Citrix Virtual Apps and Desktops

Enabling analytics and machine learning on growing business data

Meeting the Needs of the Mobile Workforce

Today's business and IT leaders know the pressures to enable a more flexible, mobile workforce are intense. Distributed workforces, demands for mobility, growing compliance pressures, security concerns, cost containment priorities, and BYOD (bring your own device) environments are just a few of the challenges they face. Virtual Desktop Infrastructure (VDI) is a powerful solution to meet the need for flexibility and global availability of compute resources, while managing data security and compliance on mobile devices.

The Lenovo VDI Solutions for Citrix Virtual Apps and Desktops help your organization meet these business requirements by centrally managing the desktop image within the corporate IT environment rather than at the remote worker or office location. With user data, user profiles and application data files on centralized servers, data center security and manageability are extended down to the user resources. Users have anywhere, anytime, secure access to data and applications from any device, including tablets and smartphones.

Deliver Secure Desktops While Cutting IT Costs

Citrix Virtual Apps and Desktops delivers fully-functioning virtual Windows or Linux desktops and the applications employees need to remain productive. The virtual desktops are delivered securely and have the same look and feel as locally installed desktops - even with demanding applications, such as specialized engineering apps or critical healthcare workloads.

Administrators can easily and centrally manage their master images while providing users with a customized and personalized desktop experience. Citrix Virtual Apps and Desktops simplifies day-to-day operations with a range of tools to troubleshoot and monitor the health of the environment, whether supporting ten users or tens of thousands. It also enables automated desktop thin provisioning - giving desktops the appearance of having more physical resources than are actually available - to reduce the cost of VDI and shared storage below that of managing a local PC.

Citrix Virtual Apps and Desktops lets employees choose their own devices by providing a universal client that works natively on the full range of desktops, laptops, tablets, and smartphones. It also provides comprehensive security policies, app protections and authentication mechanisms to enable more secure access.

Highlights

- Enable remote work access for employees on any device, anywhere and anytime
- Strengthen your security posture by keeping business data in the data center, behind company firewalls
- Choose from a wide range of high performance, reliable server platforms to best fit your business
- Available as a pay-as-you-go managed service so IT can focus on strategic business initiatives

Simplify Solutions Infrastructure with ThinkAgile Systems

Hyperconverged systems have become the infrastructure of choice for VDI implementations. With compute, storage and virtualization colocated on a single node, organizations are able to share system resources with other applications, significantly reducing the cost per virtual machine (VM) of the VDI environment.

Citrix Virtual Apps and Desktops has been certified on Lenovo ThinkAgile HX (Nutanix-based) and VX (VMware-based) hyperconverged servers. The ThinkAgile systems enable you to dramatically simplify your server, storage and virtualization deployments and pool your resources into a single virtualized infrastructure for more flexible and efficient utilization and management.

The ThinkAgile systems scale rapidly to meet the growing needs of your business. Start small with initial deployments for one hundred end users or less and linearly scale to tens of thousands of users without additional performance overhead, or complex management.

Powered by Lenovo

Reference architectures and technical briefs also exist for several Lenovo ThinkSystem servers. Systems of note include:

- SR630 V3/SR650 V3/ST650 V3 1U, 2U and 2U, 2-socket Intel Xeon®-based servers, respectively, that provide extensive flexibility to fit almost any customer environment
- SR635 V3/SR655 V3 and SR645 V3/SR665 V3 1U and 2U, 1socket and 1U and 2U, 2-socket AMD EPYC[™]-based servers, respectively, that provide good cost/user. The SR665 supports up to 3 double-width GPU modules for power users employing 3D rendering or medical imaging applications

All Lenovo ThinkSystem and ThinkAgile servers are high performance systems, regularly holding numerous world performance benchmarks. ThinkSystem servers are consistently ranked high in x86 server customer satisfaction and #1 in x86 server reliability (ITIC).

Lenovo ThinkSystem servers with Citrix Virtual Apps and Desktops provide a high performance, cost effective VDI solution



ThinkSystem HX and VX hyperconverged systems



ThinkSystem SR650 V3



ThinkSystem SR645 V3



MEININGER Hotels leverages Citrix on Lenovo ThinkAgile VX7520 appliances to enable flexible working for employees.

"From check-in desk to the contact center, we can now offer every customer a responsive, highquality service. Thanks to our Lenovo platform, we're equipping our employees with the tools they need to make every stay special."

Rick Medford, Head of IT, MEININGER Hotels

Complementary Software

Lenovo offers a wide range of complementary software offerings for your Citrix Virtual Apps and Desktops environments.

Data can be backed up with Veeam® Availability Suite™. Veeam Agents for Microsoft Windows and Linux work with Veeam Availability Suite to deliver comprehensive backup and recovery for ALL workloads — virtual, physical and cloud — with a single management console.

Lenovo XClarity[™] Administrator is a centralized resource management solution that is aimed at reducing complexity, speeding response, and enhancing the availability of Lenovo server systems and solutions. It captures industry-leading proactive platform alerts, enabling administrators to migrate workloads or replace failing components without incurring downtime.

The delivery of graphics-rich desktops and workstations is facilitated by NVIDIA® virtual GPU (vGPU) software in conjunction with NVIDIA GPUs. Today's digital worker requires more graphicsintensive applications and operating systems to be productive. Windows 11 provides a rich, immersive experience and is the most graphically intensive operating system to date. NVIDIA GRID is designed to deliver Windows desktops and applications at full performance while NVIDIA Quadro Virtual Data Center Workstation (vDWS) software allows users to access their professional visualization applications with full features and performance from any device, anywhere.

End-to-End VDI Solution

Completing the Lenovo end-to-end client virtualization solution for Citrix environments are the endpoints. Lenovo offers a wide range of PCs, tablets, thin clients and smartphones for end user access. Lenovo streamlines device deployment and management, and simplifies the ability to rapidly deploy additional devices, scaling to thousands of connected devices.



FNCB Bank runs many of its mission-critical applications on the Lenovo ThinkAgile HX platform, including Citrix for the bank's back office and in-branch staff.

"As we push ahead with our transformation initiatives, we're confident we have the rock-solid IT platform and trusted partners we need to achieve our long-term growth goals."

Ron Honick, Senior VP, Operations and Technology Services Officer, FNCB Bank

Increase Agility with TruScale IaaS

Lenovo TruScale Services allow you to have your VDI infrastructure on-premises with a "pay for use" cloud subscription instead of an outright purchase. This allows you to better tie your VDI expenses to your business use.

Lenovo TruScale removes layers of administration and management from stretched IT teams. It also creates opportunities to implement new solutions, with cloud-like functionality and flexible, pay-as-yougo, as-a-service models.

Services include assessment, design, configuration, installation, cloud deployment, data migration, concierge/tech desk services, maintenance, metering, service portal, security and compliance, upgrades, renewals and old tech retirement.

Tying It All Together

In today's rapidly-changing technology environment, empowering your data center transformation isn't just a necessity—it's also a journey. Regardless of your current environment, Lenovo Services is a true business partner that will take you from where you are, to where you want to be. At every stage, you'll get our expertise and services to help you:

- Drive Digital Transformation. You'll get the best architectures suited to your unique needs, along with our industry insights, expert guidance, and hands-on experience.
- Foster Innovation. Free up your internal resources to focus on initiatives that grow your business.
- Simplify Your Support Experience. Gain a trusted partner who understands your systems and solutions to fully support and optimize your data center.



Konecta Peru utilizes Lenovo TruScale laaS for its 1,500 user VDI environment.

"With Lenovo TruScale, we can ramp up resources one week and dial them down the next, only ever paying for what we actually use. This enables us to respond rapidly to changing business requirements as we continue to grow."

Carlos Rafael Alayo Velasquez, IT Director, Konecta Peru

Why Lenovo

Lenovo is a leading provider of data center infrastructure solutions. We partner with you to identify, design, install and support the solution that best ensures your organization's needs are met throughout the IT lifecycle. Lenovo complements a portfolio of leading x86 infrastructure with a full range of storage, software, and comprehensive services that provides excellent performance, reliability, and security for your IT environment from the edge to the cloud.

For More Information

To learn more about Lenovo solutions for Citrix Virtual Apps and Desktops, contact your Lenovo sales representative or Business Partner or visit the <u>VDI solution page</u>.

Lenovo provides a complete end-to-end Citrix VDI offering with end points, servers, software and services



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Other Resources:

Reference Architectures -

Lenovo Validated Design for Citrix Virtual Apps and Desktops with ThinkAgile HX

Lenovo Validated Design for Citrix Virtual Apps and Desktops with ThinkAgile VX

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