



Optimizing NetApp SnapMirror with BIG-IP WAN Optimization Module

F5® BIG-IP® WAN Optimization Module™ (WOM) allows two BIG-IP devices to optimize NetApp SnapMirror and reduce replication time to disaster recovery (DR) sites. By adding inline deduplication, security, and compression to SnapMirror's already impressive optimization algorithms, BIG-IP WOM can save your organization time and money.

SnapMirror

SnapMirror is NetApp's replication software and is used to mirror data from one or more NetApp storage systems across the LAN or WAN. With storage deduplication and network compression, SnapMirror is at the leading edge of replication technology.

The amount of data that has to be transferred via SnapMirror to keep your replication site up to date is often just too much for the slower-speed connections typical in a WAN environment. While SnapMirror can be used locally, in a DR solution it is generally deployed to communicate over the WAN. This creates a bottleneck in the WAN that keeps your DR site from being up to date should it be needed.

BIG-IP WOM solves this problem by improving the throughput of the WAN connection. With compression and deduplication capabilities that are complementary to SnapMirror's, BIG-IP WOM improves the rate at which that data is transferred and secures the connection between your DR site and your production data center. The net result is enhanced performance of SnapMirror replication over the WAN.

Solution

BIG-IP WOM enables customers to:

- Accelerate data replication across the WAN
- Mitigate the effects of latency
- Increase the distance between the data center and the DR site
- Guarantee bandwidth and prioritize replication transfer over the WAN
- Deduplicate packet data overlaid on NetApp SnapMirror's optimizations of data at rest to reduce bandwidth required to transfer over the WAN

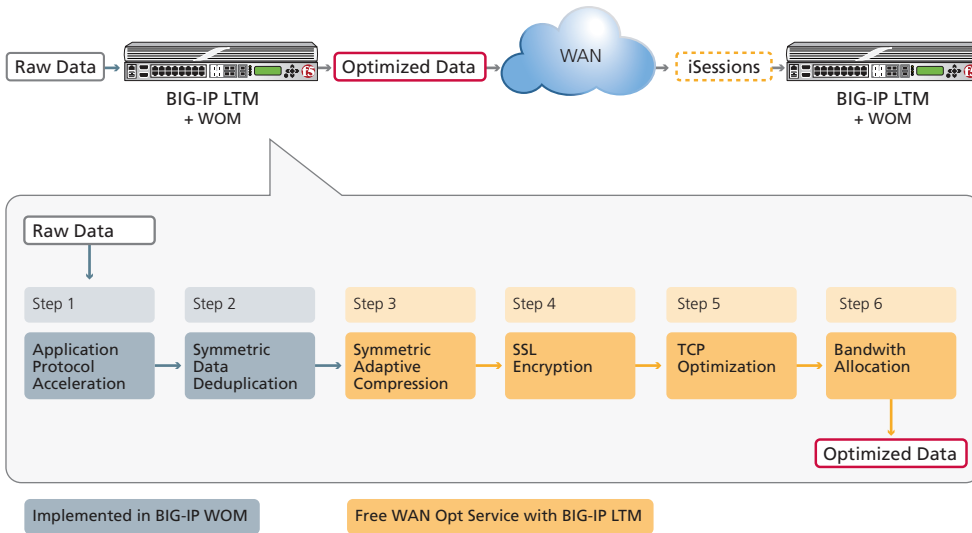
Key features

- **Deduplication**—Offers deduplication complementary to SnapMirror's offering
- **iSessions**—Creates secured tunnels between your production and DR data centers
- **TCP Express™**—Enables state-of-the-art TCP connection optimization
- **Rate Shaping**—Allocates bandwidth to optimize SnapMirror traffic usage

Key benefits

- **Increase Performance**—Reduces data replication time
- **Increase Efficiency**—Maximizes bandwidth utilization
- **Improve Security**—Encrypts replication traffic sent over the WAN
- **Extend the Distance to Your DR Site**—Mitigates latency and optimizes replication traffic

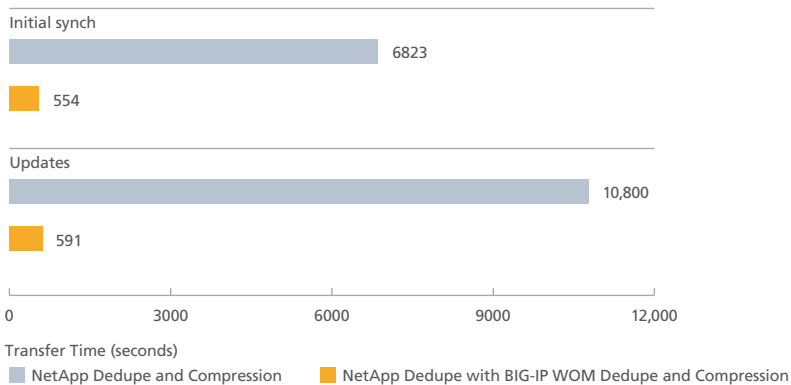
BIG-IP WOM achieves this by layering optimization techniques onto the F5 TMOS® operating system.



BIG-IP WOM secures and accelerates your SnapMirror traffic.

Test Results

22 gigabytes of initial data (pass one) updated with 24 gigabytes of changes over an OC3 with 40 milliseconds latency and 0.5 percent packet loss. Change file was actual changes generated in the real world.



BIG-IP WOM showed a 12x improvement for initial replication and 18x for continued updates.

Learn more

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

Product overview

[BIG-IP WAN Optimization Module](#)

Datasheet

[BIG-IP WAN Optimization Module](#)

White papers

[F5 BIG-IP WAN Optimization Module in Data Replication Environments](#)

[BIG-IP WAN Optimization Module Performance](#)

Podcast

[Byte Caching, Compression, and WAN Optimization](#)

F5 Networks, Inc. 401 Elliott Avenue West, Seattle, WA 98119 888-882-4447 www.f5.com

F5 Networks, Inc.
Corporate Headquarters
info@f5.com

F5 Networks
Asia-Pacific
apacinfo@f5.com

F5 Networks Ltd.
Europe/Middle-East/Africa
emeainfo@f5.com

F5 Networks
Japan K.K.
f5j-info@f5.com

