

How to Reduce Costs When Implementing a VDI Solution

White Paper | Parallels Remote Application Server



FINANCIAL REPORT

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BALANCE SHEET

ASSETS
Current Assets
Non-Current Assets

Liability
Current Liabilities
Non-Current Liabilities

EQUITY
Current Equity
Non-Current Equity

INCOME STATEMENT

REVENUES	6,454,224.00
NOT SALES	3,420,863.00
Investment	6,724,984.00

EXPENSES	6,550,452.00
Research-Development	1,337,886.00
Operating expenses	2,899,500.00
Marketing	500,799.00

NET INCOME	59,877,892.00
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CASH

EXPENSES
Development
Operating
Marketing
NET INCOME

Level

Introduction

The shift to remote work in 2020 was one of the most significant long-term effects of the COVID-19 pandemic, and consequently, the demand for remote and hybrid work options will likely keep growing in 2022 and beyond.

It goes to follow that the desire for cost-effective technology solutions that facilitate and enhance remote work will increase as well.

A recent Gallup poll found that [91% of workers](#) who are currently working remotely hope to continue to do so at least some of the time going forward, and over [54%](#) would like the option of a [hybrid work environment](#).

In fact, [Gartner forecasted](#) that 51% of global knowledge workers would be remote by the end of 2022, while a spring 2021 survey reported that [65% of workers](#) want to remain remote after the pandemic. And companies are responding to those demands—one study found that that [70% of companies](#) plan to adopt hybrid work model going forward.

Enabling remote work and hybrid work options has become essential for companies to compete for and retain top employees. Companies that wish to retain current employees and hire best-in-class talent must offer greater flexibility and the improved work-life balance that often stems from remote work possibilities.

The intersection of necessary shifts in the workplace, increasing demand for remote and hybrid work options, and a desire for more efficient and effective technology is where virtual desktop infrastructure (VDI) comes into play.

The Current State of VDI

VDI is a [desktop virtualization technology](#) that allows for an operating system (often Microsoft Windows) to run and be managed in a separate data center instead of on an end user device itself.

While VDI first emerged [in the early 2000s](#), the pandemic led to a spike in usage as businesses needed solutions to enable remote work—and fast.

Data indicates that [69% of businesses](#) adopted some form of virtualization technology by the end of 2021, while a recent Parallels® survey found that remote work, security concerns, and flexibility are [major drivers](#) towards the adoption of VDI solutions. The VDI marketplace expected to reach [\\$13.45 billion USD](#) by 2022 and up to [\\$30 billion by 2026](#).

Employees with VDI management skills are also some of the most [in-demand new hires](#) in the IT industry as companies are increasingly turning to VDI as a solution to the challenges posed by today's work environments.

In this white paper, we'll explore how to reduce costs for virtual desktop infrastructure (VDI) and how a VDI solution like [Parallels® Remote Application Server \(RAS\)](#) can be implemented in a cost-effective manner that increases productivity, flexibility, and accessibility for remote teams in both the short- and long-term.

Top Benefits of VDI for Businesses

Implementing a VDI solution can yield significant benefits for organizations by increasing end-user access to improve productivity, centralizing IT management, and boosting security.

Key benefits of VDI include:

- **Enabling remote work via anywhere, anytime access.** VDI solutions provide employees with access to business-critical software applications and even full desktops so they can effectively perform their job regardless of whether they are in the office, at home, or in another location.
- **Allowing for BYOD programs.** Since VDI enables IT teams to efficiently manage a bring your own device (BYOD) policy thanks to the centralized device management options, it makes [BYOD a more realistic option](#) for many organizations.
- **Enhanced data security.** With VDI, no data is stored on the device that's used to access an application or desktop. This helps ensure that sensitive data is not compromised if a device is lost, stolen, or damaged.

VDI solutions also offer [additional security measures](#) like highly granular permission policies, Secure Sockets Layer (SSL) protection, Federal Information Processing Standards (FIPS) 140-2 encryption, and multi-factor and smart card authentication.

- **Centralized application and device management.** Since VDI solutions allow for the maintenance and replacement of applications and devices from one source rather than individually at each endpoint or user, IT management is simplified.

IT can easily add and remove users, and new desktops can be up and running swiftly so there is little to no drop in productivity and minimal effect on IT bandwidth.

- **Multi-cloud ready.** Companies adopting a [multi-cloud strategy](#) can leverage VDI to build a centralized, efficient solution for these types of deployments.

Top 3 Cost Barriers to Investing in a VDI Solution

Despite their benefits, VDI solutions are perceived as [notoriously expensive](#) and complicated to implement and use, with [high start-up costs](#).

These factors make cost one of the most significant barriers to implementing a VDI solution. While implementing a VDI solution offers many benefits, the price of the solution itself and any additional licenses or hardware needed can be considerable.

There is also the additional cost of the resources needed to manage the VDI solution. This can be time-consuming, and typically requires advanced IT skills. Companies may have to hire this talent in-house or contract with a third-party vendor to provide it for them.

There are three other main sources of costs when it comes to VDI implementation.

1. Out-of-Box Licenses and User Costs

VDI vendors license their products in [several different ways](#). Your VDI solution may require various types of licenses, including but not limited to:

- **Licenses for end-user/endpoint devices.** If you are using a desktop based VDI, each device or user endpoint may require an individual license.
- **Licenses for each server.** If you are using a server based VDI like a remote PC or desktop running in a server operating system that is only available to a single user at a time, then you likely need a license for each server involved in your set-up.
- **Licenses per session.** If you opt for a non-persistent or session based VDI, your costs will likely depend on the number of sessions you need to run concurrently.

You'll also need licenses for the various software you intend to use with your VDI set-up. For instance, if your organization needs to run Windows on machines powered by VDI, then you will need a virtual desktop access (VDA) license for Windows OS.

2. Server Infrastructure and Hardware

Depending on your company's current resources, upgrades or additions to your existing servers and hardware may play a role in the total cost of implementing a VDI solution.

While it may be possible to use your current hardware with a new solution, you may need to [purchase servers](#) with the necessary amount of processor and memory resources, high-performing storage arrays, and other components, such as network switches, storage controllers, and power supplies.

You can also adopt a [cloud-based strategy](#) as part of your VDI infrastructure, which may involve less hardware but will require subscription costs and other expenses.

You may also need to purchase new devices for your team to use remotely if your company chooses not to (or cannot, for certain reasons) implement a BYOD policy.

3. IT Resources

Once you have a solution in place, your IT team will need to manage it. The costs of planning, deploying, and maintaining a virtualized desktop environment can be complex and [expensive](#). In some cases, you may need to hire a consultant or third-party service to manage the VDI solution.

VDI solutions are often perceived as difficult to manage or overly complicated. Tasks such as moving virtual machines, managing desktops, and balancing resource allocation can require significant bandwidth and expertise.

IT departments also must [maintain](#) the hardware and software, troubleshooting any issues and ensuring that the latest patches and updates are applied, and scale the solution as business needs and requirements change. And they must do all this while still ensuring the reliable delivery of high-performance desktops and end-user compliance.

How Implementing a VDI Solution Can Reduce Costs

While the cost barriers covered above are certainly factors to consider, there are also several ways that implementing a VDI solution can [reduce technology costs](#) over time.

Enable the Use of Thin Clients and Legacy Hardware

Implementing a VDI solution can allow your company to invest in thin clients. These devices are lightweight machines that run on resources stored on a central server or remote computer to handle their application processing. One example is the Google Chromebook, which runs on Google's operating system, Chrome OS.

Using [thin clients or ultra-thin clients](#) can help reduce the costs of implementing a VDI. This is because VDI solutions do not need to run a full operating system on the device itself, so the devices used can be thinner.

Thin clients tend to be [less expensive](#) and, depending on your company's policies, may allow employees to use their existing devices or otherwise foster a BYOD environment. VDI also enables companies to repurpose older machines or continue using legacy devices, thereby reducing hardware costs.

If you require all employees to use the same company-provided devices, a VDI solution may also allow your organization to transition to a full thin client fleet, which can be more cost-effective in the long run.

Reduce the Number of Software Licenses Required

VDI solutions enable workers to access work applications on multiple devices. But rather than requiring multiple licenses per application (e.g., one license per device used), VDI enables a user to access the same instance of that application across multiple devices, which helps reduce the number of licenses needed for some applications.

For example, if your company uses multiple on-premises applications to get work done and you pay for these applications on a per-license basis, then a VDI can offer significant cost savings.

Applications that require licenses per user, e.g., the Microsoft Office suite, can be accessed as usual via a VDI solution.

Extend the Lifespan of Legacy Software

VDI enables remote access to any on-premises legacy applications your organization uses. This enables you to extend the lifespan of these applications and delay shifting to cloud-based applications, [which can be an expensive investment](#) you may not have the current resources for, or the bandwidth to plan and implement.

This means that you can avoid buying new software licenses for remote users and/or additional installations on more devices or finding and implementing new solutions that work in today's remote and hybrid business environments.

Lower Hardware Costs

A VDI solution can lower technology costs and minimize a company's hardware footprint by enabling a workforce to use a BYOD program, thin clients, or other less costly devices while still allowing them to access applications or desktops used at on-site company facilities.

This is because VDI solutions centralize computing power in one location where it is accessed on an as-needed basis versus on individual workstations or devices. As a result, employees can use devices they already own and are comfortable with, while companies can continue using older hardware, rather than having to purchase new devices for remote workers.

Help Prevent Security Breaches

VDI solutions can streamline organizational cybersecurity. Security controls such as antivirus protection and malware monitoring are managed from a central location, and data can be remotely wiped from lost, stolen, or otherwise compromised devices.

Improved cybersecurity measures can help save on overall IT costs. With security becoming an increasingly significant business concern and cybercrime predicted to cost [\\$10.5 trillion](#) by 2025, putting measures in place now is paramount.

VDI [helps protect](#) companies with remote workers from data breaches and other cybercrime in several ways, including:

- **Enabling centrally managed IT configurations.** This includes ensuring the installation and application of the latest security patches, updates, and applications.
- **Remotely storing all data.** In the case of a worker's device getting lost, stolen, damaged, or otherwise compromised, the organization remains protected.
- **Isolating critical data and software.** Software applications and data are only accessed in a virtual environment, so IT can easily monitor, audit, and otherwise control critical data and applications.

Reduce IT Workload and Increase Agility

A VDI solution can enable your company's IT department to be [more agile](#) and reduce IT staffing hours or workload due to ease of maintenance and deployment of new applications or updates. This can result in lower payroll costs as well as increased IT bandwidth for other more fruitful activities or tasks, such as:

- **Faster issue resolution.** VDI solutions can provide root cause analysis of connectivity problems and other technical issues, facilitating quick resolution of problems and minimizing interruptions.
- **Improved monitoring, reporting, and analysis.** With VDI, IT admins can see an indicative and quantitative measure of the user experience with complete overviews of session details via features such as the [Parallels RAS UX Evaluator](#), which improves service delivery. They can also proactively check user sessions and determine which users might need additional resources or assistance.
- **Productivity enhancement.** IT admins can centrally monitor key productivity metrics such as incoming and outgoing data within sessions, available bandwidth and usage, network latency, and user connection flow (e.g., the reasons behind reconnects and disconnects).

This helps ensure that user productivity isn't heavily impacted by technical issues and allows IT to quickly address and solve user problems should they arise.

Parallels RAS: A Cost-Effective VDI Solution for Today's Remote and Hybrid Workforce

Parallels RAS is a simple, yet robust and [cost-effective VDI solution](#) designed to support the needs of today's increasingly distributed workforce. It can help immediately reduce VDI costs in two key ways:

- **Minimizing the need for multiple software licenses.** Parallels offers an all-inclusive single licensing model, reducing the total cost of ownership.
- **Extending hardware lifecycles and lowering hardware costs.** Parallels enables the usage of thin clients and/or implementation of BYOD policies.

Parallels RAS also offers numerous cost savings opportunities in the long run, including but not limited to:

- **Enhancing cybersecurity.** The threat of data breaches and other cybercrimes is reduced thanks to features like centralized IT management and remote data storage.
- **Prolonging the lifespan of technological investments.** Legacy software applications can still be used with a VDI solution in place, so business-critical software does not require replacement as often or as quickly.
- **Extending the usage of existing hardware.** A VDI solution often facilitates the continued usage of existing hardware or helps enable a BYOD policy for any type of workforce (remote, hybrid, or fully on-site).
- **Reducing the IT department's workload.** A simplified VDI solution like Parallels can free up IT bandwidth and lower associated staffing expenses.

With both short- and long-term cost benefits, Parallels RAS allows for a VDI set-up that allows IT departments to take advantage of existing resources and investments.

This makes it a complete and cost-effective VDI solution to the myriad barriers IT departments and procurement teams face to ensure their organizations are prepared for the business challenges of 2022 and beyond.

[Discover how Parallels RAS can help your company effectively reduce costs while implementing a robust VDI solution.](#)

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