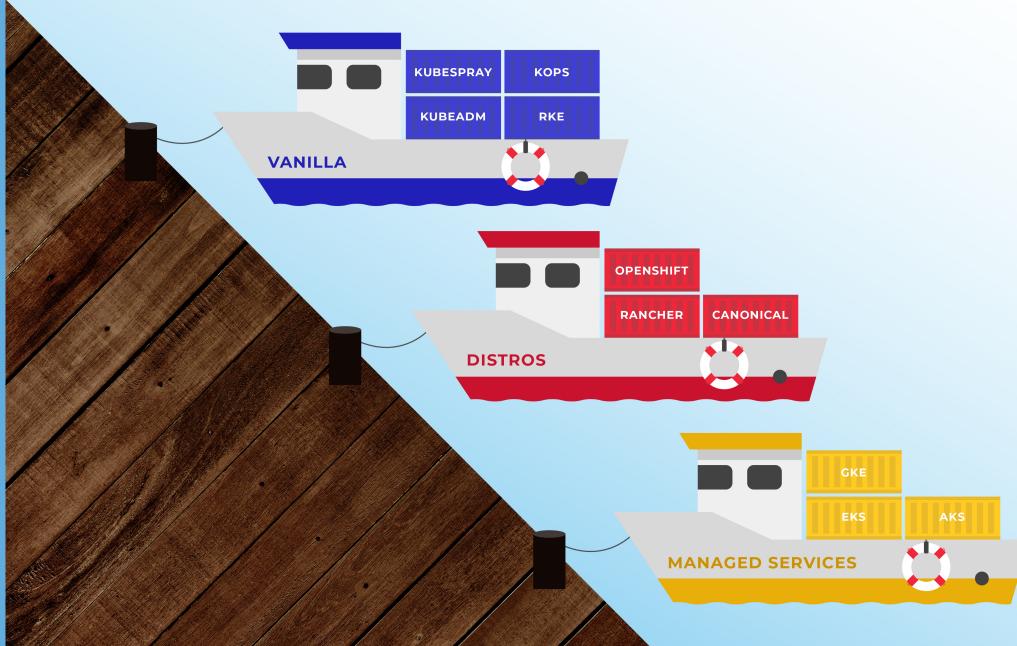


Your Guide to Kubernetes Distributions

Kubernetes standardizes application design into modular and portable microservices that can be easily deployed and scaled over multiple cloud environments. Organizations can own their destinies in the cloud by leveraging vanilla tools, distros or managed services.



Vanilla (Open Source)	Distros (Distributions)	Managed Services
<p>Your internal operations team handles all your container deployments. You have more flexibility to customize your deployment, but an inexperienced team may not know how to manage version upgrades and take advantage of the features.</p> <p>Kubespray Kubespray is designed to deploy Kubernetes clusters in cloud or on-premise. It enables the cluster operators to customize all aspects of the deployment. Known for long deployment times.</p> <p>Kops Kops is responsible for the entire lifecycle of the Kubernetes cluster from infrastructure creation to cluster deployment/provisioning. Available through AWS (officially supported), GCE (beta version) and VMWare vSphere (alpha version).</p> <p>Kubeadm Kubeadm is the official installation tool for bootstrapping a minimum viable Kubernetes cluster on existing infrastructure. Kubeadm does not support the provisioning of your infrastructure. High availability installation is complicated and requires manual steps.</p> <p>RKE Rancher Kubernetes Engine (RKE) is a lightweight container-based installer that can bootstrap clusters from a single yaml file. It supports both on-premise and cloud deployments.</p>	<p>Distros require internal Operations teams to oversee deployments, but they provide opinionated tools and processes for building and managing clusters. Priced support contracts and value-added features are often available.</p> <p>Red Hat OpenShift OpenShift is a full platform solution that oversees all aspects of the software development life cycle. It is a stable offering that is consistent and easy to manage, but puts you at the risk of getting locked into OpenShift.</p> <p>Rancher Rancher provides a useable and manageable platform that is deterministic in deployment and lightweight in installation. Rancher also supports multi-cluster management and application workload management across any Kubernetes clusters.</p> <p>Canonical Canonical's opinionated deployment is based on Ubuntu. It is a vanilla-like form of Kubernetes with added enterprise features.</p>	<p>Your service provider manages the entire container orchestration for you. They offer in-depth services that optimize the public cloud being used. You have less flexibility, but the process is easier and faster. Managed services do greatly increase your risk of vendor lock-in as you will be attached to a managed service as well as cloud offering.</p> <p>Google K8s Engine (GKE) GKE was the first managed service and has the most mature offering. It is rich in features and integrates well with GCP.</p> <p>Amazon Elastic Container Service for K8s (EKS) EKS is relatively new to the market, but it's expected to eventually have equivalent functionality with GCP. AWS is in general the most mature cloud offering, and EKS offers seamless integration with AWS.</p> <p>Microsoft Azure Container Service (AKS) AKS is also new to the market. It works well for organizations using Azure. We can expect Microsoft to make a big push with AKS in the future.</p>

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at one of our **Docker and Kubernetes workshops**

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