

## Alcide and Rancher: Securing Kubernetes Deployments on All Fronts

### The Kubernetes Complexity Problem

Kubernetes today keeps providing the freedom to rapidly build and ship applications while dramatically minimizing deployment and service update cycles. However, achieving optimal use of your cluster resources often comes with an endless list of configuration choices and deployment options for Kubernetes.

For organizations that are on any stage in their Kubernetes journey, complexity issues can ultimately lead to a variety of potential misconfigurations and security risks, tampering with the agility and efficiency of deployment cycles.

Simultaneously, the flexibility of cloud architectures and cloud-based apps surely brings many benefits; however, the velocity of application deployment requires a new approach that involves integrating tools as early as possible in the deployment pipeline, ensuring airtight reliability.

### Alcide & Rancher to the Rescue: Automate and Unify Security Guardrails Across Multiple Clusters

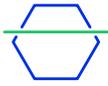
Kubernetes has many security knobs that address various aspects required to harden the cluster and applications running inside. This requires that operation teams have a deep understanding of the entire system and to keep close track of every single implementation.

The call for new and innovative mitigation strategies in such distributed environments is what brought Alcide and Rancher together.

The Alcide Advisor is a Kubernetes multi-cluster vulnerability scanner, designed to detect hygiene and conformance drifts from the CI/CD pipeline.

This seamless integration adds a multi-cluster security automation layer on top of Rancher's orchestration capabilities. DevOps and SecOps teams can continuously protect their Kubernetes deployments by leveraging Rancher's resources and getting a real-time data feed from Alcide directly from their Rancher account. The Advisor is available via Rancher's GitHub repository, allowing users to quickly gain access and run a full cluster scan at early stages in a matter of seconds.

# The Benefits



## Start as early as you build

Scan the Kubernetes cluster configuration file for security drifts and misconfigurations, resulting in a better understanding and control of distributed projects with a continuous and dynamic analysis.



## Early detection of hygiene, risk & conformance drifts

Integrated into the deployment phase of your CI/CD (continuous integration, continuous deployment) pipeline, Alcide Advisor provides profile-driven machinery to detect “negative” drifts with respect to previous deployments across a wide range of Kubernetes and Istio security best practices.



## Security first

Cover rich Kubernetes and Istio security best practices and compliance checks such as Kubernetes vulnerability scanning, hunting misplaced secrets or excessive secret access, workload hardening from Pod Security to network policies, Ingress controllers, Kubernetes API server access privileges and Kubernetes operators.



## Finding the right balance

Combining Rancher’s management capabilities with a tight security layer by Alcide will ultimately accelerate operation processes and empower both DevOps and security teams. Users are more likely to establish a baseline of what is currently running in a cluster and to make sure the existing environment satisfies expectations.

[Try Alcide Advisor on Rancher](#)

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