



Joint Cisco and VMware® Solution for Optimizing Virtual Desktop Delivery



Cisco Wide Area Application Services and Application Control Engine Optimize Delivery of VMware Virtual Desktop Infrastructure Across the Enterprise

What You Will Learn

Cisco® Wide Area Application Services (WAAS) and Cisco Application Control Engine (ACE) with VMware® Virtual Desktop Infrastructure (VDI) reduces the cost and complexity of managing desktops by optimizing virtual desktop delivery over the WAN while avoiding costly bandwidth upgrades.

- This jointly validated solution improves employee productivity by combining VMware VDI for virtualizing and centralizing desktops and Cisco WAAS for compressing and accelerating Microsoft Remote Desktop (RDP) and optimizing branch-office printing.
- Cisco WAAS increases the scalability and number of VMware VDI users supported over the WAN, and Cisco ACE improves the availability and scalability of data center VMware VDI.
- Enterprise business continuity is improved by reducing the amount of time required for backup and replication of data center VMware VDI.

Business Challenges

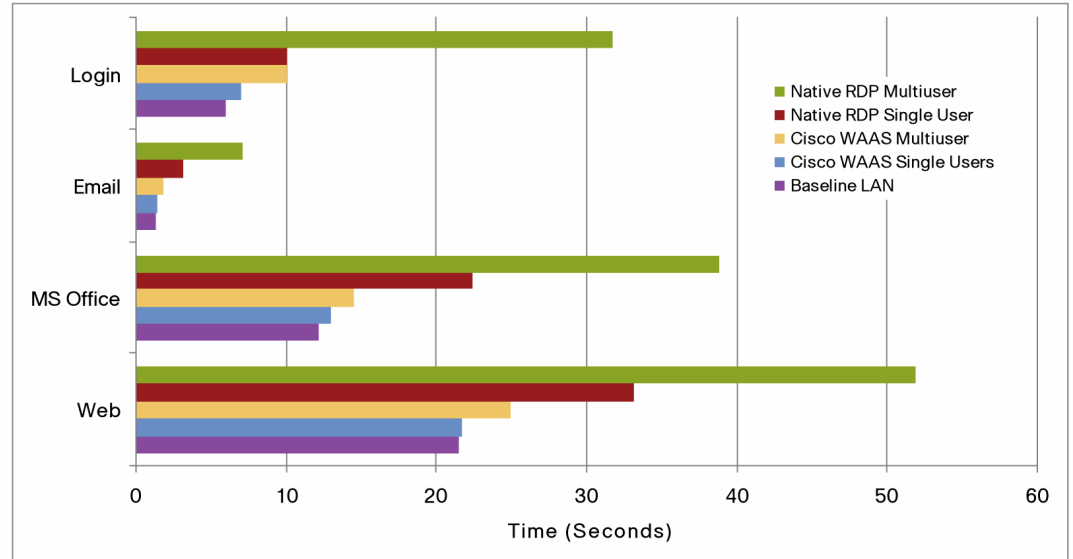
Customers use desktop virtualization solutions such as VMware VDI to replace traditional PCs with virtual machines that are managed from the data center to reduce operating costs, increase control of desktop management, and extend business continuity and disaster recovery to enterprise desktops.

However, when desktop virtualization solutions are deployed over the WAN, latency and bandwidth constraints limit the effectiveness of virtual desktop solutions. Customers face the following challenges in deploying virtual desktop solutions for the enterprise:

- Poor performance of RDP over the WAN, affecting employee productivity
- High bandwidth consumption, increasing solution costs
- Limited scalability, reducing the number of users that can be supported
- Poor performance of centralized printing and increased costs of printing at the branch office
- Considerable time and bandwidth required for transfer of virtual images, affecting business continuity
- Need to maintain continuous availability within and across the data center for the VMware VDI solution



Figure 3. Performance for 1.5-Mbps WAN, 100 milliseconds (ms) round-trip time (RTT), and 15 Virtual Desktop Users

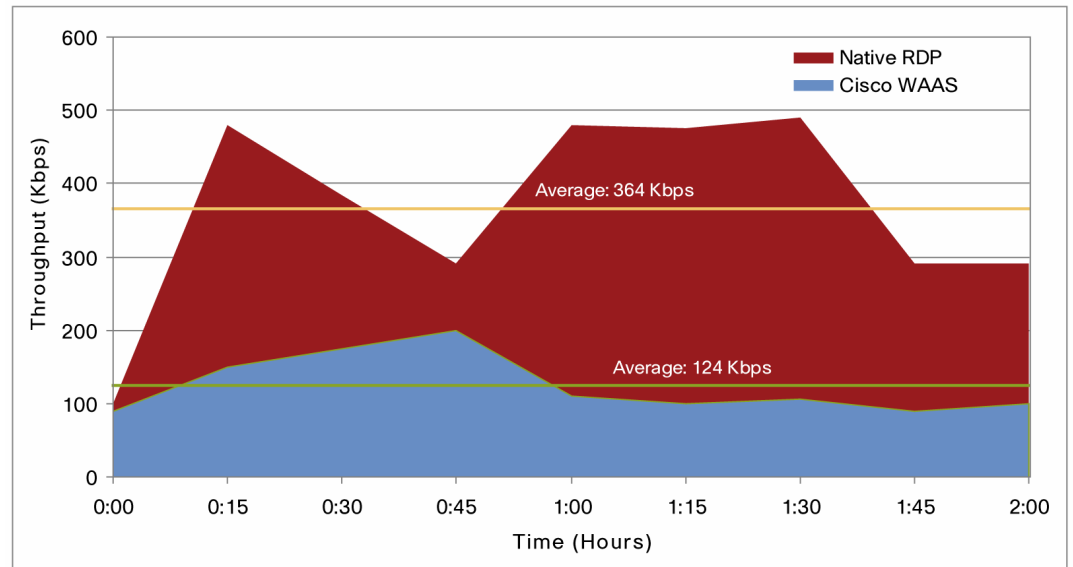


Bandwidth Optimization

A single enterprise virtual desktop user can consume more than 300 Kbps of bandwidth, increasing WAN costs and degrading the end-user experience (Figure 4).

Cisco WAAS reduces RDP bandwidth demands by 70 percent, saving expensive WAN costs.

Figure 4. WAN Bandwidth Reduction: 1.5 Mbps, 100 ms, Single User





For more information, visit: www.vmware.com



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