Ovum Decision Matrix: Selecting a Multicloud and Hybrid Cloud Management Solution, 2018–19

Summary

Catalyst

The role and purpose of IT in organizations is undergoing significant change, driven by the need for businesses to become more agile and have greater control over the cost levers when it comes to technology. This transformation of IT involves many different aspects not all of which are technology-related, but the one thing they have in common is that IT modernization is about changing to meet the current and future demands of the business. This report provides a side-by-side comparison and evaluation of leading multicloud management solutions, with the findings delivered as the Ovum Decision Matrix (ODM). It considers the significance of management in a multicloud and hybrid cloud world and the way in which this influences the way in which technology is deployed, used, and controlled.

Ovum view

The market in cloud computing is growing, and the strategic use of cloud is also maturing. Initially, cloud was selected and instigated by line-of-business functions, which meant that organizations had pockets of different cloud solutions. Ovum research has identified that by having a clear cloud strategy in recent years, CIOs have been successful in arresting this approach to cloud adoption. Ovum's *ICT Enterprise Insights 2017/18 – Global: ICT Spend and Sourcing* found that in North America, shadow IT spending was less than 10% in 52% of respondents, meaning 48% spent more than 10% on shadow IT. This compares to the previous year's research where 47% in North America reported spending less than 10%, and 53% spent more than 10%. While many organizations have many different suppliers, the new use of cloud computing is more strategic and focused on a small number of key suppliers.

The other major shift that has happened in the last 12 months is in the approach to migrating workloads to the cloud. Initially, the workloads were mainly business-productivity workloads such as email. Ovum research (*ICT Enterprise Insights 2017/18 – Global: IoT, Cloud, and AI*) found 28% of respondents stating that ERP, CRM, and databases are a target for 2018 to move to the cloud. The approach to moving these workloads to the cloud is not simple, and most organizations are adopting one of three main migration plans. The most popular approach is to use hybrid cloud as the bridge to migrate the workloads. The second most popular is to adopt a SaaS solution. The least popular is rewriting the workloads as cloud-native. Much of the reluctance to rewrite workloads is due to a skills shortage in cloud-native languages. The hybrid cloud approach is most popular because this involves the move to an on-premises hybrid cloud from where any rewrite can take place in the future.

The impact of these two shifts in cloud adoption has created the need for greater visibility and control over all the environments used. The market in multicloud and hybrid cloud management is still evolving, and many of the vendors come from the virtualization management space. While this seems a sensible evolution, the challenge is that the new cloud-native workloads (those already in the cloud) do not look like or operate in the same way as VMs. The difference in the way in which containers and VMs need to be managed has created a confusing market, where older established vendors are trying to blend cloud-native management into existing process flows, and new cloud-native vendors are struggling to integrate older technologies into their solutions. This multimodal world will be the reality

for a number of years, as organizations slowly move the majority of workloads to the cloud, and many to cloud-native. However, some physical workloads will remain because not everything will move to the cloud. Organizations must therefore balance the management tools bias toward their specific needs in terms of the percentage of workloads in each category type. Ovum expects this to change as the market matures over the next two or three years.

Key findings

- VMware is the clear overall leader with an average combined score of 7.56 out of 10 for all three dimensions.

- DXC, Micro Focus, and Oracle are the other leaders, with all recording strong technical scores. DXC and Micro Focus are the only vendors to score over 8 out of 10, with DXC recording 8.45 and Micro Focus 8.80. Oracle was third in the technical dimension with 7.66.

- IBM delivered a strong technical performance and was third overall in that dimension.

- Platform9 recorded the most maximum 10 out of 10 category-leading scores, with four out of the 20 available.

- Cloudcheckr was second in the execution dimension, and above average in market impact, but was let down by a weak technical dimension.

- CA Technologies, Cisco, Microsoft, and Red Hat all delivered solid performances that delivered an average combined score in line with the average.

Market and solution analysis

Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19

The multicloud and hybrid cloud management market is evolving rapidly, and the vendors in this space have come from a wide range of backgrounds, the most common of which is an evolution of traditional infrastructure or systems management. However, in this ODM, Ovum sees these traditional vendors being challenged by newer entrants with approaches that were developed in the cloud era. These challengers are driving some innovative solutions designed to deal with the challenges of operating in a heterogeneous and multimodal IT service delivery environment.

Figure 1 show the results of the ODM, with DXC, Micro Focus, Oracle, and VMware the leaders, and the challengers and followers closely grouped and separated by the technology dimension. Figure 2 shows the expanded bubble chart, where the leaders are split into two separate groups. Oracle and VMware are stronger in terms of execution, while DXC and Micro Focus are stronger in terms of technical capability. The challengers are similarly separated, with Microsoft a strong all-rounder, IBM strong in terms of technical capability, and Platform9 strong in terms of execution.

Figure 1: Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19

Note: Bubble size represents market impact
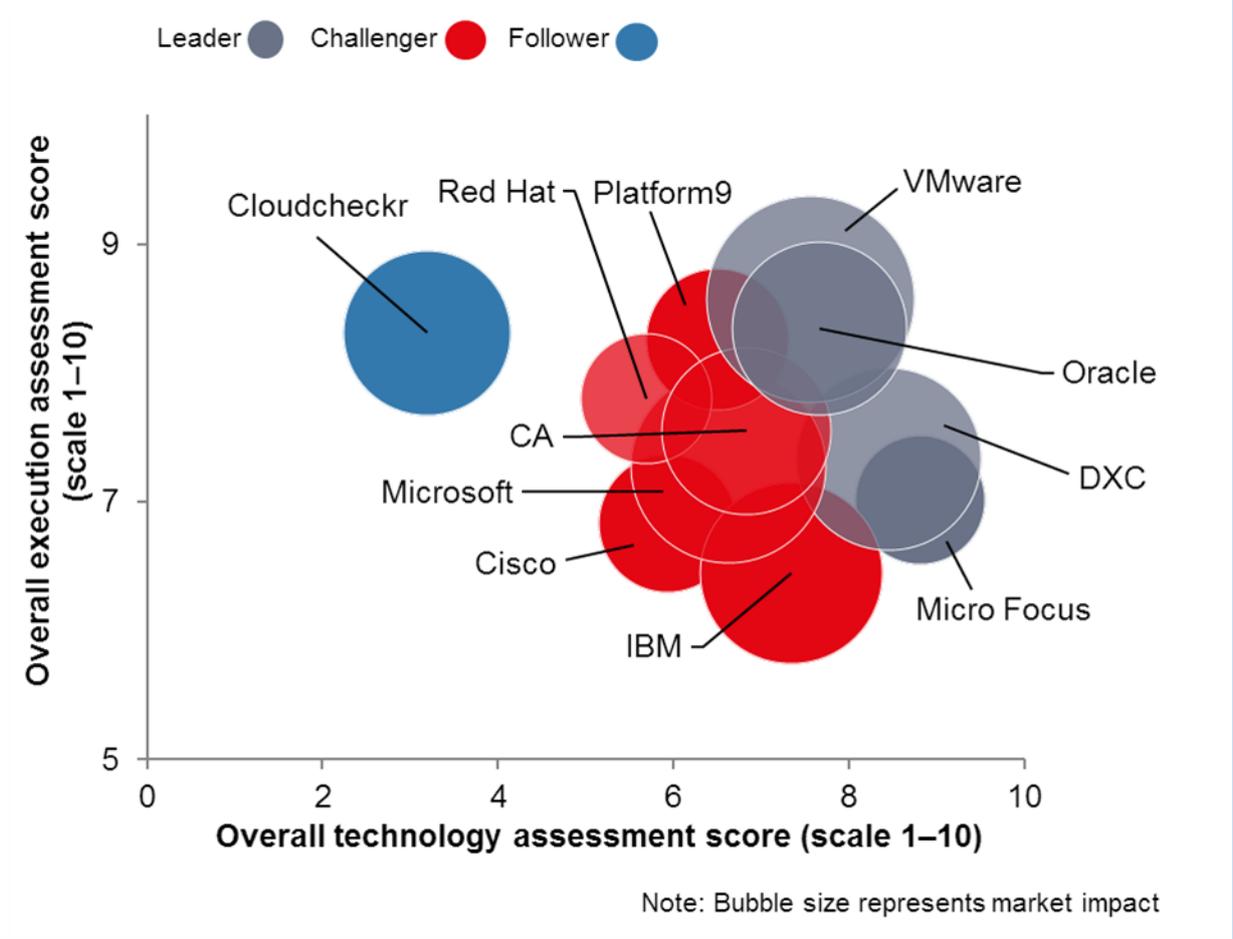
Source: Ovum

Figure 2: Expanded view of Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19
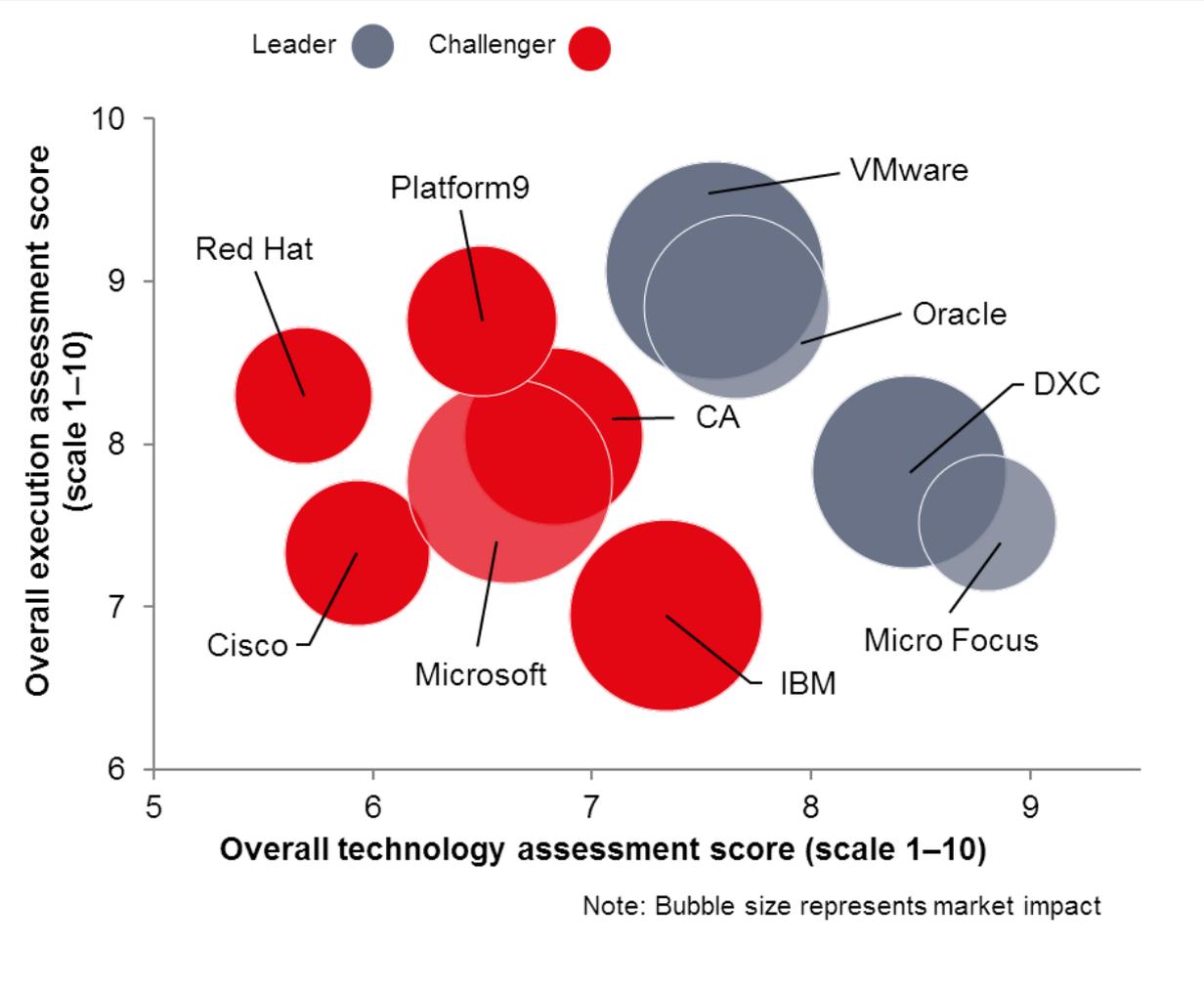
Source: Ovum

Table 1: Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19

Market leaders	Market challengers	Market followers
DXC	CA Technologies	Cloudcheckr
Micro Focus	Cisco	
Oracle	IBM	
VMware	Microsoft	
	Platform9	
	Red Hat	

Source: Ovum

Market leaders: DXC, Micro Focus, Oracle, and VMware

The market leaders demonstrated consistency, with each recording at least 14 above-average scores, including at least four category-leading scores out of the 20 categories evaluated. This group also scored a combined group average score for all dimensions of 7 out of 10, compared to the average of 6.54. The leaders demonstrated a breadth of coverage in terms of their ability to execute and deliver the technical features needed to operate in a multicloud environment. However, this group were split by their areas of strength. The technical leader was Micro Focus with an average score of 8.80 out of 10, DXC was second with 8.45, Oracle third with 7.66, and VMware fourth with 7.56. The execution leader was VMware with 8.57 out of 10, and the market impact leader was VMware with 6.55 out of 10. The leaders also demonstrated a good mix of technical capability and the ability to execute. Ovum believes the leaders should always be considered for shortlisting, because they offer the most consistent performance.

Market challengers: CA Technologies, Cisco, IBM, Microsoft, Platform9, and Red Hat

The market challengers are categorized as delivering a combined average performance in line with the average of approximately 6 out of 10. The other aspect that differentiates them from the leaders and followers is the number of scores greater than 20% below average. The leaders recorded no more than three category scores that fell more than 20% below average, while the challengers recorded between four and six such scores, with the followers recording more than eight. Overall, the challengers showed that their solutions were less consistent than those of the leaders, but in some categories, they were equal or better than those of the leaders. The ODM is based on treating all categories as equally weighted, but for many organizations this will not be the case, which is why the *Ovum Decision Matrix interactive (ODMi)* enables the user to adjust the weightings to reflect specific needs. Ovum believes that challengers should be considered for shortlisting based on using the ODMi to match requirements to vendor capabilities.

Market followers: Cloudcheckr

Followers are classified as showing significant weaknesses in more than 50% of the categories. They are usually specialist vendors that have a particular focus, or new-entrant vendors with an early release solution that lacks some of the required capabilities. Cloudcheckr, which is the only follower in the ODM, is a specialist vendor that is moving from a monitoring and reporting solution toward a full management solution, and therefore lacks some of the features of the more established vendor solutions.

Market leaders

Market leaders: Technology

Source: Ovum

Figure 3 shows the top two vendor scores per category in the technology dimension. DXC and Micro Focus dominate this with seven and nine entries respectively. The only other vendors with a single entry are IBM, Oracle, Platform9, Red Hat, and VMware. This demonstrates the technology dominance of DXC and Micro Focus.

Market leaders: Execution

Figure 4: Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19: Execution
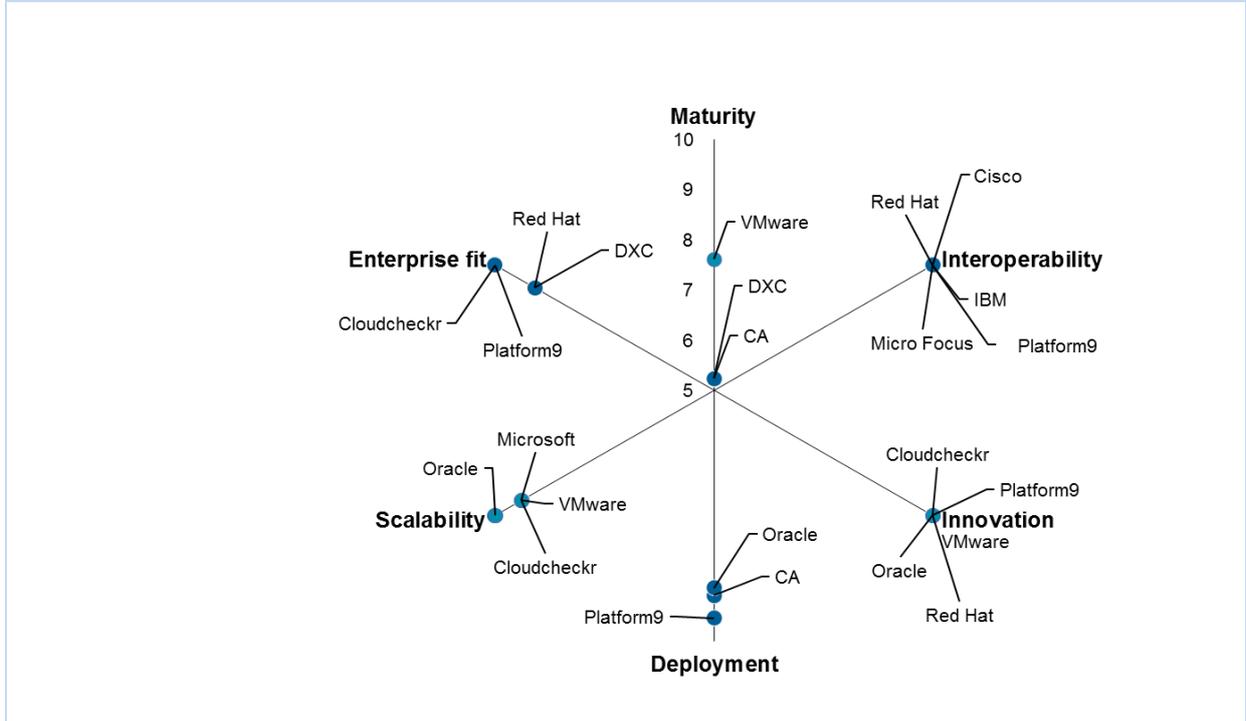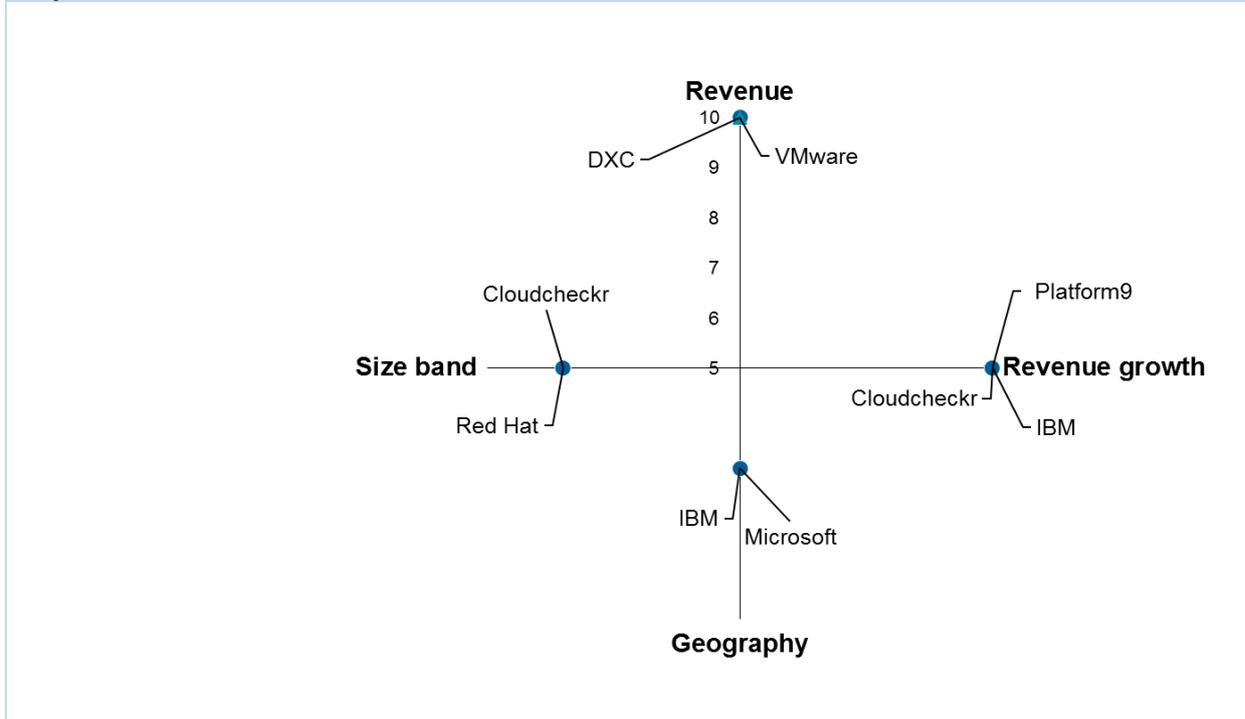

Source: Ovum

Figure 4 shows the top two entries per category in the execution dimension. All vendors are represented at least once in this category. CA Technologies has two entries, Cisco one, Cloudcheckr three, DCX two, Micro Focus one, IBM one, Microsoft one, Oracle three, Platform9 four, Red Hat three, and VMware one.

Market leaders: Market impact

**Figure 5: Ovum Decision Matrix: Multicloud and Hybrid Cloud Management, 2018–19: Market impact**

Source: Ovum

Figure 5 shows the top two scores per category in the market impact dimension. Cloudcheckr and IBM have two entries each, and DXC, Microsoft, Platform9, Red Hat, and VMware all have a single entry.

Vendor analysis

Oracle (Ovum recommendation: Leader)

Figure 13: Oracle radar diagrams
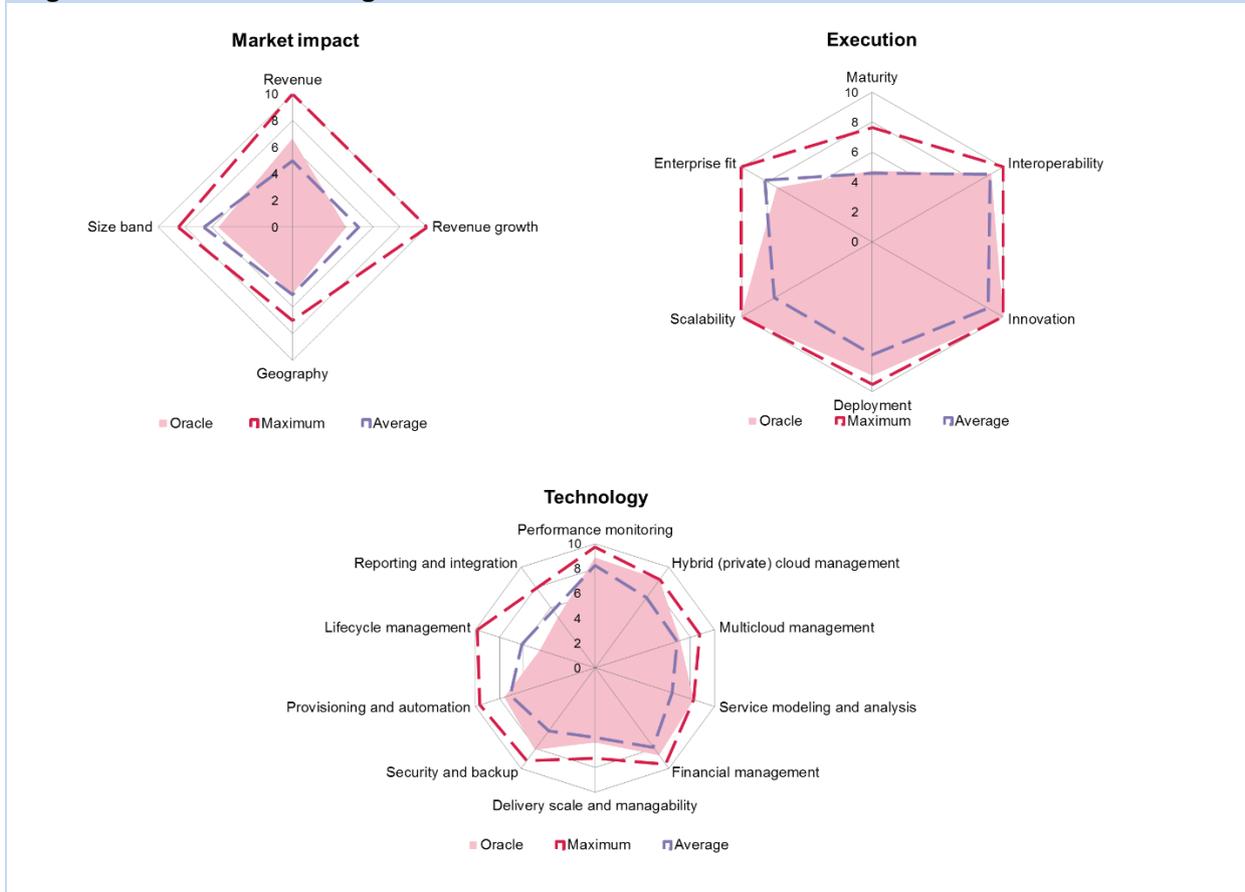
Source: Ovum

Products

Oracle Management Cloud

ODM analysis

Oracle recorded strong scores in the execution and market impact dimensions, where it was above the dimension average. However, it was in the technology dimension where it was above average in all categories. Overall, Oracle recorded 17 above-average category scores out of the 20 evaluated, and two were category-leading (both maximum 10 out of 10) scores.

Strengths

Performance monitoring across a wide range of different elements

Oracle scored in line with the average in the performance-monitoring category. The strength of Oracle comes from being able to monitor at different levels, from the base infrastructure to the abstracted container. Its weakness is in its lack of financial-monitoring capabilities. If this section is excluded, Oracle is above average.

Supports a wide range of cloud providers in the multi cloud category

Oracle surprisingly scored above average in multicloud management and below average in private cloud management in the ODM. Oracle was the most open of all the vendors, supporting more than 10 different virtualization technologies from a management and monitoring perspective. Oracle's performance in private cloud management was mainly provided by third-party integrated solutions, meaning it scored slightly below average.

Weaknesses

Perception that Oracle lacks clarity in its licensing options

Oracle has very few technical weaknesses in terms of those identified in the ODM, but Oracle's pricing and licensing options were considered complicated and lacking clarity. Oracle has announced a new flexible approach, financial segregation, to help customers solve this dilemma. Financial segregation reduces complexity by enabling a budget to be defined. It can also be used to consume any service in the IaaS and PaaS catalogue as they are needed, eliminating the need for forward knowledge of exactly what will be required.

Vendor solution selection

Inclusion criteria

There are many vendors in the IT management market offering solutions to customers of all sizes. However, the criteria for inclusion in this ODM are based on the ability to offer solutions specifically for the multicloud and hybrid cloud management aspects of data center management. All the vendors have verified the accuracy of the data. As is typical with these projects, some vendors are unable to meet the strict deadlines for the return of submissions so decline to participate.

The criteria for inclusion of a vendor in the ODM for multicloud and hybrid cloud management, 2018–19 are as follows:

- The vendor must be a global vendor with customers in all of three regions: Asia-Pacific, EMEA, and North America.
- A solutions vendor must offer cloud management capabilities that enable the management of platforms/infrastructure other than its own technology.
- A software vendor's solution must be capable of managing more than just server virtualization. It must cover at least three of the four main areas (server, storage, network, and client/desktop).
- The vendor must have at least 500 customers, and they must be a mix of midsize enterprises (1,000–4,999 employees) and large enterprises (5,000+ employees).

Exclusion criteria

The multicloud and hybrid cloud management market is considered a new and evolving management market, Ovum accepts that some vendors have entered this market from different backgrounds, such as infrastructure management, services management, or cloud. Vendors and products excluded from the analysis are determined according to the following criteria:

- The vendor's solution is only applicable to five of 10 different classifications in the technical dimension (performance monitoring, hybrid (private) cloud management (server, network, storage, I/O), multicloud management, service modelling and analysis, financial management, delivery scale and manageability, security and backup, provisioning and automation, lifecycle management, and reporting and integration).

- More than 50% of the vendor's solution is made up from partner solutions or third-party solutions.

- The vendor has no direct contact with the end customer; everything is done through channel partners.

Methodology

Technology assessment

In this assessment dimension Ovum developed a series of features and functionality that would reveal differentiation between the leading solutions in the marketplace. The criteria for virtualization and hybrid cloud management are as follows:

- **Performance monitoring:** This looks at a solution's ability to monitor resource usage and its impact on performance. In the 2018–19 report, monitoring is extended to mobile and containers technologies.

- **Hybrid (private) cloud management (server, network, storage, I/O):** The ability to manage all aspects of the infrastructure delivery chain from server, network, storage, endpoint, to I/O.

- **Multicloud management (public cloud and private):** How well the solutions integrate with other cloud solutions, and not only allow visibility into resource usage, but control and management of those environments.

- **Service modeling and analysis:** One of the biggest challenges for any CIO is being able to predict future resource needs by type and delivery method. This section looks at how well the solutions allow for modeling and support "what-if" analysis.

- **Financial management:** An increasingly important, if underrepresented, capability is that of managing the cost and financial aspects of delivering services to line-of-business customers. In this section the capabilities of how the solutions surface costs and associate them to services are evaluated.

- **Delivery scale and manageability:** The ability to manage at scale across different geographies and technologies.

- **Security and backup:** The ability to secure and protect data should be implicit in any solution. Although these solutions are primarily seen as backup and recovery solutions, they must be able to perform basic data protection and support security integrations.

- **Provisioning and automation:** The need to automate as many operational activities as possible aligns with the CIO's need to reduce costs. This section looks at how the solutions enable different levels of automation.

- **Lifecycle management:** The rise of DevOps has changed how the IT operations function thinks about the management of applications. This section focuses on how well the solutions support the concept of lifecycle management and align with any DevOps approach.

- **Reporting and integration:** The final capability is the need to produce more than the standard weekly resource usage report. This section evaluates the solutions' ease of integration with other data sources and how user-friendly their reporting capabilities are.

Execution

In this dimension, Ovum reviewed the capability of the solution around the following key areas:

- **Maturity:** The stage that the product/service is currently at in the maturity lifecycle is assessed here, relating to the maturity of the overall technology/service area.

- **Interoperability:** This element assesses how easily the solution/service can be integrated into the organization's operations, relative to the demand for integration for the project.

- **Innovation:** Innovation can be a key differentiator in the value that an enterprise achieves from a software or services implementation.

- **Deployment:** Referring to a combination of assessed criteria and points of information, Ovum provides detail on various deployment issues, including time, industries, services, and support.

- **Scalability:** Points of information are provided to show the scalability of the solution across different scenarios.

- **Enterprise fit:** The alignment of the solution is assessed in this dimension, and the potential ROI period identified.

Market impact

The global market impact of a solution is assessed in this dimension. Market impact is measured across four categories, each of which has a maximum score of 10.

- **Revenue:** Each solution's global virtualization and hybrid cloud management revenues are calculated as a percentage of the market leader's. This percentage is then multiplied by a market maturity value and rounded to the nearest integer. Overall global revenue carries the highest weighting in the market impact dimension.

- **Revenue growth:** Each solution's revenue growth estimate for the next 12 months is calculated as a percentage of the growth rate of the fastest-growing solution in the market. The percentage is then multiplied by 10 and rounded to the nearest integer.

- **Geographical penetration:** Ovum determines each solution's revenues in three regions: the Americas; Europe, the Middle East and Africa (EMEA), and Asia-Pacific. These revenues are calculated as a percentage of the market-leading solution's revenues in each region, multiplied by 10, and then rounded to the nearest integer. The solution's overall geographical reach score is the average of these three values.

- **Size-band coverage:** Ovum determines each solution's revenues in three company size bands: large enterprises (more than 5,000 employees), medium-sized enterprises (1,000–4,999 employees), and small enterprises (fewer than 1,000 employees). These revenues are calculated as a percentage of the revenues of the market leader in each region, multiplied by 10, and then rounded to the nearest integer. The vendor's overall company size-band score is the average of these three values.

Ovum ratings

- **Market leader:** This category represents the leading solutions Ovum believes are worthy of a place on most technology selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best-of-breed.

- **Market challenger:** The vendors in this category have a good market positioning and are selling and marketing the product well. The products offer competitive functionality and a good price-performance proposition, and should be considered as part of the technology selection.

- **Market follower:** Solutions in this category are typically aimed at meeting the requirements of a particular kind of customer. As a tier-one offering, they should be explored as part of the technology selection.

Ovum Decision Matrix interactive

The Interactive Decision Matrix for virtualization and hybrid cloud management, an online interactive tool that provides the technology features that Ovum believes are crucial differentiators for leading solutions in this area – will soon be available to download from the Ovum Knowledge Center.

Appendix

Methodology

- Vendors complete an in-depth questionnaire and comprehensive capability matrix that is analyzed and evaluated.

- There is a series of comprehensive, structured meetings, including a demonstration where appropriate.

- Supplemental information is obtained from vendor literature and websites, and from the results of Ovum surveys, some of which were specifically designed for this report.

- The article is peer reviewed and is authored by at least two analysts.

Further reading

ICT Enterprise Insights 2017/18 – Global: ICT Spend and Sourcing, PT0099-000001 (September 2017)

ICT Enterprise Insights 2017/18 – Global: IoT, Cloud, and AI, PT0099-000003 (September 2017)

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We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

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