

# SUSE Rancher and Kasten K10 by Veeam

Native Kubernetes-Datamanagement everywhere



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# Veeam Data Platform

Proven Recovery Orchestration

Proactive Monitoring and Analytics

Secure Backup and Fast Recovery

Native APIs



Cloud



Virtual



Physical



Apps



SaaS

PLATFORM  
EXTENSIONS

Microsoft 365



On-Premises | In the Cloud | XaaS

# Market growth:

Industry drivers

## Kubernetes - Increased Production Usage

Fastest growing infrastructure platform, deployed everywhere



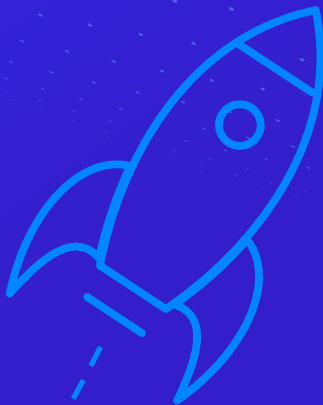
## Cloud Native Development Growing

Enterprises taking advantage of speed and efficiency of cloud environments



## Adoption of Shift Left Processes and CI/CD automation

Improve software quality by moving tasks to the left early in delivery cycle



# Enterprise Kubernetes Data Protection Challenges

74%

of organizations think traditional  
and container-based applications  
can be backed up the same way.\*  
**(they can not!)**

85%

of companies have  
experienced at least  
1 ransomware attack  
in the past year.\*\*

93%

of organizations think multi-  
cloud support for container  
backup is important\*

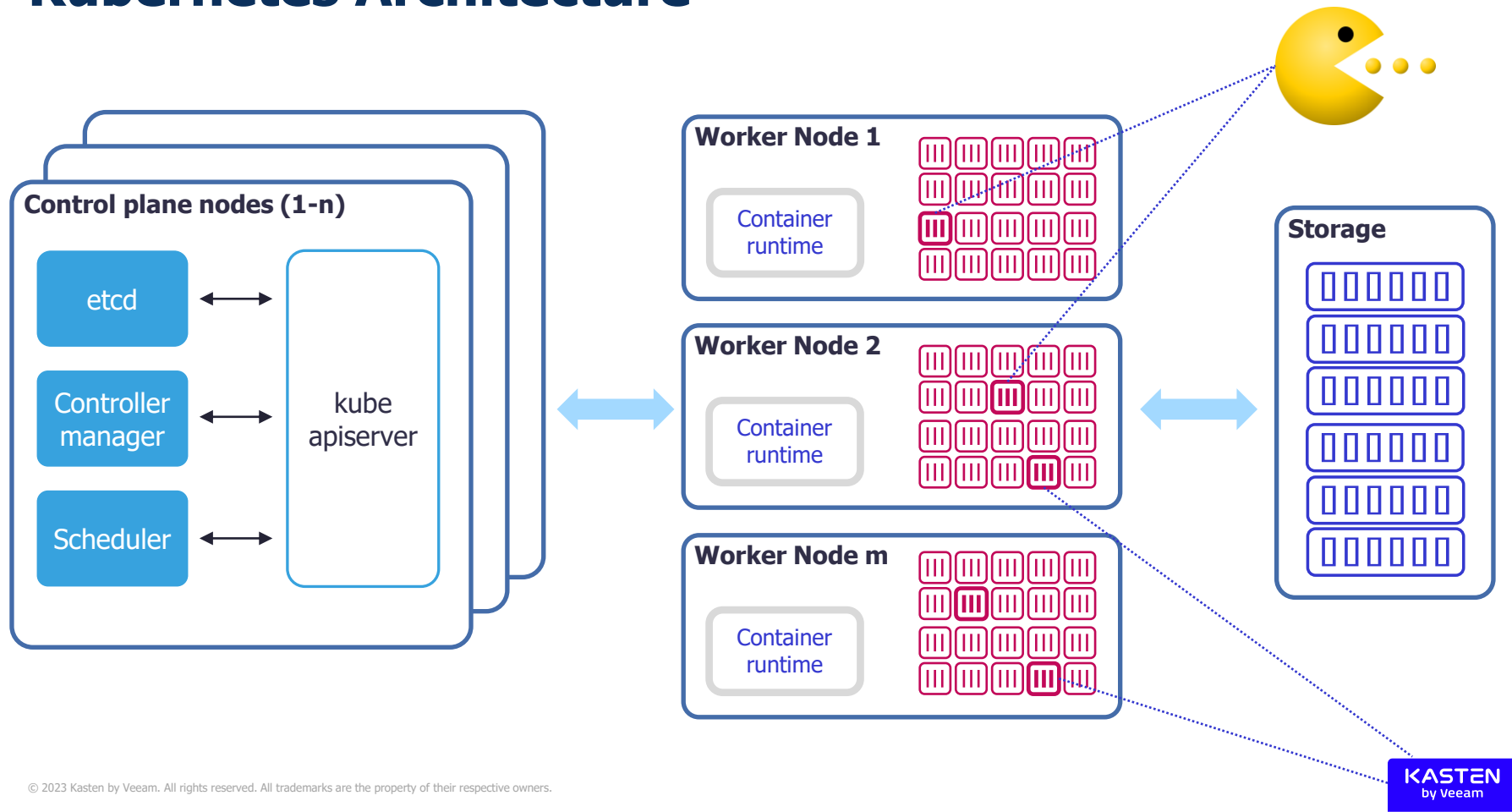
75%

of organizations indicate a skill  
shortage in their Kubernetes  
backup and recovery teams.\*

\* ESG Measuring the Current State and Momentum in the Market for K8s Protection

\*\* 2023 Veeam Data Protection Trends Report

# Kubernetes Architecture

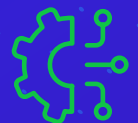


# Kubernetes data protection



## Kubernetes native

Automation and workflows in Kubernetes native environments



## Freedom of choice

Avoid fragmentation and enable deployment flexibility



## Multi-layered consistency

Consistent data and application resources capture



## DevOps speed & scale

Shift-left environments and secure self-service

# Kasten by Veeam Mission

Kasten's **Mission** is tackling Day 2 data management challenges to help enterprises confidently run applications on **Kubernetes**.



## Backup & Restore

Protect your Kubernetes applications and data

# Kasten K10 Core Capabilities

## Application Centricity



## Applications as the Operational Unit

- Perform complete application capture
- Abstract underlying infrastructure
- Perform coordinated operations



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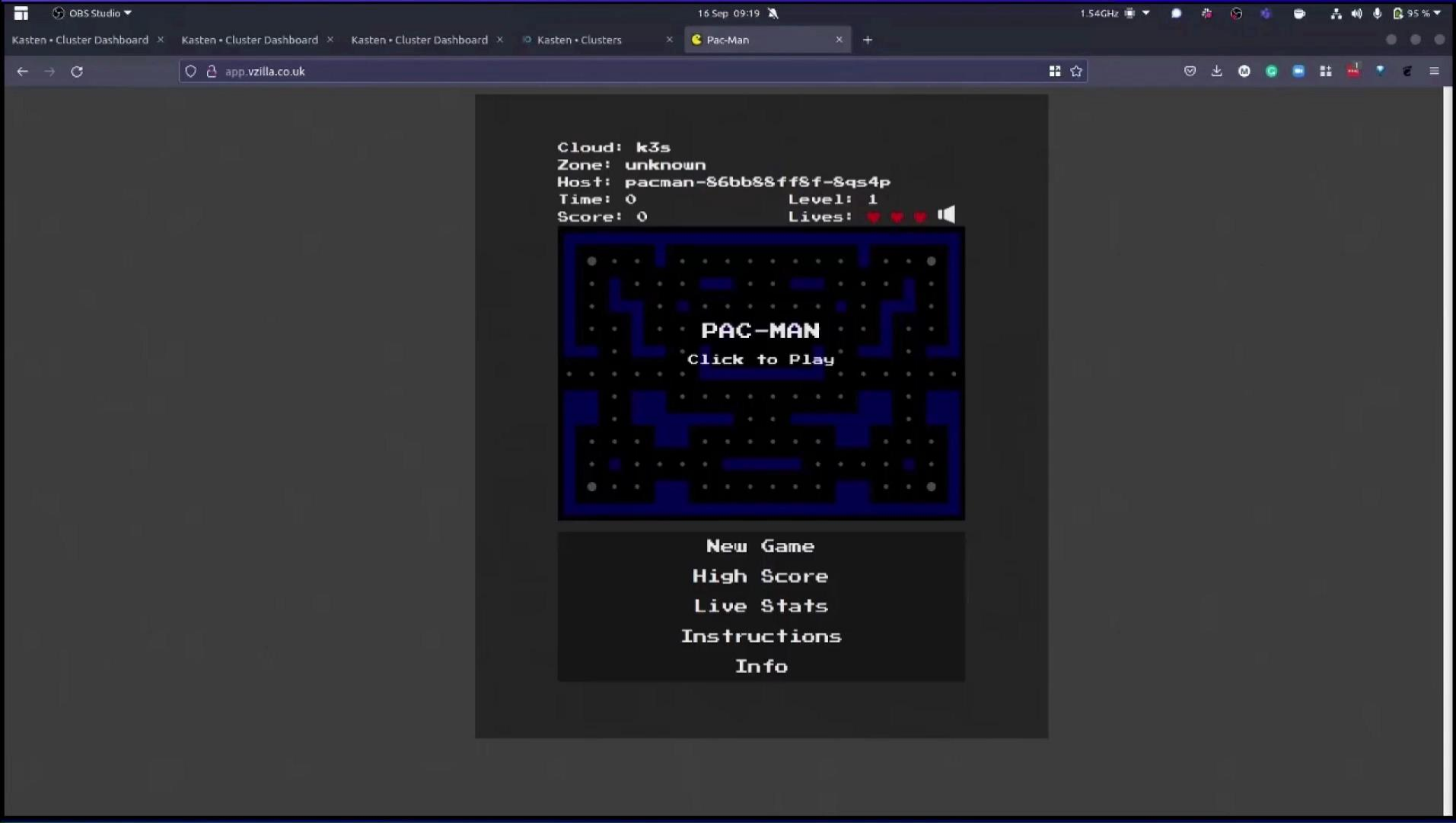
## Backup & Restore

Protect your Kubernetes applications and data



## Application Mobility

Move between clouds and on-premises clusters



# Kasten by Veeam Mission

Kasten's **Mission** is tackling Day 2 data management challenges to help enterprises confidently run applications on **Kubernetes**.



## Backup & Restore

Protect your Kubernetes applications and data



## Disaster Recovery

Securely replicate your backups to another site



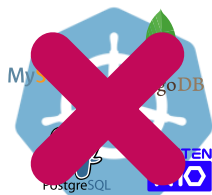
## Application Mobility

Move between clouds and on-premises clusters

# DR – Strategy overview

## Rebuild vs. Replicate

Rebuild



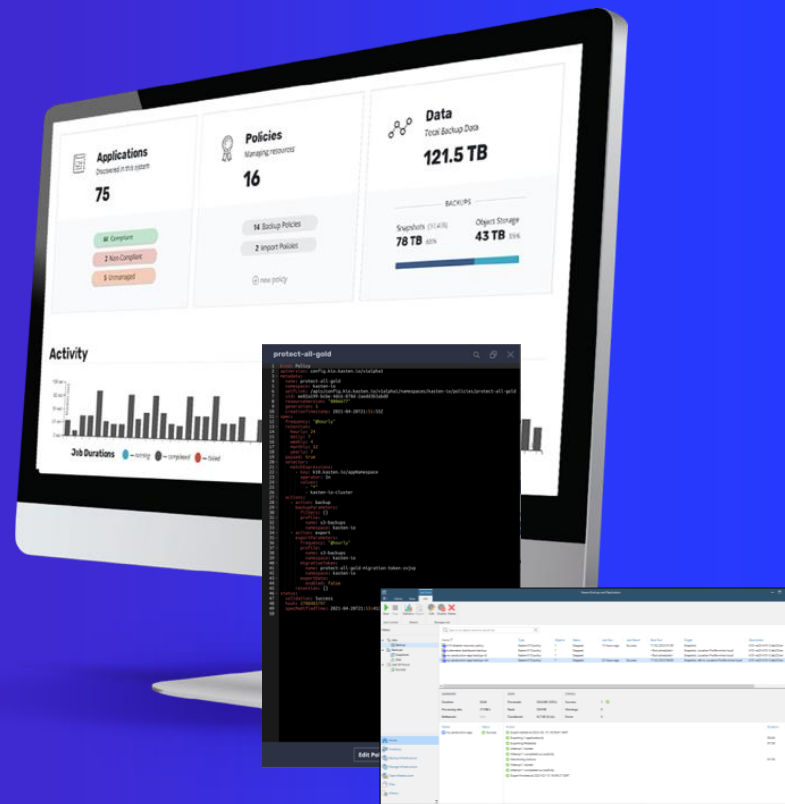
Replicate



# Kasten K10 by Veeam

## #1 Kubernetes Data Protection

Purpose-built for Kubernetes, the Kasten K10 data protection platform provides enterprise operations teams an easy-to-use, scalable and secure system for backup/restore, disaster recovery and application mobility of Kubernetes applications.



local

Only User Namespaces

Cluster

Workload

Apps & Marketplace

Charts

Installed Apps

Repositories

Recent Operations

Service Discovery

Storage

Legacy

More Resources

5

1

0

Cluster Tools

v2.6.4

Charts

All charts have at least one version that is installable on clusters with Linux and Windows nodes unless otherwise indicated.

All

All Categories

kasten

KASTEN  
K10

K10

Kasten's K10 Data Management Platform

Linux only

partner

local

All Namespaces

Cluster

Workload


Apps & Marketplace

Service Discovery

Storage

RBAC

More Resources



Charts: K10 (6.0.801)

Kasten's K10 Data Management Platform

The K10 data management platform, purpose-built for Kubernetes, provides enterprise operations teams an easy-to-use, scalable, and secure system for backup/restore, disaster recovery, and mobility of Kubernetes applications.

K10's application-centric approach and deep integrations with relational and NoSQL databases, Kubernetes distributions, and all clouds provide teams the freedom of infrastructure choice without sacrificing operational simplicity. Policy-driven and extensible, K10 provides a native Kubernetes API and includes features such as full-spectrum consistency, database integrations, automatic application discovery, multi-cloud mobility, and a powerful web-based user interface.

For more information, refer to the docs <https://docs.kasten.io/>

Chart Information (Helm README)

Kasten's **k10** is a data lifecycle management system for all your persistence.enabled container-based applications.

TL;DR;

```
$ helm install kasten/k10 --name=k10 --namespace=kasten-io
```

Introduction

This chart bootstraps Kasten's K10 platform on a [Kubernetes](#) cluster using the [Helm](#) package manager.

Prerequisites

- Kubernetes 1.23 - 1.26

Installing the Chart

To install the chart on a [GKE](#) cluster

```
$ helm install kasten/k10 --name=k10 --namespace=kasten-io
```

Install

Chart Versions

6.0.801	Mon, Sep 25 2023
6.0.701	Wed, Sep 13 2023
6.0.601	Mon, Aug 28 2023
6.0.501	Mon, Aug 14 2023
6.0.401	Wed, Aug 2 2023
6.0.301	Mon, Jul 17 2023
6.0.201	Thu, Jul 6 2023
6.0.1	Mon, Jul 3 2023
5.5.1101	Mon, Jun 5 2023
5.5.1001	Mon, May 22 2023

Show More

Application Version

6.0.8

Home

<https://kasten.io/>

Maintainers

[kastenIO](#)

Chart

[Download](#)

# How Kasten K10 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

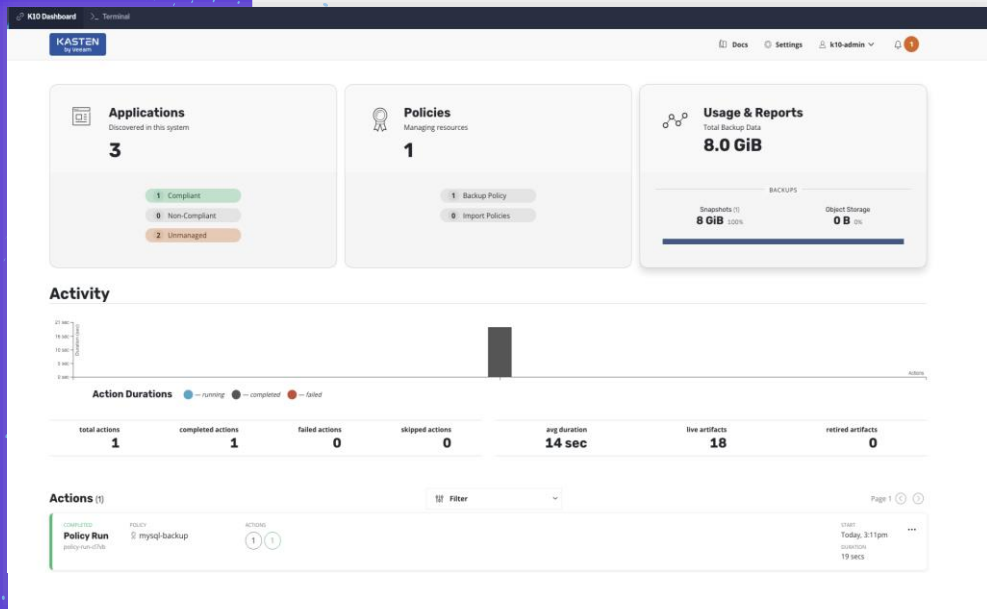




# Discover

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





# 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

The screenshot displays the Kasten by Veeam dashboard. At the top, there's a navigation bar with 'Docs', 'Settings', and a user profile 'k10-admin'. The main section is titled 'Dashboard' and features a 'Policy Run' card for 'mongo' (run-b6j7rbkhjb) with a 'Completed Successfully' status. Below this, it shows '2 Total Actions' and '2 Successful Actions'. To the right, a summary table provides details on the run's timing and duration.

Start	End	Duration
Today, 3:12pm	Today, 3:15pm	3 mins, 39 secs

Below the summary, there's a section for 'Applications (1)' with a 'default' filter. The 'Actions (2)' section is expanded, showing a table of actions:

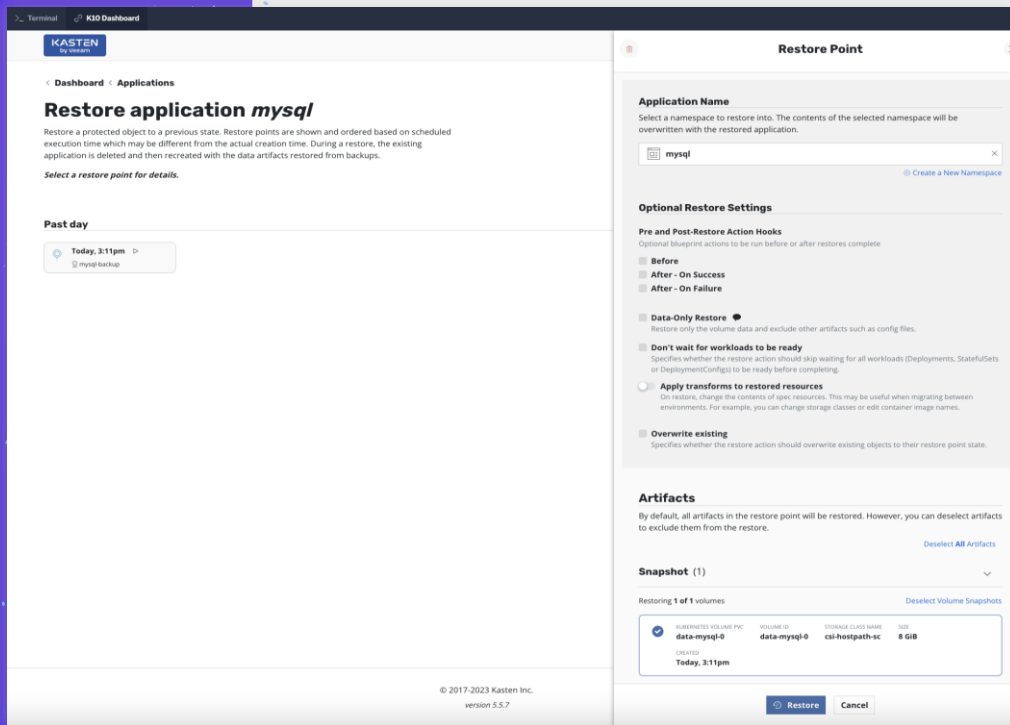
Action	Protected Object	Originating Policy	Artifacts	Start	Duration
<b>Export</b> scheduled-2gkhnb...	default	mongo	2 kanister 25 spec	Today, 3:13pm	2 mins, 18 secs
<b>Backup</b> scheduled-2gkhnb...	default	mongo	2 snapshot - 16 GiB 25 spec	Today, 3:12pm	56 secs



# Restore Anywhere

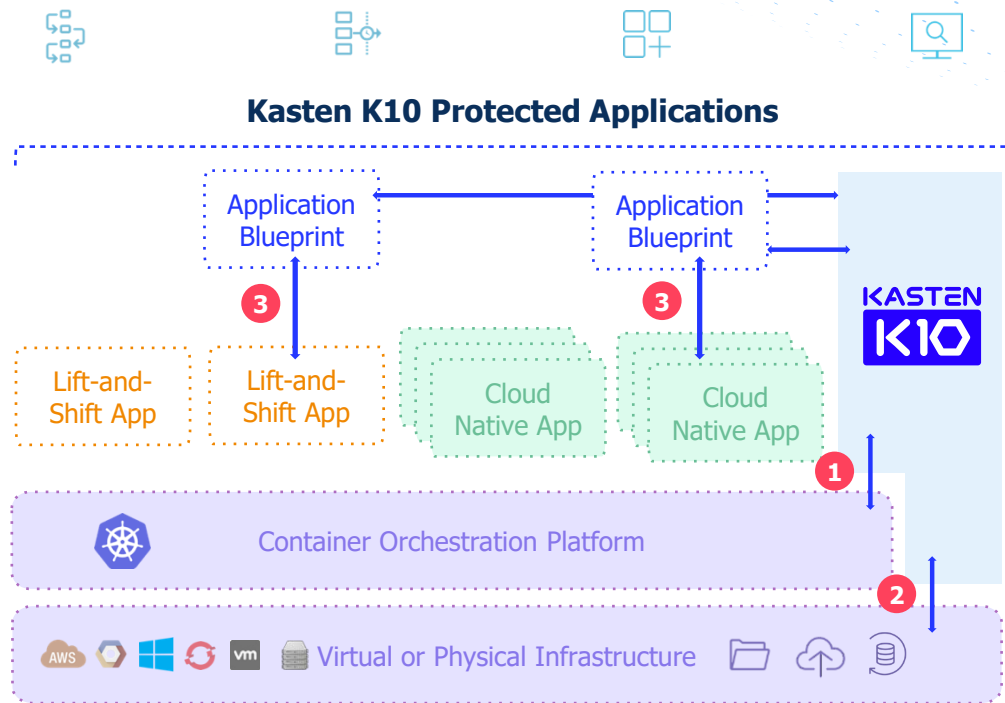
Coordinated  
application recovery

- ✓ 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



# Kasten K10 Architecture

## High-Level Overview



### 1 Orchestrator APIs

- Uses Kubernetes API to discover applications and underlying components and perform lifecycle operations.

### 2 Infrastructure APIs

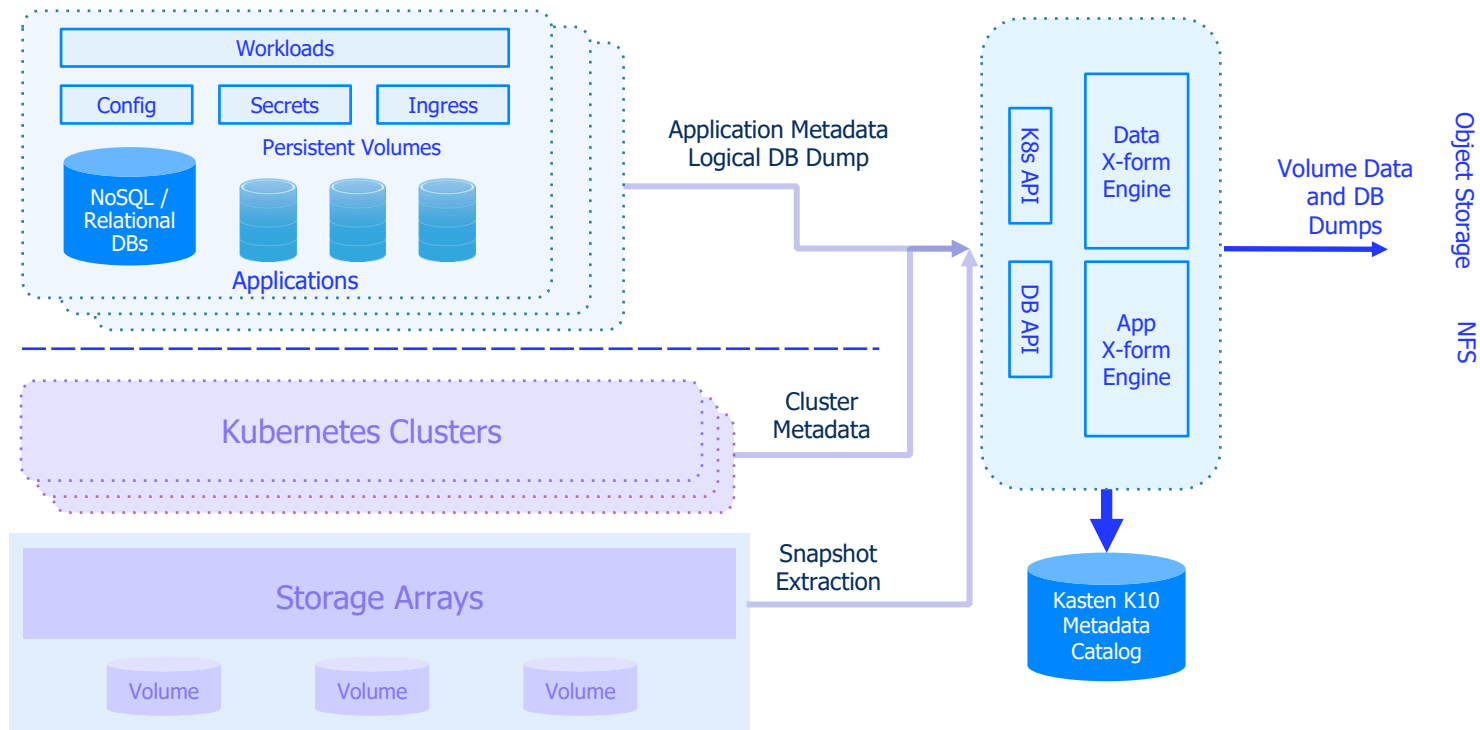
- **No proprietary storage layer.** Integration with infrastructure specific APIs for the following:
- **Block storage provider** - Snapshot functionality, snapshot and block copy
- **Object/file provider** - S3-compatible object store or other file storage like NFS for artifacts

### 3 Application Framework

- **Optional** agentless application-centric hooks can be invoked by easy-to-use blueprints

# Kasten Application Backup

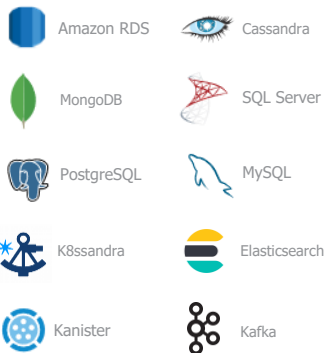
## Data and Metadata Storage



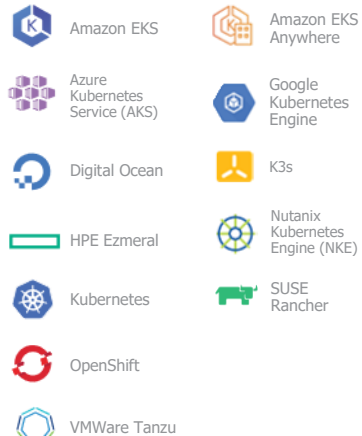


## Kubernetes Data Protection Platform

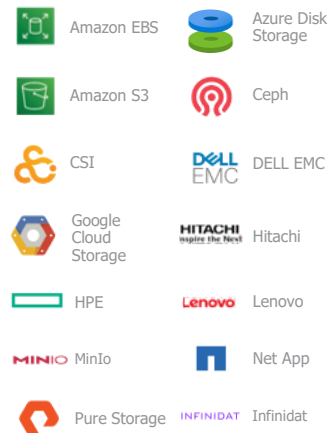
### Data Services



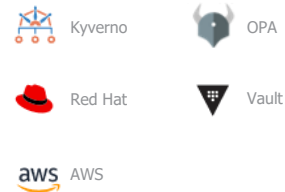
### Kubernetes Distribution



### Storage Infrastructure



### Security Services



Kasten K10 integrates with all Kubernetes technologies you use

# Kasten K10

## #1 Kubernetes Backup



### Built for Kubernetes

Purpose-built for Kubernetes using cloud native architectural principles



### Security Everywhere

Support for RBAC, OIDC, Token Auth, IAM and industry-standard encryption



### Rich Ecosystem

Extensive support across the entire stack: select the best tools or infrastructure

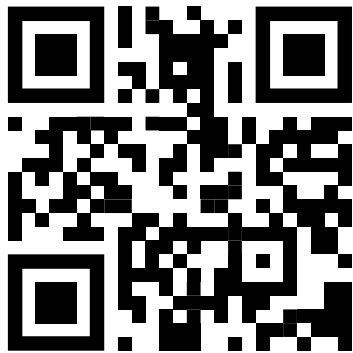


### Ease of Use

State-of-the-art multi-cluster UI; cloud native architecture and API, easy install, extensible

# Learning Kubernetes

kubecampus.io



## Technologies you will learn:



Kubernetes



Kubestr



Kanister



Amazon EKS



Cassandra



MongoDB



PostgreSQL



Prometheus



Grafana



Sonarqube





# Thank You

**KASTEN**  
by Veeam