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End User Computing
State of the Union 2024 - 2025

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Introduction

Welcome to the 2024 – 2025 edition of the End User Computing State of the Union. Traditionally focusing on on-premises virtual desktops and applications, recent years have shown a significant shift toward hybrid and public cloud End User Computing services, particularly Desktop as a Service (DaaS).

Our latest research offers insights into the deployment and usage of DaaS solutions, highlighting trends in end-user computing that span both public clouds and on-premises environments. This report aims to provide useful information for organizations considering DaaS implementations. The survey results clearly explain the current state of the end-user computing industry, covering crucial aspects such as DaaS usage, vendors, security, devices, operating systems, GPUs, and manageability. These findings offer a snapshot of the major challenges and initiatives shaping the DaaS landscape in 2024 and beyond.

About DaaS-like-a-Pro

Founded in 2013, "VDI Like a PRO" (renamed DaaS Like a Pro) is an independent, community-driven research organization dedicated to advancing Desktop as a Service (DaaS) technologies. Our team includes experts like Ruben Spruijt of Dizzion, Mark Plettenberg of Alludo, Dennis Damen of Nexthink, and Christiaan Brinkhoff of Microsoft. We explore evolving trends in End User Computing, focusing on the deployment, configuration, and usage of DaaS across diverse customer environments. Our research, driven by expert analysis and community feedback, aims to guide organizations through the complexities of DaaS adoption and optimization.

Our publications serve as vital resources for IT professionals aiming to improve strategies and efficiencies in a dynamic digital landscape.

A special thank you to Blair Parkhill for reviewing this paper before publication.

Contact information

If you have questions or are interested in accessing data from our survey, feel free to reach out. Our team members can be contacted at:
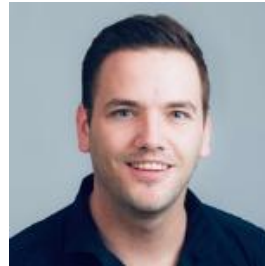
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Summary

The survey highlights key trends in Desktop as a Service:

- **Key Drivers**: Remote work leads DaaS adoption, followed by management ease and deployment speed.

- **Adoption Trends**: Over 70% use DaaS, with growth expected despite cost and integration challenges.

- **Satisfaction**: Most users are satisfied, valuing flexibility, security, and reliability.

Overall, DaaS is widely adopted and expected to grow, with a focus on addressing cost and integration challenges while enhancing security and user experience. The rest of the summary:

1. Enabling remote work is the top driver for DaaS adoption, with nearly 14% of respondents highlighting it.
2. Ease of management is a significant motivator for DaaS adoption.
3. Faster deployment and access to desktops is another key driver.
4. Enhanced security and the ability to provide access from any device are important factors.
5. Over 70% of respondents are currently using a DaaS solution.
6. Around 15% of users are still using DaaS but are actively looking for other solutions.
7. Approximately 10% of respondents are not using DaaS at all.
8. Most respondents expect DaaS adoption to increase.
9. Cost is the biggest hurdle for DaaS adoption, with nearly 20% of respondents highlighting it as a challenge.
10. Integration with existing infrastructure and ensuring a good user experience for end-users are major concerns.
11. Performance issues and lack of control during outages or incidents are significant challenges.
12. A notable portion of respondents are managing peak user numbers in the 1-249 user range.
13. Over 40% of respondents are committed to keeping their virtual desktops and applications in the cloud.
14. About 30% are considering a move to a hybrid model.
15. Most respondents are highly satisfied with their DaaS solutions.
16. "Flexible" tops the list of most voted keywords for DaaS solutions.
17. "Secure" and "Reliable" are also highly valued.
18. Microsoft Azure is the favorite among respondents running Workload VMs on public cloud.
19. VMware ESXi leads on-premises virtualization among respondents.
20. Hybrid setups that combine both cloud and on-premises environments are common.
21. AWS holds a solid position but trails behind Azure and on-premises options.
22. Google GCP and other cloud providers like IBM Cloud and OVH Cloud have a much smaller share.
23. VMware dominates on-premises virtualization, but there's a variety of other solutions such as Nutanix in use depending on organizational needs.
24. A slight preference for published applications indicates a shift toward app-centric setups.
25. Strategic DaaS initiatives include cloud adoption, security, enhancing digital employee experience (DEX), and cost optimization.
26. AI is valued for automation, analytics, and security.
27. Changes in Citrix and VMware/Omnissa prompt exploration of alternatives.
28. Overall, DaaS is widely adopted and expected to grow in the upcoming years.

Demographics

This chapter briefly outlines the key demographic characteristics of the N=254 respondents who participated in our survey. We collected data on their roles, the industries they work in, and the sizes of their organizations. Notably, 96% of respondents fully completed the survey, with approximately 60% providing insights on the open-ended questions posed at the end.
On average, respondents completed the survey in less than 15 minutes.

Verticals

The chart shows the representation of respondents from the Technology, Financial Services, Higher Education, Government, and Healthcare sectors. Technology leads this group with more than 40%, Financial Services with just 13% of respondents. Higher Education has a smaller but notable share, followed by the Government and Healthcare sectors, each with less than 10%. While technology's dominance is clear, these sectors offer important insights from fields beyond the tech industry, adding depth to the survey's findings.
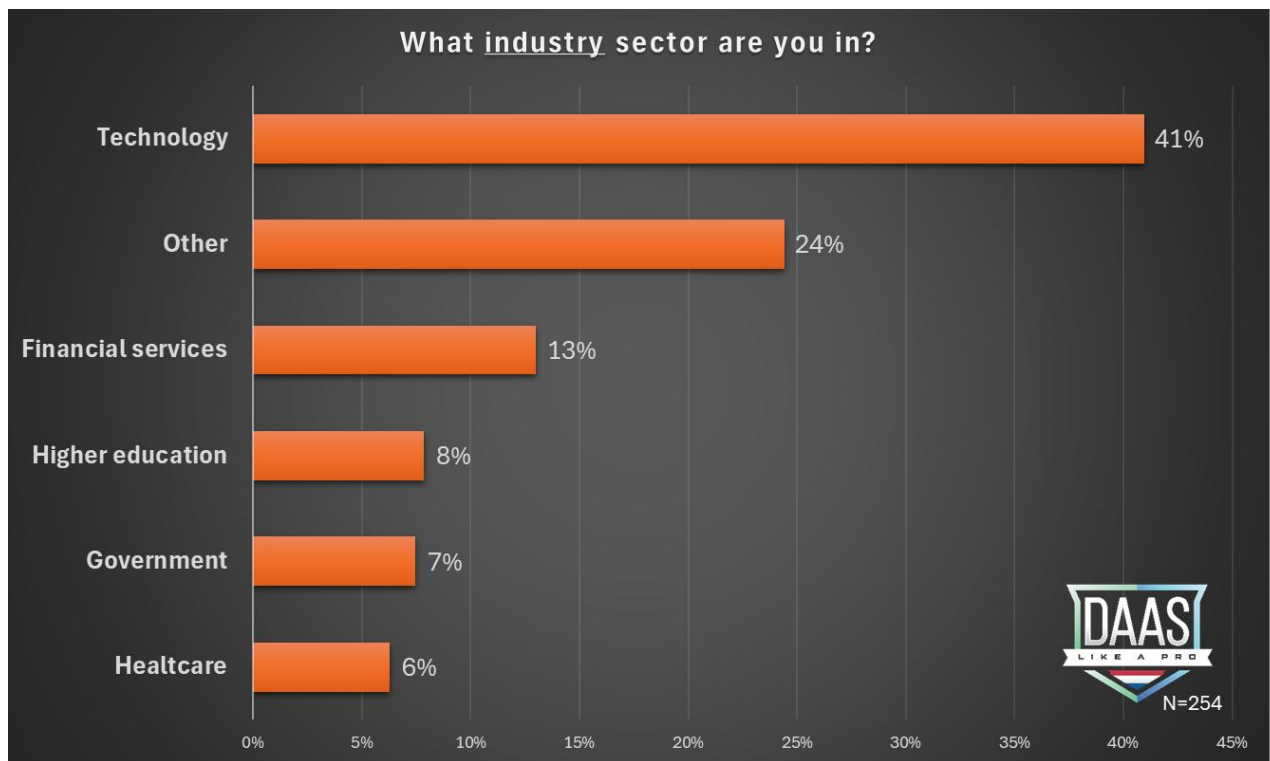
Roles

Consultants and Architects are the most represented roles, comprising 36% of respondents, indicating a strong focus on strategic planning and design. Engineers and Administrators make up 22%, highlighting the importance of technical expertise. IT Managers and Directors follow at 19%, emphasizing leadership in technology management. C-Level executives and Sales/Marketing professionals are less common, each making up around 10% or less, reflecting the survey's emphasis on technical and managerial roles.

In your current employment, what type of role do you have?

Role	Percentage
Consultant/Architect	36%
Engineer/Administrator	22%
IT Manager/Director	19%
C-Level (CIO, CTO, CEO)	9%
Sales/Marketing	7%
Other	6%

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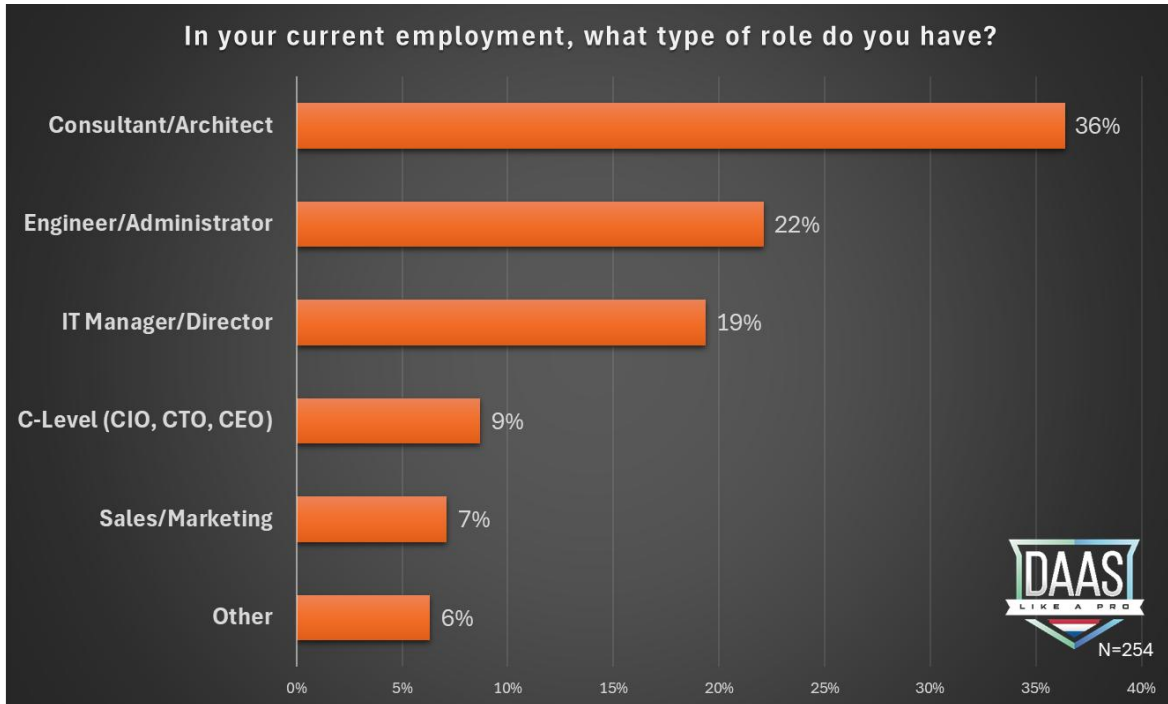
Organization size

Respondents are distributed evenly across organizations of varying sizes, with each range from 1-249 users to 25.000-99.999 users representing 15% to 20% of the total. This suggests a broad participation from organizations of different scales. Larger organizations, with over 100.000 users, make up less than 10% of respondents. Only a small percentage were unsure of their organization's user count or didn't want to share. This diverse spread highlights the survey's reach across both small and very large enterprises.

Key Differences with last year's survey:

- The 2024-2025 survey shows a more even distribution across organizations of different sizes, whereas 2023-2024 data highlighted a concentration in mid-size to large organizations.

- The 2023-2024 data separated trends for VDI and DaaS, showing larger organizations had more VDI adoption, but in DaaS, mid-sized companies (1.000-24.999 users) were dominant.

- In 2024-2025, larger organizations (over 100.000 users) have less representation, just 7%, while in 2023-2024, mid to large companies dominated the survey.

- These shifts suggest either increased diversity in the organizations adopting DaaS or more widespread survey participation across different company sizes.

What is the <u>total amount of end-users within your organization</u>?

Organization size	Percentage
1-249	19%
250-999	19%
1000-4999	20%
5000-24999	20%
25000-99999	15%
100000+	7%
Not sure	0%

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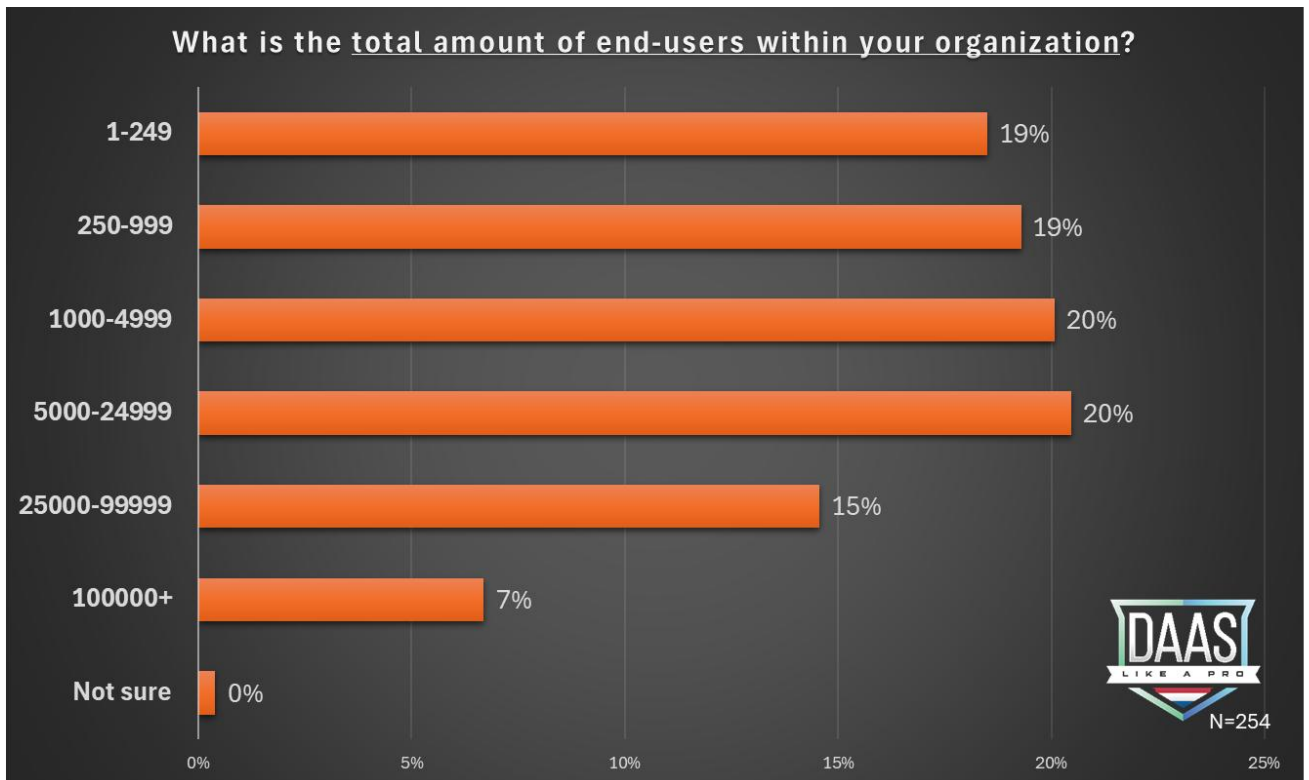
Survey results.

In this chapter, we look at the main findings from the survey, highlighting the key trends and insights shared by respondents. We have divided the results into three main categories:
DaaS adoption, DaaS configuration, and complementary solutions.

DaaS adoption

In this chapter, we dive into how Desktop as a Service (DaaS) is being adopted by the organizations in our survey. We'll explore how common DaaS has become across different industries, what's driving companies to use it, and what challenges they might be facing along the way. This will give us a good sense of where DaaS stands right now and how it's influencing the way people work.

Key Business Drivers for DaaS Adoption

Enabling remote work stands out as the top driver for DaaS adoption, with nearly 14% of respondents highlighting it. Close behind is ease of management, reflecting the value organizations place on efficiency. Other significant motivators include faster deployment of desktops, enhanced security, and the ability to provide access on any device. Ease of use, disaster recovery, and cost-saving measures like pay-per-use are also noted, though less frequently. Reliability, performance, and scalability are mentioned but are not the primary reasons for adopting DaaS.

What factors drive your decision to adopt or use Desktop as a Service (DaaS)? - Please select all that apply.

Factor	Percentage
Enable remote work	14%
Ease of management	11%
Faster deployment of new desktops	10%
Enhanced security	9%
Provide desktop and applications to any device	9%
Ease of use (for end-users)	9%
Disaster recovery capabilities	7%
Pay per use	6%
Eliminate upfront cost	6%
Support third-party contractors/vendors	5%
Reliability	5%
Performance	5%
Unlimited scalability	4%
Other	0%

N=254

Widespread Adoption and Ongoing Evaluation of DaaS Solutions

A significant majority of respondents, over 70%, are currently using a DaaS solution, indicating widespread adoption. Around 12% of users are still using DaaS but are actively looking for other solutions, suggesting some level of dissatisfaction or the desire for different or better options. Approximately 10% of respondents are not using DaaS at all, while a small percentage are in the planning stages to implement it. This distribution highlights the strong presence of DaaS in the market and DaaS growth opportunities within existing organizations.

Are you currently _using or implementing a DaaS_ solution in your organization?

Yes	70%
Yes, but looking for other solution	12%
No	11%
Planning	7%

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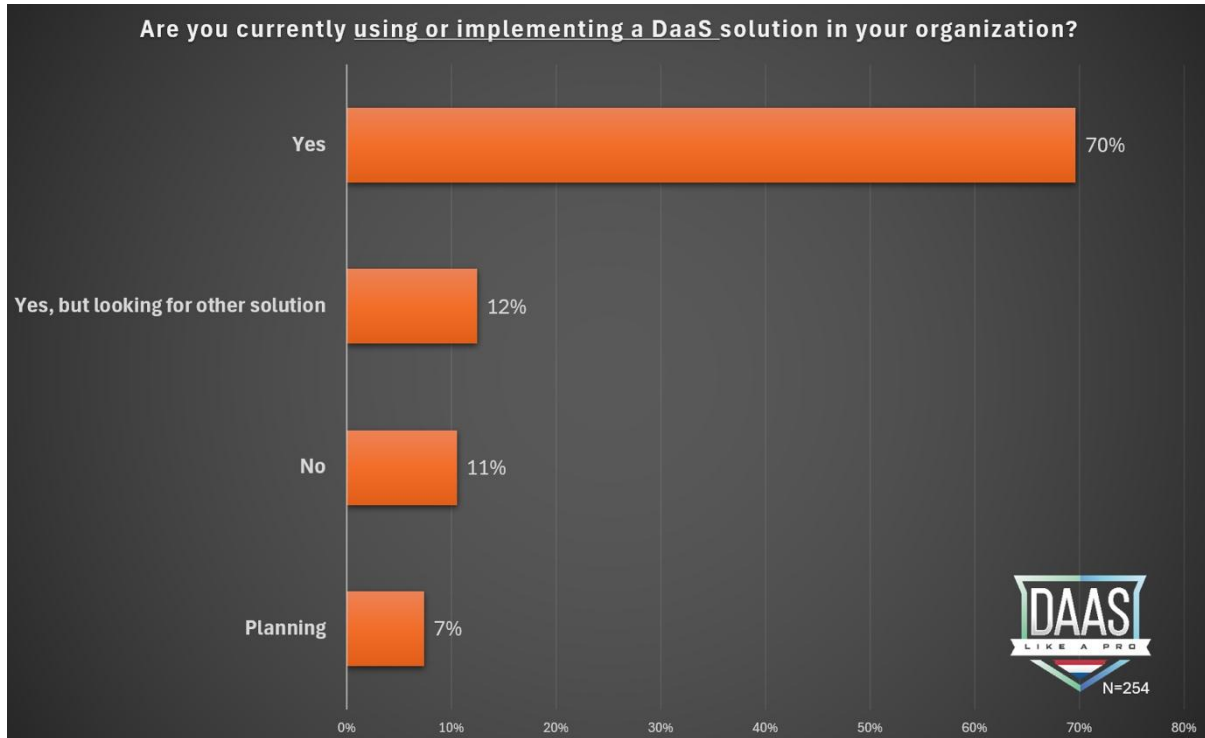
DaaS adoption expected to grow

Most respondents expect DaaS adoption to increase, with nearly 50% predicting a moderate rise and 24% anticipating a significant boost. A smaller group, 17%, believe adoption will stay the same, while only a few think it will decrease, either moderately or significantly. Overall, the sentiment leans heavily toward further growth in DaaS usage soon.

Over the next 1 to 3 years, how do you anticipate your organization's usage of Desktop as a Service (DaaS) will change?

Category	Percentage
Moderately increase	48%
Significantly increase	24%
Remain the same	17%
Moderately decrease	6%
Significantly decrease	3%
Other	1%

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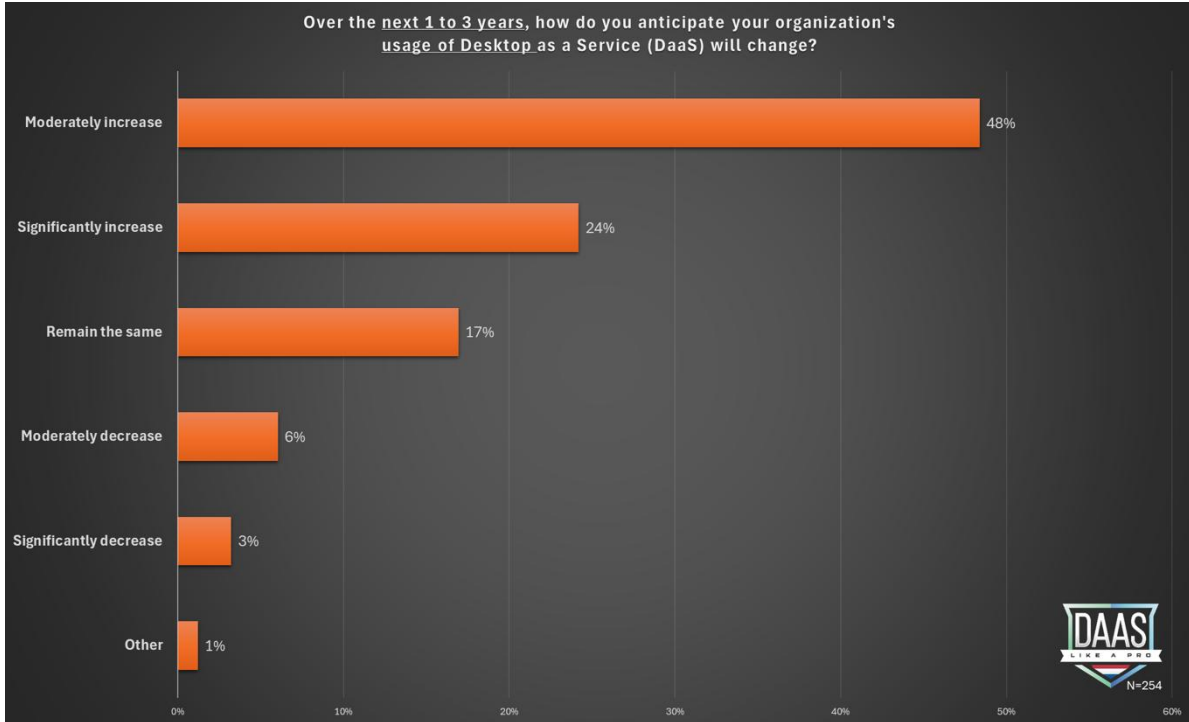
Top challenges in adopting DaaS

Cost is the biggest hurdle for DaaS adoption, with nearly 20% of respondents highlighting it as a challenge. Integration with existing infrastructure and ensuring a good user experience for end-users are also major concerns. Performance issues and lack of control during outages or incidents follow closely behind. Resistance to change and the ability to run workloads on-premises are other significant challenges. Further down the list, issues like privacy, security, and vendor lock-in are mentioned, but they're less of a concern compared to the top challenges. Overall, these factors highlight the complexity of adopting DaaS solutions.

What are the primary challenges for your organization that keep you from adopting and ongoing use of DaaS? - Please select all that apply.

Challenge	%
Cost	19%
Integration with existing infrastructure	8%
User experience for end-users	7%
Performance	6%
Lack of control in case of outages/incidents	6%
Reistance to change	6%
Ability to run workloads on-premises	6%
Completeness of the solution	5%
Offline access to applications and data	5%
Privacy concerns	5%
Security and compliance concerns	4%
Lack of knowledge	4%
Reliability concerns	4%
Vendor lock-in	4%
Support and service levels	3%
Disaster recovery options	2%
Other	2%
Availability of the solution in my region	2%
Endpoint operating system support	1%

N=254

Key Differences compared to last year:

- Cost remains the top challenge for both years, with almost no change (19% in 2024-2025 vs. 19.46% in 2023-2024).

- Performance is still a significant concern but dropped from 13.68% in 2023-2024 to 6% in 2024-2025.

- Resistance to change remains a persistent challenge, although it increased slightly from 5.92% to 6%.

- Integration with existing infrastructure became a more notable challenge in 2024-2025 (8%) compared to 2023-2024, where it wasn't explicitly highlighted.

- Vendor lock-in, reliability concerns, and completeness of the solution were new challenges that gained visibility in 2024-2025, compared to their relative absence in 2023-2024.

Overall, while the cost challenge remains unchanged, concerns about performance have decreased, and privacy, integration, and vendor lock-in are more visible in 2024-2025. These changes suggest evolving priorities as organizations become more familiar with DaaS.

Varied user base sizes show broad DaaS applicability

A notable portion of respondents are managing peak concurrent user numbers in the 1-249 user range, making up around 30% of the survey. There's also a significant group handling between 1.000 and 4.999 users, followed by those overseeing 5.000 to 24.999 users. While fewer participants are dealing with user bases in the 250-999 range or the larger brackets of 25.000-99.999 and over 100.000 users, this spread highlights the diverse scale of operations across the organizations surveyed, reflecting the broad applicability of DaaS solutions.

On average, how many users are accessing the DaaS simultaneously during peak hours?

User range	Percentage
1-249	31%
250-999	19%
1000-4999	22%
5000-24999	12%
25000-99999	4%
100000+	2%
Not sure	10%

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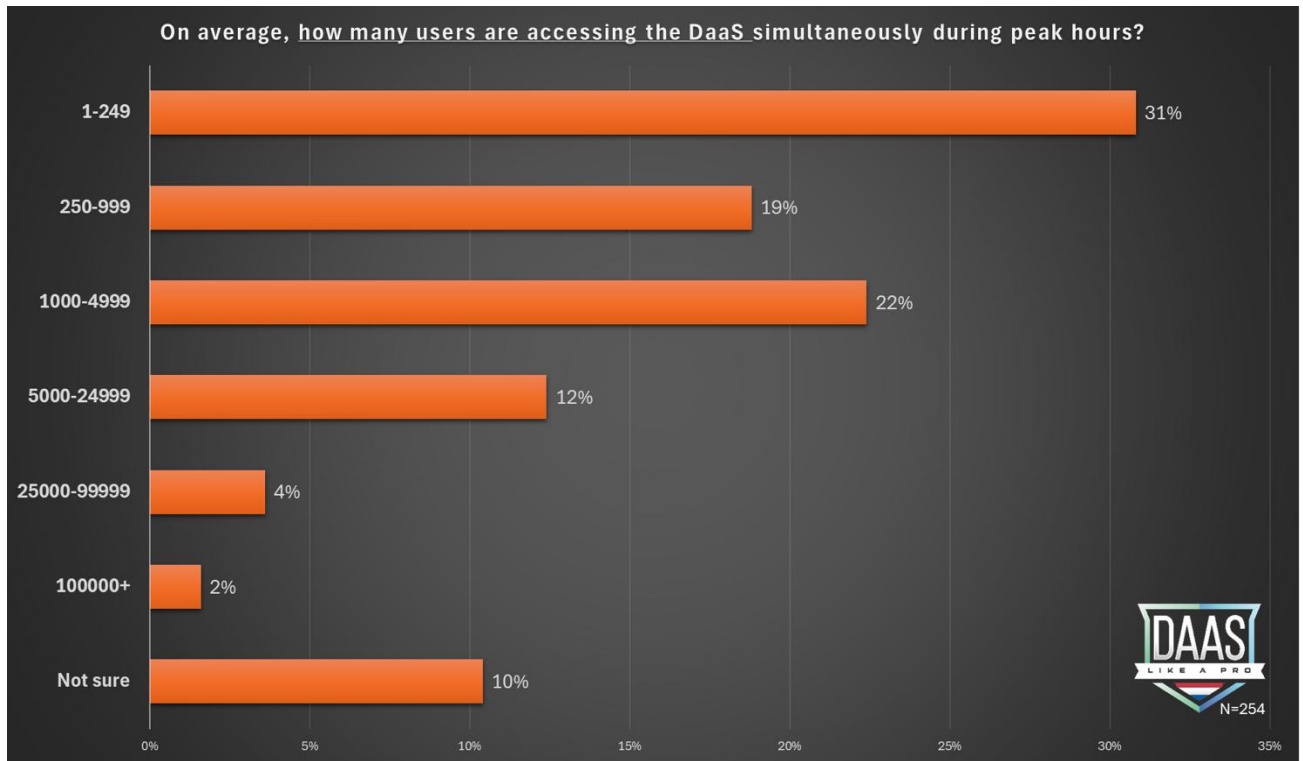
Virtual desktop choices: Cloud, On-Premises, or Hybrid?

Over 40% of respondents are committed to keeping their virtual desktops in the cloud, with no plans to migrate back on-premises. About 30% are considering a move, with some exploring a hybrid model that combines cloud and on-premises setups. A smaller group, less than 5%, plans to fully return to on-premises virtual desktops. 27% are considering migrating workloads back on premises and 22% are operating in a hybrid model. The "Other" category, which includes those still evaluating their options, indicates that while many favor cloud-based virtual desktops, some organizations are still undecided and exploring various alternatives, including hybrid and on-premises solutions.
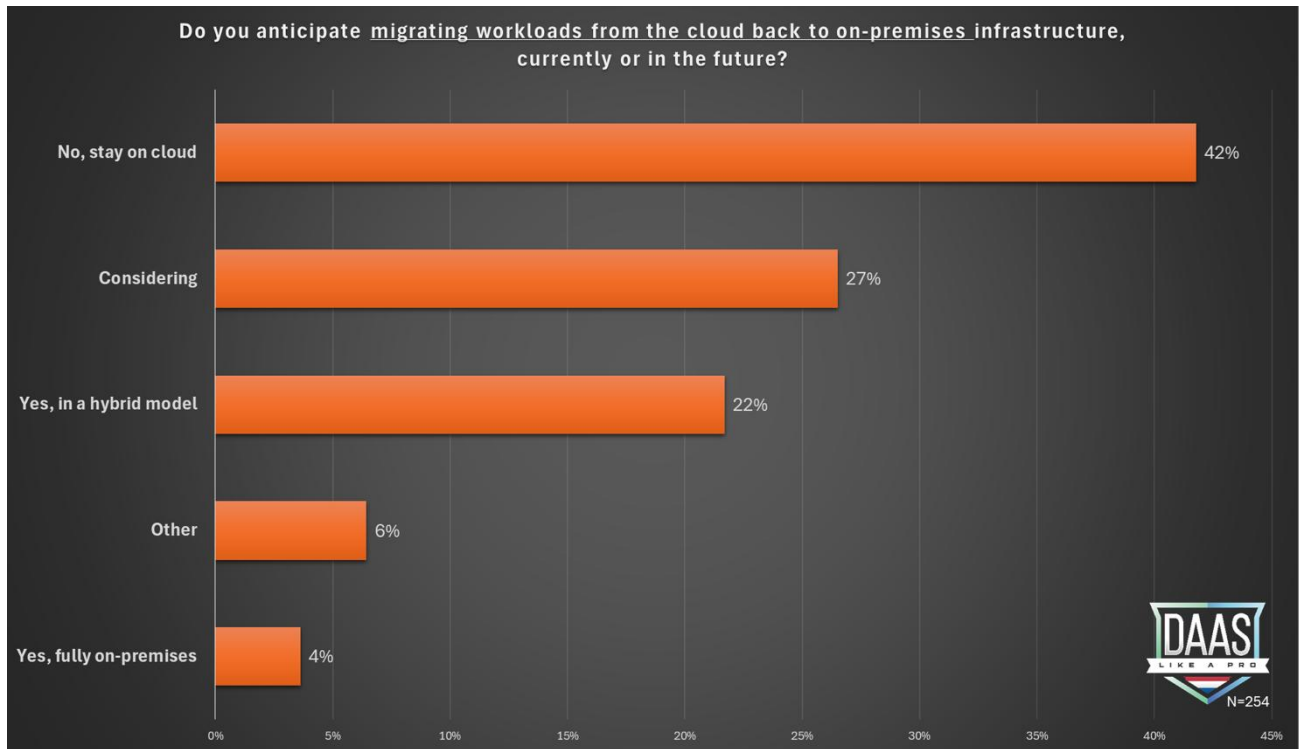
Strong satisfaction with DaaS solutions

Most respondents are highly satisfied with their DaaS solutions, with over 50% saying they are "very likely" to recommend them, and another sizable group, around 30%, marking them as "likely" to recommend. A smaller portion remains neutral, while only a tiny fraction feels unlikely or very unlikely to recommend their DaaS. There's also a small group in the "Other" category, indicating some mixed or alternative views. Overall, it's clear that most users are pleased with their DaaS experience.

How likely is it that you would recommend your DaaS solution to a friend or colleague?

Category	Percentage
Very likely	54%
Likely	30%
Neutral	11%
Unlikely	2%
Very unlikely	1%
Other	2%

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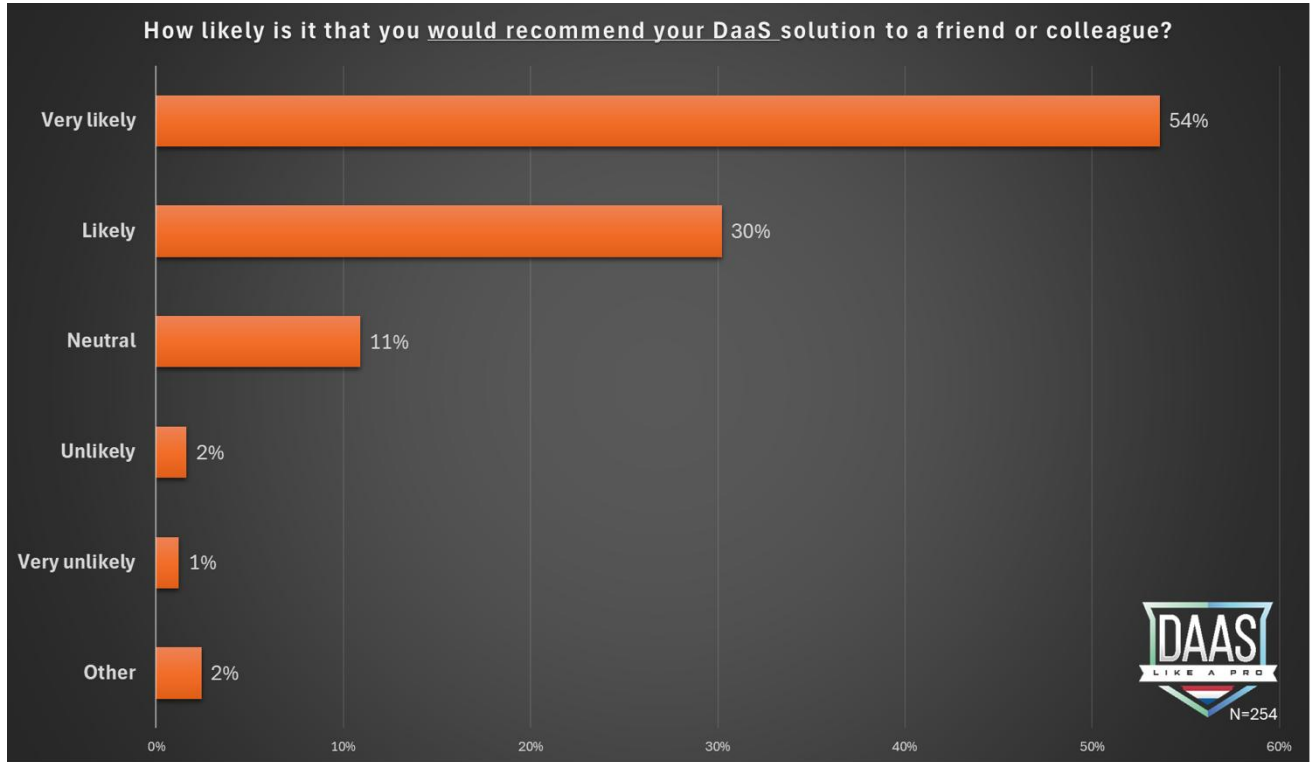
How respondents perceive DaaS solutions

When looking at the most voted keywords for DaaS solutions, there's a clear correlation with the key business drivers discussed earlier. "Flexible" tops the list, aligning with the need to support remote work and varied user demands—key drivers for adopting DaaS. "Secure" and "Reliable" are also highly valued, echoing the importance of enhanced security and performance, which were significant motivators for DaaS adoption.

Keywords like "Modern," "Simple," and "Fast" tie back to the desire for ease of management, faster deployment, and overall efficiency. These terms indicate that users appreciate DaaS solutions that are up-to-date, easy to use, and deliver quick results, all of which are crucial for their operational success.

On the other hand, the less frequent selection of keywords like "Complex," "Slow," and "Outdated" suggests that while there are challenges, they are outweighed by the overall positive impressions tied to the main drivers of adoption. This highlights that, despite some concerns, users generally view DaaS solutions favorably when they meet critical business needs.

Which of the following words would you use to describe DaaS - Please select all that apply.

Keyword	Percentage
Flexible	18%
Secure	17%
Reliable	16%
Modern	14%
Simple	13%
Fast	12%
Complex	4%
Other	1%
Slow	1%
Limited	1%
Outdated	1%
Risky	1%
Unreliable	0%

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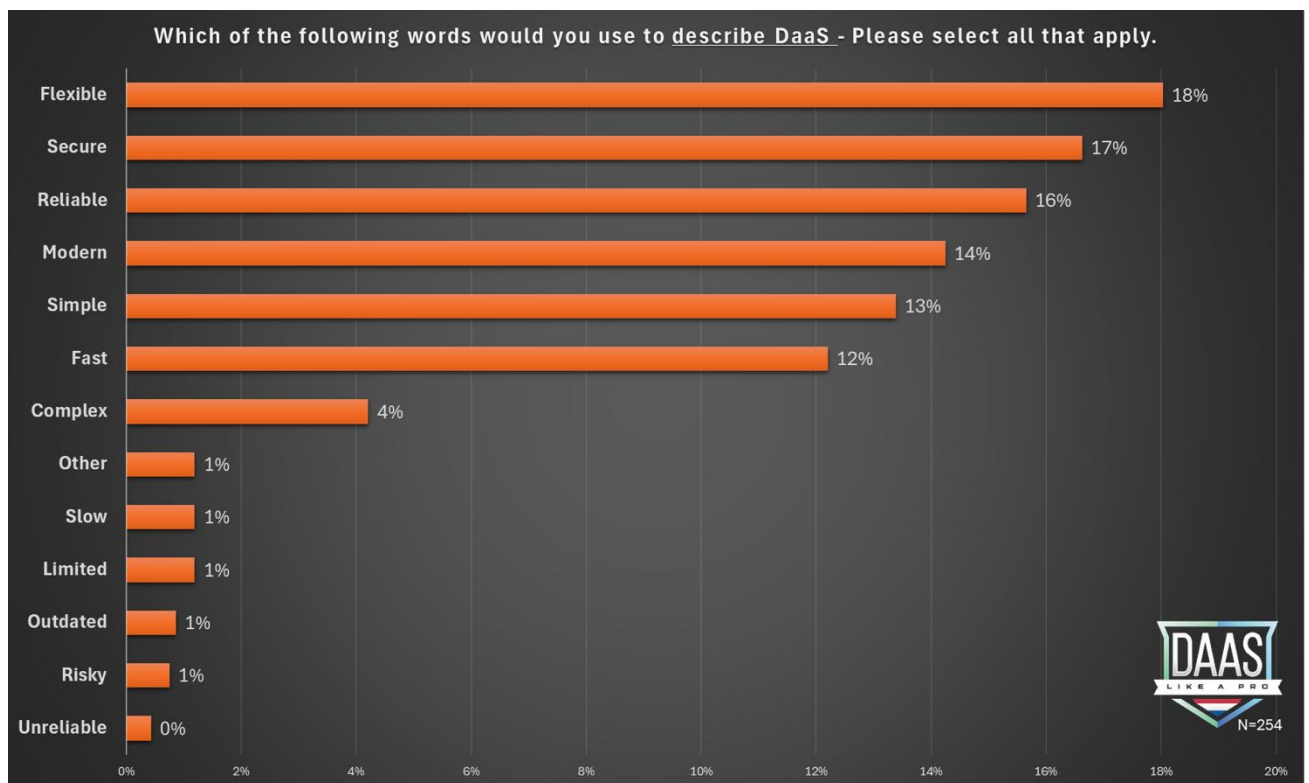
DaaS Configuration

In this chapter, we explore how organizations are configuring and setting up their DaaS solutions. We'll look at the various approaches' companies are taking, from the initial setup to ongoing management and customization. Whether it's choosing between hybrid models, integrating with existing infrastructure, or deciding on security measures, this chapter will give you a clear picture of the different strategies and best practices that customers are using to get the most out of their DaaS deployments.

Azure Leads, But Hybrid Setups Are Common

Microsoft Azure is the favorite among respondents for cloud infrastructures, with more than 40% using it for their DaaS setups. With 32%, on-premises and co-location solutions are also quite popular, suggesting that many organizations are opting for hybrid setups that combine both cloud and on-premises environments. AWS holds a solid position with 14% but trails behind Azure and on-premises options. Google GCP and other cloud providers like IBM Cloud and OVHCloud have a much smaller share. Overall, while Azure dominates, there's a notable preference for hybrid setups and a variety of other cloud providers such as AWS and Google GCP.

Please specify the location(s) where your workload VMs are hosted. Select all that apply

Location	Percentage
Microsoft Azure	43%
On-premises / co-location	32%
AWS	14%
Google GCP	5%
Other	2%
IBM Cloud	2%
OVHCloud	1%
Oracle OCI	1%

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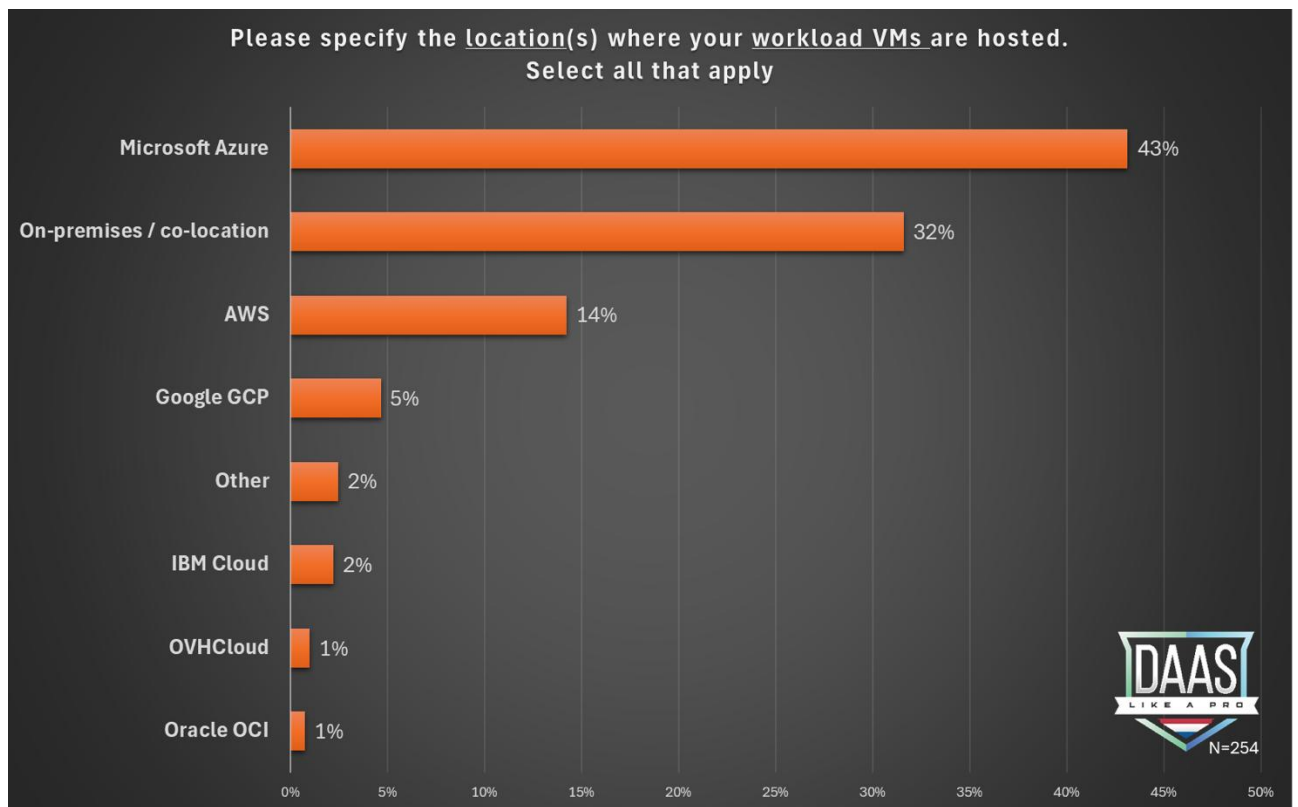
VMware leads on-premises virtualization

VMware (by Broadcom) ESXi leads on-premises virtualization among respondents, with 37% using it. Microsoft Hyper-V and Nutanix AHV are also popular but lag VMware. Some respondents either don't use on-premises virtualization or don't have applicable workloads. Smaller but notable groups use XenServer, Microsoft Azure Stack HCI, or RedHat virtualization - KVM. A few are unsure about their setup or don't use on-premises virtualization at all. Overall, VMware dominates, but there's a variety of solutions in use depending on organizational needs.

For your on-premises workload virtual machines (VMs), which <u>hypervisor technology</u> do you currently utilize? Please select all that apply

Category	Percentage
VMware ESXi	37%
Microsoft Hyper-V	16%
Nutanix AHV	15%
Not Applicable	9%
XenServer	8%
No on-premises workloads	6%
Microsoft Azure Stack HCI	4%
RedHat virtualization - KVM	2%
Other	2%
Not sure	1%
Proxmox	1%
No virtualization used	0%

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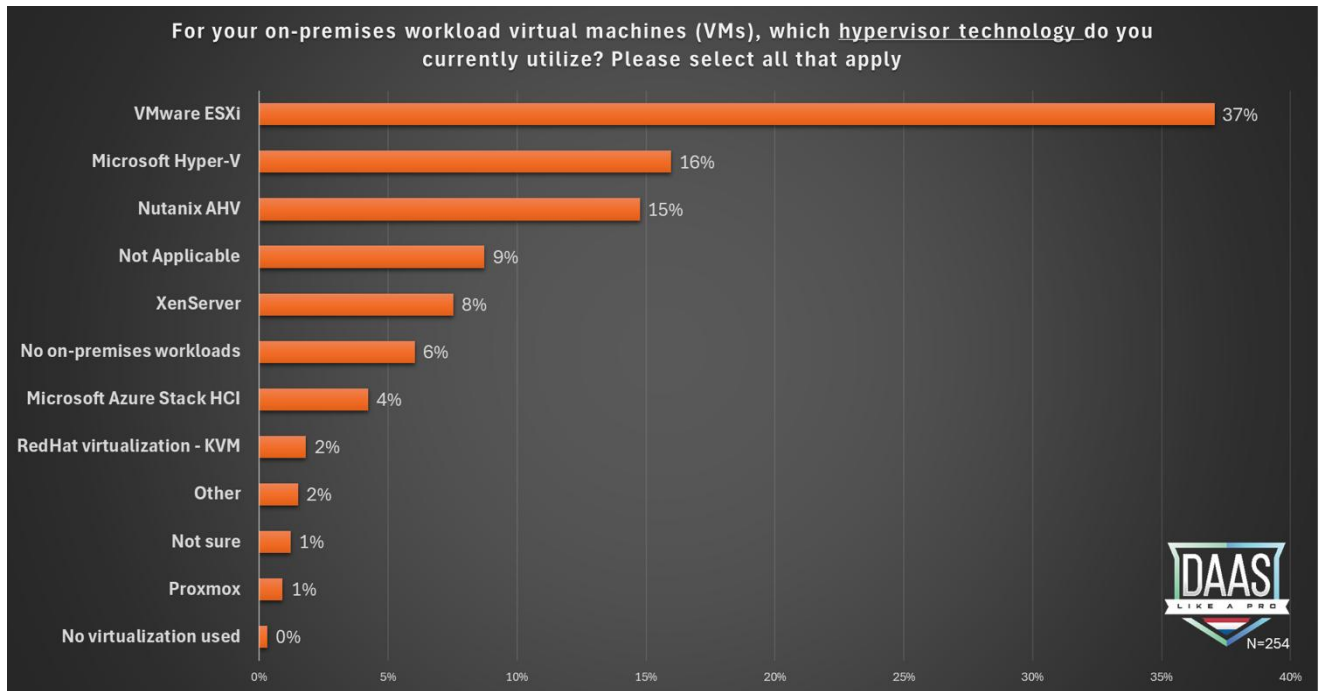
Future expectations: slight preference for published apps

Looking ahead, nearly 50% of respondents favor published applications, slightly more popular than published desktops, which just over 40% prefer. Those in the "Other" category see a mix of both, depending on the specific use-case. This suggests that while published apps lead, many value a flexible approach tailored to different needs.
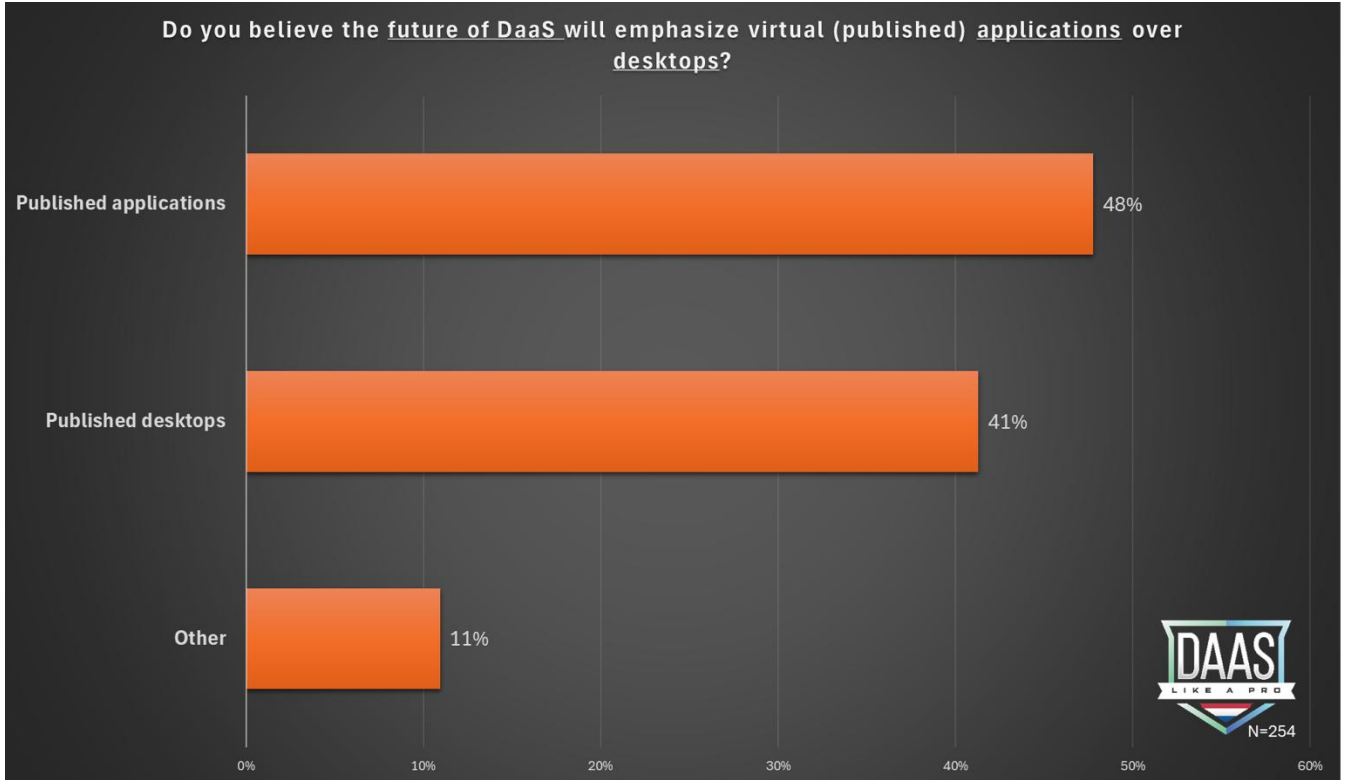
Published Apps: Future vs. Current Adoption

While many respondents anticipate a future for published applications, the current situation shows a different reality. A large portion of organizations today have only 0-5% of their applications published, indicating early stages of adoption. However, some companies have already progressed further, with over 50% of their applications published. This contrast highlights the varying speeds of adoption, even as the trend toward published applications gains momentum.

What percentage of your Desktop-as-a-Service (DaaS) infrastructure relies on virtual (published) applications compared to desktops?

Range	Percentage
0-5%	35%
6-10%	12%
11-15%	8%
16-20%	7%
21-30%	10%
31-40%	9%
41-50%	7%
50+%	13%

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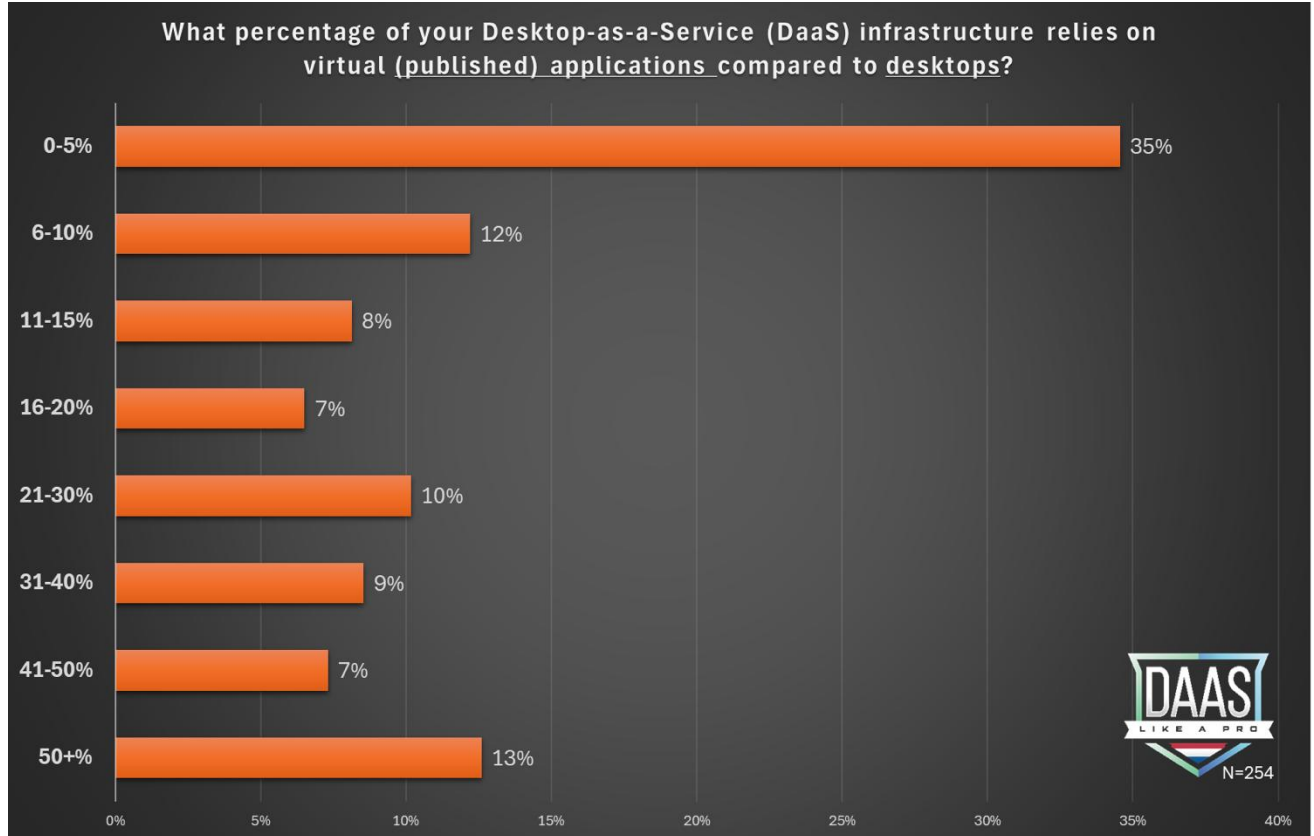
Personal vs. pooled desktops

Most organizations have a small percentage of personal (persistent) desktops, with 1-25% being the most common setup. Many have no personal (non-persistent) desktops at all, relying entirely on pooled desktops. Some take a balanced approach, with 25-50% or even 76-100% personal desktops. A smaller number use only multi-session desktop. This mix shows that while pooled desktops dominate, there are still various strategies in play, with some opting for more personal or mixed environments.

In your organization's DaaS infrastructure, please specify the percentages of single-user Workload Virtual Machines (VMs) that fall into each of the following categories

Category	Percentage
0% personal	18%
1-25% personal	44%
25-50% personal	13%
76-100% personal	13%
51-75% personal	7%
Multi-sessions only	6%

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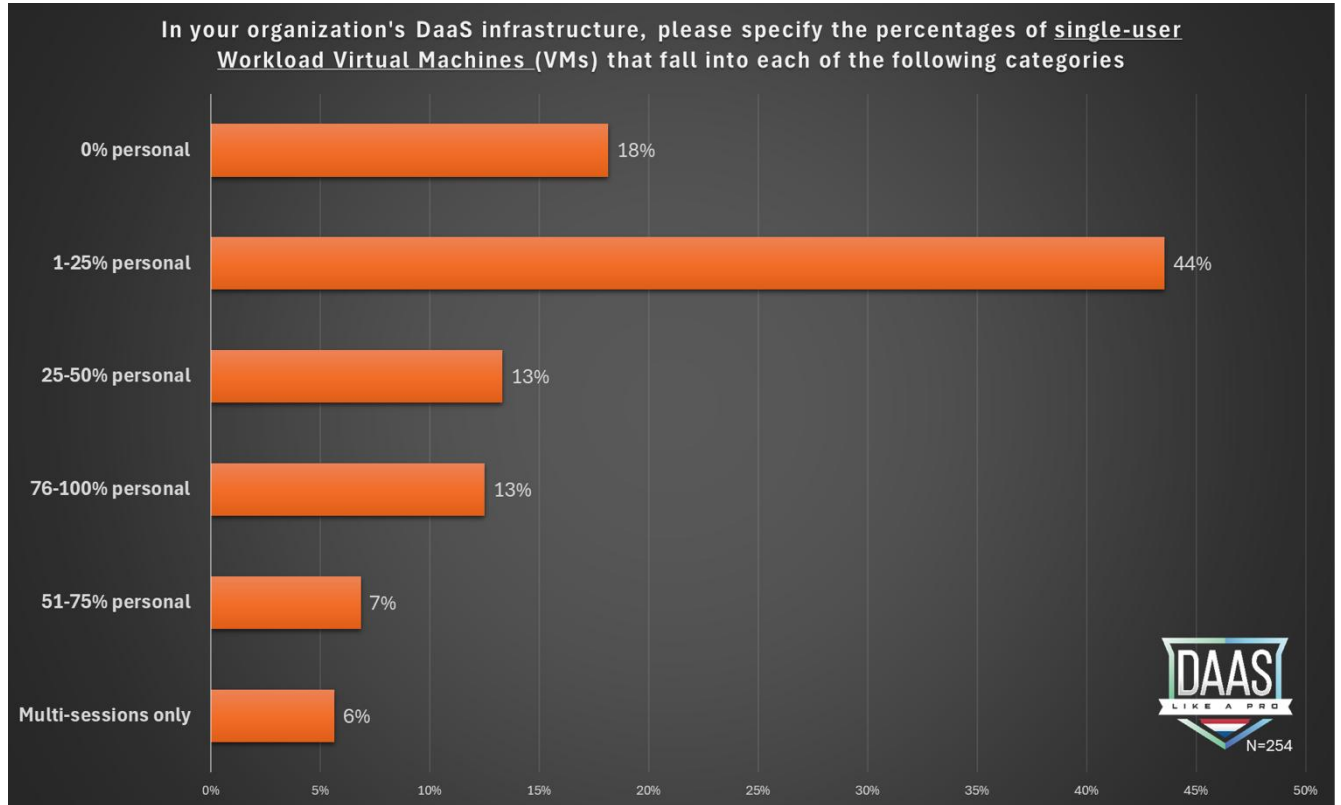
Microsoft AVD leads DaaS market, strong alternatives available

Microsoft Azure Virtual Desktop (AVD) is the leading DaaS solution, with nearly a quarter of respondents selecting it. Citrix Cloud and Windows 365 Cloud PC also show strong adoption, while options like Microsoft AVD with Nerdio further underscore its popularity. Dizzion with Frame and Omnissa (VMware EUC) with Horizon Cloud are other significant contenders.

In the "Other" category a few respondents mentioned still using classic Microsoft Remote Desktop Service (RDS). This indicates that while the market is dominated by a few major players, there is room and some preference for alternative platforms.

Which DaaS solution(s) are you using or will you introduce? Select all that apply.

Solution	Percentage
Microsoft Azure Virtual Desktop	22%
Citrix Cloud	18%
Windows 365 Cloud PC	16%
Microsoft Azure Virtual Desktop Nerdio	9%
Other	8%
Dizzion Frame	8%
Omnisssa/VMware Horizon Cloud	7%
Amazon Workspaces	4%
Parallels RAS on Microsoft AVD	2%
Parallels DaaS	2%
Amazon Appstream 2.0	2%
Workspot	1%
Cameyo	1%
Itopia	0%

N=254

Low AMD, Intel or NVIDIA GPU adoption

(v)GPU adoption is shown with most respondents at 0% adoption, accounting for close to 50% of the respondents. The next largest group using AMD, Intel or NVIDIA (v) GPUs are those with 1-10% adoption, making up 23%. Adoption rates between 11-20% and 21-30% are significantly lower, with each representing a small percentage. Adoption rates above 30% are minimal, with very few respondents reporting usage in the higher ranges. Only 5% has fully adopted AMD, Intel or NVIDIA (v)GPUs at 100%. The chart indicates that GPU adoption is still relatively low among the majority of respondents.

Do you utilize (v)GPU technology for your Desktop as a Service (DaaS) implementation? If yes, please specify the percentage of your workload machines that employ (virtual) GPUs

Range	Percentage
0%	48%
1 - 10%	23%
11 - 20%	9%
21 - 30%	5%
31 - 40%	2%
41 - 50%	3%
51 - 60%	1%
61 - 70%	1%
71 - 80%	1%
81 - 90%	1%
91 - 99%	1%
100%	5%

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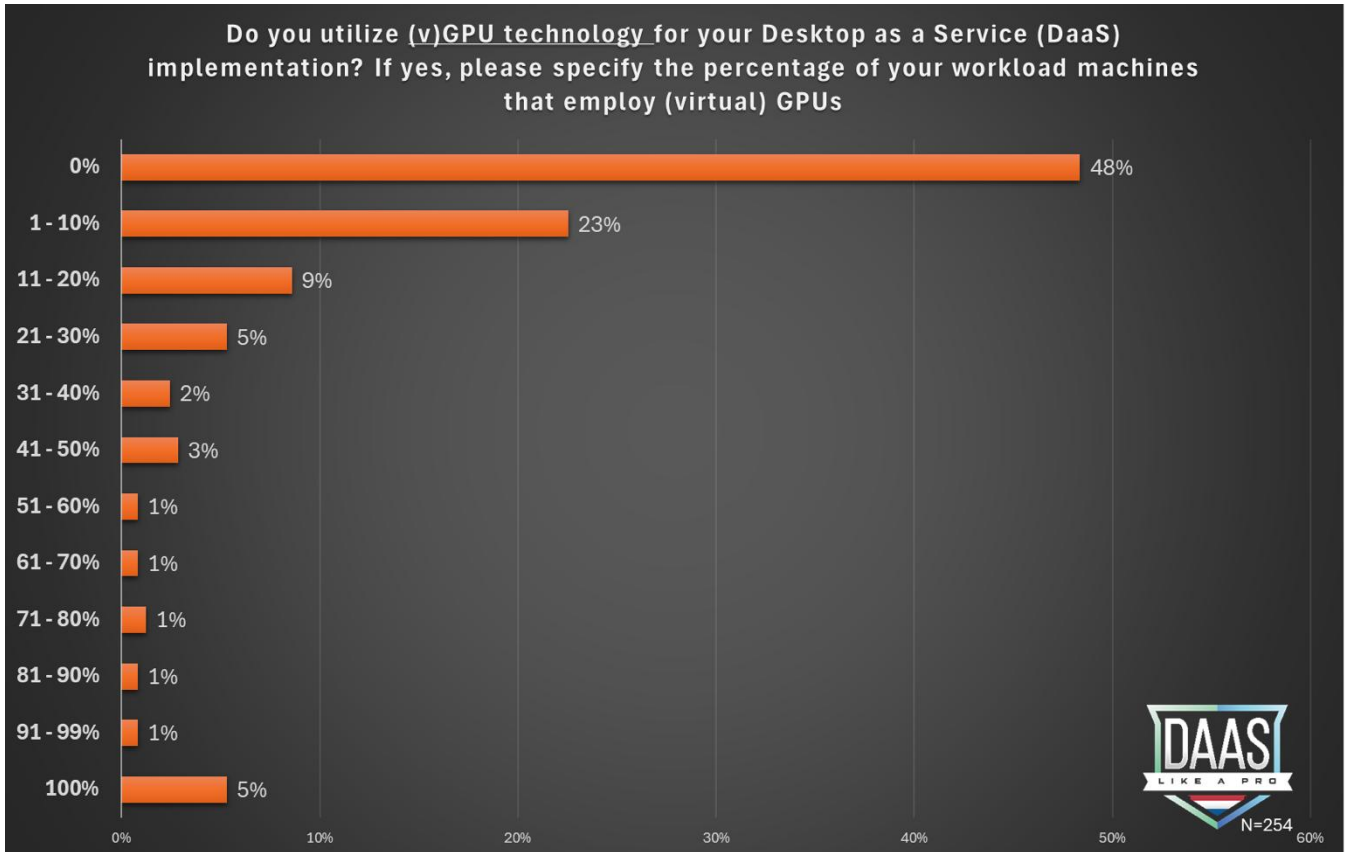
Single-user virtual machine sizes

Single-user VM sizes are distributed with "4vCPU - 16GB RAM" and "2vCPU - 8GB RAM" being the most common, each accounting for nearly 50% of the total usage. The "2vCPU-16GB RAM" configuration is close behind. Other configurations, such as "2vCPU - 4GB RAM" and "8vCPU - 32GB RAM," are also used but represent a smaller portion of the total. Less common configurations, including those with more CPUs and RAM, make up a minimal share, with some barely appearing in the data.
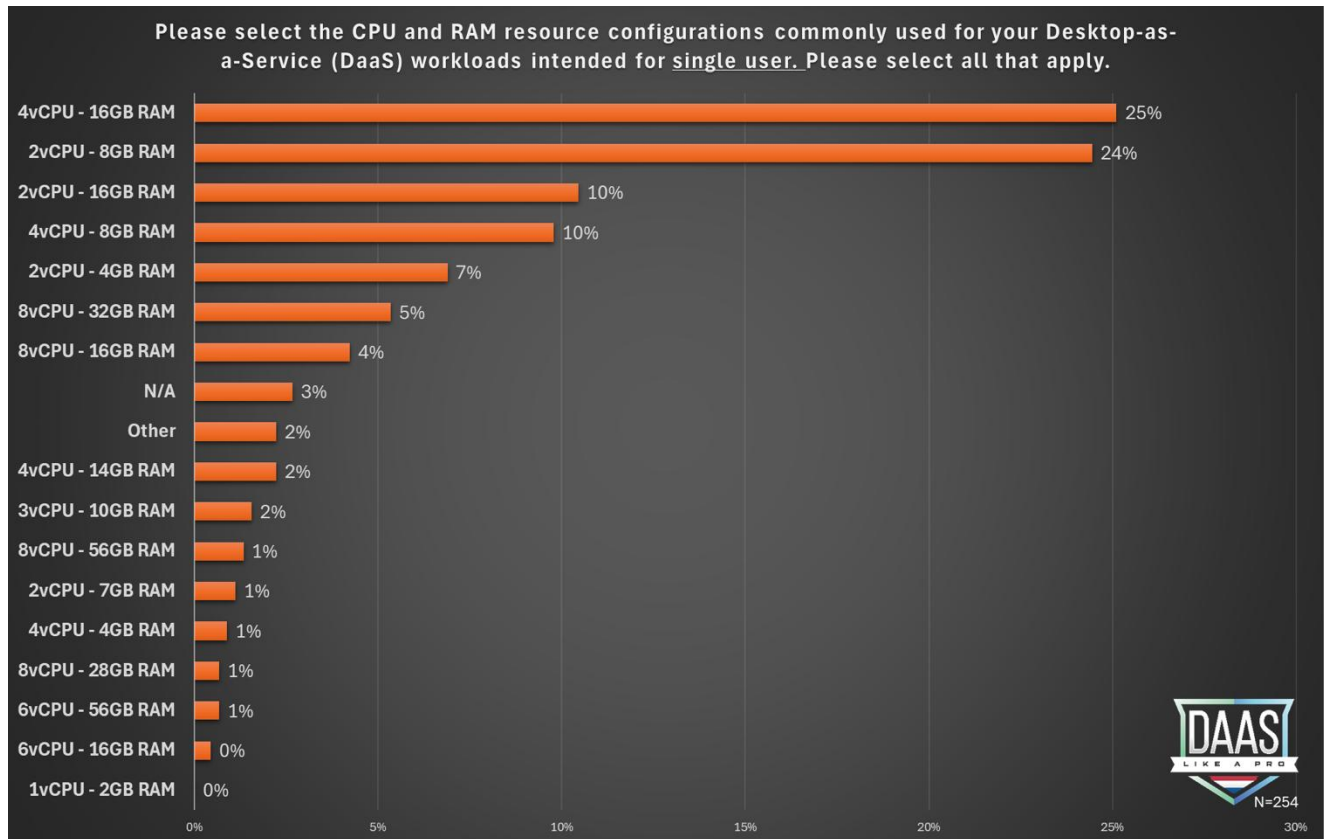
Key Differences:

- Dominant VM Sizes:

  - In 2023-2024, the most common size was 2vCPU - 8GB RAM (11.42%).

  - In 2024-2025, this size remains popular (24%) but is surpassed by 4vCPU - 16GB RAM (25%), which saw a significant increase compared to the previous year when it wasn't reported.

- Growth in Larger Configurations:

  - **4vCPU - 16GB RAM** and **2vCPU - 16GB RAM** became much more popular in 2024-2025, representing 25% and 10% respectively. These configurations were not prominent in 2023-2024.
  - **8vCPU configurations** (16GB, 32GB, 56GB RAM) are still present but remain a smaller portion, although **8vCPU - 32GB RAM** saw an increase to 5% in 2024-2025.

Overall, there's a clear trend toward larger VM configurations in 2024-2025, with **4vCPU** and **2vCPU** configurations with higher RAM seeing significant growth.

Multi-user virtual machine sizes

Multi-user VM sizes are primarily concentrated around the "8vCPU - 32GB RAM" configuration, which holds the largest share at nearly 15%. The "4vCPU - 16GB RAM" configuration follows closely behind. Other notable configurations include "8vCPU - 64GB RAM" and "4vCPU - 32GB RAM." Less common configurations, particularly those with higher CPU and RAM specifications, appear less frequently, each representing a smaller percentage of the total usage.

Please select the CPU and RAM resource configurations commonly used for your Desktop-as-a-Service (DaaS) workloads intended for _multi-user / multi-session_.

Configuration	Percentage
8vCPU - 32GB RAM	14%
N/A	13%
4vCPU - 16GB RAM	11%
8vCPU - 64GB RAM	9%
4vCPU - 32GB RAM	9%
16vCPU - 128GB RAM	5%
8vCPU - 16GB RAM	5%
4vCPU - 8GB RAM	5%
Other	3%
12vCPU - 32GB RAM	3%
2vCPU - 8GB RAM	3%
8vCPU - 56GB RAM	3%
4vCPU - 64GB RAM	3%
6vCPU - 16GB RAM	3%
32vCPU - 256GB RAM	2%
2vCPU - 16GB RAM	2%
8vCPU - 28GB RAM	2%
12vCPU - 24GB RAM	2%
6vCPU - 56GB RAM	2%
4vCPU - 14GB RAM	2%

N=254

Overall Trends:

Larger VM configurations (e.g., **8vCPU - 32GB**, **4vCPU - 32GB**, and **16vCPU - 128GB RAM**) gained popularity in 2024-2025.

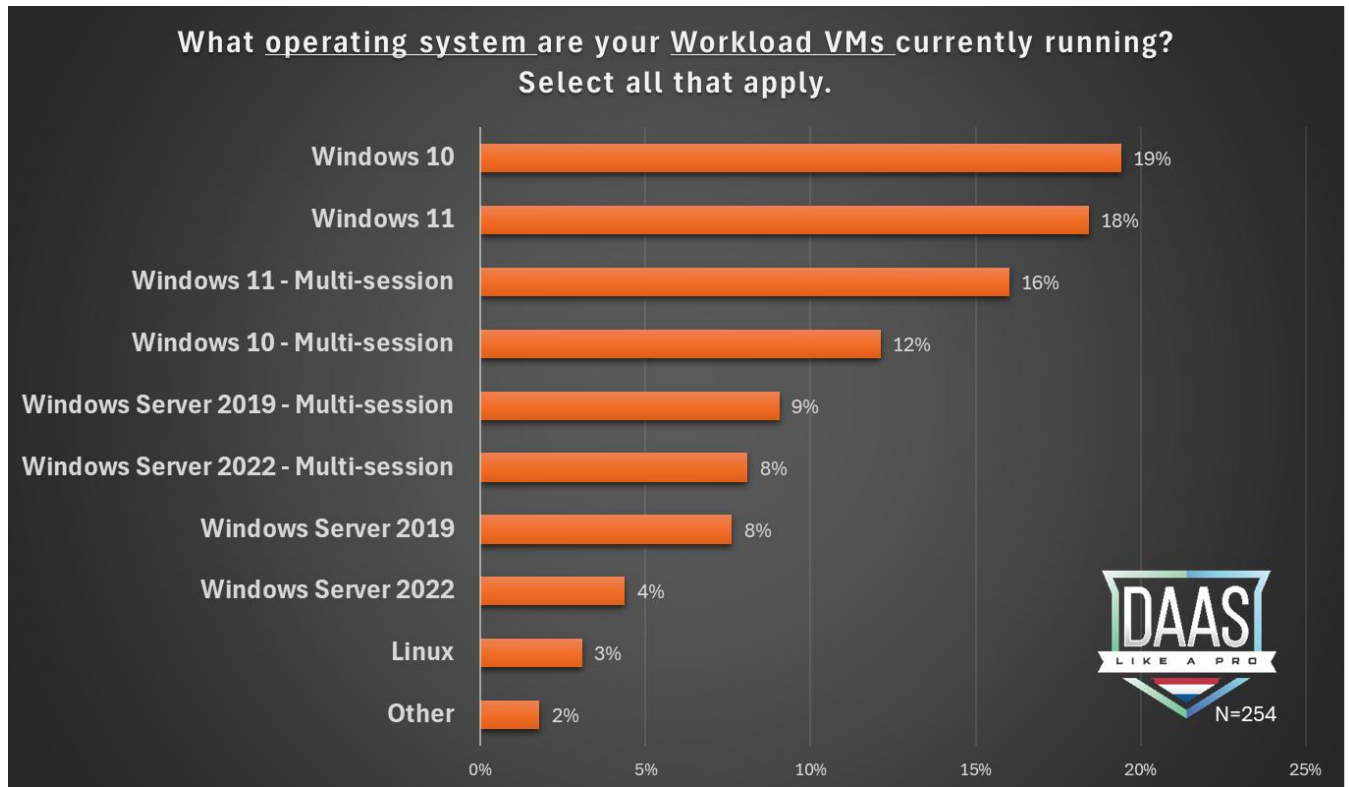- **N/A responses** increased, possibly indicating a broader mix of configurations or uncertainty among respondents.
- The continued dominance of **8vCPU configurations**, especially **8vCPU - 32GB RAM**, highlights the demand for more robust multi-user environments.

This shift suggests that organizations are scaling up their multi-user operating systems, opting for more memory and processing power compared to the previous year.

Currently deployed operating systems

The data represents the distribution of operating systems currently deployed by respondents. Windows 10 is the most widely used, closely followed by Windows 11. Multi-session versions of Windows 11 and Windows 10 are also commonly used, though less so than their standard counterparts. Windows Server versions, particularly in multi-session mode, show moderate usage, with Windows Server 2019 leading among them. Linux and other operating systems have the lowest deployment rates among the respondents.

What operating system are your Workload VMs currently running? Select all that apply.

Operating System	Percentage
Windows 10	19%
Windows 11	18%
Windows 11 - Multi-session	16%
Windows 10 - Multi-session	12%
Windows Server 2019 - Multi-session	9%
Windows Server 2022 - Multi-session	8%
Windows Server 2019	8%
Windows Server 2022	4%
Linux	3%
Other	2%

N=254

Planned operating system deployments

The data reflects the anticipated deployment of operating systems among respondents in the future. Windows 11 is projected to be the most widely adopted, followed closely by its multi-session variant. Multi-session versions of Windows Server 2022 and the upcoming Windows Server 2025 are expected to see significant usage. Standard versions of Windows Server 2022 and 2025 show moderate future adoption, while older systems like Windows 10, its multi-session variant, and Linux are expected to see lower future use.
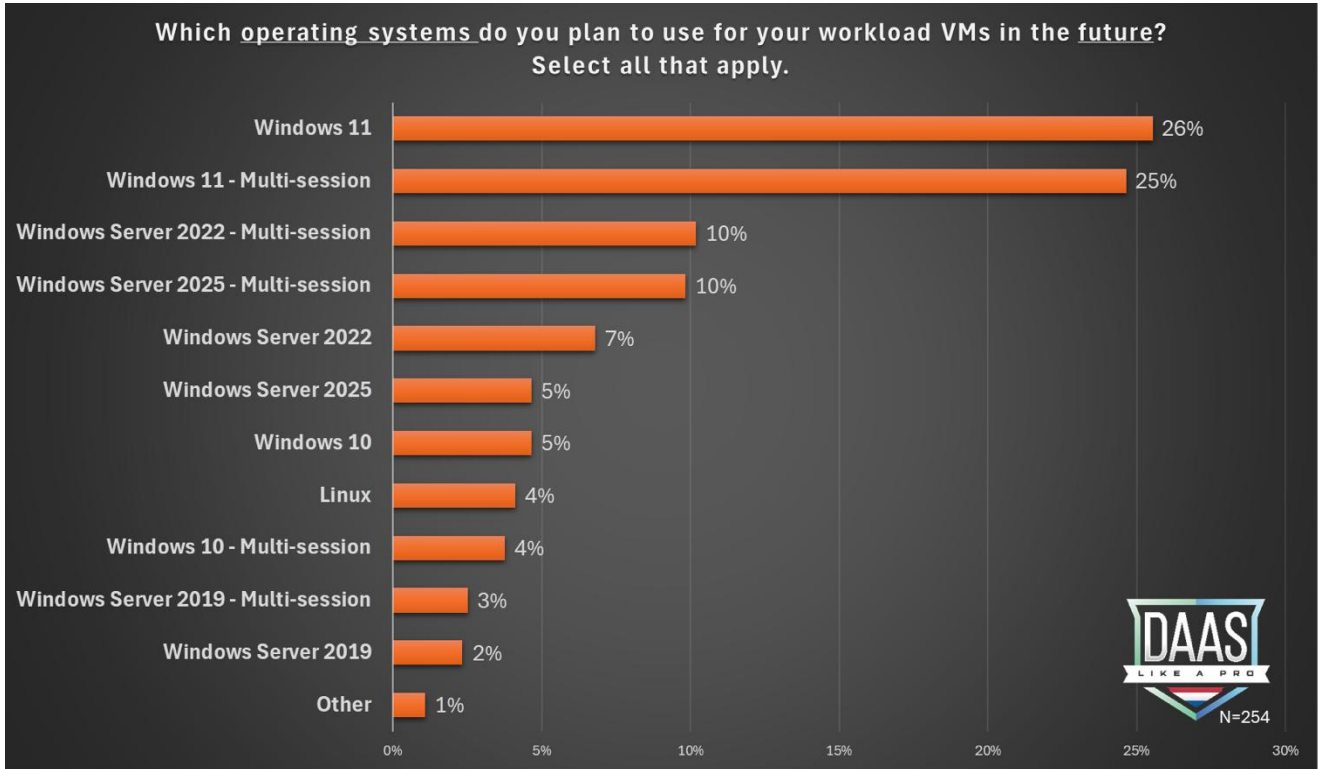
Distribution of user display setups

This data illustrates the distribution of different display setups among users. The most common setup is dual 1920x1080 (FHD) displays, followed closely by a single 1920x1080 display. A significant portion also uses two displays with 4K or higher resolution. Dual 2560x1440 displays and ultra-widescreen/curved monitors are also popular choices. Other setups include a single 4K display, more than two displays, dual 1280x720 displays, and a single 2560x1440 display.

Please select the display configuration most commonly used in your organization. Please select all that apply.

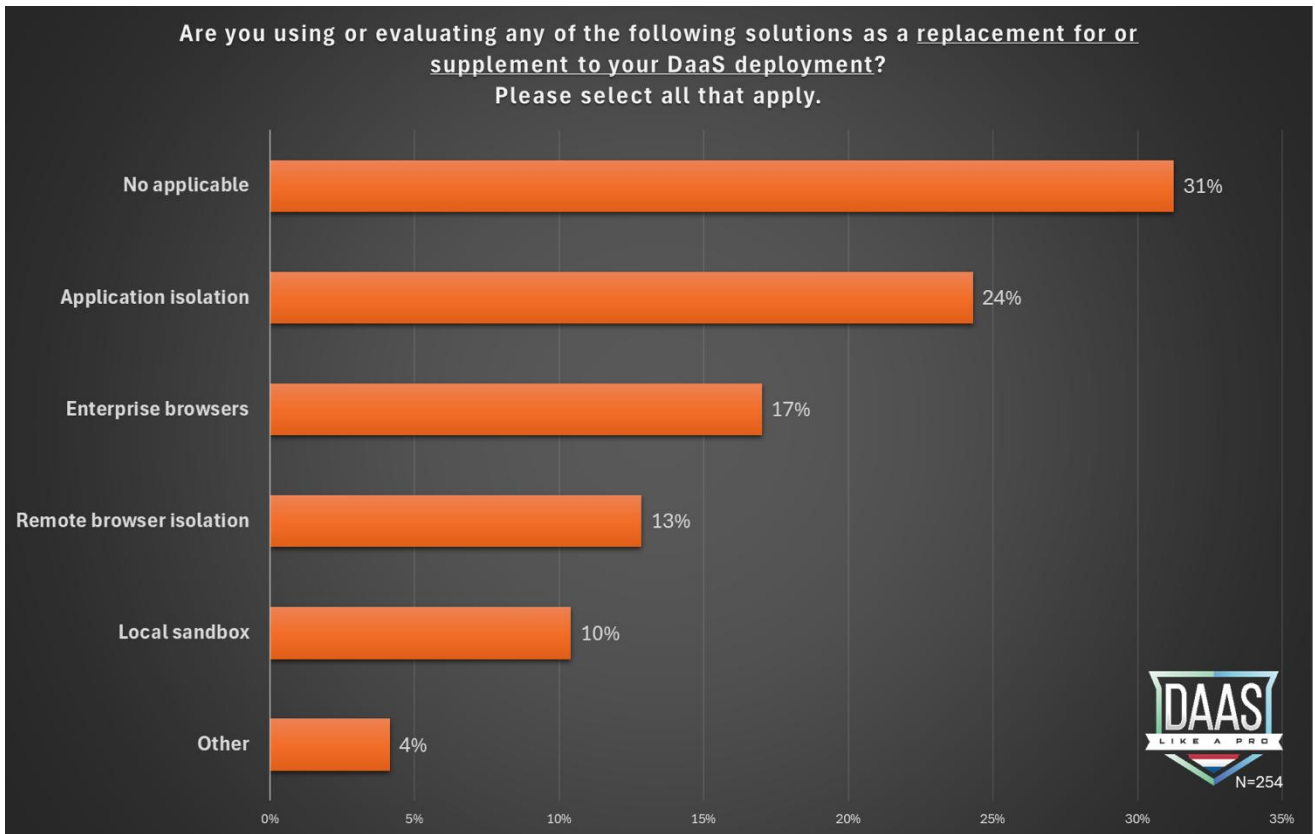| Configuration	Percentage
2 displays, 1920x1080	26%
1 display, 1920x1080	19%
2 displays, 4K or more	12%
2 displays, 2560x1440	9%
Ultra widescreen/curved	8%
1 display, 4K or more	7%
More than 2 displays	6%
2 displays, 1280x720	6%
1 display, 2560x1440	6%
Other	0%
VR/AR	0%

N=254
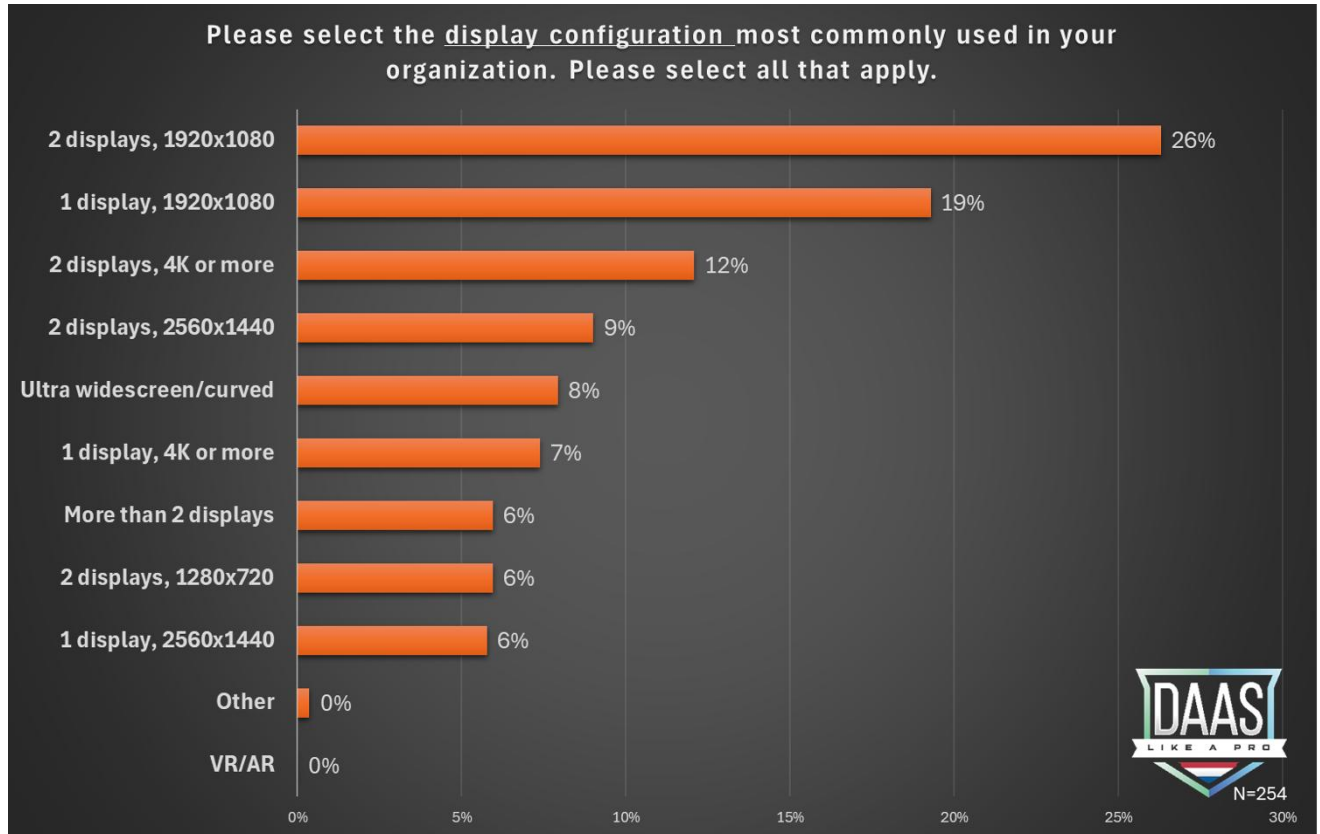
Value-add solutions

This chapter introduces a selection of **value-add complementary solutions** that enhance the effectiveness of your Desktop as a Service (DaaS) offerings. These technologies integrate seamlessly with existing systems, boosting functionality, performance, and overall value. By leveraging these solutions, organizations can optimize their virtual desktop environments, deliver greater value to users, and stay competitive in a rapidly evolving IT landscape.

Top solutions valued in augmenting DaaS

The image illustrates the percentage of respondents who find various features valuable in augmenting their Desktop as a Service (DaaS) solutions. The most popular response, with over 30% of respondents, is "Not applicable," suggesting that many do not require additional solutions. "Application isolation" follows at around 25%, "Enterprise browsers" and "Remote browser isolation" are also significant, with 17% and 13% respectively, highlighting the need for secure browsing solutions. Finally, "Local sandbox" is valued by 10% of respondents for isolating applications locally within the DaaS setup for developer or other use-cases.

Are you using or evaluating any of the following solutions as a _replacement for or supplement to your DaaS deployment_? Please select all that apply.

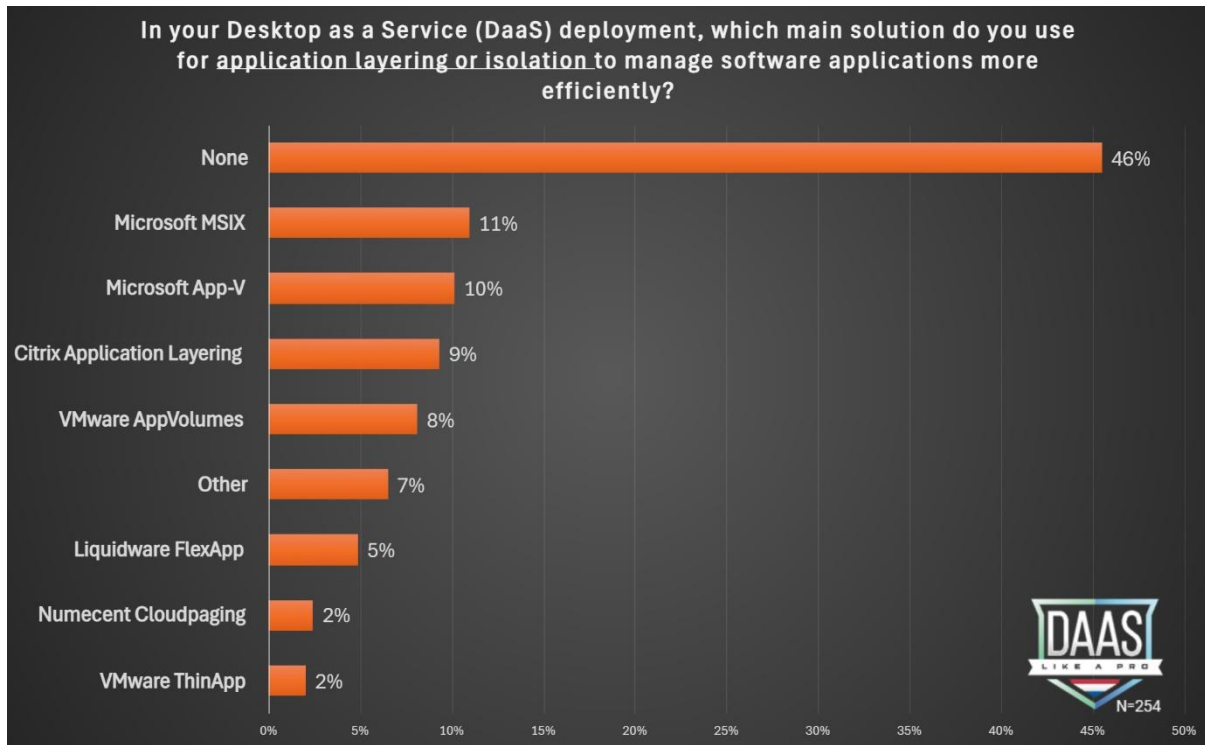| Solution	Percentage
No applicable	31%
Application isolation	24%
Enterprise browsers	17%
Remote browser isolation	13%
Local sandbox	10%
Other	4%

N=254

Adoption of application layering and isolation solutions

The current adoption rates of various application layering and isolation solutions reveal that 46% of the respondents are not using any such solutions. Among those who do utilize these technologies, Microsoft MSIX, Microsoft App-V, Citrix and Omnissa (VMware) have around 10% adoption each. So overall Application Layering and isolation usage is low.

Solutions like Liquidware FlexApp, Numecent Cloudpaging, and Omnissa (VMware) ThinApp have even lower adoption rates.

Chart: In your Desktop as a Service (DaaS) deployment, which main solution do you use for application layering or isolation to manage software applications more efficiently?

- None — 46%
- Microsoft MSIX — 11%
- Microsoft App-V — 10%
- Citrix Application Layering — 9%
- VMware AppVolumes — 8%
- Other — 7%
- Liquidware FlexApp — 5%
- Numecent Cloudpaging — 2%
- VMware ThinApp — 2%

N=254

## Strategies for Managing Microsoft App-V End-of-Life

Organizations are planning various strategies in response to the end-of-life (EOL) of Microsoft App-V. About 50% of respondents indicated that this change is "Not Applicable" to them, likely because they don't use App-V or have already moved away from it. Among those affected, transitioning to MSIX is the most popular option. Some respondents are adopting alternative isolation solutions, while others plan to transition to MSI or Intune app packages. A small group intends to keep using App-V, possibly due to the costs of repackaging applications into a new format.

What is your strategy for Microsoft App-V considering its end of life in April 2026?

Strategy	Percentage
Not applicable	48%
Transition to MSIX	16%
Adopt alternative	13%
Other	9%
Transition to MSI	6%
Transition to Intune app packages	6%
Keep using beyond EOL	2%

N=254
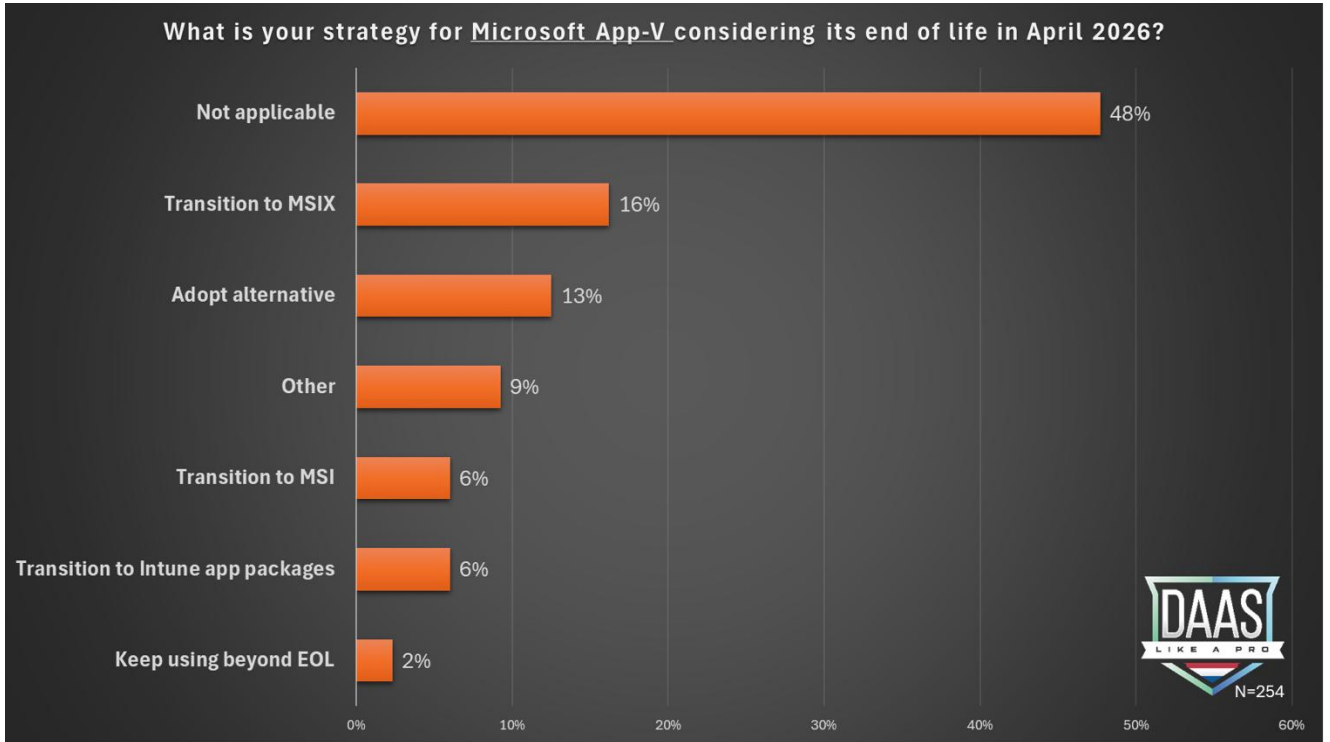
Application deployment and image maintenance

Respondents use various methods to deploy applications and maintain system images. The most used method is Microsoft Intune, chosen by nearly 20% of respondents. Close behind is Manual updates, with a similar level of usage. FSLogix Application masking is another widely used tool, utilized by around 13% of respondents. Custom scripting and Microsoft Configuration Manager are also significant, each with around 10% usage. Smaller percentages of respondents use Azure DevOps and Chocolatey (around 5% each), as well as Microsoft WDS/MDT and Azure Image Builder (about 4% each). Omnissa (VMware) Workspace One UEM and (Ivanti) RES Automation Manager are the least common, with usage under 3%. This highlights the range of deployment approaches among respondents.

How are Windows OS and Applications installed and managed in your DaaS solution?

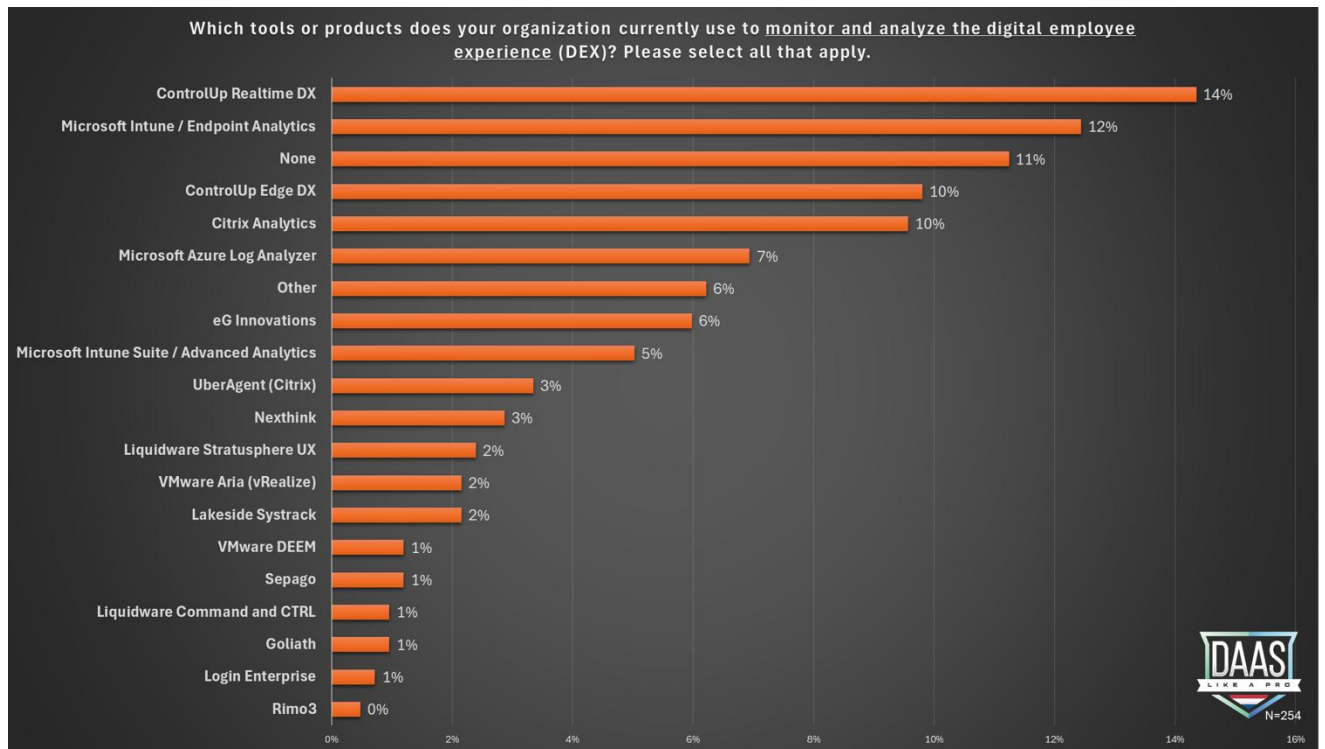| Method	Percentage
Intune	19%
Manual updates	18%
FSLogix Apps	13%
Custom scripting	10%
Microsoft Configuration Manager	9%
Other	8%
Azure DevOps	5%
Chocolatey	5%
Microsoft WDS/MDT	4%
Azure Image Builder	4%
Omnissa/VMware Workspace One UEM	3%
RES Automation Manager (Ivanti)	2%

N=254
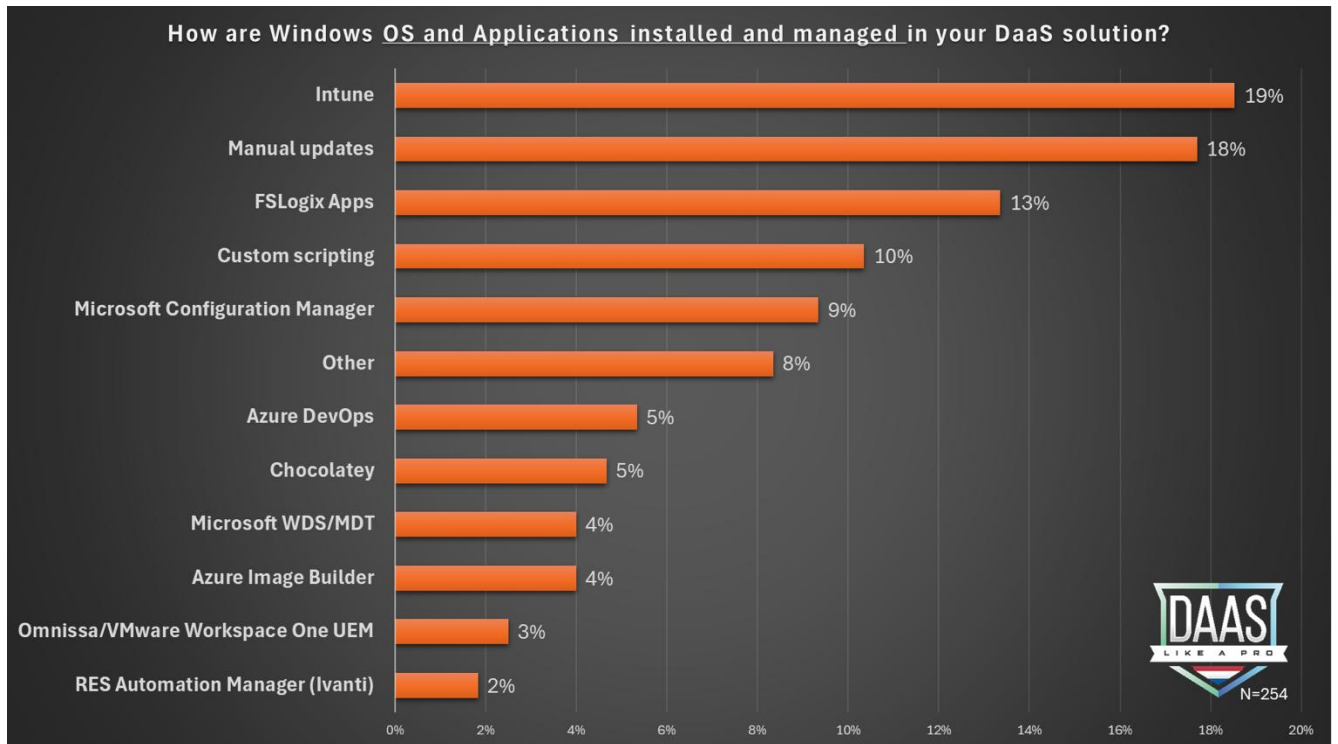
Performance monitoring and analysis

Virtual desktops are provided to users as a service from a data center or the cloud, allowing consistent access to their computing environment from anywhere. Like any service, virtual desktops experience fluctuations in demand, with periods of both high and low usage. To ensure a smooth user experience, it's crucial that virtual desktops perform consistently well, making performance monitoring an essential aspect.

The market for performance monitoring and analysis tools is highly fragmented, with a wide range of solutions being used. While some tools are more widely adopted, many organizations still depend on a mix of different solutions or, in some cases, none. This fragmentation suggests that traditional monitoring alone may not fully meet the broader needs of organizations.

In response, a new approach is emerging that goes beyond basic monitoring to encompass the broader Digital Employee Experience (DEX). This approach not only tracks performance but also examines user interactions, application usage, and overall satisfaction. This shift indicates that to truly optimize the digital experience, organizations need more comprehensive solutions that address the full spectrum of employee needs, beyond what traditional monitoring tools can offer.

ControlUP is currently the leading vendor with Realtime DX usage at 14% and Edge DX with 10% of contributors using this. Microsoft Intune / Endpoint Analytics follows with 12% and Citrix Analytics used by 10%.

Which tools or products does your organization currently use to monitor and analyze the digital employee experience (DEX)? Please select all that apply.

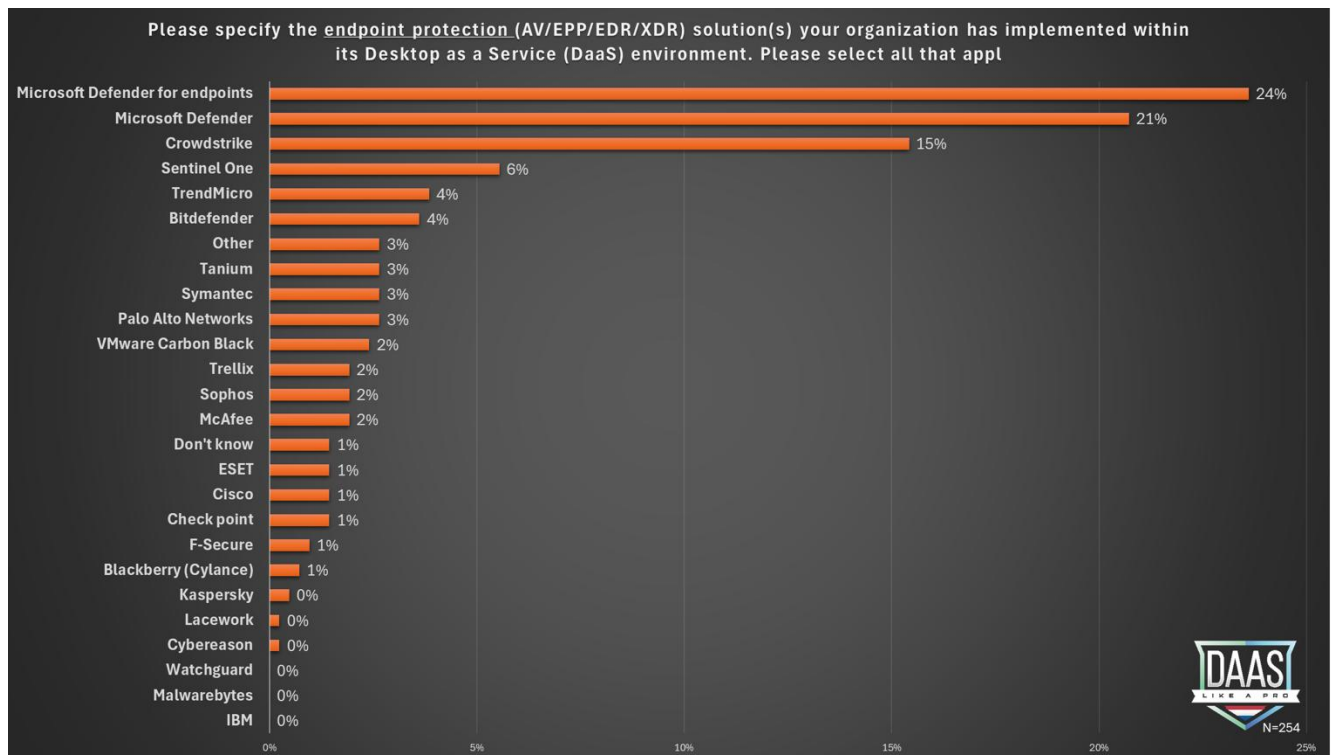| Tool	Percentage
ControlUp Realtime DX	14%
Microsoft Intune / Endpoint Analytics	12%
None	11%
ControlUp Edge DX	10%
Citrix Analytics	10%
Microsoft Azure Log Analyzer	7%
Other	6%
eG Innovations	6%
Microsoft Intune Suite / Advanced Analytics	5%
UberAgent (Citrix)	3%
Nexthink	3%
Liquidware Stratusphere UX	2%
VMware Aria (vRealize)	2%
Lakeside Systrack	2%
VMware DEEM	1%
Sepago	1%
Liquidware Command and CTRL	1%
Goliath	1%
Login Enterprise	1%
Rimo3	0%

N=254

Endpoint protection

Endpoint protection can significantly impact virtual desktop performance due to its resource demands. In an on-premises setup, multiple virtual machines share the same physical hardware. When each VM runs endpoint protection software, it can cause CPU, memory, and disk I/O contention, slowing down the entire system.

Overall, real-time scanning, analysis and updates can be especially taxing, leading to sluggish performance, longer login times, and slower application launches. Network and storage systems can also become bottlenecks when multiple VMs perform security tasks simultaneously.

To mitigate these effects, organizations can optimize scanning schedules, adjust resource allocation, and fine-tune the endpoint protection settings. Microsoft Defender for endpoints and Microsoft Defender is used by 45% of the respondents followed by CrowdStrike with 15%.

Please specify the endpoint protection (AV/EPP/EDR/XDR) solution(s) your organization has implemented within its Desktop as a Service (DaaS) environment. Please select all that appl

Solution	%
Microsoft Defender for endpoints	24%
Microsoft Defender	21%
Crowdstrike	15%
Sentinel One	6%
TrendMicro	4%
Bitdefender	4%
Other	3%
Tanium	3%
Symantec	3%
Palo Alto Networks	3%
VMware Carbon Black	2%
Trellix	2%
Sophos	2%
McAfee	2%
Don't know	1%
ESET	1%
Cisco	1%
Check point	1%
F-Secure	1%
Blackberry (Cylance)	1%
Kaspersky	0%
Lacework	0%
Cybereason	0%
Watchguard	0%
Malwarebytes	0%
IBM	0%

N=254

Open questions

In this chapter, we delve into the rich and varied insights gathered from the open-ended questions in our survey. These responses offer a deeper understanding of the participants' experiences, challenges, and perspectives that go beyond the quantitative data. By exploring these candid thoughts, we aim to uncover underlying themes, emerging trends, and unique viewpoints that add valuable context to the overall findings. This chapter highlights the voices of our respondents, providing a more nuanced and comprehensive view of the issues at hand.

Strategic initiatives in EUC and DaaS

The responses reflect a comprehensive range of End-User Computing (EUC) and Desktop-as-a-Service (DaaS) initiatives from various organizations, emphasizing the shift towards cloud-based solutions, enhancing security, and improving user experience.

1. Cloud Adoption and Hybrid Environments
The transition to public cloud platforms like Microsoft Azure, AWS, and Google Cloud is accelerating in the EUC and DaaS space. Organizations are increasingly moving from on-premises infrastructures to cloud-based solutions, with Azure Virtual Desktop (AVD), Citrix and Windows 365 Cloud PC leading the charge and challenged by Dizzion and Omnissa. Hybrid cloud strategies are also gaining traction, enabling seamless integration of cloud and on-premises environments to enhance flexibility and scalability.

2. Enhanced Security and Compliance
As cloud adoption grows, security has become a key focus. Organizations are implementing advanced security measures, including Zero Trust Network Architecture (ZTNA) and enhanced traffic management, to protect their EUC environments. Compliance with regional data protection laws is also critical, ensuring that global deployments adhere to legal standards while optimizing performance and user experience.

3. Platform and Vendor Transition
A shift from legacy platforms like Citrix and Omnissa (VMware) to newer solutions such as AVD, Microsoft Intune, Windows 365 and Dizzion is underway. Additionally, organizations are exploring alternatives for Citrix, Omnissa and sometimes Microsoft (RDS and AVD) and are looking at solutions like Parallels Remote Application Server (RAS) and Dizzion Frame. These platforms offer robust functionality, on-premises and/or hybrid multi-cloud support, cost efficiency, and better alignment with modern business and technology needs.

4. Digital Employee Experience (DEX)
Digital Employee Experience (DEX) is emerging as a crucial initiative, focusing on improving user satisfaction and productivity. DEX strategies involve monitoring application performance, proactively resolving issues, and offering personalized digital environments. By continuously refining the digital workspace, organizations aim to enhance the overall employee experience.

5. Performance Optimization and User Experience
Optimizing performance and user experience remains central to EUC and DaaS strategies. Efforts include modernizing applications, simplifying user access, and improving infrastructure management. The goal is to deliver a seamless, efficient user experience that meets the demands of a mobile workforce.

6. Innovation and Future-Readiness
Organizations are increasingly leveraging advanced analytics, AI, and machine learning to optimize EUC systems. Emerging technologies like virtual reality (VR) are also being explored for advanced

and often specific use cases. These innovations are crucial for future-proofing EUC and DaaS strategies, particularly in hybrid and remote work environments.

7. Cost Management and Efficiency

Cost management is a critical concern as cloud adoption rises. Organizations are optimizing infrastructure, increasing user density, and automating processes to reduce costs. Self-service capabilities are also being introduced to minimize manual work and improve operational efficiency.

Conclusion

The EUC and DaaS landscape is evolving rapidly, with public cloud migration, hybrid-cloud, security, platform transition, and DEX as key focus areas. By embracing innovation and maintaining cost efficiency, organizations can deliver secure, scalable, and efficient virtual desktop and application services, ensuring a competitive edge in the digital era.

Identified gaps in current DaaS solutions

Despite the advancements in Desktop-as-a-Service (DaaS) technologies, several key areas require improvement to better meet the evolving needs of businesses and end-users. This chapter outlines the top ten gaps identified by respondents, highlighting opportunities for enhancement within the DaaS landscape.

1. Graphics Acceleration

A significant gap in current DaaS offerings is the lack of sufficient graphics acceleration vendors and options and associated costs on various platforms. This limitation is problematic for low and medium (v)GPU use-cases and in environments requiring high-performance graphical processing, such as design, visualization and simulation applications.

2. Application Management and Virtualization

There is a noticeable gap in the ease of managing and deploying applications within DaaS environments. Respondents expressed a need for improved application virtualization and management tools, which are critical for streamlining the deployment process and ensuring that applications run smoothly within virtual desktops. This is especially important for organizations with complex or specific application requirements.

3. Customization and Flexibility

DaaS solutions often offer limited customization options. There is a growing demand for more granular control, self-service allowing organizations to tailor virtual desktop environments to specific operational and user requirements, including desktop experiences, application provisioning, and integration with enterprise systems.

4. Performance Analytics and Reporting

The analytics and reporting capabilities of current DaaS platforms often fall short of providing the detailed insights needed to optimize performance. Respondents identified a need for advanced analytics that can predict and solve end-user performance issues automatically, optimize resource allocation, and suggest improvements, thereby enhancing the efficiency of virtual desktop environments.

5. Advanced Security Features

As cybersecurity threats evolve, DaaS solutions must integrate more advanced (network) security features. This includes better integration with enterprise security systems, enhanced data protection measures, and compliance tools tailored to specific industry regulations to ease the burden on IT departments.

6. Multi-Cloud and Multi-Region Support

With the increasing adoption of multi-cloud strategies, there is a clear need for DaaS solutions that offer seamless integration across various cloud platforms and regions. Improved multi-cloud and multi-region support would enhance flexibility, disaster recovery, and compliance with local data residency requirements.

7. Digital Employee Experience (DEX)

Improving the Digital Employee Experience (DEX) is crucial. DEX focuses on the overall user experience within virtual environments, ensuring that they are not only functional but also engaging and user-friendly. Enhancements in DEX could include reduced latency, improved interface responsiveness, and comprehensive tools for monitoring and improving end-user performance.

8. Offline Functionality

The reliance on continuous internet connectivity is a significant limitation of current DaaS solutions. Respondents expressed a need for more robust offline functionalities, allowing users to access certain desktop capabilities without an internet connection, particularly benefiting mobile workers or those in areas with unreliable internet access.

9. Pricing Models and Cost Management

Costs remain a concern. There is a demand for better cost optimization tools, more flexible pricing models like pay-as-you-go, flat-free and automatic scaling based on usage trends. These improvements would make DaaS more accessible, will unlock new use-cases and make it overall more cost-effective for a broader range of organizations.

10. Seamless Migration and Disaster Recovery

Improved tools for orchestrating seamless migration between clouds or on-premises environments, as well as enhanced disaster recovery capabilities, are necessary. Respondents highlighted the need for integrated disaster recovery solutions that can be easily managed within the DaaS platform.

Conclusion

The gaps identified in this chapter provide valuable insights into the areas where DaaS providers can enhance their offerings. By addressing these top ten areas, DaaS solutions can become more robust, secure, and user-friendly, better meeting the needs of modern businesses. Emphasizing improvements in graphics acceleration, application management, customization, security, hybrid-multi-cloud integration, and Digital Employee Experience (DEX) will be key to driving greater adoption and maximizing the benefits of Desktop as a Service environments.

The role of AI in the modern workspace

The rise of artificial intelligence (AI) in Workspace is creating both opportunities and challenges in today's work environments. This chapter explores diverse perspectives on how AI is currently being used, its potential benefits, and the uncertainty that surrounds its future role in the workplace.

1. Automation and Efficiency

AI is widely seen as a tool for automating repetitive tasks, thereby improving efficiency. Many professionals highlight AI's ability to streamline processes like data entry, scheduling, and resource allocation. AI-driven virtual assistants are noted for managing routine tasks, allowing employees to focus on more strategic activities. In project management, AI is valued for its predictive capabilities, which can optimize workflows and reduce costs.

2. Predictive Analytics and IT Management

AI's role in predictive analytics is another key area of focus. Respondents emphasize its ability to analyze data, predict maintenance needs, and identify potential system issues before they occur. In IT management, AI is expected to enhance system uptime, optimize resource use, and support better decision-making, contributing to more efficient operations.

3. Personalized User Experiences

Many see AI to provide personalized user experiences, particularly in cloud-based and DaaS (Desktop as a Service) environments. AI-driven tools, such as chatbots, can offer tailored support, improving end-user satisfaction. As AI technology evolves, its integration is expected to make work environments more user-centric and efficient.

4. Security Enhancements

Security is a top concern, and AI is viewed as a powerful tool to strengthen defenses. Respondents discuss how AI can enhance security through predictive analytics, helping to identify and mitigate potential threats. AI's role in automating security tasks within applications like Microsoft Copilot is particularly noted for maintaining a robust security posture.

5. Skepticism and Uncertainty

Despite the optimism, there is significant skepticism and uncertainty about AI's impact. Some professionals believe AI is still in its infancy with limited practical applications. Concerns about high costs, performance issues, and the technology's current maturity level contribute to this cautious outlook. Many organizations are in a "wait and see" mode, testing AI tools but not yet fully committing.

6. Limited Implementation and Ongoing Evaluation

Some organizations report minimal, or no AI implementation plans, citing reasons such as lack of trust, cost concerns, and unclear benefits. Others are actively evaluating AI technologies like Microsoft Copilot, indicating a growing interest in understanding AI's potential. While full-scale adoption may not be imminent, these evaluations suggest that organizations are preparing for the future.

7. Conclusion: The AI Journey

The integration of AI into the workplace is still evolving. While AI holds significant promise for automating tasks, enhancing security, and personalizing user experiences, many organizations are approaching it with caution. The path forward will require ongoing evaluation and a readiness to adapt as AI technology matures and its potential becomes clearer.

Adapting to VMware and Citrix changes

The recent changes in Citrix and Omnissa / VMware's End-User Computing (EUC) solutions have sparked a diverse range of responses from organizations, highlighting the evolving landscape of Desktop as a Service (DaaS). With VMware's EUC division being acquired by Broadcom and spun off into Omnissa, coupled with strategic shifts at Citrix, many organizations are reevaluating their DaaS strategies to adapt to this changing landscape. Rising costs, uncertain product roadmaps, and concerns over future support and development have prompted some to explore alternative solutions like Microsoft's Windows 365, Azure Virtual Desktop (AVD), Parallels and Dizzion Frame. These organizations are looking to mitigate risks while ensuring their IT strategies remain aligned with long-term business goals.

While some organizations remain committed to their existing infrastructure, others are already transitioning away from traditional vendors, driven by a need for more cost-effective and adaptable solutions. The overall sentiment reflects a critical juncture in the DaaS market, where the balance between cost, innovation, ease of use, flexibility and stability is driving significant strategic shifts across the industry. This period of uncertainty and change underscores the importance of staying agile and informed as organizations navigate the complex and rapidly changing DaaS ecosystem.

However, it's important to note that sentiment doesn't always dictate long-term plans. Despite initial concerns, some organizations have found that these changes align better with their strategic goals, offering opportunities to streamline operations, enhance security, and capitalize on more robust cloud migration options. For these organizations, the shift in the DaaS landscape has not only been manageable but, in some cases, beneficial, paving the way for greater innovation and efficiency.

Thanks!

We would like to thank you for participating, sharing and donating your valuable time to the community, hope to see you back next year!

Christiaan, Dennis, Mark and Ruben