

## Cisco Wide Area Application Services (WAAS) optimized for Citrix XenDesktop

**Q.** What is Cisco announcing?

**A.** Cisco® Wide Area Application Services (WAAS) is now optimized for Citrix XenDesktop—including Citrix XenApp—enabling customers to accelerate their desktop virtualization rollouts at branch offices. It offers protocol-level optimization of Citrix XenDesktop and XenApp traffic over the WAN to support more virtual desktop and hosted application sessions and enhance the end-user experience. Cisco WAAS optimized for Citrix XenDesktop will be the first third-party WAN optimization solution to be certified as Citrix Ready and will be validated component within the Cisco VXi and Citrix desktop virtualization architectures. This is the first deliverable from a new strategic alliance between Cisco and Citrix that will accelerate the adoption of desktop virtualization and cloud computing by driving innovation across datacenters, clouds, networks, collaboration, multi-media and devices (include link to announcement).

**Q.** How does this announcement benefit customers?

**A.** Enterprise IT consumers will benefit from greater Cisco infrastructure support for Citrix XenDesktop deployments. In addition to gaining better virtual desktop and hosted application performance for branch-office users, Citrix and Cisco customers can now scale the number of Citrix XenDesktop users and reduce bandwidth consumption for the delivery of virtual desktops, further increasing Citrix XenDesktop return on investment (ROI).

More importantly, the combination of Citrix XenDesktop and Cisco WAAS creates a comprehensive solution for emerging end user access devices such as tablets and smart phones. Cisco WAAS can optimize, as well, physical desktops and thin clients with local applications (e.g. web browsers). This solution breadth protects customer investments and simplifies IT management with a common WAN optimization solution for the entire enterprise for any user in any location.

**Q.** How is Cisco WAAS optimized for Citrix XenDesktop being delivered?

**A.** The new solution is available on Cisco Virtual WAAS (vWAAS), Cisco WAAS appliances, and modules for Cisco [Integrated Services Routers](#) (ISRs) with Cisco WAAS Software Release 4.5.1.

**Q.** Is this optimization supported by Citrix?

**A.** Yes. Cisco and Citrix have collaborated to develop this solution. Cisco WAAS will be jointly tested, validated, and supported and will be certified as Citrix Ready upon availability. Customers will experience rapid problem resolution, as Citrix Technical Assistance Center (TAC) will have a defined escalation channel to Cisco.

**Q.** How is Cisco WAAS optimized for Citrix XenDesktop different from the optimization provided by Cisco WAAS Software releases prior to Cisco WAAS 4.5.1?

**A.** Upon release, Cisco WAAS 4.5.1 will introduce optimization for the Citrix HDX technology, including the ICA protocol, without any requirement for administrative actions to disable the native encryption and compression offered by Citrix XenDesktop and XenApp. Using supported access to the ICA protocol, Cisco WAAS supports optimization for the following levels of native ICA encryption:

- 128-bit RC5 encryption

- 56-bit RC5 encryption
- 40-bit RC5 encryption
- Basic encryption
- SSL encryption
- Administratively-uncompressed and unencrypted Citrix ICA

With Cisco WAAS 4.5.1 capabilities work “out-of-the-box”, with no configuration needed within Citrix XenDesktop servers, or at the clients, to enable optimization of Citrix traffic. In contrast, earlier versions of Cisco WAAS required administrative actions to disable native ICA encryption and compression perform optimization.

- Q.** What versions of Citrix XenApp and XenDesktop clients does Cisco WAAS 4.5.1 support?
- A.** Customers can use this Cisco WAAS solution to optimize existing Citrix XenDesktop and XenApp deployments as listed in Table 1.

**Table 1.** Cisco WAAS for Citrix Desktop Virtualization Support Matrix

Clients	Citrix XenApp 6	Citrix XenApp 5	Citrix XenDesktop 4	Citrix XenDesktop 5
Citrix Receiver 3.0 for Windows	X	X	X	X
Citrix Receiver Online Plug-in 12.1 for Windows	X	X	X	X
HP ThinPro OS (11.0)	X	X	X	X
WYSE ThinOS (11.2)	X	X	X	X

- Q.** How is Cisco WAAS optimization for Citrix XenDesktop enabled?
- A.** Cisco WAAS optimization for Citrix HDX traffic (including the ICA protocol) is enabled through the Cisco WAAS Central Manager.
- Q.** What does the newly available Cisco WAAS optimized for Citrix XenDesktop actually do?
- A.** Cisco WAAS optimized for Citrix XenDesktop now performs, without actions required by Citrix administrators, the core WAN optimization technologies to Citrix ICA traffic: TCP Flow Optimization (TFO) and Cisco context-aware Data Redundancy Elimination (DRE). These technologies can deliver a dramatic reduction in branch WAN bandwidth consumption. The ultimate benefit is to increase the number of branch virtual desktop deployments without a requirement to add branch bandwidth. Customer testing has indicated that up to three times as many virtual desktops can be supported without adding bandwidth.
- Q.** How is the performance of Cisco WAAS optimization for Citrix XenDesktop monitored? How will I know the benefit of the solution so I can add more users to my branches?
- A.** Cisco WAAS performance for Citrix XenDesktop traffic can be monitored with the Cisco WAAS Central Manager or Cisco [Prime™ Network Analysis Module](#) (NAM), where administrators can readily see the benefit of the technologies.
- Q.** Is Cisco WAAS Express part of this offering?
- A.** [Cisco WAAS Express](#) is not a part of this offering at this time. The Cisco WAAS Express development team is exploring options for Citrix XenDesktop optimization.

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- Q.** Is Cisco WAAS Mobile part of this offering?
- A.** No. The bandwidth savings achieved by optimizing Citrix HDX traffic between an enterprise data center and branch offices, however, reduces the possibility of traffic congestion at the Citrix XenDesktop data center, which can enhance performance for mobile Citrix XenDesktop users as well.
- Q.** Does this solution require the Cisco Unified Computing System™ (Cisco UCS™)?
- A.** While Cisco and Citrix offer a [fully validated and jointly supported solution that combines Cisco UCS and Citrix XenDesktop](#), Cisco WAAS for Citrix XenDesktop does not require Cisco UCS. Many Cisco products (for example, Cisco [Nexus® 1000V Series Switches](#), Cisco Virtual WAAS [vWAAS], and all Cisco network infrastructure products) are readily usable with or on any standard server hardware. If you are considering a new deployment of Citrix products, [Cisco UCS has been identified](#) as a leading platform for scalability and performance for Citrix XenDesktop.
- Q.** Will Cisco WAAS optimized for Citrix XenDesktop work transparently with future versions of Citrix XenDesktop?
- A.** Cisco and Citrix are committed to continued interoperability. Customers can have confidence that Cisco WAAS and Citrix XenDesktop will continue to interoperate as the technologies evolve and grow.
- Q.** Cisco recently announced support for the Cisco Nexus 1000V Series with Microsoft Hyper-V. What are the plans for Cisco vWAAS beyond VMware ESX? And, are there plans to add support for Microsoft Hyper-V and Citrix XenServer?
- A.** Citrix XenDesktop and Citrix XenApp have an open architecture that can run on all the leading hypervisors. Cisco vWAAS with integrated Cisco vPath and Cisco Nexus 1000V Series Switches on Cisco UCS servers provides a compelling solution for hosting and optimizing Citrix XenDesktop and XenApp on ESX today. Cisco will add support for Microsoft Hyper-V and Citrix XenServer in the future based on customer requirements.
- Q.** Does the Cisco solution support the latest HDX enhancements in Citrix XenDesktop and Citrix XenApp, including multichannel features?
- A.** Cisco WAAS will be optimized for Citrix multi-stream HDX in a future release.
- Q.** How is this solution supported? Who do I call for support?
- A.** Cisco WAAS optimized for Citrix XenDesktop will be certified Citrix Ready. For Cisco WAAS issues, customers should contact the Cisco Technical Assistance Center (TAC). For Citrix XenDesktop issues, customers should contact Citrix Support. Cisco and Citrix will work together to resolve interoperability issues.
- Q.** What other Cisco products will be optimized for Citrix HDX?
- A.** Cisco and Citrix, as part of their alliance, are continually reviewing opportunities for integration and interoperability between our respective products and technologies to provide an enhanced experience for our joint customers.
- Q.** Can or will Cisco optimize other virtual desktop protocols?
- A.** Cisco WAAS can optimize Microsoft RDP in various ways depending on the configuration. Like Citrix ICA, Microsoft RDP is encrypted and compressed by default. In this case, Cisco WAAS Transport Flow Optimization (TFO) can provide optimization. If an administrator disables encryption and compression for Microsoft RDP, then Cisco WAAS has been shown to provide up to 80 percent bandwidth reduction with corresponding latency reduction. VMware PC over IP (PCoIP) is based on the User Datagram Protocol (UDP), and there are no solutions on the market today that can optimize UDP because of the stateless nature of the protocol.

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- Q.** When would I use the Cisco WAAS for Citrix XenDesktop solution instead of Citrix Branch Repeater? Can I use the Cisco WAAS for Citrix XenDesktop solution with my existing Citrix XenDesktop and Citrix XenApp deployments?
- A.** Cisco WAAS and Citrix Branch Repeater are both optimized to add value to Citrix XenDesktop and XenApp deployments. Cisco and Citrix are both strong advocates of open solutions and encourage customers to choose the solutions that best fit their unique requirements.
- Q.** What is the Citrix Ready program and what is its value?
- A.** Citrix Ready is a product verification program that allows customers and users to quickly and easily find partner products and solutions that are trusted to enhance Citrix offerings. Currently, more than 17,000 products across all classes of computing (servers, storage, networks, security, peripherals, devices, applications, etc.) are certified Citrix Ready. The program includes the Citrix Ready catalog, Citrix Ready Community Verified program, and support for industry standards.
- Q.** Does Riverbed's solution have the Citrix Ready certification?
- A.** No. Riverbed is neither supported nor certified by Citrix.
- Q.** How do I learn more about this solution?
- A.** For more information, go to <http://www.cisco.com/go/citrix>.



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