As OpenShift® and other Kubernetes environments grow, they become more error prone and more difficult and time consuming to manage. Here are three ways Red Hat® Advanced Cluster Management for Kubernetes can help.

1. Centralize management

Organizations continue to modernize and create new applications to stay relevant, resulting in a growing number of Red Hat OpenShift and other Kubernetes-type clusters in single, multiple, and distributed cluster environments. The growth in clusters introduces management complexities, making it critical to have a centralized control plane to simplify cluster management. Visibility and alerts across clusters, as well as the ability to monitor health and performance, are also needed.

- Manage Red Hat OpenShift® clusters with a centralized control plane.
- Manage all Red Hat OpenShift clusters in a single view, including across Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), bare metal, and VMware vSphere, Red Hat OpenShift on IBM Cloud (ROKS), Azure Red Hat OpenShift (ARO), OpenShift Dedicated (OSD), OpenShift on OpenStack®, and OpenShift on IBM Z.
- Dynamically search for Kubernetes resources across an entire hybrid environment. For example, search for applications and their related nodes, deployments, containers, services, and routes.

2. Provision life-cycle management at scale—with ease and consistency

As clusters grow to meet demand, it is increasingly difficult to create, scale, modify, and delete them in a simple and repeatable manner. Centralizing management is key to efficiently managing the life cycle of clusters.

- Easily create new clusters in any cloud environment with ease and consistency.
- More easily, reliably, and consistently create, modify, and deprovision Red Hat OpenShift clusters at scale using an open source programming model that supports and encourages Infrastructure as Code (IaC) best practices and design principles. While performing these actions, the graphical user interface (UI) and IaC can be viewed side by side.
- Easily import and onboard preexisting Red Hat OpenShift clusters to centrally manage their life cycles.
- Consolidate Red Hat OpenShift upgrades with a unified view of releases across the organization. After choosing which clusters to upgrade, and to which release, they can be upgraded with a single click.
- From the Red Hat Advanced Cluster Management user interface, you can launch a specific Red Hat OpenShift cluster user interface to perform any cluster-specific tasks.

3. Manage public cloud Kubernetes clusters

Most organizations use hybrid cloud environments and public cloud Kubernetes clusters. A cluster management system needs to be able to manage all of the clusters in your environment.

- Import Kubernetes clusters into our unified view.
- Add, edit, and delete labels. For example, add labels for development, test, and production and quickly deploy an application to all production clusters in one action. Also, you can use these labels to search for Kubernetes resources.
- Centrally manage the state of the clusters using a policy engine for governance, risk, and compliance.
- Centrally deploy and manage the full life cycle of applications.
- Easily manage resources across cloud environments.