

Kubermatic Kubernetes Platform for Edge Deployment

What Is Kubermatic Kubernetes Platform?

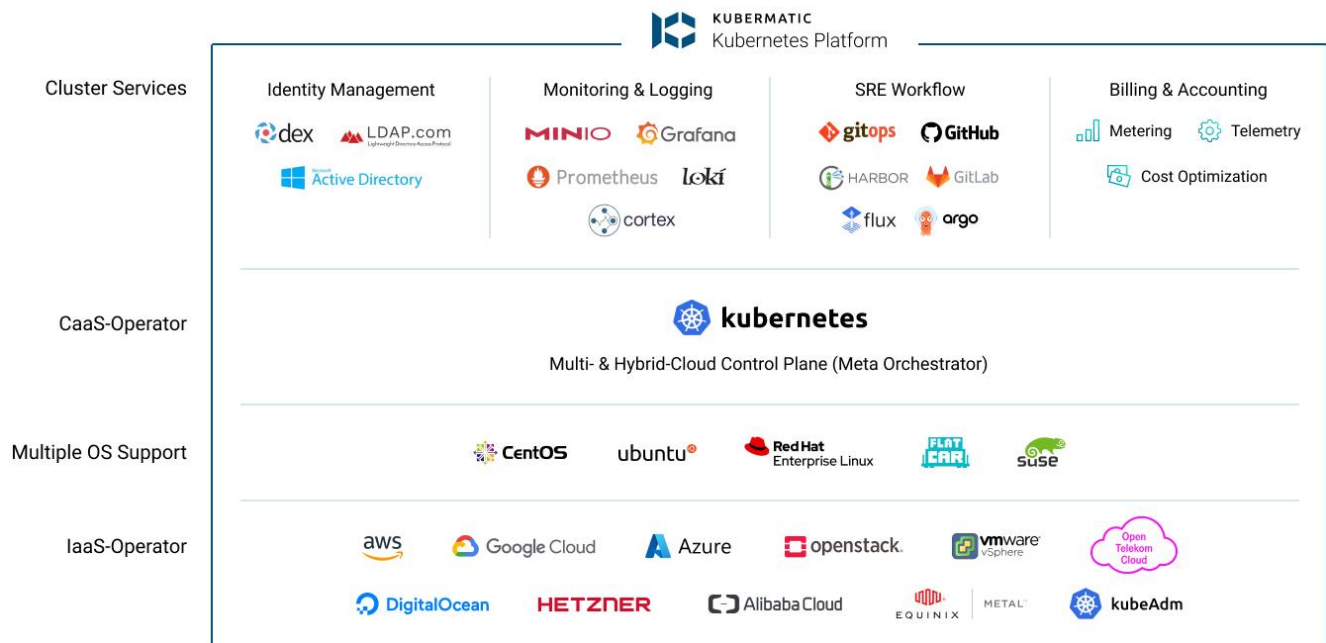
Kubermatic Kubernetes Platform (KKP) is used by IT teams worldwide to operate, automate and scale hundreds or even thousands of clusters. Its Kubernetes in Kubernetes architecture automates deployments, Day 2 operations, policy and governance, security, management, and user experience. Combined with unparalleled density and resilience, KKP is the simplest and most effective software to manage the new era of cloud native IT infrastructure and accelerate the enterprise journey to automated multi-cloud operations.

Integrate Your Existing Tech Landscape

Speed up cloud native adoption

Automate day 2 operations & compliance

Leverage best in class ecosystem tooling



What Makes Edge Challenging?

Edge computing is unlocking many new business opportunities in areas like manufacturing, retail, healthcare, and telecommunications. However, managing the scale, distribution, and life cycle of applications at a large number of edge locations requires fulfilling the following criteria:

1. **Security:** It is critical to ensure effective isolation of workloads to ensure non-interference of resources and data in a multi-tenant setup
2. **Resource Management:** Operators must be able to manage centrally. Further, in case of a data breach, the system needs to be able to operate remotely and independently.
3. **Operations:** An effective edge system requires a high degree of automation and self-healing capabilities to reduce the impact of low network bandwidth, latency or outage.
4. **Open Standards:** Edge systems are characterized by their ability to deploy new workloads rapidly and integrate them with a variety of different environments.
5. **Stability & Predictability:** Edge compute platforms should behave predictably in different scenarios to provide a consistent and stable user experience.
6. **Abstraction:** Edge systems must offer an abstraction layer for infrastructure components to support portability of applications and workloads across platforms.

What Is KKP for Edge Computing?

KKP for Edge Computing helps teams tackle these challenges by automating IT operations from the infrastructure to the application. KKP scales dynamically with your needs so you can start small and grow as needed without any downtime or data loss. You might use it to set up a single node that houses an application then scale out when demand increases. Or you could use it to run many different applications on one physical server simultaneously without having them interfere with each other's resources.

The Benefits of KKP for Edge Computing



Hybrid-cloud abstraction layer

- Identity Management (OAuth, OpenID Connect, Active Directory)
- Centralized multi-cluster Logging, Monitoring, and Consumption Metering
- Abstract cloud dependencies from the cluster consumer using preset environments



Multi-tenancy and user management

- Separate cloud providers and preset environments by organizational units
- Datacenter separation – decide where the data is stored
- Multi-cluster separation lowers effort for in-cluster policy enforcement



Cluster blueprints, presets, and add-ons for governance and policy enforcement

- Central management of policy enforcement with automatic updates to all clusters using OPA Gatekeeper
- Flexible policy management for individual datacenters and clusters
- Customizable add-on distribution of enforced and selectable add-ons



Automated lifecycle management

- Provisioning, scaling, updating, and clean up of clusters with just an API call
- Automatic scaling of control plane components
- Decide between enforced upgrades (security fixes) and user controlled upgrades
Automatic roll out and roll back of upgrades
- Templatized workflows for repetitive tasks



Automated backup and recovery

- Centralized multi-cluster and multi-cloud backup handling
- Configure multiple backup destinations from the Admin UI for greater resilience

Why Use Kubermatic Kubernetes Platform?

1

Faster Time to Market

KKP is compatible with any tool that supports Kubernetes, so you can use your existing setup while incorporating more best-in-class ecosystem tooling. Experience the freedom and benefits to choose from the entire cloud native landscape throughout the development process. With automated deployment and management, your DevOps process runs faster than ever, thus speeding up release cycles.

2

Secure and Compliant Clusters at All Times

Leverage our enterprise grade security and governance to consistently deploy secured and compliant clusters across all environments. KKP streamlines authentication and access control, user and team management, enterprise security, operational observability, and many other functionalities under one intuitive UI.

3

Increased Productivity

Enjoy the benefits of automated deployment and full lifecycle management of hundreds and thousands of Kubernetes clusters. KKP equips development teams with an intuitive self service portal to provision and deploy the environment they need in a matter of minutes.

4

High Scalability

KKP provides for complex deployment scenarios across any infrastructure, including hybrid cloud and edge environments. KKP packs up to 20 times more clusters on the same management plane, but needs minimum operational effort to actually run unrivaled component density for maximum scale. Be it 5G, Big Data, AI or ML, scalability via KKP makes it an ideal solution for organizations exploring new and powerful technologies.

5

Outstanding Performance to Price Benefits

With our flexible and consumption based subscription model, you only pay for the capacity you need— adding to the considerable savings in infrastructure and operations costs brought about by containerization and Kubernetes. Now don't just imagine but experience higher density, optimized capacity utilization and less downtime.

6

Business-driven support SLAs

Different businesses have different needs when it comes to support. Whether you need KKP or Kubernetes support, we provide multiple SLA options to make sure all business requirements are met.

Why Kubermatic?

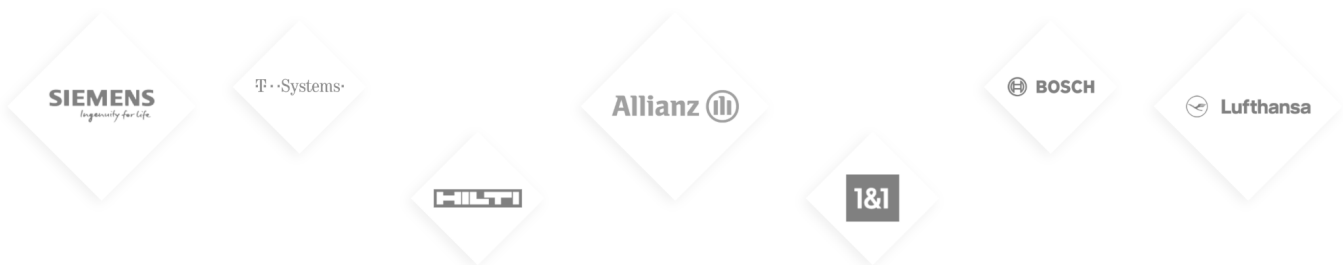


Kubermatic is our supplier of choice because they understand Kubernetes to the core. Kubermatic Kubernetes Platform allows us to manage thousands of clusters with ease. The best part is that they are approachable for us, even deploying the absolutely latest technology.

We chose Kubermatic as our premium partner to bring all the advantages of Kubermatic Kubernetes Platform to the edge and manage thousands of clusters beyond the cloud.

– Head of Product, iNNOVO Cloud

Global Leaders Work With Kubermatic



Get started with Kubermatic Kubernetes Platform

Contact our sales team at sales@kubermatic.com or visit our website at kubermatic.com