Containers and Kubernetes promise developer speed, multicloud portability, and elasticity. At the same time, they create a perfect storm of complexity and dynamic, fluctuating demand that challenges the best of teams. Effectively managing Kubernetes at scale necessitates that software (not people) continuously controls the environment. Turbonomic continuously and automatically manages resources at every layer of the application stack to ensure that applications always get what they need to perform. Turbonomic determines and automates:

1. **How should you size containers?**
2. **When do you need to reschedule pods? To which node?**
3. **When do you need to scale out (or back) the cluster? By how much?**
4. **Do you have enough capacity to onboard new services?**

**Container Rightsizing:** Turbonomic can scale container limits/requests up or down based on application demand (these actions can be executed automatically in real-time, or as part of your existing deployment process, ex. CICD).

**Pod “Move”/Rescheduling:** Turbonomic can reschedule pods while maintaining service availability to avoid resource fragmentation and/or contention on the node. These actions safely increase density, while ensuring that pods can always be deployed—no pending pods!

**Cluster Scaling:** When Turbonomic sees that pods have too little (or too much) capacity in the cluster it will give the recommendation to spin up another node (or suspend nodes). You always have exactly the right amount of infrastructure to ensure your services continuously perform.

**Container Planning:** Turbonomic allows you to model “what if” scenarios based on your real-time environment. With a few clicks you can determine how much headroom you have in your clusters, or simulate adding (or removing) demand (Kubernetes pods).

Turbonomic actions continuously and simultaneously assure application performance, while minimizing cost and maintaining compliance with business policies—for your Kubernetes clusters, as well as your private or public cloud infrastructure. It provides a unified control platform to manage application resources across your hybrid and multicloud estate.
Accelerating DevOps with a Container Feedback Loop

Automation can increase both the number of deployments and the quality with repeatable delivery and testing. Turbonomic is continuously analyzing the resource needs of your services in production, determining the right actions to assure their performance. Container resizing actions can be executed as part of your deployment process to ensure services are continuously optimized. In other words, Turbonomic provides a feedback loop regarding how your services are performing and how to predict what is needed from the infrastructure.

Accelerate Your Platform-First Initiatives

Containerization is a journey—one that starts with the first few applications and then expands as you demonstrate success and demand for your next-gen application platforms rapidly grows. Only Turbonomic software scales with the complexity of hybrid and multicloud estates, carrying you through your container journey from day one and beyond. It can help you achieve your platform-first goals more quickly and within budget. When your services continuously perform you customer experience is better and your teams can more seamlessly operate together.

Request a demo at turbonomic.com/request-a-demo-kubernetes/Kubernetes

Supported Platforms

- Kubernetes
- OPENSHIFT
- Amazon EKS
- Azure AKS
- Google GKE

Turbonomic supports any upstream version of Kubernetes, including Red Hat OpenShift, Amazon EKS, Azure AKS, and Google GKE.