BIG-IP WAN Optimization Manager

PRODUCT OVERVIEW

"We've been able to dramatically reduce data replication times, and virtually all replications are now completed well within our target window."

Geoff Preston, CTO of Content Direct at CSG

Optimize and Accelerate Data Replication and Applications Between Data Centers

Key benefits

- Accelerate and encrypt WAN traffic between data centers
- Improve bandwidth efficiency with superior compression, data deduplication, and protocol optimization
- Accelerate apps and data replication to meet disaster recovery objectives
- Consolidate, simplify, and lower costs

Increasing amounts of data are being transferred between data centers, driven by data replication and backup, storage requirements, and data center consolidation. Virtualization and cloud computing trends also add to the requirement for a high throughput and scalable WAN optimization solution.

BIG-IP® WAN Optimization Manager™ (WOM) overcomes network and application issues on the WAN to ensure that application performance, data replication, and disaster recovery requirements are met. The high throughput and scalable architecture of BIG-IP WOM can dramatically reduce data replication times and enable more efficient use of your existing bandwidth. These advanced optimization services are available as an add-on module on your F5 BIG-IP® Local Traffic Manager™ device or as a standalone appliance or virtual edition.

Encrypt and accelerate data

With the inclusion of iSessions, BIG-IP devices give you the ability to optimize and encrypt data transfers between data centers. Throughput corresponds to the level of your specific BIG-IP hardware platform—up to 20 Gbps—for unprecedented scalability.

Improve bandwidth efficiency

BIG-IP WOM includes symmetric adaptive compression, which automatically applies the appropriate compression algorithm to dramatically reduce the amount of traffic that has to be sent between data centers. Another feature is symmetric data deduplication, which eliminates the transfer of redundant data across the WAN to improve response times and throughput while using less bandwidth.

To overcome the inherent protocol limitations of TCP, BIG-IP WOM uses adaptive TCP Express™ optimization, which combines persistent sessions, selective acknowledgements, error correction, and optimized TCP windows. This enables BIG-IP WOM to adapt, in real time, to the latency, packet loss, and congestion characteristics of WAN links, to fully utilize available bandwidth.

Improve application performance and meet RPO and RTO objectives

BIG-IP WOM speeds up data transfers over the WAN to accelerate large file transfers, data replication (for databases, virtual machine live migration, and Microsoft Exchange mailboxes), and more. By optimizing the protocols associated with these applications, including CIFS, MAPI, HTTP, and others, BIG-IP WOM dramatically reduces the effects of latency on applications running over the WAN. Overcoming replication and latency issues helps you meet stringent disaster RPO and RTO objectives and extend the distance possible for recovery and backup sites.

L7 QoS rate shaping gives you granular control of traffic to manage and prioritize bandwidth for specific applications, so you can ensure that users accessing critical applications across the WAN always get the fastest performance.

Consolidate, simplify, and lower costs

BIG-IP WOM combines WAN optimization, security, and application delivery technologies together on BIG-IP devices, built on F5's unique TMOS® architecture. These consolidated services help you save on hardware costs, rack space, energy consumption, and management resources.

BIG-IP WOM features

Improved performance

- BIG-IP platforms designed for high WAN throughput and scalability
- Symmetric adaptive compression
- Symmetric data deduplication (memory or solid state drive)
- CIFS acceleration
- MAPI acceleration
- HTTP acceleration
- FTP acceleration
- Symmetric TCP Express
- L7 QoS rate shaping
- ToS and DSCP support

Simplified manageability and security

- Quick Start configuration menu for common applications, IPsec, and IPv6 setup
- Dynamic endpoint discovery
- Autodiscover subnets
- GUI performance dashboard
- SSL and IPsec encryption

Reduced costs

- SSL offloading
- Compression offloading

Flexible deployment

- Inline bridge or routed
- One-arm mode (PBR and WCCPv2)
- Standalone appliance, virtual edition, or BIG-IP LTM add-on module
- IPv6 compliant

Learn more

For more information about BIG-IP WOM, use the search function on f5.com to find these resources.

Datasheet

BIG-IP WAN Optimization Manager

White papers

F5 BIG-IP WOM in Data Replication Environments

Optimize and Accelerate Applications Across the WAN

BIG-IP WOM Performance

Solution profiles

Optimizing NetApp SnapMirror with BIG-IP WOM

Optimizing Oracle Data Guard with BIG-IP WOM

Optimizing Microsoft Exchange Mailbox Replication with F5 BIG-IP WOM

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