



# **The Voice of Kubernetes Experts Report 2025**

The Future of VM Workloads

# Introduction

The Kubernetes landscape is changing. Cloud native environments have grown from a testing ground for small projects to supporting mission-critical applications. There is also a growing need for cloud native environments to manage virtual machines (VMs) on as organizations seek VMware alternatives in response to rising costs.

The *Voice of Kubernetes Experts Report 2025* explores emerging trends in the cloud native and virtualization space by surveying experts in the field whose organizations run both containers and virtual machines (VMs).

More organizations are adopting cloud native platforms as the default for new applications, so these platforms face growing pressure to deliver enterprise-grade capabilities. Platform teams must rise to the challenge.

It's no secret that the Broadcom acquisition of VMware shook the technology landscape. Many organizations saw massive increases in their VMware licenses and are now looking at alternatives—including using their container platforms to host VMs.

This survey report will dive into these trends, showing how organizations are planning for the future of their container and VM workloads. Here are some of the key findings:

- **58%** run mission critical applications in cloud native environments
- **95%** have plans to reduce their VMware footprint, with **33%** looking to stop using VMware altogether
- **44%** reported a VMware ELA increase of at least \$1M

Read on to learn more about how organizations are planning for a cloud native future.

## Who did we survey?

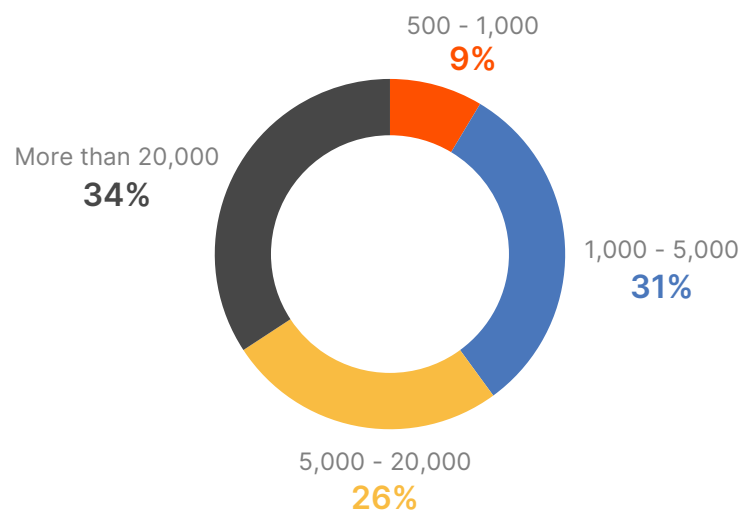
Portworx by Pure Storage partnered with Dimensional Research to survey **523 qualified participants** who were directly responsible (hands-on or management) for current or past use of VMware VMs at a **company of at least 500 employees**. These companies needed to have made a significant investment in Kubernetes to qualify.

Survey respondents represented a spread of frontline staff, like vSphere admins or storage admins, technical decision-makers, and executive staff.

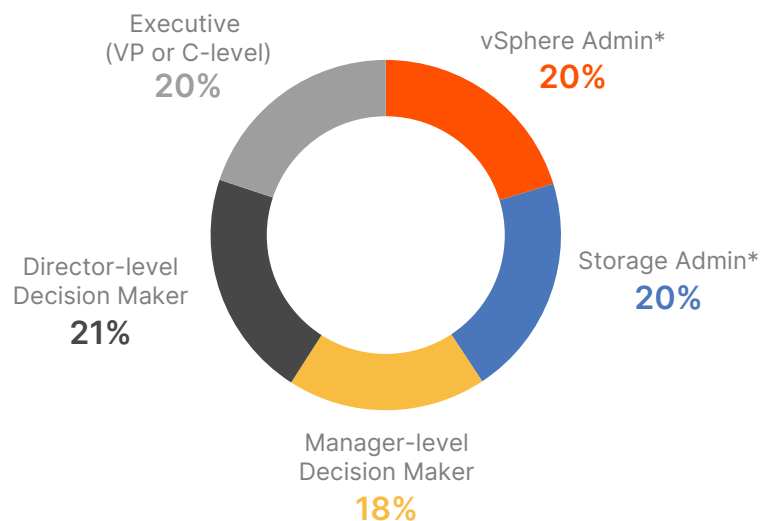
In the survey, the term “cloud native” refers to the use of modern technologies such as containers, Kubernetes, immutable infrastructure, microservices, and service mesh to develop scalable applications.

In some instances, certain graphs may not add up to 100% due to rounding.

Company Size  
(# of Employees)



Role\*



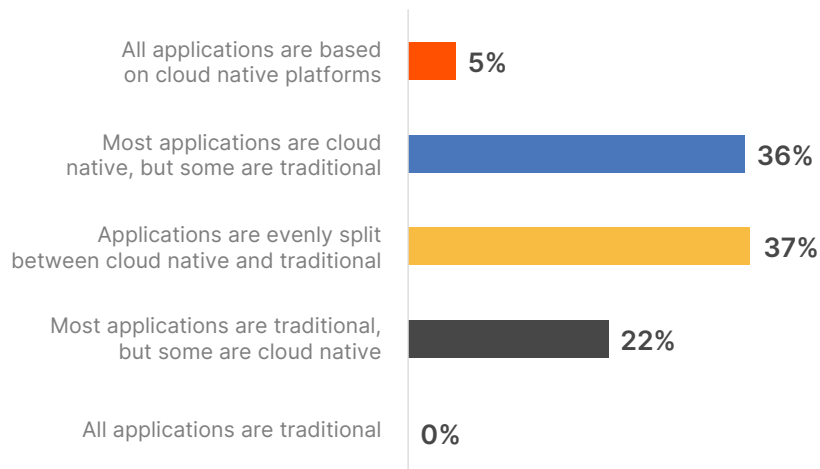
\*Quotas set for participation

# 01 Cloud Native is the New Norm

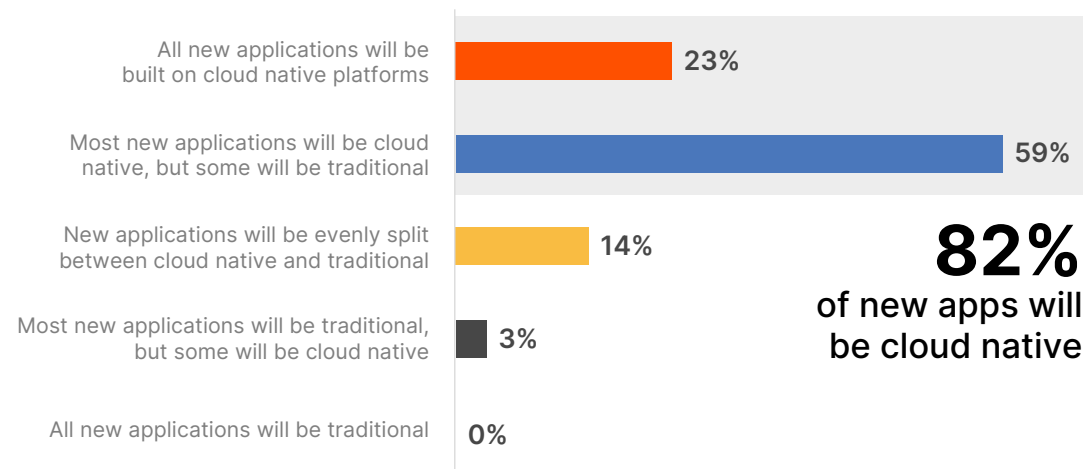
## The industry is building applications on cloud native

Cloud native applications are becoming the gold standard for application development. Although only 41% currently have all or most of their applications on cloud native, **82% plan on building most of their applications on cloud native over the next five years**. Organizations are capturing the inherent benefits of cloud native application development and betting their businesses on cloud native platforms.

How would you describe your company's overall **CURRENT** application footprint?



How would you describe your company's investment plans for **NEW** applications in the next five years?



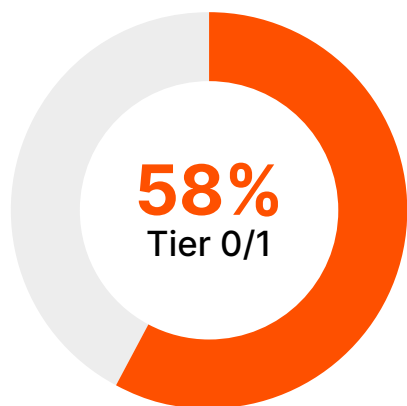
**82%**  
of new apps will  
be cloud native



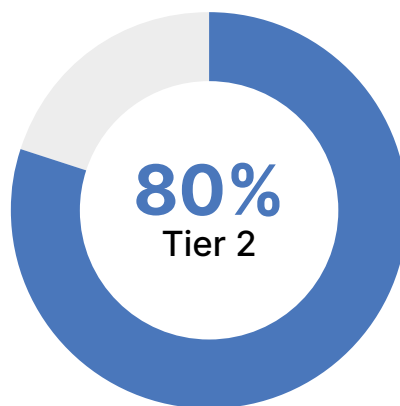
# Mission-critical applications are built on cloud native

Nowhere is this more apparent than the types of applications being built on these platforms. **More than half (58%) are building Tier 0 or Tier 1 applications in cloud native environments.** These applications are mission critical, meaning they have strict requirements for performance, uptime, and data loss. A vast majority (80%) build important applications, with more relaxed requirements for performance and uptime. Cloud native applications are becoming the backbone of key business initiatives.

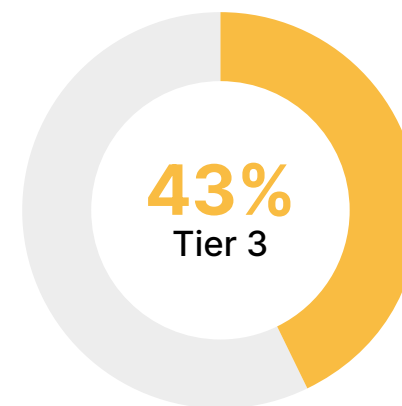
How would you describe the applications your company is building using cloud native platforms? Choose all that apply.



Mission critical applications with strict requirements for performance, uptime, and limited to zero data loss



Important applications, however performance and availability requirements are more relaxed



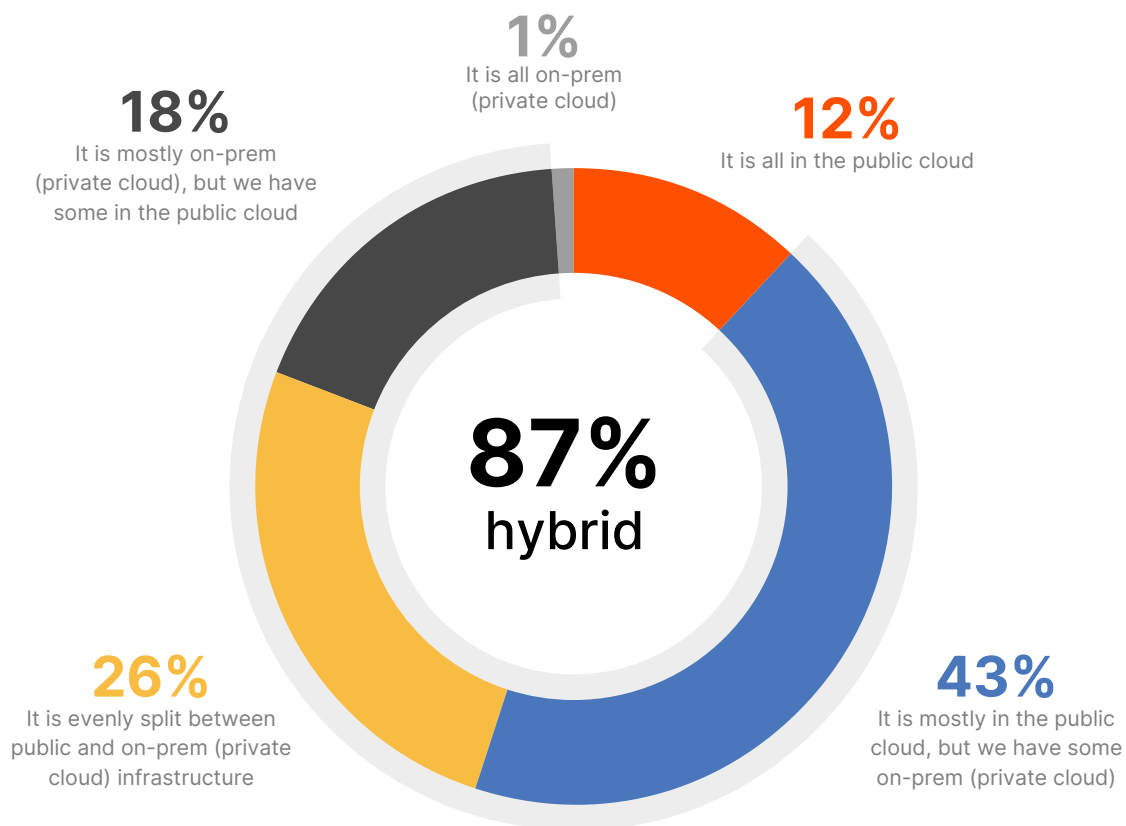
Non-critical applications that can tolerate downtime and lower performance, often dev/test environments

## Most enterprises have hybrid cloud deployments

Enterprises prefer the flexibility of hybrid cloud environments. **87% chose hybrid cloud as their deployment model of choice for their cloud native footprint.** Deploying across public and private clouds allows teams to build in their environment of choice and makes it easier to meet performance, resiliency, or cost requirements for each of their applications.

However, platform teams may encounter some complexity from the maintenance of hybrid cloud deployments. Developers are working both on premises and in the public cloud, and it is critical that platform teams provide a consistent experience regardless of where the data is located.

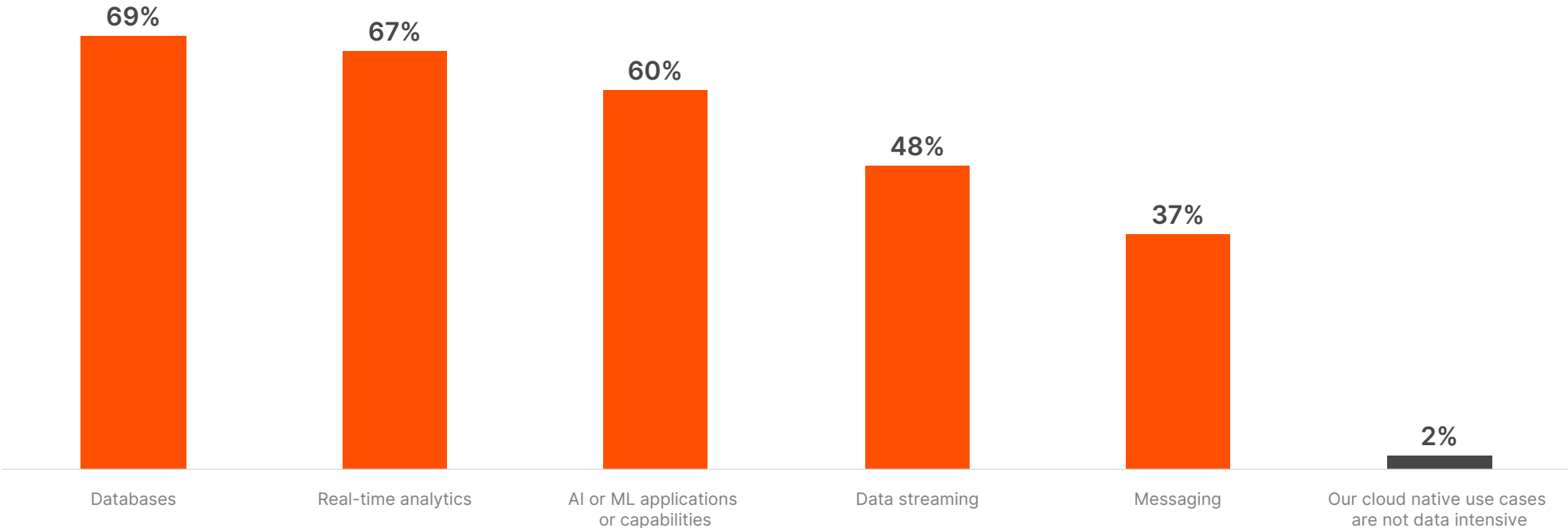
Approximately how much of your organizations footprint of cloud native technology is deployed in a public cloud (i.e. Amazon AWS, Microsoft Azure, etc.) and how much is on prem (i.e. private cloud)?



# Data intensive use cases are ubiquitous in cloud native environments

Organizations are not only trusting their cloud native environments for mission critical applications, but they are choosing to run data intensive use cases in these environments. **98%, up slightly from 97% last year, are running these integral applications in cloud native environments.** Of this spread, 69% are running databases, and 60% are running AI/ML applications.

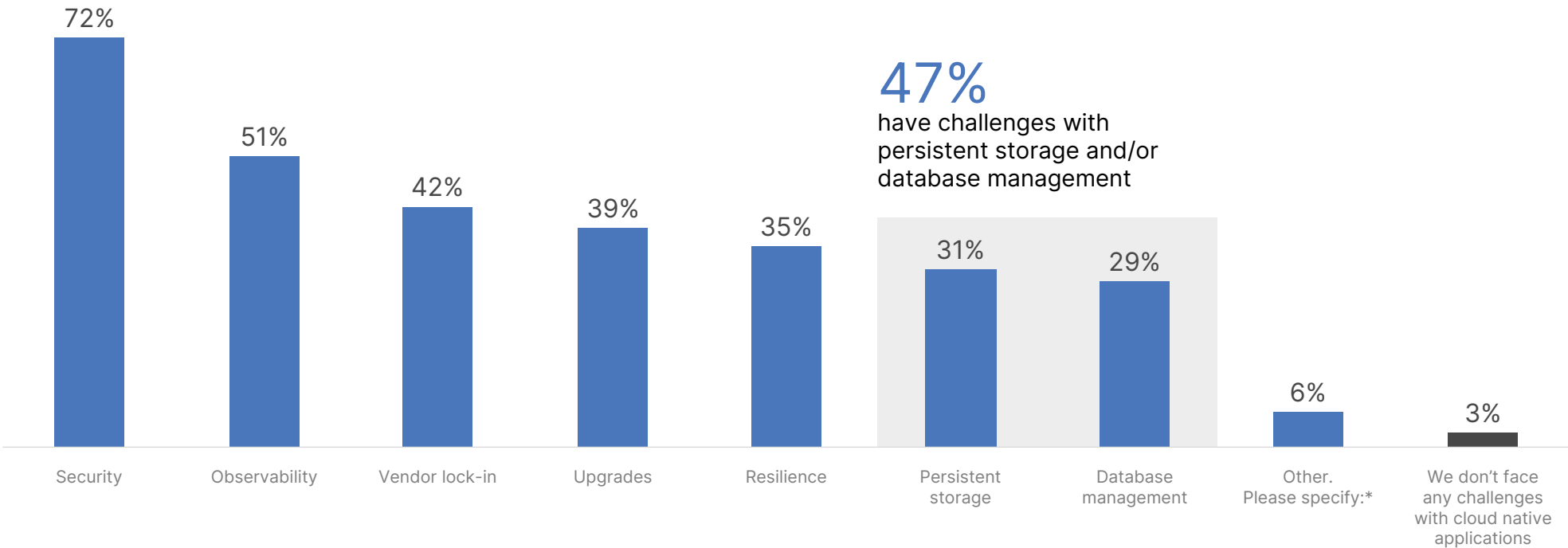
What types of data intensive use cases are part of your organization’s cloud native environments? Choose all that apply.



# Management of cloud native persistent storage and databases are top cited challenges

When considering both the criticality of applications as well as the complex environments in which they're deployed, it's no surprise that organizations run into several challenges in building, deploying, and managing cloud native applications. **Security was cited as the top challenge (72%), but nearly half (47%) cited persistent storage and database management as a key challenge at their organization.**

What are the biggest challenges your company is facing with building, deploying, and managing cloud native applications? Choose all that apply.



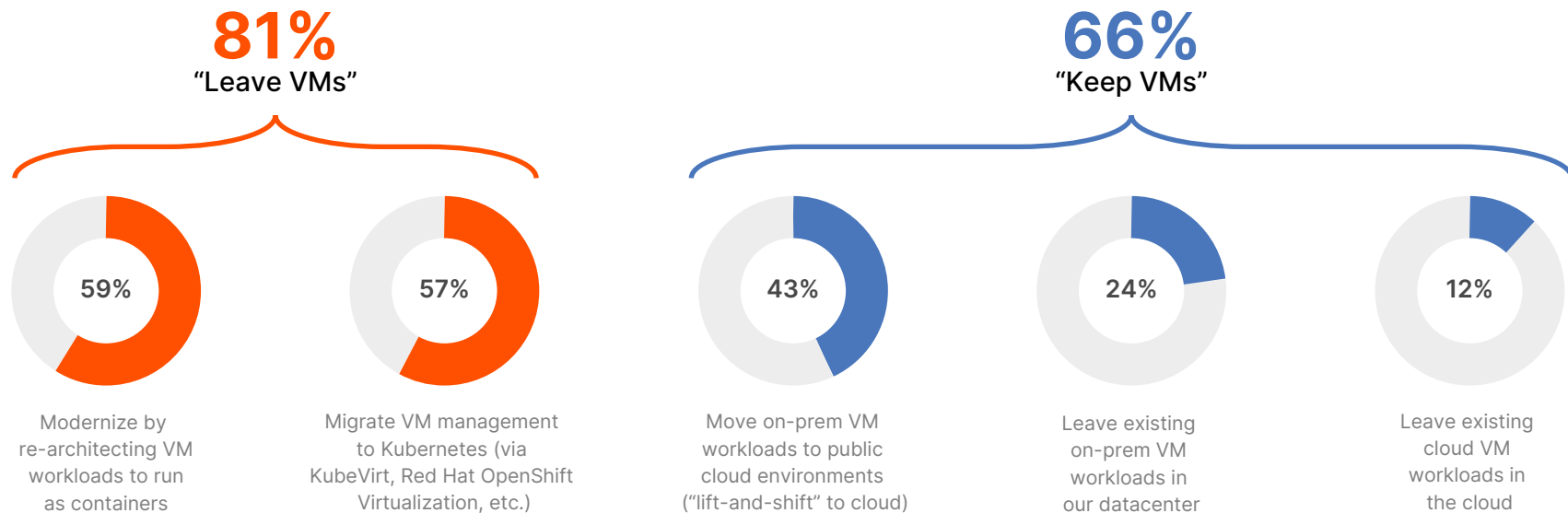
\*Other: Most frequent: Cost (Cost, budget, TCO, etc.); Skills

## 02 Organizations are Leaving VMware

### VMware customers are looking for alternatives

The Broadcom acquisition of VMware raised significant uncertainty for VMware customers. One thing, however, is clear: organizations are actively seeking alternatives. All respondents work at companies with substantial Kubernetes investments—and many plan to extend that investment to their VM workloads. **In fact, 59% intend to modernize existing VM workloads by running them as containers, while 57% plan to shift VM management to Kubernetes.**

What has your company done, or has plans to do, with VM workloads? Choose all that apply.

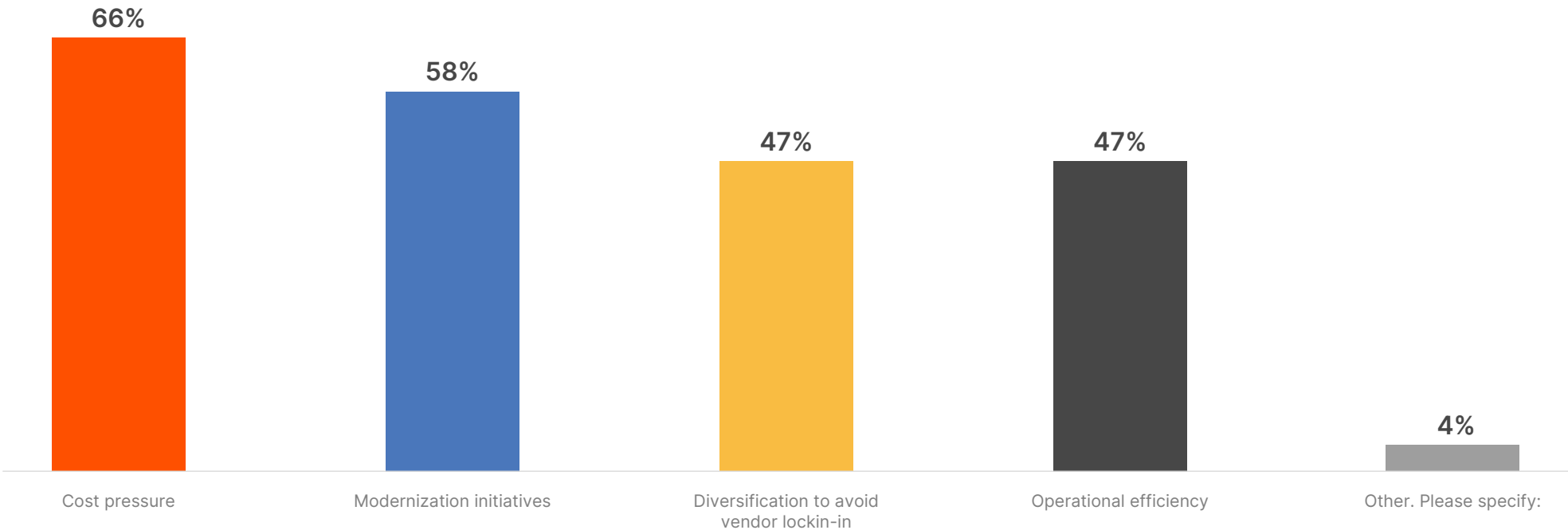




# Increased VMware costs are driving away enterprises

The primary reason organizations are seeking alternatives to VMware is **cost pressure—cited by 66% of respondents**—followed closely by modernization initiatives (58%). This trend underscores the growing prioritization of cloud native environments and the shift away from legacy infrastructure.

Why is your company moving away from VMware for some or all of your VM workloads? Choose all that apply.

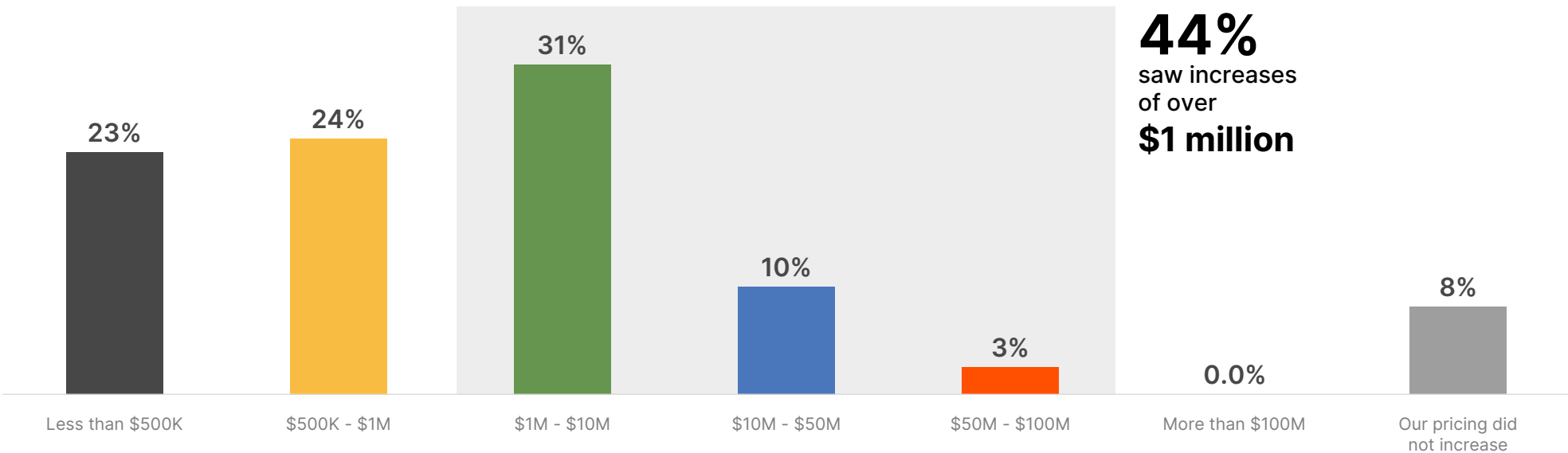


\*Other: Most frequent: Broadcom has impacted trusted relationship

# Many enterprises saw ELA increases of at least \$1 million

Rising costs, particularly from updated Enterprise License Agreements (ELAs), are having a profound financial impact that is ultimately driving loyal customers away from VMware. **Of the survey respondents who received an updated ELA from VMware, 44% saw increases of over \$1 million. 13% saw an increase of over \$10 million.**

To the best of your knowledge, how much did the cost of your company's VMware products increase for this new ELA from Broadcom? When answering this question please think of the pricing provided across the entire term of the ELA, not just the first year.



## Price increases had both financial and trust impacts

Dramatic price increases had more than just financial impact:  
They betrayed the trust of their long-term customers.

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In a few words, please express your organization's response to these VMware cost increases? Select open-ended responses.

“

Disgusting!

“

Shock and disappointment. We have decided to look for viable alternatives.

“

We are moving off VMware. SO SAD what Broadcom Inc is doing. What a shame!

“

It's a 35% cost increase for us, which is causing us to move away after 20 years of being a VMware-only shop.

“

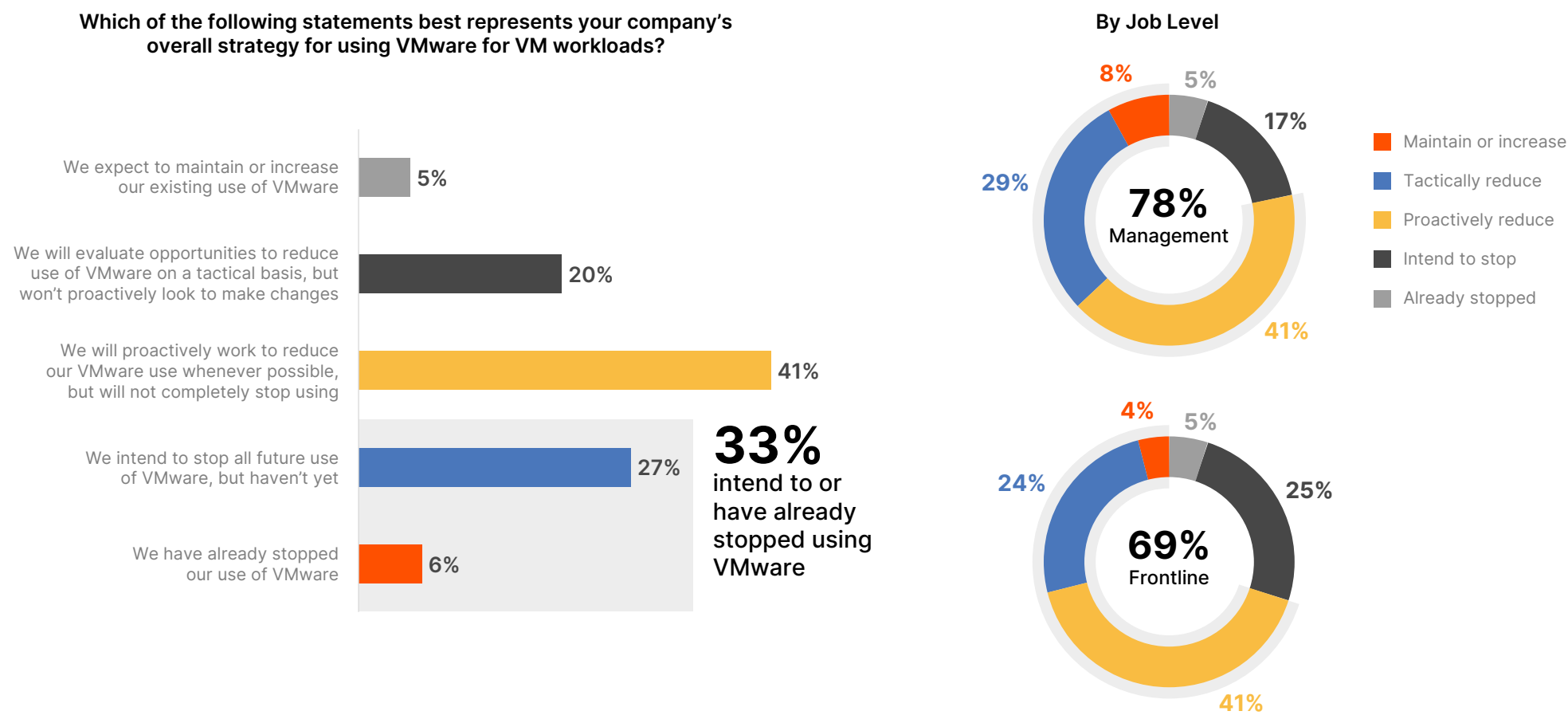
Certainly concerned with increased costs for fundamentally same performance, which inspired us to consider alternatives and implement plans to ultimately replace the products!

“

We are constantly looking at footprint of VMware to reduce. We fear of the lack of support for business critical items.

# Most are strategically reducing their VMware usage

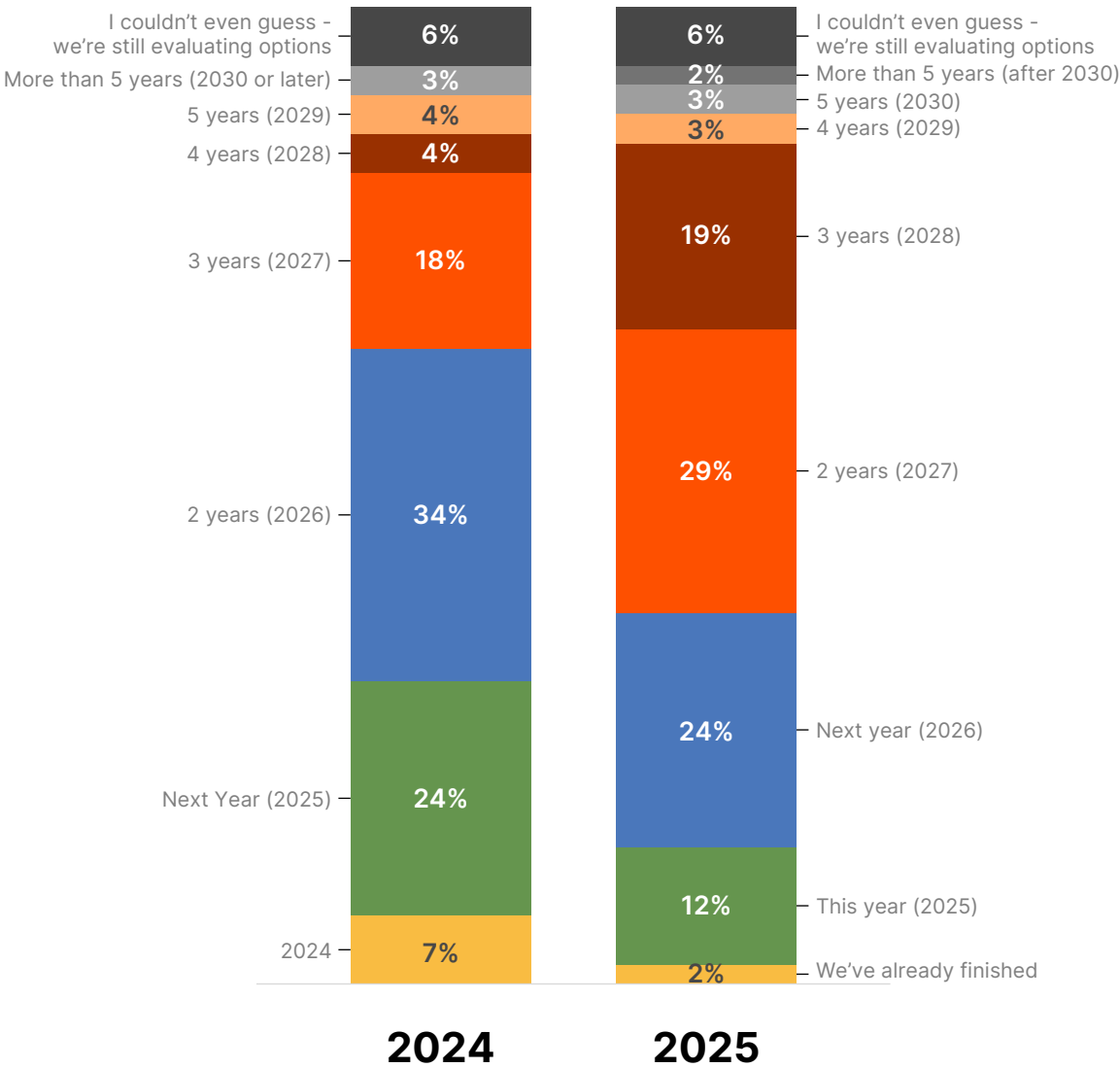
All of these factors are driving enterprises away from VMware in droves. **A majority (74%) of respondents are proactively or completely stopping their future use of VMware, with nearly all (95%) considering an overall reduction of their VMware footprint.** The approaches are more aggressive with leadership, with upper management more likely to express a proactive approach to leaving VMware (78%) than their frontline staff (69%).



# VMware migrations are more challenging than expected

Still, moving workloads off of VMware is no simple task. In the Voice of Kubernetes Experts Report 2024, organizations were motivated to migrate their applications quickly. 83% stated they anticipated completing anticipated changes to their VMware workloads by 2027. **A year later, only 67% anticipated completing their VMware workloads by 2027.** This 16-point drop reveals the complexity and difficulty of these migrations.

What is your organization's most likely timeline for completing planned changes to VM workloads?





## 03 VM Management is Moving to Kubernetes

### Infrastructure team is most typically responsible for operating VMs on K8s

A growing number of organizations (85%) are managing or planning to manage VMs on Kubernetes.

**Red Hat OpenShift Virtualization (58%) remains the top choice for enterprises looking to run their VMs on containers,** followed by SUSE Virtualization (Harvester) (24%).

As adoption rises, so do the challenges. Traditional teams like the infrastructure or virtualization teams are more likely (60%) to assume responsibility of running VMs on Kubernetes. So, it should come as no surprise that **the top challenge for managing VMs on Kubernetes is a skills gap (61%), as these teams must quickly adapt to new tools and operational models.**

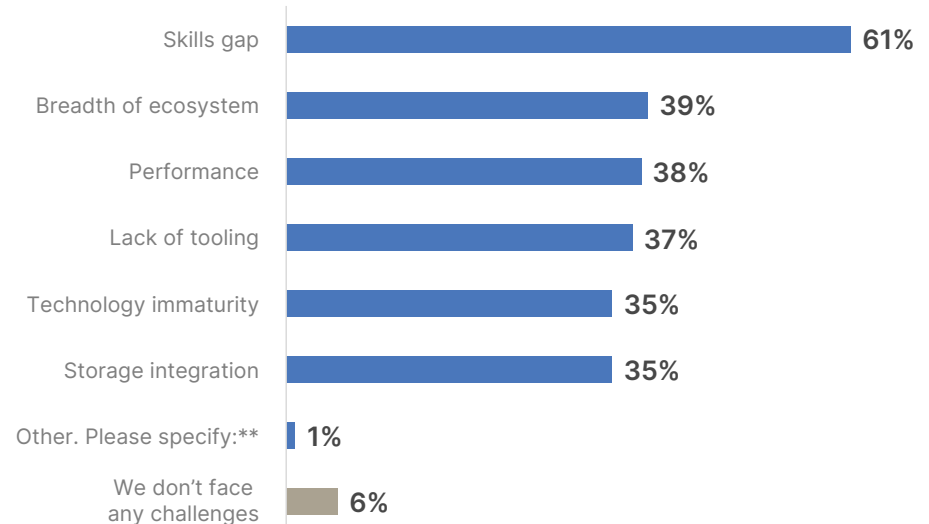
\*Other: DevOps

\*\*Other: Cost; Rightsizing; Company silos and communication barriers; K8s security; Internal compliance and security

What team is primarily responsible for running VMs on Kubernetes?  
Choose the one answer that most closely applies.



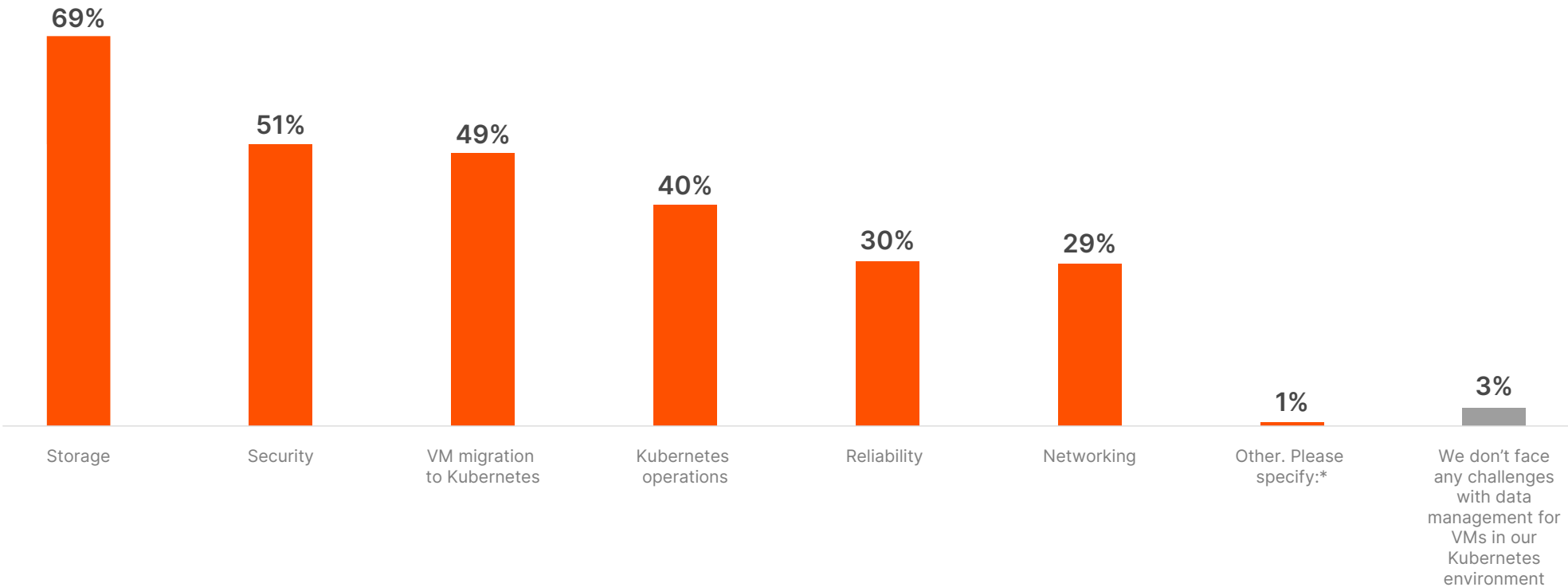
What challenges does your organization face with running VMs on Kubernetes? Choose all that apply.



# Storage is the biggest challenge for organizations running VMs on Kubernetes

**Storage (69%), which is inclusive of storage management, data protection, and disaster recovery, tops the list for data management challenges in these new environments.** Storage management includes many Day 2 operations like capacity management, performance, and backup, which teams are struggling to manage on their own.

What challenges does your organization face with data management for VMs in your Kubernetes environments? Choose all that apply.



\*Other: Learning curve; Skills; Performance

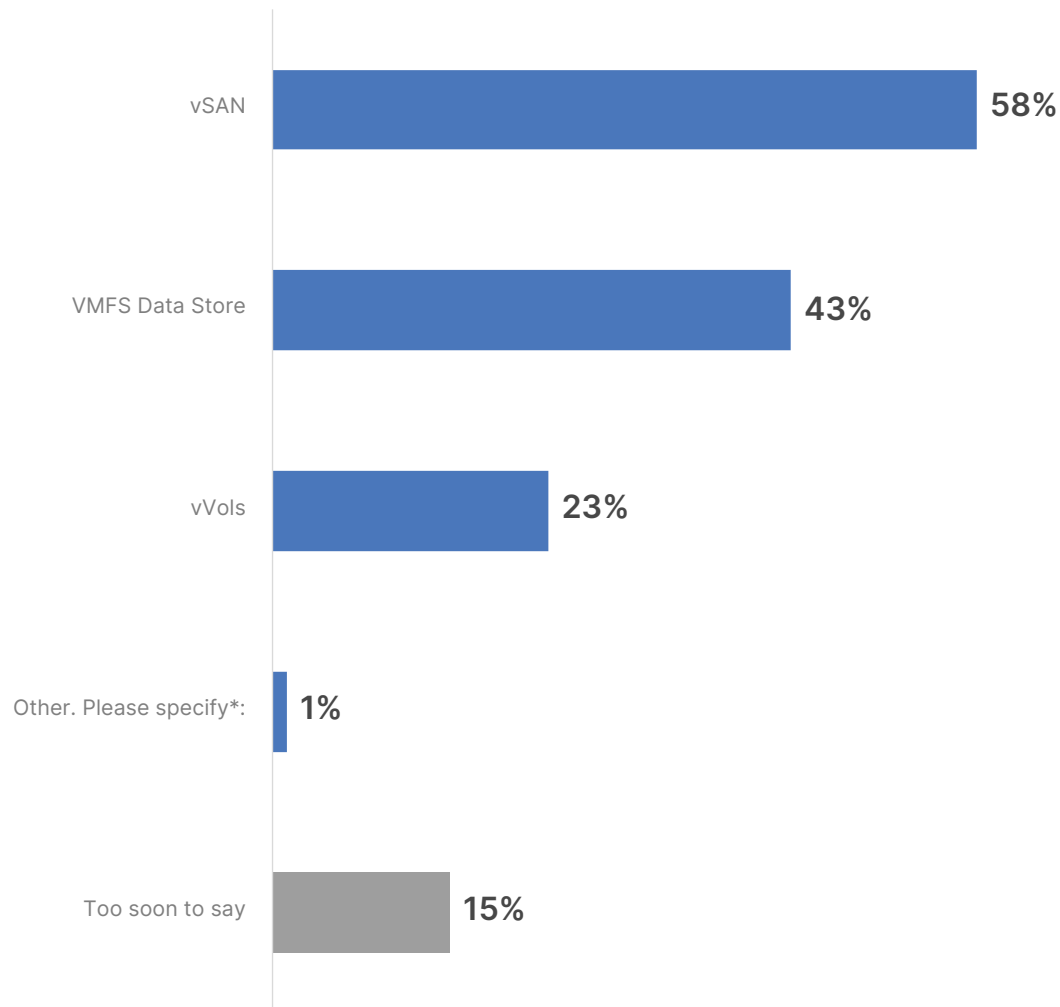
## Storage architecture is top of mind for managing VMs

Organizations are clearly seeking continuity in how they manage VM storage. **85% want to replicate their existing VM storage architectures—such as vSAN, VMFS data stores, and vVols—in their Kubernetes environments.**

Meeting this need requires solutions that can emulate vSAN's software-defined storage aggregation, VMFS's shared block storage, and vVols' array-based capabilities.

These architectures give traditional teams the control they need over application performance, replication, provisioning, and more. To effectively run VMs on Kubernetes, teams must identify robust alternatives that can deliver comparable functionality.

What storage architecture do you expect to emulate on Kubernetes? Choose all that apply.



\*Other: Ceph, EBS, NetApp, Nutanix

# Conclusion

**The results are in: cloud native platforms are now a cornerstone of modern infrastructure strategy.** They're not only the preferred choice for future workloads—including mission-critical applications—but also a leading alternative for organizations looking to reduce their VMware footprint amid ongoing industry disruption.

**Massive increases of \$1 million and more in VMware ELAs are driving enterprises to look at options.** The growing prioritization of cloud native, coupled with the preference for hybrid cloud environments, makes managing VMs on Kubernetes stand out as the most flexible and future-ready alternative. Enterprises can build for the future of application development while transitioning their legacy applications at their own pace.

Supporting this transition requires the right set of tools—particularly for storage and data management. vSphere administrators expect features similar to what they've relied on for years. While no solution can completely replicate the decades of engineering behind VMware, platforms like Portworx by Pure Storage offer powerful support for comparable storage patterns, including vSAN-style software-defined storage, VMFS-like shared block storage, and the array-integrated functionality of vVols.

Storage remains a top concern: **31% of respondents cite it as a key challenge in cloud native environments, while 69% identify it as a major issue for managing VMs on Kubernetes.**

Organizations need solutions like Portworx that can address these key storage management challenges by automating data management across the application lifecycle, providing data protection and data resiliency, and unifying modern applications across hybrid and multi cloud environments.

Further, Portworx partners with the top Kubernetes distributions that provide virtualization support to provide a unified platform for VMs and Kubernetes environments that can provide performance and resilience across environments.



For more information,  
visit [portworx.com](https://portworx.com)

Portworx® by Pure Storage provides a fully integrated solution for persistent storage, data protection, disaster recovery, data security, cross-cloud and data migrations, and automated capacity management for applications running on Kubernetes.