

# Get the Most out of Citrix XenApp and XenDesktop

Four reasons to go Platinum for high-ROI enhancements

Save time, reduce cost and increase efficiency with value-added features in XenApp and XenDesktop Platinum Editions.



Mobility has changed the workforce forever, placing new demands on infrastructure and the IT teams that help users stay productive. If you're evaluating your options for making the move to app and desktop virtualization, you're already learning about the features and performance that make Citrix XenApp and XenDesktop the solutions of choice for more than 98 percent of the Fortune 500. If you're a current Citrix customer you've already experienced the power of Citrix XenApp and XenDesktop for delivering Windows apps and desktops to any device, anywhere. Now learn more about the economic and strategic benefits you can achieve with XenApp and XenDesktop Platinum Editions.

The Platinum Editions of these industry-leading virtualization solutions let you realize even greater value from your investment with expanded capabilities that deliver ROI far beyond the cost of the upgrade. Newly enhanced to meet the needs of today's customers, XenApp and XenDesktop Platinum Editions help you address a range of top IT priorities through a single, unified solution.

This paper explores four areas where XenApp and XenDesktop Platinum Edition can help you save time and money while increasing efficiency, including:

- Enhanced security with context-aware remote access to apps and desktops, granular policy control to meet stringent Common Criteria and FIPS certifications, and a simplified self-service password reset experience to reduce account-related helpdesk calls
- Operating system migrations and application management streamlined to reduce project time, cost, labor, risk and disruption
- Advanced management and monitoring to help you maintain system health and avert problems with proactive notifications and alerting
- **Traffic optimization** to accelerate application performance over any type of network connection and deliver the best experience for every user, everywhere

## The highest-value Citrix solutions for app and desktop virtualization

Every edition of XenApp and XenDesktop provides the flexible, transformative virtualization technology you need to empower the modern workforce. The Platinum Editions of these solutions go even further with high-value capabilities that help you meet the mobility, security and performance needs of both IT and end users.

#### **Enhanced security**

To support the modern mobile workforce, you need to provide flexible and secure remote access to apps and data while following industry regulations, maintaining compliance and leveraging security best practices. The Platinum Editions of XenApp and XenDesktop provide comprehensive security and access control for users everywhere, on any device, while helping you capture complete user activity to facilitate audit response and compliance reporting. Says Marcelo Noronha, IT Project Manager, Qualicorp, "[Citrix XenDesktop is] the best solution we have found to provide our users with secure remote access to business applications as well as reduce costs of infrastructure maintenance."

#### Granular access to services

As mobility and bring-your-own device (BYOD) vastly expand the range of usage scenarios, it becomes much more difficult to ensure that user actions don't expose business information to risk. A service that's safe enough to allow in one setting, such as in headquarters or a branch office, might be unacceptable in a less secure setting like an airport lounge or home office—but blanket restrictions would unnecessarily impair productivity.

The SmartAccess feature of XenApp and XenDesktop Platinum Edition enables granular, context-aware security by allowing differentiated access to services based on user and device policies. IT can enable and disable specific application features according to the current scenario—for example, disallowing printing in public locations, preventing downloads to personal devices, disabling screen shots or barring access from a jailbroken device. With Citrix NetScaler, Citrix offers the only integrated networking solution for simple setup of context-aware access control and end-to-end visibility through a single pane of glass.

## Compliance with FIPS and Common Criteria

The Common Criteria for Information Technology Security Evaluation is a framework adopted by over 24 nations for certifying that a computer security product or system can meet its claims for security. Common Criteria certification assures customers that the products they are buying have been subjected to rigorous third-party testing to verify that they meet the promised specifications. Federal Information Processing Standard 140 (FIPS 140) is a U.S. Federal Government standard encompassing benchmarks and best practices for the encryption of sensitive information. FIPS compliance is required by law for all U.S. federal agencies, and is gaining widespread adoption in private sector verticals as well, including finance, healthcare, legal, mobile operators and public safety. XenApp and XenDesktop Platinum Editions have achieved full compliance with both FIPS and Common Criteria, proving their suitability for even the most security-sensitive implementations.

# Self-service password reset

In the typical organization, 20 – 30 percent of all helpdesk calls are related to password reset. At roughly \$70 per call, this represents a tremendous expense for such a low-level task, diverting resources from more substantial issues. If forgotten passwords routinely obstruct user productivity, people are more likely to choose a password that's more easily remembered—and more easily hacked—and change their passwords less frequently. To maintain best practices for password strength, IT needs to provide a way for users to gain access quickly and easily without draining helpdesk resources.

XenApp and XenDesktop Platinum Edition extend the value of the Citrix StoreFront component by allowing self-service password reset so people can quickly regain access to their apps, desktops and data without the inconvenience and expense of a helpdesk call.

#### Session recording

Monitoring and tracking of user activity in applications is an essential component of regulatory compliance and successful security audits in many industries. To comply with rules governing financial transactions and access to sensitive customer and patient information, organizations need to go beyond traditional event log monitoring to capture the real access scenario that is taking place. Similarly, a complete record of a user session can be essential for determining the potential criminal intent of suspicious activity.

Available only in XenApp and XenDesktop Platinum Editions, Session Recording uses flexible policies to automatically trigger recordings of user sessions in scenarios such as access to sensitive information like financial data, intellectual property, personal information and medical records. A policy to randomly record user sessions promotes compliant user behavior, and video logs of computing activity aid compliance and litigation readiness. The ability to examine a user session can also greatly accelerate troubleshooting and issue resolution, while session recordings can be highly useful for training purposes.

#### Operating system migrations and application management

Transformational IT projects around mobility, consumerization and the cloud can put a tremendous strain on traditional processes for operating system migration and application management. Time-consuming manual methods for OS migration divert IT staff from more strategic work, while the need to test and remediate applications for compatibility on the new OS across diverse endpoints poses an additional layer of complexity. This heterogeneous environment also complicates ongoing application management, as IT must install, run and test hundreds or thousands of apps across multiple device types, taking into account whether they will be virtualized, streamed or installed locally. To support the business, IT has to be able to manage apps more effectively, from installation and migration, to delivery across the full range of devices, to ongoing software hotfixes and patches.

## Accelerated Windows migration

XenApp and XenDesktop Platinum Editions accelerate application migrations to Windows 10 with AppDNA, which predicts potential issues and shows a clear path to application compatibility on the new OS. The solution collects the "DNA"—file, registry and configuration data—of apps, the current OS and the planned new OS in a single repository to create an abstracted computing environment. IT can then use this model to query and model the environment without having to install and run each app; see all applications together, as a whole; assess OS builds and how they impact compatibility; and understand relationships between apps and the OS. Reports David Burns, global head of enterprise architecture at Vertex, which used AppDNA to support a recent OS migration, "Without AppDNA, this pre-migration profiling task would have taken a 5-man team of application specialists at least 140 days. The AppDNA solution has effectively saved us 620

work-days, delivering a time saving of 89 percent." AppDNA also helped Vertex reduced the cost of its migration project by 32 percent.

AppDisk technology complements AppDNA by allowing administrators to package and manage applications independent of their master desktop and server OS image—thus reducing the number of golden images to manage, and making it easier to install or update applications. The Platinum Editions of XenApp and XenDesktop let you use AppDNA directly in the Studio console to validate and remediate app compatibility issues within an AppDisk layer, between AppDisk layers and with the master image OS underlying any number of AppDisk layers. App analytics can help save as much as 90 percent of the time spent on validating and re-validating applications and layers.

#### Simplified application compatibility, migration and management

AppDNA also lets you discover, automate and model applications for greater insight into the effect of application issues, proposed implementations and migrations on users, workgroups and devices. Says Jeff Jung, senior infrastructure architect at Allianz, "With the new process of the app development team utilizing AppDNA to analyze their code before giving it to us to deliver for a production instance, it's helped to streamline our app development process and more quickly get apps to our customers in a very stable state."

#### Management and monitoring

To keep your business performing at its best, you need complete visibility into your environment and the user experience you're delivering. The Platinum Editions of XenApp and XenDesktop help you prevent IT issues from disrupting service delivery with end-to-end monitoring, proactive alerting and user experience monitoring. Integration with Microsoft System Center lets you manage both traditional infrastructure and modern applications through a single console.

## Enhanced monitoring and notification with Platinum Director

While all editions of the Director console capture seven days of data from XenApp and XenDesktop, the Platinum Edition goes further with up to 365 days of usage and trending reports for deep performance analysis. Proactive notifications and alerts, configured for specific thresholds and conditions such as session disconnects, connection failures, logon times and server load, ensure that busy admins are aware of emerging problems as soon as they arise. The integration of Microsoft System Center Operations Manager (SCOM) alerts into the Director console gives administrators a single point of visibility and control for desktop and server OS usage reporting, proactive notification and alerting, app limits, reboot warnings and override control over roaming sessions. This way, the administrator is always notified of error conditions or excessive resource usage before they impact overall performance and availability.

Integration with Citrix NetScaler enables true end-to-end monitoring of the entire connection from device to network to app or desktop resource, leveraging user experience data supplied by

NetScaler HDX Insight integrated into the Director console to correlate network data, application data and real-world metrics for fast, accurate troubleshooting.

# Microsoft System Center integration

In addition to the SCOM alerts in Director, XenApp and XenDesktop Platinum Editions also offer the SCOM packs and the Citrix Connector for System Center Configuration Manager. Admins can also choose to integrate Director's help desk capabilities into SCOM to monitor both virtual and traditional workloads through a single pane of glass. Similarly, a connector to the System Center Configuration Manager allows you to manage your XenApp and XenDesktop environment through the same System Center console used for traditional infrastructure for a simplified datacenter management experience.

## Environment and user analysis monitoring

Capacity management features provide a real-time view of desktop OS and server OS usage so you can quickly assess and predict resource requirements, track license utilization, prioritize investment and retire underused assets. Data on who used which desktop, when, and for how long enables accurate customer metering or in-house bill-back for IT-as-a-service (ITaaS) models.

## Citrix Provisioning Services

Single image management with Citrix Provisioning Services (PVS) offers one more reason to go Platinum. Available in XenDesktop and in XenApp Platinum Edition, PVS lets you manage a single version of your XenApp or XenDesktop virtual machines to be streamed to hundreds or thousands of desktops. Changes can be tested easily at each stage from development to test to production, implemented instantly across every user in the environment, and rolled back just as easily to a previous version if necessary.

Any app or desktop issues that arise can be resolved easily with a simple reboot to restore the image to its original state.

Beyond the tremendous time and cost savings enabled by more efficient single image management, PVS can dramatically lower storage costs, as demonstrated by an ESG Lab Spotlight on Provisioning Services. A XenDesktop implementation requiring 26 disks can be reduced to three, and a XenApp implementation requiring 74 disks can be reduced to just four. A new RAM Cache with Disk Overflow feature has the potential to reduce storage costs by 80 percent or more.¹ As a system administrator at one large enterprise construction firm says, "PVS has been crucial to simplifying image management in our environment in updating images, but also in troubleshooting XenDesktop issues."

<sup>&</sup>lt;sup>1</sup> ESG Lab Spotlight: Minimizing VDI Storage Costs with Citrix Provisioning Services http://www.citrix.com/content/dam/citrix/en\_us/documents/products-solutions/esg-lab-spotlight-minimizing-vdi-storage-costs-with-citrix-provisioning-services.pdf

#### **Traffic Optimization**

As your distributed workforce accesses apps from more locations, over more types of network connections, including more demanding digital media, communications and design apps, it's crucial to ensure high performance for every user, everywhere. The Platinum Editions of XenApp and XenDesktop provide app acceleration and WAN optimization features to get the most possible out of your network infrastructure.

## Application acceleration

XenApp and XenDesktop Platinum Editions include NetScaler SD-WAN VPX. This software-based network accelerator virtual appliance can be paired with a NetScaler SD-WAN appliance in your datacenter to leverage features such as TCP flow control, data compression, de-duplication and protocol optimization to accelerate performance from anywhere for both Citrix-powered virtual apps and other enterprise applications. Compression ratios as high as 5:1 can deliver WAN bandwidth savings of up to 85 – 90 percent. With video usage on the rise, NetScaler SD-WAN can optimize video delivery within XenDesktop environments as well as for popular websites such as YouTube and Vimeo in addition to internal video content repositories, providing as much as a 40-fold reduction in content download times. Large files are cached locally for fast access. Improving performance without a costly WAN upgrade, NetScaler SD-WAN can dramatically reduce costs for branch office infrastructure. End-to-end WAN visibility into applications and usage help IT monitor and troubleshoot performance.

#### Conclusion

As your mobile workforce places new demands on your IT environment, the decision to go Platinum with Citrix XenApp or XenDesktop is a simple one. The time savings achieved through advanced troubleshooting and monitoring, combined with the cost savings of storage optimization and bandwidth efficiencies, quickly outweigh the cost of the upgrade. Enhanced capabilities for secure remote access deliver additional value by ensuring that people in every scenario can work securely with a high-performance user experience. Current customers with XenApp and XenDesktop Platinum Editions validate the economic and strategic benefits they've achieved. Says the IT director for a large enterprise professional services company, "We successfully deployed a dependable, secure user experience that eliminates much of the troubleshooting work that occurred at the desktop level. We have freed those resources to do higher level projects and kept the user troubleshooting issues at the helpdesk." A system administrator at a large educational institution listed results including "best end user experience on any device; security; ease of management; completeness of solution; flexibility of deploying the solution; price; you can troubleshoot your issues easily on XenDesktop, XenApp environment without having any downtime." Find out what going Platinum can do for your organization.

#### **Next steps**

Learn more about how to upgrade to XenApp or XenDesktop Platinum.

- Try XenApp or XenDesktop Platinum
- Compare features by edition
- Contact Citrix Sales

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