Red Hat
OpenShift

Advanced Cluster Management for Kubernetes

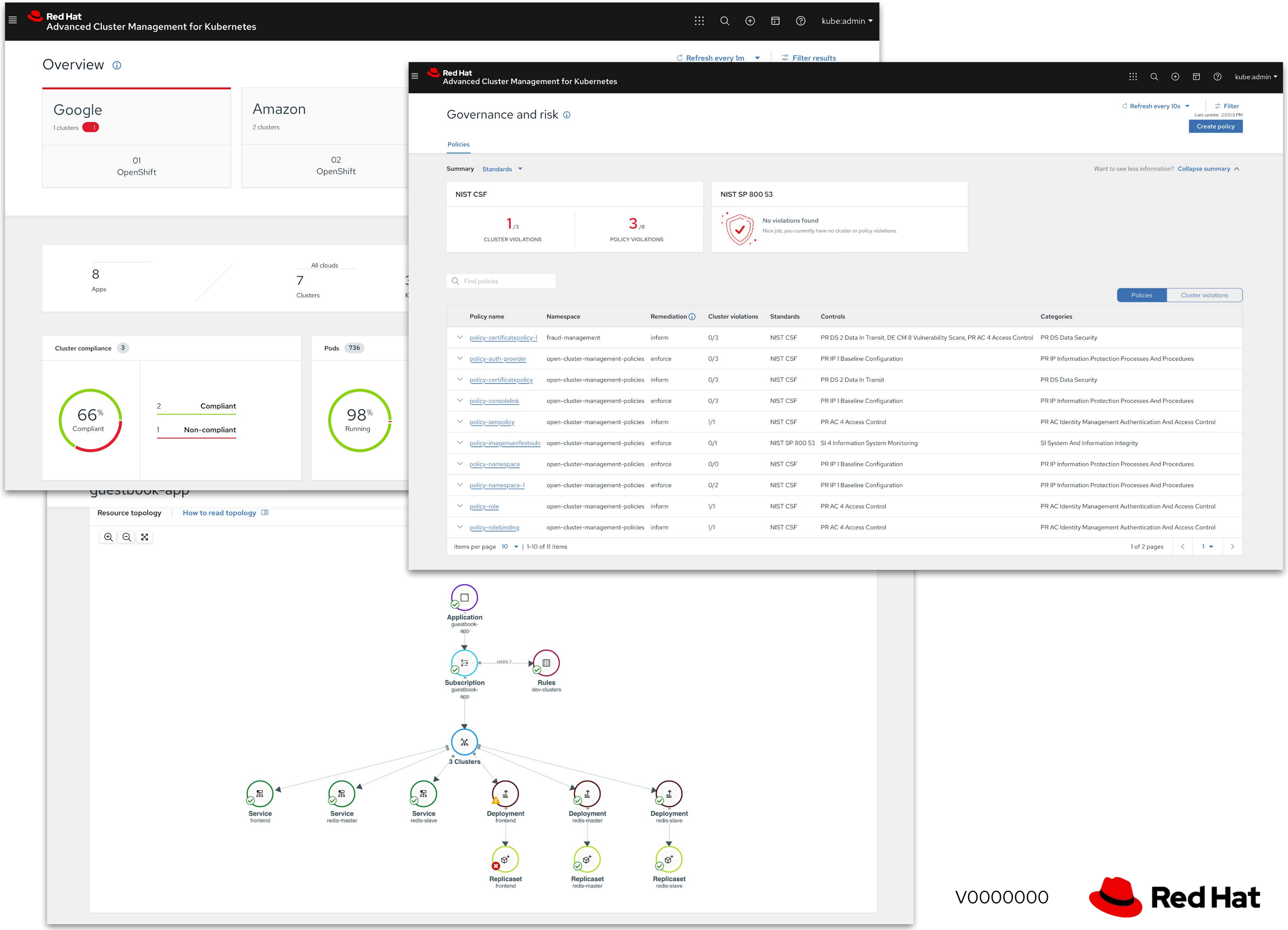
Alfred Bach
PSA EMEA

Robust. Proven. Award winning.

Multicluster lifecycle management

Policy driven governance, risk, and compliance

Advanced application lifecycle management



Red Hat
Advanced Cluster Management for Kubernetes

kube:admin

Overview

Refresh every 1m

Filter results

Google
1 clusters 1

01
OpenShift

Amazon
2 clusters

02
OpenShift

8
Apps

All clouds
7
Clusters

Cluster compliance 3

66% Compliant

2 Compliant

1 Non-compliant

Pods 736

98% Running

Red Hat
Advanced Cluster Management for Kubernetes

kube:admin

Governance and risk

Refresh every 10s

Filter

Last update: 2:03:13 PM

Create policy

Policies

Summary Standards

Want to see less information? Collapse summary

NIST CSF

1/3 CLUSTER VIOLATIONS

3/8 POLICY VIOLATIONS

NIST SP 800 53

No violations found

Nice job, you currently have no cluster or policy violations.

Find policies

Policies | Cluster violations

Policy name	Namespace	Remediation	Cluster violations	Standards	Controls	Categories
policy-certificatepolicy-1	fraud-management	inform	0/3	NIST CSF	PR DS 2 Data In Transit, DE CM 8 Vulnerability Scans, PR AC 4 Access Control	PR DS Data Security
policy-auth-provider	open-cluster-management-policies	enforce	0/3	NIST CSF	PR IP 1 Baseline Configuration	PR IP Information Protection Processes And Procedures
policy-certificatepolicy	open-cluster-management-policies	inform	0/3	NIST CSF	PR DS 2 Data In Transit	PR DS Data Security
policy-consolelink	open-cluster-management-policies	enforce	0/3	NIST CSF	PR IP 1 Baseline Configuration	PR IP Information Protection Processes And Procedures
policy-iampolicy	open-cluster-management-policies	inform	1/1	NIST CSF	PR AC 4 Access Control	PR AC Identity Management Authentication And Access Control
policy-imagemanifestvuln	open-cluster-management-policies	enforce	0/1	NIST SP 800 53	SI 4 Information System Monitoring	SI System And Information Integrity
policy-namespace	open-cluster-management-policies	enforce	0/0	NIST CSF	PR IP 1 Baseline Configuration	PR IP Information Protection Processes And Procedures
policy-namespace-1	open-cluster-management-policies	enforce	0/2	NIST CSF	PR IP 1 Baseline Configuration	PR IP Information Protection Processes And Procedures
policy-role	open-cluster-management-policies	inform	1/1	NIST CSF	PR AC 4 Access Control	PR AC Identity Management Authentication And Access Control
policy-rolebinding	open-cluster-management-policies	inform	1/1	NIST CSF	PR AC 4 Access Control	PR AC Identity Management Authentication And Access Control

items per page 10 | 1-10 of 11 items

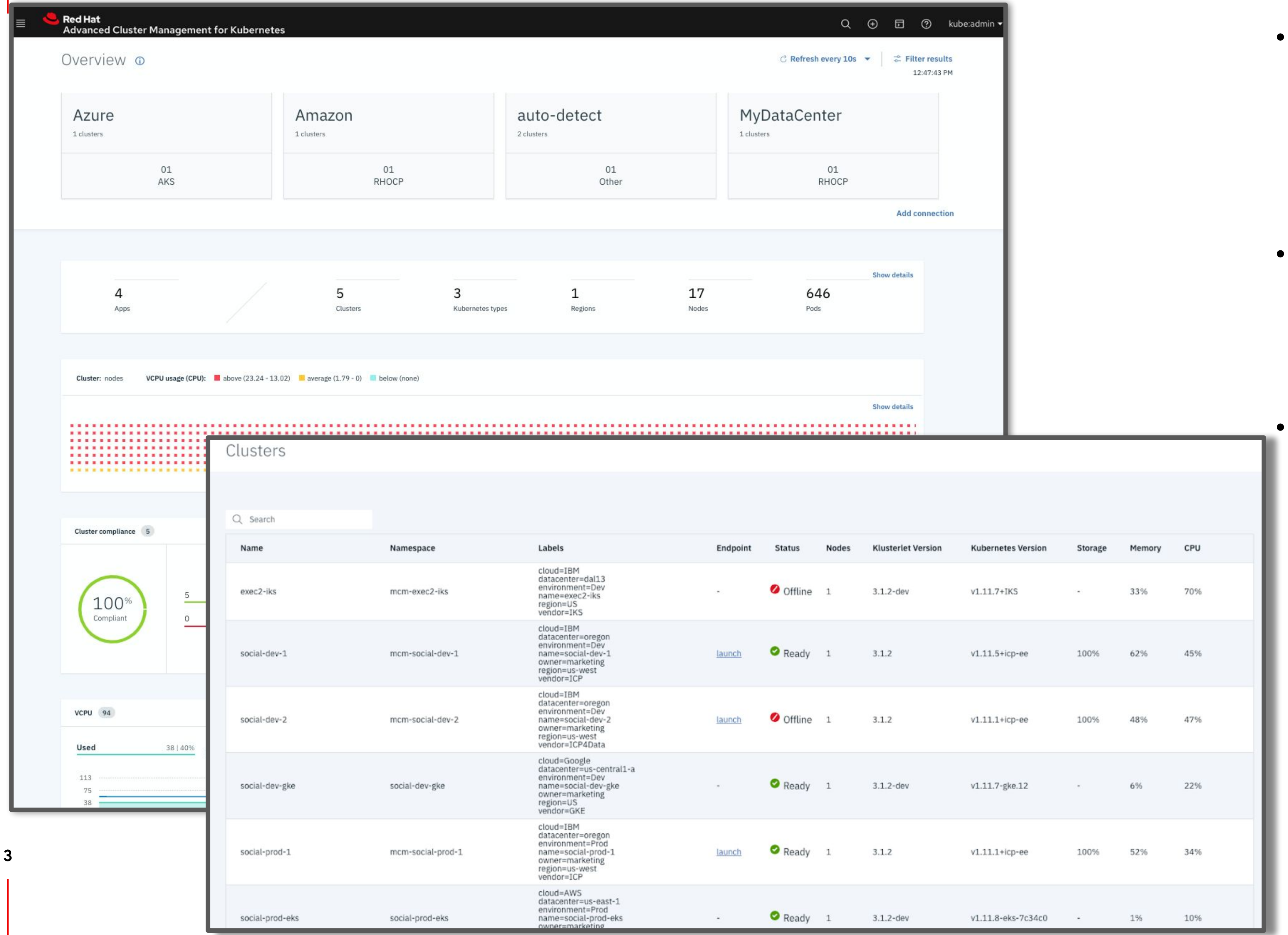
1 of 2 pages 1

guestbook-app

Resource topology | How to read topology

Unified Multi-Cluster Management

Single Pane for all your Kubernetes Clusters



Red Hat
Advanced Cluster Management for Kubernetes

Overview

Refresh every 10s | Filter results
12:47:43 PM

Azure	Amazon	auto-detect	MyDataCenter
1 clusters	1 clusters	2 clusters	1 clusters
01 AKS	01 RHOCP	01 Other	01 RHOCP

Add connection

Show details

4	5	3	1	17	646
Apps	Clusters	Kubernetes types	Regions	Nodes	Pods

Cluster: nodes **VCPU usage (CPU):** 🟥 above (23.24 - 13.02) 🟨 average (1.79 - 0) 🟦 below (none)

Show details

Cluster compliance 5

VCPU 94

Used 38 | 40%

Clusters

Search

Name	Namespace	Labels	Endpoint	Status	Nodes	Klusterlet Version	Kubernetes Version	Storage	Memory	CPU
exec2-iks	mcm-exec2-iks	cloud=IBM datacenter=dal13 environment=Dev name=exec2-iks region=US vendor=IKS	-	Offline	1	3.1.2-dev	v1.11.7+IKS	-	33%	70%
social-dev-1	mcm-social-dev-1	cloud=IBM datacenter=oregon environment=Dev name=social-dev-1 owner=marketing region=us-west vendor=ICP	launch	Ready	1	3.1.2	v1.11.5+icp-ee	100%	62%	45%
social-dev-2	mcm-social-dev-2	cloud=IBM datacenter=oregon environment=Dev name=social-dev-2 owner=marketing region=us-west vendor=ICP4Data	launch	Offline	1	3.1.2	v1.11.1+icp-ee	100%	48%	47%
social-dev-gke	social-dev-gke	cloud=Google datacenter=us-central1-a environment=Dev name=social-dev-gke owner=marketing region=US vendor=GKE	-	Ready	1	3.1.2-dev	v1.11.7-gke.12	-	6%	22%
social-prod-1	mcm-social-prod-1	cloud=IBM datacenter=oregon environment=Prod name=social-prod-1 owner=marketing region=us-west vendor=ICP	launch	Ready	1	3.1.2	v1.11.1+icp-ee	100%	52%	34%
social-prod-eks	social-prod-eks	cloud=AWS datacenter=us-east-1 environment=Prod name=social-prod-eks owner=marketing	-	Ready	1	3.1.2-dev	v1.11.8-eks-7c34c0	-	1%	10%

- **Centrally** create, update and delete Kubernetes clusters **across multiple** private and public clouds

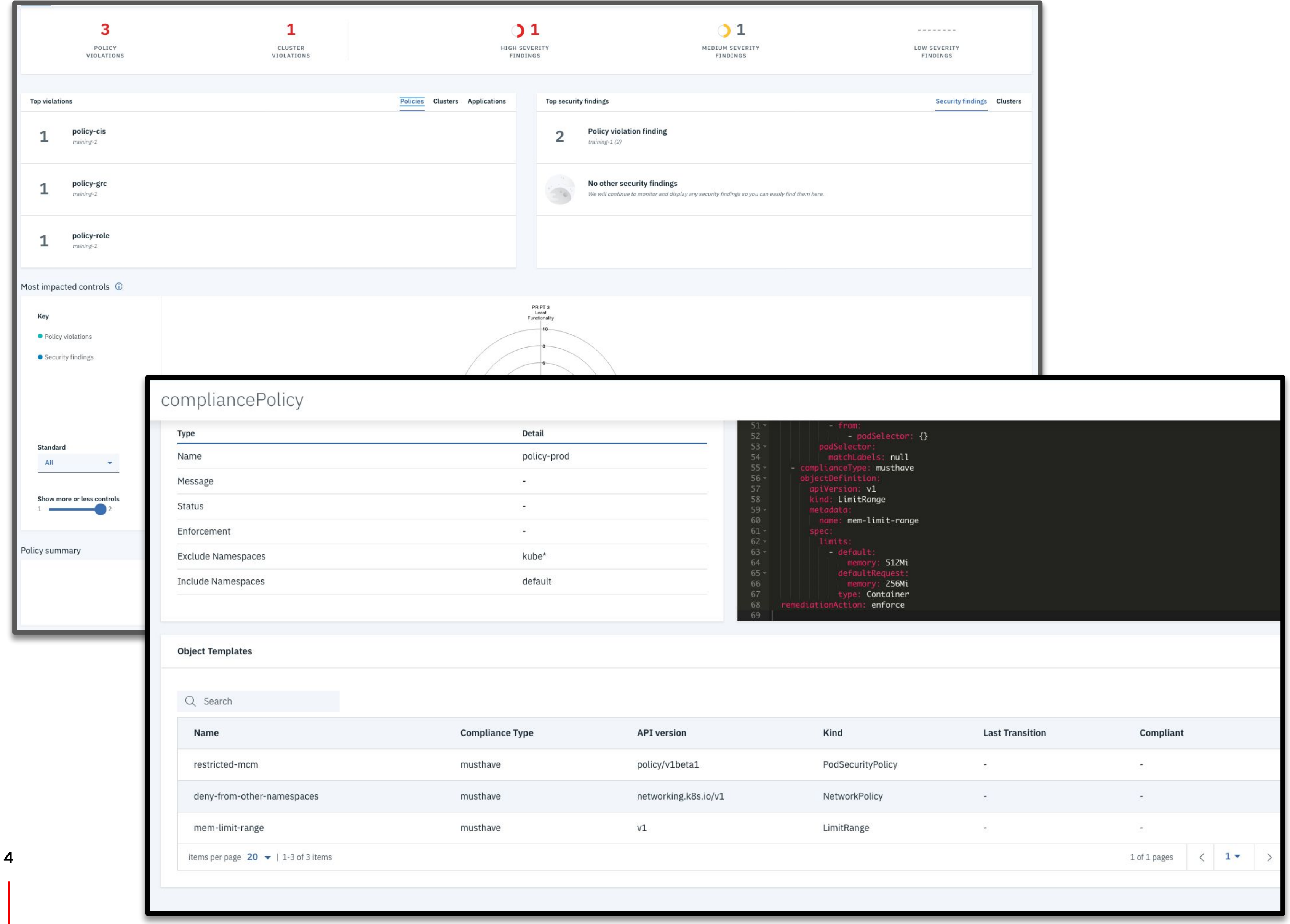
- Search, find and modify **any** kubernetes resource across the **entire** domain.

- **Quickly** troubleshoot and resolve issues across your **federated** domain

Policy based Governance, Risk and Compliance

Don’t wait for your security team to tap you on the shoulder

CONFIDENTIAL designator



3	1	1	1	--------
POLICY VIOLATIONS	CLUSTER VIOLATIONS	HIGH SEVERITY FINDINGS	MEDIUM SEVERITY FINDINGS	LOW SEVERITY FINDINGS

Top violations — Policies | Clusters | Applications

1	policy-cis *training-1*
1	policy-grc *training-1*
1	policy-role *training-1*

Top security findings — Security findings | Clusters

2	Policy violation finding *training-1 (2)*
	No other security findings *We will continue to monitor and display any security findings so you can easily find them here.*

Most impacted controls

Key
- ● Policy violations
- ● Security findings

Standard: All

Show more or less controls: 1 – 2

Policy summary

compliancePolicy

Type	Detail
Name	policy-prod
Message	-
Status	-
Enforcement	-
Exclude Namespaces	kube*
Include Namespaces	default

```
          - from:
              - podSelector: {}
        podSelector:
          matchLabels: null
  - complianceType: musthave
    objectDefinition:
      apiVersion: v1
      kind: LimitRange
      metadata:
        name: mem-limit-range
      spec:
        limits:
          - default:
              memory: 512Mi
            defaultRequest:
              memory: 256Mi
            type: Container
remediationAction: enforce
```

Object Templates

Search

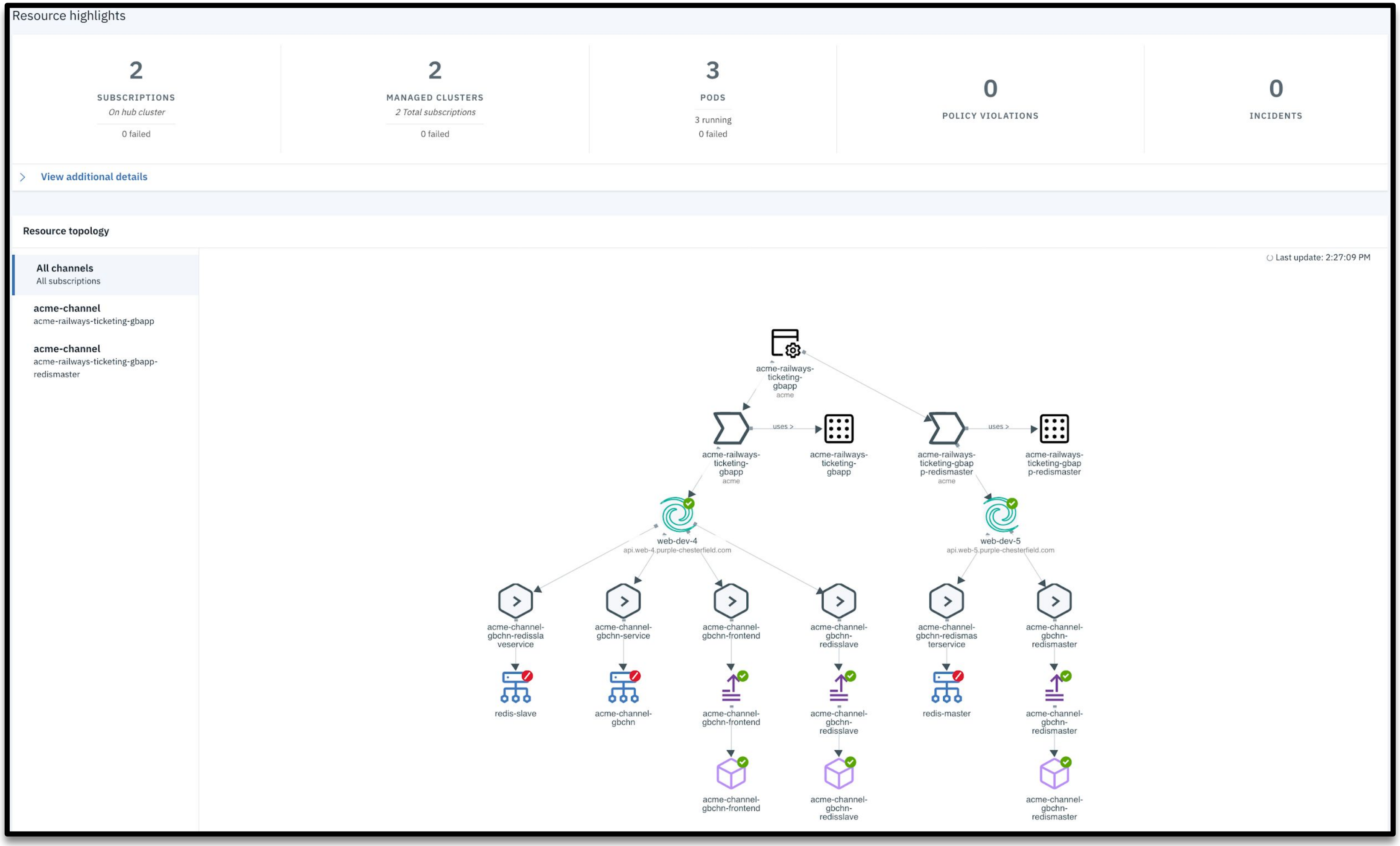
Name	Compliance Type	API version	Kind	Last Transition	Compliant
restricted-mcm	musthave	policy/v1beta1	PodSecurityPolicy	-	-
deny-from-other-namespaces	musthave	networking.k8s.io/v1	NetworkPolicy	-	-
mem-limit-range	musthave	v1	LimitRange	-	-

items per page 20 | 1-3 of 3 items — 1 of 1 pages — 1

- **Centrally** set & enforce policies for security, applications, & infrastructure
- Quickly **visualize** detailed **auditing** on configuration of apps and clusters
- Built-in **CIS** compliance policies and audit checks
- **Immediate** visibility into your compliance posture based on **your** defined standards

Advanced Application Lifecycle Management

Simplify your Application Lifecycle



Resource highlights

2	2	3	0	0
SUBSCRIPTIONS	MANAGED CLUSTERS	PODS	POLICY VIOLATIONS	INCIDENTS
On hub cluster	*2 Total subscriptions*	3 running		
0 failed	0 failed	0 failed		

View additional details

Resource topology

All channels
All subscriptions

acme-channel
acme-railways-ticketing-gbapp

acme-channel
acme-railways-ticketing-gbapp-redismaster

Last update: 2:27:09 PM

acme-railways-ticketing-gbapp
acme
acme-railways-ticketing-gbapp
acme
uses >
acme-railways-ticketing-gbapp
acme-railways-ticketing-gbapp-redismaster
acme
uses >
acme-railways-ticketing-gbapp-redismaster
web-dev-4
api.web-4.purple-chesterfield.com
web-dev-5
api.web-5.purple-chesterfield.com
acme-channel-gbchn-redisslaveservice
acme-channel-gbchn-service
acme-channel-gbchn-frontend
acme-channel-gbchn-redisslave
acme-channel-gbchn-redismasterservice
acme-channel-gbchn-redismaster
redis-slave
acme-channel-gbchn
acme-channel-gbchn-frontend
acme-channel-gbchn-redisslave
redis-master
acme-channel-gbchn-redismaster
acme-channel-gbchn-frontend
acme-channel-gbchn-redisslave
acme-channel-gbchn-redismaster

- **Easily** Deploy Applications at **Scale**
- Deploy Applications from **Multiple** Sources
- Quickly **visualize** application relationships **across** clusters and those that **span** clusters

Benefits

Red Hat OpenShift and Red Hat Advanced Cluster Management for Kubernetes

Accelerate development to production

Self-service provisioning allows app dev teams to request clusters directly from a catalog removing central IT as a bottleneck.

Reduce costs

Centralized management of clusters reduces operational cost, makes the environment consistent, and removes the need to manually manage individual clusters.

Increase application availability

Placement rules can allow quick deployment of clusters across distributed locations for availability, capacity, and security reasons.

Ease compliance

Policies can be written by the security team and enforced at each cluster, allowing environments to conform to your policy.

Detailed Use Cases

Multi-Cluster Lifecycle Management

Overview

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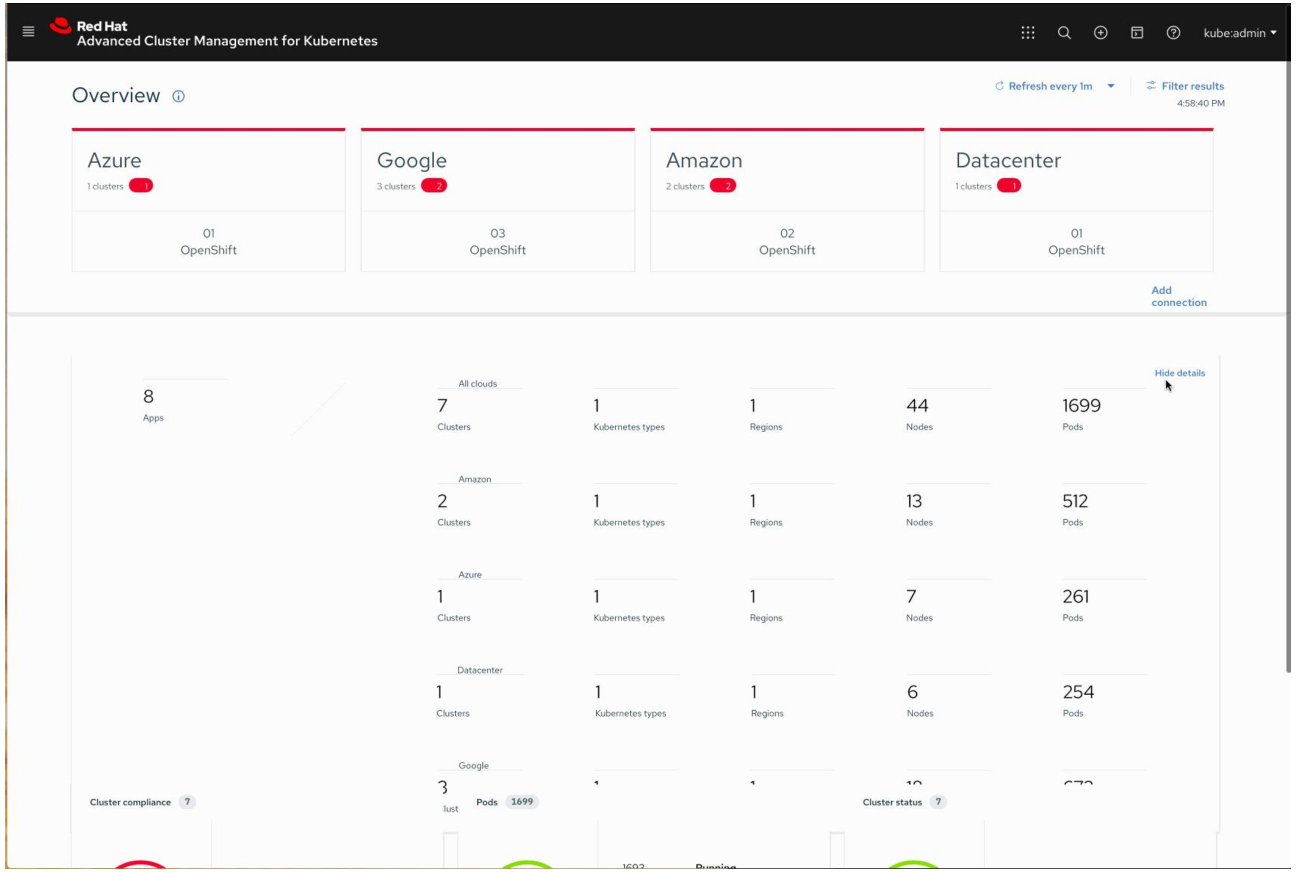
IT Operations

DevOps/SRE

- Full Management of OCP Kubernetes
  - OpenShift 3.11, 4.1.x - 4.5.x
  - Public cloud hosted: OCP
- Public cloud managed kubernetes: EKS, AKS, GKE, IKS
  - Search, find and modify kubernetes resources.
- See high level summaries across all clusters
  - Misconfiguration
  - Pod status
  - Resource capacity
- Troubleshoot and resolve issues across the federated domain
  - See in dashboard or via a list/table form
  - Table shows custom tagging
  - Regions
  - Business Purpose
  - Version



Red Hat
Advanced Cluster Management for Kubernetes

kube:admin

Overview

Refresh every 1m

Filter results
4:58:40 PM

Azure	Google	Amazon	Datacenter
1 clusters 1	3 clusters 2	2 clusters 2	1 clusters 1
01 OpenShift	03 OpenShift	02 OpenShift	01 OpenShift

Add connection

Hide details

8
Apps

All clouds				
7 Clusters	1 Kubernetes types	1 Regions	44 Nodes	1699 Pods
Amazon				
2 Clusters	1 Kubernetes types	1 Regions	13 Nodes	512 Pods
Azure				
1 Clusters	1 Kubernetes types	1 Regions	7 Nodes	261 Pods
Datacenter				
1 Clusters	1 Kubernetes types	1 Regions	6 Nodes	254 Pods
Google				
3	1	1		

Cluster compliance 7

Pods 1699

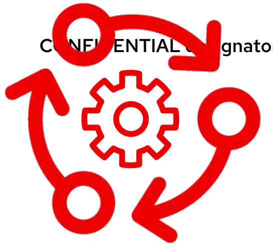
Cluster status 7

Multi-Cluster Lifecycle Management

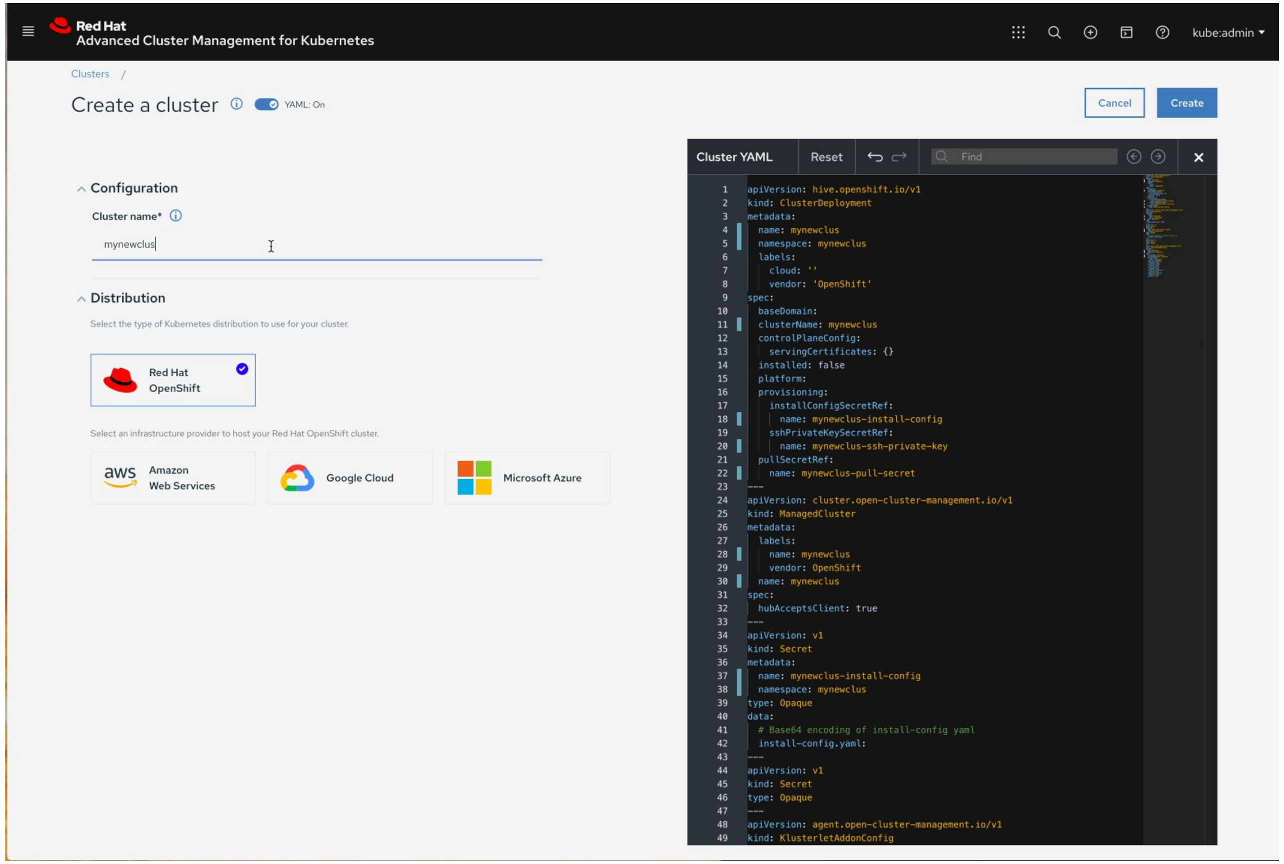
Creating & Importing Clusters

IT Operations

DevOps/SRE



- **Create**, **Upgrade** and **Destroy** OCP clusters running on **Bare-metal** as well as public cloud
- Leverage **Hive** API for OCP cluster deployment
- Wizard or YAML based create cluster flow
- Launch to an OCP Console from ACM
- Access cluster login credentials and download kubeadmin configuration



Create a cluster

YAML: On

Configuration

Cluster name*: mynewclus

Distribution

Select the type of Kubernetes distribution to use for your cluster.

☑ Red Hat OpenShift

Select an infrastructure provider to host your Red Hat OpenShift cluster.

```yaml
apiVersion: hive.openshift.io/v1
kind: ClusterDeployment
metadata:
  name: mynewclus
  namespace: mynewclus
  labels:
    cloud: ''
    vendor: 'OpenShift'
spec:
  baseDomain:
  clusterName: mynewclus
  controlPlaneConfig:
    servingCertificates: {}
  installed: false
  platform:
  provisioning:
    installConfigSecretRef:
      name: mynewclus-install-config
    sshPrivateKeySecretRef:
      name: mynewclus-ssh-private-key
  pullSecretRef:
    name: mynewclus-pull-secret
---
apiVersion: cluster.open-cluster-management.io/v1
kind: ManagedCluster
metadata:
  labels:
    name: mynewclus
    vendor: OpenShift
  name: mynewclus
spec:
  hubAcceptsClient: true
---
apiVersion: v1
kind: Secret
metadata:
  name: mynewclus-install-config
  namespace: mynewclus
type: Opaque
data:
  # Base64 encoding of install-config yaml
  install-config.yaml:
---
apiVersion: v1
kind: Secret
type: Opaque
---
apiVersion: agent.open-cluster-management.io/v1
kind: KlusterletAddonConfig
```

Multi-Cluster Lifecycle Management

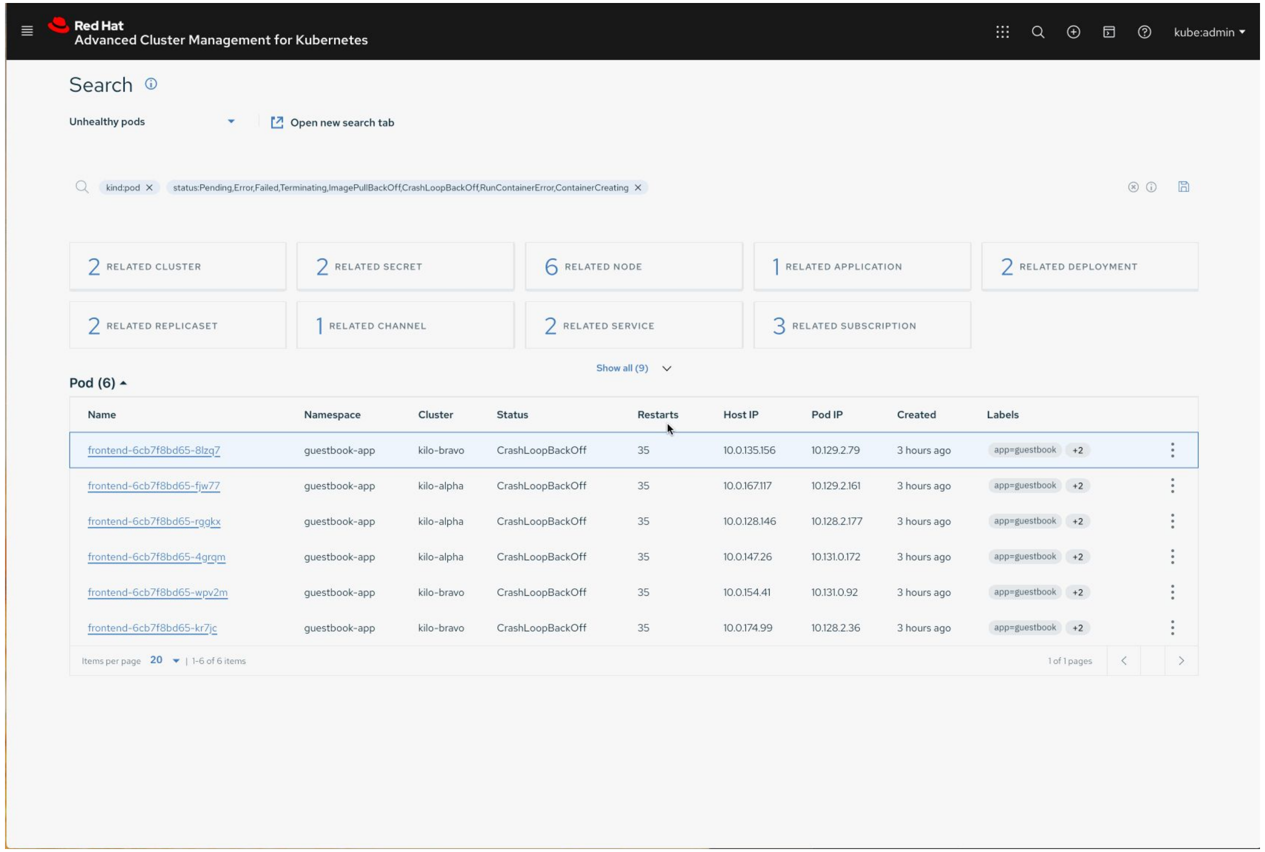
Dynamic Search

CONFIDENTIAL designator

IT Operations

DevOps/SRE

- Troubleshooting across clusters via relationships
- See all **unhealthy** pods
- See related application models to those pods
- See related Persistent Volumes
- See related secrets
- See related ***any*** kube resource object category



Search

Unhealthy pods

Open new search tab

kind:pod ✕ status:Pending,Error,Failed,Terminating,ImagePullBackOff,CrashLoopBackOff,RunContainerError,ContainerCreating ✕

2 RELATED CLUSTER

2 RELATED SECRET

6 RELATED NODE

1 RELATED APPLICATION

2 RELATED DEPLOYMENT

2 RELATED REPLICASET

1 RELATED CHANNEL

2 RELATED SERVICE

3 RELATED SUBSCRIPTION

Show all (9)

Pod (6)

Name	Namespace	Cluster	Status	Restarts	Host IP	Pod IP	Created	Labels
frontend-6cb7f8bd65-8lzq7	guestbook-app	kilo-bravo	CrashLoopBackOff	35	10.0.135.156	10.129.2.79	3 hours ago	app=guestbook +2
frontend-6cb7f8bd65-fjw77	guestbook-app	kilo-alpha	CrashLoopBackOff	35	10.0.167.117	10.129.2.161	3 hours ago	app=guestbook +2
frontend-6cb7f8bd65-rggkx	guestbook-app	kilo-alpha	CrashLoopBackOff	35	10.0.128.146	10.128.2.177	3 hours ago	app=guestbook +2
frontend-6cb7f8bd65-4grqm	guestbook-app	kilo-alpha	CrashLoopBackOff	35	10.0.147.26	10.131.0.172	3 hours ago	app=guestbook +2
frontend-6cb7f8bd65-wpv2m	guestbook-app	kilo-bravo	CrashLoopBackOff	35	10.0.154.41	10.131.0.92	3 hours ago	app=guestbook +2
frontend-6cb7f8bd65-kr7jc	guestbook-app	kilo-bravo	CrashLoopBackOff	35	10.0.174.99	10.128.2.36	3 hours ago	app=guestbook +2

Items per page 20 | 1-6 of 6 items

1 of 1 pages

Multi-Cluster Lifecycle Management

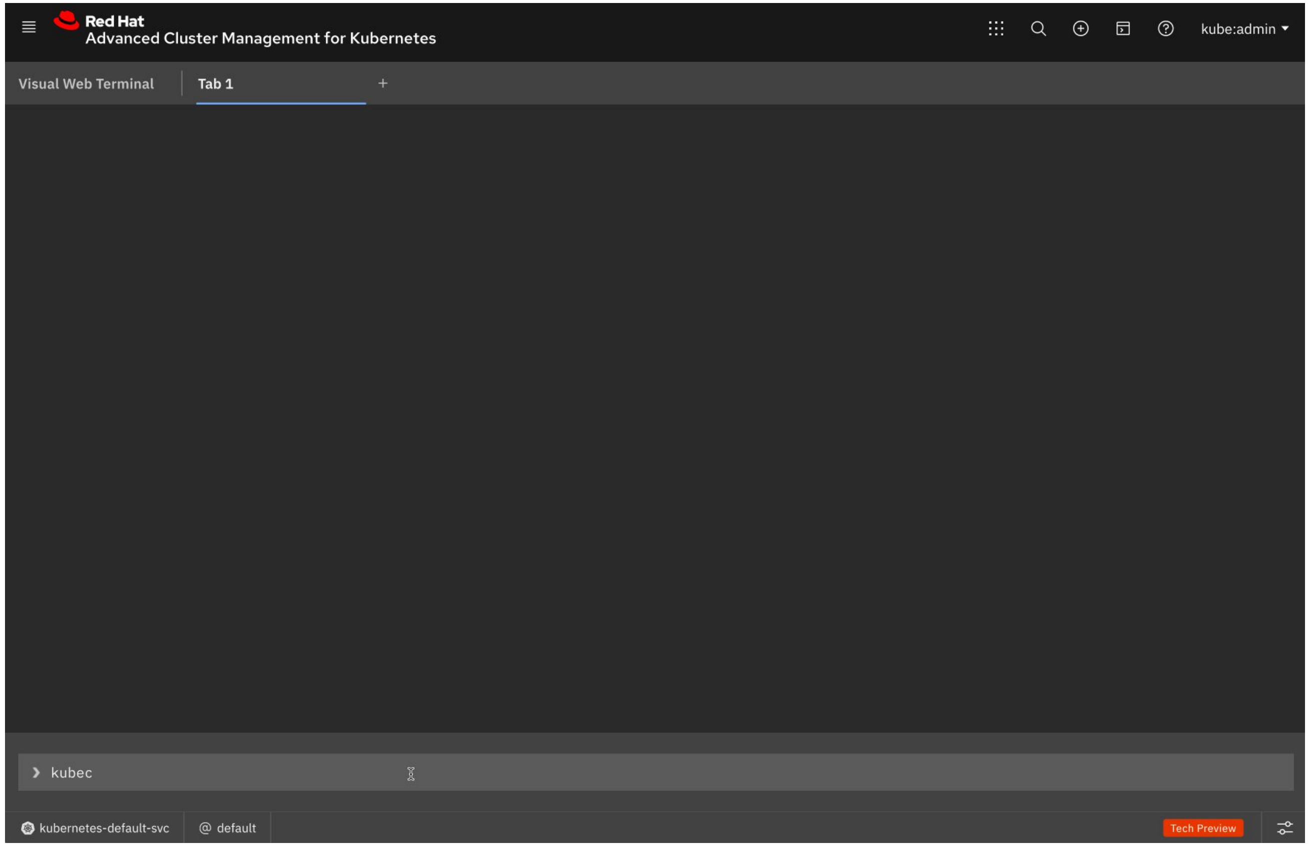
Visual Web Terminal **Tech-Preview**

- Interactive terminal combines command input with visual output
- One **Terminal** for **all**
- Works with **helm**, **kubectl**, oc, **istioctl**
- Single interface for multi-cluster
- Drive ops directly from dashboards
- Bash commands allow for grep

IT Operations

DevOps/SRE

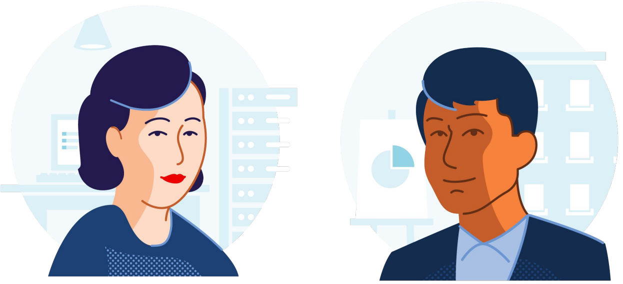
CONFIDENTIAL designator



```
> kubec
```

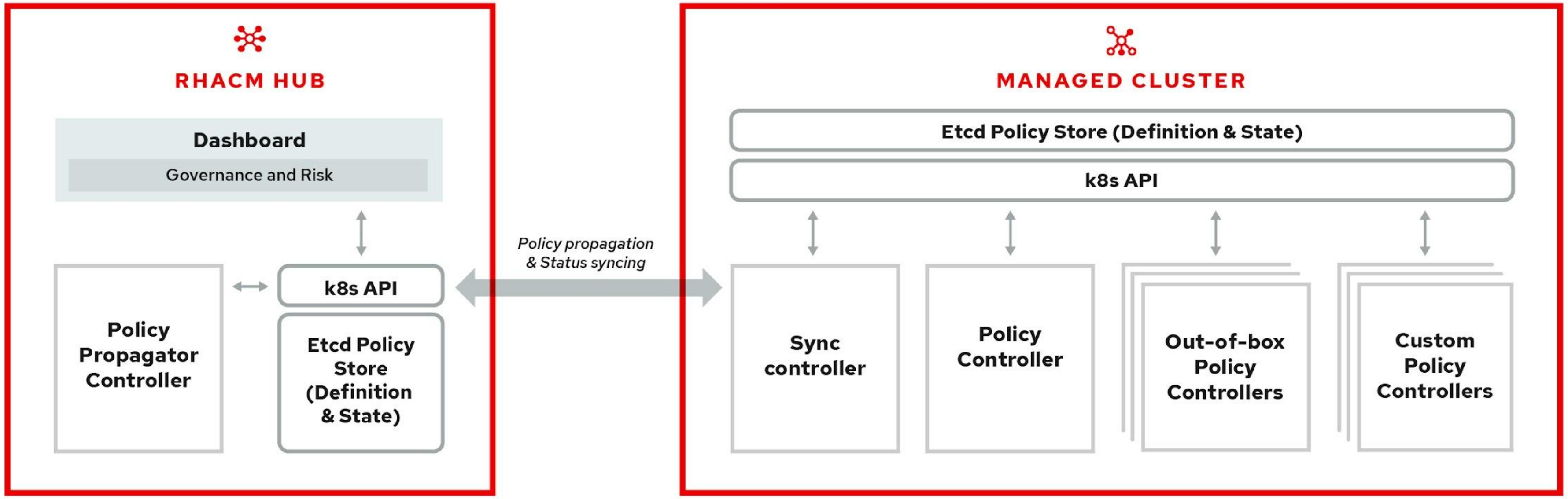
Policy Driven Governance Risk and Compliance

Architecture Overview



Managed Cluster and GRC Controllers

- Driven by Kubernetes CRDs and controllers
- Governance capability for managed clusters covering both security and configuration aspects.
- Out of box policies and an extensible policy framework


RHACM HUB
Dashboard
Governance and Risk
Policy Propagator Controller
k8s API
Etcd Policy Store (Definition & State)
Policy propagation & Status syncing
MANAGED CLUSTER
Etcd Policy Store (Definition & State)
k8s API
Sync controller
Policy Controller
Out-of-box Policy Controllers
Custom Policy Controllers

Policy based Governance, Risk and Compliance

Don’t wait for your security team to tap you on the shoulder

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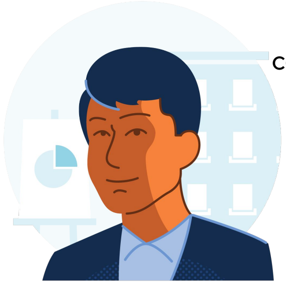
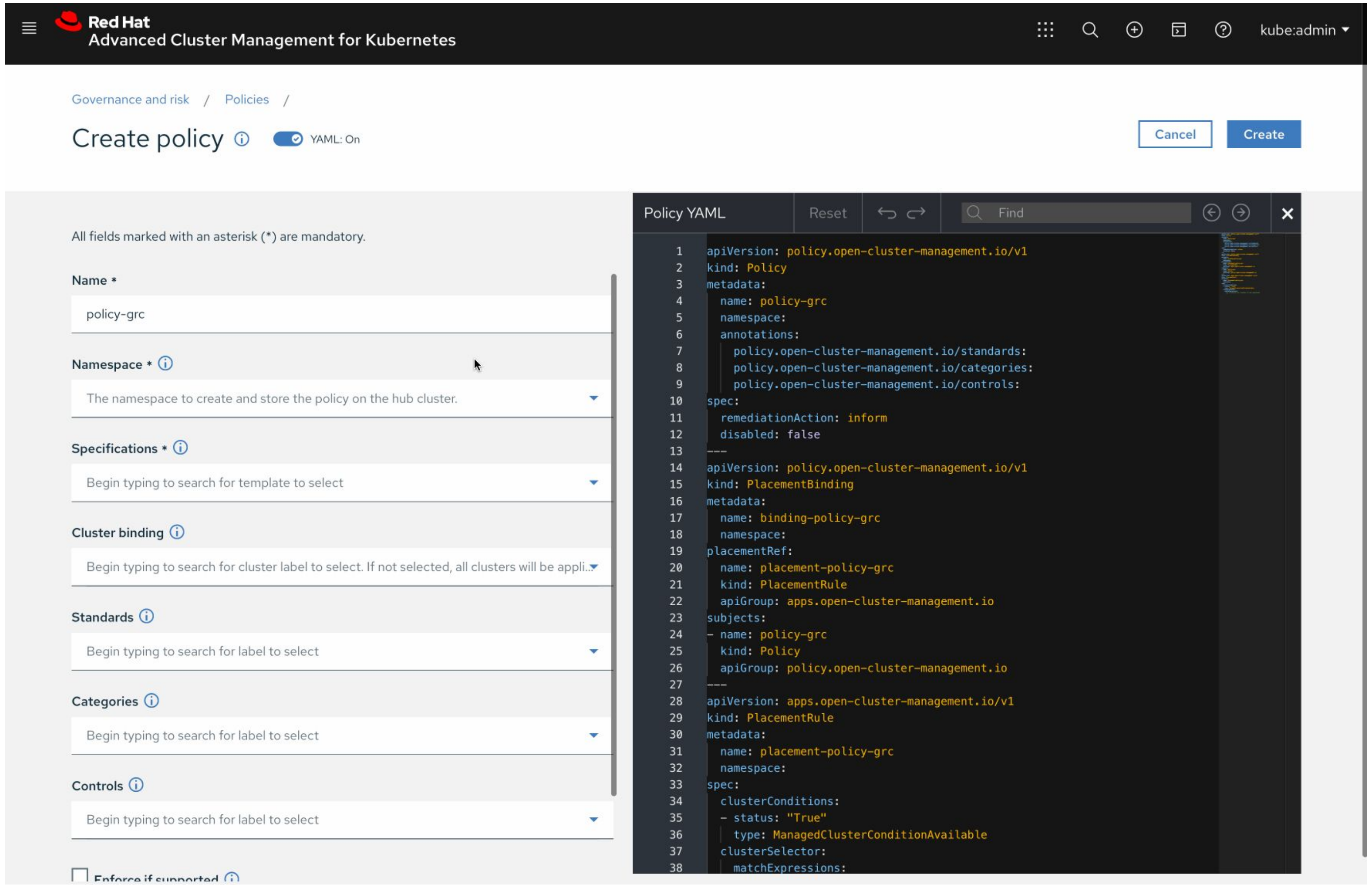
Security Ops



IT Operations

- Set and enforce policies for security, applications, & infrastructure
- Deep visibility for auditing configuration of apps and clusters
- Unique policy capabilities around CIS compliance
- Categorize violations based on your standards for immediate visibility into your compliance posture


Red Hat
Advanced Cluster Management for Kubernetes
kube:admin
Governance and risk / Policies /
YAML: On
Cancel
Create
Policy YAML
Reset
Find

Create policy

All fields marked with an asterisk (*) are mandatory.

Name * policy-grc

Namespace * The namespace to create and store the policy on the hub cluster.

Specifications * Begin typing to search for template to select

Cluster binding Begin typing to search for cluster label to select. If not selected, all clusters will be appli...

Standards Begin typing to search for label to select

Categories Begin typing to search for label to select

Controls Begin typing to search for label to select

☐ Enforce if supported

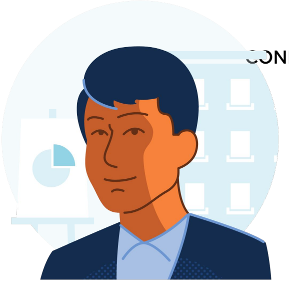
```
apiVersion: policy.open-cluster-management.io/v1
kind: Policy
metadata:
  name: policy-grc
  namespace:
  annotations:
    policy.open-cluster-management.io/standards:
    policy.open-cluster-management.io/categories:
    policy.open-cluster-management.io/controls:
spec:
  remediationAction: inform
  disabled: false
---
apiVersion: policy.open-cluster-management.io/v1
kind: PlacementBinding
metadata:
  name: binding-policy-grc
  namespace:
placementRef:
  name: placement-policy-grc
  kind: PlacementRule
  apiGroup: apps.open-cluster-management.io
subjects:
- name: policy-grc
  kind: Policy
  apiGroup: policy.open-cluster-management.io
---
apiVersion: apps.open-cluster-management.io/v1
kind: PlacementRule
metadata:
  name: placement-policy-grc
  namespace:
spec:
  clusterConditions:
  - status: "True"
    type: ManagedClusterConditionAvailable
  clusterSelector:
    matchExpressions:
```

Policy based Governance, Risk and Compliance

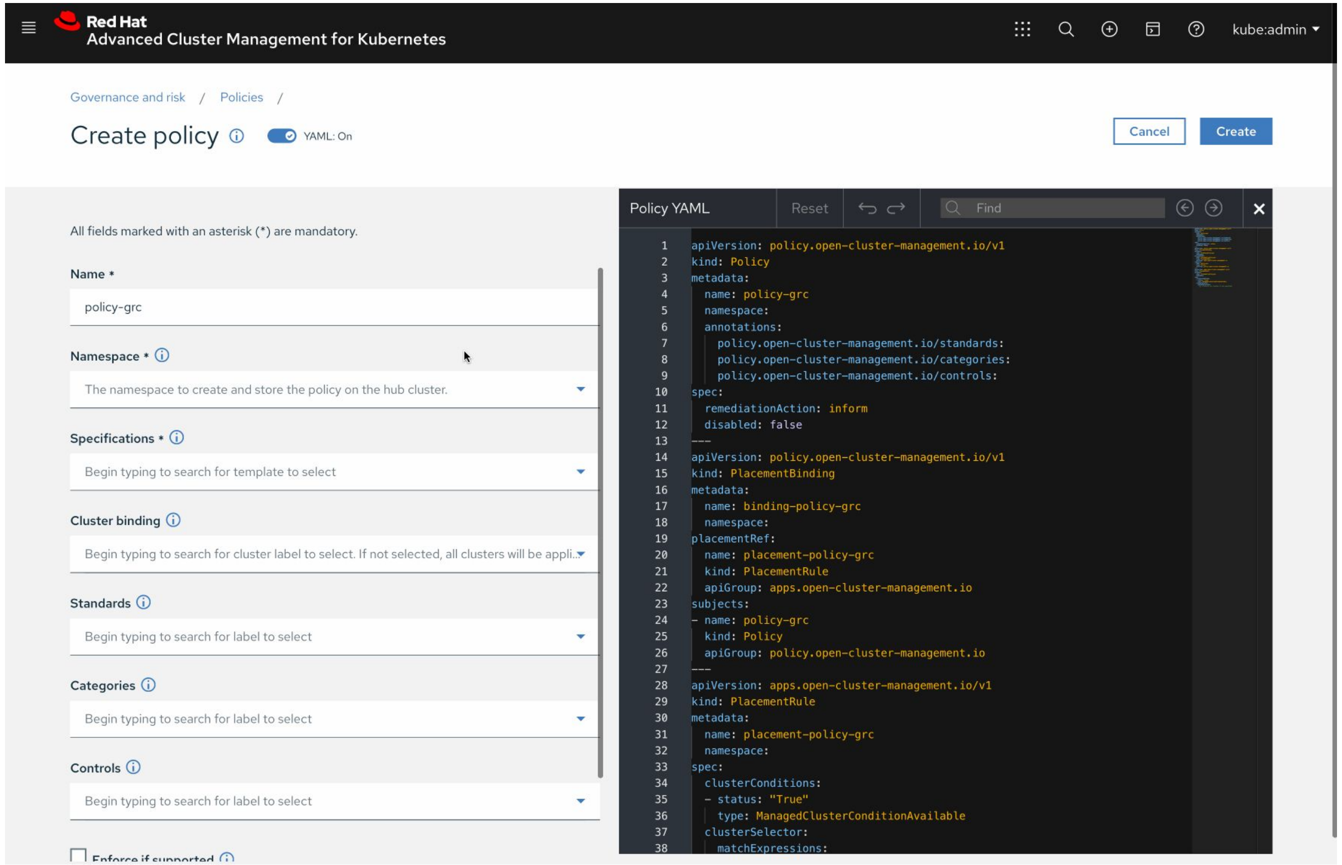
Don’t wait for your security team to tap you on the shoulder

CONFIDENTIAL designator

Security Ops


IT Operations

- Standard Policies out of the box
  - FISMA
  - HIPAA
  - NIST
  - PCI
- Leverage Different Categories to Represent more standards (if Needed)
- Use Labels to enforce policies against clusters
- Use **inform** to view policy violations
- Use **enforce** to view violations and automatically remediate



Red Hat
Advanced Cluster Management for Kubernetes
kube:admin
Governance and risk / Policies /
Cancel
Create
Policy YAML
Reset
Find

Create policy ⓘ YAML: On

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Cluster binding ⓘ Begin typing to search for cluster label to select. If not selected, all clusters will be appli...

Standards ⓘ Begin typing to search for label to select

Categories ⓘ Begin typing to search for label to select

Controls ⓘ Begin typing to search for label to select

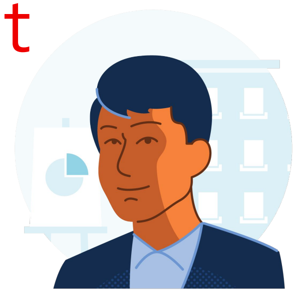
☐ Enforce if supported ⓘ

```yaml
apiVersion: policy.open-cluster-management.io/v1
kind: Policy
metadata:
  name: policy-grc
  namespace:
  annotations:
    policy.open-cluster-management.io/standards:
    policy.open-cluster-management.io/categories:
    policy.open-cluster-management.io/controls:
spec:
  remediationAction: inform
  disabled: false
---
apiVersion: policy.open-cluster-management.io/v1
kind: PlacementBinding
metadata:
  name: binding-policy-grc
  namespace:
placementRef:
  name: placement-policy-grc
  kind: PlacementRule
  apiGroup: apps.open-cluster-management.io
subjects:
- name: policy-grc
  kind: Policy
  apiGroup: policy.open-cluster-management.io
---
apiVersion: apps.open-cluster-management.io/v1
kind: PlacementRule
metadata:
  name: placement-policy-grc
  namespace:
spec:
  clusterConditions:
  - status: "True"
    type: ManagedClusterConditionAvailable
  clusterSelector:
    matchExpressions:
```

Advanced Application Lifecycle Management

Simplify your Application Lifecycle

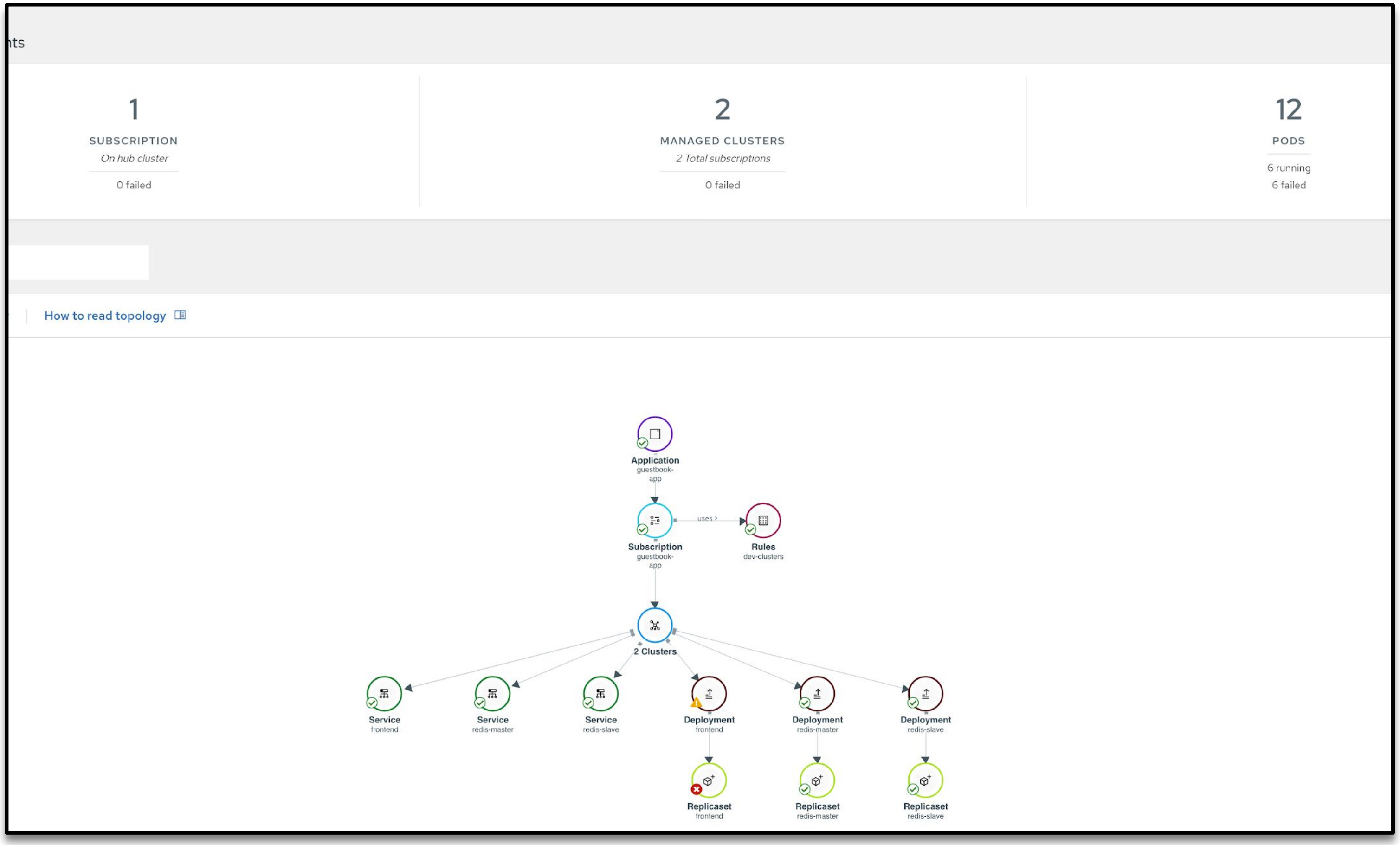
CONFIDENTIAL designator



IT Operations

DevOps/SRE

- Deploy Applications at Scale
- Deploy Applications from Multiple Sources and Clusters
- Quickly Visualize Application Relationships
- Using the subscription & channel model, the latest application revisions are delivered to appropriate clusters, automatically.



ts

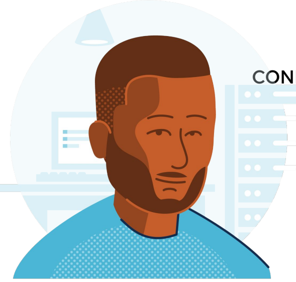
1	2	12
SUBSCRIPTION	MANAGED CLUSTERS	PODS
On hub cluster	*2 Total subscriptions*	6 running
0 failed	0 failed	6 failed

How to read topology

Advanced Application Lifecycle Management

Subscriptions Bring Enterprise to Kubernetes

IT Operations



DevOps/SRE

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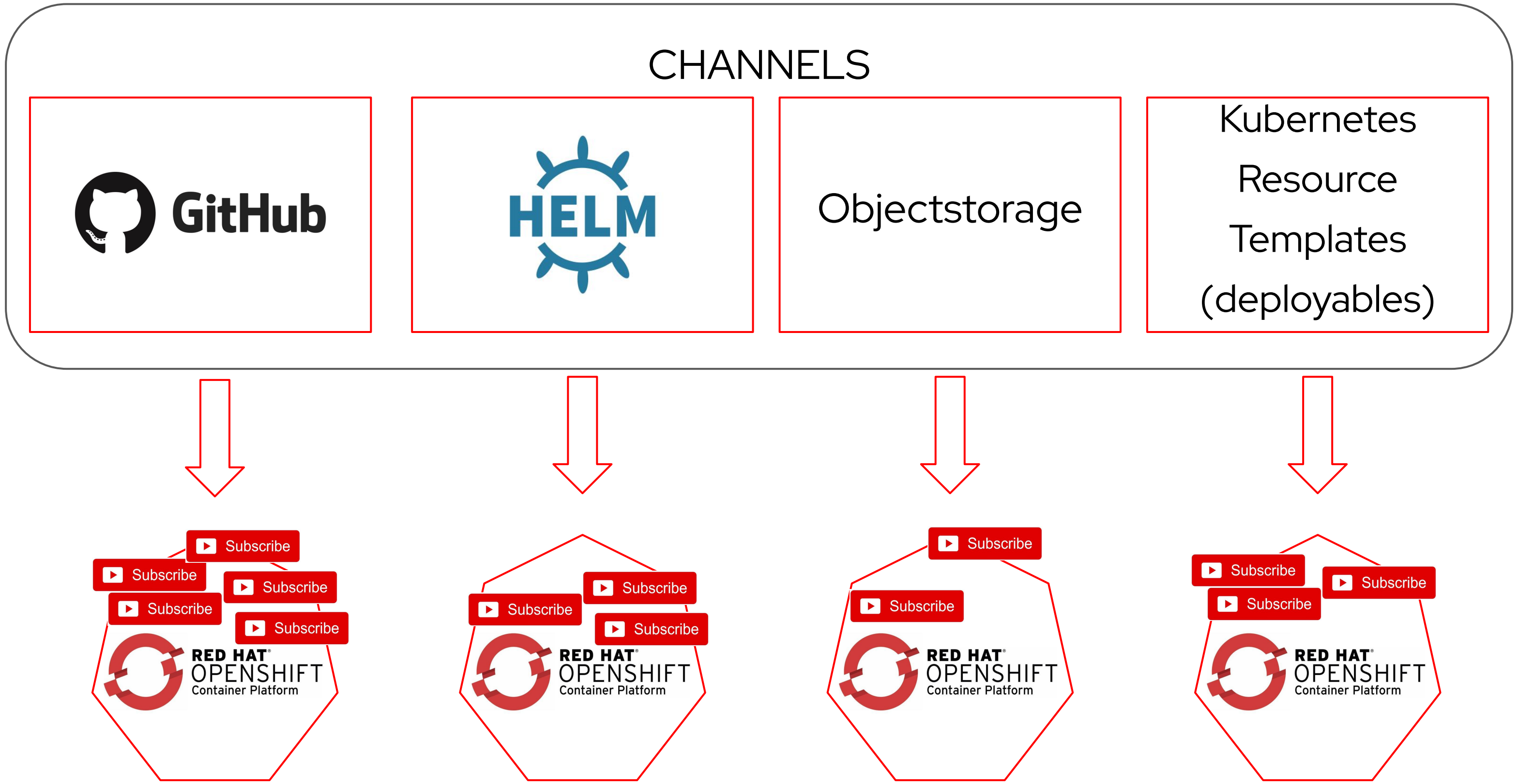
- Extending the best of Enterprise into a desired state methodology
- Time Windows: New releases during your maintenance windows
- Rolling Updates: Control the rate and load on your growing infrastructure



CHANNELS

GitHub

HELM

Objectstorage

Kubernetes Resource Templates (deployables)

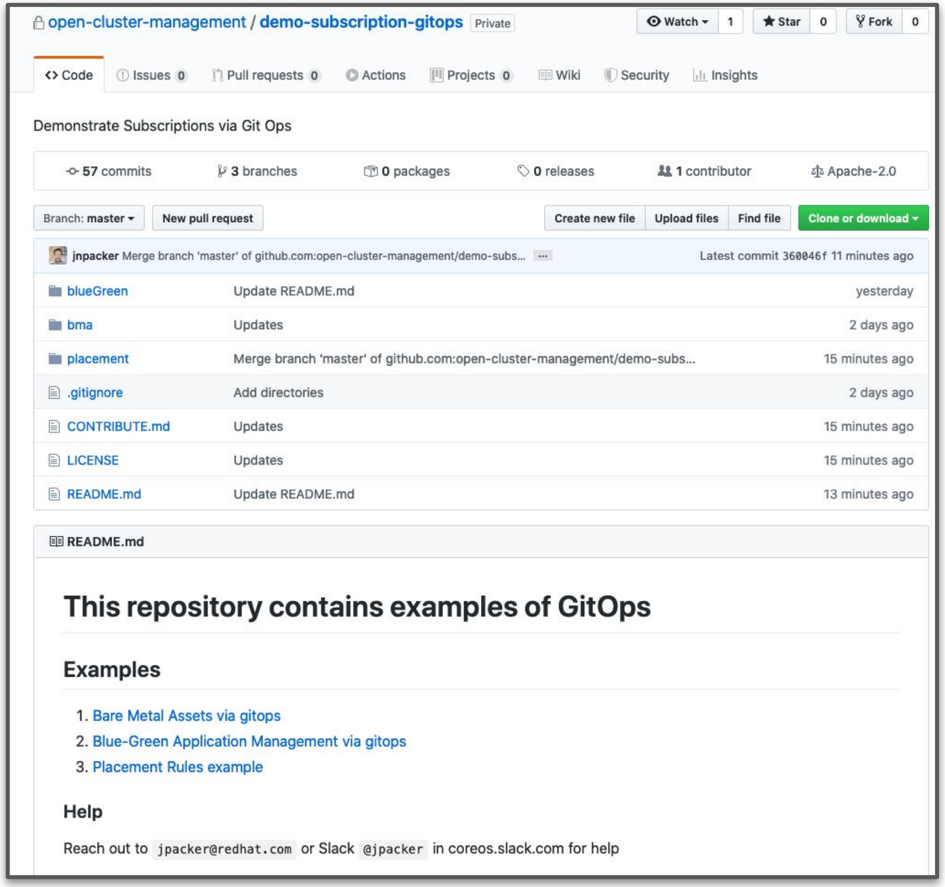
Advanced Application Lifecycle Management

GitOps as the source of truth

IT Operations

DevOps/SRE

- Create, modify & delete, just as you would any source code. Git becomes your source of truth controlling your data center.
- Have a record of who, what & when for every change precipitated in your environments
- Through code Reviews & Approvals, take full control of all changes to your data center(s)
- Restore your environment, via the Git commit history (system of record)



Demonstrate Subscriptions via Git Ops

57 commits · 3 branches · 0 packages · 0 releases · 1 contributor · Apache-2.0

jnpacker Merge branch 'master' of github.com:open-cluster-management/demo-subs... ··· Latest commit 360046f 11 minutes ago

blueGreen	Update README.md	yesterday
bma	Updates	2 days ago
placement	Merge branch 'master' of github.com:open-cluster-management/demo-subs...	15 minutes ago
.gitignore	Add directories	2 days ago
CONTRIBUTE.md	Updates	15 minutes ago
LICENSE	Updates	15 minutes ago
README.md	Update README.md	13 minutes ago

README.md

This repository contains examples of GitOps

Examples

1. Bare Metal Assets via gitops
2. Blue-Green Application Management via gitops
3. Placement Rules example

Help

Reach out to `jpacker@redhat.com` or Slack `@jpacker` in coreos.slack.com for help

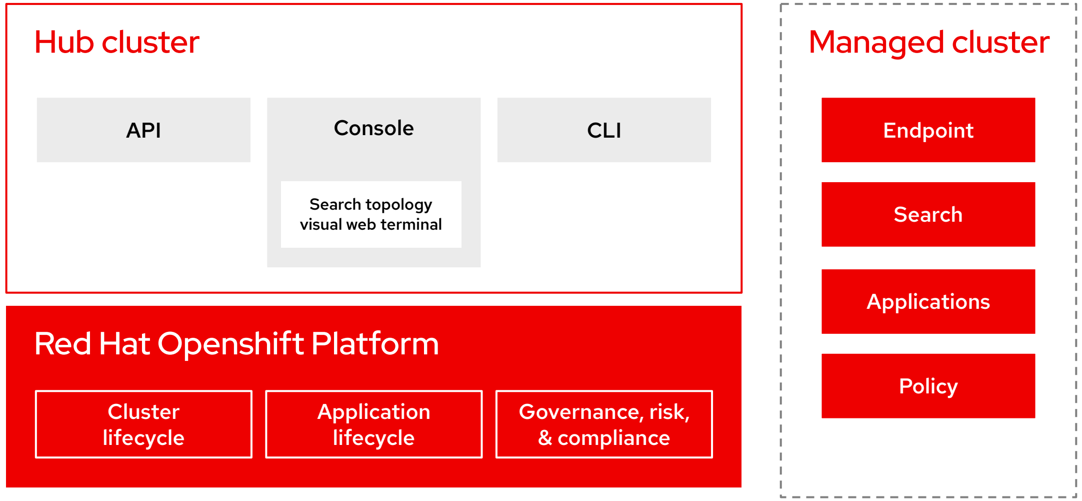
https://github.com/open-cluster-management/demo-subscription-gitops

Architecture

Red Hat Advanced Cluster Management For Kubernetes

Architecture overview

IT Operations



Hub architecture and components

Red Hat Advanced Cluster Management uses the multicluster-hub operator and runs in the open-cluster-management namespace

Managed cluster architecture and components

Red Hat Advanced Cluster Management managed clusters use the multicluster-endpoint operator which runs in the multicluster-endpoint namespace

Installation

Advanced Cluster Management For Kubernetes

Installation and Foundation

Operator Install for Hub

IT Operations

Hub Cluster

- Operator based installation
- Available on OperatorHub
- Requires OCP 4.3.x ->

Full Management of OCP clusters

- OpenShift 3.11, 4.1.x ->
- Public cloud hosted: OCP

Limited Support for Public cloud managed Kubernetes

- EKS, AKS, GKE, IKS

High Availability

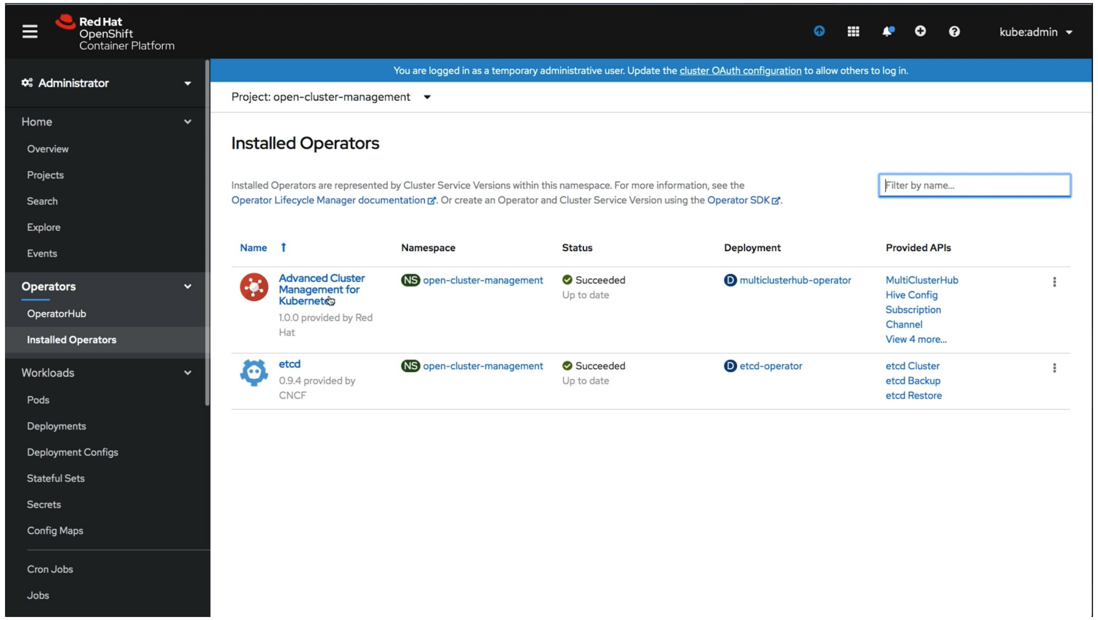
- Supports OCP Availability Zone
- Limitation for Search component based on RedisGraph

Resource Requirements

- **Test**: 3 master, 3 workers, 6 v CPU and 16GB RAM
- **Production**: 3 masters, 3 workers, 16vCPU and 24GB RAM*

* Production requirements vary based on number of clusters in the management domain and types of workloads being run.

* vCPU/RAM Numbers are per node.



You are logged in as a temporary administrative user. Update the cluster OAuth configuration to allow others to log in.

Project: open-cluster-management

Installed Operators

Installed Operators are represented by Cluster Service Versions within this namespace. For more information, see the Operator Lifecycle Manager documentation. Or create an Operator and Cluster Service Version using the Operator SDK.

Name ↑	Namespace	Status	Deployment	Provided APIs
Advanced Cluster Management for Kubernetes 1.0.0 provided by Red Hat	NS open-cluster-management	Succeeded Up to date	D multiclusterhub-operator	MultiClusterHub Hive Config Subscription Channel View 4 more...
etcd 0.9.4 provided by CNCF	NS open-cluster-management	Succeeded Up to date	D etcd-operator	etcd Cluster etcd Backup etcd Restore

Installation and foundation

Operator install for managed cluster

IT Operations

Managed cluster

The multicluster-endpoint operator controls the deployment of components on the managed cluster.

List of included components:

- Application manager
- Connection manager
- Work manager
- Policy controller
- Search collector
- Service registry
- IAM policy controller
- Certificate policy controller
- CIS policy controller

Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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