



Improving Patient Care with Virtual Desktops: How Healthcare Organizations Are Using VDI to Streamline Operations

White Paper | Parallels Remote Application Server

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Introduction

Over the last decade, a growing number of healthcare organizations have invested in virtual desktop infrastructure (VDI) solutions. Driven by the desire to improve patient care and streamline operations, hospitals and other healthcare organizations are leveraging certain VDI solutions to equip healthcare systems with advanced capabilities like mobility, 24/7 anywhere access, stronger endpoint security and single sign-on (SSO).

Drivers of VDI Adoption in Healthcare

Traditionally considered to be among the slowest industries to adopt new technologies, healthcare is surprisingly one of the fastest to embrace VDI. In this paper, we use the term VDI as an all-encompassing designation for both virtual desktop infrastructure desktops—which are desktop operating systems running on individual virtual machines (VMs)—and session-based desktops running from a single server-based operating system.

So why is the healthcare industry suddenly enthusiastic about this technology? There are a good number of reasons that can be cited, but they mainly revolve around the following challenges.

Enabling mobility and 24/7 anywhere access – With Parallels RAS, healthcare tools are delivered to users through the Parallels Client, a small piece of software that can be installed on a wide range of platforms including Windows, Mac, Linux, iOS, Android and Chrome OS. It is also accessible through any HTML5 web browser, without having to install the client.

Parallels RAS enables doctors and nurses to access all the healthcare software tools and applications they need from anywhere—within or away from the hospital—from a stationary terminal or a mobile device like a smartphone or tablet.

The back-end components of Parallels RAS provide deployment flexibility as well. These components can be deployed on different platforms, including on-premises private clouds, hyperconverged infrastructures like Nutanix and Scale Computing HC3, and public clouds like Amazon Web Services (AWS) and Microsoft Azure. These platforms not only support 24/7 anywhere access, they also provide high levels of availability.

Eliminating delays in patient care delivery – Although seemingly harmless, the numerous (and often slow) logons medical staff have to perform on a daily basis impede productivity and seriously impact patient care delivery. It's gotten so bad that the United Kingdom (UK) government has decided to invest £40 million on an SSO project designed specifically to eliminate multiple logons.

This is one major advantage of using Parallels RAS—it comes with SSO capabilities out of the box. Doctors and nurses who access healthcare tools in a Parallels RAS environment only have to log in once, usually at the start of their shift. They are then logged on to ALL the tools they need until they finally log off. When they do log off, it applies to all the tools they were logged-on to.

In addition to SSO, Parallels RAS also has a session pre-launch capability based on artificial intelligence (AI). This allows it to analyze user login habits and then pre-launch sessions based on those habits. This results in faster application start-up times that prove to be a game-changer, especially during peak hours.

Securing patient data – By design, all VDI environments already have some built-in security. Because the applications and data delivered through VDI are stored in a central location instead of on endpoint devices, the overall attack surface is significantly reduced. Malicious individuals would have difficulty stealing confidential information if they simply focused their attacks on those devices.

Of course, highly skilled cyber-criminals are equipped with several attack vectors. If they can't obtain the data they want from endpoint devices, they could simply direct their efforts to the client-server connections or to the servers themselves.

To thwart different attacks, Parallels RAS is equipped with multiple layers of protection. A typical Parallels RAS infrastructure is protected by many countermeasures, including:

- Secure Sockets Layer (SSL)/Transport Security Layer (TLS) – Protects data as it traverses between the endpoint device and the server
- Multifactor authentication (MFA) – Makes it more difficult to break into a user account
- Kiosk mode – Limits the settings that users can change on endpoint devices
- Data segregation – Separates data in a multi-tenancy environment

Experiences of Healthcare Organizations That Have Tried Parallels RAS

Traditionally considered to be among the slowest industries The healthcare organizations among the early adopters of virtualized environments are now reaping the many benefits of their investment. In particular, those who chose Parallels RAS are seeing increased efficiency in their IT healthcare infrastructures—which in turn allows them to significantly improve their delivery of patient care.

Esperanza Health Care – In Parallels RAS, Esperanza Health Center found the solution they needed to efficiently and securely provide access to shared health-related information.

A multicultural organization that offers holistic healthcare to the underserved communities of Philadelphia, Esperanza originally struggled with access to GE Healthcare Centricity 12.2, which was used to retrieve and update EMRs. They initially relied on Microsoft Remote Desktop Server (RDS) but found the virtualization features limited and inadequate for their needs.

The streamlined virtualization solution of Parallels RAS enhanced the capabilities of Microsoft RDS, allowing Esperanza Health Center to support a mobile-enabled workforce through a bring-your-own-device (BYOD) policy and giving these employees access even in remote locations. They were also able to simplify IT admin tasks with the centralized management tools and optimize the server network through automated load balancing—all while remaining within budget.

Cancer Council NSW – Cancer Council NSW—an independent, nonprofit charity in New South Wales, Australia—has a lofty goal: to reduce the impact of cancer on the community and to lessen the burden for people affected by cancer. In the process of achieving this, the organization needed the right tool: a centralized virtual application delivery solution that would enable users to access shared resources on Mac and PC desktop devices. They were using the now-retired RemoteApp environment, which was not only complicated but had a tendency to stall when authenticating new users (sometimes for 15 minutes).

Their search for the right virtualization solution ended with Parallels RAS. Cancer Council is now able to publish Microsoft Office publications for employees to retrieve on Mac and Windows machines, and end users are provided a seamless connection to applications and files. The hassle-free connectivity and quick access to shared files is made possible by Parallels RAS automated load balancing and easy deployment to the highly scalable Microsoft Azure cloud. The result is an improved level of care for clients and patients who need cancer support services.

Aspire Indiana – A nonprofit mental health center, Aspire Indiana was previously using Citrix XenApp and XenDesktop to provide health services to several counties in Central Indiana. Their setup facilitated employees' remote access to their EMR system, Microsoft Office applications and web browsers. While the solution served its purpose at that time, the organization's needs evolved; they wanted better capabilities at less cost and with less complexity.

One solution met all these requirements, plus more. With Parallels RAS, Aspire got a cost-effective, easy-to-deploy and easy-to-manage virtualization environment. It offers remote access through HTML 5 web browsers and supports

public Infrastructure as a Service (IaaS) through Google Cloud. This allowed Aspire's employees to have secure and seamless access to EMR software on any device, anywhere. In addition, costs were reduced because Aspire was able to purchase and deploy the more budget-friendly Google Chromebooks. They integrated them effortlessly into the Parallels RAS environment.

Is It Time for Your Organization to Adopt VDI?

More healthcare organizations are jumping on the virtualization bandwagon—and for good reason. The barriers to efficient and effective healthcare are steadily being addressed by the VDI delivery model. On-demand access to applications, support for mobile devices, cost-efficiency and data security are only some of the reasons that make a strong case for VDI adoption.

If your organization is committed to streamlining operations and enhancing patient care, then it's time to find a virtualization solution that best fits your needs. Find out more about Parallels solutions for healthcare.

About Parallels

Parallels is a global leader in virtual desktop, application delivery and mobile device management solutions. Thousands of organizations worldwide trust in the reliability and scalability of Parallels VDI and virtualization solutions. Parallels makes it simple and affordable to deliver applications to any device over the cloud, or through on-premises and hybrid deployments.

The company's solution portfolio includes the award-winning Parallels Remote Application Server (RAS), providing platform-independent virtual desktop, application delivery and integrated thin-client management from a unified interface to any modern operating system.