Application virtualization with Citrix XenApp and HP platforms

Increasing productivity and efficiency enterprise-wide

New strategies, better results

For many organizations today, the favored business strategy is centralizing IT to drive greater control over costs and security, while at the same time decentralizing the workforce to enable greater freedom, flexibility and productivity. Used in isolation, both of these strategies work very well. Used in combination, however, they can cause problems—not the least of which is degrading application delivery services.

If you are unwilling to compromise on application performance, operating costs and information security, we have a new strategy that can drive better results: a virtualized application delivery infrastructure built on Citrix XenApp and HP server and storage platforms, delivered by HP service professionals.

Delivering applications on-demand

Citrix XenApp running on HP infrastructure is an end-to-end, virtualization-ready solution that delivers applications on-demand. In a virtualized HP and Citrix environment, applications are hosted in the data center, rather than on individual desktops. This approach builds in security and promotes centralized management and maintenance—leading to streamlined operations and significantly reduced costs enterprise-wide.

Available as a single solution or bundled with Citrix XenDesktop—a critical component of the HP Virtual Desktop Infrastructure (VDI) solution—an on-demand application delivery solution from HP and Citrix:

- Simplifies the overall IT environment and system management

- Improves security by centralizing applications in the data center

- Enables companies to confidently adopt a virtualized application delivery solution

- Provides IT teams with the technologies they need to quickly and easily deploy applications

- Delivers applications instantly to users anywhere, while providing a high-definition experience

- Reduces the cost of solution ownership by lowering system complexity and reducing energy consumption

- When used with Citrix XenDesktop, the combined solution enables unified management of both physical and virtual infrastructures from a common console

Rapid deployment with proven reference configuration

To accelerate deployment of your virtualized application environment, HP and Citrix have worked together to develop a reference configuration for XenApp. Based on HP ProLiant BL460c G6 Server blades and HP LeftHand P4500 iSCSI SAN Storage, the HP reference configuration for Citrix XenApp is intended to help you build a virtualized x86 solution capable of supporting at least 3500 Microsoft® Office 2003 users. This reference configuration can be modified to meet your unique business needs. To help determine the best solution for your environment, you can work with your HP representative to complete a proof-of-concept.

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In additional to a traditional XenApp deployment, this fully redundant reference configuration can also be used to deliver application virtualization in a Citrix XenDesktop environment.

The HP reference configuration for Citrix XenApp:

- Offers a proven starting point for reduced risk
- Simplifies ordering and implementation
- Provides predictable performance through a tuned configuration
- Leverages best practices for increased user productivity
- Reduces acquisition costs through optimized price/performance
- Integrates infrastructure and client management for higher number of servers/clients per administrator
- Reduces power consumption with energy-efficient servers and thin clients and power management software

- Ensures the proper level of availability and allow for scalability as your environment grows

Citrix XenApp – the "standard" for application virtualization

In use by over 100 million workers worldwide, Citrix XenApp is the de facto standard in application virtualization and delivers on the promise of proven application compatibility. With Citrix XenApp, you can improve application management by:

- **Centralizing applications in the data center** – for reduced costs
- **Controlling and encrypting access to data and applications** – for improved security
- **Delivering applications instantly** – for enhanced productivity

Depending on your needs, you can choose from four Citrix XenApp packages. All packages are qualified to run on Citrix-ready HP server and storage platforms.

XenApp Fundamentals	XenApp Advanced	XenApp Enterprise	NEW! XenApp Platinum
Turnkey solution for small and mid-size businesses to deliver secure, remote access for users anywhere	Solid foundation for secure and instant virtual application delivery at maximum performance to users anywhere	Proven enterprise-class application virtualization and delivery solution, optimized for managing larger environments	Most robust, reliable and secure application virtualization solution for instant application delivery to any user; offering powerful tools for greater scalability, control and visibility of even the most complex environments

And if you choose to virtualize your client environment with HP VDI with XenDesktop, you receive XenApp as part of the bundled solution. HP VDI Enterprise includes Citrix XenApp Enterprise Edition, and HP VDI Platinum includes Citrix XenApp Platinum Edition. For help choosing the right package for your organization, contact your HP representative today.

Foundation for virtualization

According to a recent Citrix survey, over 50 percent of all Citrix installations worldwide run on HP platforms. These organizations have learned the value of a highly adaptive infrastructure, powered by flexible HP servers and storage solutions. You can, too, when you choose HP BladeSystem c-Class or HP ProLiant servers to power your data center, HP Thin Clients to support your desktop environment, and HP management solutions to control your end-to-end application ecosystem. HP StorageWorks storage systems provide the performance and scalability required by virtual application deployments, as well

as high availability so your applications are safe and there when you need them.

HP BladeSystem c-Class
A highly adaptive infrastructure "in-a-box," the HP BladeSystem c-Class enables you to build vital business solutions that are more affordable, take less time to manage and maintain, enable you to meet environmental initiatives, and are ready to grow. Using advanced Virtual Connect Flex-10 technology, HP BladeSystem provides10GbE network capacity, which reduces blade cabling by 94 percent without adding managed switches. Flex-10 enables you to consolidate equipment and changes on the fly, and enables automated failover between blades. You also receive plug-and-play capability for replacing blades. You'll enjoy greater flexibility at the network edge to maintain connectivity. And to provide the investment protection you deserve, you can start small with the 8-slot c3000 enclosure, and upgrade to the 16-slot c7000 as your needs grow.

HP ProLiant servers

The top-selling x86 server platform in the world, HP ProLiant demonstrates the ongoing HP commitment to provide a complete server infrastructure that can support your business objectives and business growth. New to the HP ProLiant server family is the G6 line of products. Available in tower, rack and blade form factors, HP ProLiant G6 servers double the performance of previous generations. Advances in energy efficiency, virtualization and automation make G6 servers the ideal choice for any organization wanting to boost performance while significantly lowering operating costs.

HP Thin Client access devices

Providing the ultimate in mobility while offering desktop-like performance, HP Thin Clients are designated as Citrix and HDX-ready devices. You can choose from many models, all of which are ideal choices for HP VDI with XenDesktop and XenApp:

- **HP t5325 Thin Client** – Low-cost, high-value access appliance based on HP Thin Pro and ARM technology; offering an excellent combination of performance and affordability in an energy-efficient design; providing business class web browsing and basic multimedia for Citrix environments at entry-level pricing.

- **HP t5740 Thin Client** – First Microsoft Windows® Embedded Standard 2009 thin client with Intel® Atom N280 and Intel GL40 chipset for high-performance and rich media experiences; full-featured and highly extensible offers dual monitor, open RAM slot, and optional PCI expansion bay, secondary solid state flash, and WIFI; supports local applications, full-featured Internet Explorer; designated Citrix and HDX Ready, this HP thin client is the ideal for Citrix VDI environments.

- **HP t5745 Thin Client** – HP Thin Pro thin client with Intel Atom N280 and Intel GL40 chipset for high-performance and rich media experiences; full-featured, highly extensible thin client offers dual monitor, open RAM slot, and optional PCI expansion bay, secondary solid state flash, and WIFI; designated Citrix and HDX Ready, this HP thin client is the ideal Linux-based client for Citrix VDI environments.

HP Client Automation management software

One of the most significant challenges to a successful virtual client implementation is manageability. In many cases, existing, traditional client management solutions are unable to manage both thin clients with the variety of operating systems in addition to the traditional PCs that they have managed for years. This forces many organizations to create a separate administration team. Trained on virtualization tools, this team must coordinate complex new processes with existing client and data center management teams.

You can overcome these challenges by using HP Client Automation management software, which significantly reduces complexity and improves quality of service by automating many routine tasks, as well as identifying and remediating security, compliance and vulnerability issues in your client environment. This comprehensive suite of management tools manages the complete end-user environment—including all HP thin clients, regardless of OS, and traditional PCs—so you can avoid the additional complexity and cost that other solutions may require. Offering full support for Microsoft Windows 7, HP Client Automation enables you to easily migrate to a virtual client environment and to the latest operating system at the same time.

HP LeftHand P4000 SAN management software

A key part of the virtual desktop infrastructure is the storage system. HP can help virtualize your storage infrastructure with a range of solutions to match your specific needs, including the HP StorageWorks Modular Smart Array (MSA), HP LeftHand SAN Solutions, Enterprise Virtual Array (EVA), and XP arrays.

Certified with XenDesktop and Citrix StorageLink, HP LeftHand P4000 SAN solutions integrate cleanly and easily within your HP VDI with Citrix environment. With a pay-as-you-grow, all-inclusive pricing model and intuitive storage management software, the HP LeftHand SAN is perfect for the budget-minded organization. Every LeftHand SAN includes Network RAID, which means the storage system is protected from component and even site-wide failures—ensuring that your desktop community stays up, no matter what.

The HP LeftHand P4000 SAN can easily grow as you add users, and can scale performance as user demands increase. SmartClone and Thin Provisioning technologies ensure a high degree of storage efficiency, automatically sharing common storage between users and never reserving more capacity than necessary. And most importantly, the system is highly automated and can be easily managed by administrators with no specialized SAN training or experience, allowing your administrators to focus on managing the virtual desktop environment.

HP Services

The service professionals at HP provide a comprehensive suite of planning, design, implementation and support services that enable you to assess your business needs and develop a strategic application technology roadmap. Beside you every step of the way, HP Services can help you design, migrate, and implement a robust and productive application delivery solution. We begin by developing a solid virtualization strategy:

- **Client Virtualization Transformation Experience Workshop** – During this intensive one-day session, you will build a strategy for your virtualized solution, identify a high-level roadmap, and achieve executive consensus.

- **Client Virtualization Business Benefit Workshop** – Before you enter the planning stage, you can attend this one-day session to identify, quantify and analyze the business benefits of application virtualization, as well as set return-on-investment targets.

- **Roadmap & Architecture** – During this multi-week engagement, we create a clear roadmap, architectural blueprint and phased implementation strategy to ensure the successful integration of your new virtualization solution into your existing IT infrastructure. Significant components are:

  o **End User Discovery** – Discover, identify and classify the user population by workload. This enables us to design the right virtualization solution for each workload, for each user population.

  o **Application Discovery** – Similar to user discovery, we identify the server and client applications used by the user population, and then build a design and test plan for each, ensuring compatibility and user acceptance.

These services provide entry points for large organizations to begin their journey toward a robust application delivery infrastructure. HP implementation, support and education services complement these virtualization services—offering world-class support for the entire infrastructure based on your specific requirements.

Your partners in virtualization

Strategic partners since 1996, HP and Citrix collaborate to deliver innovative solutions for your toughest business challenges. Dedicated to your ongoing success, HP and Citrix engineers work side-by-side to design flexible solutions that meet your needs today, with built-in adaptability that enables the solutions to change right along with the volatile business landscape.

Let's get started

Call your HP sales representative today and arrange for an assessment of your business environment. Discover how virtualizing your application infrastructure with Citrix XenApp running on virtualization-ready HP platforms can satisfy your organizations requirements for future growth and expanded productivity. Find out how a virtualized application delivery infrastructure can help you:

- Increase productivity by providing anytime, anywhere access to applications

- Increase information security

- Reduce application support and maintenance costs

- Lower power/cooling costs associated with application delivery

There's no better time to consider alternatives to your legacy business environment. And there's no better time to benefit from the advanced virtualization capabilities of HP and Citrix.

For more information, call your HP representative today or visit www.hp.com/solutions/citrix and www.citrix.com/hp

Technology for better business outcomes

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