



# Apporto vs. VDI

## Meeting the Work Anytime, Anywhere Challenge

Companies are searching for the best ways to enable anytime, anywhere access to their staff. After all, Workplace Analytics expects that 25-30% of the workforce will be working-from-home by the end of 2021.<sup>1</sup> IT departments have to figure out how to enable remote access. How can this be done *without* compromising IT security or user experience?

In this white paper, we'll compare two solutions to the work-from-anywhere challenge: traditional Virtual Desktop Infrastructure (VDI) and Apporto's turnkey cloud desktops.

### Under the Hood: Apporto vs VDI

In a typical VDI environment, each user gets a dedicated Operating System (OS) irrespective of the application in use. As a result, more resources are used by the OS than the actual application. Apporto uses a shared OS and therefore **resource utilization is significantly lower**. The result? A much better user experience and lower operating and financial costs. Furthermore, whereas a VDI environment has a pre-set capacity, Apporto uses **advanced autoscaling** to automate adding capacity, on the fly, as needed. This enables Apporto to ensure users have a consistent user experience even at peak usage times.

**Network latency** is a major consideration when delivering virtual desktops because every time the user interacts with the desktop (e.g. moves cursor, mouse click) it triggers another round trip to the server. Low latency helps admins deliver a responsive and fluid user experience even with graphics-intensive applications.

Most VDI environments are located in one data center in the US and typically serve users spread across the US and in some cases across the globe. On the other hand, Apporto uses a proprietary geo-optimization approach to ensure users are connected to the closest data center available - typically less than 50 ms of latency. Industry standards consider anything below 50 ms very good.

**Security** is another key consideration. Most VDI environments require a client to be installed on the end user's computer. This in turn requires administrators to ensure the user's device is protected from viruses and other malware. In other words, not only do administrators have to worry about the virtual desktop's security, they also have to worry about the security of the end user's device. Apporto uses secure HTML with SHA2 SSL 2048-bit encryption to deliver the virtual desktop to the user's browser. Since the browser provides a much higher degree of isolation, simpler delivery, and smaller attack vector provide for a much higher level of security while reducing complexity.

Apporto's proprietary automation tools use hardware resources more efficiently than VDI and require little management resources. Customers have reported that the service costs 50 to 75% less than traditional VDI.<sup>1</sup>

## Summary

Apporto offers a turnkey virtual computer lab solution. This means faster startup and no time wasted on integration and routine infrastructure tasks. Furthermore, we are leveraging years of experience in higher ed to create template cyberlabs for programming, networking, and white hacking. Our turnkey solution delivers exactly what you need to help your students jump right into learning, simulations, and white hacking while supporting your teachers and organization with the tools they need for assisting, monitoring, and evaluation.

	<i>Apporto</i>	<i>VDI</i>
<i>Resource Use</i>	<b>Low to moderate:</b> only uses what the program actually requires, automatic scaling	<b>High:</b> requires a dedicated OS and uses more than the program actually requires, manual scaling
<i>Network Latency</i>	Low: User connects to the closest data center.	<b>Low:</b> User connects to the closest data center. <b>Variable to high.</b> User typically connects to one data center.
<i>User Experience</i>	<b>Great:</b> Apps can be streamed to a browser and offer near-native experience with simple administration	<b>Variable:</b> performance problems are common, dependent on complex configuration and expensive hardware
<i>Start Time</i>	Less than 7 seconds	Variable: Can take one minute or more.
<i>Cost</i>	Up to <b>76% less</b> than VDI.	<b>Equal to or more expensive than a physical desktop</b>
<i>Financial Risk</i>	<b>Low:</b> A monthly subscription based on usage	<b>High:</b> significant upfront costs, plus additional onsite support
<i>Support and Maintenance</i>	<b>Low:</b> Apporto handles all user and server-side support and maintenance	Frequency is <b>similar to a desktop</b> , but problems are often <b>more complicated</b>

*References*

<sup>1</sup> Reported by Southern New Hampshire University during a December 2019 webinar.

## Ready to Learn More?

We'd love to learn more about your specific computer lab needs. [Contact Apporto](#) today to open the conversation, ask questions, see a demo or get started. Or you can try a cyberlab [here](#).