SOLUTION BRIEF

D2iQ Konvoy 2.0: Production-Ready Kubernetes for the Enterprise

Overview

Konvoy 2.0 is a comprehensive, enterprise-grade Kubernetes distribution designed to help companies quickly and easily get into production. Konvoy is built on pure open-source Kubernetes and includes a full suite of integrated and supported best-of-breed platform services for Day 2 production, delivering a complete, out-of-the-box solution that is production-ready for the enterprise.

Konvoy provides a full complement of services, training, and end-to-end support for the complete stack of operational technologies being leveraged for production operations. Rather than dealing with multiple vendors, you have a single partner to help keep everything running smoothly at every stage of your Kubernetes journey.

Why Use Konvoy 2.0?

Avoid Lock-in and Harness Innovation

Konvoy is built on pure upstream open-source Kubernetes, so you can avoid lock-in. Everything works out-of-the-box so you can manage Kubernetes independently and harness the innovation of the open-source community.

Accelerate Time-to-Market for New Application Needs

Konvoy provides a highly automated installation process that includes all of the ancillary platform services needed for Day 2 production. The platform services provided for functions, such as networking, storage, logging, monitoring, and more, have been carefully selected from the CNCF landscape, integrated into the installer, and rigorously tested to work together, something they were not necessarily designed to do from the start. The result is a consistent and repeatable approach to standing up a production-ready environment.

Reduce Operation Burdens in Complex, Multi-Cluster Environments

Konvoy has unique features and capabilities to ensure smooth sailing on Day 2, including an out-of-the-box audit dashboard, CAPI-based autoscaling, and the ability to perform fine-grained cluster upgrades in a highly controlled fashion. In addition, Konvoy operates across the full range of cloud, on-prem, edge, and air-gapped infrastructures, providing organizations with tremendous flexibility to run Kubernetes anywhere with reliability.

Improve Air-Gapped Deployments

Konvoy leverages Cluster API to simplify the provisioning, upgrading, and operating of multiple air-gapped clusters in the cloud or on-premise, with the added ability to create comprehensive Amazon Machine Images (AMI) for cloud air-gapped deployments. This provides security-conscious companies with more control and flexibility to build agile, cloud-native applications in a more secure environment.

What's New In Konvoy 2.0

Cluster API (CAPI)

The move to CAPI simplifies declarative infrastructure management using GitOps, automating many of the formerly manual processes required to keep systems running and scaling.

CAPI-based Autoscaling

Automatically scales up and down infrastructure capacity based on the resource needs of the running workloads. This dramatically reduces the operational costs and burden of having to monitor the system constantly for research constraints.

Immutable OS Support

Support for immutable OSs such as Flatcar Linux provides speed, stability, and improved security, prevents OS drift with atomic updates, supports zero trust requirements, and can be critical for certain air-gapped use cases.

Improved Air-gapped Deployments

Konvoy makes it easier to provision air-gapped clusters in the cloud or on-premise by leveraging the Cluster API.

Features and Benefits

Features	Benefits
Container Orchestration	Leverage an industry standard distribution of open-source Kubernetes for cluster and container management.
Application Management and Deployment	Deploy applications and services within Kubernetes clusters with Helm.
Observability	Gain deep insight into your Kubernetes clusters and applications with open-source metrics leveraging Telegraf, Prometheus, and Grafana.
Cluster API	Automate cluster lifecycle management to simplify the provisioning, upgrading, and operating multiple Kubernetes clusters across a wide range of distributions and virtual and physical environments.
Cluster Autoscaling	Save operational costs by automatically scaling down capacity when it's not needed and adding capability when there is greater demand, with CAPI-enabled autoscaling groups.
Logging	Collect and analyze logs and metrics to ensure optimal performance and troubleshooting with Elastic, Kibana, and Fluentbit.
Cloud-Native Scale Testing	Extensive integration and workload testing at massive scale with a wide range of workloads to ensure real-world preparedness
Networking and Routing	Easily automate and expose application endpoints with Calico,Traefik, Istio, and CoreDNS.
Fine-Grained Cluster Upgrades	Reduce operational overhead with non-disruptive patching or parallel worker node upgrades.
Backup, Recovery, and Migration	Ensure business continuity and disaster recovery with Velero.
Declarative Automated Installer With Day 2 Platform Services	Accelerate time-to-production on any infrastructure with consistency and reliability with the required platform services needed for Day 2 production.
Operate in Air-gapped Environments	Leverage declarative APIs to optimize cluster resources for cost, resilience, and performance.
End-to-End Support	Enterprise-grade support and services for both Kubernetes and its supporting platform services. the entire platform including all components

To learn more about about how D2iQ can be your partner in the cloud native journey, go to www.D2iQ.com.