Overview

Today’s IT datacenters are complex and dynamic. IT teams continuously add new technologies while having to maintain legacy deployments. But no matter the environment, the goal is clear - maintaining optimal performance and constant balancing of system resources. Workloads are deployed on physical servers, virtual machines, containers, Kubernetes, or cloud-native applications. These workloads constantly change, move and share resources within the same hosts. Clusters that may have been initially configured to support legacy applications are now hosting modern workloads which no longer follow best practice considerations. These different deployments create IT complexity, which can hurt performance, efficiency and drift from SLA requirements.

No matter where companies host workloads - on-prem, private, hybrid, or multi-cloud environments - they need optimal performance across any platform to meet customer requirements and SLA agreements.

Why vRealize AI Cloud?

VMware vRealize AI Cloud is an intelligent, self-tuning service that uses reinforcement learning to continuously adapt to the changing needs of your application workloads. Through data collection and machine learning, it analyzes performance KPIs to not only predict performance improvements but also dynamically self-tunes VMware SDDC and vSAN parameters to give you the best performance results.

vRealize AI Cloud uses machine learning and reinforcement learning techniques to intelligently and continuously optimize VMware infrastructure operations, starting with the first release of vRealize AI Cloud to optimize vSAN performance. The service learns about your operating environment and adapts to changing dynamics, ensuring optimization per the stated KPI.

SaaS datalake and on-prem data collections enable real-time and historical observability. IT teams can reduce or eliminate repetitive manual processes with guardrails in place to limit negative impacted performance. And companies improve application workload performance by evaluating all possible VMware SDDC tunables to select the optimal configuration.
The latest version includes a preview of the Storage Genie Policy engine that analyzes and predicts performance, capacity and evaluates the complexity (cost) of that change to trigger recommendations based on a net performance or capacity improvements benefit score. The recommendations suggested by the Storage Genie Policy engine help:

- Suggest changes to default storage policy
- Review multiple alternatives with differing trade-offs and explanations

Self-tuning benefits of vRealize AI Cloud

vRealize AI Cloud’s is a performance optimization engine that uses machine learning and reinforcement learning techniques to continuously learn, adapt, and optimize your storage KPIs. This helps deliver consistent and optimal performance for your mixed application workloads. As workload applications scale out or migrate to different datacenters or clusters, vRealize AI Cloud will dynamically adjust vSAN tunables to continuously optimize KPIs such as I/O read and write throughput or reducing network latency.

Other 3rd party analytic solutions do not collect and analyze the data, but instead take decisions on mere utilization and available resources to optimize performance. vRealize AI Cloud takes a proactive approach to optimize infrastructure and application performance with its self-tuning of VMware SDDC tunables.