

Smart Desktop Virtualization for the Mobile Workforce

*Survey of IT pros highlights
untapped benefits of VDI and
DaaS in a mobile-first world*



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INTRODUCTION

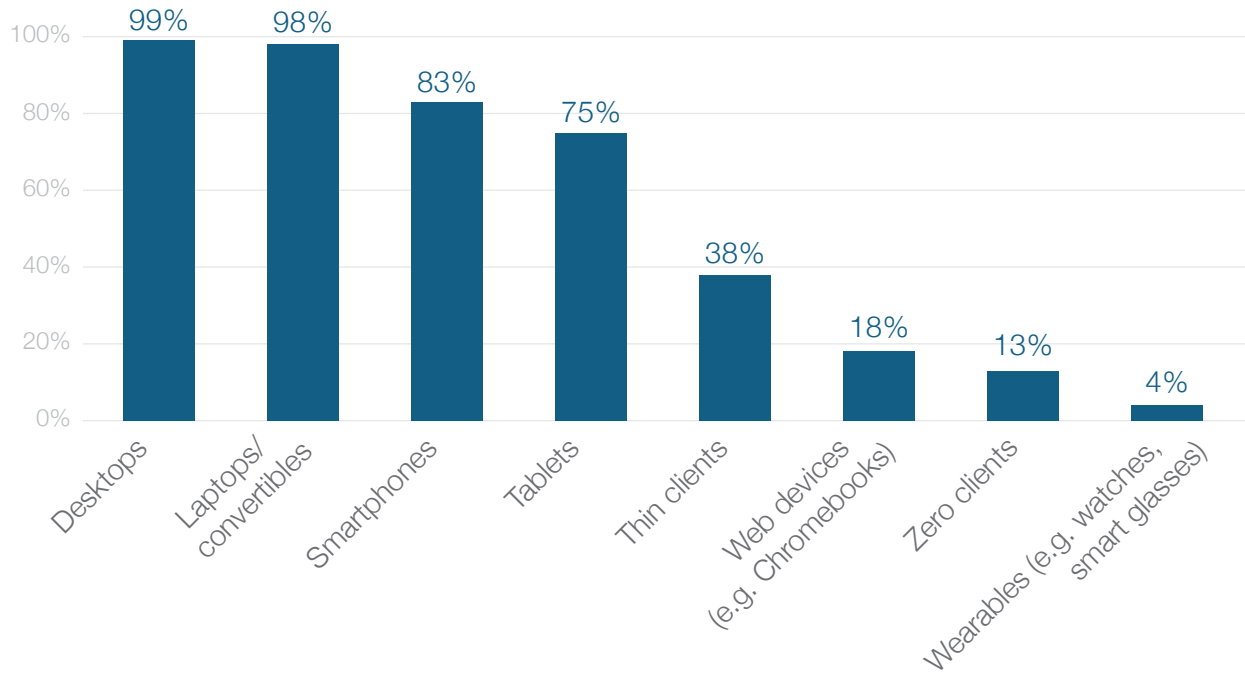
If you're among the IT pros still in the process of exploring desktop virtualization, you're in good company. Spiceworks recently conducted a survey on behalf of Samsung Business, revealing that while the majority of IT pros are familiar with desktop virtualization solutions, relatively few are currently employing them. For example, roughly three-quarters of respondents were familiar with Virtual Desktop Infrastructure (VDI) and application virtualization, and about half were familiar with Desktop as a Service (DaaS). But those numbers drop dramatically when it comes to putting solutions to use. About 30% of IT pros surveyed use application virtualization, while 21% use VDI—and only 7% have adopted DaaS.

Similarly, while nearly all the respondents said their organizations support desktops and laptops as well as smartphones (83%) and tablets (75%), far fewer extended their support for multiple devices to thin clients (38%), zero clients (13%) or web devices (18%).

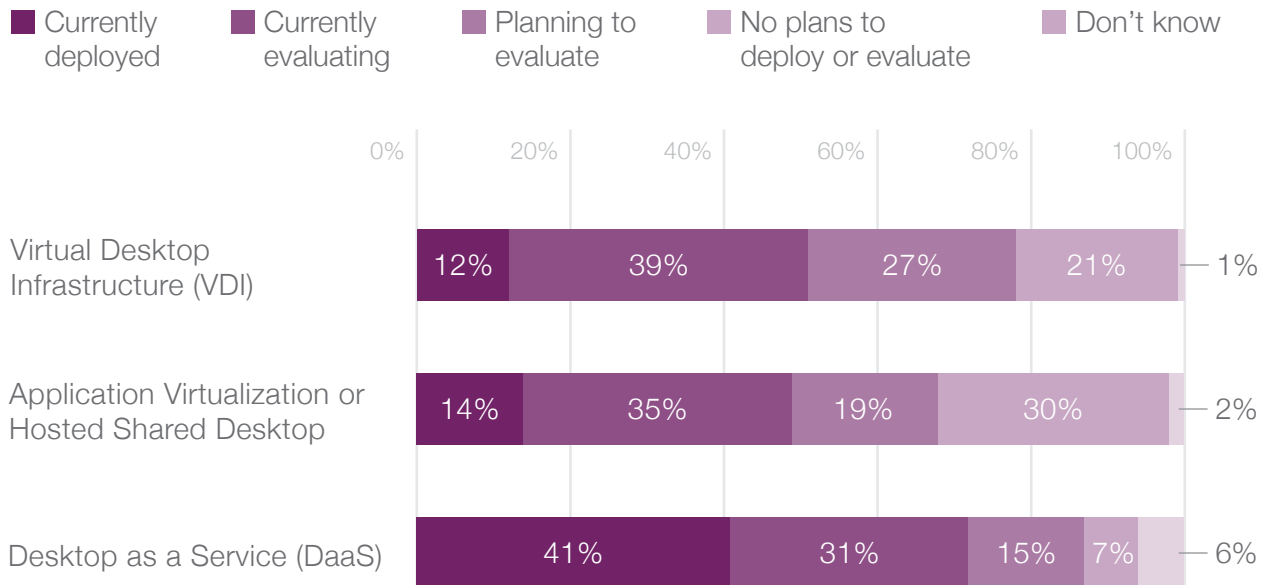
These findings suggest that IT pros may still be learning about the advantages of desktop virtualization and the growing range of endpoint devices available to them. As a result, they may also be missing out on an opportunity to make the most of their resources and provide the best possible mobile experience to their workforces. DaaS, for example, enables organizations to outsource architecture hosting and management, freeing IT from the responsibilities of data storage, backup, security and upgrades.

This white paper takes a look at IT pros' perceptions of the advantages of two virtualization models—VDI and DaaS—as well as some of the barriers that may be preventing wider adoption of these technologies. It also examines how a mix of VDI and DaaS along with the right choice of endpoint devices can help organizations optimize their infrastructure and get the best return on their investment.

Types of Devices Supported



Use of Virtual Solutions



SIMPLIFIED, SECURE MANAGEMENT: VIRTUAL DESKTOP INFRASTRUCTURE

VDI is a form of on-premises server-based computing that takes advantage of hypervisor technology to allow multiple operating systems to share one processor. VDI centralizes user data on a server-side host so users can securely access their own unique virtual session from almost any device in any location—and can change devices as needed without losing their session. Their work is performed and stored on the server; the device itself only processes display information, keystrokes and mouse clicks. In this delivery model, the responsibilities of data storage, back up, security and upgrades are managed on premises by the IT team.

VDI provides full IT visibility, security and control because all data is owned by the organization and stays on premises.

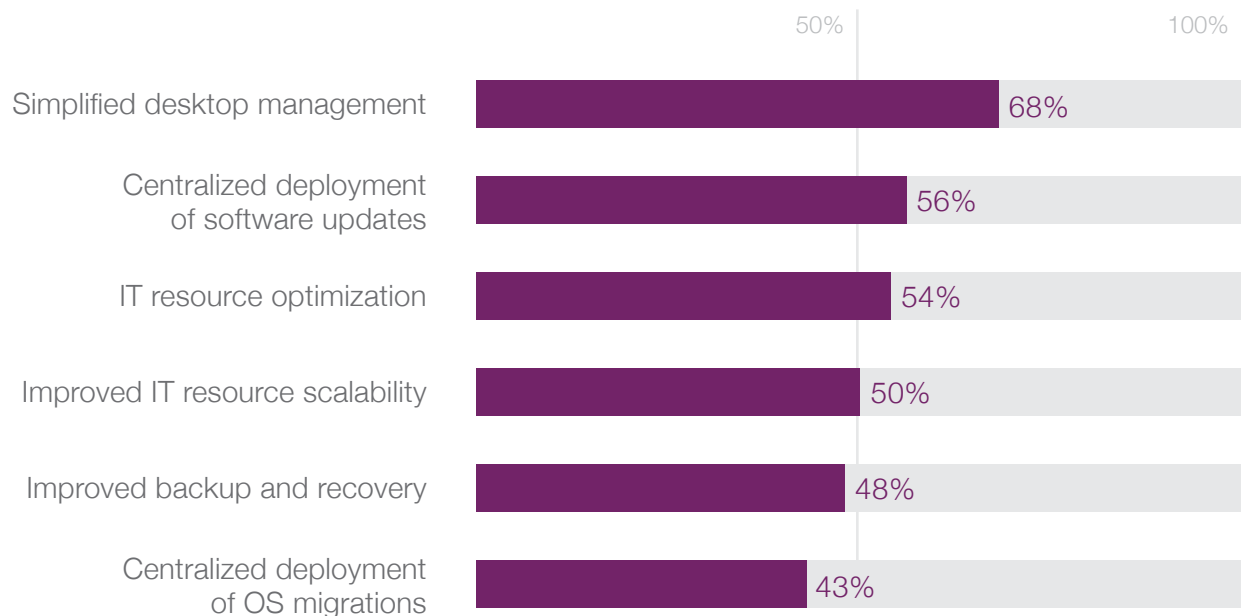


Benefits of VDI

VDI provides a range of practical advantages to hands-on IT pros, and respondents have taken note. IT pros in the Spiceworks survey say top benefits include simplified desktop management (68%), centralized software-update deployment (56%) and better use of IT resources (54%).

VDI also provides full IT visibility, security and control because all data is owned by the organization and stays on premises. On the user end, VDI makes it easy for users to gain quick and easy access to their desktop while moving from device to device, like in the case of a nurse moving from one patient room to the next while badging in to a zero-client display in each room to record vitals. Users can also retain uninterrupted access to their session by taking it with them, for example, a teacher moving around the classroom using a tablet to follow along with a reading assignment.¹

Top VDI Benefits Experienced or Anticipated

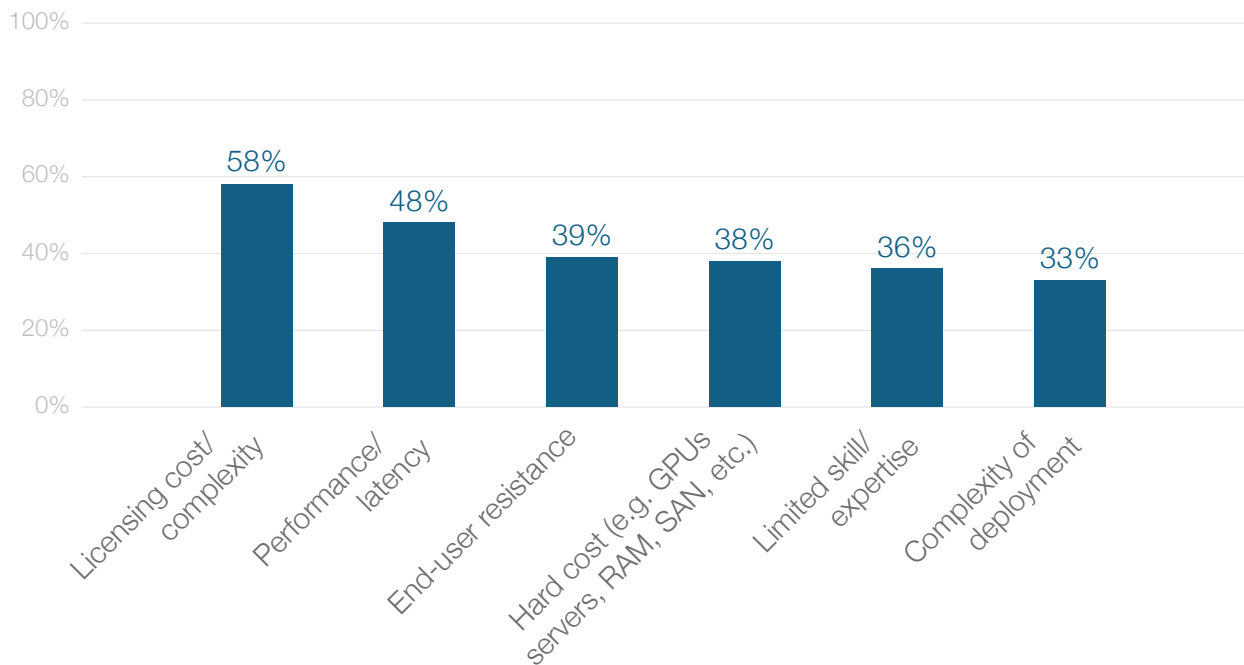




Barriers to VDI

At the same time, since infrastructure is hosted in-house in the VDI model, migration to VDI can mean a costly up-front investment in equipment and software. That infrastructure must then be maintained in-house, and backup and recovery of critical data fall to in-house IT. These two issues can pose significant barriers for SMBs that may have limited budgets or overtaxed staff. IT pros in the survey agreed, naming licensing costs and complexity (58%) and performance/latency (48%) as the top challenges associated with VDI.

Top VDI Challenges Experienced or Anticipated



LOWER COSTS AND EASY DEPLOYMENT: DESKTOP AS A SERVICE (DAAS)

A promising new approach to VDI, Desktop as a Service (DaaS), is lowering some of the barriers to virtualization as well as opening up some interesting options for IT pros. DaaS, also called hosted virtual desktop or hosted desktop services, outsources VDI to a third-party service provider in the cloud. In the DaaS delivery model, the service provider hosts and manages the architecture and assumes the responsibilities of data storage, backup, security and upgrades.

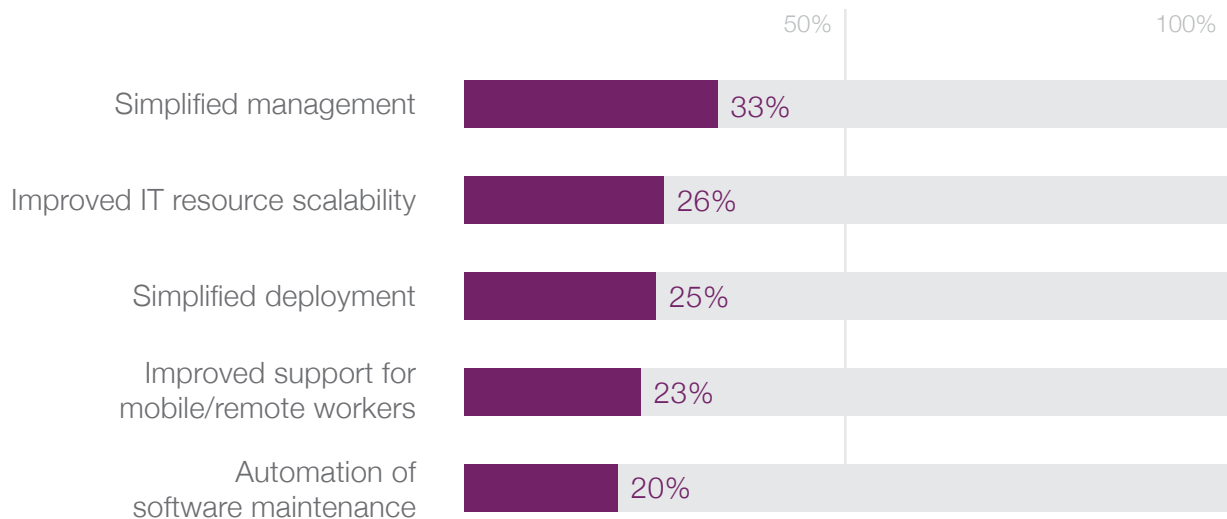
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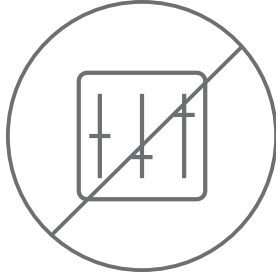


Benefits of DaaS

About a third of IT decision-makers surveyed were unclear on the benefits of DaaS. Those who were familiar with the model listed simplified management as the top benefit (33%). This indicates more education is needed, since DaaS offers almost all of the advantages of VDI—including simplified management—with the added benefit of lowering and spreading out costs. Because DaaS is a subscription-based model, it doesn't require a big initial investment in infrastructure—making the cost of migration to VDI almost entirely opex-based. The subscription model also makes DaaS easier to implement and reduces deployment times. And because server infrastructure is handled by third-party cloud service providers, the DaaS model reduces administrative overhead and frees busy IT pros for other mission-critical tasks.²

Top DaaS Benefits Experienced or Anticipated

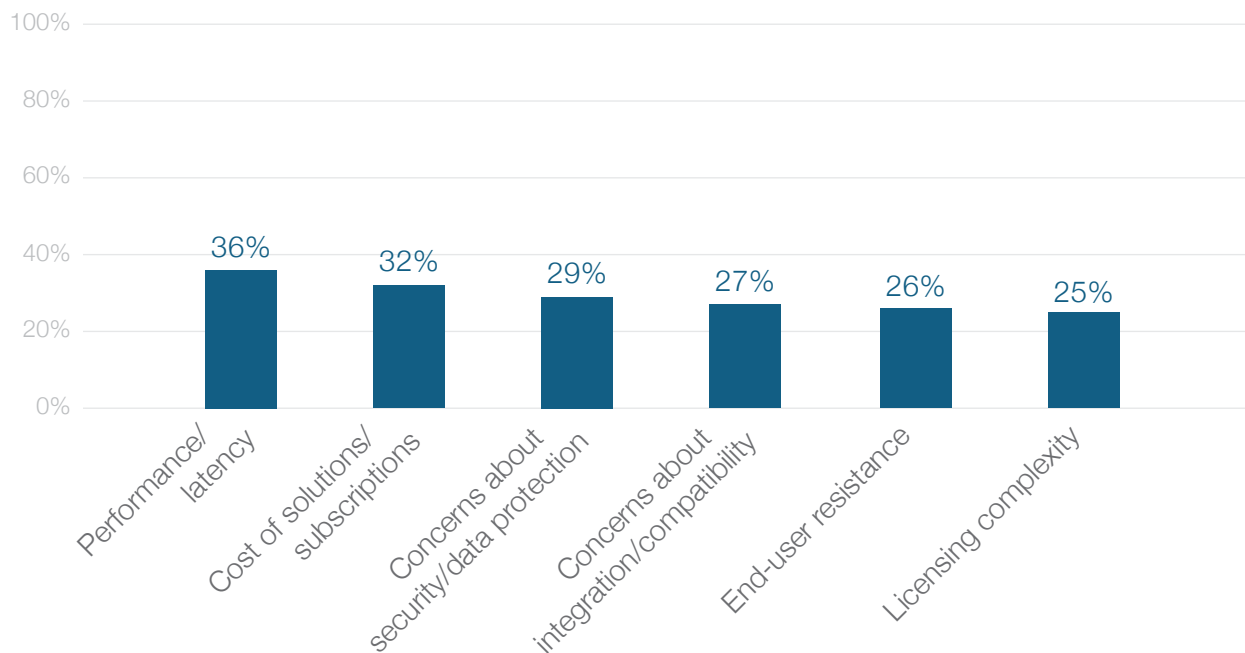




Challenges of DaaS

IT pros also noted the potential challenges that can arise with hosted virtualization. While third-party administration reduces some of the burden on IT, it also means that any sensitive data is in those third-party hands, and that IT is dependent on someone else for administration and security. Not surprisingly, then, survey respondents said they expected to experience issues with DaaS such as performance/latency (36%), cost of solutions/subscriptions (32%) and security (29%).

Top Challenges with DaaS Experienced or Anticipated



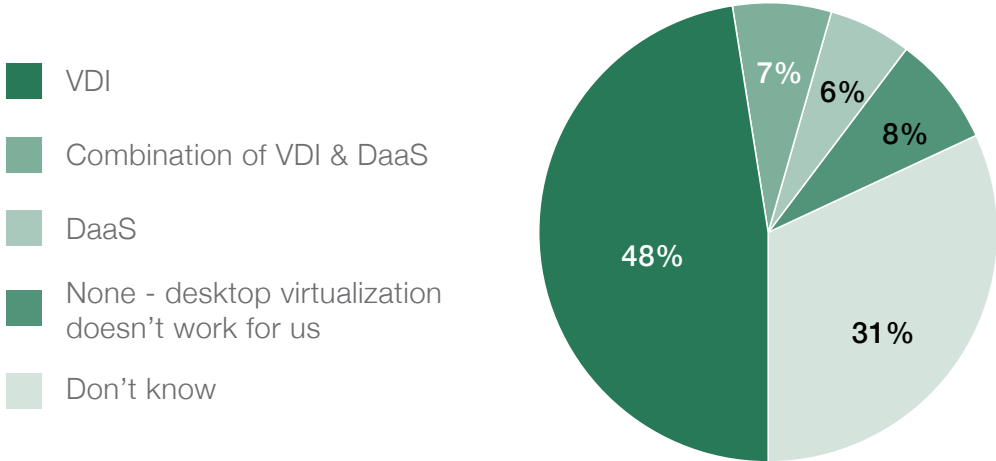
FINDING THE BEST FIT

It's clear that assessing desktop virtualization is still a work in progress for many organizations. While two-thirds of the organizations surveyed have plans to evaluate or are currently evaluating VDI, just under half are currently evaluating or plan to evaluate DaaS. Only 10% of those who have deployed or are currently/planning to evaluate VDI/DaaS have compared the cost differences between the two models, though these differences may be well worth exploring. TechTarget reports that Amazon and VMware offer DaaS solutions beginning at about \$35 per user per month, while Amazon estimates that the equivalent total cost of ownership (TCO) of in-house VDI is about \$100 per user per month.^{3, 4}

Organizations surveyed that preferred VDI (48%) cited in-house control, security and better familiarity. For these reasons, traditional VDI will likely remain the best choice for legal, financial or healthcare institutions entrusted with sensitive personal data and the regulatory burden to match.

But for SMBs with limited budgets and busy IT teams, DaaS is likely the superior option. This model can be implemented alone or in combination with VDI to create a flexible environment that meets both security needs and workforce demands. DaaS gives IT administrators more options, making it possible to get temporary workers or a new population of employees up and running quickly, or to provide a new partner easy access to resources when on premises IT resources are limited. DaaS also makes it possible to outsource the management of remote user populations when in-house resources are simply stretched too thin.

Preferred Desktop Virtualization Solution for Their Organization

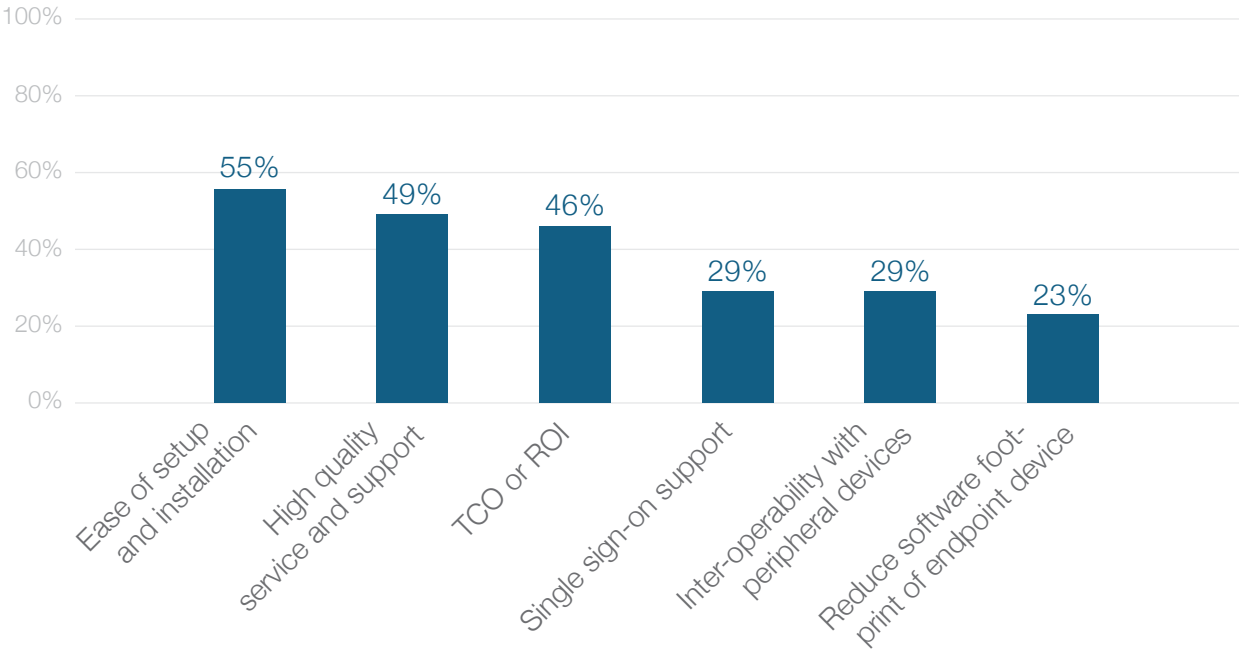


USING MULTIPLE ENDPOINT DEVICES

Because VDI and DaaS provide a consistent remote desktop session, one of the biggest benefits of both models is that business users can choose from a much broader range of devices in the course of the workday. IT pros in the survey said the top three factors they consider when evaluating devices for their organizations are ease of setup and installation (55%), quality of service and support (49%) and total cost/return on investment (46%).

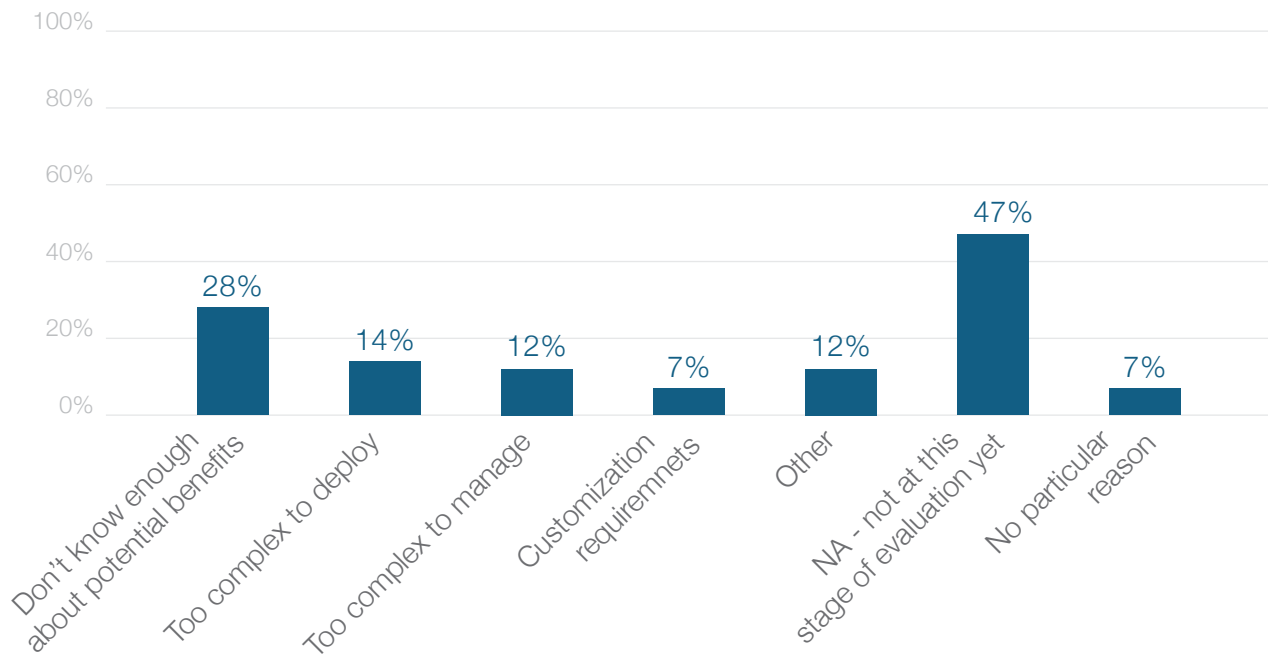
About half of the organizations using or considering VDI or DaaS are not yet at the stage of evaluating devices. But those who are reported considering a combination of thin or zero clients, tablets and smartphones to optimize access to VDI or DaaS. IT pros in these organizations clearly recognize the potential benefits of using a range of devices, most notably centralized software maintenance (68%) and less or no need for client-side administration (66%).

Important Factors for Evaluating a Device for Desktop Virtualization



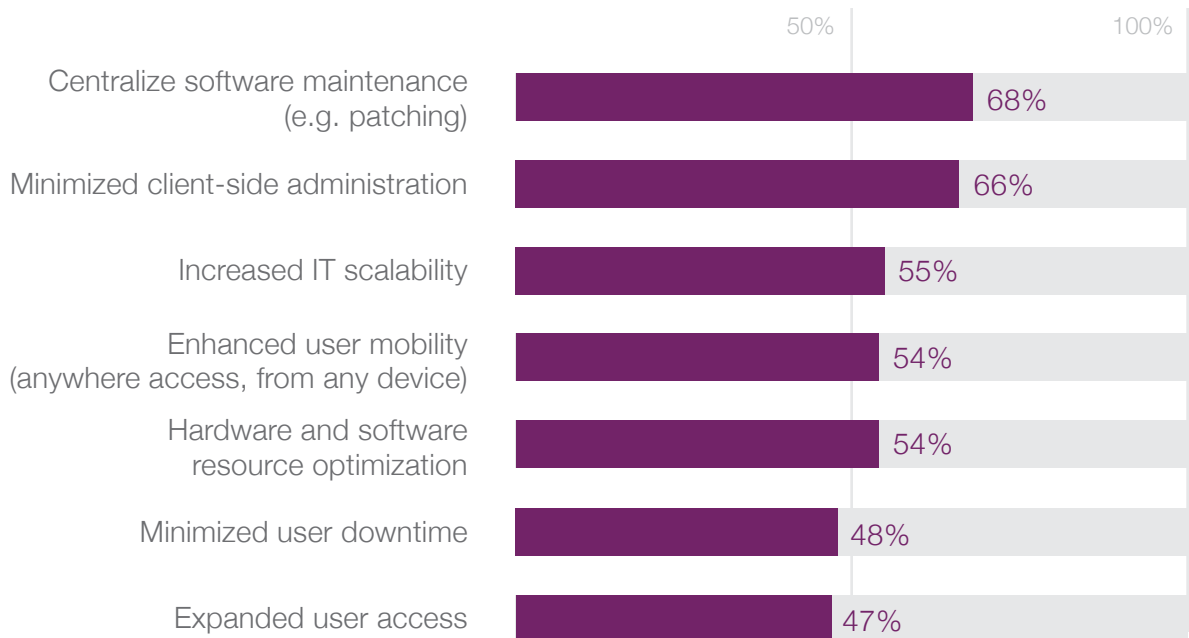
Reasons for Not Considering Multiple Devices

Asked of those who have not considered a combination of thin/zero clients, tablets and smartphones to optimize access to VDI or DaaS



Top Benefits of Using Multiple Devices

Asked of those who have considered a combination of thin/zero clients, tablets and smartphones to optimize access to VDI or DaaS



*By considering a DaaS solution along with VDI...
IT pros can pave the way to lower costs, better use
of in-house resources, and greater productivity...*

ENDPOINT SOLUTIONS FROM SAMSUNG

Samsung Business empowers IT pros to take full advantage of the benefits of VDI and DaaS, and offers business users a seamless experience like no other—powered by a full portfolio of endpoint devices.

- Samsung zero-client displays, stands and desktops—Purpose-built, secure desktops for VDI/DaaS with no OS, no attack surface and no client-side administration
- Samsung Galaxy tablets—Productivity and connectivity for the business user
- Samsung Galaxy smartphones—Access to business-critical apps in the office or on the go
- Samsung KNOX™—Hardware-level, OS-level and application-level security for mobile devices using VDI/DaaS

CONCLUSION

The virtual landscape is changing fast, and recent investments by Google, VMware, Amazon and HP in enterprise-level hosted desktop solutions will soon mean even greater benefits for IT pros, organizations and business users who choose DaaS. By considering a DaaS solution along with VDI and carefully selecting the right mix of endpoint devices, IT pros can pave the way to lower costs, better use of in-house resources, and greater productivity and flexibility for their organizations.

ABOUT SAMSUNG BUSINESS

As a global leader in enterprise mobility and information technology, Samsung Business provides a diverse portfolio of enterprise technologies including smartphones, wearables, tablets, digital displays, hospitality TVs, zero clients, printers and medical diagnostic equipment. We are committed to putting the business customer at the core of everything we do by delivering comprehensive products, solutions and services across diverse industries including retail, healthcare, hospitality, education and government. Samsung Business is committed to helping customers realize the promise of a digital business. For more information, please visit samsung.com/business, call 1-866-SAM-4BIZ or follow Samsung Business via Twitter: @SamsungBizUSA.

ABOUT THE SURVEY

Samsung commissioned Spiceworks to conduct an online survey in March 2015 to identify current practices and perceptions around VDI/DaaS. A total of 151 interviews were collected in the US from IT pros who are familiar with VDI/DaaS and have influence over mobility solutions for their companies. Of these, 42% came from organizations with fewer than 100 employees. Another 41% came from organizations with 100 to 499 employees, and 17% came from organizations with 500 or more employees.

References

¹ "Desktop Virtualization Trends at Gartner Data Center," *Gartner*, December 2012.

<http://blogs.gartner.com/chris-wolf/2012/12/10/desktop-virtualization-trends-at-gartner-data-center>

² "Why Desktop-as-a-Service will succeed where VDI failed," *techradar.pro*, March 2014.

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³ "A DaaS market pricing comparison," *TechTarget*, December 2013.

<http://searchvirtualdesktop.techtarget.com/tip/A-DaaS-market-cost-comparison>

⁴ "Top 3 Desktop as a Service (DaaS) Providers Compared," *Tom's IT Pro*, December 2014.

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