Gartner.

Magic Quadrant for Cloud Management Platforms

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Infrastructure and operations leaders who need to provide automation, governance, life cycle management and brokering across multicloud environments are seeing a rapidly evolving cloud management platform market that meets enterprise requirements.

Strategic Planning Assumption

By 2025, the percentage of enterprises deploying multifaceted cloud governance tooling will be over 70% versus less than 10% in 2020.

Market Definition/Description

Cloud management platforms (CMPs) enable organizations to manage multicloud (private and public cloud) services and resources. This includes providing governance, life cycle management, brokering and automation for managed cloud infrastructure resources across these eight required functional areas:

- Provisioning and orchestration

- Service request

- Inventory and classification

- Monitoring and analytics

- Cost management and workload optimization

- Cloud migration, backup and disaster recovery

- Security, compliance and identity management

- Packaging and delivery

See Note 1 for a detailed description of each functionality.

Of the eight areas, there is a current emphasis around cost management and security aspects. Because of the market dominance of Amazon Web Services (AWS) and Microsoft Azure, and the ongoing need for private cloud and cloud-inspired deployments (i.e., virtualized VMware environments, Kubernetes), the tooling must support at least these environments. Finally, the

market consists of independent third-party tooling meant to stand alone as a CMP and not be tethered to other components of a larger tool suite.

Magic Quadrant

Figure 1. Magic Quadrant for Cloud Management Platforms

Source: Gartner (February 2020)

Vendor Strengths and Cautions

CloudBolt

Founded in 2012, CloudBolt is headquartered in Rockville, Maryland. The company has approximately 80 employees. Originally, CloudBolt provided on-premises provisioning software for federal government agencies. The company has since shifted to full life cycle management of on-premises and public cloud infrastructure.

CloudBolt provides a broad range of functionality for cloud management functions, with an emphasis on provisioning and orchestrating complex, heterogeneous on-premises and public cloud environments. CloudBolt's installation is continually cited by clients as being very easy to

deploy, with a quick time to value. It does this with an agentless, extensible platform centered around the creation of deployment blueprints intended to ease the provisioning, orchestration and automation processes across different cloud environments.

The product can be delivered as a virtual appliance, on-premises or within a hosted cloud environment. Licensing is based on a per-year subscription model, which is based on the number of virtual machines (VMs) under management. Organizations may download a trial version, which is limited to 25 virtual machines.

CloudBolt sells across multiple geographical areas, including the U.S.; Europe, the Middle East and Africa (EMEA); and Asia/Pacific (APAC). The majority of clients are located in the U.S. CloudBolt has a strong channel partner program using smaller value-added resellers (VARs)/system integrators (SIs) to target particular verticals. CloudBolt also partners and supports public cloud providers (for example, AWS, Google and Microsoft Azure), as well as VMware.

Gartner estimates that CloudBolt's CMP revenue is between $5 million and $10 million per year, with more than 150 customers.

Strengths

- CloudBolt was frequently cited as easy to deploy, configure and integrate with a very fast time to value, often after enterprises have failed with previous products.

- CloudBolt's solution was particularly strong with complex "brownfield" (that is, existing) on-premises environments, allowing customers to quickly integrate current deployments.

- CloudBolt has made investments in the container/Kubernetes space. This will make the product more attractive to clients adopting containers.

Cautions

- CloudBolt's primary focus is around provisioning and orchestration, while most enterprise requirements are more focused on security and cost management where direct native cloud environment provisioning and orchestration capabilities are used.

- CloudBolt does not have a SaaS offering, although it is possible to deploy in a public cloud environment, a disadvantage for companies not wanting to allocate resources for an on-premises or hosted deployment.

- CloudBolt features such as cost and monitoring lack some of the more advanced functionality of dedicated tools (for example, cost allocation policies and rightsizing recommendations).

Flexera

In September 2018, Flexera acquired RightScale, an early entrant in the cloud management area, to complement its software asset management (SAM) offering with RightScale's CMP

functionality. Before the acquisition, RightScale evolved from being a provider of mostly AWS operational management to full life cycle management for on-premises and a wide mix of public cloud infrastructure. In 2017, RightScale began providing a cost management and resource optimization product (RightScale Optima) that can be used as a stand-alone solution or integrated with other cloud management functions (RightScale CMP).

In June 2019, Flexera also acquired RISC Networks, which has expertise in cloud migration assessment and service mapping. The company's plan is to integrate the IP from all three entities to provide enterprises with a common solution to manage their IT estate.

Flexera concentrates on the full range of cloud management functionality. It does this on a platform centered around the pillars of orchestration, access control and policy. Delivery is via a SaaS model. Licensing for new customers is based on a flat rate annual subscription determined by cloud spend tier. A secondary pricing option is based on annual subscription, plus a per-VM charge.

Flexera has sales personnel in the North America, EMEA and APAC regions. It also leverages channel partners through a variety of relationships. Flexera also partners closely with hyperscale providers to ensure that its cloud management functions are accounting for rapid innovation in those cloud environments.

Gartner estimates Flexera's revenue from CMP to be between $20 million and $25 million per year, with approximately 160 direct customers. Flexera's revenue is estimated at $375 million to $400 million per year.

Strengths

- Flexera has successfully evolved its CMP offering through acquisition and in-house development.

- Flexera has a wide breadth and depth of cloud management functionality.

- Flexera has modularized its cost management product, enabling clients to attain this key functionality without needing to procure other elements.

Cautions

- Flexera offers only SaaS, which might not be desirable for enterprises with and planning to maintain critical resources on-premises.

- Flexera tends to score lower than other vendors in the areas of quality of technical support and timeliness of vendor responses.

- Flexera tends to require more professional services than other vendor offerings in the evaluation.

HyperGrid

Founded in 2016, HyperGrid emerged from the merger of hardware vendor Gridstore and DCHQ, a container management and continuous integration/continuous deployment company. In 2018, HyperGrid acquired an analytics company, XOcur, and completed a Series C round of funding ($25 million) in the same year. The company has approximately 86 employees.

Just over half of HyperGrid's customers are based in North America, with about 45% in APAC and a small portion in the European region. HyperGrid is using a partner-based approach in the APAC and Middle East areas, with some partners using a HyperGrid-branded version or a white-label OEM version.

HyperGrid segments users according to their level of cloud adoption (based on total cloud spend) and targets its offerings based on the user's stage. There are three separate modules available for purchase depending on the user requirements. Pricing is tiered and is based on the percentage of public cloud spending.

HyperGrid has a good range of functionality in all key CMP areas, relying on third-party tools to cover areas such as backup. In particular, the cost analysis and workload optimization tools have benchmarked performance on instance types across cloud providers. This enables clients to analyze and rightsize their spending, depending on the workload.

HyperGrid targets SaaS application builders and also centers its offering around analytics that feed its modular cloud management functional areas. These aspects make the company unique among the CMPs covered in this research.

Gartner estimates HyperGrid's revenue to be between $5 million and $8 million per year, with approximately 130 customers.

Strengths

- HyperGrid customers consistently cited rapid time to value, ease of implementation and strong customer support as key reasons for choosing the platform.

- HyperGrid is making the transition from a fully bundled cloud management suite to a modular set of functions associated with providing cloud governance that are in high demand among enterprises.

- The company has built a strong partner channel, which it relies on particularly outside of the North American market.

Cautions

- HyperGrid remains largely unknown in the CMP space — few reference customers cited the vendor as being evaluated alongside other vendors, and Gartner clients infrequently mention them during inquiries.

- HyperGrid's UI lags behind the competition in terms of functionality, which was also mentioned by customer references.

- HyperGrid lacks a built-in backup/DR solution, relying on third-party vendors such as Veeam to fill this gap.

Morpheus Data

Morpheus Data, founded in 2014 and headquartered in Colorado, has approximately 75 employees and was established after the productization of an internal project used at Bertram Capital to enable DevOps transformation within its private equity portfolio companies.

Morpheus Data's key focus is on the integration of DevOps, cloud operations and, increasingly, business teams with a self-service, platform-independent solution. The vendor offers a broad cloud management solution with capabilities in all the key functional areas. It also maintains a wide range of integrations in all the major cloud providers, both public and private, as well as out-of-the-box integrations with a large number of third-party application life cycle tools. This vendor is making improvements such as providing new support for Kubernetes, including its own Morpheus Kubernetes Service and deep Ansible integration.

Morpheus Data is offered as a package that can be installed on-premises or in the public cloud, but it still lacks a true SaaS offering. Those looking for a hosted solution can leverage a partnered managed service provider (MSP), many of which use OEM/white-label versions of the Morpheus platform to provide services to customers. Morpheus also maintains relationships with infrastructure providers, such as Dell Technologies and Hewlett Packard Enterprise (HPE), that include joint development and go-to-market programs.

Gartner estimates Morpheus Data's revenue to be between $15 million and $20 million per year, with approximately 150 customers.

Strengths

- Morpheus Data has strong coverage across all eight cloud management functional areas, offering breadth of coverage and depth in key areas.

- Strongly infrastructure-agnostic, Morpheus allows clients to deploy across a range of public clouds, private clouds and bare metal, augmented with its own fully functional Kubernetes distribution and kernel-based virtual machine (KVM) stack.

- Morpheus' rate of new feature development has outpaced its competition, with new capabilities spanning provisioning, application life cycle, brokerage and governance use cases.

Cautions

- Morpheus does not offer a true SaaS offering — customers requiring SaaS are guided to Morpheus-certified MSPs, which may vary in version support and will be unique due to the MSP's specific business situation.

- While Morpheus has shown strong cadence for new feature development, this pace could possibly lead to quality issues and uneven integration support.

- Morpheus Data lags behind more well-known cloud management offerings from larger vendors from a name recognition perspective.

Scalr

Founded in 2011, Scalr originally emerged as an open-source project in 2007. The company is based in San Francisco, California, with approximately 120 employees. Scalr sees the future of CMPs in managing infrastructure as a software practice, an approach referred to as GitOps, which considers all of the code and configuration in your system to be the single source of truth.

Scalr's CMP is delivered either via an on-premises deployment or deployed via SaaS, with the majority of clients opting for the on-premises solution. Scalr is configured via an easy-to-use graphical user interface (GUI), or may be automated via the APIs provided. Scalr has strong integrations with the major public cloud providers (AWS, Google Cloud Platform and Microsoft Azure) and on-premises via VMware integrations. Licensing for clients is via a single/multiyear subscription based on managed endpoints (bare metal/VMs). Volume discounts are available, with additional discounts available for government, nonprofit and academic clients.

Scalr operates primarily in the North American region. Its on-premises offering is particularly attractive to MSPs looking to provide a SaaS CMP to their clients. Scalr partners with large global SIs and local business partners to provide custom solutions.

Gartner estimates Scalr's CMP revenue to be between $5 million and $10 million per year, from over 100 customers.

Strengths

- Scalr is suited to enterprises requiring an on-premises solution that provides full-featured CMP functionality.

- Scalr provides a wide range of functionality in a single platform, with good integrations into standard IT operations tools.

- Scalr clients cite excellent support from Scalr, as well as being responsive to product enhancements and requests.

Cautions

- Scalr has grown at a much slower rate than its competition and the overall market. The company is focused primarily on the North American market, with limited plans for expansion to other geographies.

- While there is some built-in monitoring, Scalr relies on third-party integrations to provide in-depth visibility of the managed environment.

- Scalr's roadmap is limited in scope when compared with competitive products.

Snow Software-Embotics

Founded in 2006, Embotics is based in Ottawa, Canada. The company has approximately 80 employees. After starting in virtualization management, Embotics has since broadened its capabilities and focus to support a wide range of enterprise cloud management requirements. In early December 2019, Snow Software acquired Embotics, providing the company with the ability to support both software asset management and CMP capabilities, and expanding the employee count to over 700.

Embotics has continually improved its solution's support for containers, intelligent workload placement, DevOps and expense management. This includes Kubernetes discovery and basic operational management features, along with the ability to automatically deploy workloads to ideal cloud environments, based on a dynamic, multifactor rating system. The vendor has had success in enterprises that require a significant degree of management functional parity across public cloud and on-premises infrastructure resources. The product is delivered as an installed platform that can be configured on-premises or as a fully managed SaaS offering. Licensing is based on a per-year, termed subscription model, typically calculated on a per-CPU or instance basis. Enterprise license agreements (ELAs) are also routinely contracted.

Embotics has sales personnel in the North America, EMEA and APAC regions. It also has partnerships with global SIs, MSPs and regional partners to provide sales, implementation, support and training. The company maintains several key technology partnerships with configuration management, IT service management (ITSM) and disaster recovery/migration-focused vendors. It also offers a wide range of out-of-box integrations for cloud, containers, DevOps and modern application tooling.

Gartner estimates Embotics' CMP revenue to be between $12 million and $17 million per year, with more than 100 customers.

Strengths

- Embotics' solution covers most of the functional areas (for example, provisioning and orchestration, service request, cost management, and inventory and classification), with a particular strength in provisioning and orchestration of large, on-premises virtualized environments.

- The company's customer focus, service and support are well-regarded by Gartner clients.

- Embotics has demonstrated rapid time to market for those building out large virtualized on-premises and public cloud deployments.

Cautions

- Embotics provides a broad set of capabilities; but, outside of provisioning and cost management, its depth in the other functional areas is average compared with other vendors.

- Embotics is unable to provide modular capabilities around a specific function (that is, if you want only a few functions, you still must procure the full suite).

- Embotics stresses the abstracting of native cloud services, which is counter to what many DevOps-focused teams want — namely, direct access to native cloud services.

VMware

Founded in 1998 and headquartered in Palo Alto, California, VMware has reemphasized and refocused its cloud management strategy. It offers a set of products covering both on-premises private and hybrid cloud deployments and multicloud deployments. In some cases, the associated software has been rationalized to provide a common code base. For multicloud management, VMware primarily offers CloudHealth, Wavefront and vRealize Automation Cloud. Other products might also be needed to provide full cloud management functionality (for example, Secure State, vRealize Operations).

The core of VMware's multicloud portfolio is CloudHealth, a company that VMware acquired in October 2018. CloudHealth began in 2012 primarily as a cost management tool for public cloud deployments. The solution is offered via SaaS. Its architecture is centered on an extensible data source that is used for cost management, resource optimization and security. This data model enables other third-party tools to integrate with and augment CloudHealth functionality around capabilities such as service request and provisioning. Wavefront, acquired in May 2017, provides a real-time metrics monitoring and observability platform, while vRealize Automation Cloud is a SaaS offering that provides provisioning and orchestration capabilities.

The company supports a wide range of industries and works extensively with MSPs through its partner program. The company's licensing depends mainly on an enterprise's cloud spend.

Gartner estimates CloudHealth's revenue to be approximately $55 million, with more than 600 direct customers using the platform. There is far less adoption of Wavefront and vRealize Automation Cloud.

Strengths

- VMware's core product, CloudHealth, receives high marks from its customers needing cost management and workload optimization. Gartner's evaluation has shown it to be the best in this area among the vendors in this research, and CloudHealth has by far the most customers versus any other product evaluated.

- VMware has made a number of strategic acquisitions that fill gaps in its product line. This plus rationalizing existing products has helped the company normalize the code base for on-premises and SaaS offerings.

- VMware's strong financial position and presence in related markets are appealing to customers seeking to leverage a strategic provider for CMP capabilities.

Cautions

- VMware requires more products to satisfy the cloud management functionality that most vendors solve with a single unified offering.

- The overall functionality of the products still lags behind what other products offer, for example inventory and classification, service request and object storage support.

- With the many industry dynamics (for example, on-premises or single cloud to multicloud, containers), it is very difficult for VMware to continually rationalize its product and coordinate with the different internal development teams.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

No vendors were added to this Magic Quadrant.

Dropped

These vendors did not meet this year's inclusion criteria:

- Micro Focus

- ServiceNow

Inclusion and Exclusion Criteria

Vendors were required to meet the following minimum criteria to be considered for the 2020 Magic Quadrant for Cloud Management Platforms.

Product-Related

The vendor must directly (in-house developed) or organically (acquired/bought) satisfy more than half of the required capabilities (for example, if there are eight capabilities, the vendor must address five; if seven, the vendor must address four) for the following three cloud management functional areas (see Note 1):

- Inventory and classification

- Cost management and resource optimization

- Identity, security and compliance

This focus around these three functional areas is a major change from the 2019 Magic Quadrant. This change was made to highlight the increased importance associated with these areas. These three functions must be provided by no more than two products delivered directly by the vendor. These products must have integrated identity, provide single sign-on (SSO) between products and share common data.

Additionally, the vendor must provide more than half of all the "required" capabilities for each of the following four cloud management functions (see Note 1):

- Provisioning and orchestration

- Service request

- Monitoring and analytics

- Cloud migration, backup and disaster recovery

The functionality of these four categories must be provided either directly, through integration with another in-house product, or indirectly, through integration with a product or products from another vendor.

Also, the vendor must provide more than half of the "required" packaging and delivery capabilities (see Note 1).

Required CMP functionality must be provided for (at a minimum) AWS, Microsoft Azure and on-premises deployments (where features apply, for example reserved instance (RI)-related features would not apply to on-premises deployments).

Non-Product-Related

The vendor must report GAAP revenue achievement of at least $5 million from 3Q18 to 2Q19 and/or have gained at least 50 new customers from 3Q18 to 2Q19. This excludes all service- or implementation-related revenue.

The above revenue must come solely from the cloud management platform offering (meeting the product-related functional criteria described earlier) being sold to enterprise customers (not service providers, though service providers could be a major part of the customer base).

The vendor must have at least 100 currently paying customers, from all three geographies (Americas, EMEA, APAC), that use the solution in a production environment. At least half of this minimum required number of paying customers (50) must use the CMP for public cloud management and spend at least $50 million, collectively, with a public cloud provider.

Honorable Mentions

In addition to the vendors included in this year's research, the following vendors offer competitive products in this market with unique qualities and capabilities that clients may find valuable, but they failed to meet all the inclusion criteria.

Apptio Cloudability — Apptio Cloudability automates cloud cost management so that organizations can analyze, plan and optimize cloud spend across public cloud service providers (e.g., AWS, GCP and Microsoft Azure). Apptio acquired Cloudability in 2019 to enhance its existing hybrid cloud cost management solution.

Cisco Systems — Among its related CMP products is the Cisco CloudCenter Suite (introduced in early 2019), which consists of three modules (Workload Manager, Cost Optimizer and Data Center Orchestrator). It provides provisioning, orchestration and cost management functions. The offering is microservice-based and can be deployed as a SaaS solution or self-hosted. Additional related products are AppDynamics (monitoring) and Cloudlock (security). These products work closely with ACI, Cisco UCS and Nexus.

CloudCheckr — Founded in 2011, CloudCheckr provides cost management, resource utilization optimization, billing management, security, compliance and automation for AWS and Microsoft Azure environments. Additionally, CloudCheckr provides visibility into on-premises VMware and Azure Stack environments with its FinanceManager application.

CoreStack — CoreStack is a rapidly growing venture-backed startup that empowers enterprises to achieve continuous cloud compliance and autonomous governance at scale.

IBM — Among its products is IBM's Cloud Pak for Multicloud Management, which provides provisioning, monitoring and security functions. It provides these functions as microservices that can be deployed as a SaaS or self-hosted.

Micro Focus — Micro Focus is reengineering its modular microservice-based composable CMP offerings. The existing modules (service design, provision, orchestration, service life cycle management and governance) are now available, with others planned for 2020 (e.g., service asset management, brownfield management, a smart self-service portal with a virtual agent, cost optimization and resource placement).

Nutanix — Nutanix provides a multicloud management platform that includes two main products — Calm and Beam. Calm uses blueprints for application provisioning and orchestration delivered using a self-service marketplace. Beam provides cost management, resource optimization and security compliance capabilities. Both Calm and Beam support public and private clouds.

Red Hat — Acquired by IBM in 2019, Red Hat has repositioned its Red Hat CloudForms platform as an on-premises cloud management offering.

ServiceNow — ServiceNow's strategy of leveraging its PaaS platform and IT operations capabilities is more macro-focused than vendors that offer a stand-alone third-party tool. It launched a cloud optimization solution, called Cloud Insights, in November 2019, adding enhanced cost optimization and remediation workflows for PaaS. This capability also complements asset management functionality within the ServiceNow platform that includes SaaS cost optimization. ServiceNow primarily targets existing customers that want to add CMP capability.

Turbot — Founded in 2014, Turbot provides governance controls for AWS, GCP, Kubernetes, Linux, Microsoft Azure, Windows and other SaaS public cloud deployments.

Evaluation Criteria

Ability to Execute

Product or Service: Gartner makes judgments from a variety of inputs to evaluate the capabilities, quality, usability, integration and feature sets of the solutions.

This criterion evaluates vendor capabilities against current market requirements, including the following:

- Automation

- Governance

- Life cycle management

- Brokering

- Scalability and performance

- Usability and access

Overall Viability: We consider the vendor's size, market share and financial performance (for example, revenue growth and profitability). We also investigate investments and ownership, and any other data related to the health of the corporate entity. Our analysis reflects the vendor's ability to ensure the continued vitality of its CMP offering.

Sales Execution/Pricing: We evaluate the vendor's ability to provide global sales support that aligns with its marketing messages; market presence in terms of installed base, new customers and partnerships; and flexibility and pricing within licensing model options, including packaging.

Market Responsiveness/Record: We evaluate the vendor's execution in delivering and upgrading products consistently, in a timely fashion and meeting roadmap timelines. We also evaluate the vendor's agility in terms of meeting new market demands, how well the vendor receives customer feedback and how quickly desired features are built into the product.

Marketing Execution: This is a subjective measure of brand and mind share through client, reference and channel partner feedback. We evaluate the degree to which customers and partners have positive identification with the product, and whether the vendor has credibility in this market.

Customer Experience: We evaluate the vendor's reputation in the market based on customers' feedback regarding their experiences working with the vendor, whether they were glad they chose the vendor's product and whether they planned to continue working with the vendor. In addition,

we look at the ways in which the vendor can be engaged, including social media, message boards and other support avenues.

Operations: This involves the vendor organization's ability to meet goals and commitments. Factors include the quality of its organizational structure, skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently.

Table 1: Ability to Execute Evaluation Criteria

Evaluation Criteria ↓	Weighting ↓
Product or Service	High
Overall Viability	High
Sales Execution/Pricing	Medium
Market Responsiveness/Record	High
Marketing Execution	Medium
Customer Experience	High
Operations	Medium

Source: Gartner (February 2020)

Completeness of Vision

Market Understanding: This criterion evaluates vendor capabilities against future market requirements, including the following capabilities:

- Automation

- Governance

- Life cycle management

- Brokering

- Scalability and performance

- Usability and access

Marketing Strategy: We evaluate the vendor's ability to deliver a clear and differentiated message that maps to future market demands. Most importantly, this involves the vendor's marketing

effectiveness in the CMP space through its website, advertising programs, social media, community message boards, tradeshows, training and positioning statements.

Sales Strategy: We evaluate the vendor's approach to selling CMP in the appropriate distribution channels, including channel sales, inside sales and outside sales.

Offering (Product) Strategy: We evaluate the vendor's approach to product development and delivery, as evidenced by product scalability, usability, functionality and delivery model strategies, in the context of current and future requirements.

Business Model: This evaluates whether the vendor continuously manages a well-balanced business case that demonstrates appropriate funding and alignment of staffing resources to succeed in this market, currently and in the future. Delivery models will also be evaluated as business model decisions, including the strength and coherence of on-premises and/or SaaS solutions.

Vertical/Industry Strategy: We evaluate the vendor's strategy to direct resources (for example, sales, marketing, product and development), skills and products to meet the specific needs of individual market segments, including vertical industries.

Innovation: We evaluate the vendor's direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or preemptive purposes. This criterion includes product leadership and the ability to deliver CMP features and functions that distinguish the vendor from its competitors. Specific considerations include resources available for R&D and the innovation process.

Geographic Strategy: This is our evaluation of the vendor's ability to meet the sales and support requirements of enterprise IT organizations worldwide. In this way, we also assess the vendor's strategy to penetrate emerging markets.

Table 2: Completeness of Vision Evaluation Criteria

Evaluation Criteria ↓	Weighting ↓
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	High
Business Model	Medium

Evaluation Criteria ↓	Weighting ↓
Vertical/Industry Strategy	Low
Innovation	Medium
Geographic Strategy	Medium

Source: Gartner (February 2020)

Quadrant Descriptions

Leaders

Leaders distinguish themselves by offering a product suitable for strategic adoption with an ambitious roadmap. They can serve a broad range of use cases, although they do not excel in all areas, may not necessarily be the best solution for a specific need, and may not serve some use cases at all. They have a track record of successful delivery with referenceable customers.

Challengers

Challengers are well-positioned to serve some current market needs. They deliver a good product that is targeted at a particular set of use cases, and they have a track record of successful delivery. However, they are not adapting to market challenges sufficiently quickly, or do not have a broad scope of ambition.

Visionaries

Visionaries have an ambitious vision of the future, and are making significant investments in the development of unique technologies. Their products are still emerging, and they have many capabilities in development that are not yet generally available. Although they have customers, they do not yet serve a broad range of use cases well.

Niche Players

Niche Players may be excellent providers for the use cases in which they specialize, but do not serve a broad range of use cases well or have a broadly ambitious roadmap. Some have solid leadership positions in markets adjacent to this market, but have developed only limited capabilities in the CMP space. With the right investments, these vendors could further exploit their differentiation to address market needs in ways that today's leaders may find difficult to match.

Context

Organizations should not use the Leaders quadrant as a shortlist of appropriate vendors. Instead, they should build a list of criteria that describes their current and future needs, and then select from vendors that best meet those requirements. Organizations should select vendors with a history of and future plans for focusing on this market. They should consider the skills, training,

process and deployment investments required. These factors will have a greater impact on the overall value realized from a CMP solution investment than any specific functional capability found in a tool.

The Magic Quadrant is not a direct evaluation of the CMP products that these vendors offer. This analysis complements the 2020 Cloud Management Platforms Critical Capabilities research, which applies critical capabilities that differentiate the most popular large-enterprise-focused products on the market to four use cases. The use cases filter and prioritize the capabilities that will derive the greatest beneficial impact from CMP products offered by these vendors. Gartner strongly recommends that organizations use this Magic Quadrant research in conjunction with the Critical Capabilities research, inquiries with analysts and other Gartner research to define requirements and select solutions that match their needs.

In the course of this research, several key observations emerged from the providers' strategies and successful/unsuccessful deployments that should be carefully considered during an organization's CMP strategy formulation and solution selection. They include a growing demand for using CMP solutions to:

- Apply governance that allows the enforcement of cloud service standards where the key areas of governance are around cost management and security.

- Serve as the framework and single integration point for multicloud (with a heavy emphasis on on-premises deployments) management across a number of functional operational areas.

- Serve as a replacement or alternative to stand-alone tools.

- Provide orchestration across a set of automated multicloud cloud tasks to reduce the provisioning times, making your businesses more competitive.

- Increase service levels by automating manual efforts that eliminate human error.

- Broker or bridge pools of infrastructure resources giving enterprises choice and flexibility, ensuring that the right workloads are placed in the right environment and managing it all through a common control plane.

In light of these observations, enterprises should:

- Realize that more than 90 vendors offer cloud management functionality (that is, a tool that satisfies at least one or a few of the functional cloud management areas). However, a smaller number offers CMP functionality (that is, a solution that addresses most of the required cloud management functionality). This wide diversity makes it tough to map your requirements to the right product. You need to define your requirements and select only products that meet your needs. Don't immediately assume you need a CMP if a single or limited function cost management or security tool would be better.

- Anticipate a wide mix of competitive pricing models. Model the potential pricing against your future cloud deployment plans and compare against competitive offerings.

- Deeply analyze the architecture of potential vendors. Most have a common architecture that provides multiple functions. Some are moving to more modular offerings in which you are charged only for functions used (very desirable). Some vendors are integrating different products (many of which have been acquired), with varying degrees of success. Some provide a limited set of core capabilities and then offer integration points for best-in-class products. The latter can complicate expectation management, procurement, implementation, training and ongoing operational maintenance.

- Choose a stand-alone product that integrates with your selected CMP. Cost and expense management is becoming "table stakes." This, along with provisioning and orchestration, is often stressed by vendors and tends to be a strength area for many. It is less so for cloud migration, backup, disaster recovery or security.

- Anticipate needing to devote time and money against out-of-the-box integration coverage. It continues to improve. However, it remains variable across CMP solutions.

- Combine CMP functionality with cloud-native tooling, choosing where a CMP makes sense (for example, cost management, resource optimization, governance and security) versus where it doesn't (for example, provisioning and orchestration, monitoring and analytics).

- Be on the lookout and assess both broad and deep CMP functionality requirements. The broader the set of capabilities a CMP covers, the higher the risk of providing shallow functionality in each capability. Point solutions achieve deeper functionality due to a narrower focus.

Market Overview

Background

Cloud computing is now more than a decade old. The CMP market is of similar age but much smaller in size. In the market's infancy, established management software companies competed against and/or acquired niche vendors. During this period, the focus was around supporting limited functions for a single public cloud provider or a hybrid on- and off-premises environment. Since then, vendors have added more functionality and added support for more cloud environments.

Recently, there have been many vendor acquisitions, and Gartner expects this to continue. Notable examples include VMware acquiring CloudHealth (2018), Flexera acquiring RightScale (2018) and RISC Networks (2019), Apptio acquiring CloudAbility (2019) and Snow Software acquiring Embotics (2019). This trend is rooted in the desire of midsize and large vendors to broaden their overall portfolio of services (for example, combining cloud management with software and asset management) and capitalize on the growth of multicloud. This is expected to continue.

Current and Future Requirements

Enterprises are finding that they need a management strategy that combines native (homogeneous) cloud management functionality with heterogeneous support provided by a third party. CMP vendors are trying to move rapidly toward improved support for native capabilities, which risks reducing their value-add to aggregation. They are doing so with varying degrees of success, given the prior intent to abstract cloud native provisioning and orchestration features. They also are adding/enhancing other functional areas (for example, cost management and resource optimization, service request, monitoring and analytics). Many are trying to offer modular capabilities so that enterprises can choose and pay for only the functionality they need. Additionally, as more enterprises adopt container-related technology, CMPs will need to provide operational aspects for such deployments.

Machine learning and artificial intelligence (AI) are becoming a potential battleground. CMP vendors are looking to mine collected data and are feeding that into the other functional areas (security remediation, cost forecasting, infrastructure life cycle management).

Ultimately, CMP vendors that do not successfully broaden into a set of key functional areas, integrate their functionality, and provide it in an easy-to-use cost-effective manner will not survive.

Competitive Outlook

CMP vendors will continue to face intense competition on many fronts. The CMP proposition is that it is too tough to integrate the various cloud management functions. Niche cloud management vendors argue that enterprises need best-in-class functionality, which they provide. Both narratives will coexist for a while longer, though the latter appears to be winning. However, many CMP vendors are beginning to scale back and focus on specific enterprise requirements, such as inventory and classification, governance, financial management, workload optimization and security. At the same time, they will interface with best-in-class products (third-party and native-cloud) for other functions. Some are looking to add SaaS management capabilities (as this market is mostly focused on IaaS/PaaS) and/or adding software and hardware asset management.

CMP vendors are also trying to increase agility through SaaS offerings and modular functions (where you can procure only the functions you need, not the full suite). For example, many of the vendors that initially offered only on-premises deployments are now looking toward offering SaaS products.

Increasingly, third-party CMP vendors will be squeezed by limited-function, niche cloud management tools, as well as by MSP and hyperscale cloud providers. The MSPs are pairing tooling capabilities with professional services to help with cloud migration and transformation projects. Some vendors will provide cloud service brokering capabilities where they use a CMP, whether off-the-shelf or custom, to manage infrastructure as a service (IaaS)/platform as a service (PaaS) resources. Finally, the hyperscale providers are beginning to target enterprises that have selected their cloud infrastructure as the preferred option providing specific functionality for native workloads, while offering "good enough" tooling for workloads from key competitors.

Market Outlook

In terms of maturity and size, the CMP market is a part of the larger (and fragmented) cloud management platform and tools (CMPT) market. In total, the CMPT market grew to over $1 billion in 2019. The CMPT market is expected to continue growing at an estimated 20% compound annual growth rate (CAGR) through 2022. In comparison, the CMP market is estimated at approximately $300 million, with a slower growth rate than the larger CMPT market. This growth is, and will continue to be, hindered by more focused tools around key use cases (for example, governance) and competition from native services.

More vendors, particularly CMPs addressing the single cloud market, will likely be acquired by other vendors in adjacent markets, where IaaS/PaaS CMP capability is combined with other services (for example, SaaS management, IT and software asset management). The remaining vendors will have a tough time surviving and will need to expand into other areas (for example, container or serverless operations).

Evidence

The Magic Quadrant reflects a broad-based research effort including:

- More than 250 interactions with Gartner clients inquiring about CMP solutions during the past 18 months.

- Many in-person discussions and other interactions with the vendors in this Magic Quadrant.

- A detailed vendor survey requiring responses to more than 300 questions.

- As part of the Magic Quadrant research methodology, Gartner conducted a survey of organizations using online tools from October 2019 through November 2019. The survey participants were customer references nominated by each of the vendors in this Magic Quadrant. The surveyed customers were asked 56 questions about their experiences with the vendors and their solutions. The results were used in support of the assessment of the CMP solution market. We obtained 49 full responses, representing companies headquartered across several different geographic regions.

- A live product demonstration from each of the seven participating Magic Quadrant vendors, where each was requested to demonstrate its ability to support specific functions.

- Other data and insight gathered via publicly available means.

Note 1
Required Cloud Management Functional Areas

Provisioning and Orchestration

- End-user provisioning portal

- Provisioning templates

- Cloud-platform-native provisioning templates

- Concurrent provisioning automation

- Provisioning template policies

- Task scheduler

- Event-based orchestration workflows

Service Request

- Service catalog

- Provisioning template catalog items

- Cloud service catalog items

- Resource pool catalog items

- Catalog item spending limits

- Request approval workflows

- Automated request fulfillment

- Fulfillment customization

- Fulfillment via identity and access management (IAM)

Monitoring and Analytics

- Monitoring dashboards

- Monitoring reports

- Cloud resource performance monitoring

- Log collection and monitoring

- Cloud-platform-native monitoring integration

- Monitoring alerts policies

- Multichannel alert events notifications

Inventory and Classification

- Cloud resource discovery

- Cloud resource inventory

- Brownfield feature parity

- Cloud resource configuration change monitoring

- Cloud resource configuration policies

- Cloud resource configuration actions

- Cloud-platform-native tagging integration

- Cloud-platform-native tag editor

- Untagged resource detection

- Untagged resource actions

- Dynamic resource groups

Cost Management and Resource Optimization

- Cloud platform price list API integration

- Cloud platform billing API integration

- Resource utilization dashboards

- Cost-tracking dashboards

- Cost-tracking reports

- Cost forecasts

- Budget definition and visualization

- Budget alert policies

- Spending anomaly detection

- Rightsizing recommendations — compute instances

- Reserved infrastructure — compute instance coverage and utilization

- Reserved infrastructure — compute instance purchase recommendations

- Billing markup

- Scheduling policies

- Horizontal autoscaling policies

- Cloud resource pricing comparison

- Multiple-currency support

Cloud Migration, Backup and Disaster Recovery

- Object storage backup policies

- Object storage life cycle policies

- Block storage snapshot

- Block storage backup policies

- Compute instance backup policies

- Object storage point-in-time restore

- Block storage point-in-time restore

- Compute instance point-in-time restore

- Compute instance migration recommendations

Security, Compliance and Identity Management

- Role-based access control (RBAC)

- Cloud-platform-native console SSO

- IAM policies

- Role-based dashboards

- Security configuration management

- Compliance scores

- Multichannel security event notifications

- Network flow monitoring

- Network policy recommendations

- Cloud platform activity log

Packaging and Delivery

- The CMP can connect to the supported cloud platforms without requiring the credentials of the cloud platform master account.

- The API endpoints are secured with Transport Layer Security (TLS).

- Authentication via SSO is provided using SAML.

- The CMP collects and aggregates data from different cloud platforms under the same UI and API context.

- The CMP runs independently of all workload data paths.

- The CMP can collect and maintain a historical list of events that have occurred within the CMP as an audit trail.

- The CMP vendor offers free, online self-service support that includes FAQs, tutorials and a curated knowledge base.

- The CMP vendor offers customers an online-based mechanism for reporting incidents, errors and bugs with the CMP software product.

- The CMP vendor provides multiple support plans where at least one plan offers 24/7 incident response coverage.

- The CMP vendor offers live support via phone or IM in English. It is acceptable for live support to be available only for certain support plans.

Additional Requirements for SaaS Offerings

- The SaaS version allows end users to self-register for the service.

- The CMP vendor provides a free trial plan that allows end users to test the management functionality.

- The CMP offers the ability to terminate the end-user account of the SaaS subscription.

- The CMP vendor provides multiple subscription plans that allow for variable pricing based on the size of the managed environments within the supported cloud platforms.

- The CMP provides a published SLA for the SaaS version.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether

offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.