

DEVICE AS A SERVICE AND THE DIGITAL WORKSPACE

When treated as an end-to-end deployment model, DaaS can help organizations to simplify hardware management and give workers the tools they need.

EXECUTIVE SUMMARY

The digital workspace has emerged in recent years as a way to keep employees connected, productive and secure — no matter where in the world they are working.

Applications, content, back-end infrastructure and cloud resources all support the digital workspace, but end-user devices remain at the center of it all. Knowledge workers require the right smartphones, tablets and laptops to access the resources they need to thrive in their roles and create value for the enterprise. But as the number of device types and user roles have proliferated, the task of deploying and managing employee devices has grown more complex.

A number of organizations are turning toward a Device as a Service (DaaS) model, not only to help them get the right tools in their users' hands, but also to streamline device management and improve cost predictability.

While some DaaS offerings are merely dressed-up hardware leasing programs, a more robust version of the model can help organizations to define user roles, configure devices, manage hardware and even dispose of devices when they reach their end of life. With the help of a DaaS partner, organizations can lower their total cost of ownership, reduce the burden on IT staff and improve employee productivity.

The Evolution of Work and the Digital Workspace

Largely due to the rise of the smartphone (and the accompanying boom in wireless infrastructure), the workplace has changed dramatically over the past decade. In fact, it's not really a place at all anymore. For most knowledge workers, mobile devices and apps have replaced the physical office as the setting where they conduct the bulk of their business. With a laptop and a strong, secure internet connection, many professionals today are just as productive in an airport lounge or a hotel room as they are at their companies' headquarters.

The digital workspace, which provides users with access to the systems and tools that they need, regardless of the device they're using or their location, has emerged as a solution to accommodate this shift.

Elements of a Digital Workspace

▪ **Collaboration platforms:** With employees constantly on the go (and some working entirely remotely), it's essential that they have ready access to collaboration tools that keep them connected. Typically, these tools take the form of cloud software suites (such as Google G Suite, Microsoft Office 365 or Cisco Systems Webex Teams) that wrap a number of different applications into a single platform. Cloud-based tools help support true mobility and flexibility, as they eliminate the need for employees to use sometimes-clunky VPN connections to access resources. And by tying tools such as email, calendar, instant messaging, file-sharing and even video collaboration into a common platform, organizations can ensure that employees have the functionality they need without having to constantly switch between and sign on to different applications.

▪ **Mobile devices:** For employees to access content and applications from wherever they are, they need to have the right mix of devices at their disposal. Many users require more than one device. While a warehouse employee might be able to get by with just a tablet that allows the scanning of QR codes and inputting of information on a few specific templates, many knowledge workers need at least a smartphone and a laptop to be productive on the go. As the range of devices (and the number of ways employees use them) has expanded over time, it's become an increasingly complicated and frustrating task to equip workers with the right hardware and then manage those devices on an ongoing basis. This absolute need to put the right machines in users' hands, coupled with the difficulty of managing a complex device environment, is a large part of what's driving the movement toward DaaS.

- **Communication solutions:** Although employees can use the cameras and microphones on their mobile devices to communicate when they're on the go, many organizations find that sophisticated videoconferencing solutions at the office can improve the productivity of meetings and boost employee engagement.
- **Security and management:** The names keep changing: First came mobile device management and then enterprise mobility management. Today, the talk focuses on unified endpoint management, or UEM. But throughout each iteration, what's remained true is that organizations must maintain visibility into and control over employee devices and applications. Effective management solutions don't only boost security (via features such as remote wipe capabilities), but they also allow IT shops to remotely push out applications, operating system updates or desktop images to many users at once — vastly improving efficiency.

Digital Workspace: Benefits and Challenges

The good: When workers are untethered from their desks, they gain not only flexibility but also productivity. For

example, if a user has to stay at home to tend to a sick child, he or she is still able to do the job almost as if sitting at a desk in the office. This increased flexibility can also lead to increased worker satisfaction. If an employee is able to extend a family vacation by a couple of days by working remotely, for instance, he or she may experience a perceived quality-of-life boost, even when working the same number of overall hours. And when employees feel that a company trusts them to be productive even outside the office, they often feel empowered and do better work as a result.

The difficult: The rise of the digital workspace has increased pressure on IT departments. Users want to work on multiple devices — both

personal and work-issued — and these devices all have to work together seamlessly. Further, with employees accessing corporate data on mobile devices around the world, IT teams can no longer ensure security simply by enforcing a physical perimeter. Finally, organizations must invest in substantial infrastructure to support digital workspace initiatives, and must find ways to procure, configure, deploy and manage employee devices in a cost-effective manner. These solutions should be refreshed on a three-year cycle to ensure that users have the tools necessary to do their jobs. Moreover, adopting a platform such as Microsoft Windows 10 delivers digital workspace capabilities in a comprehensive package.

The bottom line: The world has gone mobile, and it's not going back. To stay competitive in their industries,

1 in 3

The number of commercial PCs shipped in the U.S. that will be part of a DaaS agreement by 2020 — up from only 2 percent in 2016¹

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boost productivity and attract and retain talented employees, organizations simply must support anytime, anywhere work. The question they must answer is: How?

Meet Device as a Service

Users need devices, so organizations should put devices in the hands of employees.

The Importance of an Excellent User Experience

DaaS and the digital workplace have the potential to not only make employees more productive, but more satisfied as well. To achieve these benefits, organizations must get the user experience right.

In a white paper titled "The Impact of the Digital Workforce," Forbes Insights found substantial differences between "traditional workspaces" (organizations that do not, in the opinions of end users, provide employees with the technology they need to do their jobs effectively) and digital workspaces that provide anytime, anywhere support for apps and devices.

- **63 percent** of digital workspace employees say business apps have increased their productivity, compared with 14 percent of those in the traditional workspace.
- In the digital workspace, **58 percent** of employees say apps have improved collaboration across different regions, compared with just 9 percent of traditional workspace employees.
- **69 percent** of digital workspace workers say employee apps are "very important" in recruiting new talent. Only 30 percent of traditional workspace employees say the same.
- In the digital workspace, **62 percent** of employees say that business apps are "very important" to increasing the overall efficiency of the business, compared with just 8 percent in the traditional workspace.

Technologically savvy users, often Generation X and millennials, expect the digital workspace to provide an excellent user experience. Workplaces that deliver this experience give themselves an advantage in recruiting and retaining top talent.



This seems simple, but it's not.

As the range of potential devices has widened, organizations face more questions than ever before about what to buy, how to manage and maintain a number of different machines and when to refresh their hardware. Gone are the days when everybody received an identical Windows laptop or BlackBerry phone. Just look at notebook computers: Organizations now have options ranging from inexpensive Chromebooks to light weight, powerful machines that can cost several thousand dollars. In the past, organizations often simply gave the more expensive devices to executives, while outfitting rank-and-file users with less costly machines.

Today, though, organizations need to be more strategic. They can no longer treat laptops and smartphones as status symbols, but instead must develop user "personas" to match employees with the devices that will best help them do their jobs. It can be challenging to get this right, especially as both endpoints and user roles continue to evolve.

Pair this upfront obstacle with the ongoing challenges of configuring and managing devices (not to mention retiring them at the end of their useful life and planning out the finances of regular refreshes) and it's obvious why even sophisticated IT shops commonly struggle with their device environments. And it's no wonder why enterprises are increasingly turning to DaaS programs to solve this problem.

While the term Device as a Service is sometimes used merely as another way to refer to device leasing contracts, a more robust DaaS engagement can deliver — and improve — every part of the process of deploying and managing devices.

It's true that the move of device procurement to a financing model does make costs more predictable, but this is only one of the advantages of DaaS. Some of the most attractive benefits of the model include:

- **Flexible device selection:** With vendor-specific leasing programs, device options are limited. In fact, an organization might have to partner with two or more vendors to obtain the range of devices that users need, which can increase complexity, rather than introducing simplicity. In an end-to-end, vendor-agnostic engagement, a DaaS partner will be able to connect an organization with virtually any device that workers need (and desire). This flexibility not only improves productivity by ensuring that users have the right devices, but can also boost employee satisfaction.
- **Faster, simpler deployments:** An influx of devices can overwhelm IT staffers, who can't simply stop performing

their day-to-day duties to get devices ready to go. By taking deployment out of the hands of IT staff, organizations can speed up their device rollouts, without hampering other IT initiatives.

- **Configuration services:** Much as the public cloud has allowed IT shops to instantly spin up infrastructure resources, a DaaS partner can get devices ready to go without requiring hands-on work from internal IT professionals. While the process is different from that of procuring cloud infrastructure, the outcome is identical: An organization has the resources it needs, ready to go, without IT shops having to manually prepare hardware to run within the organization.
- **Lower total cost of ownership:** By procuring devices, security services and ongoing management from a single partner, organizations can lower the total cost of ownership for devices.
- **Reduced IT burden:** There's an enormous opportunity cost to using highly paid IT professionals for the (often routine) work of configuring and managing end-user devices. Every hour that an IT staffer spends loading apps onto a smartphone or fixing a laptop keyboard is an hour that he or she could otherwise spend pursuing an organization's digital transformation goals. A DaaS engagement frees up IT professionals for more strategic projects.
- **24/7 multichannel support:** The entire reason that the digital workspace (and, by extension, DaaS) is so important is that

Three Ways DaaS Boosts Security

As employees increasingly access corporate data and applications from afar, the physical perimeter provides less protection from cybersecurity threats. Many organizations have struggled to implement security tools and practices across a wide range of employee endpoints, but DaaS engagements can help improve security in several ways.

Updated devices: DaaS programs provide regular device refreshes. This means that employees won't be using older hardware that lacks advanced security protections. For example, biometric authentication now comes standard on many devices.

Enterprise control: To accommodate employee choice, many organizations have implemented BYOD programs. However, enterprise IT shops often lack adequate visibility and control over these employee-owned devices, making it difficult to ensure security. DaaS puts the organization back in charge.

Proper management tools: An end-to-end DaaS engagement will include unified endpoint management tools that give organizations advanced security capabilities. For example, if an employee leaves behind a laptop or a smartphone at an airport, UEM tools allow the organization to remotely lock the device or wipe corporate data, ensuring that sensitive or proprietary information doesn't fall into the wrong hands.



DaaS Drivers

In a survey, IDC asked IT decision-makers about the major benefits of the DaaS model. The results:²

Reduces workload for IT	40%
Lower device procurement cost	30%
Predictable cost model	28%
Benefits of single sourcing	23%
Offloads device management to a third party	23%

employees need the tools to power anytime, anywhere productivity. And that sort of around-the-world, around-the-clock work is impossible if employees have to wait until 9 a.m. Eastern Standard Time for the help desk to answer their calls. A DaaS partner can provide 24/7 support, ensuring that users can get their work done, wherever (and whenever) they are.

- **Warranty support:** A DaaS partner will wade through the cumbersome processes of managing device warranties on an organization's behalf, taking yet another task off the plate of managers and IT staff.
- **End of life:** Many organizations have storage closets or spare rooms that effectively serve as device graveyards, where old laptops collect dust. No more. When an organization has moved on from a device, a DaaS partner will recycle or refurbish any outdated technology responsibly.

DaaS Meets the Digital Workspace

For a time, it seemed as though some organizations were hoping that the digital workspace would sort itself out, waiting for industries to standardize on a certain device type. That hasn't happened. Instead, organizations have more choices to make every year, and those decisions help to determine how productive and efficient employees (and, by extension, the enterprise) can be. While there's something empowering about a company being able to determine its own workflows and processes, the responsibility of actually managing a digital workspace can quickly become overwhelming.

Although device and app standardization has remained elusive, the DaaS model has emerged to help organizations manage the challenges of the digital workspace.

CHALLENGE: Providing the Right Device and Apps to Every User

How DaaS Helps: An end-to-end DaaS partner can guide an organization in an evaluation of its unique environment, then develop user personas that help to determine which employees need access to which types of devices. This process not only ensures that workers will have the tools they need to be productive, but can also prevent overspending.

A DaaS partner can help an organization set up an employee-facing self-service portal to modify hosted apps and desktop services. This not only gets apps into users' hands more quickly, but also drastically cuts down on the amount of time that IT workers need to devote to the routine task of provisioning mobile apps. To prevent costly licensed apps from sitting unused on employee devices, IT shops can create different levels of access according to user type and can then override those policies in special circumstances.

CHALLENGE: Device Refresh Cycles

How DaaS Helps: It may be a stretch to say that easing device refreshes is the *entire* reason some organizations opt for a DaaS engagement, but it's certainly one of the most attractive benefits. Because regular device refreshes are a central component of DaaS, IT and business leaders never need to worry that employees will be working on older devices that are slow, clunky and less secure than more modern machines. Constant access to the latest devices not only increases workers' productivity, but also boosts employee satisfaction.

Ensuring Employee Adoption

DaaS and the digital workspace can improve employee productivity and collaboration only if workers actually use their devices and apps, rather than reverting to old ways of doing things. (According to [some estimates](#), nearly 80 percent of enterprise apps are abandoned after their first use.) Organizations should take these steps to ensure adoption of new tools:

Gather user input: By surveying or interviewing employees early on, organizations can better meet their needs and build buy-in.

Make access easy: Employees may stop using an app if they need to authenticate their identity every time they want to use it. Single sign-on is a must.

Train employees: Workers will be far more likely to use a new app if they understand how it can help them do their jobs better and more efficiently.

Provide ongoing support: When employees run into a technical issue with an app or device, they need immediate access to help desk services that will solve the problem and get them back to work.



CHALLENGE: Managing Numerous Disparate Devices, Data and Apps

How DaaS Helps: Simply put, internal IT staffers are too valuable to the enterprise to spend significant amounts of time fixing broken hardware and troubleshooting basic device issues. And when an organization deploys dozens of different device types to different users, IT staffers may not even have the knowledge necessary to provide excellent user support. A DaaS engagement allows organizations to offload day-to-day device management, freeing up internal staffers for larger strategic projects.

It's no wonder why many organizations have resisted mobility and the digital workspace. The idea of sensitive or proprietary corporate data being accessed from around the world was once unthinkable and remains a challenging concept for many security officers. A DaaS partner can provide UEM tools that provide powerful management and security features, such as the ability to remotely wipe data from devices. UEM tools offer a consolidated platform to manage not only different types of notebook computers and mobile devices, but also potentially Internet of Things devices such as smart speakers.

CHALLENGE: Securely Enabling User Access and Keeping Up with Changing Roles

How DaaS Helps: Advanced identity and access management solutions allow users to securely authenticate their identity to access apps and tools, without inhibiting productivity. These IAM solutions can be tied into UEM tools and self-service portals to create a more customized user experience, building off existing user personas. Inefficient IAM tools and procedures (such as those that require employees to sign on separately for every app) can waste time and unintentionally incentivize employees to find less secure workarounds.

Further, both devices and user roles continuously evolve. A DaaS partner can monitor device analytics, helping organizations to optimize device use, improve the user experience and inform the next round of device refreshes.

CHALLENGE: Financing Device Refreshes

How DaaS Helps: Planning out a large capital outlay to finance an enterprisewide refresh is such a challenge that many organizations put it off until devices are hopelessly out of date. DaaS programs allow organizations to shift their financing model for devices from a capital expenditure to an operational expenditure, turning end-user hardware into a predictable, affordable monthly expense.

Delivering the Digital Workspace

To deliver the devices your users demand in a digital workspace, you need IT orchestration by CDW.

Rapid advances in mobile technology and real-time collaboration are helping workers get more done in more places. The possibilities of the new digital workspace are endless, but it takes a detailed plan and the right partners to achieve a more productive and secure workforce. CDW offers two levels of service for organizations as they begin their DaaS journeys:

Quickstart Assessment: In this engagement, CDW's solution architects evaluate an organization's end-user experience in several areas, including device, app and data access, networking, security and support. After analyzing the results of this assessment, experts deliver recommendations to optimize the device environment.

Roadmap Workshop: This more robust program includes an analysis of factors that affect end-user experiences, in-depth roundtables, evaluation of readiness for hardware upgrades and virtualization, and an analysis of the potential return on computing investments using real end-user data. After the workshop, business and IT leaders will be equipped to make better-informed technology choices, understand the options available to create a better user experience, prioritize next steps and create a comprehensive DaaS plan.

CDW's solutions and services can help you connect seamlessly for greater efficiency and productivity. To learn more, visit CDW.com/DigitalWorkspace.

Want to learn more about how advanced technologies can modernize your workplace? Download "[The Modern Workforce Insight Report](#)" by CDW.

The CDW Approach



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Evaluate business objectives, technology environments, and processes; identify opportunities for performance improvements and cost savings.



DESIGN

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