

Data Trends Driving the Future of Virtualization





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### Introduction

### The acquisition of VMware by Broadcom has been a seismic event for IT organizations.

Driven largely by price increases, many organizations are exploring alternatives to VMware, while those unable or unwilling to shift platforms are looking for ways to save on budget.

If you are concerned about the VMware changes, you are not alone. This report quantifies the impact of the changes by surveying seasoned IT professionals that are experts in the field. Survey responses highlight a consistent theme: 79% of VMware customers are looking to take action. While the specific actions vary, there are four main directions being considered.

- **Stay with VMware**, but look for ways to optimize costs and maximize efficiency.
- **Move VMware workloads to the cloud**, to services such as Azure VMware Solution.
- **Switch virtualization providers** by moving to an alternate hypervisor, such as Nutanix Cloud Infrastructure, Hyper-V, OpenStack, or others.
- **Modernize using containers**, either by running virtual machines (VMs) on Kubernetes using solutions like KubeVirt or refactoring workloads to be cloud-native.

Read on in the report to get more details on the impact of VMware changes.

#### Key Findings Based on Our Survey of IT Professionals

**72%** said the cost of their VMware renewal was higher than expected.

69% are planning to move away from VMware over the next five years.

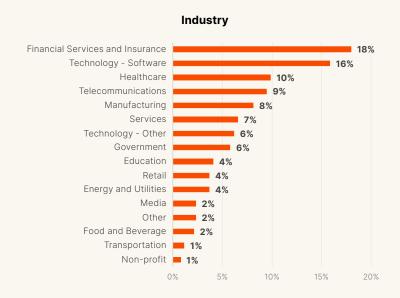
are planning to containerize, and 29% are planning to switch hypervisors



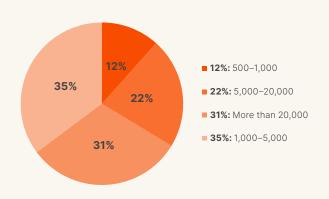


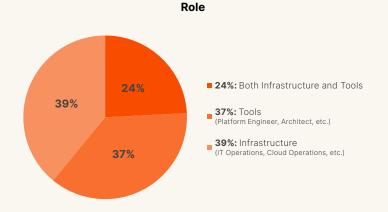


### Participants Represented a Wide Range of Functions, Job Levels, Regions, and Industries

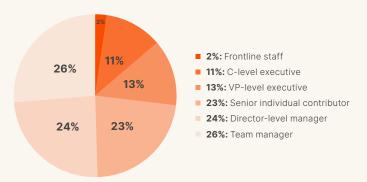


#### **Company Size (# of Employees)**





#### Job Level





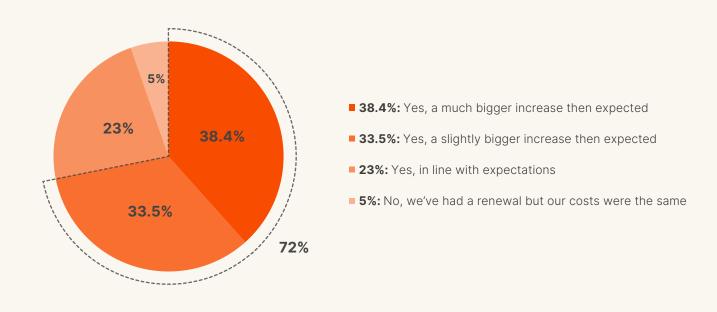
## Sticker Shock Strikes Global IT Organizations

#### VMware price increases were not expected and took most organizations by surprise.

Over 90% of surveyed organizations had a VMware renewal since the Broadcom acquisition, and 72% reported price increases larger than expected.

Of those, **38% reported that price increases were much higher than expected.** 

Since Broadcom acquired VMware, has your company seen an increase in licensing costs for VMware solutions?



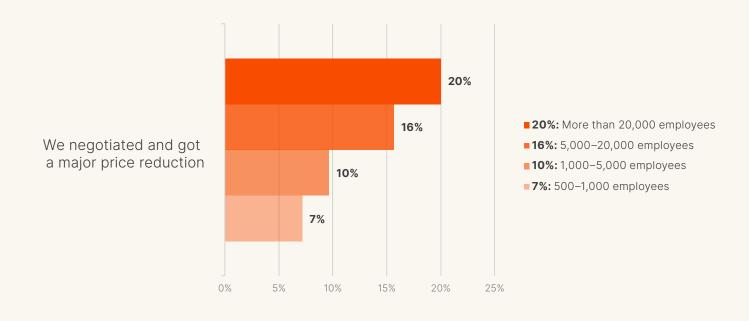
n=90%, have had a VM ware renewal since the Broadcom acquisition.



#### The price increases were steep.

Only 27% of organizations reported increases of less than 25%, while 38% saw increases between 25% and 50%, and 35% saw increases over 50%. Some organizations were able to negotiate lower prices. **Not surprisingly, larger organizations were more successful at this.** 

How did your team respond to recent increases in VMware licensing costs?



n=85%, VMware licensing increased



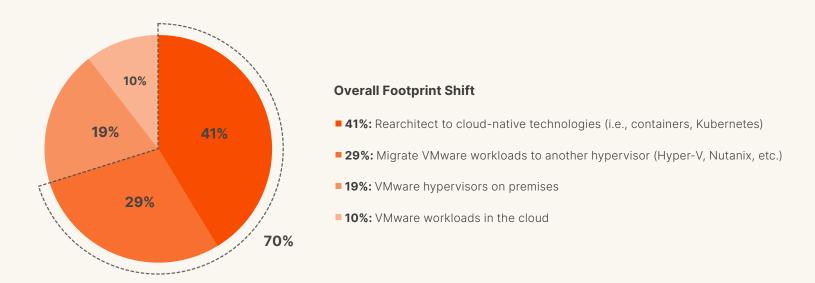
### 2 Dramatic Changes Are Coming

#### 69% of organizations plan a move away from VMware over the next five years.

This is a drastic change for a platform as widely deployed as VMware. **Interestingly, the most cited path forward is rearchitecting to containers (41%).**While this promises significant short-term challenges, it's a sensible strategy for organizations that were already planning to containerize.

Another 29% are seeking to migrate to other hypervisors. Caution is needed here to make sure you can properly manage the new environment, as many hypervisors have less sophisticated management frameworks than VMware. Only 19% of organizations are keeping the status quo of VMware on premises. Here is where infrastructure optimization can help. Finally, 10% are considering moving to VMware in the cloud, which in some respects is a straightforward move that can deliver some financial benefits.

Based on your company's current plans, how will your company's existing VMware workloads evolve in the next five years as applications are rearchitected or workload infrastructure is migrated?





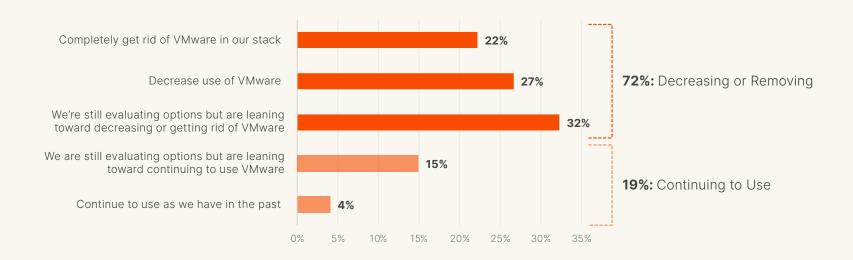
#### While wholesale change will take time, most organizations are trending away from VMware.

22% are determined to remove VMware entirely, while others are looking to decrease use (27%) or are leaning that way (32%).

62% of participants with executive-level job titles said they were eliminating or reducing use of VMware, compared to 41% of team managers.

This may suggest that plans to change have not all been communicated by management.

At this point, what is your team's strategy for the long-term future of VMware in your IT infrastructure?





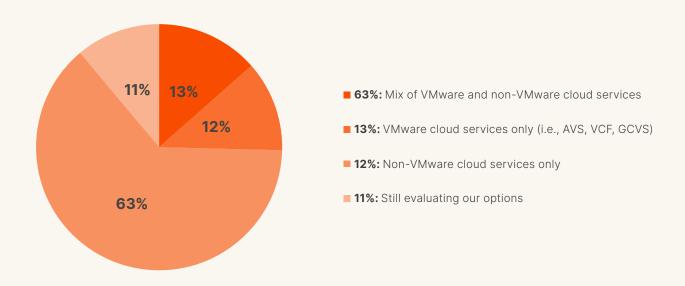
## **3** Cloud Yes, but Not Only for VMware

#### **Organizations Are Looking at a Mix of Cloud Services**

When asked about long-term (five-year) plans for VMware in the cloud, responses were almost evenly divided between VMware cloud services (13%) and non-VMware services (12%). The largest group (63%) expect to use a mix of services, while 11% are still evaluating their options.

In general, public cloud infrastructure footprint is expanding faster than on-premises infrastructure, with 31% of organizations saying their cloud footprint has "grown dramatically" in the past year, while only 6% say the same of their on-premises footprint.

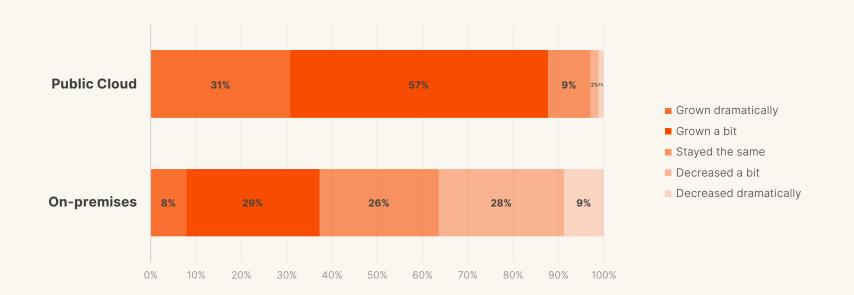
#### What types of cloud services do you expect your organization will run for existing VMware workloads five years from now?





#### **Cloud Infrastructures are Growing, but Not Dramatically**

How has your company's overall public cloud infrastructure and on-premises IT infrastructure footprint (including private cloud) changed in the past year?

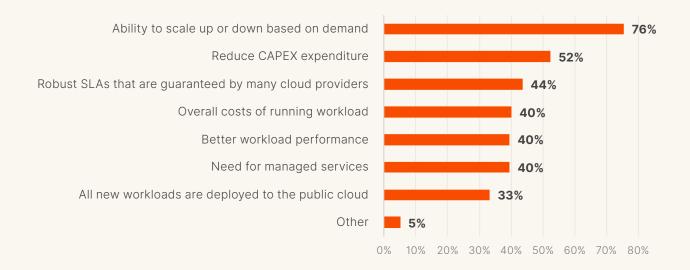




#### Scale and Spending are the Leading Reasons to Use Public Cloud

The tension between running workloads in the public cloud versus keeping them on premises continues unabated. Our survey showed how both domains have their own advantages that motivate organizations to choose them. For public cloud, the ability to scale up or down on demand (76%) and reducing CAPEX expenditures (52%) were the most cited motivations. These themes of flexibility and CAPEX savings are not as important for on-premises workloads (detailed later in this report).

#### What are the reasons your organization would run a specific workload in the public cloud?

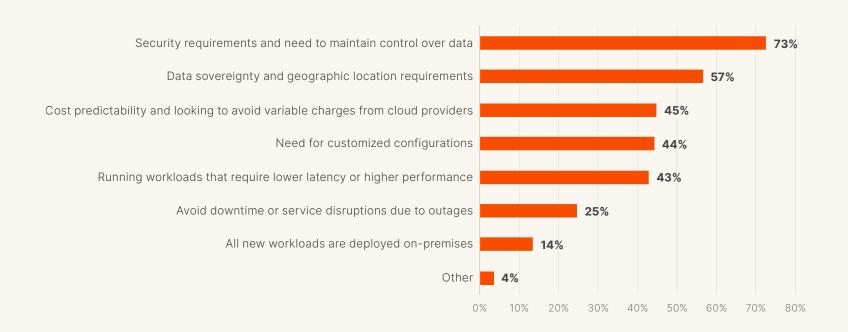




#### **Operational Issues Drive the Use of On-premises Storage**

Running workloads on premises is driven more by operational issues, such as data security (73%) and data sovereignty (57%). While public cloud is valued for flexibility, on-premises is preferred for cost predictability (45%), though this may come with the loss of some agility. Interestingly, both domains are cited nearly equally for performance benefits, with cloud cited for "better workload performance" (40%) and on-premises for "running workloads that require lower latency or higher performance" (43%). These opinions are likely specific to workload types.

#### What are the reasons your organization would run a specific workload on premises?





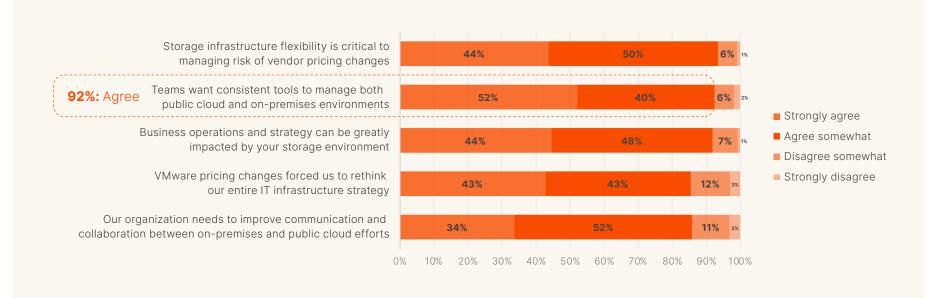
## The Rising Importance of Data Storage

#### **Storage Seen as Critical for Managing Risk**

While data storage is not always part of VMware conversations, it is a major component of any virtualization infrastructure and can have a considerable impact on cost and efficiency. 94% of respondents agreed that storage flexibility is "critical to managing risk of vendor pricing changes." Further, 92% agree on the need for consistent tools across public cloud and on-premises environments.

The upheaval around VMware changes is clearly impacting IT infrastructure discussions, with 86% of respondents rethinking their infrastructure strategy because of it.

#### Please indicate your level of agreement with each of the following statements.





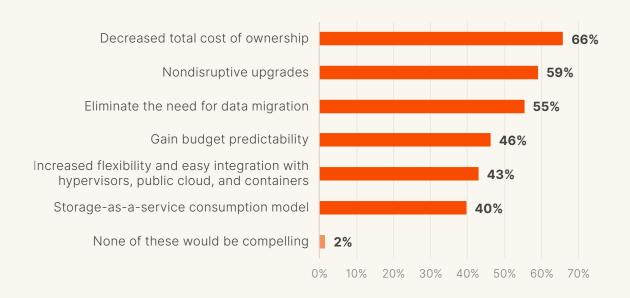
#### The Benefits of a Proper Data Storage Infrastructure Can Be Far Greater Than Cost Efficiencies or Flexibility

Respondents agreed that many other capabilities would be compelling, including nondisruptive upgrades (59%) that keep services online and eliminating the need for time-consuming data migrations (55%).

As discussed previously, moving away from CAPEX expenditures to a service-based consumption model is appealing to some organizations (40%).

This number might be higher if more IT organizations were aware that physical on-premises storage can also be acquired via an OPEX-based subscription. This is a potential factor worth exploring but was not measured in the survey.

#### Which of the following benefits of a storage solution would be compelling to your organization?





# Summary and Recommendations

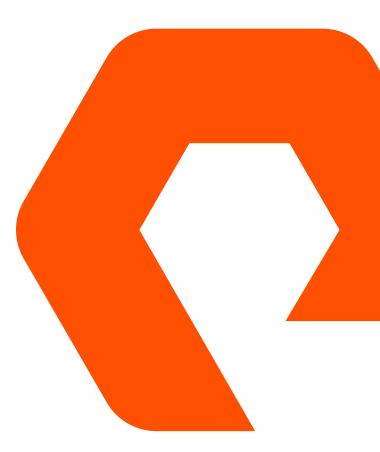
IT personnel involved in virtualization have made it clear that the changes to VMware pricing have been a transformative event. Nearly everyone is looking to the future and wondering about the best path forward. Some organizations have committed to a direction, but as the situation continues to unfold, plans may change. Desired changes may not roll out as smoothly as anticipated.

One of the areas of tension is the divide between public cloud and on-premises infrastructure. Both provide different benefits, and most organizations plan to maintain a mix. This brings up the need to manage both environments, and most (73%) report being challenged by different tool sets. Shifting from virtualization to containerization is a planned way forward for many, but infrastructure management for containers is inherently different from managing VMs and will require new tools and expertise.

Pure Storage offers solutions for the entirety of your virtualization journey, whether you decide to stay on VMware, shift to a new hypervisor, migrate to the cloud, or make a major shift to containers.

#### Review these resources to understand in more detail what is involved no matter which path you choose.

- A Buyer's Guide to Modern Virtualization
- Enterprise Strategy Group: The Economic Benefits of Pure Storage in Virtualized Environments
- Pure Storage solutions for virtualization
- Pure Storage solution for Nutanix



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