



# Veeam Kasten

#1 Data Protection and Mobility for OpenShift and Kubernetes

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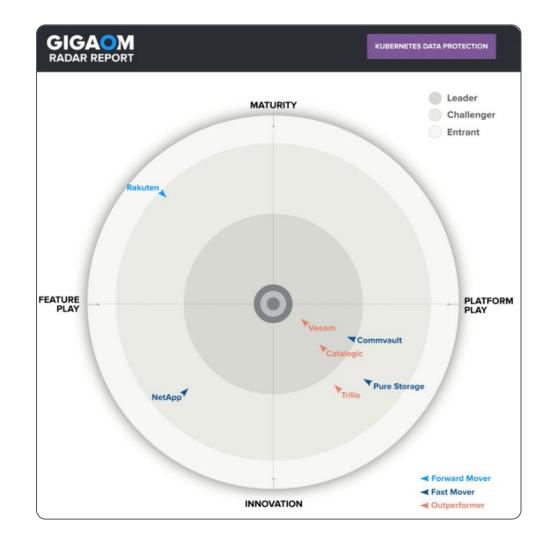
Veeam's mission is: "To tackle Day 2 data protection challenges on behalf of enterprises so that they can confidently run their applications on Kubernetes"

# Veeam Kasten





Recognized by GigaOm as 4x Time Leader and Outperformer Kubernetes Data Protection



GigaOm Radar for Kubernetes Data Protection 2024, [https://www.veeam.com/blog/k8s-data-protection-gigaom.html]

## How Veeam Kasten Works



### Discover

Automated discovery of your Kubernetes application



Protect

Secure your Kubernetes application and data



### **Restore Anywhere**

Quickly and effectively **restore** your Kubernetes application and data anywhere



## Oiscover

### Capture your entire Kubernetes application stack

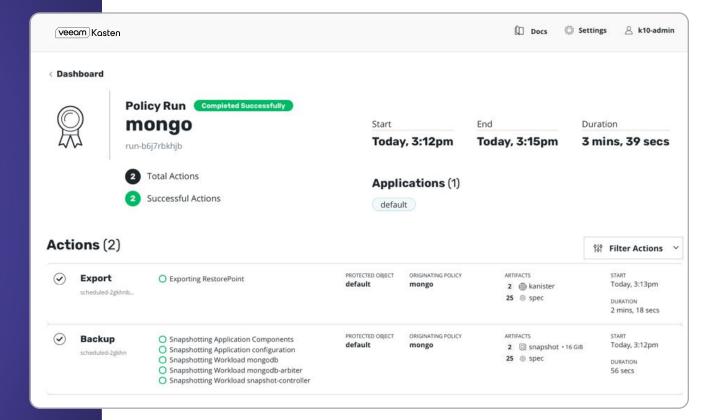
- Automatically discovers your Kubernetes applications and inventory all dependencies
- Includes resource definitions,
   configuration and underlying data
- Integrates with relational and NoSQL databases, all major
   Kubernetes distributions

<pre>shboard &gt;_ Terminal veecom Kosten</pre>				🗓 Docs 🔘 S	ettings 🖉 k10-admin 🗸 📮 🚺
Discovered in this system		Policies Managing resources		ooo Usage & Rep. Total Backup Data 8.0 GiB	orts
1 Compliant 0 Non-Compliant 2 Unmanaged		1 Backup Policy 0 Import Policies		Snapshots (1) 8 GiB 100%	Diject Storage
Activity 11 Mic - 10 Mic - 0 Mic - Action Durations • - running • total actions completed action		skipped actions O	avg duration 14 sec	live artifacts 18	Actors retired artifacts 0
L		۱۶۴ Filter	×	10	Page 1 🔇 🚫
COMPLETED POLICY Policy Run  © mysql-backup policy-run-cT/vb	ACTIONS				START Today, 3:11pm DURATION 19 secs

## Protect

### Complete application protection

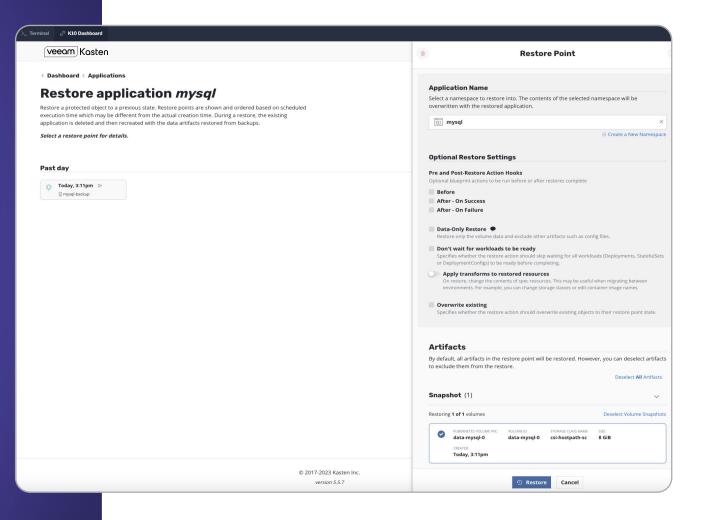
- Creates a copy of containers and specified data, and automatically updates the backup at a rate you decide
- Ensures comprehensive protection across multiple clusters and clouds
- Automated policies enable you to meet your backup SLAs



## Restore Anywhere

Coordinated application recovery

- Restores the entire application and data across clusters, regions, and clouds
- Recover from user errors, infrastructure failure, disasters or malicious attacks
- Leverage blueprints to properly orchestrate the restore of your application and data



## We keep your business running





### **Ransomware Protection**

Backup immutability & always-on encryption keeps your data safe

## Why Veeam Kasten Security Everywhere

Don't be a victim -- treat data protection as a Day 0 operation



## **Kubernetes-Native**

Deliver secure self-service across teams & personas



### Security Ecosystem

Integrate with industry-leading SIEM, Policy-as-Code, & KMS tools



### Why Veeam Kasten

## Reliable Backup and Fast Recovery

100% Kubernetes-native solution for protecting your cloud native apps



### **Simple Recovery**

Recover working applications in-place, cloning, or recovering to other clusters

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### **Intelligent Policies**

Support enterprise-scale operations with built-in automation



### **Application Consistency**

Customizable application integration for every Kubernetes workload



### Why Veeam Kasten

## Gain Application Freedom

They are your applications, run them where you want



### **Application Mobility**

Enable hybrid/multi-cloud across different distributions, clouds, & infrastructure

## VMs on K8s & Databases

Accelerate application transformation by supporting diverse workloads



### **Freedom of Choice**

Agnostic with broadest ecosystem of supported distributions, infrastructure & apps

### Better Together: Kasten by Veeam + Red Hat



OpenShift Back Up & Disaster Recovery



OpenShift Mobility, Migration, Upgrades

OpenShift on AWS (ROSA), Azure (ARO), Hybrid-Cloud

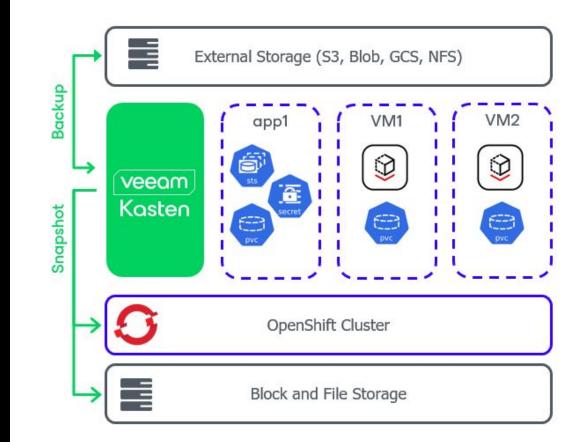


**OpenShift Virtualization Integration** 



Application-Specific Data Management Kasten Blueprints for Data Services





## Reference Architecture

For Veeam Kasten and OpenShift Virtualization

Veeam 🐣 Red Hat

Veeam Kasten and Red Hat OpenShift Virtualization Reference Architecture





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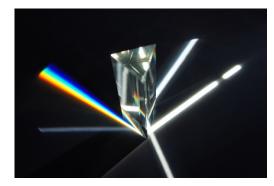
## Useful Resources

https://veeamkasten.dev



Red Hat OpenShift			
📽 Administrator	•	Project: kasten-io 🔻	
Home	<b>`</b>	Installed Operators >> Operator details	
Operators	~	KASTEN KIO 6.0.1 provided by Kasten by Veeam	
OperatorHub			
Installed Operators		Details YAML Subscription	
Workloads	>	Provided APIs	

Veeam Kasten on OpenShift Interactive Demo (LINK)



Migrating vSphere VMs to Openshift Virtualization (LINK)



Protecting OpenShift VMs with Veeam Kasten (<u>LINK</u>)



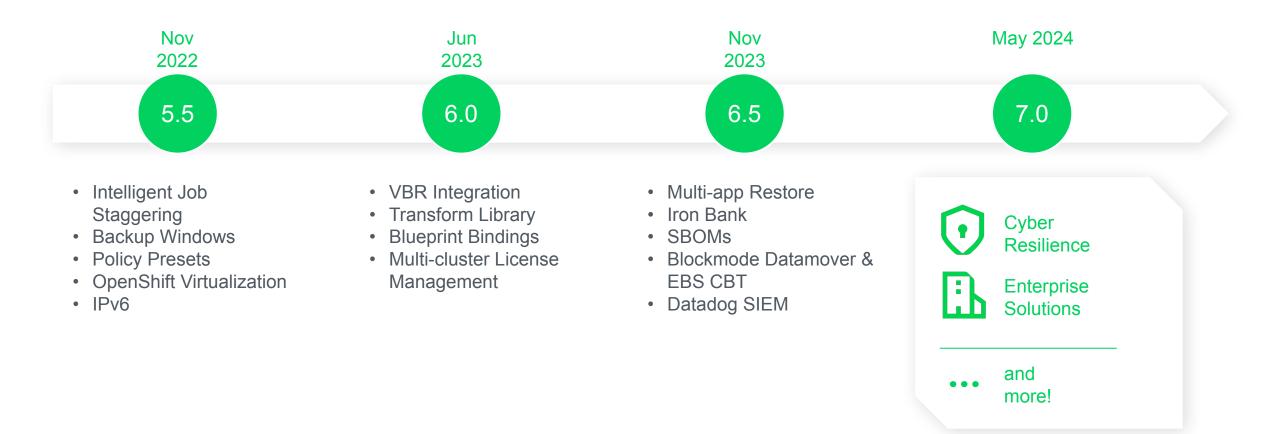
Using OpenShift Monitoring for Veeam Kasten (<u>LINK</u>)

## Veeam Kasten v7.0



### Introducing Veeam Kasten V7.0

Continuous, fast paced innovation



## Kasten V7.0

What's New



### Cyber Resilience Public Sector

• FIPS 140-3 Compliance

### **Ransomware Protection**

- Azure Blob
- Block-mode backups

### **SIEM Integrations**

Azure Sentinel

### Deployment

- Secure authentication
- Helm chart signing



### **Enterprise Solutions**

### **Cloud Native and VMs**

- OpenShift Advanced Cluster
   Management integration
- OpenShift container image
   protection
- Efficient K8s VM backups

### **Cloud Transactability**

• Azure Marketplace

### **Recovery Focused**

- Kasten-DR
- VBR Instant Recovery
- In-place volume cloning

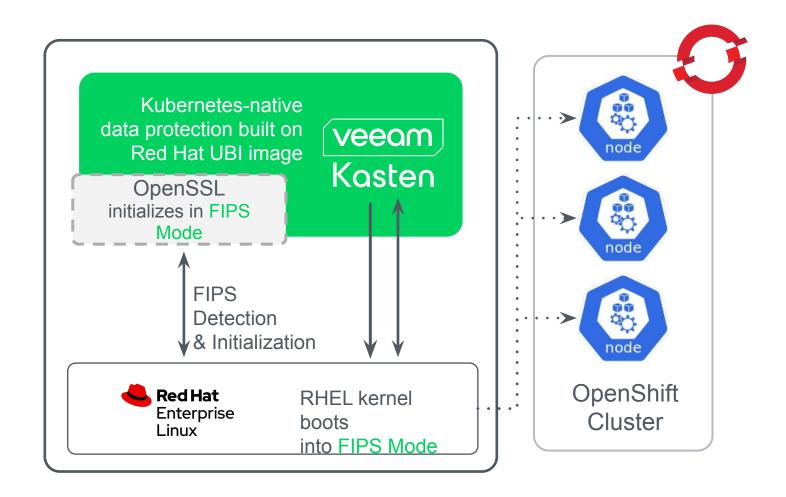


## Kasten with FIPS 140-3

FIPS Compliant with OpenShift



Industry's first Kubernetes-native data protection supporting FIPS-enabled clusters



As of March 2024: this slide contains forward looking statements.

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Dashboard Auth via OpenShift

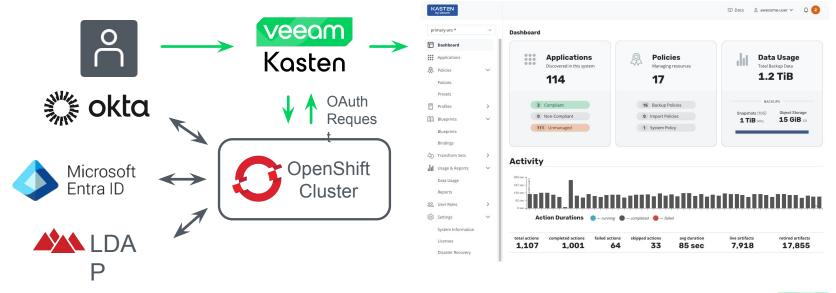
Simplified OAuth configuration

#### What is it?

- Provides multi-user authentication to Kasten Dashboard for secure self-service
- Supports multiple backend IDPs
- User ID consistency simplifies RBAC enforcement

#### What's new? Better living through automation!

- Automatic service account & token creation
- Automatic cert bundle creation
- GitOps-friendly secrets for advanced configurations



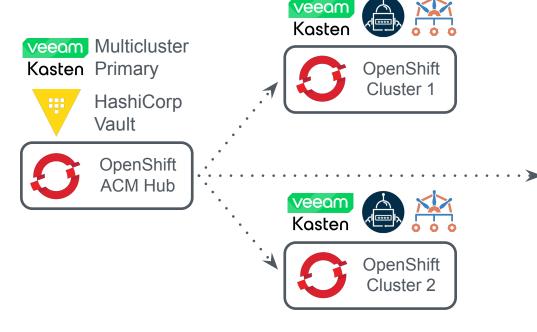
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Advanced Cluster Manager Solution Guide

Scalability via OpenShift Platform Plus tools

#### What's new?

- Quick start guide for configuring scalable deployment & data protection guardrail management
- Leverages full value of OpenShift stack by using Advanced Cluster Manager to automatically deploy and configure Kasten across large environments
- Example ACM integration with Kyverno to audit and enforce immutable backups
- Example secure configuration of Kasten auth and multicluster via External Secrets Operator and Vault



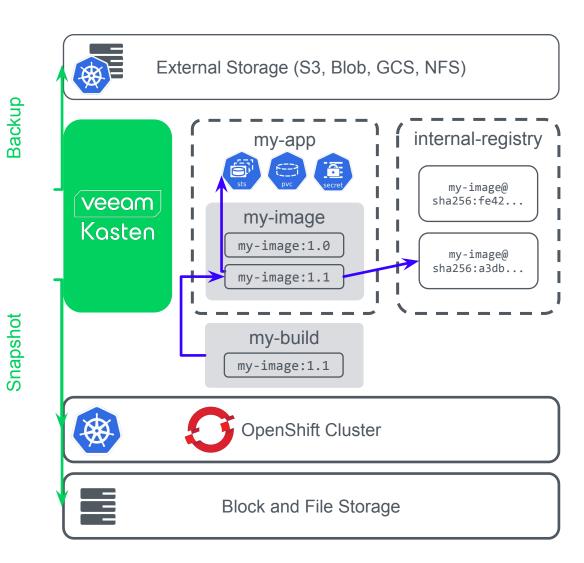


### ImageStream Protection

Immutable container image backup

### What is it?

- Native support for protecting & restoring container images managed by ImageStreams using OpenShift internal registry
- Uses standard Kasten Location Profiles – no dependency on separate registry
- Restores exact container builds to local registry in event of cluster loss





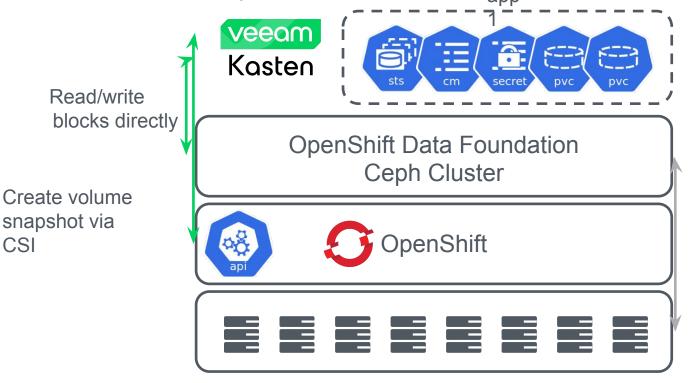
## CephRBD Integration

**OpenShift** Enhancements Direct API integration between Kasten and CephRBD volume manager for blockmode exports & restores

#### Why does it matter?

CSI

- Reduces in-cluster attack surface for datamover operations
- Improves export and restore performance
- Provides incremental backups vs full export useful for OpenShift Virtualization backup! app



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## Additional Recovery Enhancements

New in 7.0



In-place Volume Cloning



Restores timestampappended PVC "copies" from backup

- Non-disruptive to running workload
- Preserves namespace
   boundaries
- Useful for extracting individual files

Protects local Kasten configuration/catalog

- Incremental backups with improved export performance
- Adds Restore workflow via Dashboard UI
- Protects additional Kasten resources

VBR Instant Recovery

Manage Instant Recovery within Kasten Dashboard

- Automatic migration of PVCs to primary storage
- On-going migration status
- Automatic clean up in VBR console following migration

## Veeam Kasten v7.5

Sneak peek



## Preview

Veeam Kasten v7.5

### What's coming?

#### **Performance improvements**

Management of large scale applications with millions of files / items

**ISO/IEC 21007 Compliance** 

FIPS 140-3 with Veeam Kasten Multi-Cluster

Azure Managed Identity for OpenShift ARO

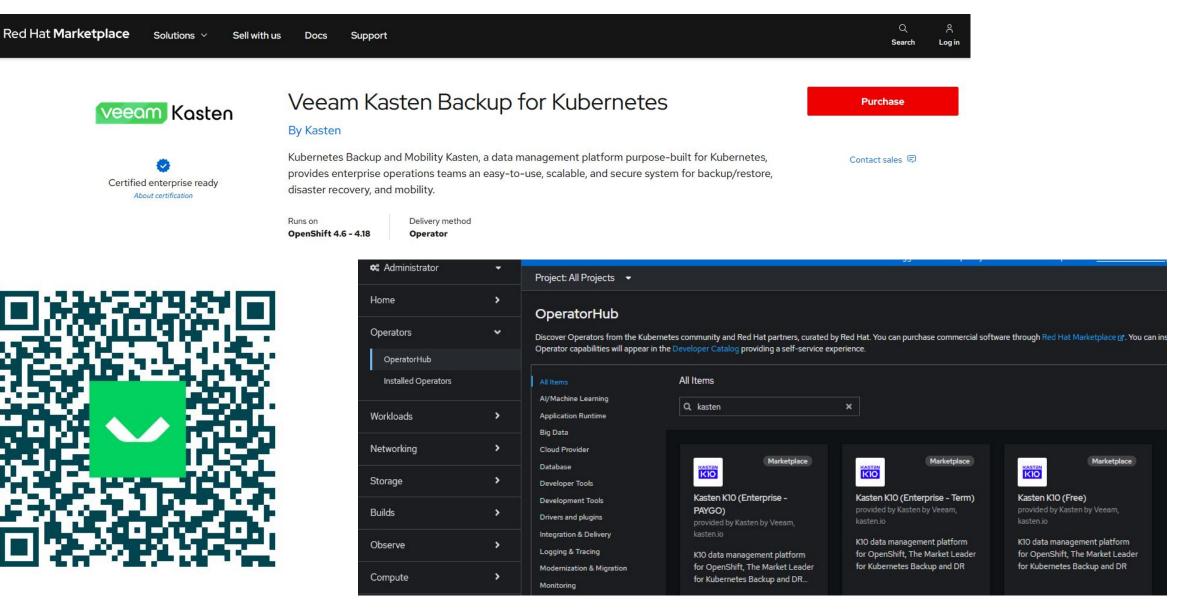
### **OpenShift Security Enhancements**

Integration with new annotation-based controls in OpenShift Security Context Constraints cannot (intentionally or not) be applied to other workloads

### **Google Cloud Storage Immutability**

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### Where to find more information









Join the community hub:

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