 27.9 | 53.5 | 74.2 | 1.0 | 38.6 |
| ScienceLogic | 36.4 | 59.1 | 71.6 | 1.0 | 21.2 |
| SolarWinds | 19.6 | 38.7 | 64.7 | 0.9 | 67.4 |
| Puppet | 43.6 | 53.2 | 62.2 | 0.8 | 16.9 |
| Hewlett Packard Enterprise | 154.3 | 54.8 | 56.4 | 0.8 | 2.9 |
| Apptio | 28.3 | 43.8 | 51.0 | 0.7 | 16.4 |
| Google | 0.8 | 12.8 | 47.9 | 0.6 | 273.9 |
| Other | 490.2 | 634.3 | 765.1 | 10.3 | 20.6 |
| Total | 4,184.0 | 5,573.9 | 7,442.9 | 100.0 | 33.5 |

Source: IDC, May 2020

## WHO SHAPED THE YEAR

During 2019 the major cloud management vendors dramatically expanded offerings for container and hybrid/multicloud management. Specialists in the observability and analytics areas also ramped up new offerings designed to span both virtual and Kubernetes-based infrastructure. Collectively, these vendors signaled that cloud system and service management is becoming more sophisticated, automated, multicloud, and hybrid. Examples of major vendor initiatives during 2019 include:

- **Google Cloud** introduced its Anthos multicloud Kubernetes management platform in April 2019, featuring a container-native approach to standardizing multicluster Kubernetes operations at scale, across public cloud and on-premises container environments. Anthos

relies on the Google Kubernetes Engine's (GKE's) open Kubernetes-native API and Google proprietary programmatic infrastructure automation as code technologies to create a unified multicloud control plane. Throughout the year, Google added new capabilities such as Cloud Run for Anthos to enable serverless deployment and predefined integrations with autoscaling, CI/CD, Stackdriver Logging, monitoring, source control, and other Kubernetes-supported capabilities. The company claimed hundreds of customers and continued to promote Anthos as the linchpin to its hybrid and multicloud management strategy.

- **Microsoft Azure** introduced Azure Arc to extend the Azure Resource Manager control plane across on-premises and public cloud platforms. Azure Arc provides connections to the Azure Resource Manager and Azure Policy engine to allow consistent use of existing validated and curated Azure service configurations, policies, RBAC controls, and remediation plans beyond the Azure public cloud. Platforms supported by Azure Arc include on-premises Azure Stack Hub, HCI and Edge systems, generic bare metal and virtual on-premises servers and container clusters, and third-party public cloud infrastructure.

- **VMware** doubled down on its SaaS-based cloud management portfolio, bringing vRealize cloud management services options to full parity with on-premises vRealize offerings. At the same time, the company introduced the SaaS-delivered VMware Tanzu Mission Control to provide a single place for customers to manage all their Kubernetes clusters, regardless of where those clusters are deployed. VMware Tanzu Mission Control supports application-level control for applying policies, quotas, and role-based access while providing developers with self-service access to resources using Kubernetes APIs, regardless of whether they are deployed across vSphere, public clouds, management clouds, and so forth. Automation and monitoring of the core vSphere infrastructure will continue to be supported by vRealize and its parallel SaaS services including Tanzu Observability (formerly Wavefront). SaaS-delivered VMware CloudHealth also experienced strong growth.

In addition, several observability and analytics specialists made important announcements. Specifically, Dynatrace launched Autonomous Cloud to branch out beyond its APM roots toward becoming a provider of all-in-one full-stack monitoring, analytics, and automation software and SaaS services. Splunk completed the acquisitions of Omnition, SignalFx, and Streamlio and repositioned itself as the "data to everything" platform. Splunk is rebuilding its portfolio with containers to improve the scalability and flexibility needed for SaaS delivery as well as supporting emerging enterprise architectures. New Relic completed the acquisition of SignifAI and expanded the New Relic One observability platform to support AIOps across logs, metrics, and traces. Hybrid and multicloud management are top use cases for all these vendors as is shown by their strong showings in the top 10 of vendor rankings.
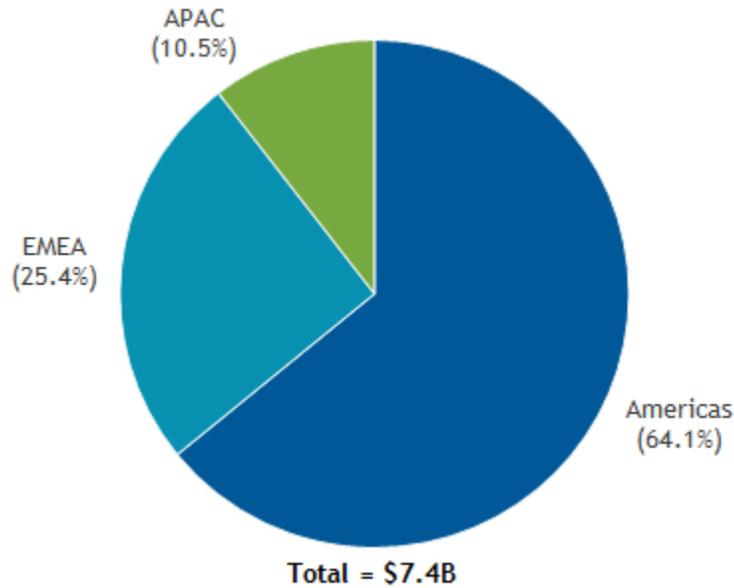
## MARKET CONTEXT

## Worldwide Cloud System and Service Management Software Revenue by Region Snapshot, 2019

In 2019, the worldwide cloud system and service management software market saw continued strong growth. As shown in Figure 2, the Americas continued to be the largest region with 64.1% share because of the relative majority and larger scale of many enterprise and public clouds in the region.

FIGURE 2

**Worldwide Cloud System and Service Management Software Revenue Share by Region, 2019**
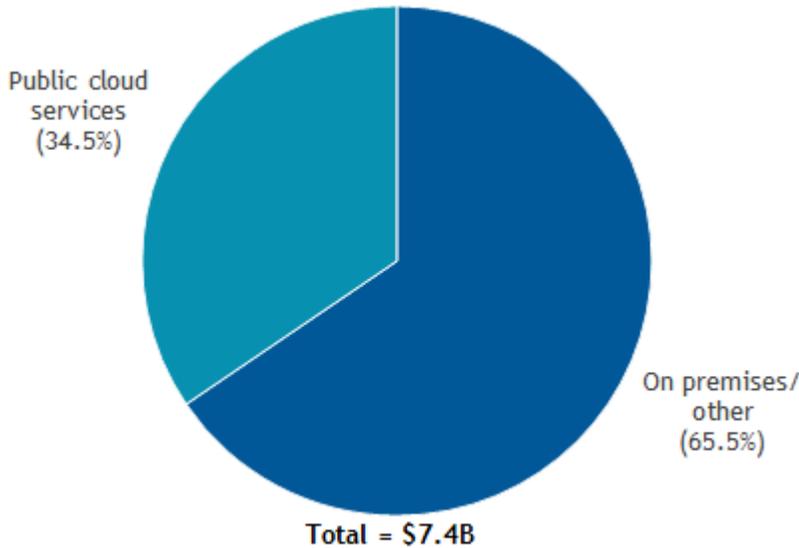


Total = $7.4B

## Worldwide Cloud System and Service Management Software Revenue by Deployment Type Snapshot, 2019

SaaS-based delivery of cloud system and service management solutions continued to increase in 2019. Figure 3 illustrates that public cloud SaaS-delivered cloud system management is a significant part of the market, representing 34.5% of the market in 2019, up from 31.5% of the market revenue in 2018. The continued increase in SaaS usage reflects the rise in use of native cloud service management solutions from major hyperscalers as well as third-party SaaS solutions.

## FIGURE 3

**Worldwide Cloud System and Service Management Software Revenue Share by Deployment Model, 2019**
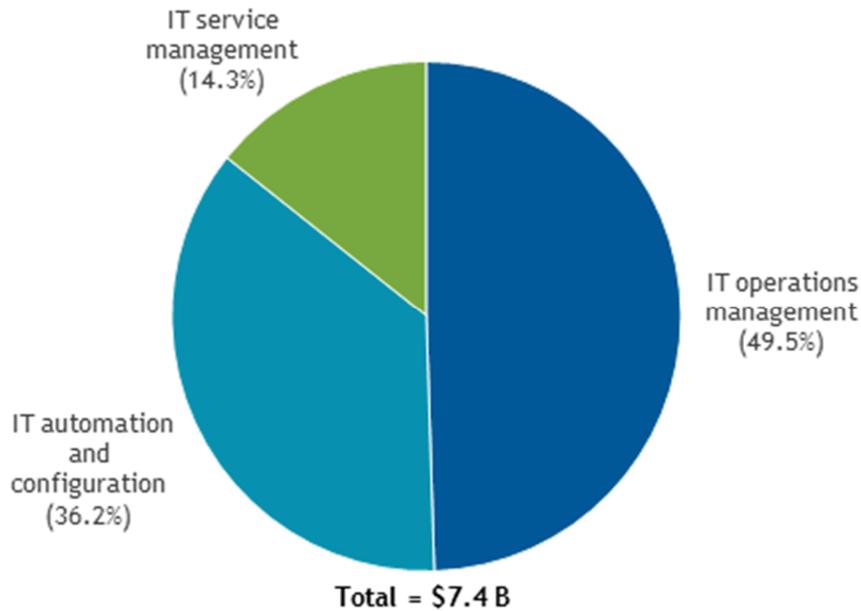


Source: IDC, May 2020

## Worldwide Cloud System Management Software Revenue by Functional Market Snapshot, 2019

Cloud system management software includes portions of market revenue from IDC's three functional markets as described in *IDC's Worldwide Cloud System and Service Management Software Taxonomy, 2019: Update* (IDC #US44895019, July 2019). The three software functional markets are IT automation and configuration management (ITACM), IT operations management, and IT service management (ITSM).

In 2019, the cloud ITOM market was the largest segment, estimated at 49.5% of the total cloud system and service management software market worldwide. This represents an increase from the 44.6% share held by ITOM in 2018. This reflects the very rapid growth for APM and related log and event analytics for cloud management. It also reflects the fact that some cloud cost reporting software offerings formerly categorized as ITSM have increased the level of proactive monitoring and analytics included in the offerings to the extent that they have been recategorized as ITOM. ITSM as a share of the market dropped to 14.3% as a result. Figure 4 illustrates the relative portion of cloud system and service management software revenue from each functional market for 2019 based on the July 2019 taxonomy update.

FIGURE 4

**Worldwide Cloud System and Service Management Software Revenue Share by Segment, 2019**



Source: IDC, May 2020

## Significant Market Developments

The 2019 worldwide market growth rate of 33.5% showed that enterprise adoption of cloud continues to be strong. Enterprise infrastructure and management strategies are now clearly aligned around achieving high levels of intelligent automation and proactive monitoring, observability, and analytics for cloud management strategies built using on-premises and public cloud SaaS-enabled solutions.

IDC expects enterprise customers will continue to favor SaaS-based delivery options, particularly for the fast growth ITOM segment. However, the lasting global economic impacts of the COVID-19 pandemic are expected to severely constrain growth in 2020 and into 2021. IDC expects cloud system and service management software and SaaS will continue to see growth, albeit at a substantially slower rate than experienced in 2019 and 2018. We expect enterprise customers will be more aggressive in consolidating and streamlining their cloud management software environments, which should somewhat favor vendors with broad-based portfolios and the ability to offer competitive bundling and pricing options.

## METHODOLOGY

IDC's 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, 2020* (IDC #US45718419, January 2020).

Bottom-up/company-level data collection for calendar year 2019 began in January 2020, with in-depth vendor surveys and analysis to develop detailed 2019 company models by market, geographic region, and deployment model.

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

The complete worldwide cloud system and service management software taxonomy was updated in July 2019. It included reallocation of cloud cost management monitoring and analytics into the cloud ITOM market. Cost reporting solutions that do not include active analytics or automation remain in the ITSM segment. See *IDC's Worldwide Cloud System and Service Management Software Taxonomy, 2019: Update* (IDC #US44895019, July 2019).

Cloud system and service management software (including SaaS) can be used to manage any mix of private cloud, public cloud, hybrid cloud, or multicloud environments. IDC defines cloud infrastructure formally through a checklist of key attributes that apply to all types of clouds as defined in *IDC's Worldwide IT Cloud Services Taxonomy, 2019* (IDC #US45714519, December 2019). Specifically, these include:

- Standard shared offering built for scale and automated deployment
- Pre-integrated/automated updates
- Self-service provisioning and administration
- Elastic resource scaling and pooling
- Elastic consumption/usage metering
- Published service interface/APIs

These attributes can be made available to customers via various types of clouds including:

- **Public cloud:** Public clouds are shared among unrelated enterprises and/or consumers, open to a largely unrestricted universe of potential users, and designed for a market, not a single enterprise. Public cloud services are typically priced using consumption- or usage-based models. Public clouds are available at several levels of abstraction including:
    - Software as a service

- Platform as a service
- Infrastructure as a service

- **Private cloud:** Private clouds are shared within a single enterprise or extended enterprise with restrictions on access and level of resource dedication, are defined/controlled by the enterprise, and are beyond the control available in public cloud offerings. These can be deployed into dedicated customer datacenters or colocation/outsourced or managed hosting environments.

- **Hybrid cloud:** Hybrid cloud is a cloud computing environment that uses a mix of private cloud and public cloud services with orchestration between the platforms, allowing data and applications/solutions to be shared between them.

- **Multicloud:** Multicloud is a deployment approach that relies on two or more clouds (public or private). An enterprise may concurrently use separate cloud providers for infrastructure (IaaS), platform (PaaS), and software (SaaS) services or use multiple infrastructure (IaaS) providers. Integrations between various clouds are not required.

IT environments that are highly virtualized but do not include the ability to dynamically scale and share resources and provision resources on a self-serve, consumption-aware basis *do not* qualify for this study, since end-user self-service and consumption-based metering are critical elements of any cloud environment.

The unique characteristic of cloud system and service management is the set of cloud-specific management use cases to which these functions are applied. Examples of cloud system and service management software capabilities are described in the sections that follow.

## IT Automation and Configuration Management

### Cloud Management Automation

Cloud system and service management automation offerings automate a range of cloud infrastructure configuration, provisioning, governance, and policy management activities. These capabilities can be applied to single or multiple clouds and to private or public cloud environments. Offerings in this category can be deployed as on-premises software or SaaS. In some cases, public cloud service providers such as AWS include selected functionality for free as part of core compute service offerings. This revised segment combines formerly separate cloud automation and orchestration and cloud governance automation segments.

Examples include:

- AWS Config and AWS Systems Manager
- Chef, for cloud operations use cases
- Cisco CloudCenter
- Microsoft Azure Automation
- Puppet, for cloud operations use cases
- Red Hat Ansible Automation, for cloud operations use cases
- VMware vRealize Automation

## IT Operations Management

Cloud IT operations management solutions and services monitor, analyze, and optimize the performance and cost of cloud resources and services including private clouds, public cloud SaaS and

IaaS, and workloads running in cloud environments. In some cases, these capabilities are extensions of traditional ITOM products, while in other cases, they are purpose built for cloud.

This update clarifies the inclusion of cloud cost management as part of the redefined cloud capacity and cost management subsegment, which is discussed in the Cloud Capacity and Cost Management section.

## Cloud Infrastructure Performance Management

Cloud infrastructure performance management encompasses monitoring and analytics tools and SaaS used to collect and analyze machine data, logs, metrics, and other monitoring information generated by cloud infrastructure and services including VMs and containers. These offerings may apply machine learning and AIOps to the data. Capabilities generally include customizable dashboards and data visualization capabilities focused on the health and performance of the cloud infrastructure. Examples include the following to the extent they are applied to cloud operations use cases:

- AWS CloudWatch
- Datadog
- Microsoft Azure Monitor
- Splunk
- Sysdig
- VMware vRealize Operations

## Cloud Application Performance Management

Cloud application performance management (APM) encompasses monitoring and analytics tools and SaaS used to collect and analyze machine data, logs, metrics, and other monitoring information generated by applications, including SaaS solutions, running on cloud environments (public and/or private). These offerings may apply machine learning and AIOps to the data. Capabilities generally include customizable dashboards and data visualization capabilities focused on the health and performance of the cloud infrastructure. Examples include APM offerings from the following vendors to the extent they are used to monitor and analyze applications running in clouds:

- Cisco AppDynamics
- Datadog
- Dynatrace
- New Relic

## Cloud Capacity and Cost Management

Cloud capacity and cost management solutions monitor, analyze, predict, and optimize cloud infrastructure usage and consumption and assist customers in making decisions about workload placement and in ensuring consistent governance of cloud resource consumption. Examples include the following to the extent they are applied to cloud management use cases:

- Flexera RightScale
- Microsoft Azure Cost Management
- Turbonomic
- VMware CloudHealth

## IT Service Management

### Cloud ITSM

Cloud ITSM solutions focus on cloud asset discovery, subscription compliance, and inventory and financial reporting for cloud resources. Cloud ITSM includes tooling to integrate cloud service request and change management with incident and service request workflows across the enterprise. Examples include:

- Apptio
- Flexera
- Snow Software
- ServiceNow Cloud Management

## RELATED RESEARCH

- *Worldwide Cloud System and Service Management Software Forecast*, 2020-2024 (forthcoming)
- *IDC Market Glance: Cloud System and Service Management, 1Q20* (IDC #US44894819, March 2020)
- *IDC MaturityScape: Multicloud Management 2.0* (IDC #US44895319, February 2020)
- *IDC's Worldwide Software Taxonomy, 2020* (IDC #US45718419, January 2020)
- *IDC's Worldwide IT Cloud Services Taxonomy, 2019* (IDC #US45714519, December 2019)
- *IDC's Worldwide Cloud System and Service Management Software Taxonomy, 2019: Update* (IDC #US44895019, July 2019)
- *Worldwide Cloud System and Service Management Software Market Shares, 2018: Multicloud Strategies Take the Lead* (IDC #US44895519, June 2019)

## 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