

# K3s: Lightweight Kubernetes



Certified  
Kubernetes  
distribution  
for IoT & edge  
computing

### Perfect for Edge

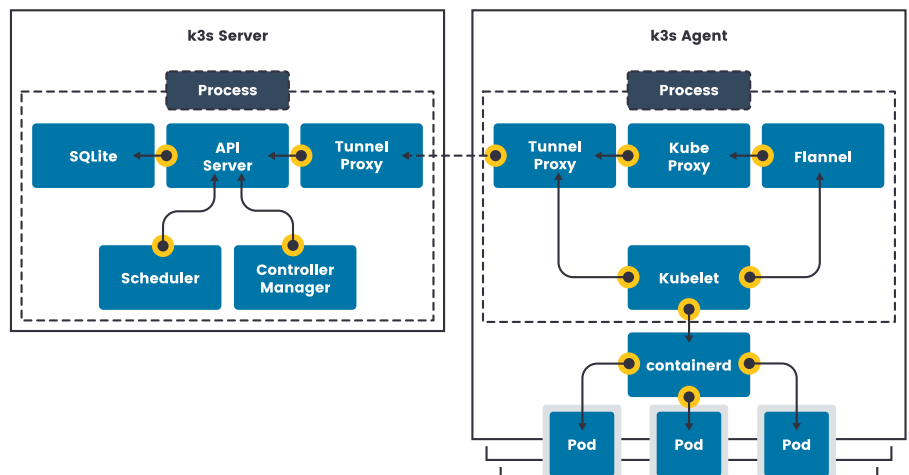
K3s is a highly available, certified Kubernetes distribution designed for production workloads in unattended, resource-constrained, remote locations or inside IoT appliances. When K3s is used with Rancher, organization's are equipped with an easy, complete and reliable solution for Kubernetes at the edge.

### Simplified & Secure

K3s is packaged as a tiny, single binary that reduces the dependencies and steps needed to install, run and auto-update a production Kubernetes cluster.

### Optimized for ARM

Both ARM64 and ARMv7 are supported with binaries and multiarch images available for both. K3s works great from something as small as a Raspberry Pi to an AWS a1.4xlarge 32GiB server.



# Why use K3s on the Edge?

Kubernetes is the leading solution to address edge computing use cases in industry verticals such as manufacturing, transportation, power generation, retail and banking. Typical edge systems that leverage Kubernetes to run complex workloads include energy meters, aircraft engines, gas & oil rigs, cruise ships, high-speed trains, retail scanners, wind turbine base stations, internet-connected cars, ATMs and much more.

With its tiny single binary, native ARM support and production-grade, highly available architecture, K3s is the ideal certified Kubernetes distribution to auto-initialize and maintain clusters at the network edge.

Any K3s cluster can be easily installed, monitored and managed by IT operations teams using Rancher's multi-cluster capabilities.

Removed	K3s Adds
In-tree cloud providers	Simplified installation
In-tree storage drivers	SQLite3 & TLS management
Docker (can be added back)	Automatic Manifest and Helm Chart management
etcd (can be added back)	containerd, CoreDNS, Flannel

## K3s is a CNCF sandbox project

In August 2019, Rancher Labs launched K3s a lightweight Kubernetes distribution to address the need for organizations to run Kubernetes in resource-constrained environments, in IoT devices or at the Edge. Since 2019, it has been downloaded over a million times and spawned multiple new projects across the open source Kubernetes community.

After two years of research and development in June 2020, Rancher Labs donated K3s to the CNCF. The donation is a testament to Rancher Labs commitment to the open source community and their mission to run Kubernetes everywhere. Rancher Lab's continues to be the project's principle contributor with a team dedicated to working on K3s. Contribute to the K3s community via [github.com/rancher/k3s](https://github.com/rancher/k3s).



**INTERESTED IN LEARNING MORE?  
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