

Starter Pack For GitOps & Kubernetes

The Shortcut to Day 2 Success

Overview

The cloud native revolution continues to gain pace, bringing benefits including increased agility, flexibility and scalability, and decreased downtime, fragility, and cost. The catch is that the transition to cloud native architecture and practices such as GitOps is not a simple one. D2iQ's Starter Pack for GitOps and Kubernetes overcomes this obstacle by providing everything you need for a successful start with GitOps and Kubernetes.

Introducing the Starter Pack

A very common challenge for teams embracing the speed, flexibility, and portability provided by cloud native approaches is the drag legacy CI/CD toolchains create on development and deployment processes. This drag can take several forms. First is the inability to access some of the powerful capabilities cloud native infrastructure such as Kubernetes provides. Second is impeding developers from controlling their own build systems. Finally, for operators, reliance on legacy toolchains can make portability or migration of build systems difficult, painful, and slow.

Fortunately, there is a cloud native approach to CI/CD build systems, centered on a single source of truth, the Git repository—GitNative. GitNative, the adoption of GitOps processes using cloud native CI/CD and infrastructure, empowers developers to do things that were previously done for them by operations teams, increasing the speed and flexibility of development. GitNative also frees Ops teams and SREs to focus on critical infrastructure issues such as aggregate capacity and to manage their production applications and infrastructure with the same Git-centric processes their developers are using to create these applications.

This combination of developer empowerment, operator load-lightening, and increased speed and flexibility makes the adoption of a cloud native GitOps process an excellent use case for an introduction to enterprise-grade Kubernetes. And the D2iQ Starter Pack for GitOps and Kubernetes gives you everything you need—information, technology, training, and support—to get started fast with Kubernetes and cloud native, GitOps based CI/CD.

What's Included



DAY 2 PLATFORM SUITE

Enterprise-grade cloud native application platform

- Konvoy Kubernetes Distribution (up to 240 cores)
- Kommander Control Plane (up to 2 managed clusters)



EXPERT SERVICES

From discovery to deployment, on to knowledge transfer for continued success

- 5 Days of services and knowledge transfer
- CNCF Certified Service Provider

Key Benefits

Accelerate Your Journey to Cloud Native Adoption with Kubernetes and Cloud Native CI/CD

Get the information, technology, training, and support you need to achieve success all in one place and at a special low introductory price.

A Solid Foundation For Day 2 Success

Konvoy is enterprise-grade out of the box, built on the best open source projects from the community. Starting with pure, upstream Kubernetes (no lock-in), and adding a rigorously vetted, integrated, and multi-workload-tested phalanx of needed open source add-ons for functions such as logging, monitoring, disaster recovery, DNS service, load balancing and ingress, service mesh, and policies.

Expert Guidance

The best tools are useless without the knowledge needed to wield them correctly. Our cloud native experts will help you determine what to do and how to do it, and provide you with the information and skills you need to succeed on Day 2 and beyond.



VIRTUAL CLASSROOM TRAINING

A solid grounding in Kubernetes and containers

- 1 day of classroom training
- CNCF Certified Training Partner



CLOUD NATIVE GITOPS

- Bring your CI/CD process into the cloud native age
- Dispatch GitNative CI/CD Platform
- Unlimited Pipeline and Deployment Usage

Konvoy and Kommander: Enterprise-grade out of the box

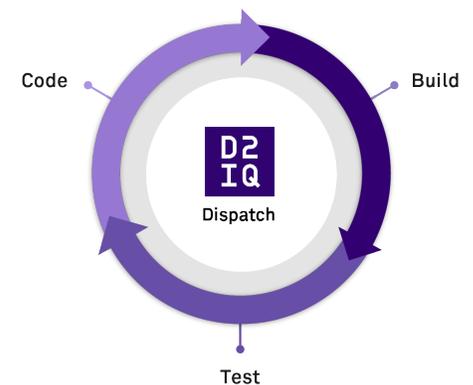
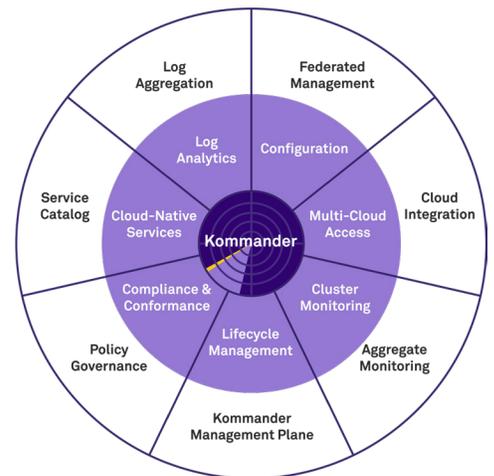
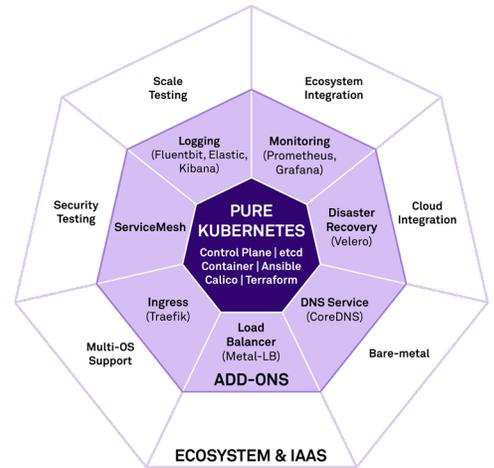
Konvoy is D2iQ’s answer to simplifying the otherwise very complex world of Kubernetes. In addition to being a pure upstream open source Kubernetes distribution, the team at D2iQ spent significant time selecting prevailing services for core needs such as monitoring, logging, DNS and load-balancing. Konvoy provides and provisions full Kubernetes clusters and the supporting services all in a single simple installer. This ensures your organization has a fully production-ready cluster available in minutes versus months.

Kommander provides governance and lifecycle management of disparate Kubernetes clusters from a single management plane for viewing multi-cluster health, managing distributed operations, and leveraging operational insights for an enterprise’s Kubernetes usage. Multiple project teams, line of business units, and functional groups can now create and maintain domain-specific clusters, while providing the enterprise’s central IT organization with cluster operational visibility. Kommander enables cluster governance and centralized supervision without interfering with the day-to-day business functions and requirements that different clusters support. With Kommander, organizations can contain cluster sprawl to increase the security, manageability and governance needed for enterprise-grade Day 2 operations.

Dispatch: GitOps CI/CD for a cloud native world

Dispatch is a pre-packaged GitOps CI/CD platform that leverages Kubernetes’ native services to enhance build and deployment capabilities. By design, Dispatch is a stateless GitOps service for ecosystem integration that is modular and helps implement best-in-class, cloud native services, because cloud native applications deserve a cloud native CI/CD solution.

Dispatch reduces the overhead required for developing and deploying code pipelines by providing scalability and control over cost. In addition, Dispatch facilitates a portable pipeline configuration to enable moving pipelines to other Kubernetes clusters or Dispatch installations. With Dispatch, developers and operators can build, deploy, and manage the application lifecycle using industry best practices and modern GitOps processes. Because Dispatch is designed to enable a clear separation of responsibilities between developers and operators, developers can publish and operators can deploy in sync.



Training and services: The knowledge you need today for success on Day 2

The Starter Pack includes one day of virtual classroom training which will cover Kubernetes fundamentals, Konvoy/Kommander concepts and GitOps and CI/CD fundamentals. The training is a dedicated lecture course for your organization, with no cap on the number of attendees and will be conducted at a time convenient for you. Topics covered include:

- **Kubernetes and Konvoy Primer** including Cluster hardware & requirements, OS considerations, Kubernetes on-premises vs. cloud, Kubelet, Kube-apiserver & Kube-scheduler, DNS
- **Containerization Review** including Containers vs. virtual machines, Docker overview, YAML review & tips, Docker run to Kubernetes YAML translations
- **Kubernetes Core Concepts** including Pods, Deployments, DaemonSets, ReplicaSets, StatefulSets, Init containers & sidecars, Selectors, Using Go templates, Scheduling pods, Taints, tolerations, affinity & anti-affinity, Networking, storage, monitoring, security

Also included are five days of professional services, provided as a hands-on engagement that walks you through the base installation and configuration of one pre-production environment of a Konvoy managed Kubernetes cluster:

- Planning for and deployment of Konvoy, the enterprise-grade Kubernetes distribution that is ready out of the box for Day 2
- Deployment and configuration of Dispatch, the GitNative GitOps platform, complete with sample pipeline
- Knowledge transfer, covering these concepts and more:
 - Konvoy architecture
 - Konvoy opinionated add-ons for Day 2 operations
 - KUDO overview for stateful services
- Defining next steps



Driving Day 2 Success With D2iQ

Your Partner in the Cloud Native Journey

The founders of D2iQ are some of the earliest innovative minds in the world of sophisticated distributed computing environments. Their innovations are a driving factor in the success of the largest application deployments in the world. This experience and insight into the complexities of managing and operating expansive cloud native services at massive scale are foundational to the development of D2iQ's technologies.

As you look to leverage Kubernetes as a foundational platform to drive cloud native applications and services, navigating the complexities of the technology will be impossible without deep domain expertise and expert support. With this in mind, we designed Ksphere, including Konvoy, Kommander, and Dispatch, to provide you with an enterprise-grade Kubernetes foundation, as well as give you access to expert insights, training, service, and support.

Whether you're in need of a guided, opinionated distribution that reduces time to market from months to days, management or operation of your production deployment, or someone to pick up the phone in the middle of the night, D2iQ can deliver a complete spectrum of technology solutions and services to enable an enterprise Kubernetes experience that is ready to meet Day 2 operational expectations. The Starter Pack for GitOps and Kubernetes is an ideal introduction to the full range of products and services D2iQ can provide to ensure you are successful in achieving your desired business outcomes.

Features	Benefits
Complete Kubernetes Solution	Cloud Native Computing Foundation conformant pure Kubernetes distribution with a full suite of integrated and supported components delivering an end-to-end solution
Real-world Mixed Workload and Scale Testing	Extensive integration and workload testing at massive scale to ensure real-world preparedness
End to End Support	Enterprise grade support and services for the entire platform including all components
Operations Dashboard	Provides instant visibility and operational efficiency into Kubernetes cluster landscape, helping an organization understand resources and utilization.
Centralized Monitoring, Logging and Alerting	Enables central monitoring and alerting of issues arising within operational and application infrastructure, as well deep cross-cluster logging for easier troubleshooting. As issues are detected, they can be resolved before they escalate, thereby saving valuable time.
Cluster Configuration Manager	Simplifies and delivers consistent configuration for services and cross cluster operations.
Multiple Choices for Pipeline Configuration	Choose from CUE (JSON-like), Starlark (Python-like), JSON, or YAML to configure build pipelines. The ability to leverage a high level language that developers are most comfortable with, makes Dispatch much easier to use than other Tekton based CI/CD platforms using procedural YAML.
GitOps-Based Application Build and Development	Store both pipeline configuration and application deployment configuration in a Git repository. Dispatch enables governance of operational state through Git repositories, providing secure separation of developers and operators, as well as enabling easy auditing and repeatable deployments.
Cloud Native Components	Leverage CNCF projects, such as Tekton and Argo, that natively take advantage of Kubernetes' built in facilities, such as compute, network, storage, and security.
Expert Training and Services	Get the knowledge you need to achieve Day 2 success from cloud native pioneers and experts who have helped build some of the largest distributed computing systems in the world.



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