



The Evolution of Workforce Mobility in the Time of COVID-19 and Beyond

White Paper | Parallels Remote Application Server

Executive Summary

Organizations around the world were ill-prepared for the large-scale health crisis that COVID-19 created. Businesses have had to navigate the financial and operational challenges the pandemic presented while ensuring the well-being of their employees. In this white paper, we discuss how workforce mobility, coupled with technology solutions, can help companies better adapt to the challenges of the current pandemic while equipping them to handle similar work disruptions in the future.

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Introduction

To say that COVID-19 was, and continues to be, an unprecedented global crisis is a gross understatement. Its sudden onset caused a major disruption in the day-to-day affairs of governments and businesses, leaving some of them with considerable challenges to address. For many countries, mandated lockdowns and quarantines have been the main option to contain the rapid spread of the virus. For companies, this meant circumventing conventional methods of doing business. Among the most significant and abrupt changes made were to the everyday working habits of their employees.

The New Normal: A Transformation of the Workplace

With significant segments of the workforce having to stay home due to quarantine measures, businesses had to rethink the “where” and “how” of work. Remote working arrangements were immediately put in place, using technologies that simplified virtual communication and collaboration among colleagues and between employers and employees. Both enterprises and individuals had to adapt to the emerging new normal—and fast.

Now, nearly a year after the initial virus outbreak, we find the end of the pandemic still presenting as a moving target. Though we’re anticipating some semblance of pre-outbreak normalcy with the introduction of the COVID-19 vaccine, possibilities of other calamities of similar or even greater magnitude persist.

To help minimize potential disruptions stemming from similar events in the future, organizations need to develop a sound business continuity plan to serve as a blueprint for continued operational efficiency amid a pandemic or similar crisis. This plan should ensure that employees can still perform their day-to-day tasks without compromising their health and safety.

While remote working was a readily available option that some companies had already begun implementing pre-pandemic, the outbreak accelerated the adoption of this model over the past year. Now companies recognize that remote work is something they should seriously consider as a permanent or semi-permanent arrangement. This is because many employees are finding the current setup a welcome one and would prefer to continue working remotely either full-time or at least for several days a week, even in the post-COVID-19 era.

Fortunately, the digital age we now live in has made it possible to create sustainable long-term remote work arrangements. As the availability of modern technology solutions increases, the traditional four walls of the corporate world will blur into the background, giving rise to a more modern strategy that promotes business agility and resilience: workforce mobility.

Workforce Mobility and the Future of Work

What Is Workforce Mobility?

Workforce mobility is a business approach used by organizations to offer their employees the benefit of working remotely, meaning, workers do not have to live near or commute to the office. In the time before COVID-19, when schools and businesses could freely operate and people could pop in and out without restriction, workforce mobility served as the right strategy to help employees achieve a more ideal work-life balance. It also provides companies with the flexibility to hire talent from anywhere in the world (to the extent that the local laws in the jurisdictions where such companies operate, and, where such talent is based allow that).

Pre-pandemic, remote working arrangements were already adopted to some degree in many companies. A remote work model caters to the work preferences of different generations and can be executed effectively due to technology

advances, which now enable people across industries to perform complex tasks on commonly used and owned devices, such as tablets and smartphones. The health risks brought on by the current pandemic simply propelled workforce mobility further and faster along its natural trajectory.

Mobility Benefits That Empower a Future-proofed Workforce

The growing phenomenon of workforce mobility creates numerous advantages for both enterprises and employees. The most significant benefits include:

Increased productivity: While it may seem counterintuitive to have employees working from wherever they want in order to improve their performance, [recent studies](#) show that remote work in fact boosts productivity for many. Employees are relieved of the stress from long daily commutes, which helps maximize their performance during the hours they spend working. They're also able to take more frequent, albeit shorter, breaks such as short walks—which [studies show can help boost creativity](#)—helping them to decompress and resume tasks with increased focus.

Capability to hire talent from 'anywhere': An open job position that is not demarcated by any geographical boundaries or restricted by local laws in any way is bound to attract a wider pool of candidates. When evaluating or interviewing potential hires, the focus can solely be on their qualifications, work history and suitability for the post, rather than having to factor in their proximity to the office. This puts businesses in a better position to successfully recruit the talent they need while also opening the door for more diverse workforces, which [studies show are better performing and more innovative](#).

Promotes smart working: The concept of smart working aims to take telecommuting to another level by providing employees with the right tools that enable them to work productively and effectively on their own. [One definition](#) describes smart working as organizing work in a way that “aims to drive greater efficiency and effectiveness” by using “practices, technologies, and working environments.” Smart working is closely related to remote working but focuses on two key ideas—a more cost-effective way of working and the use of technology.

When mobile employees work smart, they can optimize spaces and working hours so that no time or opportunity is wasted. They could be sitting in an airport lounge or waiting for their coffee order and easily access business apps to stay updated on daily tasks. This strategy is further enabled by the increasingly popular bring your own device (BYOD) policies many companies are adopting that permit employees to use their personal devices for work-related tasks.

Upskilled and reskilled workforce: With mobile workforces becoming more commonplace, providing employees with the opportunity to upgrade their skills should form part of every company's workforce mobility strategy. In the past, upskilling was typically initiated while staff were reporting to a central office. But given the availability of online resources, there is no reason why employees can't improve their skills while working remotely. Encouraging employees to set aside time for workplace-related training courses during their paid hours only adds to their skillset. It also cultivates a learning mindset that prepares them for an increased demand on their skills and knowledge in a constantly changing work environment.

Lower employee turnover: The number of mobile workers rose significantly over the past year, which isn't surprising given the lockdown restrictions. But what may be unexpected is that most of these employees [no longer want to return to the traditional way of working](#), preferring to maintain some form of flexible arrangement. They want to have choices in where they live and work, and they find that remote working gives them the best opportunity to maintain a healthy work-life balance. When employees find enjoyment in their work, they are more content and stay longer in your organization.

Tools and Solutions for the Mobile Workforce

There are many technology tools and solutions on the market that can help workforce mobility efforts be successful. They include:

Samsung DeX

Tech giant Samsung responded to the flourishing work-from-anywhere market by offering a device that enables users to transform their Samsung Galaxy into a PC-like workhorse. Samsung Dex is a handheld device that connects certain Samsung devices including the Galaxy S8, Note 8 and their newer counterparts to an external monitor or TV. It enables users to perform tasks by simply using a single endpoint device—the Samsung Galaxy—to get a desktop-like experience courtesy of much larger screen real estate.

The most recent version of Samsung's productivity solution now introduces the Wireless DeX. As its name implies, it allows the user to cast to the big screen wirelessly using the latest devices—the Galaxy Note 20, Note 20 Ultra, and the Galaxy Z Fold2, to a TV or display monitor that supports Miracast. Removing the need for a separate device and an additional cable, this makes it even easier for the remote employee to work away from their laptop or desktop. Clearly, Samsung DeX was designed as a solution with the mobile workforce in mind.

Google Chromebook

The Google Chromebook is another one that has shot up to the top of the list when it comes to devices that are sought-after in this era of remote working and distance learning. It's easy to see why: the low price (generally speaking), portability and excellent battery life are big draws for those looking for a value-for-money device. With a total of [20 million Chromebooks expected to have shipped in 2020](#), many of these have likely landed in the hands of students in the education market.

Bluetooth-enabled accessories

Bluetooth wireless technology is making it easier for employees to work smarter and more efficiently outside the office. Bluetooth-enabled accessories such as headphones, mice, trackpads and keyboards are great additions to a remote worker's stash of must-have mobile working tools. The elimination of wires and cables from the work area leaves it clutter-free and offers maximum portability when working remotely.

Virtual Desktop Infrastructure (VDI)

VDI is a technological solution where virtual desktops and applications are hosted in a central location, such as a data center or a public cloud, and then delivered remotely to endpoint devices such as laptops, PCs, smartphones, tablets, thin clients and Chromebooks. Because of its centralized architecture, VDI greatly simplifies various IT processes crucial to supporting mobile workforce environments. These include enforcing security policies, patching, deploying desktops and applications, troubleshooting OS and applications and more.

Note: In this white paper, we use "VDI" as an all-encompassing term that includes VDI, Remote PC, RDSH and other similar technologies, which are defined below:

Remote PC: A remote PC can be a regular physical desktop computer in the office, or a dedicated physical desktop hosted in a data center that's accessed remotely from an endpoint device. This functionality can come in handy when remote workers need to access files and applications on their office computers, but they happen to be at home or in another offsite location.

RDSH: Remote Desktop Session Host or RDSH is a component of Windows Remote Desktop Services (RDS) that provides session-based resource sharing so users can access desktops and applications simultaneously from a single instance of Windows Server. Since multiple desktops (and consequently, users) share a single virtual machine (VM), fewer resources (e.g., CPU, memory and storage) are consumed per desktop than pure VDI.

VDI: In contrast to RDSH, pure VDI assigns each desktop to a single VM. This allows each desktop (and consequently, the user of that desktop) to consume all the CPU, RAM and storage resources allocated to that VM instead of sharing it with other desktops. VDI is best suited for use cases that require more security and a consistent experience, as well as resource-intensive workflows, such as vector graphics editing, 3D modeling, modern technical computing and video editing.

Parallels Remote Application Server (RAS): Why It's the Right VDI Solution for Your Organization

Parallels RAS is an all-in-one VDI solution that provides a seamless mobile user experience (UX), enhanced data security, fast and easy deployment and administration, high scalability, LOB application access and low total cost of ownership (TCO). These features make it easy for users to access applications on any device regardless of location, without having to worry about security.

In today's transformed workplace where remote working is becoming more of the rule rather than an exception, Parallels RAS should be in every organization's arsenal of workforce mobility tools. Here's how each feature works to help your employees remain productive even while working remotely:

Seamless mobile UX

While Parallels RAS provides an excellent user experience on laptops and physical desktops or PCs, what really sets it apart in this category is its seamless UX on mobile devices. It provides full desktop functionality, and supports native touch gestures like swipe, drag, tap-to-click and pinch-and-zoom, which enables users to stay highly productive even when on the go.

Mobile users can also achieve a full-sized desktop-like experience by leveraging the Samsung DeX and Bluetooth mouse/trackpad integrations that Parallels RAS offers. In particular, Parallels RAS 18 supports the iPadOS Bluetooth mouse and trackpad which makes it easier for users to maximize the excellent touch functionality of Apple devices such as multitasking with split view and slide over.

Enhanced data security

Because applications and data are stored in a central location and not on the devices themselves, Parallels RAS prevents data loss even when a device is stolen or misplaced. This inherently secure architecture is further reinforced by a battery of security features like SSL/TLS and FIPS 140-2 data-in-motion encryption, multi-factor authentication, SAML SSO, Kiosk mode, advanced reporting/monitoring and many others.

Fast and easy deployment and administration

Unlike most VDI solutions in the market, Parallels RAS is much easier to deploy and administer. Other solutions may be extremely complex for certain companies, since they may need to have their IT administrators undergo extensive training on the new solution or hire third-party specialists to do the job for them. In contrast, Parallels RAS can be easily deployed and administered by your own in-house IT team without requiring any formal training.

Highly scalable

The Parallels RAS infrastructure can be deployed on public clouds like AWS, Azure, Alibaba and Google Cloud. This means you can leverage the highly scalable nature of these cloud environments to meet any surge in demand whenever your number of end users suddenly spikes, such as in the case of another pandemic, or a natural disaster that forces employees or offices to temporarily relocate or shut down. When deployed on Microsoft Azure IaaS (Infrastructure as a Service) or integrated with Windows Virtual Desktop, Parallels RAS can even benefit from these environments' auto-provisioning and auto-scaling capabilities.

LOB application access

Parallels RAS readily supports legacy and line-of-business applications even on mobile devices—a serious deficiency in most mobile workforce environments. This can be a game-changer in certain industries such as banking, finance and retail, where end users are still very dependent on such applications.

Low TCO

Having a simplified architecture gives Parallels RAS a financial leg up over other VDI solutions. Parallels RAS is less prone to issues like login failures, application/desktop failed launches, printing problems and many others that plague other VDI solutions.

If certain issues do occur, they're much easier to troubleshoot. As a result, in-house IT staff can install, configure and maintain the entire Parallels RAS infrastructure without expensive third-party help. Maintenance is now much easier with the advanced user session details that came with Parallels RAS 18, and offers admins and the helpdesk full visibility of user session performance and working habits.

Another major benefit is that, unlike most VDI solutions, Parallels RAS doesn't consist of several disparate components with separate licenses. It's an all-in-one solution with a single license. These factors amount to a substantially lower TCO than what other VDI solutions can offer.

Key Challenges of Workforce Mobility and How Parallels RAS Addresses Them

While the benefits of remote working are certainly compelling, it does come with its own set of key challenges. The good thing is that Parallels RAS effectively deals with each of the key challenges that are commonly encountered with a mobile workforce. These include:

Limited accessibility of legacy applications or LOB software

One significant drawback to a mobile workforce is that legacy applications or line-of-business (LOB) software may be difficult to access outside the office. There could be limitations in the device an employee is using remotely that prevents them from installing or using legacy or LOB software, such as system incompatibility, insufficient resources, outdated OS versions, and so on.

The Parallels RAS solution: Using legacy applications and LOB software have proven to be difficult, if not downright impossible, for employees working outside of the office. Legacy apps often cannot be installed on a device running a modern OS, and LOB programs may be partially or fully incompatible with the OS of employees' devices (e.g., MS products on a Google Chromebook). With VDI technology like Parallels RAS however, you can remotely deliver a virtualized application to any device without installing the application.

Establishing a secure environment

Increased threat levels outside the corporate network are another major obstacle preventing some businesses from adopting a mobile workforce strategy. The ramifications of a data breach can be devastating to a business, in particular to a financial institution or healthcare organization, as they deal with highly sensitive data.

In addition to adhering to privacy laws in their local jurisdiction, financial institutions and healthcare organizations are further regulated by the Gramm-Leach-Bliley Act (GLBA) which oversees protection of financial data, and the Health Insurance Portability and Accountability Act (HIPAA) which governs the collection of health information. Any organization found to be in violation with any of these and other similar regulations will have to deal with steep fines, a damaged reputation, legal issues and more.

Unfortunately, a remote workforce presents a perfect opportunity for cyber criminals to attack. The laptops and smartphones employees use are potential entry points of threats because data is typically stored on these devices, which can be hacked, lost or stolen. Businesses thus face the serious challenge of ensuring the security of corporate data while allowing employees the freedom to work remotely.

The Parallels RAS solution: With Parallels RAS, the risk of data getting compromised when devices fall into the wrong hands is significantly reduced because the applications and data are not found in the devices themselves, but are instead, securely stored in the company's servers. Moreover, Parallels RAS uses advanced access control and multi-factor authentication to further enhance data security.

Keeping personal and work data separate

When personal laptops and smartphones are used for work under a BYOD policy, there are basically two types of data contained in an employee's device: company data and employee personal data. The organization needs to enforce a clear-cut BYOD policy and implement security measures that would keep both sets of data separate and secure. Several issues could arise from having both work and personal data in the same device without the appropriate solutions in place.

For one, while companies understandably want to prioritize protection of corporate data on an employee's device, they should do so without overstepping their right to privacy. Ideally, employers should only be able to access corporate data, which should be stored in a separate area on the phone, tablet or laptop. Employees should also understand that under a BYOD program, their devices may be subject to certain security practices such as remote data deletion if the device is compromised or if the employee leaves the organization.

The Parallels RAS solution: Segregation of company and personal data as well as the security and privacy of both sets of data become a non-issue in the Parallels RAS' VDI environment. As mentioned above, business data is not actually stored in employees' devices, but remains secure within the company's central location. Remote workers are only able to access certain data with the user privileges assigned to them. In addition, the Parallels RAS Client Group Policy further supports corporate data security by giving IT admins the authority to centrally manage and restrict the settings options of end-user devices based on customized organizational requirements.

Conclusion

Whether corporate executives and business managers see it as a welcome development or not, the reality is that workforce mobility is here to stay. While the COVID-19 pandemic has been something no one ever wanted to endure, it's proven that, for many organizations, a mobile workforce can accomplish tasks without a considerable drop in quality or productivity.

To effectively deploy a workforce mobility strategy both now and in the future, employers need to invest in the right technology and tools remote workers need to perform their daily tasks. Parallels RAS tops the list of must-haves by providing a solution that can help companies emerge more agile, innovative and prepared—not only for the post-pandemic reality, but also for any future disruptions.

[Learn more about how Parallels RAS can help your business.](#)

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