

Red Hat  
**Summit**

**Connect**

# Infra-zentriert vs. App-zentriert:

Datensicherheit in der Cloud-nativen Welt

veeam

 Red Hat



**Kasten**

#1 Kubernetes Data Protection and Mobility

# Florian Trieloff

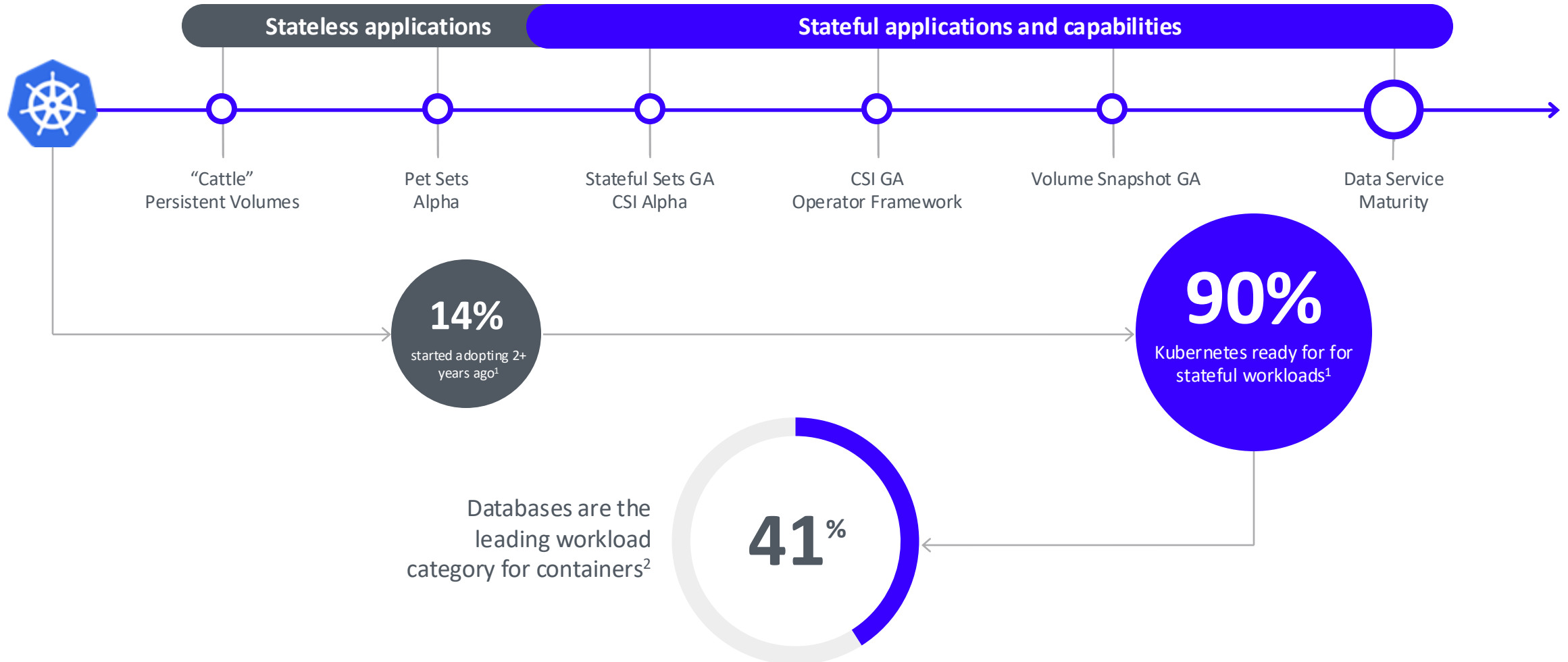
Advisory Systems Engineer |  
Veeam Kasten



# Maturing Kubernetes

## From stateless to stateful

TODAY



Sources:

<sup>1</sup> DoK Community 2022, Data on Kubernetes Report

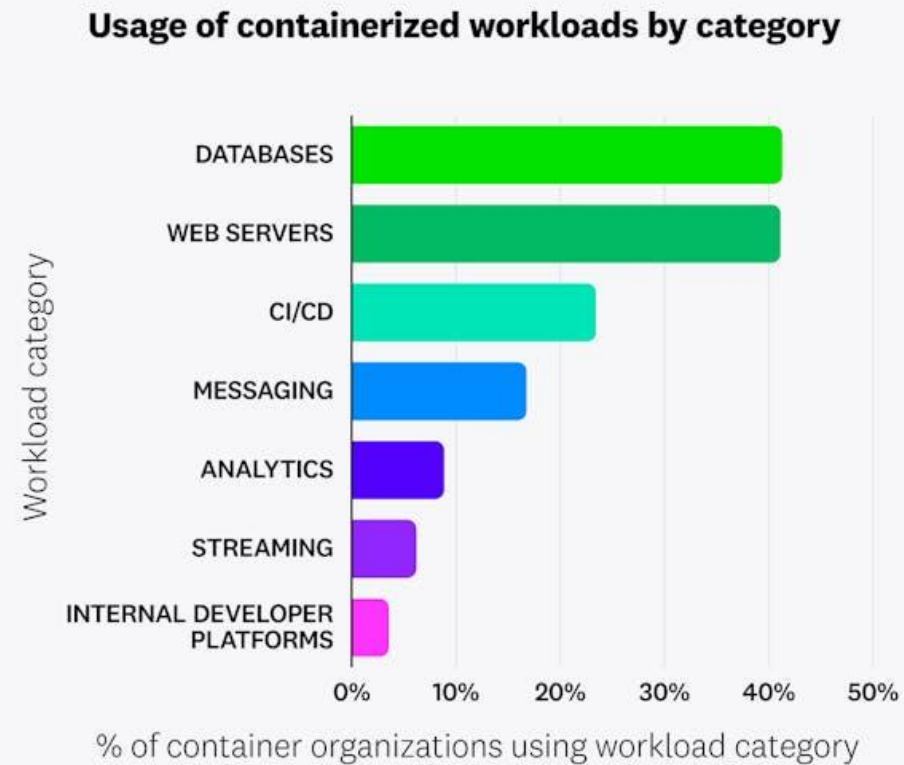
<sup>2</sup> Datadog 2023, 10 Insights on Real-World Container Use

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# Usage of containerized workloads by category

**DATABASES AND  
WEB SERVERS  
ARE THE LEADING  
WORKLOAD  
CATEGORIES FOR  
CONTAINERS**

Source: Datadog



# Challenges Facing Organizations

## Industry Sea Change

**Application modernization** – “Infrastructure-centric” to “Application-centric” approach

**Increase in Velocity** – Greater customer demand for faster innovation and need to be responsive and agile

**Industry Upheaval** – Large acquisitions are driving costs up 3-10x for some customers

**Upskilling Existing Resources** – Existing resources need to upskill for new application architecture and platforms

**Hybrid and Multi-Cloud** – All the while, organizations need to be mindful to avoid vendor lock-in and to maximize investment in existing resources



# Key Considerations

Modernization onto a New Platform

OpenShift, like vSphere, is a platform that manages storage, compute, and networking, but extends up the stack to applications

Most fundamental concepts apply to both, but it's not apples-to-apples

Many existing operations, toolsets and processes are not applicable to cloud-native architecture

VMs in OpenShift still need data protection



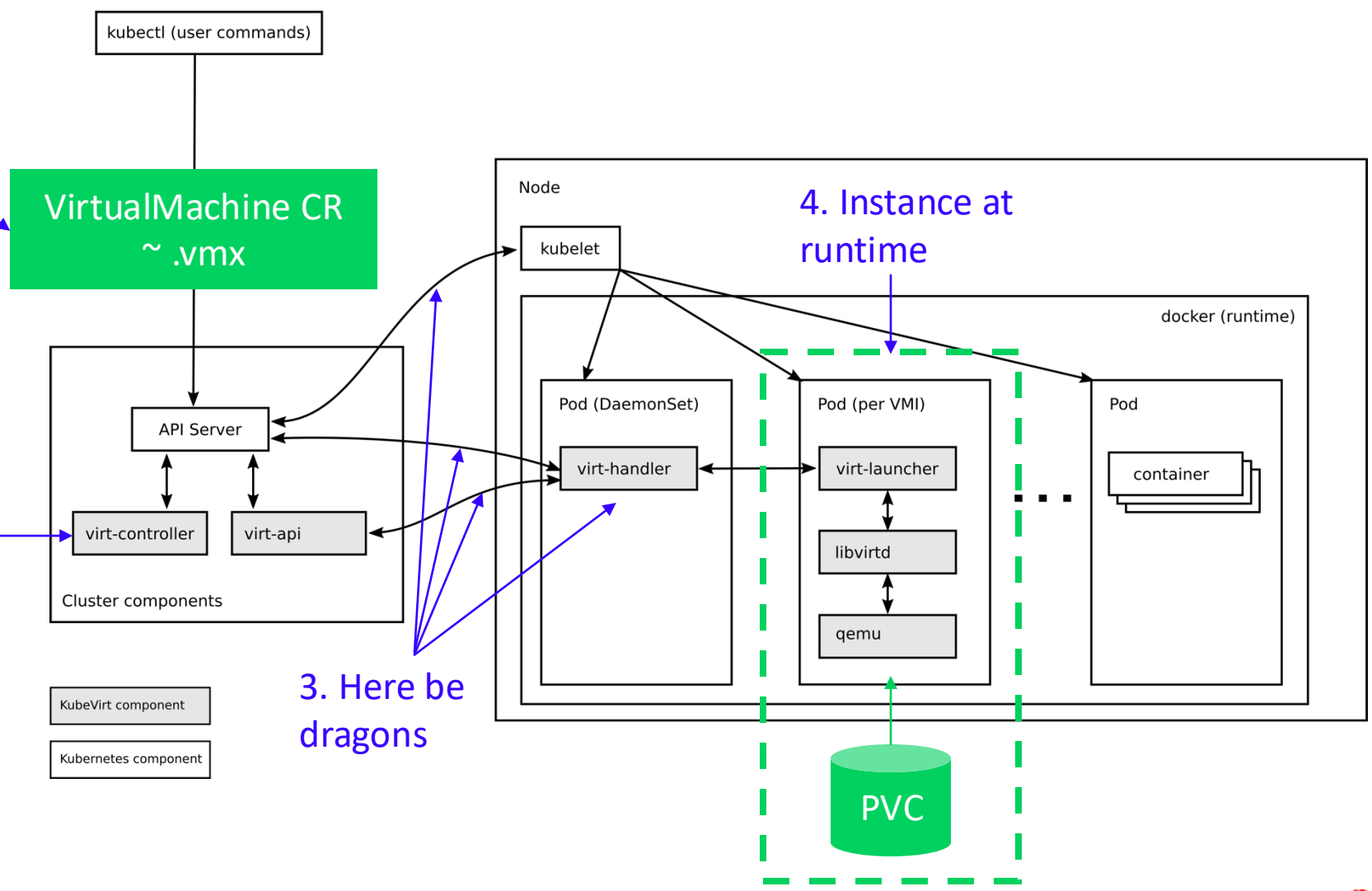
# Stop. What does this thing look like?

1. Pass in a VM manifest (description)

2. Controller processes manifest to generate necessary resources

3. Here be dragons

4. Instance at runtime



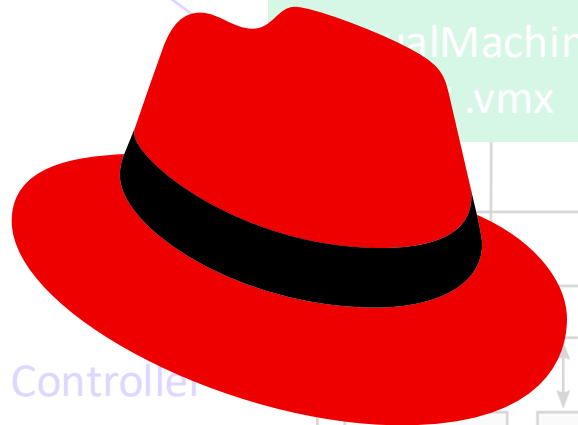
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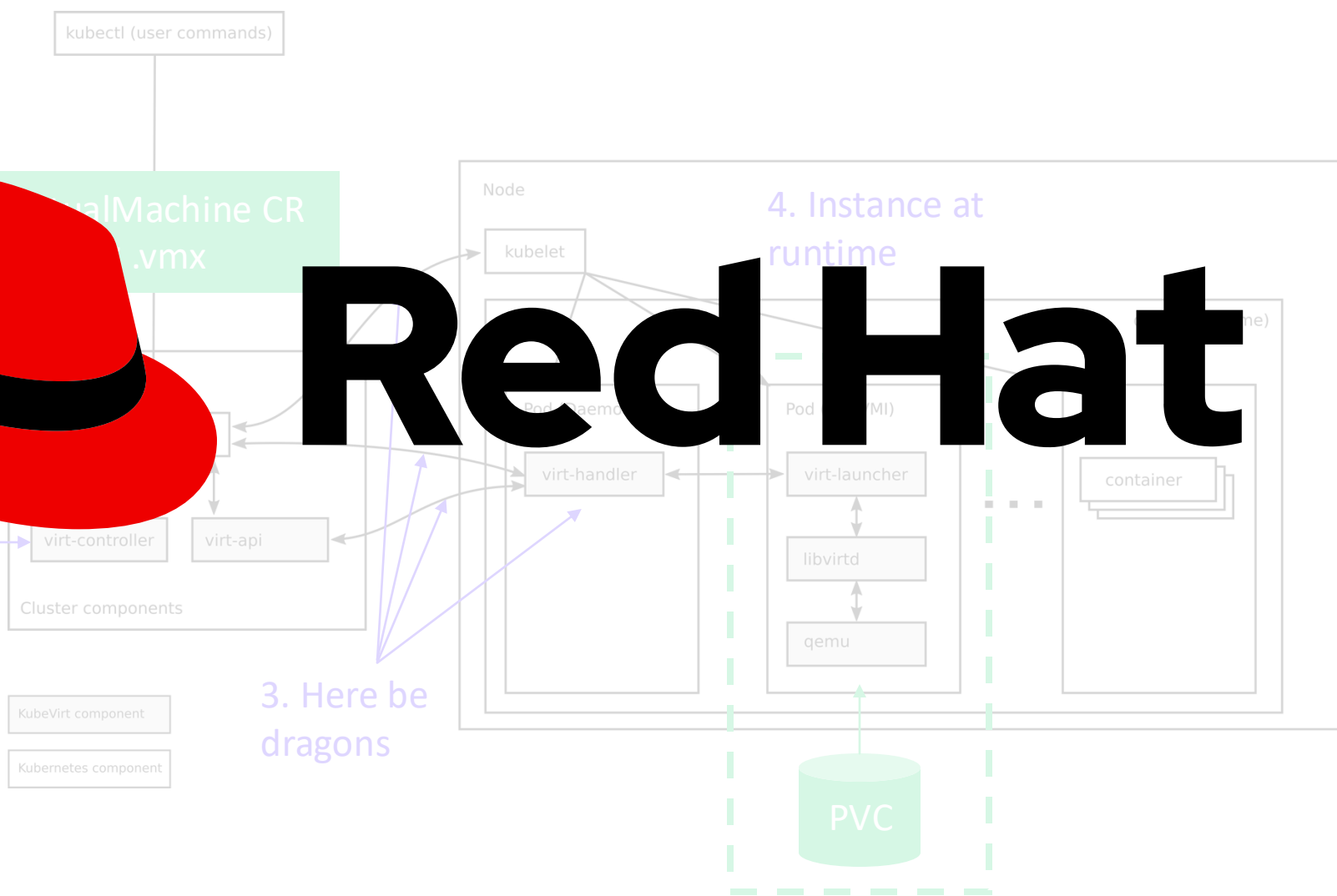
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# Red Hat





# Veeam Data Platform





Recovery Orchestration

Monitoring & Analytics

Backup & Recovery

Native APIs

Platform Extensions

-  AWS
-  Azure
-  Google Cloud
-  Kubernetes



Cloud



Virtual





Physical



Apps



SaaS

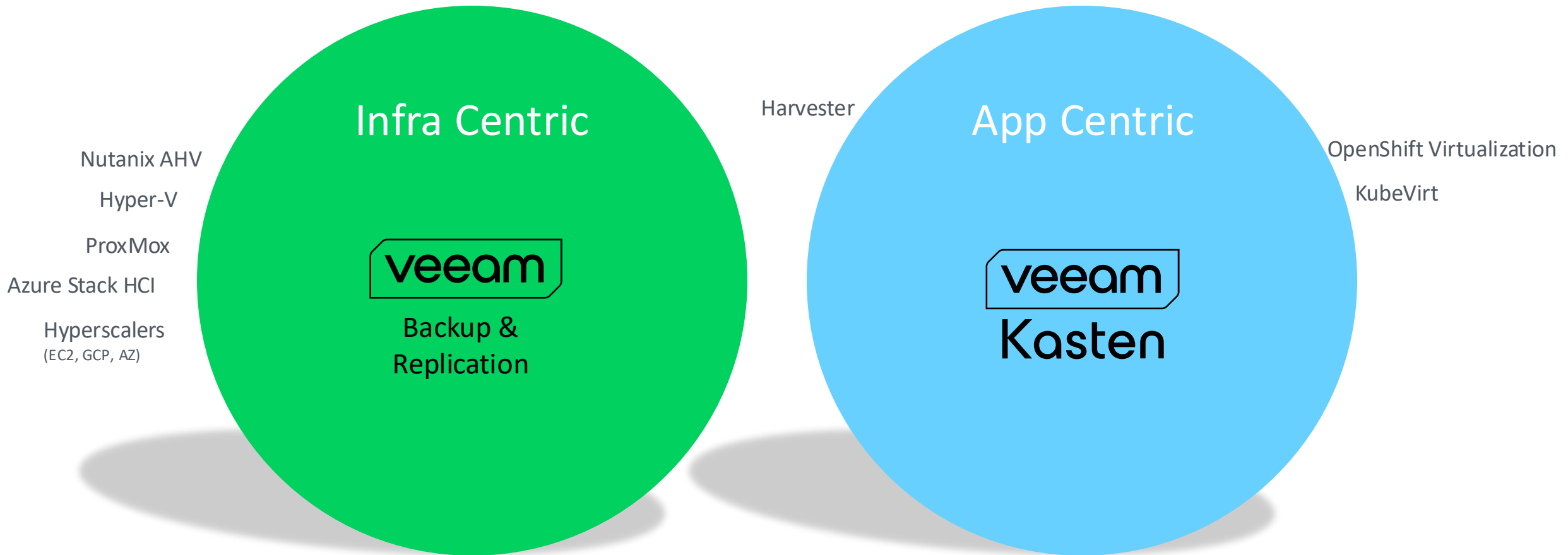
-  Microsoft 365
-  Salesforce

On-Premises • In the Cloud • XaaS

# Traditional Hypervisor vs KubeVirt

Dictated by Organization and Architecture

Transformation



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"

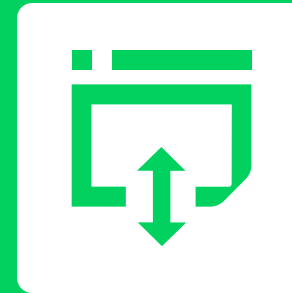
# Veeam Kasten



Backup &  
Restore



Disaster  
Recovery



Application  
Mobility



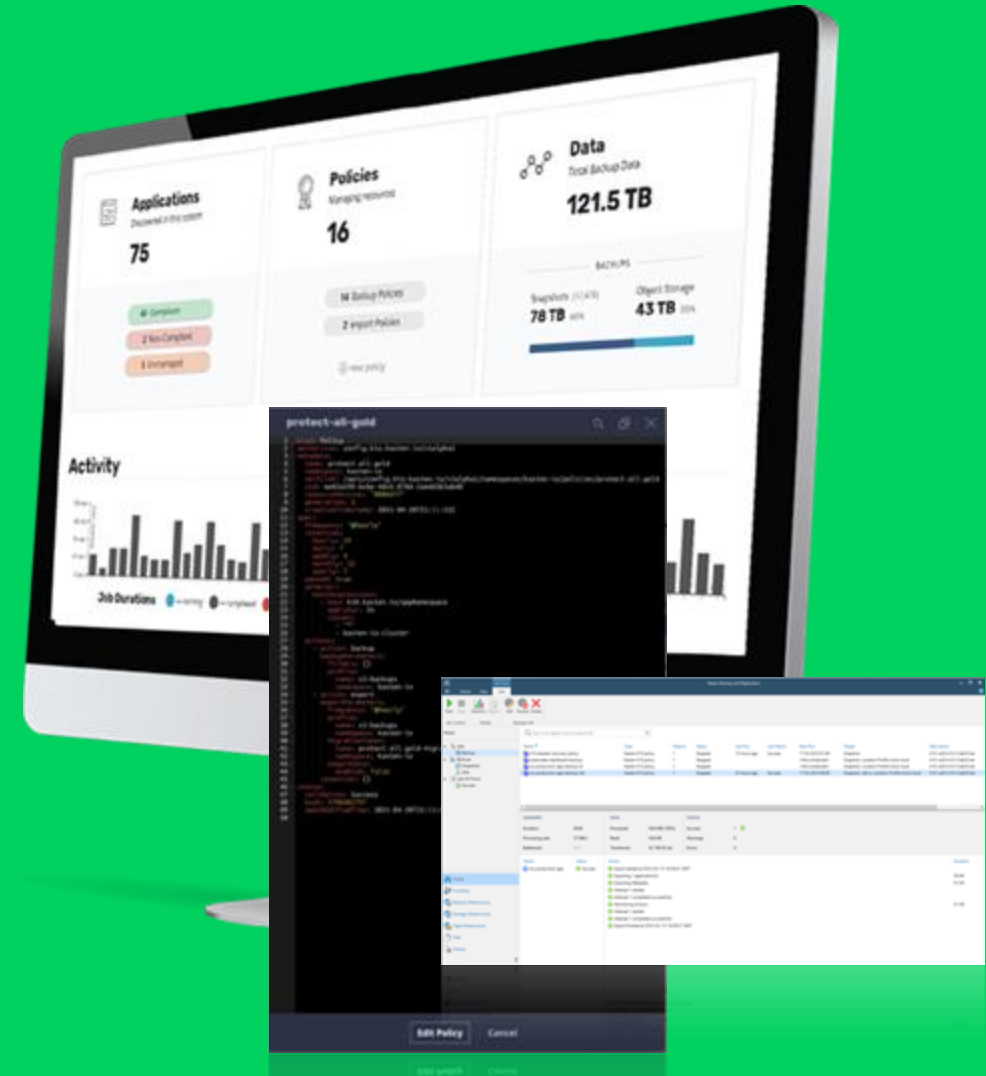
Ransomware  
Protection

# Veeam Kasten

## # 1 Kubernetes Data Protection and Mobility

Veeam Kasten delivers secure, Kubernetes native data protection and application mobility, at scale, and across a wide range of distributions and platforms. Proven to recover entire applications quickly and reliably, coupled with its core tenet, simplicity, Kasten gives operations and application teams confidence to withstand the unexpected.

veeam  
Kasten



# Why Kasten

Complete Data Protection, no matter the OpenShift workload



# Kasten



# Red Hat OpenShift



**Data**

**Isolation from Ransomware**

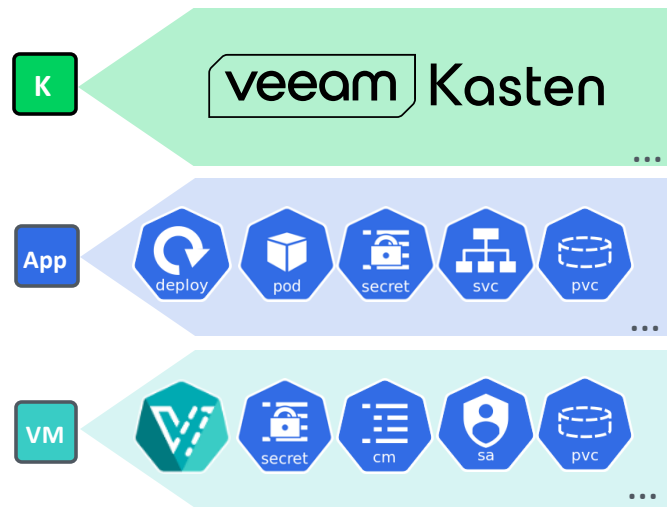
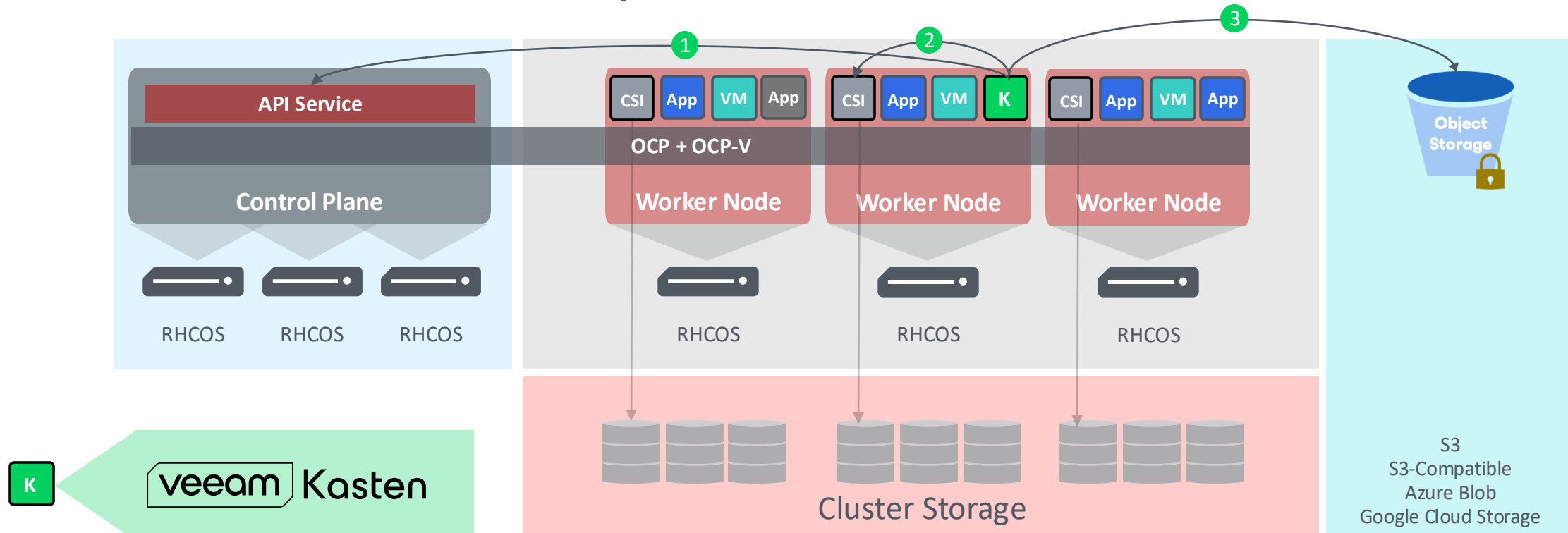
**Point-in-Time Recovery**

**Application and VM**

**Early Threat Detection**

**Encrypted and Immutable Backups**

# How Kasten Protects OpenShift Workloads



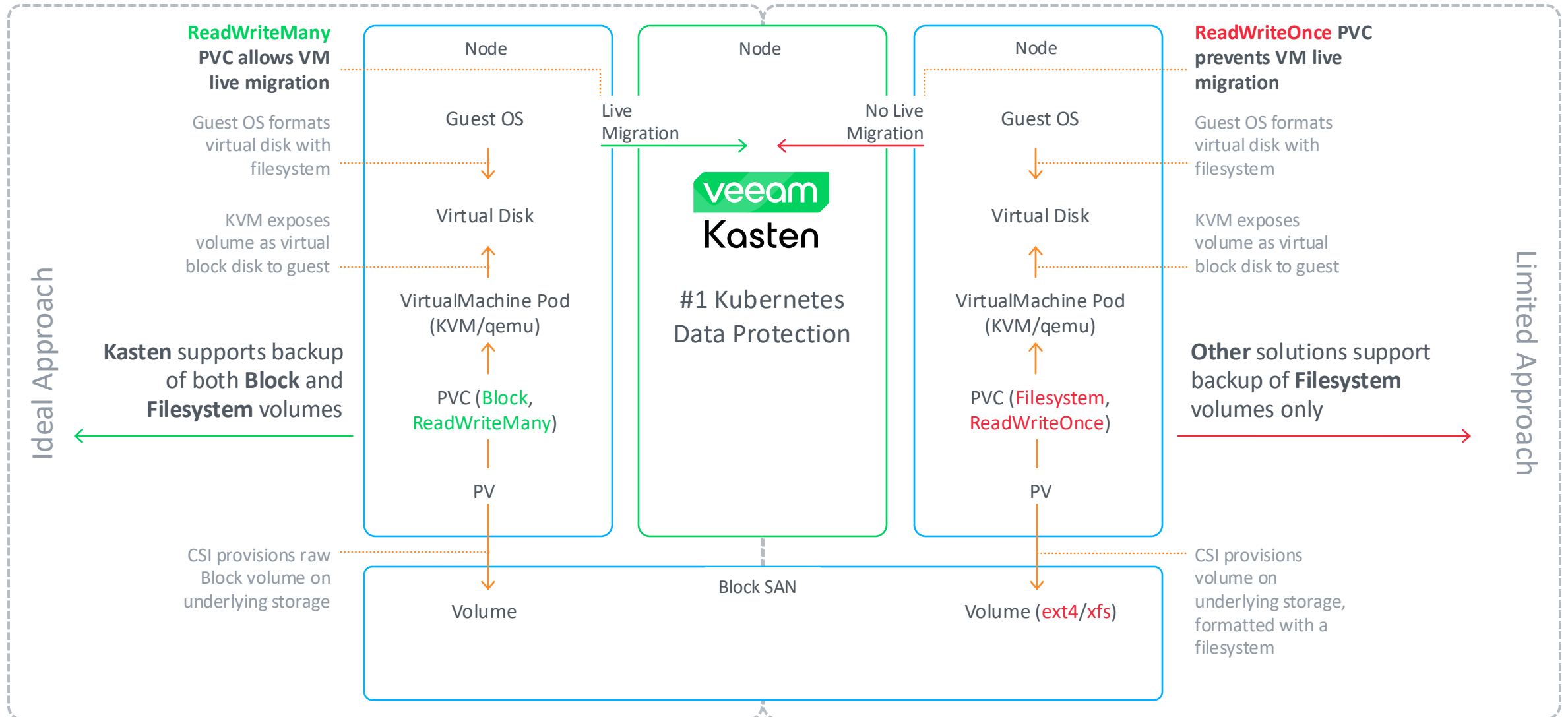
- 1 Kasten communicates with the Kubernetes API to gain visibility into the cluster to see namespaces, create backup and restore actions, and retrieve application components (YAML)
- 2 Retrieves underlying volumes from storage via CSI or native storage integration to snapshot application and VM data for local backups
- 3 Compress, deduplicate, removes disk whitespace, and encrypts the volume data and securely sends it off-cluster to immutable object storage, to provide backups, disaster recovery, and ransomware protection

# DEMO



# Kasten Block Mode Support

## KubeVirt Use Case





# Architecture for OpenShift with OpenShift Virtualization

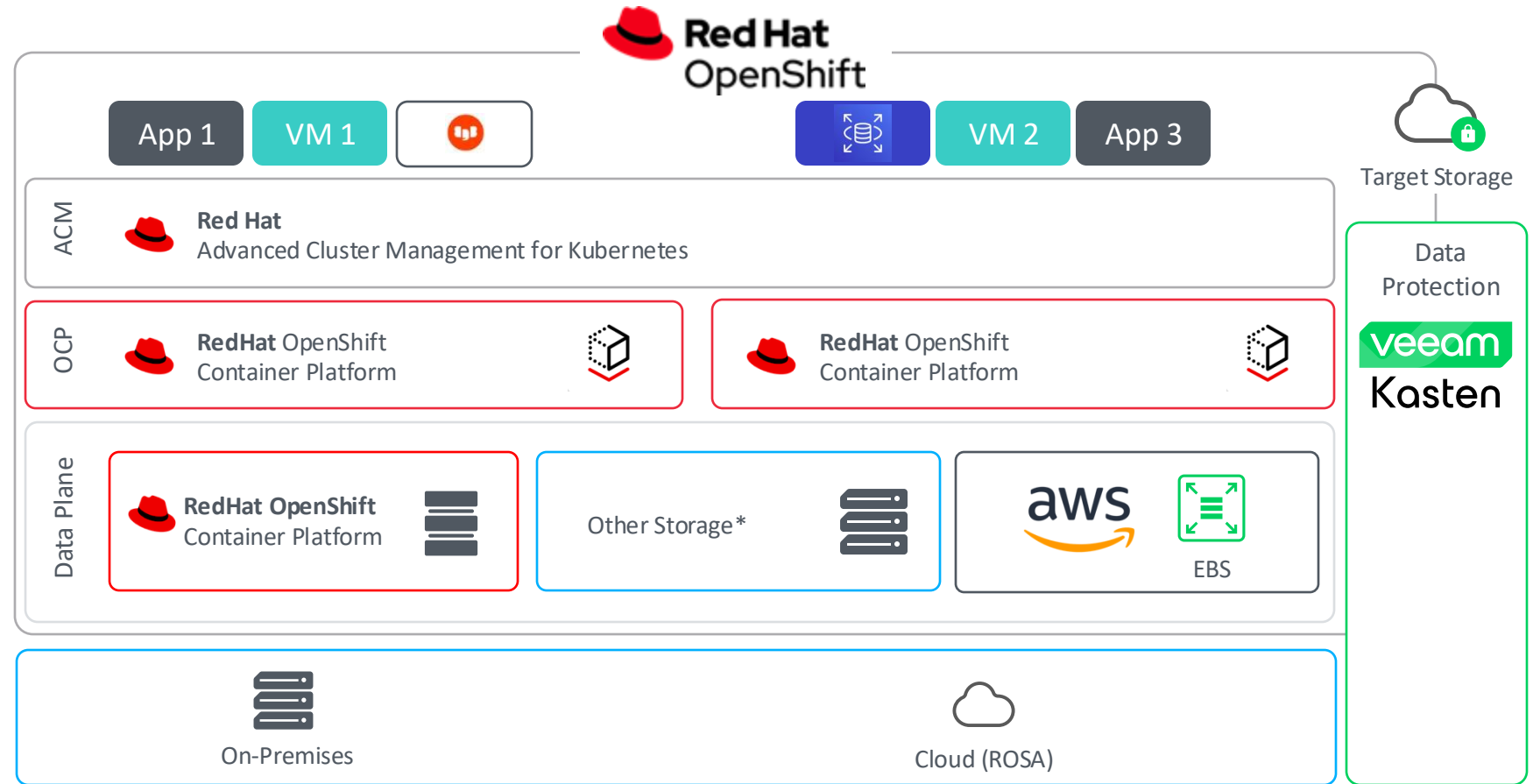
## Simplified Approach, Fewer Components, Lower Risk -

- Enterprise features
- Same platform and tooling for VM and containerized workloads
- Freedom of choice
- Hybrid and Multi-Cloud Support
- Ransomware Protection
- Support for VM Instance Types

New in v7.5



Veeam Kasten  
OpenShift  
Virtualization  
Reference Architecture



veeam



550,000 Customers



Kasten – 4 time Leader  
& Outperformer



Ransomware  
Protection



Security-First  
Architecture



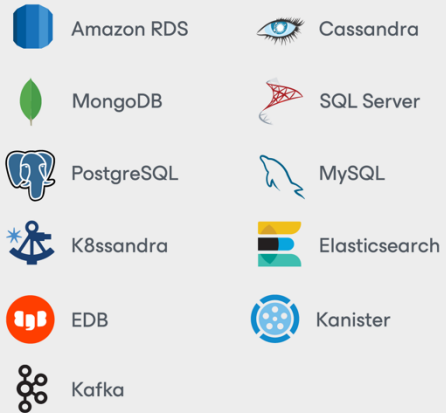
Cloud-native  
Mobility

\* Any storage that supports the CSI standard and supports block mode PVCs, RWX, and volumesnapshot capabilities

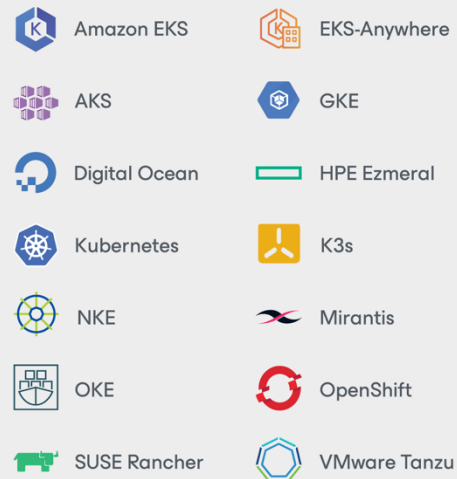
# Veeam Kasten

## Kubernetes Data Protection Platform

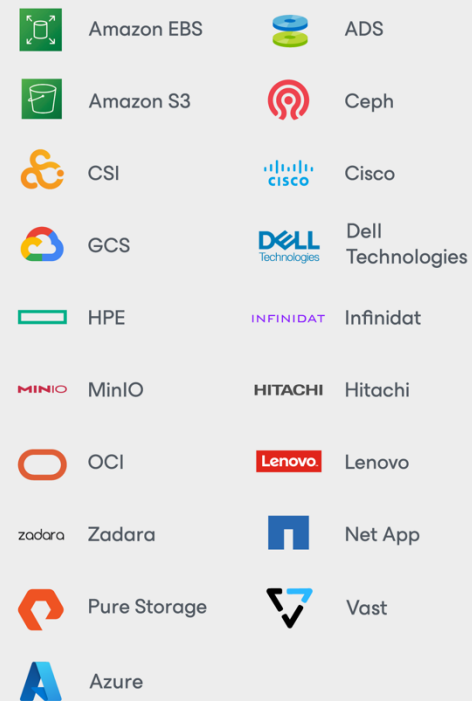
### Data Services



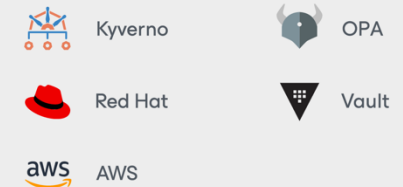
### Kubernetes Distributions



### Storage Infrastructure



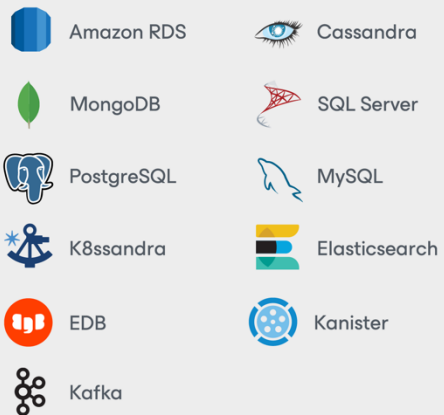
### Security Services



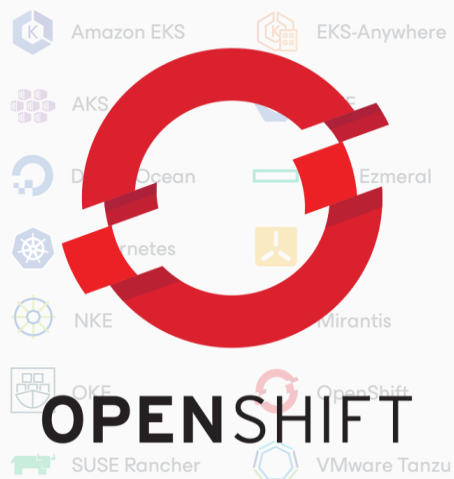
# Veeam Kasten

## Kubernetes Data Protection Platform

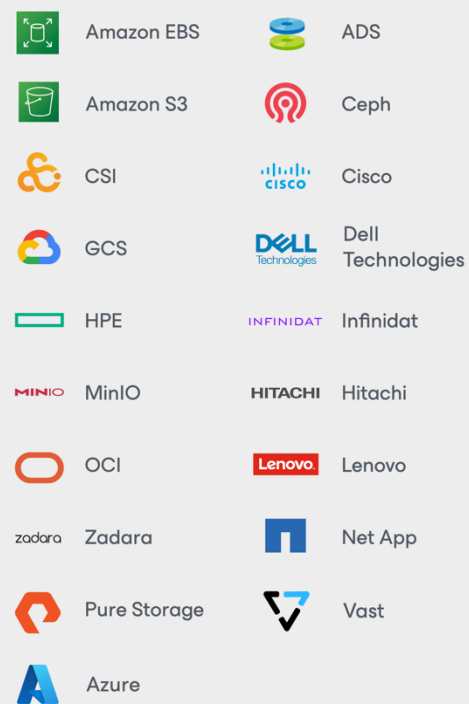
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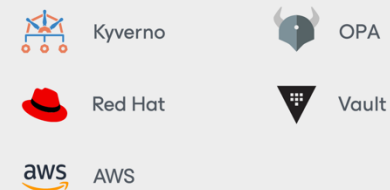
### Kubernetes Distributions



### Storage Infrastructure



### Security Services





Protect your cloud native and Virtual Machine workloads from ransomware attacks or accidental deletion with industry leading security and support



Minimize critical business system downtime in the event of a disaster



Empower your platform engineers to quickly and easily move workloads from on-premises to the cloud or from cloud to on premises



Migrate and transform applications or VMs for testing, development, or backup and recovery audit



Reduce risk and costs of your Hybrid Cloud Journey with Red Hat OpenShift and Veeam Kasten



Kasten operator includes a free fully-featured license to try before you buy

# Next Steps

Learn more and get hands on!

See for yourself in an interactive product demo at [veeamkasten.dev](https://veeamkasten.dev)

Try it for FREE by installing via the Red Hat OperatorHub or visiting [veeam.com](https://veeam.com)

Reach out to a Kasten Sales Specialist for a live demo

# Get started with Kasten today

Free up to **5 Nodes**  
Fully Featured



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# Thank you



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