Simplify Cloud Cost and Capacity Management

VMware Capabilities At a Glance

VMware Aria cloud management solutions simplify financial management by enabling operations and finance teams to continuously analyze and report cloud usage and spend by team, project, application, or cost center. VMware solutions—spanning private, hybrid, and multiple public clouds—empower teams to drive accountability against budgets and quickly find opportunities to optimize cloud spend with custom rightsizing recommendations, dynamic governance policies, and streamlined management of public cloud reservations and discount programs.

VMware Aria Solutions

- VMware Aria Cost powered by CloudHealth
- VMware Aria Operations
- VMware Aria Automation

A digital transformation accelerator, multi-cloud computing is now a business priority. Yet it has also become a source of friction between IT leaders who want to move faster no matter the cost and financial leaders seeking to stay competitive within budget. As organizations strive to be smarter about adopting cloud for business benefits ranging from extracting deeper insights from data to driving down costs, VMware Aria cloud management solutions allow teams to maximize resource utilization at the lowest possible cost.

Cloud economics challenges organizations

Over the past decade, organizations moving on-premises apps and data center workloads to cloud for agility have been perplexed by unexpectedly high invoices and leaders' inability to predict future spend. In a recent study, more than three-quarters of enterprise respondents admitted to being surprised by cloud costs.[1]

Cost optimization remains a key objective, although it's a difficult one to achieve because each cloud provider has a different pricing structure for services. Some public cloud services use per-hour or per-second pricing; others per-gigabyte or per-terabyte pricing, requiring teams to closely monitor service usage to optimize costs. Even with hybrid cloud infrastructure such as VMware Cloud on AWS where Infrastructure as a Service (IaaS) has a fixed cost (e.g., cost per virtual machine), utilization becomes the most important metric to maximize total cost of ownership (TCO).

Although maximizing capacity utilization along with cost transparency is critical for organizations undergoing digital transformation, there are challenges as teams lean into multi-cloud strategies. Cloud operations and IT finance personnel are increasingly thwarted by siloed IT management solutions that prevent them from being able to:

- Accurately predict, forecast, and justify cloud cost and capacity needs across providers.

- Compare the cost of data center capacity to running workloads in the cloud.

- Track cloud usage and costs by apps and departments.

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1. Anodot. "2021 State of the Cloud Cost Report," 2021.

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> "In total, Experian has already seen about $1.7 million in savings opportunities [from VMware Aria Cost powered by CloudHealth]. The real value is how we recognize these savings opportunities and act on them."
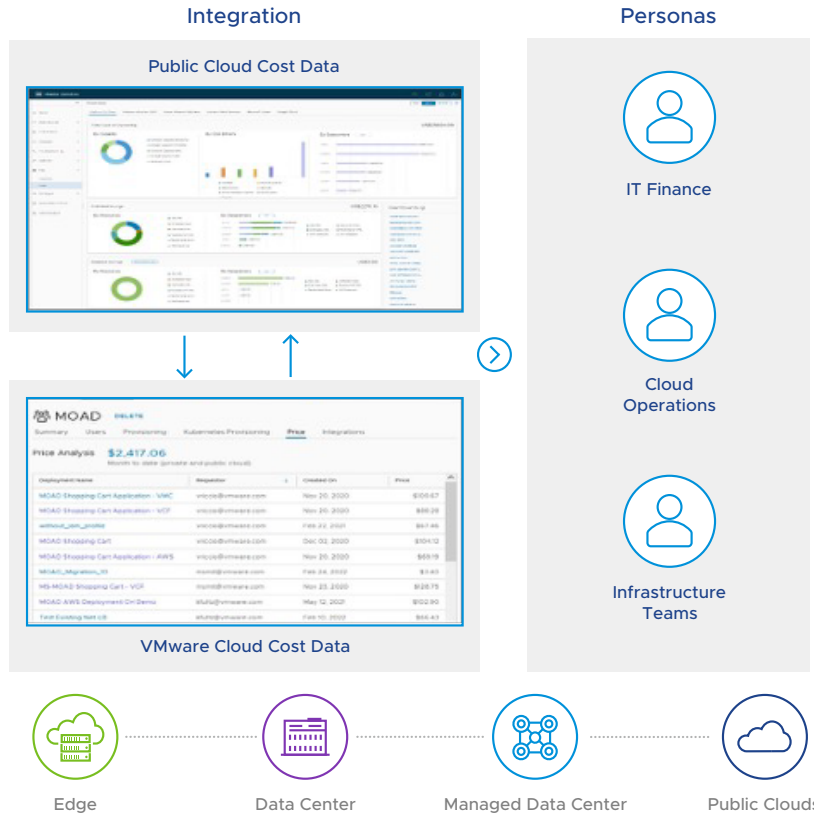>
> Vinay Rudrappa
> Director of Cloud Engineering Services, Experian

- Maximize resource utilization at minimal costs.
- Predict shortfalls and plan future capacity needs.
- Implement showback and chargeback policies and procedures.
- Implement policies to flag and prevent overspending.

Incomplete visibility and inaccurate forecasts stemming from poor cloud management continue to hold back teams seeking to optimize cost and capacity to meet business goals. In contrast, those with well-managed cloud environments are experiencing an average of 35% lower compute costs[2] as they work to grow top-line revenue.

Drive financial accountability with cost and capacity optimization

Organizations using VMware Aria solutions achieve efficient financial management without invoicing surprises and finger pointing. They simplify full cost and capacity visibility for all their clouds and services everywhere they run. VMware Aria solutions powering a cloud operating model deliver data-driven insights into current and future multi-cloud cost and capacity optimization. They ensure organizations can monitor, analyze, and report cloud spending by cost center; drive cost efficiency and accountability against budgets; and discover opportunities to optimize spend without adding risk.

2. VMware. "How CloudHealth Enabled VMware to Regain Control and Optimize Public Cloud Spend," 2019.

Experience It Today

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- Try a Hands-on Lab: VMware Aria Cost powered by CloudHealth or VMware Aria Operations

Resources

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View demos, review new features, and take a deep dive at VMware Pathfinder: VMware Aria Cost powered by CloudHealth and VMware Aria Operations

See where VMware Aria cloud management services are hosted globally

Modern, multi-cloud financial management

VMware Aria solutions feature financial management and operations capabilities for teams looking to continually analyze cloud cost and capacity trends.

6 Ways VMware Aria Simplifies Financial Management

1 Complete cost visibility

2 Cost awareness for cloud consumers

3 Continuous cost optimization

4 Simplified capacity optimization and planning

5 Comprehensive cost governance

6 Organizational accountability

1 Complete cost visibility

VMware Aria solutions empower organizations to view and analyze spend and capacity decisions no matter which cloud operating model they choose. For example, teams can view service sizes, types, and reservations in public clouds as well as review capacity utilization and density expenses of virtual machines (VMs) in hybrid models. Granular metrics in integrated VMware Aria solutions also help teams understand which departments, teams, projects, or apps are responsible for driving cloud cost and usage. By accurately comparing cloud capacity and costs, teams reduce miscalculations. Visualizing costs also helps teams more quickly recognize lower TCO and ROI savings.

2 Cost awareness for cloud consumers

Among the most important capabilities of enterprise-grade automation products is the ability to show consumers, or lines of business, the performance and cost characteristics of their deployed resources to help them make more informed decisions with their workloads. VMware Aria presents pre-deployment cost information to consumers through an easy-to-access user interface. Consumers can see their applications with ongoing daily, weekly, and monthly cost analysis for on-premises, hybrid, and public cloud workloads. This provides consumers with the necessary information to determine rightsizing and budgetary requirements to best control cost.

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Licensing

Get started with one flexible license: VMware Aria Universal Suite

③ **Continuous cost optimization**

VMware Aria solutions ensure organizations rightsize capacity whether they are using public, hybrid, and multi-cloud apps and services. For teams scaling with public cloud, elasticity management helps ensure they select optimal service sizes and types in public clouds. The best practice is to rightsize, then buy reservations. Custom recommendations for the rightsizing of workloads and the termination of unused assets improve efficiency while helping businesses cut unnecessary costs and investment. Teams can also manage commitment-based discounts (i.e., Reserved Instances, Savings Plans) using purchase modeling, optimization, and amortization capabilities during their lifecycle to maximize savings. Concurrently, teams invested in VMs can rely on capacity and cost-saving recommendations to boost density and avoid incurring additional host costs. Organizations seeking to improve cloud capacity efficiency and forecasting trust VMware solutions to directly correlate capacity and cost analytics. As a result, they can visualize cost savings opportunities and accelerate decision making.

④ **Simplified capacity optimization and planning**

Teams not only gain optimal app, VM, and workload consolidation, they improve proactive planning because of the real-time, forward-looking VMware Aria capacity analytics engine. It helps teams effectively forecast future demand and initiate actionable capacity planning with automated recommendations for rightsizing, reclamation, procurement, and cloud migration steps. Additionally, VMware Aria provides directional TCO analysis to teams as they consider migrating apps to public clouds. In preparation, for example, teams can use a VMware solution to perform a data center-to-public cloud migration assessment. Moreover, they can conduct what-if scenarios for migration plans or calculate egress traffic on VMs to quickly understand the impact of changes. They also can set alerts for big moves in traffic or a static threshold to avoid surprise network expenses.

⑤ **Comprehensive cost governance**

VMware Aria lets teams monitor their environments for opportunities to reduce wasted spend as they optimize costs. Specifically, a dynamic policy engine automates cost control measures by building governance policies that monitor native public clouds as well as on-premises and hybrid cloud environments. With VMware solutions, IT staff can ensure lines of business are complying with budget guidelines by proactively alerting stakeholders when cost centers are forecasted to exceed ranges or the system detects spending anomalies. Moreover, organizations can rapidly set up and manage multi-cloud environments throughout their lifecycle with an intuitive, self-service consumption experience from VMware.

Why VMware Aria?

- **Proven solution** from a trusted vendor and market leader

- **Multi-cloud visibility** across private, hybrid, and public clouds

- **Comprehensive capabilities** from a single platform with a common control plane and data model

- **Ultimate flexibility** to choose SaaS, on premises, or a combination of both in one license

- **Broadest ecosystem** that is extensible with 220+ integrations

- **Leading IT in sustainability**, helping customers reduce environmental impact

6 Organizational accountability

Teams using VMware Aria more easily align public cloud financial data with strategic business metrics and key performance indicators (KPIs) such as gross margins and cost of goods sold for common goal achievement. VMware solutions empower them to collaborate on best practices across teams as they standardize operating in the cloud. Moreover, data from VMware Aria allows IT staff to leverage chargeback and showback capabilities to hold teams accountable while ensuring they can accurately track spend and forecast budgets by looking at consumption patterns over time. For example, an out-of-the-box dashboard provides per-application costs, giving stakeholders granular cost visibility by using actual values or a reference database of industry values for expenses such as server hardware, storage, network, licensing, maintenance, labor, power, cooling, and facilities to calculate cost drivers. This visibility also enables IT to chargeback these assets to the various application owners.

Learn more about cloud cost and capacity management optimization

Successful multi-cloud organizations are optimizing cloud costs and capacity for maximum advantage at the lowest risk with VMware Aria cloud management solutions. These include VMware Aria Cost powered by CloudHealth, VMware Aria Operations, and VMware Aria Automation.

In addition to simplifying cloud cost and capacity management, VMware Aria solutions empower organizations to unify operations, strengthen security and compliance, and automate delivery.

Learn more at www.vmware.com/go/aria.