

Reduce IT Costs using Citrix Presentation Server 4

New features in Citrix Presentation Server lower cost of ownership and deliver high ROI

Today, IT organizations are looking for ways to cut costs and deliver more value to the enterprise. They are turning to data center and server centralization and consolidation to significantly reduce costs, while at the same time, seeking ways to improve IT systems and infrastructure management to deliver even higher service levels to the organization.

This paper introduces new Presentation Server technology and includes examples on how these new technologies yield tangible return on investment through reduced cost of ownership.

Citrix Presentation Server™ is the industry-standard way to virtualize business applications through a centralized and secure architecture. What this means is that IT can centralize and consolidate applications in the datacenter where they can be better controlled, managed and secured, while delivering a secure, satisfying user access experience to local, remote and mobile users, on any device or network.

Through new innovative technologies, Presentation Server 4 significantly increases the number of users per server as well as the number of applications per server. Presentation Server 4 supports Windows Server™ 2003 x64 Editions and combined with a 64-bit server, delivers the highest application performance and scalability for server consolidation.

With new features like CPU utilization management and virtual memory optimization, the 32-bit version of Presentation Server 4 delivers up to 25% more users per server, over previous versions of Presentation Server, as well as Microsoft® Terminal Services alone. The 64-bit version of Presentation Server 4 combined with a 64-bit platform delivers the highest user density, approximately 65% more users than the Presentation Server 4 32-bit solution.

It's important to note that when also upgrading from Windows® 2000 Server to Windows Server 2003 as part of a Presentation Server 4 upgrade, organizations may see **twice as many users per server on a 32-bit platform and 3 times as many users per server on a 64-bit platform.**

Because of the flexibility of this solution, IT can run 32-bit applications today on the 64-bit system and transition to 64-bit applications as they become available, without changing operating system or servers. The 64-bit version of Presentation Server can be deployed and managed together with the 32-bit version in a single server farm, so current customers can easily integrate this new platform. Presentation Server 4 also enables IT to deploy more applications on each server through the application isolation feature, eliminating server silos while still providing high service levels to end users. This feature is available in both 32-bit and 64-bit versions.

For new customers, the deployment of Presentation Server 4 will be less expensive since fewer servers will be required. For both new and existing customers, using either the 32-bit or 64-bit versions of Presentation Server 4 will allow IT to significantly reduce the number of Presentation Server servers, resulting in lower annual operating and management costs.

Bottom line, whether you are an existing customer, or a new customer, Presentation Server 4 on either a 32-bit or 64-bit platform will greatly reduce total cost of ownership (TCO) while providing a high return on investment (ROI).

The following scenarios provide some examples that can be used to develop a business case or financial justification — whether first purchasing Presentation Server 4 or looking to upgrade to a 64-bit architecture.

The user density, server cost and maintenance cost examples listed below are only provided to help demonstrate the potential TCO and ROI that may be achieved with Presentation Server. Your own costs and actual results may vary, depending on the applications and hardware configuration used. Please refer to the Presentation Server for Windows Server 2003 x64 scalability testing whitepaper available at <http://www.citrix.com/presentationserver> (whitepapers download) for actual test results. Papers on application isolation and other Presentation Server 4 features are also available.

Assumptions

Customer has active Citrix Subscription Advantage™ so there is no cost to upgrade Presentation Server 4

32-bit Server with Windows 2000 Server and Citrix® MetaFrame XP®

User density (users/server)	50
Configured with dual processor, 4GB RAM	
Data center costs (elect, floor, etc.) per server/year	\$ 1,200
Maintenance (hardware/software upgrades) costs per server/year	\$ 9,000

32-bit Server with Windows Server 2003 and Citrix MetaFrame XP

User density (users/server)	95
Server Cost Configured with dual processor, 4GB RAM	\$ 5,000
Data center costs (elect, floor, etc.) per server/year	\$ 1,200
Maintenance (hardware/software upgrades) costs per server/year	\$ 9,000

32-bit Server with Windows Server 2003 and Citrix Presentation Server™ 4

User density (users/server)	112
Server Cost Configured with dual processor, 4GB RAM	\$ 5,000
Data center costs (elect, floor, etc.) per server/year	\$ 1,200
Maintenance (hardware/software upgrades) costs per server/year	\$ 9,000

64-bit server with Windows Server 2003 x64 and Presentation Server 4 x64

User density (users/server)	182
Server Cost Configured with dual core, two processors, 16GB RAM	\$12,000
Data center costs (elect, floor, etc.) per server/year	\$ 1,200
Maintenance (hardware/software upgrades) costs per server/year	\$ 9,000

I) New Customer Scenario (Presentation Server — First Purchase)

Environment: Organization that requires 500 Citrix Presentation Server CCUs

Purchase 32-bit Platform solution (Windows Server 2003 and Presentation Server 4)

Requires 5 servers	\$ 25,000
Data center cost for 5 servers	\$ 6,000
Maintenance cost for 5 servers	\$ 45,000
3 Year total cost	\$178,000
5 Year total cost	\$280,000

Purchase 64-bit Platform solution (Windows Server 2003 and Presentation Server 4 x64)

Requires 3 x64 servers	\$ 36,000
Data center cost for 3 servers	\$ 3,600
Maintenance cost for 3 servers	\$ 27,000
3 Year total cost	\$127,800
5 Year total cost	\$189,000

Total cost savings with x64 after 3 years	\$ 50,200
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Total cost savings with x64 after 5 years	\$ 91,000
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**Break even ROI on x64 server purchase price differential is less than 1 year*

II) Existing Customer Scenario

Environment: (10) 32-bit servers with Windows 2000 Server and 500 Citrix MetaFrame XP CCUs

Maintain current environment

Data center cost for 10 servers	\$ 12,000
Maintenance cost for 10 servers	\$ 90,000
3 Year total cost	\$306,000
5 Year total cost	\$510,000

Upgrade to Windows Server 2003 and Presentation Server 4 solution

Requires 5 new 32-bit servers	\$ 25,000
Data center cost for 5 servers	\$ 6,000
Maintenance cost for 5 servers	\$ 45,000
3 Year total cost	\$178,000
5 Year total cost	\$280,000

Cost savings after 3 years	\$128,000
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Cost savings after 5 years	\$230,000
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**Break even ROI on 32-bit server purchase is less than 1 year*

Upgrade to Windows Server 2003 x64 and Presentation Server 4 x64 solution

Requires 3 new 64-bit servers	\$ 36,000
Data center cost for 3 servers	\$ 3,600
Maintenance cost for 3 servers	\$ 27,000
3 Year total cost	\$127,800
5 Year total cost	\$189,000

Cost savings after 3 years with x64	\$178,200
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Cost savings after 5 years with x64	\$321,000
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**Break even ROI on x64 server purchase is 1 year*

III) Existing Customer Scenario

Environment: (6) 32-bit servers with Windows Server 2003 and 500 Citrix MetaFrame XP CCUs

Maintain current environment

Data center cost for 6 servers	\$ 7,200
Maintenance cost for 6 servers	\$ 54,000
3 Year total cost	\$183,600
5 Year total cost	\$306,000

Upgrade to Presentation Server 4

Data center cost for 5 servers	\$ 6,000
Maintenance cost for 5 servers	\$ 45,000
3 Year total cost	\$153,000
5 Year total cost	\$255,000

Cost savings after 3 years with x64 **\$ 30,600****Cost savings after 5 years with x64** **\$ 51,000****Upgrade to 64-bit Platform solution (Windows Server 2003 x64 and Presentation Server 4 x64)**

Requires 3 new 64-bit servers	\$ 36,000
Data center cost 3 servers	\$ 3,600
Maintenance cost 3 servers	\$ 27,000
Repurpose of 10 32-bit servers	\$ 0
3 Year total cost	\$127,800
5 Year total cost	\$189,000

Cost savings after 3 years with x64 **\$ 55,800****Cost savings after 5 years with x64** **\$117,000******Break even ROI on x64 server purchase is just over 2 years***

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