



# Hybrid and Multi-cloud Powered by Kubernetes

## Challenges

With a goal of maximizing flexibility and minimizing lock-in, IT teams are designing architectures that can span on-premises, private cloud, and multiple public cloud (AKA “hybrid and multi-cloud”) environments. The native capabilities of Kubernetes provide great baseline capabilities. However, Kubernetes management both within and across clouds and on-premises environments has the following challenges:



### Code Modifications

On-premises and public cloud Kubernetes ecosystems typically differ. As a result, code modifications are often required to adapt to the ecosystem.

### Clunky management

Each environment typically has its own distinct Kubernetes controls. These inconsistencies make management across a hybrid or multi-cloud environment clunky at best.



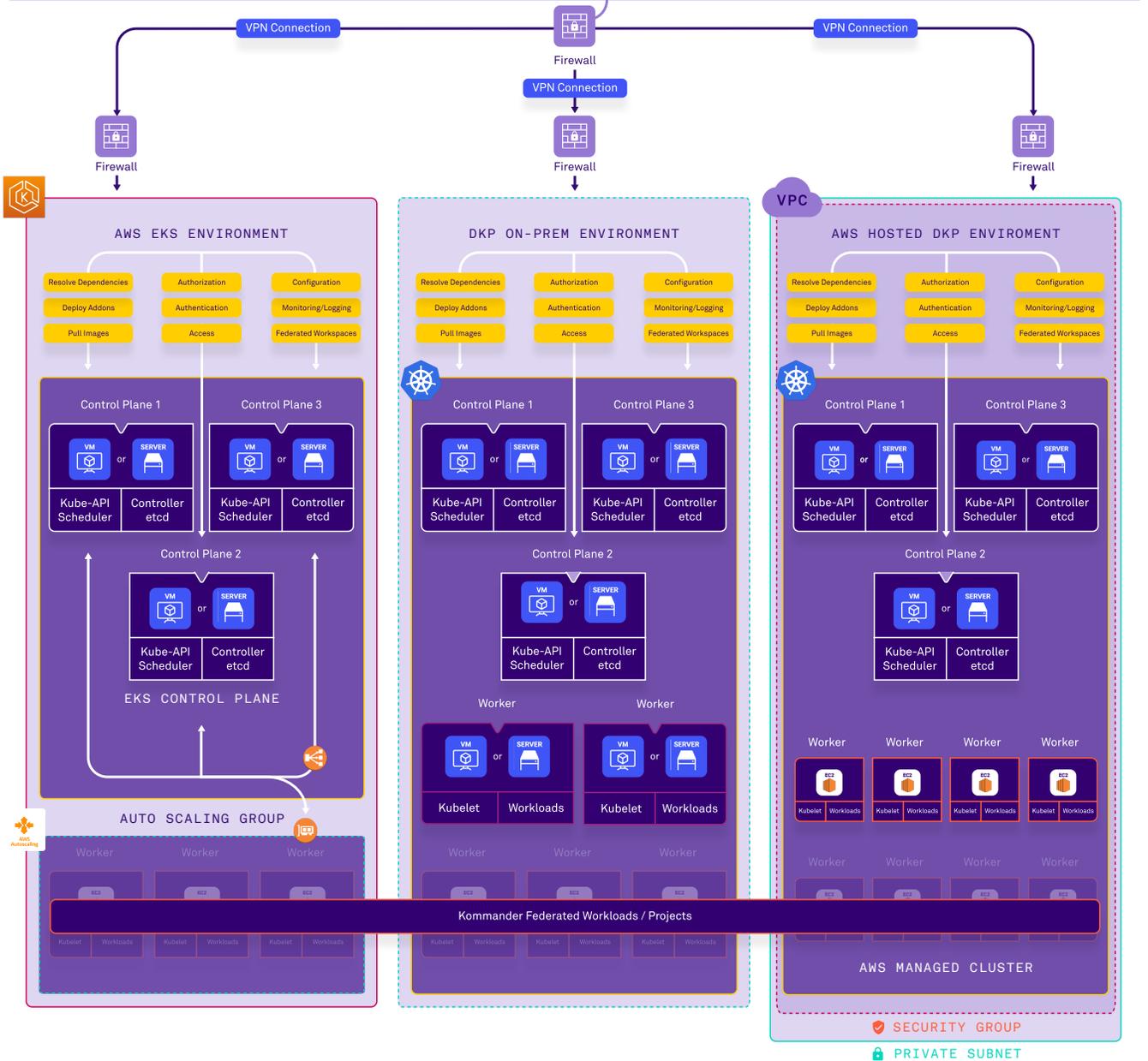
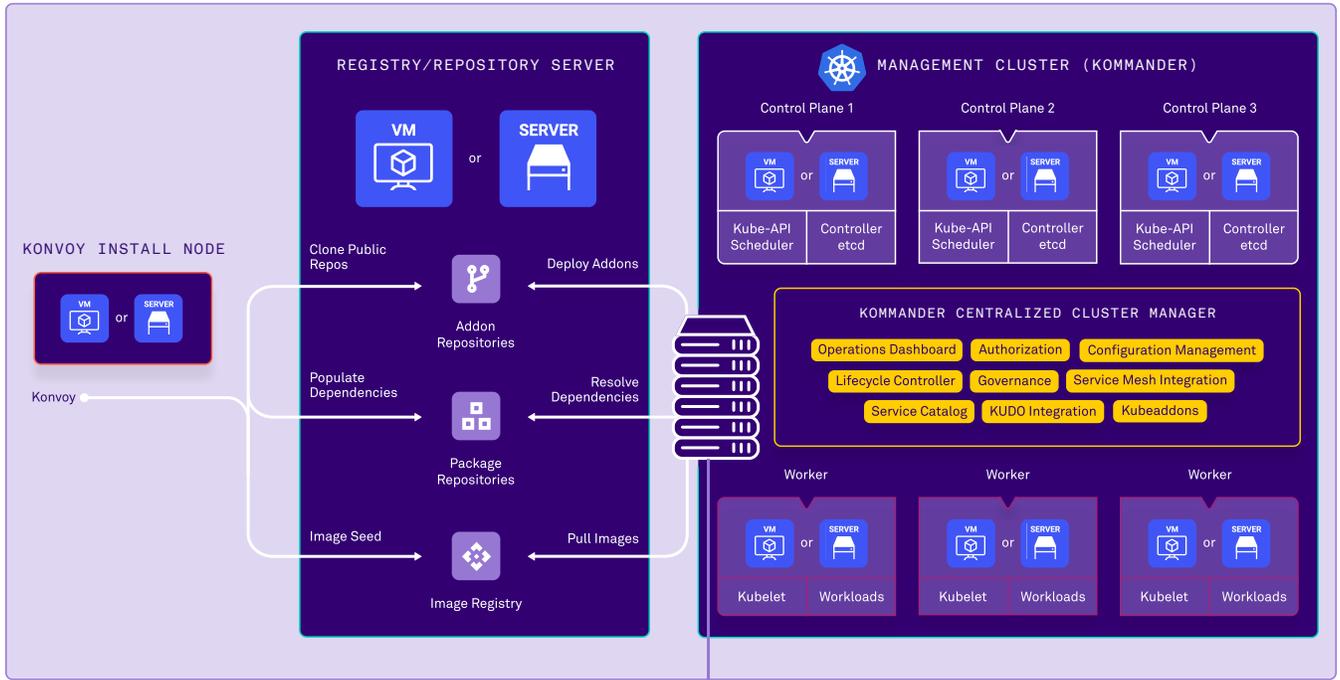
### Limited mobility

Diverse ecosystems and management tools combine to restrict application and container consistency across platforms. As a result, mobility is limited.

## On-Premises or Private Cloud

D2iQ gives you everything you need to run production Kubernetes in hybrid and multi-cloud environments – both the right technology and the right expertise to implement that technology. D2iQ’s purpose-built automation provides fast implementation with flexible configuration in place of time-consuming customization.

The diagram depicts a hybrid and multi-cloud Kubernetes implementation that spans on-premises and public cloud environments. A single management cluster supports multiple clusters across on-premises and multi-cloud environments.



D2iQ Kommander was architected to be infrastructure-agnostic. Kommander manages both infrastructure and applications across hybrid and multi-cloud environments. It does so by abstracting differences among environments and automating management processes.

Kommander federates workloads and projects into a logical whole. So, the local Kubernetes cluster can be federated across multiple Amazon Web Services clusters. Alternatively, clusters could also be federated across a great number of supported public clouds. Kommander also works with any Kubernetes distribution (AWS, EKS, D2iQ, and more) without requiring modifications to the distribution.

By providing a consistent management approach across federated Kubernetes clusters / workspaces, D2iQ provides workload portability, workload mobility, and efficient, automated management. These capabilities enforce a consistent approach across complex hybrid and multi-cloud environments.

## Outcomes

Hybrid multi-cloud Kubernetes with D2iQ helps government agency and business IT teams create unparalleled successful outcomes.



### Development Speed

Consistent development and operations environment increases speed of development.



### Efficient Management

A single automated management overlay maximizes efficiency across the environment.



### High Mobility

Workloads can be migrated seamlessly among clouds and on-premises environments.



D2iQ delivers the leading independent platform for enterprise-grade Kubernetes. Starting with a comprehensive, enterprise-grade Kubernetes distribution built on pure upstream open-source, D2iQ provides management and ancillary platform applications that are tightly integrated, secured, and tested at scale. To learn more, go to [www.D2iQ.com](http://www.D2iQ.com).

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