

Citrix Remains A Step Ahead With XenApp 5

Abstract

On August 25th, 2008, Citrix Systems announced the immediate availability of XenApp 5, its flagship application delivery solution (formerly called Citrix Presentation Server). This release has several new features including improved interfaces, combined support for Windows Server 2003 and 2008, and additional performance measurement and optimization capabilities. ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) analysts believe that this is a strong evolution of a leading solution, that will keep Citrix a step ahead in the application virtualization/application delivery space for the immediate future, although it will need to be wary of growing encroachment by traditional client management vendors.

Announcing Citrix XenApp 5

On August 25th, 2008, Citrix Systems, Inc. (NASDAQ:CTXS) announced the immediate availability of a new version of its flagship application delivery solution, XenApp (formerly known as Citrix Presentation Server). The new version, XenApp 5, provides a number of new usability and functionality enhancements.

XenApp is available in three editions: Advanced Edition provides the server-based application virtualization and load management tools; Enterprise Edition adds client-based application virtualization, application optimization, and performance optimization tools; Platinum Edition adds additional monitoring, security, and WAN optimization tools.

XenApp is a part of the Citrix Delivery Center – a combined offering geared to bringing applications and users together, consisting of Citrix Workflow Studio, Branch Repeater, Access Gateway, XenDesktop, XenApp, XenServer, and NetScaler solutions.

Citrix Virtualization and Application Delivery

Citrix is one of the leading vendors of solutions for virtualization – a technique for abstracting (or hiding) the physical characteristics of computing resources from the way in which other systems, applications, or end users interact with those resources. This includes making a single physical resource (such as a server, an operating system, an application, or storage device) appear to function as multiple logical resources; or it can include making multiple physical resources (such as storage devices or servers) appear as a single logical resource.

The Citrix virtualization portfolio includes solutions for:

- Server virtualization – a method of running multiple guest operating environments directly on top of base hardware, sharing fine-grained resources (CPU, memory, etc.), without requiring a complete host operating system
- Application virtualization – a method of providing an individual application to an end user without needing to completely install this application on the user's local system

- Application isolation – a method of executing application software on a local desktop in a way that it does not interact with other system and application components, settings, and configurations
- Streaming – a method of delivering software components, including applications, desktops, and even complete operating systems, dynamically and incrementally from a central location to an end user over the network
- Server-based (or remote) desktop virtualization – a method of providing a complete compute environment (with an independent OS, applications, data, etc. – a logical or virtual ‘desktop’) to an end user, which runs on a remote system and is delivered to the user across a network.¹

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EMA estimates the overall virtualization market will grow by around 20% on average through the next 12-24 months, with the strongest growth coming from desktop and application virtualization. With penetration into 60% of enterprises with a desktop virtualization deployment, and 45% of enterprises with an application virtualization deployment, EMA research has shown that Citrix is a clear leader in both categories.²

However, Citrix is not focused specifically on virtualization, but rather on the ability of virtualization and other technologies to effectively deliver applications to end users. As such, it also provides several additional solutions aimed at ensuring effective application delivery, including performance monitoring, application acceleration, firewall, virtual support systems, workflow orchestration, and more.

Key Enhancements

This new release includes some significant enhancements, including:

- Better application packaging – when multiple isolated XenApp applications need to work together (e.g., using inter-process communication), it was previously necessary to package them together. This new release adds Inter-isolation Communication, which allows such applications to be packaged separately, but published together, reducing additional administration overhead while allowing even isolated applications to interact at native levels.
- Performance monitoring improvements – improvements to Citrix EdgeSight 5.0 for XenApp introduces true service level alerting, several new management metrics, additional platform support, plus a unique new ability to run entire synthetic XenApp sessions to simulate activity between the client and the server environment. This capability is not limited to synthesizing individual transactions, but can run (either remotely or on a predetermined schedule) a series of tasks across multiple XenApp applications to test, measure, and optimize application performance to better meet SLAs.

¹ For a complete taxonomy of virtualization technologies, see the 2008 EMA Advisory Note [Defining Virtualization – A Taxonomy of Virtualization Technologies](#)

² For complete details of virtualization technologies, platforms, vendors, trends, and more, see the 2008 EMA Research Report, [Virtualization and Management: Trends, Forecasts, and Recommendations](#)

- Combined Windows Server 2003 and Windows Server 2008 support – this release, with its ‘one product, two platforms’ approach, embraces WS2008, and continues to add value to WS2003. With support for both operating systems in one package – including support for mixed server farms – it supports almost seamless transition and migration between platforms. However, there are some differences, because the new XenApp leverages some WS2008-specific capabilities to provide additional features in WS2008-based deployments, such as support for Windows User Account Control (UAC), lower application permission levels, protected mode Internet Explorer, and dynamic patching without reboot.
- New interface – this new release adds a very modern, sophisticated Web interface (which Citrix are calling “Application Experience 2.0”), with many design and usability improvements, including additional usability improvements for mobile devices. More importantly, the update applies a common design across the multiple Citrix technologies in the Citrix Delivery Center (including XenApp, XenDesktop, Password Manager, Access Gateway, NetScaler, and EasyCall), for both end users and administrators, with a consistent look and feel for login screens, administration consoles, and even component tray icons.

Other new features include user and application prioritization via Preferential Load Balancing, IPv6 support, Special Folder Redirection, preferential load balancing, implementation of a Microsoft XPS-based universal print driver, support for Microsoft Internet Information Server 7, support for HTTP Streaming, and a new Resource Manager built on EdgeSight technology. It also retains strong compatibility with Microsoft solutions including Microsoft Application Virtualization (formerly SoftGrid) and Microsoft Systems Center Configuration Manager (formerly SMS).

EMA Perspective

EMA research shows that Citrix is a leader in application virtualization, and this new release will likely help it to maintain that position. With XenApp 5, Citrix continues to add features that mask the complexity of application virtualization from end users through features such as better folder redirection, consistent look and feel, universal

print driver support, performance management improvements, etc. This addresses one of the key reasons for the slower-than-expected uptake for end-user facing virtualization technologies, which EMA has previously documented – the difficulty in transitioning end users from old-style physical desktops and applications to new (often complex and different) virtual desktops and applications. By further hiding complexity and difference, and providing simple, consistent, and attractive end-user components, Citrix improves the likelihood of successful end-user adoption.

This release also addresses significant management concerns. EMA research has shown that lack of skills is a critical barrier to virtualization adoption for 35% of enterprises, and lack of resources is a critical barrier for 40%. A simple and consistent administration interface directly addresses these barriers, as it will reduce training requirements, and make it easier and faster for otherwise overcommitted resources to implement application or desktop virtualization. By making XenApp easier

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to administer, Citrix makes it easier to learn, easier to deploy, and easier to manage. Similarly, with the improvements in performance testing, Citrix is delivering additional and much-needed management tools for larger virtual desktop and application deployments. EMA believes that virtualization fundamentally needs better management, and this release addresses this need, at least in part.

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While Citrix XenApp can replace traditional provisioning with virtual delivery in most cases, some physical management tasks remain (e.g., system imaging, physical installation, OS patching, etc.), and some applications will not run ideally under XenApp (though these outliers are increasingly rare). In addition, EMA research shows that physical deployments will be by far the dominant deployment paradigm for at least the coming 24 months. Citrix will therefore continue to be part of a broader mixed physical/virtual ecosystem for client system and application management in most organizations. Citrix today generally complements, rather than competes with, physical management solutions. Still, the traditional client management vendors (e.g., Altiris,

LANDesk, matrix42, and even Microsoft) that currently fill these remaining openings may try to edge out Citrix with their own application and desktop virtualization capabilities (or partnerships). Indeed, EMA expects that, over time, application and desktop virtualization capabilities will become standard for the client management vendors, putting vendors such as Citrix (and VMware) at increasing risk. For the immediate future, however, none of the client management vendors (or OEMs) provides application virtualization that matches the maturity and quality of Citrix XenApp; and Citrix continues to be a step ahead of comparable functionality from other virtualization vendors.

This is actually a perfect position for Citrix, which understands as few other vendors do (and as proven in its partnership relationships with otherwise competitive vendors including Microsoft) that enterprises are indeed heterogeneous, not only in virtualization technologies, but also in management technologies. As such, it does not aim to replace all desktop management solutions, but rather it aims to play its role as a leading solution to very real and significant problems, alongside other technologies where necessary. With XenApp 5, Citrix continues to extend its capabilities. With this continued commitment, EMA expects Citrix to retain significant advantages, and to stay a step ahead in the application virtualization/application delivery space, at least for the immediate future.