Ace Cloud

VDI > Whitepaper

From Concept To Reality: Successful Deployment Of Linux Hosted Desktops

Learn which metrics to consider in order to make your Linux VDI deployment a success.

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Growth Of Linux

These days, even grandma knows how to use it (ok, maybe not grandma, but you get the point!).

Gone are the days when Linux was considered a Windows alternative reserved only for tech-savvy developers and hackers. *These days, even grandma knows how to use it (ok, maybe not grandma, but you get the point!).*

From humble beginnings as a student project in the early 90s, Linux has grown to become a leading force in the world of computing.

In recent years, its adoption by private, public, and government organizations have exploded with the growth of computing, the internet of things, and artificial intelligence. Linux is now used in everything from supercomputers to smartphones. Previously used as a stepping stone for developers to gain respect, it is now widely considered the future of computing.

Unlike proprietary systems, the open-source nature of Linux allows for regular updates and patches, which keeps the system secure. It can run efficiently on a wide range of hardware, from high-end servers to low-end embedded devices.

Linux is ruling the market, and IT is now struggling with delivering Linux as a virtual desktop infrastructure. That's where we come in. If you need to support Linux for your virtual desktop environment, we have got you covered.,

We've been at this for over 14 years and have fine-tuned our virtualization solutions to meet the needs of nearly any business use case. With successful deployments around the world, we've helped countless organizations empower their workforce with enhanced performance and strengthened security.

Business Pressures for IT

Navigating now, planning what's next, and shaping the future

About 90% of the most powerful supercomputers run on Linux. Why?

In the last few years, businesses, regardless of industry, have undergone huge pressure to adapt remote work and keep user experience and security in check. As enterprises are enabling remote or hybrid work while figuring out how to focus on value, Linux virtualization can chart a course through this crisis.

90%

of the most powerful supercomputers

Concerns And Challenges Of IT Leaders

As we have discussed with our clients to comprehend their challenges, here are some of their top-of-the-mind concerns:

- What measures should we take to guarantee continuous business operations?
- Given the resources and budget limitations, is it advisable to re-consider operating a self-managed data center?
- What strategies can we implement to secure the network infrastructure and assets against potential security breaches?
- How can we construct a compelling argument to allocate resources toward appropriate technology investments to enhance future readiness?
- What strategies can we employ to facilitate employees' learning curve to utilize new technologies effectively, despite the steep learning curve?
- How can we ensure our developers get enhanced user experience no matter what device they access?

Linux Hosted Desktop With ACE — An Overview

Linux Hosted Desktops, the fast-edge virtualization solution, provides administrators robust control over virtual machines, applications, and desktops through advanced IT management capabilities.

With Linux hosted virtual desktops, organizations can securely deliver virtual apps and desktops to any device similar to the on-premises solution, leaving major product installation, upgrades, and components setup to us.

As the IT admin, you gain comprehensive control over applications, policies, and user activity while providing them with the best experience regardless of their device. They can enter the virtual workspace resources through Cloud Connector, which acts as a communication medium between the virtual workspace and the organization's resource locations.

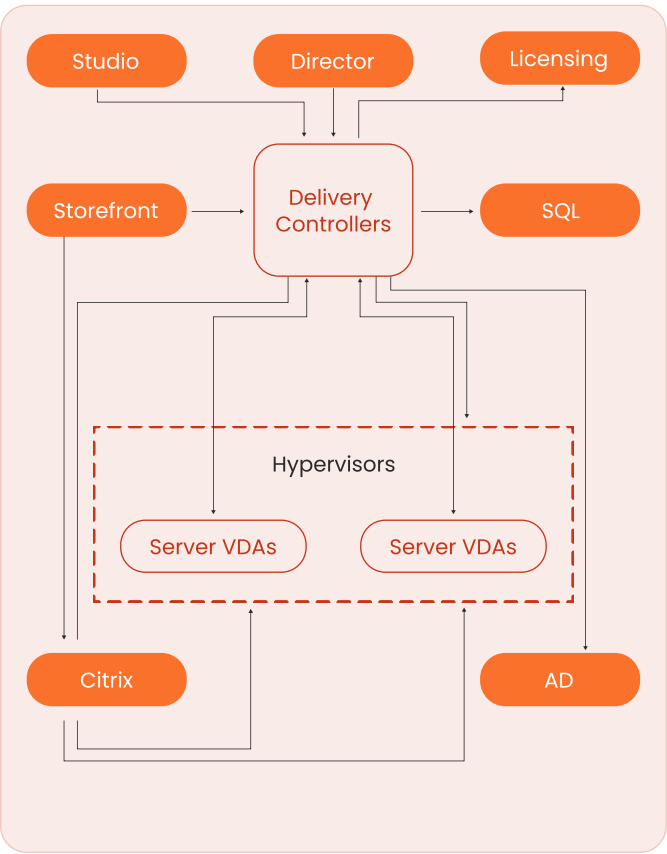
The Cloud Connectors establish integrations without relying on complex networking or infrastructure configuration, such as VPNs.

Who Will Manage What With Ace Linux?

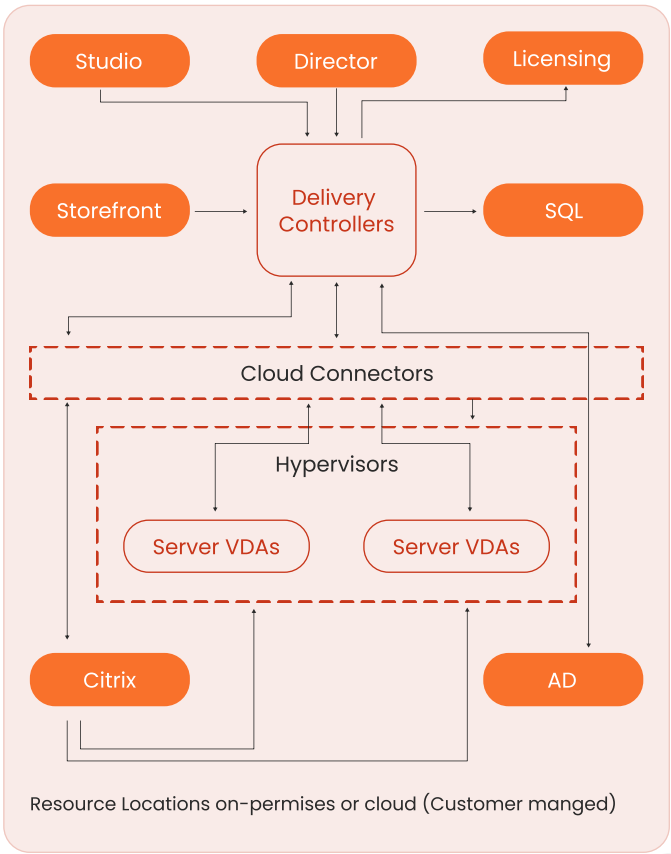
The IT gets the control plane components, including StoreFront/Workspace, Delivery Controllers, and SQL database, as a part of the cloud-based solution. This allows administrators to focus on the server and desktop Virtual Delivery Agent (VDA) workload resources hosted on the hypervisor or cloud of their preference. The VDA, installed on the server to host the applications or virtual desktops, establishes a secure connection to these applications and desktops, managing the High-Definition experience (HDX) connection to a user device.

A Resource Location is a workload location defined for a specific hypervisor or cloud with specified resources. The Cloud Connector is a component installed in the resource location to connect the resources to Citrix Cloud services.

Traditional Citrix Apps and Desktop
On-Premise or Cloud (Customer)



Citrix DaaS
Citrix Cloud (Customer managed)



Considerations for Delivering Linux Hosted Desktops

When delivering Linux in virtual desktops, technical considerations are key to a successful implementation. Each aspect requires a thoughtful evaluation, from compatibility with existing infrastructure and hardware to security features and performance.

Additionally, IT needs to consider the user experience, the availability of required applications, and the level of support offered by the Linux distribution being considered. With careful consideration and planning, a Linux virtual desktop solution can be a powerful tool for businesses.

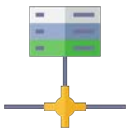
But before you embark on this journey, here are a few considerations to keep in mind:

Plan For Multiple OS Environments

Every user has a different need; we can't deploy Linux without knowing if users need a different operating system to accomplish some critical tasks at hand. Therefore, your connection broker should be well-designed to support mixed environments.

Even if your work is done only with Linux for now, users might need Windows in parallel. A mixed environment allows users to access both operating systems from a centralized interface.

Users should have access to Microsoft systems, and you need to know if users need Windows-only tools. If your organization uses SharePoint or web tools that work best with Windows or Internet Explorer, plan for this. It may be necessary to keep some users on Windows or give them access to Windows virtual machines.



Prepare Your Display Protocol For Hardcore Graphics

The main use case of Linux is to run hardcore graphics for developers, media, 3D modeling, multimedia, and more. Shifting complex workloads from a user desktop to the data center or cloud has its own downside. Undoubtedly, it can maximize the bandwidth while lowering costs, but also it will compromise the end-user experience. And industries like Semiconductor design, a minor misaligned pixel can cost them millions.

However, IT needs to consider resource utilization for that and provide screen rendering by combining connection broker and display protocol. ACE supports NVIDIA RTX 8000 Graphic intensive applications tailored to offer a high-end experience on multiple devices without lags.

Enforce Standard Security Protocols

With cyber attacks being at surge, we surely can't forget about the security concerns associated with virtual desktops. All systems connected to the network need to have authorization and added security protocols in the centralized infrastructure.

This security philosophy is put to the ultimate test with home computers accessing enterprise resources, a situation that has become widespread. Organizations that support hosted desktops for their users pass this test, validating the philosophy, and it becomes particularly straightforward on Linux OS.

Linux hosted virtual desktops enforce data sovereignty to a high degree. All communications occur through a single TCP port, and the protocols are well-defined and secure, always encrypted during transit. This is why VPNs are not necessary for setting up hosted desktops; they are for trusted systems and not untrusted ones. VDI providers offer dedicated gateways for users to connect and

authenticate, with the option for two-factor authentication if required.

Even if a client's PC is infected with malware, most attacks will not be successful. In such cases, malware that captures the user activity and mouse movements, as well as the received display descriptions, could steal data. However, there are countermeasures in place, such as encrypting keystrokes to prevent keylogging. Screen scraping and screen capturing can also be prevented, and screens can be "watermarked" with the user's login ID to track any recorded sessions.

Implement Certain Pools and Policies

Pools and policies are powerful tools that can greatly simplify the management of your Linux hosted desktop environment. By using pools to group similar machines, you can ensure that resources are used effectively and efficiently. For instance, according to bandwidth, only the required machines are powered on, and these machines are automatically scaled down.

The policies allow IT to have full flexibility in choosing the machine configuration in the pool, such as the display protocol used to connect to the desktop, the power state of the machine, and the resources allocated to each machine. This can be done by evaluating the specific requirements of each user, as well as the overall needs of the organization.

By using policies to assign desktops to users, IT can control user access anytime, anywhere. This can include setting different operating systems, depending on the user's requirements, thus ensuring that the user’s experience is consistent, regardless of the underlying hardware.

Pools and policies provide a convenient and effective way to manage hosted desktop environments, helping to ensure that resources are used effectively, costs are minimized, and user experience is optimized.

Enhance The Power Of Linux With ACE

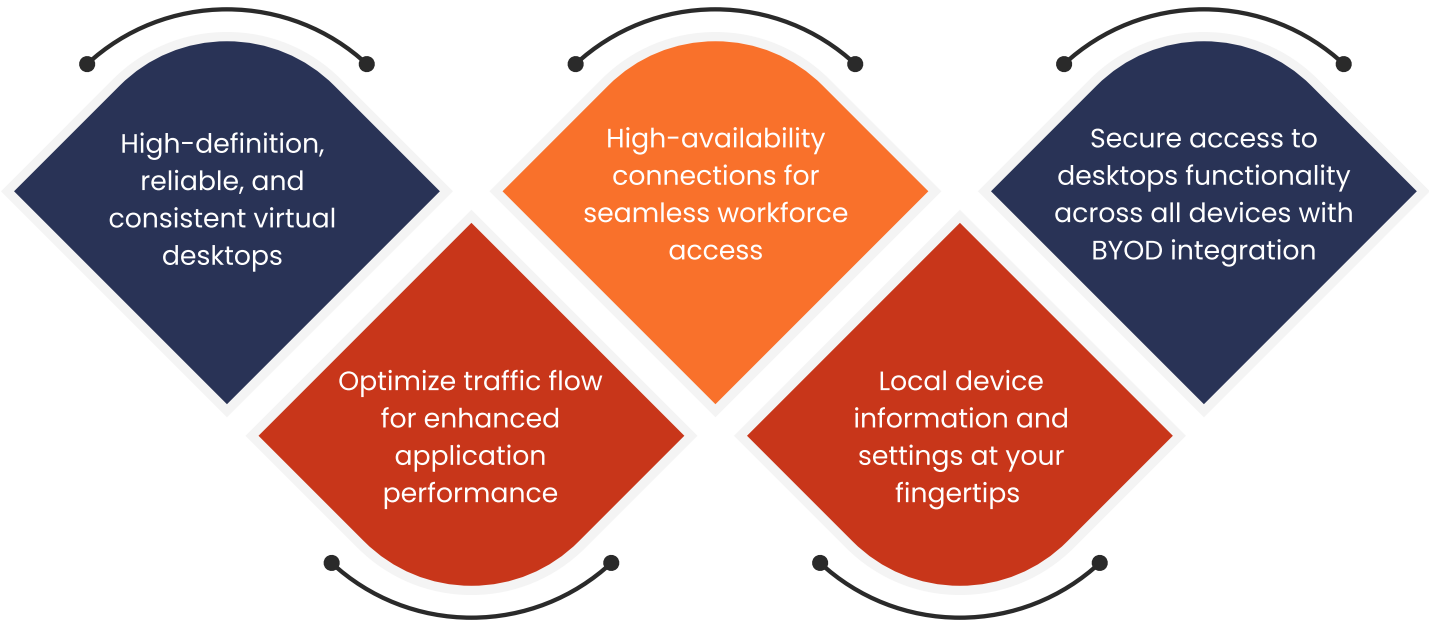
Organizations can modernize virtual apps and desktop deployments with Linux Virtual Desktops hosted in a secure environment.

Linux Hosted Desktop delivers an effortless path to ease digital transformation initiatives and modernize your environment.

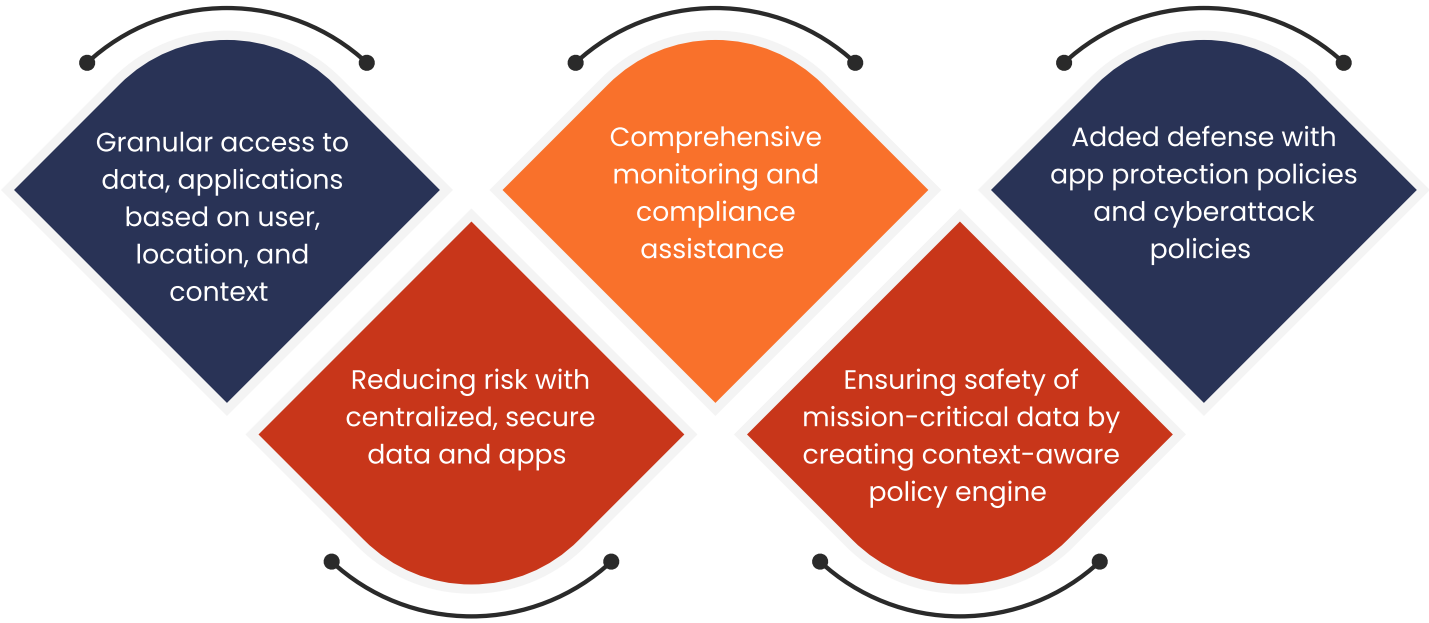
Together with robust ACE managed infrastructure, admins can take advantage of multi-session capabilities, full-time support for desktop operating systems, and flexible pricing plans while delivering the best end-user experience through NVIDIA Quadro RTX 8000 GPUs, all without the hassles of maintaining the infrastructure.

Here's what makes Ace Linux virtual desktops a future-proof solution with cutting-edge functionality.

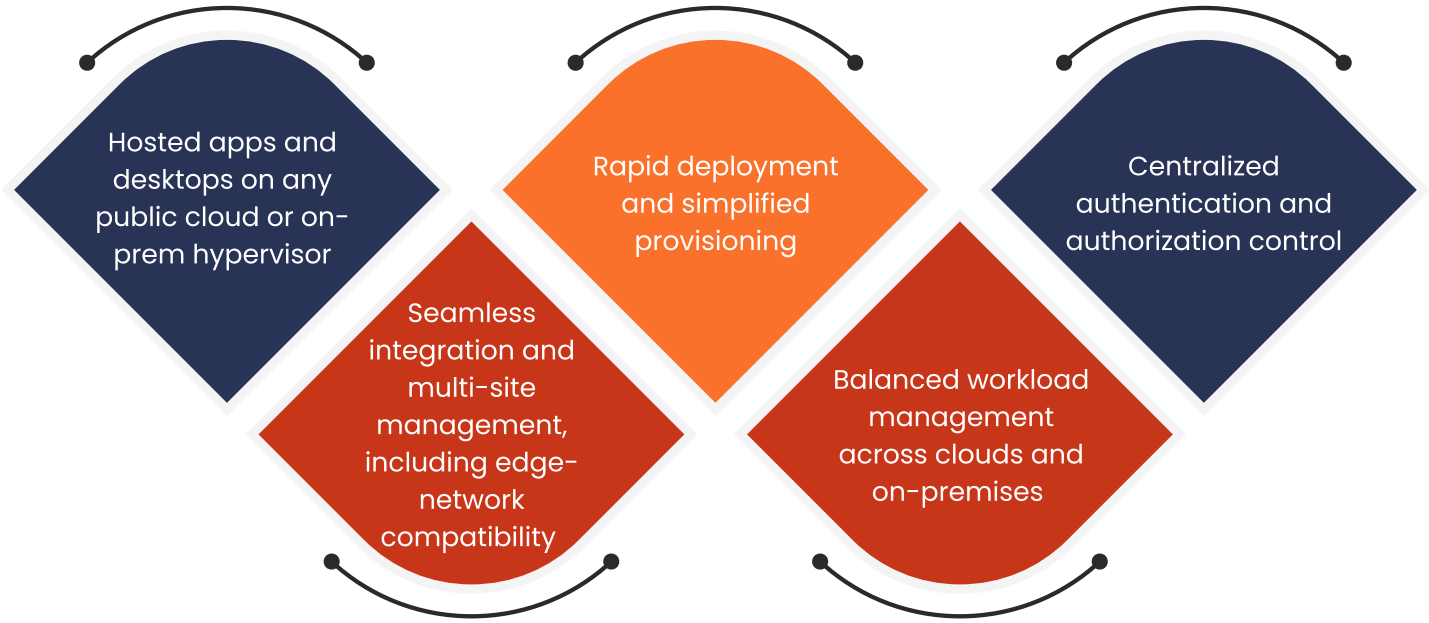
1. Consistent User Experience



2. Bulletproof Cloud Security



3. Efficient IT Management



About Ace Cloud Hosting

ACH offers business-critical cloud computing solutions that provide vibrant pathways to transcend operations, foster innovation, and create value for partner organizations. The organization enables a conducive IT ecosystem that empowers businesses to work smoothly from anywhere and at any time in a secure manner. ACH has over 14+ years of experience in creating, deploying, and scaling the dynamic cloud infrastructure of high-growth enterprises and enabling real-world foundations to support their business growth.

Leading organizations harness ACH's Cloud Computing, QuickBooks Hosting, Virtual Desktop Infrastructure, and Managed Security Solutions to challenge the status quo, break their previous molds, and create the groundwork for future success. The organization has acquired a credible reputation for being a "Catalyst of Transformation," and several prominent organizations have recognized its prowess and and several prominent organizations have recognized its prowess and unmatched services. Recently, the organization bagged the Most Innovative Cloud Solution Provider by Global Brands Magazine 2022.

Awards & Industry Recognitions

ACE Partners

Contact Us

Connect with our Solution Consultants anytime to get assistance on the best cloud solution for your business.

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Book a VDI Demo

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