

CISCO WIDE AREA APPLICATION SERVICES (WAAS)

AT A GLANCE

FACT SHEET



Cisco® Wide Area Application Services 4.0 (WAAS) is a powerful new application acceleration and WAN optimisation solution for the branch office that improves the performance of any TCP-based application operating in a wide area network (WAN) environment. With Cisco WAAS, enterprises can consolidate costly branch office servers and storage into centrally managed data centers, while still offering LAN-like service levels for remote users.

The Cisco WAAS solution offers a significantly lower total cost of ownership (TCO), greater application performance, more efficient WAN usage, and transparent integration with the network with secure, centralised manageability and control in an easy-to-implement package.

Improved WAN Utilisation

- Reduce the cost of WAN bandwidth while improving end-user performance.
- Integrates architecturally with the network to ensure optimal service levels for network traffic based on business requirements.

High Performance

The Cisco WAAS solution provides LAN-like performance across the WAN through a combination of technologies, including:

- *Application acceleration*—Mitigate latency and bandwidth through advanced protocol optimisations, including read-ahead, message prediction, and caching
- *Throughput optimisation*—Improve behavior of transport protocols to make them more efficient in WAN environments
- *Bandwidth optimisation*—Minimise the transmission of redundant data patterns through data redundancy elimination (DRE) and compression.

Designed for the Enterprise

- Part of an architected solution for the branch office
- Enterprise-class scalability, ease of deployment and reliability
- Integrates transparently with the existing IP network
- Backed by Cisco advanced services and support worldwide.

Return on Investment with Cisco WAAS

By consolidating branch office infrastructure – servers, storage, and backup – companies can save on hardware, software, IT and storage management costs, and can improve productivity. Coupled with improved application delivery, productivity and employee satisfaction are increased. The net savings over a three-year period can be significant, with the investment payback typically less than six months.

Over a typical three-year refresh cycle, savings per location could include the elimination of:

- Local file, mail, application, software distribution, print, and other servers
- Backup hardware, software and maintenance
- Local tape drives, tape media, and offsite storage
- Server and storage management (IT) costs.

In addition, savings can be generated through:

- Reduced bandwidth consumption, potentially mitigating WAN upgrade
- Higher availability and reduced downtime (faster restore)
- Greater productivity (file sharing and collaboration).

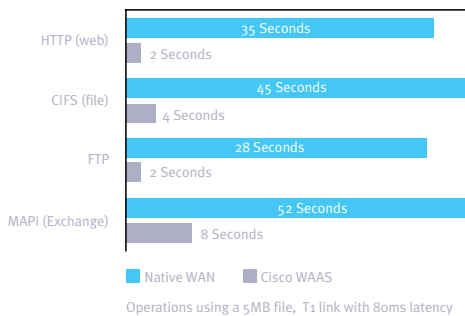
Customer Benefits of Cisco WAAS Infrastructure Consolidation

- Consolidate branch servers into corporate data centers
- Reduce branch office operational, capital, and bandwidth costs
- Improve data availability, manageability, and compliance
- Centrally protect data and streamline storage management.

Fast Application Access

- Enable near-LAN performance to centralised applications across the WAN
- Increase application reach, employee productivity, sharing, and collaboration
- Reliably deliver all branch application content (Web, file, video, ERP, CRM).

PROTOCOL



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Broad Optimisation, Transparent Integration

To accelerate applications and improve performance, Cisco WAAS incorporates best-of-breed application acceleration and WAN optimisation techniques, including compression, redundancy elimination, transport optimisations, protocol optimisations, and content distribution.

Each of these techniques is designed to overcome the bandwidth, throughput, and latency limitations associated with WAN links and application protocols. Cisco WAAS achieves superior results over alternative offerings by applying optimisation at three separate layers:

Application Acceleration

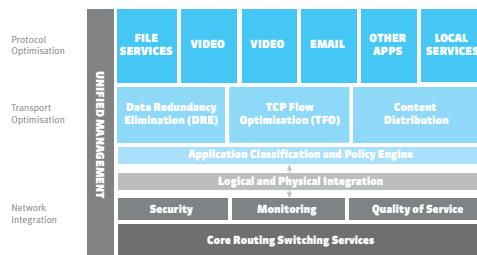
- Latency and Bandwidth Reduction
- Advanced protocol optimisations such as read-ahead, prediction, and suppression, are coupled with sophisticated caching techniques to minimise latency and unnecessary object transfers across the WAN.

WAN Optimisation

- Bandwidth and Throughput Improvement
- DRE coupled with compression improves efficiency and mitigates unnecessary bandwidth consumption.
- TCP flow optimisation (TFO) optimises TCP to enable higher levels of performance and efficiency in WAN environments.

Transparent Network Integration

- Dynamic autodiscovery of endpoints ensures efficient deployment without the need to create and manage overlay networks.
- End-to-end visibility and compatibility is provided with existing network functions such as quality of service (QoS), firewall security, NetFlow monitoring, and high availability.



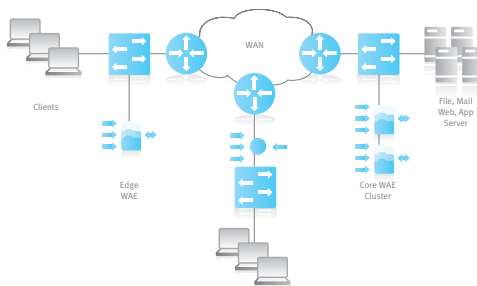
Cisco Application Networking Services

Cisco WAAS is part of the Cisco Application Networking Services (ANS) portfolio – the industry’s most comprehensive range of application-aware network-based services for improving the value and effectiveness of enterprise application deployments.

The Cisco ANS family includes technologies such as server load balancing, application security, SSL acceleration, and WAN optimisation to enhance the full range of deployment scenarios, including branch office, remote worker, data center, and back office application integration projects, all using a common foundation and enterprise quality.

Cisco WAAS Deployment

Cisco WAAS software running on Cisco Wide Area Application Engine (WAE) platforms is deployed in the data center and remote office locations as appliances attached to the LAN or as network modules (NME-WAE) integrated with the branch router. Cisco WAAS employs the Web Cache Communication Protocol (WCCP) v2 or Policy-Based Routing (PBR) to intercept traffic and transparently forward it to the local Cisco WAE on both sides of the network.



For more information about Cisco Wide Area Application Services visit <http://www.cisco.com/go/waas> or speak to **Voyager on 0870 170 9700**



Promoting Growth Through Technology

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