OMDIA
UNIVERSE

Author
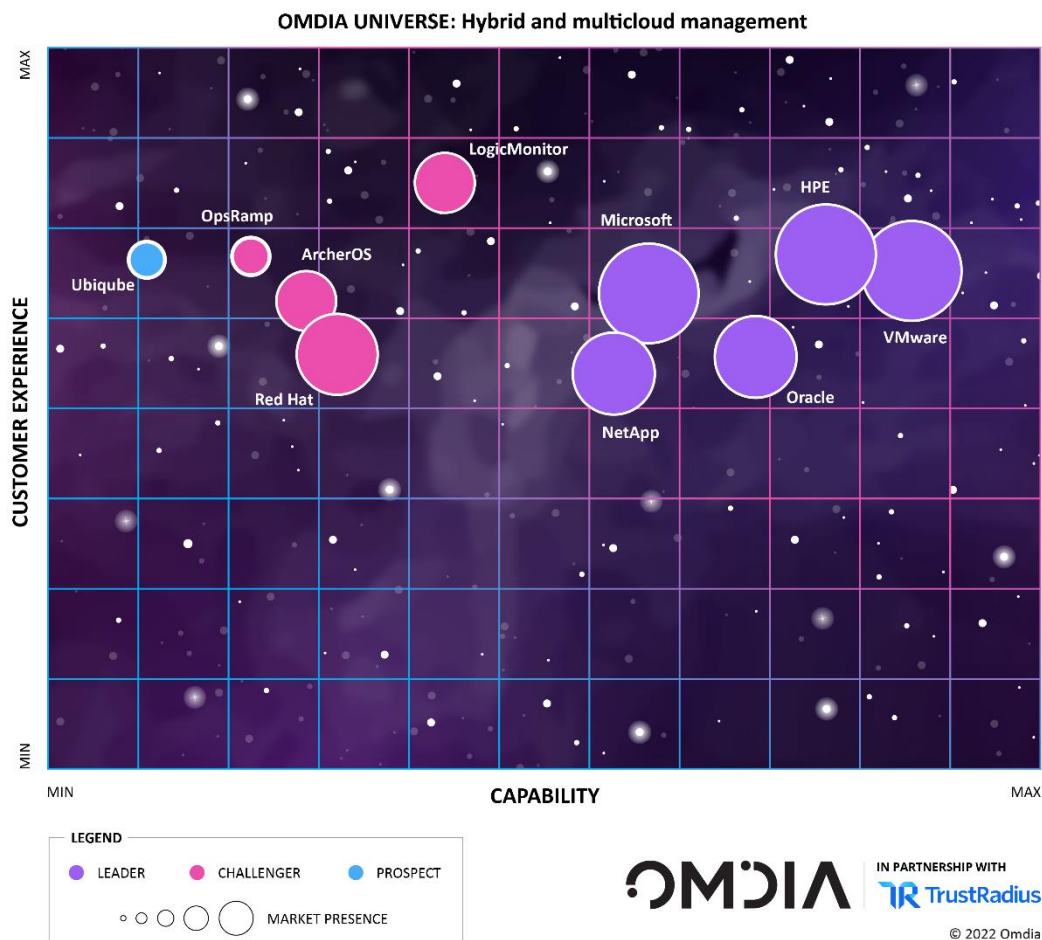Roy Illsley
Chief Analyst, IT Operations
& Ecosystem

Omdia Universe: Hybrid and Multicloud Management Solution, 2022–23

OMDIA

Summary

Catalyst

IT's role and purpose in organizations are undergoing significant change, driven by sthe need for businesses to become more agile. This report provides a side-by-side comparison and evaluation of leading hybrid and multicloud management solutions, with the findings delivered as the Omdia Universe (see **Figure 1**). It considers the significance of management in a hybrid and multicloud world to support the business requirement for agility.

Figure 1: The Omdia Universe for hybrid and multicloud management

OMDIA UNIVERSE: Hybrid and multicloud management

LogicMonitor

OpsRamp

HPE

Microsoft

ArcherOS

Ubiqube

VMware

Red Hat

Oracle

NetApp

CUSTOMER EXPERIENCE

CAPABILITY

LEGEND

● LEADER ● CHALLENGER ● PROSPECT

MARKET PRESENCE

OMDIA

IN PARTNERSHIP WITH
TR TrustRadius

© 2022 Omdia

Source: Omdia

Omdia view

The adoption of any new technology is disruptive, and fully embracing it for operational management takes time. Typically, with new technologies, the wider ecosystem of vendors offering a comprehensive set of solutions and tools tends to lag the technology adoption itself. However, this lag means organizations gain experience with the technology and identify changes to processes or new processes needed to operate the technology. This lag also allows organizations to acquire the skills and adopt and modify processes to ensure they are prepared for any transition to new ways of working that the technology will introduce.

The shift to cloud is challenging CIOs as the roles and responsibilities of IT operations move from being custodians of infrastructure and IT resources towards sharing this responsibility with application developers and cloud service providers (CSPs). The DevOps movement was seen as the approach for IT departments to transition to this new shared responsibility model of operational management. However, the way organizations adopted DevOps did little to break down the silos that IT departments have constructed. In fact, DevOps was implemented as a bridging toolset to connect developers and operational teams, and few organizations made the structural changes necessary to become truly a DevOps culture.

Omdia believes that in 2022, more CIOs will recognize the need for structural changes to the IT department, particularly as the need to manage hybrid and multicloud environments grows. We expect these changes to be based on the ethos of DevOps, CloudOps, FinOps, and site reliability engineering (SRE) principles.

Key messages

- VMware maintains its leadership position, but the gap between the vendor and the rest of the market is narrowing as competitors evolve their solutions.

- HPE is second overall and delivered the most consistent performance, with the lowest variation of 23% between the maximum and minimum subcategory scores.

- Oracle is third overall, just ahead of Microsoft and NetApp (which is appearing for the first time in this report).

- The challengers were closely grouped, with LogicMonitor marginally ahead of Red Hat, ArcherOS, and OpsRamp (with the latter two appearing in this report for the first time).

- There was only one prospect, Ubiqube. Its performance was more variable than the others but had some significant strong points to offset the lack of capability in some areas.

Analyzing the hybrid and multicloud management universe

How to use this report

Omdia is a proud advocate of the business benefits derived through technology, and hybrid and multicloud management is at the forefront of realizing benefits to marketers across the globe. The Omdia Universe report is not intended to advocate an individual vendor but rather to guide and inform the selection process to ensure all relevant options are considered and evaluated efficiently. By using in-depth reviews on TrustRadius to derive insights about the customer experience, together with the analyst's knowledge of the market, the report findings gravitate toward the customer's perspective and likely requirements, characteristically those of a medium-large multinational enterprise (5,000-plus employees). Typically, deployments are considered across the financial services; technology, media, and telecoms (TMT); and government sectors on a global basis.

Market definition

In this report, Omdia developed a series of features and functionality to reveal differentiation between the leading solutions in the marketplace. The criteria for hybrid and multicloud management are as follows:

- **Observability and monitoring:** This criterion evaluates a solution's ability to monitor resource usage and its impact on performance. In the 2020–21 report, monitoring is extended beyond performance monitoring to include mobile, services, and container technologies.

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

- **Public cloud management:** This considers how well the solution integrates with other cloud solutions, allowing visibility into resource usage and control and management of those environments.

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

underrepresented, capability is managing the cost and financial aspects of delivering services to line-of-business customers.

- **Operational management (scale, delivery, provisioning):** This examines the ability to manage at scale across different geographies and technologies.

- **Security management (DevSecOps):** The rise of DevSecOps has changed how the IT operations function thinks about the management of applications. This criterion focuses on how well the solutions support security and lifecycle management and align with any DevSecOps approach.

- **Data management:** 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.

- **Patch management and automation:** The need to automate as many operational activities as possible aligns with the CIO's need to reduce costs. This criterion examines how the solutions enable different levels of automation.

- **Reporting and integration:** This capability allows the production of more than the standard weekly resource usage report. This criterion evaluates the solution's ease of integration with other data sources and how user friendly its reporting capabilities are.

- **Marketplace and application management:** This evaluates the ability to operate and manage the applications and services that customers can select and deploy to the cloud from a marketplace.

- **Environmental sustainability management:** This is a new topic in this year's report but one that is gaining significant interest. The need to at least monitor, if not manage, these aspects is now an important part of the future management strategy.

Market dynamics

Changes from the previous report
VMware and Oracle retained their leadership positions from the previous report, and Microsoft moved from a challenger to a leader classification. DXC and Micro Focus changed their strategy and did not participate in this report. Red Hat retained its challenger position, and with the IBM acquisition of Red Hat, IBM decided not to participate in this report. Broadcom acquired CA Technologies, which was not included due to a change in focus. Cisco and Platform9 were unable to meet the project timescales. NetApp, which acquired Cloudcheckr, developed the capability and entered the report for the first time. Other new entrants in this report include ArcherOS, HPE, LogicMonitor, OpsRamp, and Ubiqube. ArcherOS become the first China-based vendor to appear in this report; it mainly serves the local Chinese and South-Eastern Asian markets but has a small number of customers globally.

Key market trends

The growth of hybrid cloud is seen as pivotal to the wider adoption of cloud computing because it enables organizations to begin their journey to cloud computing in a way that matches their strategy. However, various cloud providers have taken different approaches to support the enterprise demand for hybrid cloud solutions:

- Amazon Web Services (AWS), Microsoft, and Oracle have developed proprietary edge and hybrid cloud appliances.

- Google and IBM have software solutions based on a platform-agnostic, container-based environment.

The two approaches to enabling distributed cloud workloads are not exclusive. Cloud providers' proprietary cloud platforms also support open-source container-based application deployment and management. However, the management solutions from the CSPs now offer the ability to manage these assets in any environment (as long as it is based on standard Kubernetes), from public cloud to bare metal on-premises. With the hardware/appliance approach, cloud providers are working with hardware OEMs to deliver edge and hybrid cloud infrastructure solutions for their clouds.

The management challenges that IT departments face are amplified as organizations adopt different public clouds and different hybrid cloud approaches. The complication is that organizations are selecting cloud environments based on factors such as cost, resiliency, regulatory compliance, service disruption, and security to match the persona of the workloads/applications.

However, organizations require the ability to manage across these different environments, so independent software vendors (ISVs) such as VMware, HPE, NetApp, and LogicMonitor are challenging the cloud providers. These ISVs have developed cloud-neutral management solutions, while the CSPs have extended proprietary solutions to compete. The market is at a crossroads, with both groups delivering hybrid and multicloud management capabilities to differing degrees of breadth and depth.

Table 1: Vendor rankings in the hybrid and multicloud management Universe

Vendor	Product(s) evaluated
Leaders	
HPE	GreenLake
Microsoft	Azure Arc
NetApp	NetApp BlueXP
Oracle	Oracle Cloud Observability and Management Platform
VMware	VMware Aria
Challengers	
ArcherOS Software	ArcherCM (Archer CloudManager), ArcherOS, Archer SDN, Archer Orchestrator
LogicMonitor	LM Envision
OpsRamp	OpsRamp Platform
Red Hat	Red Hat OpenShift, Red Hat Advanced Cluster Management for Kubernetes, Red Hat Advanced Cluster Security for Kubernetes
Prospects	
Ubiqube	MSactivator, Cloudclapp

© 2022 Omdia

Source: Omdia

Market leaders

The leaders all have a total capability score greater than 55%; they account for over 90% of the highest and second-highest subcategory scores, with at least two entries on this list each. The customer scores were fairly consistent irrespective of the classification of the vendor. The other key characteristic was that all the leaders scored a weighted total solution score of over 60%. VMware was the clear leader, scoring 2 percentage points more than HPE, which was second overall for total

capability score. Oracle was third, a further 2 percentage points behind HPE and Microsoft. NetApp completes the leader classification just behind Oracle.

Market challengers

The market challengers recorded total capability scores of between 46% and 51% and total weighted average solution scores of between 56% and 59%. The other key characteristic of the challengers is that they all recorded at least four scores below the cohort average. LogicMonitor was the leading challenger, with Red Hat, OpsRamp, and ArcherOS narrowly behind it.

Market prospects

The market prospect, Ubiqube, recorded total capability scores of 43%. The key difference between the challengers and prospects is that prospects are relatively new entrants to the market and are rapidly developing their solutions. Omdia considers the prospects to be the ones to watch for the future as their solutions are based on modern cloud-native architectures.

Market outlook

The hybrid and multicloud management market will grow at a CAGR of over 26% between 2021 and 2026, according to Omdia's *Software Market Forecast: Infrastructure, 2021–26*. Omdia forecasts the market will be worth more than $38 billion by 2026 (see **Figure 2**), with US the largest market, accounting for $17.6 billion in 2026. To put this in context, we forecast the infrastructure management market to be worth just over $3.6 billion by 2026, with US again the largest market, accounting for almost $1.5 billion.

Analysis of IT department infrastructure spending provides further evidence of the move to cloud. In 2019, the average percentage of the IT budget spent on server and storage was 4.65%, compared to 7.85% spent on cloud (infrastructure as a service [IaaS], platform as a service [PaaS], and software as a service [SaaS]). In 2021, the spending was 4.49% on servers and storage and 9.04% on cloud; we forecast this gap to widen as IT budgets in enterprise organizations reduce spending on physical infrastructure, a trend accelerated by the COVID-19 pandemic.

Figure 2: Omdia market forecast for hybrid and multicloud management ($ millions)
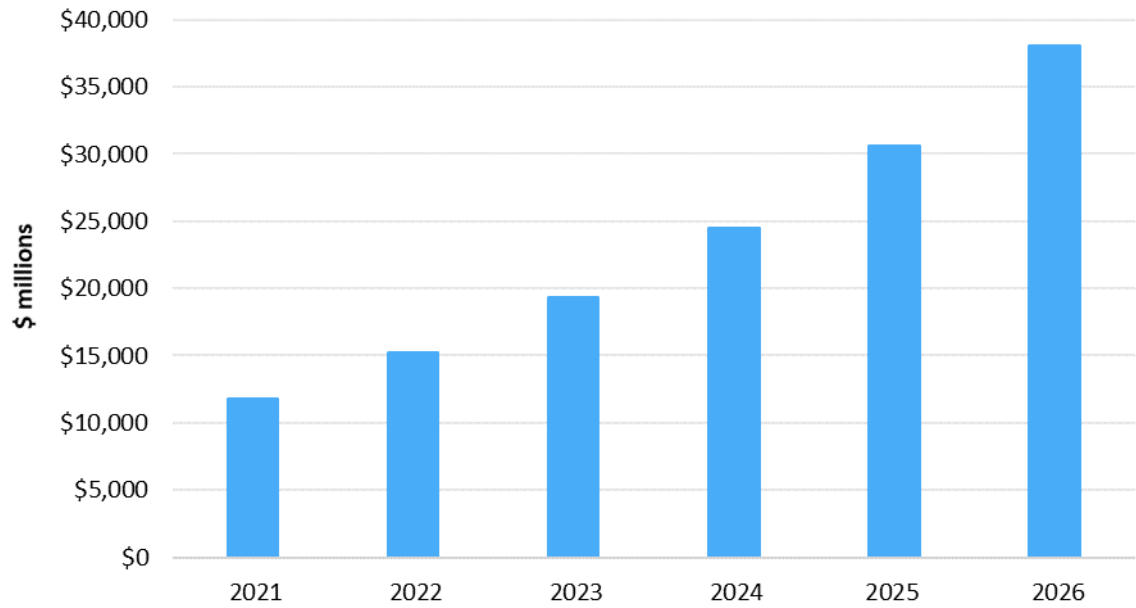
© 2022 Omdia

Source: Omdia

Vendor analysis

HPE (Omdia recommendation: Leader)

HPE GreenLake should appear on your shortlist because it has a comprehensive management capability that can be used as a managed or self-managed service.

Product: HPE GreenLake

HPE is classified as a leader in the Omdia Universe with a total capability score of 60%, the second-highest score and less than 2 percentage points behind the overall leader. Although HPE did not record any subcategory leading scores, it had three second-highest subcategory scores and was one of only two vendors (the overall leader and HPE, who was second overall) that had no subcategory scores below the cohort average. HPE GreenLake is a suite of managed services and management tools used to control, provision, and optimize hybrid cloud environments. HPE GreenLake also reduces the investment organizations need to make in tools, staff, and training, as well as minimize risk with AI-driven business insights.

Figure 4: Omdia Universe ratings: HPE

OMDIA UNIVERSE VENDOR SUMMARY

HPE: Hybrid and multicloud management

LEADER

Source: Omdia

Strengths

HPE's strongest subcategory was hybrid cloud management, where it scored 70%, the second-highest subcategory score. Omdia was impressed by the approach taken by HPE; the solution includes the people, process, and platform capability to provide a unified and consistent customer experience across all environments of hybrid or multicloud estates. This acknowledgment that it takes more than technology to deliver the required customer experience is continued: with HPE GreenLake, IT administrators can quickly acquire hands-on readiness by using the HPE GreenLake edge-to-cloud platform. This simplicity comes from automation and analytics designed to simplify the IT admin's day-to-day tasks. HPE GreenLake supports managing various workloads such as AKS,

VM, SQL MI, VDI, and Kubernetes cluster environments and techniques like cloud bursting, AI, and MLOps. This is all supported by the HPE GreenLake on-platform help functions, which help guide users to proficiency.

Additionally, HPE GreenLake as a service is staffed with support technicians ready to assist with or manage a customer's estate. While not one of HPE's specific strengths, Omdia considered HPE's commitment to environmental sustainability from design through manufacturing and eventual product deployment noteworthy. Many HPE products are registered with Energy Star (run by the US Environmental Protection Agency), EPEAT (via the Global Electronics Council), TCO Certified (via TCO), and the China Energy Conservation Program.

HPE GreenLake's joint second-strongest subcategory is observability and monitoring, where it had the third-highest subcategory score at 68%. Omdia liked HPE GreenLake's comprehensive ability to leverage partners and technologies such as monitoring tools like Amazon CloudWatch, Azure Monitor, SolarWinds, OpsRamp, and Morpheus and more than 70 other API-integrated tools and systems to provide an extensive monitoring and management service.

HPE GreenLake collects an impressive range of metrics based on the environment type being monitored. For example, PaaS CPU monitoring collects gateway CPU usage, builder CPU usage, app CPU billed, app CPU percentage utilized, CPU limit, and CPU used. In addition, HPE monitors and measures the compute usage of active serverless databases. If IaaS CPU monitoring is of interest, it collects CPU utilization as a percentage, CPU utilization, CPU free space. HPE GreenLake also provides SaaS CPU monitoring, such as CPU count and cores per CPU count. This level of granularity is replicated when it comes to storage, network, and memory monitoring across these different delivery platforms. Additionally, HPE offers managed services for IT security and regulatory compliance and allows clients to maintain data sovereignty by permitting data to be housed where required.

HPE GreenLake's other joint second-highest subcategory is public cloud management, where again it scored 68% and was again the third-highest subcategory score. HPE GreenLake manages AWS, Azure, and GCP natively and through extensive open APIs. While HPE GreenLake only covers the three leading public cloud providers, these account for 65% of the market (according to Omdia's IT Enterprise Insights 2022 global survey). Omdia notes that HPE GreenLake solutions consider the on-premises and AWS, Azure, and CGP cloud networks a part of the HPE solution, and where appropriate, HPE manages the connectivity. In fact, Omdia believes that HPE's ability to build partnerships helps make its solution so comprehensive. HPE is a Gold Microsoft Partner and an Azure expert MSP. This relationship with Microsoft requires HPE to maintain SMEs with knowledge of Microsoft products and SMEs on Microsoft Azure Cloud. This partnership has enabled HPE to offer Microsoft-validated architecture delivering Azure Stack on client premises utilizing HPE infrastructure.

Limitations
HPE GreenLake's weakest subcategory was marketplace and application management, where it scored 47%, the third-highest in the subcategory. The solution's relative weakness was that it is only available on Azure and AWS marketplaces. But considering it still managed the third-highest score, this is not really a limitation.

Methodology

Omdia Universe

The process of writing a Universe is time consuming:

- Omdia analysts perform an in-depth review of the market using Omdia's market forecasting data and Omdia's ICT Enterprise Insights survey data.

- Omdia creates a matrix of capabilities, attributes, and features that it considers to be important now and in the next 12–18 months for the market.

- Vendors are interviewed and provide in-depth briefings on their current solutions and future plans.

- Analysts supplement these briefings with other information obtained from industry events and user conferences.

- Analysts derive insights on the customer experience with each solution via reviews and ratings on TrustRadius.

- The Universe is peer reviewed by other Omdia analysts before being proofread by a team of dedicated editors.

Omdia ratings

- **Market Leader.** This category represents the leading solutions that Omdia 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 good price-performance proposition and should be considered as part of the technology selection.

- **Market Prospect.** The solutions in this category provide the core functionality needed but either lack some advanced features or suffer from a low customer satisfaction rating.

The scoring for the Universe is performed by a number of independent analysts against a common maturity model, and the average score for each subcategory and dimension is calculated. The overall position is based on the weighted average score, where each subcategory in a dimension is allocated

a significance weighting based on the analyst's assessment of its relative significance in the selection criteria.

Inclusion criteria

There are many vendors in the IT management market offering solutions to customers of all sizes. However, inclusion in this Universe is based on the vendor's ability to offer solutions specifically for the hybrid and multicloud 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 Universe for Hybrid and Multicloud Management, 2022–23 are as follows:

- The vendor must be a global vendor with customers in all of three regions: Asia Pacific; Europe, the Middle East, and Africa; 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 server virtualization. It must cover at least three of the four main areas (compute, storage, network, and applications).

- The vendor must have at least 250 customers, and they must be a mix of midsize enterprises (1,000–4,999 employees) and large enterprises (5,000-plus employees).

Exclusion criteria

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

- The vendor's solution is only applicable to 5 of 11 different classifications in the capability dimension.

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

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

Appendix

Further reading

Software Market Forecast: Infrastructure, 2021–26 (September 2022)

Reviews of Cloud Management Suites on TrustRadius

Author

Roy Illsley, Chief Analyst, IT Operations & Ecosystem

askananalyst@omdia.com

Citation policy

Request external citation and usage of Omdia research and data via citations@omdia.com.

Omdia consulting

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

Copyright notice and disclaimer

CONTACT US

omdia.com

askananalyst@omdia.com