



Brocade Tapestry WAFS consolidates enterprise-wide storage, simplifying branch office IT services and optimizing WAN file traffic with security and reliability to reduce operating costs and increase administrative productivity.

TAPESTRY WIDE AREA FILE SERVICES

HIGHLIGHTS

- Simplifies IT infrastructure with transparent network integration, storage consolidation, and centralized management of branch office operations
- Centralizes enterprise data management at the data center, eliminating the need for remote backup, storage systems, and associated software licenses
- Improves application performance and workforce productivity, enabling distributed users to collaborate in real time
- Improves resiliency and business compliance by managing common WAN disruptions and integrating advanced security standards in native Windows environments
- Reduces capital and operating expenditures through consolidation, greater resource sharing, and "lights-out" remote operations

Branch Office IT Consolidation and Centralized File Management

In today's dynamic business environment, managing remote office IT infrastructures is often complex, time-consuming, and highly resource-intensive. To overcome this challenge, Brocade® offers a solution that solves some of the most difficult remote office IT issues, including storage and server proliferation, backup and restore management, and rising ownership costs.

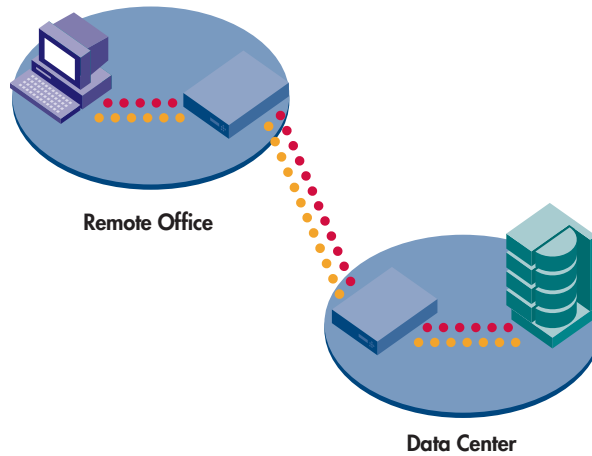
Brocade Tapestry™ Wide Area File Services (WAFS) is an innovative solution that provides LAN-like read-write access to shared files across Wide Area Networks (WANs)—enabling organizations to consolidate their IT assets while unlocking significant productivity gains and protecting remote data. For enterprises with distributed locations,

Tapestry WAFS provides value in the form of streamlined branch office IT operations, improved operational efficiency, better WAN performance, and centralized data management.

Tapestry WAFS features a pair of appliances: the Tapestry WAFS Core Appliance located at a central site with the file server and one or more Tapestry WAFS Edge Appliances located at remote sites. The appliance pairs communicate through protocols that are uniquely optimized for the performance and reliability characteristics of a WAN. This unique design can significantly improve critical business functions such as accelerating the performance of Microsoft Exchange-based e-mail and enabling global file sharing for centrally located data.

TAPESTRY WIDE AREA FILE SERVICES

Figure 1. Tapestry WAFS accelerates file access between a centralized data center and remote offices.



A WIDE RANGE OF BUSINESS ADVANTAGES

Tapestry WAFS provides a wide range of business and technological advantages for distributed enterprise environments. Organizations that deploy Tapestry WAFS can expect to see key benefits such as:

- Streamlined branch office IT operations
- More efficient centralized storage management and file access
- Reliable data consistency and predictable backup
- Centralized management of remote IT infrastructure
- Reliable global file sharing and collaboration
- Reduced WAN traffic with centralized files
- Accelerated application file transfer (CIFS and NFS data)
- Enterprise-class security and reliability
- Seamless integration with existing infrastructure

STREAMLINED BRANCH OFFICE IT OPERATIONS

One of the greatest advantages of Tapestry WAFS is its ability to improve operating efficiency and streamline IT operations in remote locations. Because it enables distributed enterprises to centrally manage branch office IT services—including file, print, network, and Web caching services—Tapestry WAFS helps reduce remote office servers, storage and backup hardware, software, and other related costs.

This type of centralized management significantly reduces the need for remote site IT personnel and expensive site visits, including the need to ensure proper backups of branch office storage. Utilized in this manner, Tapestry WAFS supports “lights-out” operation at multiple remote locations. Moreover, greater collaboration enables organizations to easily share data between remote sites, often saving hours per week that were previously spent on time-consuming file management and replication tasks.

GREATER FLEXIBILITY WITH UNIQUE STACKABLE SERVICES

To provide the same enterprise-class services used in data centers, Tapestry WAFS delivers a full suite of “stackable” branch office IT services. These low-cost, centrally managed services add incremental value by increasing productivity and maximizing ROI, as shown in Table 1.

ENTERPRISE-CLASS SECURITY AND RELIABILITY

To help organizations comply with their internal business objectives and industry regulations, Tapestry WAFS integrates with the latest security standards and leading authentication technologies. In fact, Tapestry WAFS is the industry’s only WAFS offering that:

- Is proven to be able to survive common WAN disruptions, helping to guarantee data coherency and consistency
- Integrates natively with advanced security schemes, such as SMB signing for end-to-end security and Microsoft Kerberos authentication standards—enabling best-practice security processes across the enterprise
- Can encrypt all traffic sent over the WAN for added security

Stackable Services	Business Advantages
Exchange services	Optimize Microsoft Exchange traffic over the WAN, reducing the need for remote Exchange servers
Management services	Reduce complexity by supporting Systems Management Server (SMS) distribution of software updates, patches, and applications to branch offices
Web caching services	Accelerate Web application performance while conserving network bandwidth
Network services	Provide DNS/DHCP and domain controller services without requiring local servers
Print services	Enable print resource sharing across all networked PCs at branch offices without spooling across the WAN
Wide area file services	Maximize remote file server utilization, mitigate network bandwidth and reliability issues, centralize management, increase productivity, enhance data integrity, and reduce storage costs

Table 1. Tapestry WAFS stackable services significantly reduce branch office IT complexity and cost.



THE TAPESTRY WAFS VALUE PROPOSITION

- Transparent network integration
- Native support for Windows environments
- 100 percent data coherency and consistency
- Enterprise-class resiliency against common WAN disruptions
- Centrally managed remote appliances
- LAN-like global file sharing across the WAN
- High scalability with up to 500 users per remote appliance

Tapestry WAFS helps protect data across all application and network conditions—and utilizes synchronous logging to persistent RAID storage for greater reliability. This design enables it to tolerate and survive common, inevitable WAN disruptions with 100 percent data coherency and consistency. By increasing security and centralizing file management, Tapestry WAFS enables branch offices to leverage data center-class regulatory compliance and disaster recovery strategies. As a result, there is a higher overall level of data protection across the enterprise.

OPTIMIZED REMOTE DATA PERFORMANCE

Tapestry WAFS delivers unmatched remote file access, enabling LAN-like performance over the WAN. It provides the most effective way to address latency by anticipating file access patterns that help eliminate round trips on the WAN. To address WAN latency issues, Tapestry WAFS incorporates a WAN-optimized file sharing protocol and a combination of innovative technologies, including:

- Data streaming and compression
- File-aware differencing
- Data aggregation
- Read-ahead intelligence
- File caching
- Wide area dictionary compression

The result is increased bandwidth and performance. In addition, Tapestry WAFS uniquely combines asynchronous write-back

technology with synchronous logging to persistent storage. As a result, remote users can enjoy reliable, local-like data access from anywhere in the world.

ACCELERATED CIFS AND NFS DATA TRANSFER

Leveraging breakthrough technologies to solve otherwise complicated tasks, Tapestry WAFS provides an unprecedented level of intelligence. It connects directly to industry-standard Common Internet File System (CIFS) and Network File System (NFS) data by utilizing unique software technologies. By delivering LAN-like performance for CIFS and NFS applications over the WAN, Tapestry WAFS accelerates data transfer by as much as 100 times over alternative offerings for certain applications and network conditions.

SEAMLESS INTEGRATION WITH EXISTING INFRASTRUCTURE

Tapestry WAFS appliances fit into existing IP infrastructures to provide seamless Network Attached Storage (NAS) extension and global file sharing. All NAS semantics enforced by file servers at the data center are seamlessly extended to each branch office.

Guaranteed file consistency helps ensure that all files accessed are the most up-to-date versions and that file changes will not be lost or overwritten. This approach helps provide the most reliable file transmission across WANs with the additional advantage of centralized control.

A VARIETY OF COST SAVINGS

Tapestry WAFS is a highly effective solution for cost-conscious organizations that want to:

- Increase server and storage asset utilization to maximize the value of existing IT investments
- Reduce capital expenditures and ongoing management costs at branch offices
- Improve both administrator and user productivity
- Free up network bandwidth to handle larger workloads
- Gain the numerous benefits of centralization and consolidation

MAXIMIZING INVESTMENTS

Brocade and its partners offer complete solutions to meet a wide range of technology and business requirements. These solutions include education and training, support, service, and professional services to help optimize technology investments. For more information, contact an authorized Brocade sales partner or visit www.brocade.com.

TAPESTRY WIDE AREA FILE SERVICES

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