

Key Capabilities for Kubernetes in the Public Cloud

Many enterprises are leveraging cloud services for Kubernetes to rapidly build and deploy applications.

While there are many benefits using Kubernetes on the public cloud, they also come with some tradeoffs, which can make adoption and usage difficult for organizations.

Both Kubernetes and the public cloud have a lot to offer, but how can they be used together as a competitive advantage? And how can you unify both tools so you can build, deploy, and manage multiple clusters across any infrastructure in a consistent and repeatable manner?

To help you get started on the right track, we created this checklist to help IT decision-makers like you understand the key capabilities, processes, and tools you need so you can reap the combined benefits of Kubernetes and the public cloud.

The key capabilities, services, processes, and tools that you should be looking for in a Kubernetes solution, include:



01 Observability

Centralized visibility of Kubernetes workloads and infrastructure metrics to manage service availability.

02 Financial visibility and workload optimization

Granular real-time visibility of Kubernetes costs (including chargeback) and infrastructure insights to optimize cloud infrastructure spend and improve workload utilization.

03 Governance

Centralized governance and policy administration to create consistency across cluster deployment, manageability, accessibility, and security updates.

04 Application management

Built-in cloud-native application deployment tools to facilitate ongoing zero downtime deployments.

05 Centralized authorization and authentication

Single sign-on and Role-Based Access Control (RBAC) to identify users, configure access, and perform compliance checks.

06 Cluster lifecycle operations

Automation needed to consistently deploy, scale, upgrade, and manage multiple clusters.

07 A complete and open platform

Integration with other upstream and open source services for Day 2 production, such as security, storage, networking, with end-to-end automation out-of-the-box.

08 Portability

Ability to build, deploy, and manage Kubernetes and your cloud-native applications on any infrastructure, including the cloud, on-premise, at the edge, or any combination consistently.

09 Broad workload coverage

Run complex, mission-critical business services, data-rich applications, streaming analytics, and machine learning use cases with the enterprise-grade requirements of scale, security, and resilience.

10 Cloud native expertise

Knowledge required to advise, activate, and drive adoption of Kubernetes.

11 Certified Kubernetes training

Training and certification to meet the company's Kubernetes adoption objectives, which may include hybrid, edge, or multi-cloud Kubernetes.

12 Expert support

Full stack support for Kubernetes, Day 2 operational components, and a low Total Cost of Ownership.

The capabilities, services, processes, and tools listed above will help you get started with multi-tenancy. As Kubernetes evolves and new functionality is established, new auditing capabilities will be needed.

Using D2iQ Kommander with Amazon Elastic Kubernetes Service (EKS), Azure Kubernetes Services (AKS), or Google Kubernetes Engine (GKE) not only helps you deliver an effective multi-cluster and multi-tenant management strategy, but provides other key enterprise capabilities that you'll need to run Kubernetes in production. Learn more about these capabilities by downloading the ebook, "[The Art of Winning: Leverage Kubernetes in the Public Cloud to Deliver a Unified DevOps Experience.](#)"



D2iQ provides the leading independent Kubernetes platform which simplifies and automates the really difficult tasks needed for enterprise-grade production at scale, while reducing operational burden and reducing costs. As a cloud native pioneer, we have more than a decade of experience tackling the most complex, mission-critical deployments in the industry. The D2iQ Kubernetes Platform is a complete solution that includes the technology, expert services, training and support necessary to ensure your success on Day 2 and beyond. Our independence provides us the agility to meet the needs of our customers first, while always keeping TCO top of mind. D2iQ is headquartered in San Francisco and investors include Andreessen Horowitz, Hewlett Packard Enterprise, Khosla Ventures, Koch Disruptive Technologies, Microsoft, and T. Rowe Price Associates, Inc. Find us at <https://d2iq.com/>