Cool Vendors in Cloud Computing

Published 13 May 2021 - ID G00746798 - 14 min read
By Analysts Arun Chandrasekaran, Sid Nag, David Wright

Initiatives: Cloud and Edge Infrastructure

A multicloud strategy is becoming inevitable for most global enterprises, but it brings security, integration, cost and governance challenges. CIOs should assess these Cool Vendors that are disrupting the cloud market through robust multicloud implementation products.

Overview

Key Findings

- Most enterprises pursue a multicloud strategy, but aren't prepared to handle the complexity it creates.
- Multicloud management tools often suffer from several limitations, including a lack of depth or lack of breadth of support across providers, or they focus mostly on IaaS and not up the cloud stack.
- Recent innovations in containers and serverless platform technologies enable a new breed of providers to adopt a modern, scalable and portable approach to solving multicloud integration and management challenges.
- Business unit IT and developers are increasingly involved in multicloud tool selection and implementation, forcing startups to embrace simplicity in design that hides infrastructure life cycle management complexity.

Recommendations

As a CIO building a cloud computing strategy, you should:

- Task your cloud architects to create a multicloud strategy by identifying feasibility, assessing architectural gaps, addressing skills shortages and determining operating models.
- Assess the vendors outlined in this research by evaluating their fit with your use cases, ability to satisfy your time-to-market needs and deliver a quick ROI.
- Conduct a POC to verify vendor claims by talking to at least three reference customers before using the solution in production.
Strategic Planning Assumption

By 2025, greater than 90% of enterprises will pursue a multicloud infrastructure and platform strategy.

Analysis

This research does not constitute an exhaustive list of vendors in any given technology area, but rather is designed to highlight interesting, new and innovative vendors, products and services. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

What You Need to Know

Organizations are pursuing a multicloud strategy as part of their digital transformation initiatives. As per Gartner’s 2020 End-User Survey, 76% of respondents in organizations that use cloud IaaS are working with multiple cloud IaaS and PaaS providers. The most common reasons for multicloud implementations are:

- To access best-of-breed products and services from different cloud providers
- Geographical expansion and coverage
- To reduce vendor concentration and risk
- Business unit and developer needs that can lead to an “inevitable” multicloud strategy

Multicloud implementations are inherently complex, requiring additional investments in security, data and service integration; cost governance; and skills training (see Figure 1).
Figure 1: Multicloud Top Challenges

Top 5 Challenges With Multicloud
Percentage of Respondents

- Increased Security Risks: 46%
- Increased Complexity Operating/ Administering Multiple Techs: 45%
- Increased Complexity of Managing Multiple Bills: 35%
- More Expensive: 33%
- Hard to Find IT Service Providers With the Skills for All My Cloud Properties: 31%

n = 545 Currently Use multiple public cloud IaaS providers. Excluding “Don’t Know/Not Sure”
Source: Gartner 2020 Cloud End User Buying Behavior Survey
84. What are the top 3 challenges related to working with multiple PUBLIC cloud infrastructure (IaaS) providers?
746798_C

Hence, CIOs should pursue multicloud implementations with clearly defined business outcomes and an execution plan. They should work with a cloud strategy partner or create an internal cloud center of excellence (CCOE) to enable a unified layer of management and governance of the distributed and disparate cloud assets.

The vendors identified in this research have built products to solve customers’ challenges in architecting multicloud environments through a cloud-native approach. Moreover, some of these products can also be used by developers or business unit teams without significant depth of cloud system background.

Replex
San Francisco, California (www.replex.io)

Analysis by David Wright
Why Cool: Replex tames the cost of enterprise Kubernetes by integrating cloud cost governance directly into the cloud-native application development process.

While cost management tools for the public cloud are numerous, they typically focus on IT operations teams managing virtual compute instances. Replex addresses the cloud cost problem in a cloud-native way by upleveling the domain of analysis from virtual machines to containers, enabling it across hybrid and multicloud K8s and shifting responsibility for cost management from production staff to developers.

Replex connects to Kubernetes clusters in on-premises and multiple cloud environments, pulls historical and real-time metrics from Prometheus and other sources, and correlates them to cloud provider billing data. Using machine learning algorithms, Replex identifies waste, recommends the most efficient footprint for Kubernetes in each environment, and saves organizations up to 50% or more on container costs without sacrificing application performance or developer productivity.

Replex analyzes the full stack of public cloud costs associated with a Kubernetes-based application, and allows development teams to view these complete costs in terms of the Kubernetes environments they use. Replex maps all cloud costs back to the Kubernetes resources that trigger them, tracking and reporting costs by application, cluster, task, namespace, provider, team or other development categories. Armed with this information, development managers can gamify the task of cost management for their developers, motivating behavior by posting showback and shameback reports, running contests, and issuing smart spending alerts on team Slack channels.

At the same time, Replex generates executive dashboards that give IT leadership continuous higher-level visibility into their organization’s Kubernetes costs across multiple cloud providers by project, cost code or other budget categories. Founded in 2016, Replex is based in Germany, but maintains U.S. offices in San Francisco and Boston. The company has raised $4.2 million in seed funding and boasts major customers such as BMW, Cerence and Sephora.

Challenges: While its use of machine learning algorithms to analyze PaaS spending is innovative, Replex is not full-featured enough to support a complete enterprise cloud cost management initiative. Many enterprises may not be ready for a purely container-focused cost management approach.

The market for cloud cost management tools is crowded, and vendors that gain traction are often absorbed by larger IT management software firms. Replex may find it difficult to thrive independently over the longer term.

Who Should Care:

- Cloud cost managers, cloud architects and application platform owners looking for a way to gain visibility into and control over Kubernetes-related public cloud spending, without having to directly manage and audit developers and engineers
TriggerMesh
Cary, North Carolina (www.triggermesh.com)

Analysis by Arun Chandrasekaran

Why Cool: TriggerMesh provides an integration platform to connect services across hybrid and multicloud environments in a “no code” manner with a serverless architecture. Rather than building custom code, TriggerMesh enables developers to use a UI to select source and target services and set up policies for an event bridge, saving them valuable time and enabling even business users to become integration architects.

The TriggerMesh product is built on top of Knative, an open-source serverless framework, which is built on Kubernetes. Business users and developers can create an event bridge through a UI by identifying the sources for an event, outlining connection message brokers and choosing a target, where the event would be processed. More-advanced DevOps users can take advantage of the product’s declarative API. The key supported cloud services include:

- Amazon Web Services (AWS) CodeCommit, Amazon DynamoDB, Amazon SQS, Microsoft Active Directory, Oracle Database, Slack and VMware vSphere as event sources
- Apache Kafka, AWS Kinesis and Azure Event Hubs as message brokers
- AWS Lambda, Confluent, Elasticsearch, Kubernetes, Google Cloud Run, Red Hat OpenShift and Twilio as event targets

While customers retain flexibility for the bridges they want to create, TriggerMesh also created a catalog of popular bridges based on common workflows. An example is “GitLab to AWS Lambda,” where the bridge receives events from GitLab when a particular event happens in a repository, then triggers the execution of a function in AWS Lambda. The product’s flexible architecture and support for multiple sources and targets, combined with a “no code” approach, can enable several business and IT use cases. Examples include serverless function invocation from multicloud data sources, and workflow automation (such as automated image transcoding or triggering a backup) to cross-cloud process automation, such as fetching data from S3 and ingesting it into Google Cloud storage for analytics.

The founders raised $3 million in a seed round. They have held leadership roles in open-source software (OSS) foundations, and the company is one of the key contributors to Knative. The product has been generally available since November 2020 with a handful of enterprise production deployments. It is
offered in two variants — TriggerMesh Enterprise, which is a self-managed product that can run on-premises and in the cloud, and TriggerMesh Cloud, which is a SaaS offering.

**Challenges:** TriggerMesh's product integration is currently optimized for AWS with nascent support for services from other SaaS, PaaS and IaaS cloud providers.

For connecting traditional apps, TriggerMesh faces competition from iPaaS solutions such as MuleSoft and Dell Boomi.

**Who Should Care:**

- Cloud architects and platform teams looking for a simple solution to enable multicloud event-driven services
- Business leaders looking for a seamless way to build digital services across cloud and on-premises environments using an effective “no code” approach that enables their teams to be agile

**Vendia**
San Francisco, California ([https://vendia.net](https://vendia.net))

*Analysis by Arun Chandrasekaran and Traverse Clayton*

**Why Cool:** Vendia helps enterprises share data across clouds, providing a platform for seamless ecosystem collaboration and multicloud data sharing. Vendia Share, its flagship product, uses a distributed data ledger with built-in capabilities such as data lineage tracking, immutability and replication of data across clouds — all delivered as a SaaS with a serverless operating and cost model.

Vendia Share is built on three key architectural traits:

- A distributed ledger technology (the underpinning for Blockchain) with built-in data lineage, immutability and replication. Unlike most data stores, Vendia Share doesn't keep a copy of your data in a centralized database. Instead, it provides every ecosystem participant its own complete, separate copy of the data. This ensures operational isolation, with each participant having full control over its copy of the data and flexibility with regard to how its copy of the data is integrated with other parts of its application and IT infrastructure. When any participant updates data, Vendia Share updates all parties’ copies in real time, ensuring data consistency while preserving data lineage and immutability.

- Delivered in a SaaS model — pay per request, multitenanted and offered as a managed service.

- Operates in a serverless model, which results in not paying for resources when unutilized, embedded fault tolerance and ability to elastically consume its service.
Vendia Share can be used for many use cases such as sharing data with customers and partners, code transfer between clouds for application life cycle management, and data transfer between cloud regions or across clouds for composite workloads or for redundancy (disaster recovery [DR]) reasons. The strength of Vendia Share lies in its flexible architecture that can enable several business use cases and the ability to distribute different forms of code and data. The fact that it is a “no code” option makes it attractive to both business and IT teams. In addition, its serverless operating model and built-in cloud integration enables rapid onboarding of new customers and partners.

The founders of Vendia have a strong pedigree in the cloud ecosystem, having been in leadership roles on serverless and blockchain product teams at AWS. The company has raised $20.6 million in seed and Series A rounds. The product has been generally available since early 2021, with a handful of enterprise production deployments.

Challenges: Vendia’s product is new on the market; hence, it may take more time to assess if it has a proven business model and product market fit. Moreover, its description of being a blockchain, SaaS and serverless solution may sow confusion on the real capabilities and use cases of the product.

Vendia Share is tightly integrated with AWS services. While improved support for other cloud providers is on the future roadmap, the product currently lacks the same depth of support for other clouds.

Who Should Care:

- Cloud architects looking for a simple solution to enable intraregional and multicloud data transfer
- Business leaders looking for a seamless way to enable collaboration and data sharing between teams or business partners with effective governance, lineage and decentralization using a simple operational model

Yotascale

Palo Alto, California (www.yotascale.com)

Analysis by Sid Nag and Arun Chandrasekaran

Why Cool: Yotascale has developed a unique solution to facilitate accurate cost allocation and provide actionable recommendations to engineering teams for cloud cost management. This solution will solve an organization’s need for continuous cost visibility, predictability and optimization.

Yotascale’s solution is based on three key capabilities that separate it from the competition:

- Automated cost attribution: Automated and policy-driven asset tagging tools to ensure that costs are fully attributed according to business contexts (departments/teams/applications)
- Continuous cost anomaly detection: Actionable ability to identify and act on cost overruns.
Many organizations struggle with billing accuracy and understanding the myriad ways their cloud providers charge them for cloud usage. Yotascale’s collaborative cost optimization framework enables better optimization recommendations and leverages policy-based automation to maintain very high accuracy of cloud resource allocation for decentralized cost transparency. The collaborative capability is achieved by actionable closed-loop feedback on savings recommendations, workflows that are workload-driven and integration with DevOps tools. It uses context-based analysis for this, and also supports Kubernetes, containers and microservices-based application usage. Business context analysis is accomplished via enterprise cost attribution, workload profiling, and leveraging business metrics and financial data. It can track “out of control” spend in real time, by using advanced machine learning algorithms such as anomaly detection. Finally, it provides the capability to forecast costs for budgeting and planning purposes by using predictive analysis machine learning techniques.

Yotascale’s novel pricing structure is based on a resource hours model, as opposed to the percentage of bill pricing offered by its competition. It primarily supports AWS currently, with nascent support for Microsoft Azure and Google Cloud to round out its multicloud strategy. The company has raised $24.6 million so far in Series A and B rounds.

**Challenges:** CIOs may be loath to buy stand-alone cost management tools from Yotascale, and instead rely on cloud provider tools such as Cloudyn, CloudHealth and TSO Logic, which were recently acquired by Microsoft, VMware and AWS, respectively.

Yotascale will have to establish deep relationships within the public cloud provider market and invest to ensure its products can work as extensively with other hyperscalers beyond AWS.

**Who Should Care:**

- Cloud architects and infrastructure and operations leaders who are looking for data-driven solutions in their ongoing pursuit of cost-efficiency, visibility and transparency, especially in the pandemic era

**Where Are They Now?**

**Rancher Labs**

Cupertino, California (https://rancher.com)

*Analysis by Arun Chandrasekaran*
Why Cool Then: Rancher Labs offers a container management platform, called Rancher, which simplifies container infrastructure management while enabling the ability to run containers at scale. Rancher's product is OSS-based, and the vendor provides a wide set of container management functions: an application catalog, user management, orchestration and scheduling, operations management, core infrastructure services, and multitenancy. Rancher runs on various underlying multicloud IaaS (for example, Microsoft Azure, Amazon Web Services [AWS] and Google Compute Engine), allowing infrastructure portability.

Where They Are Now: Rancher was acquired by SUSE for approximately $600 million in July 2020. The acquisition provides SUSE with three key capabilities:

- Strong footing in the fast-growing container management software space (based on Kubernetes) and access to a thriving open-source community.
- Multicloud management capabilities — Rancher's management plane can enable customers to administer and govern not only their own Kubernetes distribution, but also multicloud K8s distributions such as AWS EKS, Microsoft Azure AKS and Google GKE.
- A foothold in the emerging edge computing space, where Rancher was a pioneer with its lightweight Kubernetes software platform, K3s.

The Rancher management team is now leading the cloud-native engineering efforts within SUSE. However, whether the acquisition of Rancher translates into better opportunities for SUSE to modernize traditional workloads and accelerate its engineering velocity is yet to be determined.

Who Should Care:

- Platform engineering teams looking for a simple and cost-effective Kubernetes container management platform
- Business unit leaders and platform architects looking for a multicloud Kubernetes management solution and/or an edge product

Evidence

Detailed interviews were conducted with all vendors profiled in this research. In addition, Gartner analysts spoke to at least one customer of each vendor to better understand the product usage experience.

Gartner's 2020 Cloud End User Buying Behavior Survey was conducted to understand how technology leaders approach buying, renewing and using cloud technology. The study was conducted online from July 2020 through August 2020 among 850 respondents from midsize and larger ($100 million-plus in
organizations in the U.S., Canada, the U.K., Germany, Australia and India. Industries surveyed include energy, financial services, government, healthcare, insurance, manufacturing, retail and utilities. All organizations were required to currently have cloud deployed.

Respondents are involved, either as a decision maker or decision advisor, in new purchases, contract renewals or contract reviews for one of the following cloud types in the past three years: public cloud infrastructure (IaaS), public cloud platform (PaaS), public cloud software (SaaS), private cloud infrastructure, hybrid cloud infrastructure or multicloud infrastructure. Respondents were also required to work in IT-focused roles, with a small subset of procurement respondents.

The study was developed collaboratively by Gartner analysts and Gartner's Research Data and Analytics team. Disclaimer: Results of this study do not represent global findings or the market as a whole, but rather reflect sentiment of the respondents and companies surveyed.

1. **Linux Company SUSE Outbids Competitors for Fast-Growing Start-Up Rancher Labs**, CNBC.

**Recommended by the Authors**

- Innovation Insight for Multicloud Computing
- The Cloud Strategy Cookbook, 2021
- CTO's Guide to Containers and Kubernetes — Answering the Top 10 FAQs
- A CIO's Guide to Serverless Computing
- How Executive Leaders Should Justify Moving to the Cloud
- Top Strategic Technology Trends for 2021: Distributed Cloud
- Platform or Service Provider? How to Transform Your Role in the Cloud Management Spectrum

© 2021 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. It consists of the opinions of Gartner's research organization, which should not be construed as statements of fact. While the information contained in this publication has been obtained from sources believed to be reliable, Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner research may address legal and financial issues, Gartner does not provide legal or investment advice and its research should not be construed or used as such. Your access and use of this publication are governed by Gartner's Usage Policy. Gartner prides itself on its reputation for independence and objectivity. Its research is produced independently by its research organization without input or influence from any third party. For further information, see "Guiding Principles on Independence and Objectivity."