

OpenShift Observability: Automated, Full Stack and Unified

Introduction

As organizations modernize, they build and run new software at speed and scale. This means migrating their strategic workloads to the cloud quickly to keep up with consumer demands, which have become increasingly digital-first over the past few years. Organizations must stay competitive to get to market first and rely on cloud native applications, microservices and containers. However, as organizations modernize, complexity becomes a major challenge, especially in regard to visibility and insight issues growing.

What is Red Hat OpenShift?

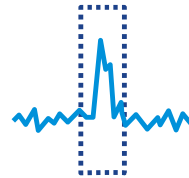
Red Hat OpenShift is a hybrid cloud, enterprise Kubernetes application platform for the development, deployment and management of modern applications on any cloud infrastructure. It includes software-defined networking, integrated private container registry, streamlined workflows, and easy access to services (service brokers, validated third-party solutions, and Kubernetes operators). OpenShift gives organizations the ability to build, deploy and scale cloud native applications faster.

The importance of observability in OpenShift

The key to maintaining any Kubernetes environment is to understand the metrics of OpenShift clusters to comprehend how it's performing. That means understanding the state and health of pods and nodes in real time, resource usage, and control plane performance. Without that insight, you lack a holistic view into OpenShift clusters.

Visibility challenges with OpenShift

Containers can be challenging because they always change. As organizations shift their workloads, the number of containers supporting these microservices can increase over time to hundreds and thousands of nodes. With these dynamic environments, not only do you need visibility into the cluster performance and health, you also need visibility into the health of the underlying control plane, the services running in the containers, and their overall impact on application health. To solve this challenge, you need visibility of dependencies across the entire technology stack to understand the impact on users and prevent business-critical issues.



VMware Aria Operations for Applications for OpenShift

VMware Aria Operations™ for Applications integrates with OpenShift to give operators, site reliability engineers (SREs), and DevOps teams complete insight into the health and performance of their large-scale OpenShift Kubernetes implementation across containerized applications, Kubernetes and the underlying infrastructure.

As a result of VMware's collaboration with Red Hat, automated enterprise observability for OpenShift is now available as part of the Red Hat OpenShift Certified Wavefront Operator for OpenShift 4.x in Operator Hub, a registry for finding Kubernetes operator-backed services. This operator installs, upgrades and continuously checks the health of the Wavefront Collector for Kubernetes. It reduces costs and risks of managing observability for OpenShift environments and applications at scale. It also improves time to value by pretesting and expediting Wavefront Collector for Kubernetes deployment and configuration.

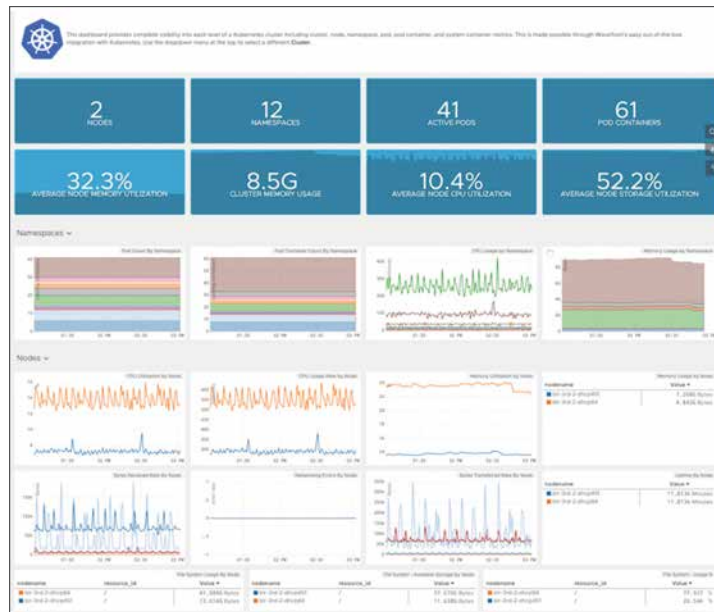


Figure 1: VMware Aria Operations for Applications provides complete visibility into OpenShift clusters, nodes, namespace, pods and containers.

With VMware Aria Operations for Applications for OpenShift and the Red Hat OpenShift Certified Wavefront Operator, engineers, developers and OpenShift operators get several benefits:

- Accelerated and automated transition into Kubernetes and application observability
- Streamlined Day 2 observability operations, from deployments of Wavefront Collector for Kubernetes and Wavefront proxies to managed configurations and upgrades
- Automated full-stack enterprise observability and deep insight analytics across OpenShift environments
- Uninterrupted data ingestion during the spin up and down of hundreds of containers with new IDs
- No running blind during a major update/code deployment that refreshes the container fleet
- Instant alerts using fast metric queries across multiple clouds and at a large scale
- Quick and correct troubleshooting without pre-aggregation or inline aggregation of containers' data

[Sign up for a free trial](#) of VMware Aria Operations for Applications today to use with VMware's integration with OpenShift to manage your Kubernetes clusters.