

Day 2 Kubernetes

Address day 2 Kubernetes challenges using Nirmata

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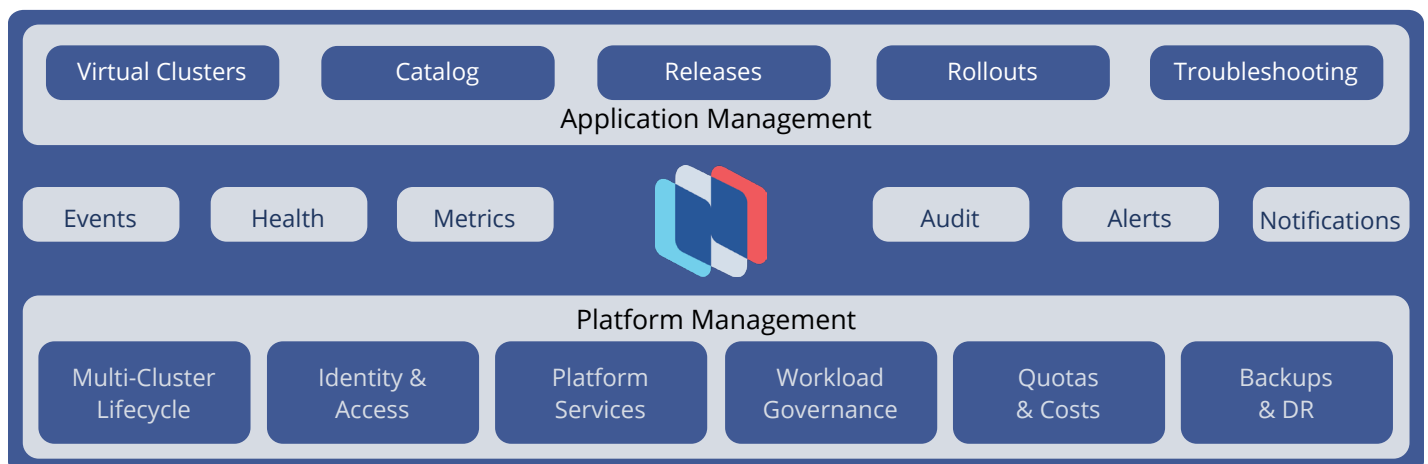
Benefits

Tame complexity - Manage all clusters and applications from a single pane of glass. Troubleshoot issues and get visibility into resource health, utilization, and costs.

Unleash agility - Provision secure and compliant physical or virtual clusters in seconds. Enable flexible and self-service developer experiences across teams.

Adopt multi-cloud - Manage any CNCF compliant cluster. Leverage EKS, AKE, GKE, and OKE. Ensure consistent configurations, compliance, and secure access across all cluster types.

Promote safety - Eliminate common configuration errors and enforce best practices. Easily mutate, validate, and generate configurations to keep your clusters safe and healthy!



Features

Platform Operations

Cluster Management

- Manage **multiple clusters and workloads** from a single control plane.
- Deploy production-grade **Kubernetes anywhere in minutes**.
- Deliver clusters on **any cloud** or your own on-premises hardware.
- **Discover existing Kubernetes clusters** and get full visibility into deployed resources.
- Define **cluster types to ensure consistent behaviors** for cluster components and workloads.
- **Automatically scale** clusters up or down based on metrics, conditions, and on-demand triggers.
- Get complete visibility into cluster and workload performance with **integrated monitoring and logging**.
- Integrate with service catalogs using RESTful APIs for **self-service** delivery.

Centralized Identity and Access

- Manage access to your clusters using **granular access control**.
- **Use SAML, OIDC** with group mappings for centralized authentication.
- Ensure **user or team level access** across catalog, environments, and clusters.

Workload Compliance

- **Audit or enforce** best practice policies across clusters.
- Define new **policies and actions** using the extensible policy framework.
- **Allocate and manage resource quotas** for your teams and applications.
- Ensure your application deployment across clouds and on-premises are always **compliant** with corporate policy requirements.



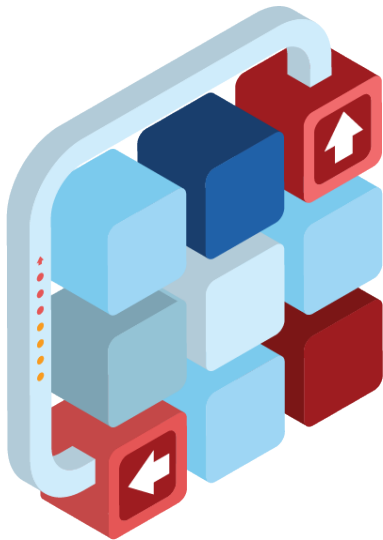
Application Operations

Application Catalog

- Build and offer curated **applications** to development teams.
- Easily **model** complex applications without writing and managing YAML files.
- **Export** any application as Kubernetes compliant YAML.
- Rapidly **convert** your existing 3-tier and traditional applications to **cloud-native** applications.
- **Automatically generate** required YAML files (manifests) that can be deployed directly to your Kubernetes cluster.

Virtual Clusters

- Create **secure, compliant and fully** isolated virtual clusters on-demand.
- Pre-configure **resource quotas and network policies**.
- Increase **cluster utilization** and **reduce costs**.



Application Management

- **Deploy applications** from a catalog or use **GitOps** to continuously update applications.
- Use **change management** policies to control and track the flow of changes from CI/CD tools to your dev-test, staging, and production environments.
- Manage the **complete application lifecycle** using CLI, API, or via an intuitive web interface.
- **Automate secrets management** using key managers such as Vault.
- **Automatically scale** your application based on resource utilization.
- Easily **clone** your applications across clusters and clouds.
- Manage multi-cluster workflows across regions and cloud providers.

Troubleshooting and Proactive Assessment

- Continuously **monitor** running applications and generate alerts for unexpected conditions.
- Create **custom alarms** for specific conditions, metrics, or state changes.
- Apply **proactive actions** based on specific alarms and thresholds.
- Use an **integrated Cloud Shell** to access your cluster and containers without requiring complex VPN or SSH.
- **Stream** container logs directly to a browser for quick analysis.