



PARTNER BRIEF

Certified Kubernetes Distribution for IoT and Edge Computing

ZEDEDA, K3s, and SUSE Rancher

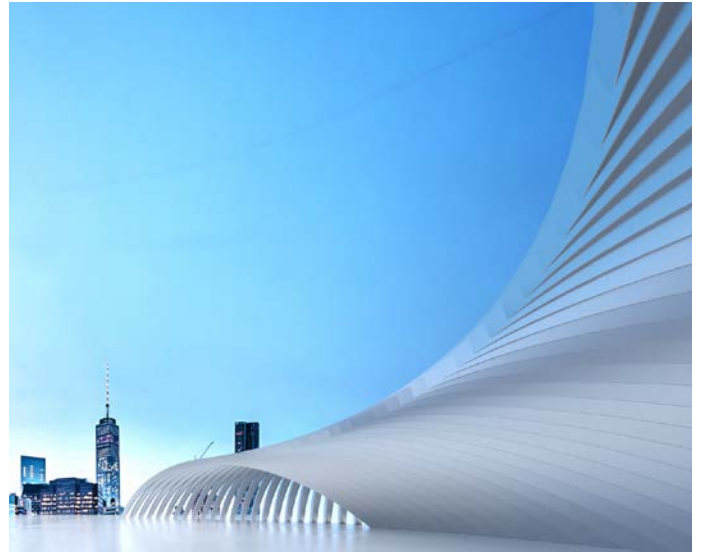
Find out how ZEDEDA and SUSE have collaborated together to deliver a comprehensive solution for managing Kubernetes at the distributed edge to support a variety of use cases.



Overview

ZEDEDA and SUSE have come together to offer a comprehensive solution for managing Kubernetes at the distributed edge to support IoT, AI, 5G, network virtualization and security use cases in any vertical including manufacturing, energy, retail and more. The solution is built on an open foundation which produces a network effect in the broader solution ecosystem. Both ZEDEDA and SUSE have a strong heritage in open source and this collaboration is no exception. ZEDEDA leverages the open source EVE-OS from the Linux Foundation's LF Edge organization – and with Rancher – SUSE is now a leading driver behind K3s, in addition to their long-standing contributions to the Linux community.

In August 2019, Rancher Labs (now part of SUSE) 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, K3s was donated to the CNCF in June 2020. The donation is a testament to Rancher Labs commitment to the open source community and their mission to run Kubernetes everywhere. In December 2020, SUSE acquired Rancher Labs and the team behind K3s. SUSE continues to be the project's principal contributor with a team dedicated to working on K3s. Contribute to the K3s community via github.com/rancher/k3s.



ZEDEDA offers a cloud-native edge computing solution that greatly simplifies Kubernetes infrastructure management.

ZEDEDA – Extend the Agility of the Cloud to the Edge

ZEDEDA, the leader in management and orchestration for the distributed edge, offers a cloud-native edge computing solution that greatly simplifies Kubernetes infrastructure management, security and visibility as customers look to deploy Kubernetes clusters outside of centralized data centers. The ZEDEDA cloud has a simple and intuitive UI along with comprehensive APIs that abstract all the complexities of provisioning Kubernetes clusters at the distributed edge while automating cluster bring-up on target edge nodes in minutes. ZEDEDA's solution can support any Kubernetes distribution, including K3s, K8S, KubeEdge, and MicroK8s by simply adding them to the ZEDEDA app marketplace.

K3s and SUSE Rancher for the 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 SUSE Rancher, organizations are equipped with an easy, complete, and reliable solution for Kubernetes at the edge.

- **Small in size** – K3s is less than 100MB (about 40 MB) with 250 MB of memory consumption
- **Lightweight** – the binary containing the non-containerized components is much smaller than K8s
- **Fast deployment** – you can use a single command to install and deploy K3s, and it will take you less than 30 seconds to do so
- **Simplified** – thanks to the self-contained single binary package
- **Supports the automation required in continuous integration** – K3s helps you automate the integration of multiple code contributions into a single project
- **Smaller attack surface** – thanks to its small size and reduced amount of dependencies
- **Batteries included** – a local storage provider, a service load balancer, a Helm controller, and an ingress controller are included
- **Easy to update** – thanks to its reduced dependencies
- **Easy to deploy remotely** – can be bootstrapped with manifests to install after K3s comes online
- **Great for resource-constrained environments** – K3s is the better choice for IoT and edge computing

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 SUSE Rancher's multi-cluster capabilities.**



Want to Learn More?

Visit suse.com/products/k3s and zededa.com/product to find out how your organization can simplify Kubernetes distribution at the edge.



About ZEDEDA

ZEDEDA makes edge computing effortless, open, and intrinsically secure – extending the cloud experience to the edge. ZEDEDA reduces the cost of managing and orchestrating distributed edge infrastructure, while increasing visibility, security and control.

ZEDEDA ensures extensibility and flexibility by leveraging a partner ecosystem, and EVE-OS, open-source Linux-based edge operating system.



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