



How to Future-proof your Kubernetes Data

#1 Kubernetes Data Protection and Mobility



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Industry Trends

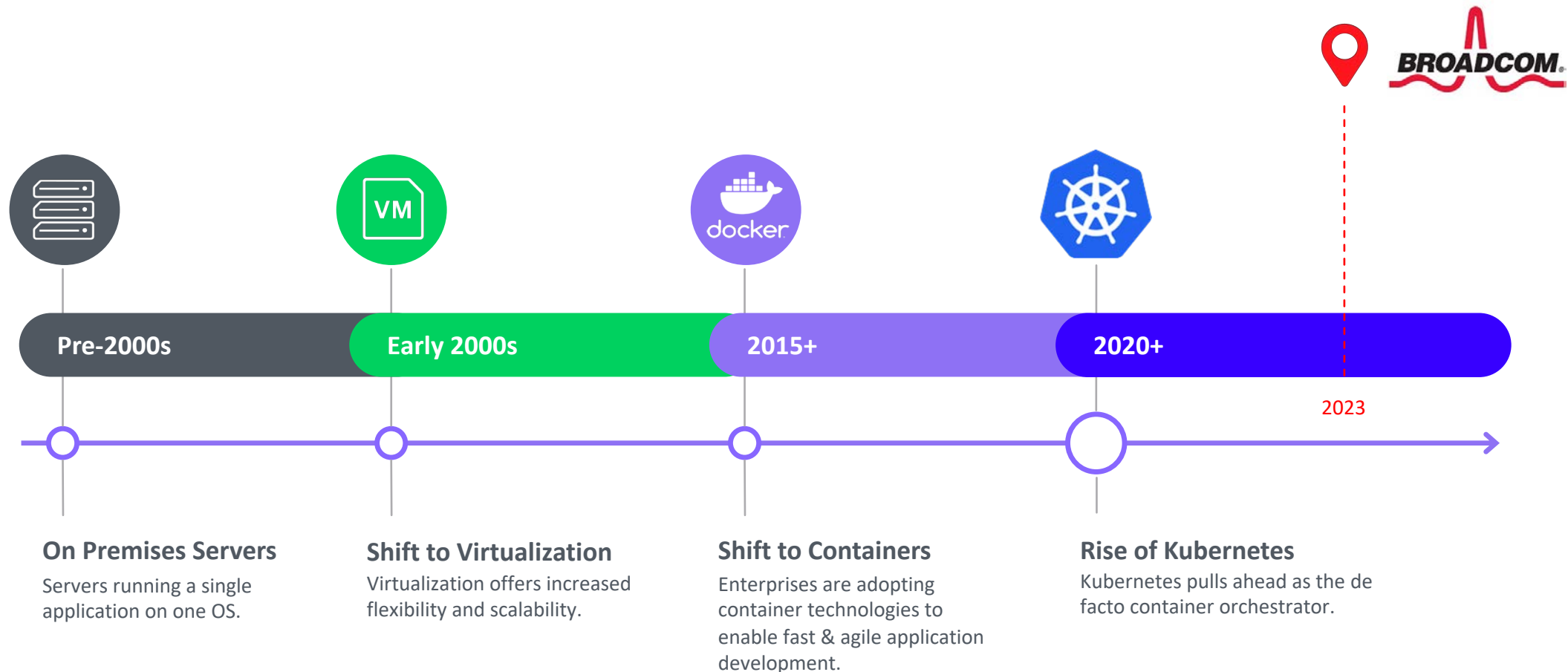
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The world is changed. I feel it in the water. I feel it in the earth. I smell it in the air.

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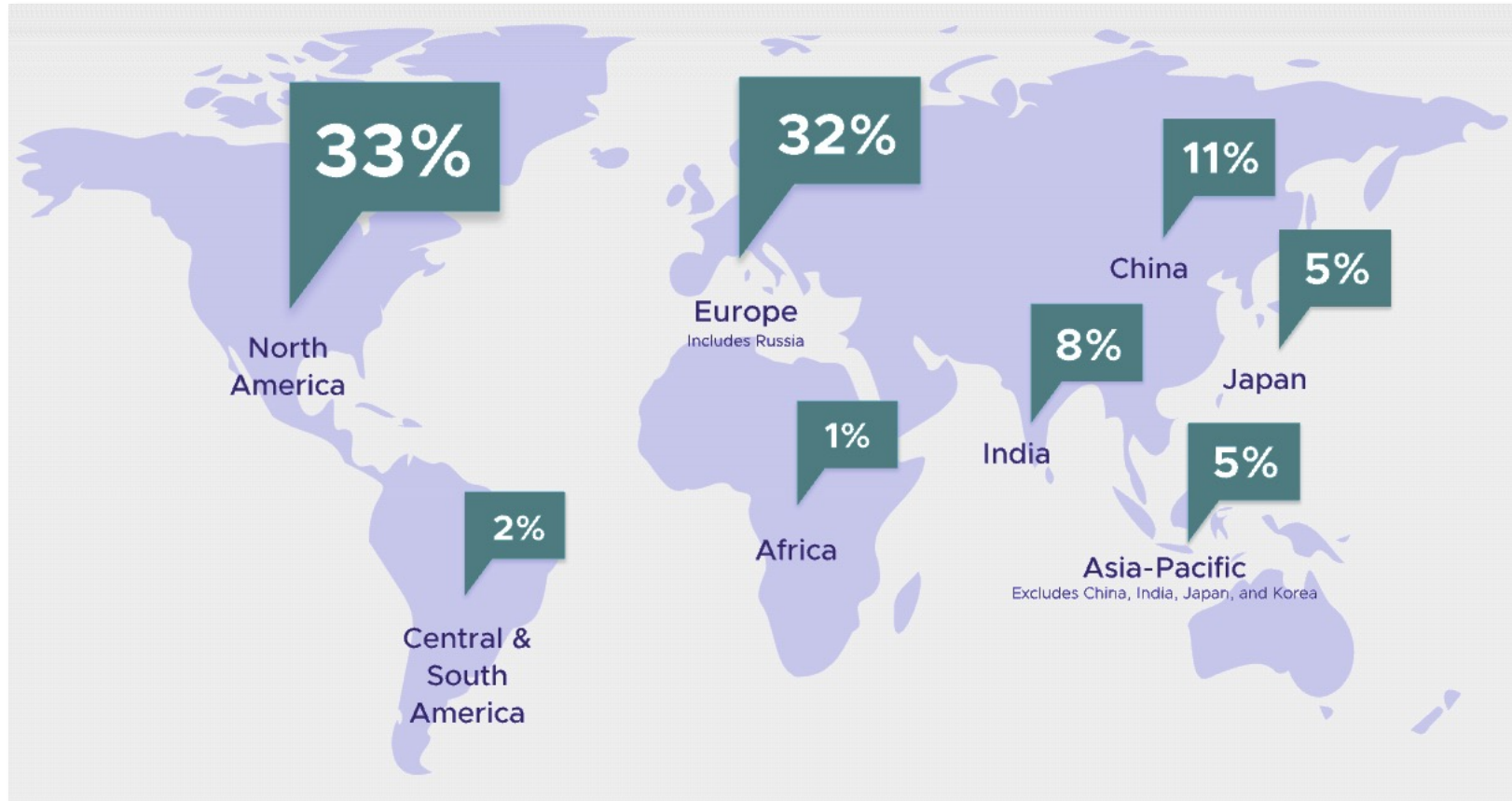
Kubernetes is fastest-growing infrastructure software

Becoming the leading enterprise application platform

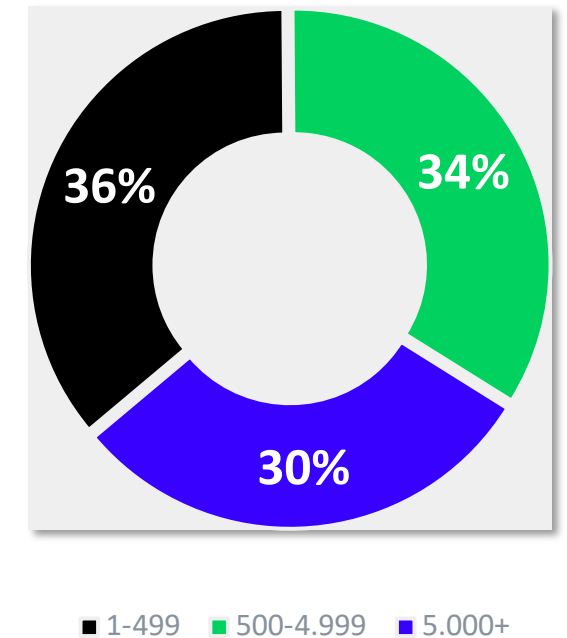


Adoption of Kubernetes

Companies' HQs with K8s in Production



Employees Distribution



Enterprise Kubernetes

Data Protection Challenges
[ESG, 2023]

74%

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

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.*

*Measuring the Current State and Momentum in the Enterprise Market for Kubernetes Protection
**2023 Veeam Data Protection Trends Report

Asking Kubernetes Hands-On Professionals [CNCF, 2024]

600

total reponses
gathered



DevOps
professionals



Engineering
professionals



Security
professionals



25% 100-499 employees
24% 500-999 employees
52% >1,000 employees



26% Technology
25% Financial services
24% Telco, media,
and entertainment
26% Other industries

67%

of organizations delayed or slowed down deployment due to Kubernetes security concerns.

42%

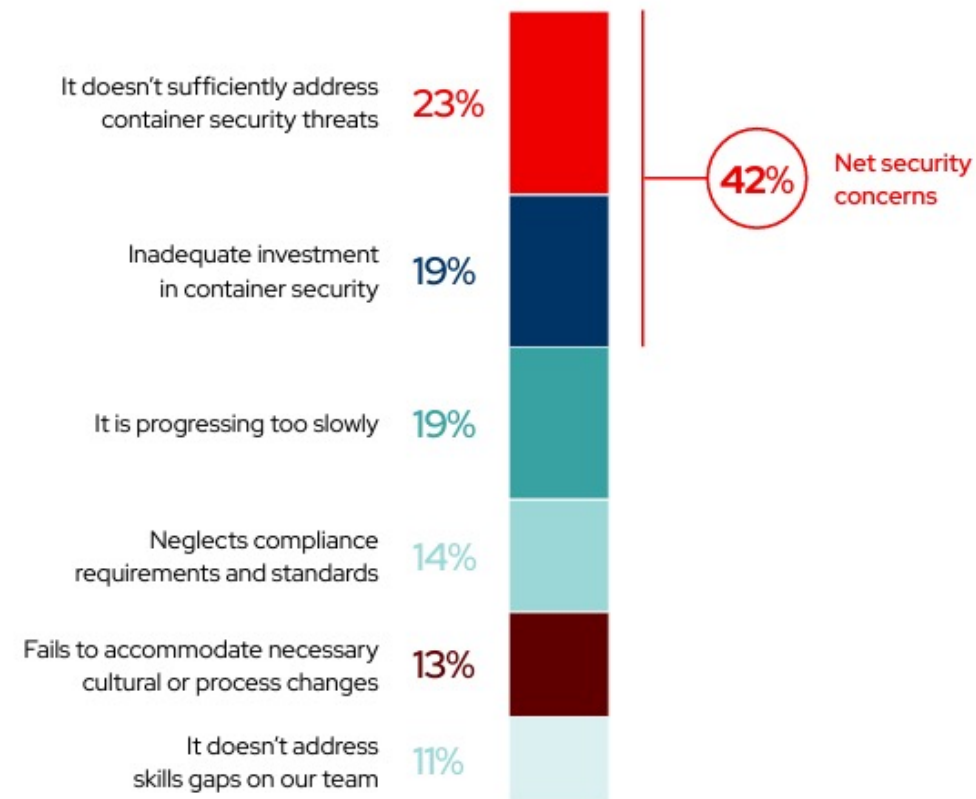
of respondents cite security as a top concern with container and Kubernetes strategies.

In the past 12 months, have you experienced any of the following impacts to your business as a result of containers/Kubernetes security or compliance issues or incidents?



...2024, Some *Ugly* Truths

What is your biggest concern about your container strategy?



Who to bares the responsibilities?

Backup Admins
Storage Admins



VM
Experts

Who is responsible for defining the data protection requirements within your organization for containerized applications?

BackupTeams
23%

Kubernetes Admins
25%

Storage Admins
26%

Application Admins
26%

Platform Eng
Platform Ops
DevSecOps



Kubernetes
Personas

Source: **Data Protection Trends Report 2023**
<https://vee.am/DPR23>

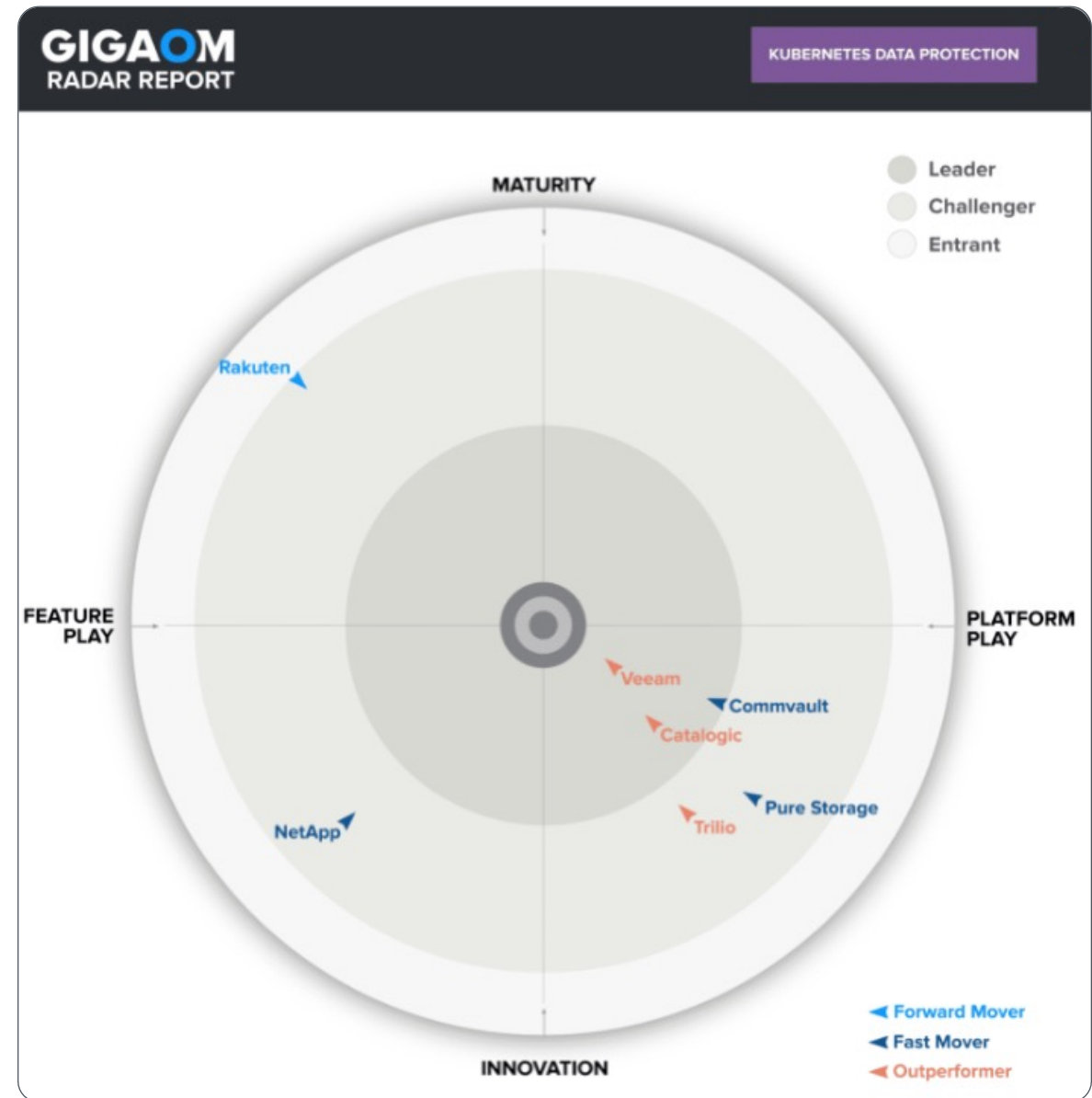
About Veeam Kasten *for Kubernetes*

#1 Kubernetes Data Protection

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>]

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Veeam Kasten

#1 Kubernetes Data Protection and Mobility

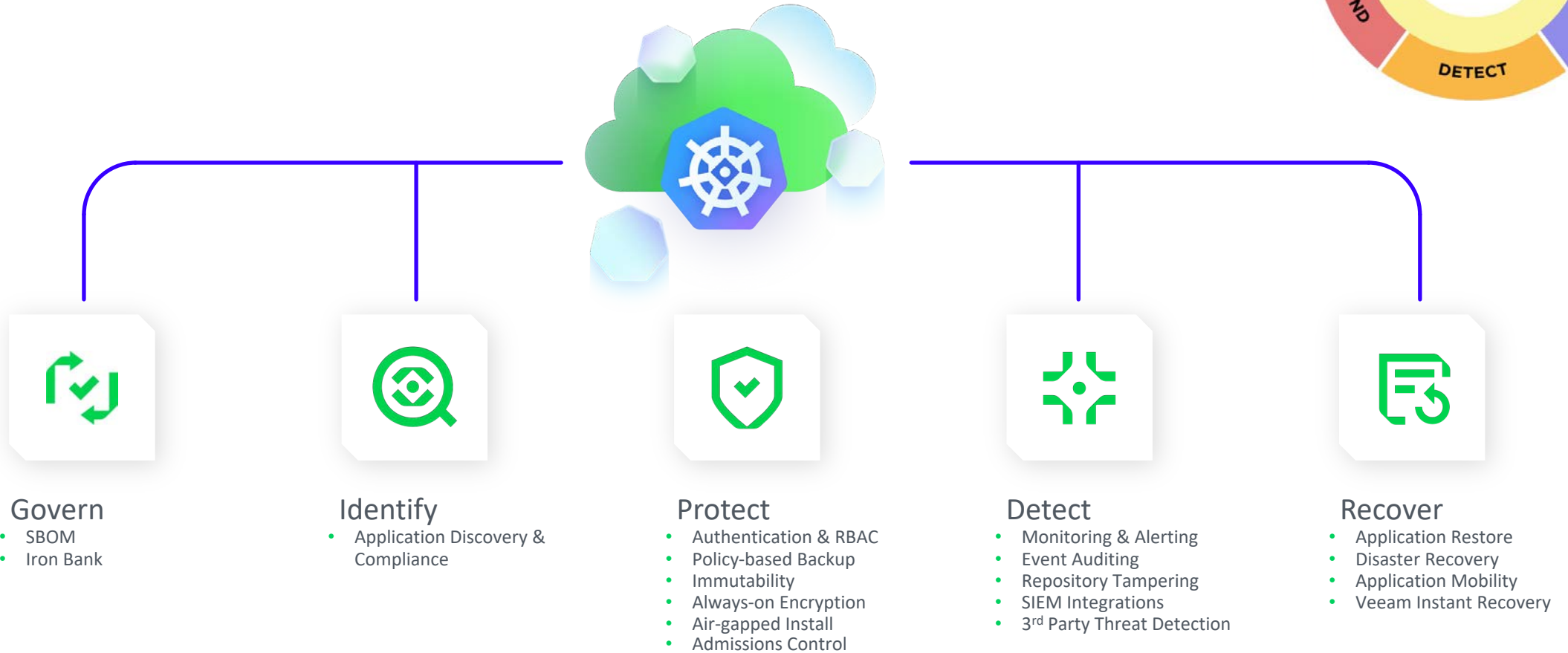
Veeam Kasten delivers secure, Kubernetes native data protection and application mobility, at scale, and across a wide range of distributions and platforms. Proven to recover entire applications quickly and reliably, coupled with its core tenet, simplicity, Kasten gives operations and application teams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

veeam
Kasten



Cloud-native Security with Kasten

Imperative for Kubernetes deployments at Scale



We keep the business running



Data Security



Data Recovery



Data Freedom



Ransomware
Protection



Data Security

Why Veeam Kasten

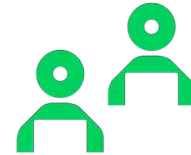
Security Everywhere

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



Ransomware Protection

Backup immutability & always-on encryption keeps your data safe



Kubernetes-Native RBAC

Deliver secure self-service across teams & personas



Security Ecosystem

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



Data Recovery

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



Intelligent Policies

Support enterprise-scale
operations with built-in
automation



Application Consistency

Customizable application
integration for every Kubernetes
workload

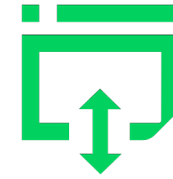


Data Freedom

Why Veeam Kasten

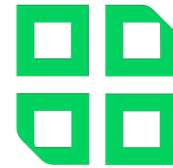
Gain Application Freedom

They are your applications, run them where you want



Application Mobility

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



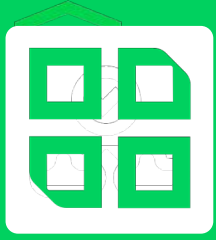
VMs on K8s & Databases

Accelerate application transformation by supporting diverse workloads



Freedom of Choice

Agnostic with broadest ecosystem of supported distributions, infrastructure & apps

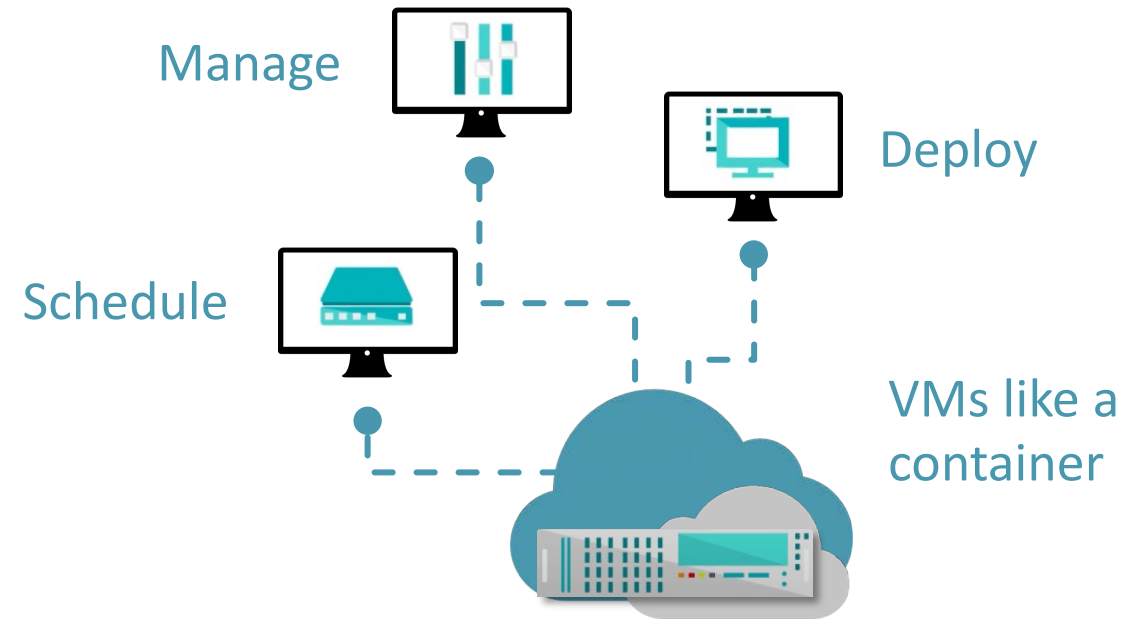


VMs on Kubernetes [Use Case]

But I run strictly virtualized components

Protection for OpenShift Virtualization

When you integrate a legacy workload in a new infrastructure



Use case Description:

- VMs are critical infra components (will persist)
- Some Services may not support containerization
- VMs are migrated, as are, on K8s cluster
- Unified... Monitoring, Logging, Alerting, Auditing
- Obtaining: Faster time to market, Simplified management, Reduced cost

Protecting VMs on K8s & Databases

with Veeam Kasten

→ Operations

Lift and shift VMs to cloud native infrastructure and operations, simplifying hybrid cloud

→ Development

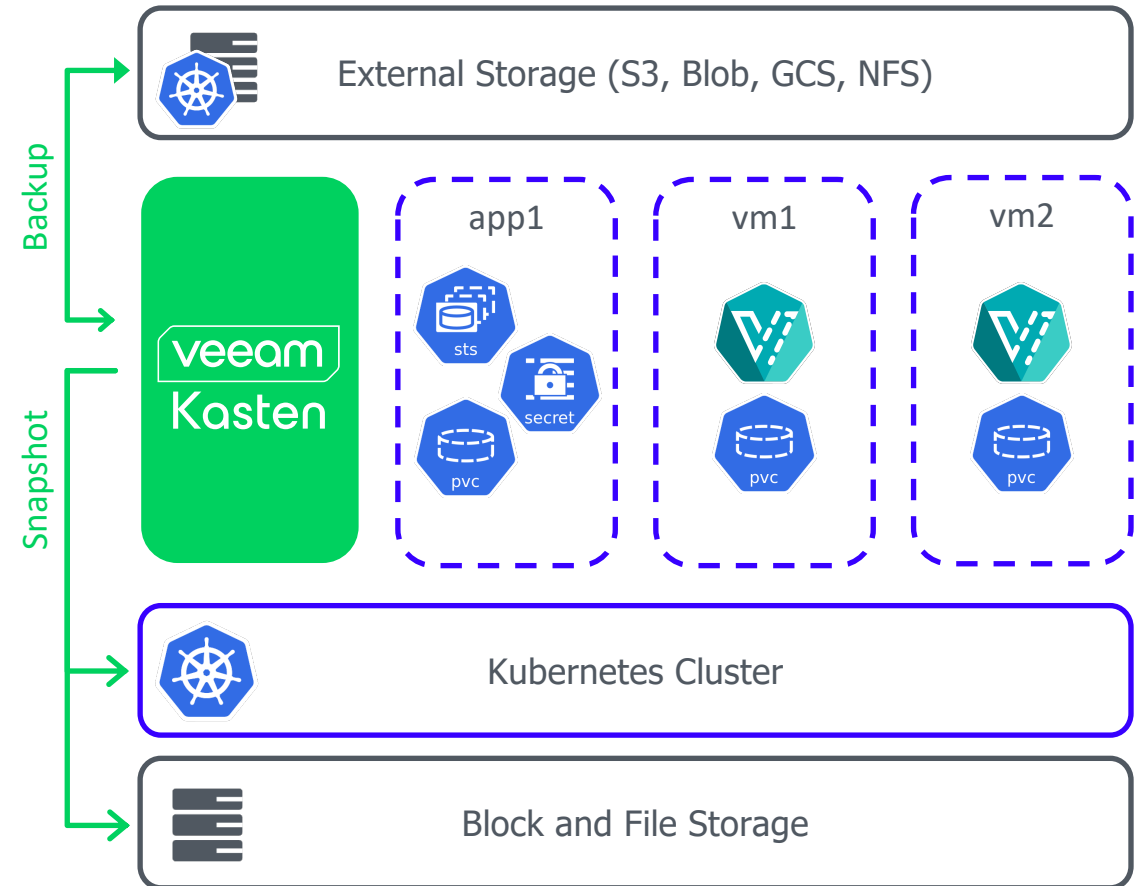
Refactor the app design or integrate with cloud native microservices

→ Security & Performance

Stronger application isolation and kernel tuning

Data Protection

Fully supported as a Kubernetes workload by Kasten





Ransomware Protection

Why Veeam Kasten

Ransomware Protection

Everybody can do Backup but not everyone can provide Ransomware Protection



Ransomware monitoring
Isolates backup environments from production



Consistency Guardrails
Knows to automatically deploy and enforce defined policies on new applications



Clean & Clear Backups
Swiftly restore the most recent and secured backup among alternative environments.

Veeam Kasten Case Studies

Veeam Kasten – Customer Successes



Accelerated Time to Value

Veeam Kasten implemented in a single day, improving developer experience immediately



Security

Secure and reliable backup and recovery for large volumes of data and applications across large global footprint



Freedom of Choice

OpenShift integration and application-centric approach made it the ideal solution for the customer



Accelerates Innovation

Time-saving automation, cuts the risk of a data-loss incident, increasing product development process

ITK Engineering

Accelerated time to deployment



Use Case

- Back up, restore and clone cloud-native services quickly and easily.

Key Challenges

- Company embracing new containerization and collaboration tools - looked to extend its data protection capabilities.
- IT was working overtime to create consistent backups of cloud-native Kubernetes workloads.

Veeam Kasten Solution

- **Deployment of Veeam Kasten in a single day** cut time-to-value for the new solution, enabling immediate impact on productivity.
- ITK can **innovate without worrying about cyber-threats**.
- **Streamlines administration** of Kubernetes environment and accelerates deployments.



U.S. Navy

Secure and Reliable Backup and Recovery



Use Case

- Backup and Recovery

Key Challenges

- Large, dispersed tactical network afloat
- Need 100% secure and reliable backup
- Old, obsolete infrastructure not up to demands of next generation fleet

Veeam Kasten Solution

- **Provides scalable multi-cluster** backup and recovery
- **Minimizes recovery time** in case of outages or data loss
- **Runs in the background**, providing continuous backup and peace of mind
- **Simplifies mobility** across namespaces, clusters, accounts, regions and clouds



Sopra Steria, IT Services

Cloud-Native Data Management



Use Case

- Cloud native data management for Kubernetes clusters in public clouds: backup & restore, DR, migration and compliance

Key Challenges

- Cost-effective data sovereignty compliance Ability to quickly migrate workloads and data
- Support a wide range of modern databases

Veeam Kasten Solution

- **Application-centric** platform
- **Granular data protection** and recovery capability
- **Easy to deploy** & advanced management interface
- **Policy-based automation**



Zenseact Automotive Software

Accelerated time to deployment



Use Case

- With a data-intensive environment, needed an efficient and reliable backup processes that enable a speedy recovery

Key Challenges

- Need to innovate rapidly to keep pace with competitors
- Moving from VMs to containers while minimizing risk of data loss
- Required self-service capabilities to accelerate development cycles

Veeam Kasten Solution

- **Saves ~150 hours per month** of development time through automation
- **Reduces risk of data loss** with policy-driven backups
- **Supports innovation** by enabling rapid iterations



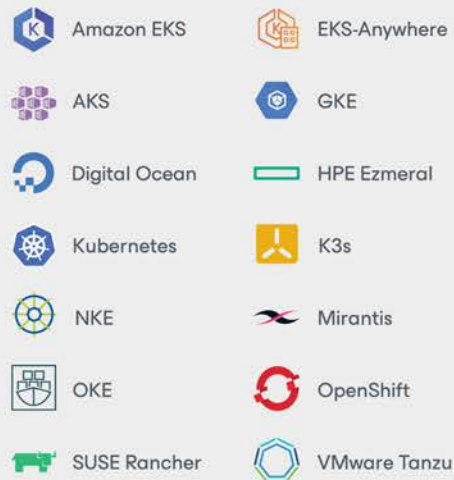
Veeam Kasten

Kubernetes Data Protection Platform

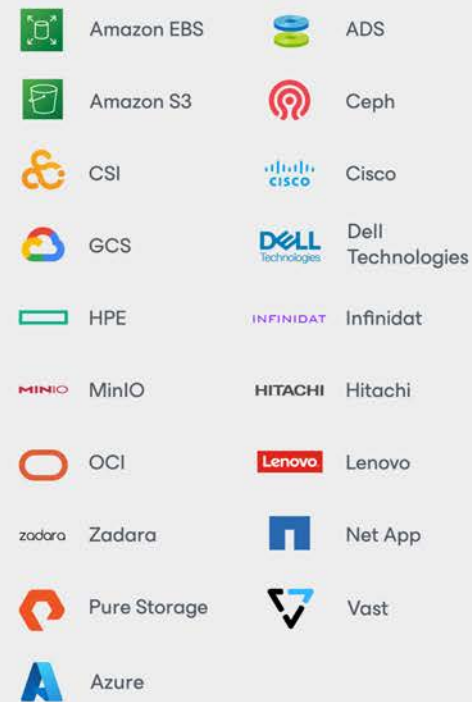
Data Services



Kubernetes Distributions

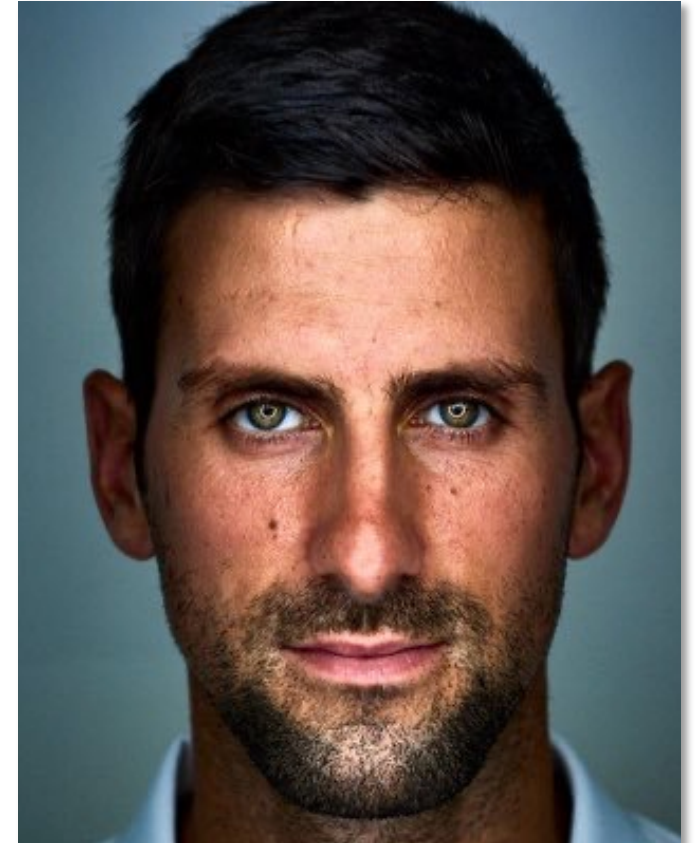
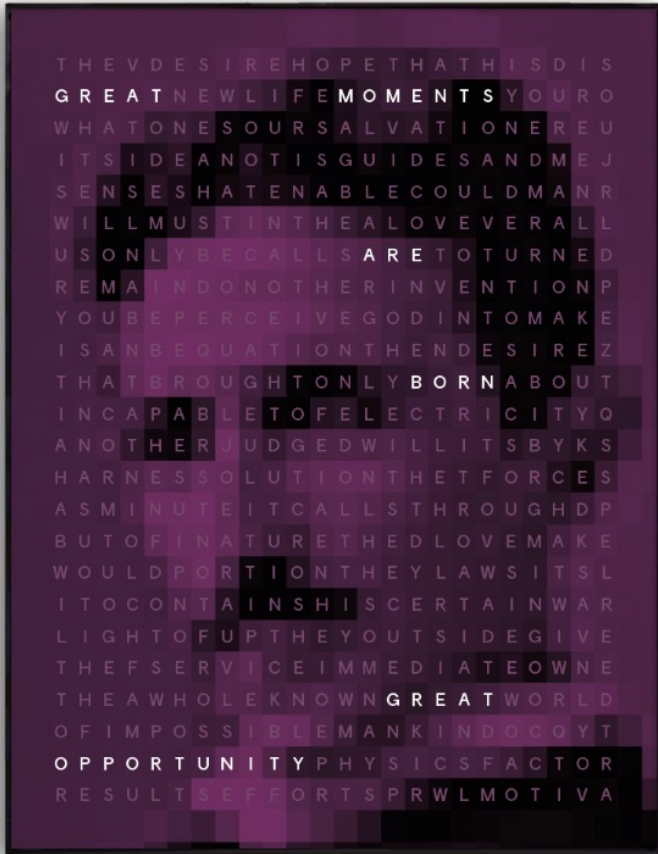


Storage Infrastructure



Security Services





Veeam **Kasten** is the **best** product on the market to **protect Kubernetes environments**

“Great moments are born from great opportunity” Nikola Tesla

“I think luck falls on not just the brave but also the ones who believe they belong there” Novak Djokovic



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