



Citrix XenApp[®] Comparative Feature Matrix

A list of features included in Citrix XenApp by product edition. Includes a comparison between XenApp 5, Citrix Presentation Server[™] 4.5 and Presentation Server 4.0.

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Dynamic Application Delivery

System intelligence coupled with configurable access controls automatically determine the most optimal and secure method for delivering applications to users based on device capabilities, user permissions, network performance, connection location, and security profile.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Hosted and local application delivery | | | | | |
| Server hosted application delivery | The best way to deliver applications to any device, anywhere at the lowest cost. Applications run on Windows Server 2003/2008 (32 or 64-bit) servers in the data center and are remotely displayed to users' desktops and devices. Only screen updates, keystrokes and mouse clicks traverse the network. | P/E/A | ● | ● | ● |
| Local application delivery | The best way to deliver applications to Windows devices for use even while disconnected from the network. Applications are streamed to users' Windows XP and/or Vista desktops and are virtualized, not installed, such that they run in an isolated environment without application and system conflicts. | P/E/A | ● | ● | |
| VM hosted application delivery | The fastest way to deliver applications to any device, anywhere with the highest level of compatibility. Applications run on centralized Windows XP, Vista and Win 7 virtual or physical PC's (32 or 64-bit) in the data center and are remotely displayed to users' desktops and other devices. Only screen updates, keystrokes and mouse clicks traverse the network. | P/E | ● | | |
| Scenario-based delivery | | | | | |
| Dynamic delivery determination | If local application delivery is not possible, XenApp automatically falls back to server hosted application delivery without any user interaction. This ensures that users always get the application they need with the best performance possible. | P/E/A | ● | ● | |
| Policy-based access control | Policies enable administrators to control application delivery, availability and performance based on user, group, device or IP range. Policies can be used to control access to peripherals (drives, printers, clipboard, audio, com ports), optimize | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| | performance (bandwidth limits, feature availability, latency reduction), and even enforce connection limits (number of sessions per user, per application, or both) | | | | |
| Mobile and offline access | | | | | |
| Application streaming | Enables rapid application delivery without the need to install applications on each target device. | P/E/A | ● | ● | |
| Alternate application profile configuration | Administrators can manage a single application package on multiple app hubs across the network. IP range rules can be created to direct users to stream the applications from the app hub that is closest to them and which will give them best performance. This feature also enables integration with Citrix Branch Repeater. | P/E/A | ● | ● | |
| Offline application availability | Administrators can configure users and groups that can use applications while disconnected from the corporate network. Apps are streamed to user devices and persist in a local cache. Users then access them in the same manner as if they were installed, however, administrators retain centralized management. | P/E/A | ● | ● | |
| Application lease period | Administrators can set how long an application is available for offline use. Users must reconnect to the network prior to the end of the lease period or the application cannot be used. In this manner, administrators retain a level of license control within their environment. | P/E/A | ● | ● | |
| Proven app compatibility | | | | | |
| Application isolation environment | Enables a virtual application run-time that contains all the files, registry settings and named objects for an application. This allows applications that are incompatible with each other to safely run side by side whether being hosted on XenApp servers or delivered to run locally on a user's PC. Applications behave as if they were installed with full peripheral, network and native OS support. Administrators can also control the level of communication allowed between applications using isolation rules. | P/E | ● | ● | |
| Inter-isolation communication | Configure groups of applications that can communicate with one another while maintaining the compatibility benefits of each applications isolation environment. | P/E/A | ● | | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------|--------------------------|
| IPv6 support | Allows IPv6-enabled clients to access XenApp hosted applications. Applications delivered locally retain their native support for IPv6. | P/E/A | ● | | |
| Virtual IP support | Enables applications that require a unique IP address for each user session, whether for functional or licensing reasons, to be delivered via Citrix XenApp. Administrators can set aside a block of virtual IP addresses on the server for use by sessions that require them. | P/E/A | ● | ● | ● |
| TWAIN device support | TWAIN imaging devices can be used with any application delivered via XenApp. This allows transparent use of client-attached imaging devices from applications that run in the data center or those which are delivered locally. | P/E/A | ● | ● | |
| Support for ActiveSync | Client-connected USB PDA devices can be synchronized using Microsoft ActiveSync software that is either hosted on the server or delivered locally. | P/E/A | Windows Server 2003 only | ● | ● |
| Bidirectional audio | Peripherals such as microphones and dictation hardware can be used with hosted or local applications delivered via XenApp. | P/E/A | ● | ● | ● |

Single Instance Management

Application and server images are stored, maintained and updated once in the datacenter and delivered on-demand. This simplifies management, avoids application conflicts and makes it easy to provide real-time updates.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Single instance application management | | | | | |
| App hub | A central location that acts as a single point of delivery for all applications. | P/E/A | ● | ● | |
| Application profile | A package containing multiple variations of an application for different Windows operating systems. Profiles can be delivered to any device – locally delivered to Windows devices or hosted in the data center and delivered to any device. | P/E/A | ● | ● | |
| Installation manager | If application installation is desired, Installation manager enables IT to automatically and remotely install applications across multiple servers simultaneously. | P/E | ● | ● | ● |
| One-point application publishing | | | | | |
| Application publishing | IT can create a personalized application list for users by configuring who can access each application, how it will be delivered and what the user experience will be. | P/E/A | ● | ● | ● |
| Content publishing | IT can publish internal and external content (e.g. documents, web sites) and configure who can see them. Published content is presented along-side applications. | P/E/A | ● | ● | ● |
| Single image server farm management | | | | | |
| Provisioning services | Manage the entire XenApp farm of application hosting servers from a single standardized server image. | P | ● | | |
| Centralized updates and upgrades | | | | | |
| Automatic synchronization | Applications can be patched, reconfigured or updated once, in the data center and users automatically synchronize these changes upon next connection | P/E/A | ● | ● | ● |

Any Device, Anywhere

Users can simply and securely access applications instantly with a consistent high quality experience regardless of location or device.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Receiver plug-ins | | | | | |
| Microsoft client support | Supports all versions of Windows including Win32, WinCE, Pocket PC and Win16. | P/E/A | ● | ● | ● |
| Non-Windows client support | Supports Mac, Linux and other non-Windows based client operating systems. | P/E/A | ● | ● | ● |
| Mobile device Support | Supports small form factor device operating systems such as Windows CE, Windows Mobile, Pocket PC, iPhone and Symbian. | P/E/A | ● | ● | ● |
| Non-admin client installation | Eliminates the need to give users “Administrator ”privileges in order to install XenApp plug-ins in order to simplify application access. | P/E/A | ● | ● | |
| Universal device support | | | | | |
| Universal Device Access | Citrix online plugin for accessing hosted applications is available for a wide range of platforms including: DOS, Windows XP, Vista, Win7, Windows CE / Pocket PC, UNIX, Linux, Mac OS X, Java, IBM OS/2 Warp, EPOC / Symbian OS. | P/E/A | ● | ● | ● |
| Microsoft Remote Desktop Client support | Allows users to connect to XenApp using the Microsoft Remote Desktop Client, enabling access from Windows devices that are locked-down and which may not support Java. | P/E/A | ● | ● | ● |
| Browser-based access | | | | | |
| Web interface | A browser-based interface for accessing applications. Offers built-in support for two-factor authentication, simple customization through the management console and multilingual support. Integration with most third-party portals is seamless. | P/E/A | ● | ● | ● |

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|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Support for Microsoft SharePoint | Allows organization to add Web interface functionality to Microsoft SharePoint to deliver applications to users through a SharePoint portal. | P/E/A | ● | ● | ● |
| Client-less SSL VPN access | Allows users to access network file shares, Web email and internal Web sites from devices that are locked down and do not permit the downloading of any software. | P | ● | ● | |
| Secure application access | | | | | |
| Secure application access | A full featured SSL VPN gives users access to any application or network resource including applications delivered via Citrix XenApp. | P | ● | ● | |
| Application gateway | Hardware and software-based SSL-proxy that allows remote users to securely access data center hosted applications delivered via XenApp. All hosted application traffic is proxied to enable firewall traversal without requiring additional ports to be opened. | P/E/A | ● | ● | ● |
| SmartAccess | Provides granular access control policies and integrated endpoint analysis for users accessing applications via SSL VPN. Administrators have a single point of access control for all applications and resources - not just XenApp traffic. | P | ● | ● | |
| Endpoint scanning and extensible analysis | Clients are scanned against administrator-defined criteria to enforce proper configuration such as up-to-date security software and operating system hotfixes. Endpoint analysis can be extended using industry-standard development tools. | P | ● | ● | |
| Hot desktop | Enables users to securely share workstations. Let's users logon/logoff in seconds instead of using a time-consuming, full Windows or Novell logon/logoff procedure. | P | ● | ● | |

High Definition User Experience

Virtualized applications deliver a high performance, high definition user experience from any device, on any network – even for graphic-rich and multimedia content. Users are assured a seamless experience with zero downtime and higher overall productivity.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------|--------------------------|
| Citrix HDX technology | | | | | |
| HDX MediaStream | Ensures that users receive a smooth, seamless experience with multimedia content when accessing virtual applications. This is accomplished by leveraging the processing power of the endpoint device to render the multimedia content whenever possible. If client-side rendering is not available, server-side HDX MediaStream falls back to server-side rendering and uses various acceleration technologies to maintain an optimal user experience. Formats supported include Flash, DIVX, XVID, MPEG 4, MPG, WMV, AC3, WMA, MP3, and MPEG 1. | P/E/A | ● | ● | ● |
| HDX MediaStream for Flash | Whenever possible, Flash content accessed via server hosted applications, including video and flash-based applications, is offloaded from the server and redirected to the user's PC for processing and rendering which reduces resource consumption on the server and improves performance for users. | P/E/A | Windows Server 2003 ONLY | | |
| HDX Realtime | Bi-directional audio capabilities enhance real-time communications by leveraging technologies at the endpoint and in the datacenter. Users can connect audio peripherals such as microphones and dictation hardware at the endpoint device that interact with virtual applications hosted in the data center. On the server side, the media stream is highly compressed and optimized to enable performance and clarity over the network. | P/E/A | ● | ● | ● |
| HDX 3D | Thinwire technology optimizes the delivery of graphics-intensive hosted applications to preserve the PC-like experience – as if applications were installed – and intelligently compresses data sent across the network for the best possible performance. Image Acceleration offers administrators a trade-off between quality and bandwidth performance for photographic images. Browser Acceleration | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| | optimizes the responsiveness of graphics-rich HTML pages. | | | | |
| HDX 3D Progressive display | Dramatically improves the performance and usability of server-hosted graphics-intensive applications such as PACS (picture archiving and communication systems) and GIS (geographic information systems) apps, while providing speed and anywhere-access for users. | P/E/A | ● | ● | |
| HDX IntelliCache | Persistent object caching stores Windows objects or bitmaps to minimize re-transmissions of those objects within a hosted application session. Once the objects are cached, the server merely sends a numeric identifier to the client rather than redrawing and re-transmitting the objects. SuperCache improves user scrolling for content accessed via a hosted web browser. It stores display information for previously viewed regions of web pages in local cache so that back and forth scrolling does not require redraw or retransmission from the server. | P/E/A | ● | ● | ● |
| HDX IntelliCache Branch optimization | Powered by Citrix Branch Repeater®, branch caching reduces network utilization and dramatically improves network performance. Branch caching for hosted applications provides local caching and de-duplication of common display, file and print data and media-streams across multiple hosted application sessions. Branch caching for streamed applications stores application profiles locally in the branch for rapid delivery and synchronizes applications whenever they are updated or patched in the application hub. | P | ● | ● | |
| HDX Broadcast | Optimizes the reliability and performance of hosted virtual applications over any network with technology such as instant mouse and text entry feedback, auto-client reconnect, virtual channel bandwidth control and prioritization, session reliability, priority packet tagging and dynamic bandwidth estimation. HDX Broadcast enables a high definition user experience for users accessing applications – whether on the corporate network or from the Internet. | P/E/A | ● | ● | ● |
| HDX Broadcast Auto-optimizer | Powered by Citrix Branch Repeater®, this feature adaptively tunes for optimal performance based on real-time network and traffic conditions. | P | ● | ● | |
| HDX Broadcast Adaptive TCP flow Control | Powered by Citrix Branch Repeater®, this feature mitigates TCP penalties and maximizes bandwidth utilization for all communications across the WAN between branch offices and client devices. | P | ● | ● | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------|--------------------------|
| HDX Broadcast Multi-level compression | Powered by Citrix Branch Repeater®, reduces data size for all WAN communications by up to 3500-to-1 by applying the optimal combination of multiple compression techniques. | P | ● | ● | |
| HDX Plug and Play Device mapping and dynamic reconfiguration | Enables simple and seamless connectivity of peripherals and objects in the users local environment such as USB devices, drives, clipboard, printers, COM ports, and audio. Even multiple monitors, up to 9 in total, can be mapped to the users session to allow hosted applications to span across a larger workspace. Furthermore, when users connect from any client, the color depth and resolution of the hosted application session will be adjusted automatically to match their local environment. | P/E/A | ● | ● | ● |
| HDX Plug and Play USB for mass storage devices | Enables users to connect USB 1, 2 and U3 drives to their PC and automatically maps them to their server-hosted application session to preserve the user experience that users would have when using these devices on their local PC with installed apps. | P/E/A | Windows Server 2003 ONLY | | |
| HDX Plug and Play Workspace control | Allows users to switch between devices and reconnect to an active or disconnected session on another client device without having to restart applications. The session is automatically transferred from one location and device to the other once the user logs in. | P/E/A | ● | ● | ● |
| HDX Plug and Play ClearType support | Ability to remotely display ClearType fonts used by applications like Office 2007 to provide a rich user experience on LCD displays (ie., laptops, flat screens etc). | P/E/A | ● | ● | |
| HDX-Plug and Play Special folder redirection | Enables special folders such as a users unique "My Documents" and "Desktop" folders to map to hosted application session automatically. | P/E/A | Windows Server 2008 ONLY | | |
| Better than installed user experience | | | | | |
| Seamless windows | Integrates local and hosted applications into the local Windows desktop so that applications look and feel just like locally installed applications. | P/E/A | ● | ● | ● |
| Desktop integration | Applications and content delivered via XenApp can be tightly integrated into the end user's Window's desktop so that they are available from the Start menu and leverage the system tray just as local applications do. | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Content redirection | Administrators can configure whether local or hosted applications are used to open content. This ensures that users can open any content, file, or data – no matter where it is stored - even if the app needed to view it is not available on their device. | P/E/A | ● | ● | ● |
| Always-on SSL VPN access | Automatically maintains an SSL VPN connection as users roam between networks or when users are connected via unreliable links. | P | ● | ● | |
| Universal printer driver | XenApp will make any printer that supports XPS (Windows Server 2008 only), EMF, PCL or PostScript available to users accessing hosted applications without the need to manage native printer drivers on XenApp servers. Users can even use advanced printer functions like stapling and trays. | P/E/A | ● | ● | ● |
| Proximity printing | Ensures that users will be able to print to their closest printer without having to know the configuration of that printer. | P/E/A | ● | ● | ● |
| Printer management | Provides advanced printer management of native print drivers for hosted application sessions. This includes the ability to map drivers to different servers and easily replicate drivers from one server to another. | P/E/A | ● | ● | ● |
| Multi-lingual user interface support | Provides one client software package for all languages and allows user to specify language preference. | P/E/A | ● | ● | |
| Multi language support for Web interface | Language packs are provided to localize the Web Interface into the following languages: English, German, Spanish, French, Japanese, Chinese (simplified and traditional) and Korean. | P/E/A | ● | ● | ● |
| Profile management | | | | | |
| Easy setup | Runs as a system service, and does not require any additional servers, services, databases or changes to logon scripts. | P/E | ● | | |
| Inclusion by default | Existing user settings are automatically migrated and all settings are captured by default, reducing the amount of time and effort spent in identifying what should be captured in a profile. Administrators only need to focus on the items to be excluded from a profile, such as conflicting settings, files or folders that bloat the profile. | P/E | ● | | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Inclusion and exclusion rules | Enables administrators to choose which profile information to keep or discard at a granular level. | P/E | ● | | |
| Profile size control | Enables administrators to only include specific files and folders or exclude unnecessary ones that account for tens or hundreds of megabytes, minimizing the amount of data being managed and stored in the profile, decreasing network overhead and reducing logon times. | P/E | ● | | |
| Roaming experience | Ensures that personal settings, documents, shortcuts, templates, desktop wallpapers, cookies and favorites always follow the user across different Windows environments on any device. | P/E | ● | | |
| Data capture | Auto-detects and stores modified profile settings in the registry and file system and captures any modifications within the profile, preventing unintentional overwriting of user profiles using built-in logic to determine what data should be kept. | P/E | ● | | |
| Extended synchronization | Allows IT to synchronize files and folders for applications that do not store user-related content within the user profile but somewhere on the device hard disk. | P/E | ● | | |
| Detailed reports | Logs detailed information on all actions being performed in an easy to read and understand format, simplifying the troubleshooting and analysis process. | P/E | ● | | |
| Integrated voice services | | | | | |
| Click-to-call | Users click any phone number on their desktop and initiate a call from anywhere using the corporate telephony system rather than their personal phone. This saves time, increases productivity and saves money by leveraging corporate calling rates. | P/E/A | ● | ● | |
| Call redirection and Find me | Users receive office calls on any phone without the need for a softphone. The system finds users by dialing phone numbers they have configured in the order they specify. In this way, users can work from anywhere and business becomes more responsive. | P/E/A | ● | ● | |
| Click-to-conference | Users click any phone number in any application and initiate a conference call directly from their PC via the corporate telephony system, saving time and money when compared to pay-per-minute services. | P/E/A | ● | ● | |
| Address book | Gives users one click access to the corporate address and phone book right from | P/E/A | ● | ● | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| lookup | their desktop. | | | | |
| Click-to-call the helpdesk | Enables IT to embed a URL in any web page which, when clicked by the user, initiates a call between the helpdesk and the phone they specify. This works even for users that do not have the voice services plugin installed. | P/E/A | ● | ● | |
| Simple plugin delivery | The voice services plugin can be delivered to Mac and Windows users via an integrated download page, via Citrix Receiver or through manual installation for fast and easy setup to any device. | P/E/A | ● | ● | |
| Virtual appliance | EasyCall voice services is packages as a free, Xen-based virtual appliance that easily integrates into any infrastructure and can be configured to leverage most common corporate Voice over IP systems. | P/E/A | ● | ● | |

Secure by Design

Centralized application management is the most secure architecture for delivering applications. Data remains in the datacenter while only screen updates, mouse clicks and keystrokes transit the network. Centralized password control, multi-factor authentication, encrypted delivery and a hardened SSL VPN appliance eliminate the chance for loss or theft of data.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|--------------------------|--------------------------|
| Multi-factor authentication | | | | | |
| Active Directory support | Support for Microsoft Active Directory means that XenApp recognizes and authenticates your users easily. | P/E/A | ● | ● | ● |
| Active Directory Federation Services support | Makes it easier to extend application access to trusted partners. No longer is Active Directory Federated Services (ADFS) limited to Web applications-now you can provide federated access to any Windows application delivered by XenApp. | P/E/A | ● | ● | |
| Novell eDirectory and NDS support | Support for Novell eDirectory and Directory Services means that XenApp recognizes and authenticates your users easily. | P/E/A | Window Server 2003 ONLY | ● | ● |
| Two-factor authentication | Supports RSA SecurID® and SafeWord® Secure Computing tokens for two-factor authentication. | P/E/A | ● | ● | ● |
| RADIUS support for Web interface | Enables Web Interface to support any 3rd party 2-factor authentication product that supports generic RADIUS protocol. | P/E/A | ● | | |
| Kerberos authentication | Kerberos simplifies user authentication and reduces logon points while ensuring logon chain integrity when users are accessing applications through Web interface. | P/E/A | ● | | |
| Smartcard support (including Common Access Card (CAC)) | Support for Smart card authentication to Web Interface or XenApp hosted applications as well as pass through support for authentication to applications. Smooth Roaming enables user sessions to move with them between devices without having to restart anew at each device. | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Pass-through authentication | Provides the ability to pass the user's desktop password to the server. This reduces the need for multiple system and application authentication. | P/E/A | ● | ● | ● |
| Encrypted delivery | | | | | |
| TLS/SSL Encryption | Support for Transport Layer Security (TLS) and Secure Socket Layer (SSL) encryption ensures that all application delivery communications are secure. | P/E/A | ● | ● | ● |
| AES support | Supports Advanced Encryption Standards (AES), required by many government agencies and organizations with strict security requirements. | P/E/A | ● | ● | |
| HTTP/S for streaming | Stream applications to servers and user devices via HTTP/S protocol. This ensures secure delivery and easier firewall traversal when delivering applications to local PC's. | P/E/A | ● | | |
| Trusted server configuration | Similar to Internet Explorer's "trusted web sites" feature, Trusted Server Configuration prevents users from accessing unauthorized or un-trusted servers. | P/E/A | ● | ● | |
| Data centralization | | | | | |
| Hosted application delivery | Applications can be configured to execute on the server with only mouse clicks and keystrokes sent to the user device. Delivery in this manner means that data is maintained in the data center and never on the users device where it is at higher risk of being lost or stolen. | P/E/A | ● | ● | ● |
| Peripheral connection control | Restricts whether hard drives, printers, com ports and clip board are mapped for a user while accessing hosted applications to prevent data download and copy from the data center. | P/E/A | ● | ● | ● |
| Folder redirection | Enables users My Documents folder to be mapped to a central file store to help maintain files in the data center. | P/E/A | | | Window Server 2008 ONLY |
| Offline user groups | Enable only a subset of users to take applications offline, thereby mitigating the need for data and files to be transmitted to their local device. | P/E/A | ● | ● | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Built-in password management | | | | | |
| Single sign-on | Secures application logons and enhances the security of all password-protected Windows applications. | P | ● | ● | |
| Password policies | IT can define policies to control password strength for any application. Password expiration can also be controlled for any application that lacks this capability. | P | ● | ● | |
| Auto-application password change | When an application asks a user to change their password, XenApp can respond with a new password created based on rules that IT has configured. | P | ● | ● | |
| Self-service password reset | Allows users to reset their domain password or unlock their Windows account through Web Interface or from the control + alt + delete logon screen. | P | ● | ● | |
| Activity Auditing | | | | | |
| SmartAuditor | Provides powerful application session recording for improved regulatory compliance, risk mitigation, and accelerated problem resolution. | P | ● | ● | |
| Configuration logging | Tracks changes made to the configuration of a XenApp server farm, by whom and at what time they were made to simplify and accelerate troubleshooting and ensure accountability. | P/E/A | ● | ● | |

Enterprise-class Infrastructure

XenApp is proven to support more than 50,000 users, scale beyond 1,000 servers in a single implementation and ensure 99.999 percent application availability. The enterprise-class foundation coupled with centralized management, monitoring and automation tools enable rapid response to business and user needs.

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------|--------------------------|
| Centralized management | | | | | |
| Centralized management console | Comprehensive interface that enables complete, single-point management of the entire XenApp farm including servers, applications, licenses, printers and users from any location. Provides tight integration with Active Directory®. Multiple Citrix products can also be included and managed from a central location by creating a single Microsoft Management Console. | P/E/A | ● | ● | ● |
| Delegated administration | Provides the ability to designate administrative tasks to users without having to add them to a domain administrator group. | P/E/A | ● | ● | ● |
| Remote server management | Remotely manage all XenApp servers directly from an integrated user interface within the Management Console and connect to either the desktop or the console. | P/E/A | ● | ● | ● |
| Support for Microsoft Operations Manager (MOM) 2005 & 2007 | Management pack enables control of XenApp server farm's through Microsoft's MOM 2005 and 2007 product using the Microsoft Operations Console. | P/E | ● | ● | ● |
| Service level assurance | | | | | |
| Power and capacity management | Create system policies that manage server power consumption and make the most optimal use of server capacity during both peak and off-peak hours. Automatically brings capacity online to maintain expected user performance and access and retires capacity when it is no longer needed. | P/E | Windows Server 2003 ONLY | | |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| Load testing services | Create realistic test scenarios through a visual scripting interface. The scripts are then run against virtual or physical XenApp servers to simulate user activity and determine benchmark server capacity. | P/E | ● | | |
| Service monitoring | Enable IT to quickly pinpoint and troubleshoot server, network and application performance issues that impact the user experience. | P | ● | ● | |
| System monitoring and reporting | Administrators can efficiently manage and monitor system resources and generate reports on application and server availability, configuration, performance, capacity and maintenance. | P/E | ● | ● | ● |
| Network management console integration | Supports SNMP monitoring and integration with third-party network management tools, including: Microsoft Operations Manager, IBM Tivoli, HP OpenView™, CA Unicenter™. | P/E | ● | ● | ● |
| Shadowing for hosted applications | Administrators and support teams can view and control an active users session to assist with troubleshooting and problem resolution. Includes a shadowing task bar, shadowing indicator, one-to-many and many-to-one shadowing, cross-server shadowing and shadow session logging. | P/E/A | ● | ● | ● |
| SmartAuditor | Provides policy-based recording of user sessions with hosted applications for improved regulatory compliance, risk mitigation and accelerated problem resolution. | P | ● | ● | |
| Configuration logging | Tracks changes made to the configuration of a XenApp server farm, by whom and at what time they were made to simplify and accelerate troubleshooting and ensure accountability. | P/E/A | ● | ● | |
| Workflow Studio orchestration | A visual scripting tool designed to help automate common IT tasks and orchestrate the collaborative function of Citrix XenApp, XenDesktop, XenServer and NetScaler. | P/E/A | ● | | |
| Multiple farm support | Supports multiple groups of servers (server farms) to provide customers with the most flexible deployment options. Built-in support for aggregation of published content, centralized management, and cross-farm load balancing ensures that almost any scenario can be supported. | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------|--------------------------|
| Intelligent load management | | | | | |
| Enterprise load management | Ensures that each user receives the best system performance by allowing IT to configure balancing rules based on application and user load, context switches, CPU utilization, disk data I/O, disk operations, IP address range, memory utilization, page faults, page swapping, schedule and server user load. This flexibility means that there is no need for third-party load balancing solutions. | P/E/A | ● | ● | ● |
| Preferential load balancing | Enables administrators to prioritize a user/group and application based on pre-established requirements. Ensures sessions are appropriately balanced to provide enhanced user experience. | P | Windows Server 2008 ONLY | | |
| CPU utilization management | Prevents individual users and processes from taking too much CPU at any given time, ensuring a consistent performance level for all users on the server. | P/E | ● | ● | ● |
| Virtual memory optimization | Improves overall performance by rebasing DLLs to better optimize the use of virtual memory. The optimizations attempt to eliminate DLL memory mapping conflicts from process to process (app to app or session to session) which reduces the amount of page swapping. | P/E | ● | ● | ● |
| Load throttling | Prevents new servers from being overloaded when they first logon to the farm by automatically biasing server load. Creates a consistent, reliable user access experience. | P/E/A | ● | ● | |
| Connection control | Administrators can set a limit on the number of total simultaneous connections that each user can have to the server farm. Administrators can also prevent users from launching more than one instance of the same published application. | P/E/A | ● | ● | ● |
| Application user load | Limits the number of users allowed to connect to each specific hosted application. | P/E/A | ● | ● | ● |

| Feature | Description | Edition | XenApp™ 5.0 | Presentation Server™ 4.5 | Presentation Server™ 4.0 |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|--------------------------|
| High availability and failover | | | | | |
| Scalable to thousands of servers | XenApp has been tested by both Citrix and within the enterprise with over 1000+ servers in a single implementation running over 50,000 user sessions. | P/E/A | ● | ● | ● |
| Health assistant | Performs continuous server health checks and automatically initiates recovery procedures, minimizing the need for administrator intervention. | P/E | ● | ● | |
| Clean image reboot | Reboot a provisioned server to obtain a clean image in the event of OS corruption or failure. | P | ● | | |
| Client backup URL | Specifies a secondary Web Interface URL and automatically redirects traffic in the event of a primary URL disruption. | P/E/A | ● | ● | |
| Zone preference and fail-over | Establishes user sessions based on their proximity to and availability of a particular server or group of servers. This feature enables higher user and farm performance in implementations that span multiple data centers and eases disaster recovery and business continuity. | P/E | ● | ● | ● |
| Dynamic virtualization platform | | | | | |
| XenServer virtualization platform | Bare-metal hypervisor that enables virtualization of all components of Citrix XenApp as well as any other servers in your data center. Includes functions such as live migration of virtual workloads from one physical server to another without interrupting user operation. | P/E/A | ● | | |



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About Citrix

Citrix Systems, Inc. (NASDAQ: CTXS) is the global leader and the most trusted name in Application Delivery. More than 230,000 organizations worldwide rely on Citrix to deliver any application to users anywhere with