



iShared™ WAFS Performance Solutions

Packeteer® products help successful businesses securely accelerate, consolidate and control information at every location across the WAN. Let our Wide Area File Services (WAFS) solution help you dramatically improve file access performance for branch locations and consolidate servers with confidence.



Packeteer iShared solutions deliver Wide Area File Services, WAN optimization, virtual storage and branch office IT services. Unmatched at overcoming the barriers of latency, bandwidth and network reliability, iShared solutions solve the toughest enterprise-wide branch office IT issues — storage and server consolidation, application performance, collaboration and data protection — improving business productivity and cutting costs.

iShared solutions scale from highly-available data center clusters through large branch offices and down to single users. Offered in a range of implementation options — from drop-in appliances to software only — iShared solutions match any corporate IT policy.



Consolidate and Collaborate at Business Speed

iShared

WAFS Performance Solutions

Accelerate over the WAN

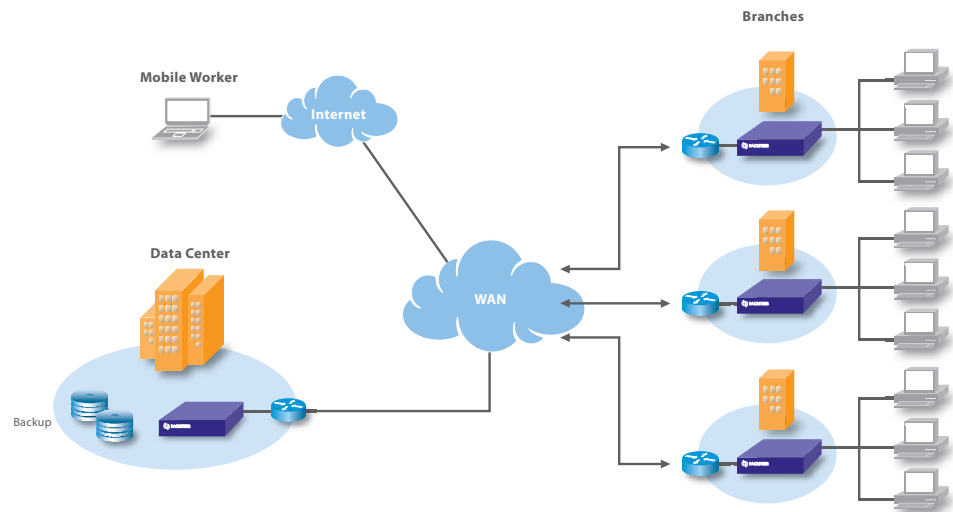
Cut costs through centralized IT management

Increase ROI with lowered capital expenditures and bandwidth savings

Empower branch office users with LAN-like access to centralized servers and storage

Premium Performance

Today's distributed workforce is only as good as its ability to collaborate and share customer-critical information across the WAN. Packeteer iShared solutions ensure a great user experience at every location through a family of scalable appliances and software that overcome Microsoft® file access performance problems and challenges for the branch office. With WAN optimization, TCP acceleration, caching and compression working in concert, iShared WAFS solutions can speed responses up to 357 times — and that's good for business.



iShared is an enterprise-class solution that connects remote and branch office users to improve WAN services to the data center and synchronizes their file operations. Deliver on the promise of server and storage consolidation without sacrificing performance or introducing risk.

A "Branch Office in a Box"

Business continuity is more than a buzzword: every IT department wants to ensure maximum uptime and reliability to their workforce, and security and integrity to data. iShared solutions help deliver on this promise by eliminating the data integrity risks associated with distributed files and applications.

Remote users can continue working on files during WAN disruptions, and receive native Microsoft Windows® services — like domain controller and DHCP — locally from their iShared system. iShared solutions provide virtual storage that uniquely ensures file integrity by locking files between sites during saves and efficient distributed storage that benefits from centralized control.



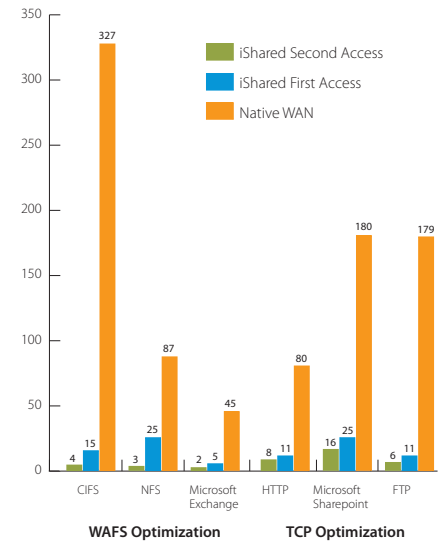


Fast File Access, 100 percent Microsoft Compatible

Optimize application performance across the WAN while minimizing the amount of data traveling between the data center and branch offices — and make that data move faster. The industry's only 100 percent Windows-based platforms, Packeteer iShared solutions offer full support for end-to-end Microsoft security and seamless integration into any Microsoft-based IT infrastructure.

- WAFS optimization for real-time, read/write global access to shared files across the WAN
- TCP acceleration for reducing latency and bandwidth consumption and accelerating TCP-based applications (including HTTP, FTP, Microsoft SharePoint®, replication and backup)
- Drop-in appliance or software-based solution for Windows or Linux-based implementation
- High-availability features at the data center and branch offices for device failover and disaster recovery scenarios
- IT services at the branch office including print, domain controller, DNS/DHCP and software/application distribution
- Native integration with Microsoft Windows
- Centralized management

iShared Performance Impact



All times in seconds.

All testing done on 15 MB files, except Microsoft Exchange (4 MB).

iShared Benchmarks					
Protocol	File Type	Operation	Native WAN	iShared First Access	iShared Second Access
CIFS	15 MB Microsoft Word Document	Open	327	15	4
		Save	715	24	—
	8 MB Microsoft Excel Sheet	Open	101	17	4
		Save	137	16	—
	6 MB AutoCAD Drawing	Open	80	26	9
		Save	153	11	—
	4 MB Microsoft PowerPoint Presentation	Open	154	18	3
Microsoft Exchange	4 MB Excel Attachment	Open	40	3	1
	4 MB Microsoft PowerPoint Presentation	Open	45	5	2
NFS	15 MB TAR File	Extract	87	25	3
		Create	102	3	—
FTP	10 MB JPEG Image	Upload	122	64	3
	15 MB Microsoft Word Document	Download	179	11	6
Microsoft SharePoint	15 MB Microsoft Word Document	Open	180	25	16
		Save	232	18	—
	10 MB JPEG Image	Download	187	65	8
HTTP	5 MB Microsoft Word Document	Download	30	7	3
	15 MB Microsoft Word Document	Download	80	11	8

All times in seconds.

Tests conducted at T1 (1.54 Mbps) bandwidth, 80 ms latency.

Results have been compiled through laboratory testing and are for illustration purposes only.

Actual bandwidth savings and acceleration may vary for each customer.



Features	
WAFS & WAN Optimization	
Windows Integration and Compatibility	Windows Server 2003-based platform supports native CIFS protocol stacks, SMB signing, HiSec security templates and integration with Active Directory group policies.
WAFS Optimization	High-performance CIFS/NFS optimizations include single-instance storage caching, data streaming, read-ahead, file-aware differencing, compression, data aggregation and I/O clustering.
Dictionary-based Data Reduction	Pattern-matching algorithms achieve compression ratios of 100 to 1 or higher by eliminating redundant data transfers over the WAN.
TCP Latency Optimization	Protocol acceleration utilizes local acknowledgements, transparent WAN re-transmissions and large window sizes to enable maximum TCP throughput.
Data Protection	Distributed file system technology uses lock management and journaling techniques to protect remote users from stale data, write collisions, WAN outages and system failures.
Application-specific WAN Optimization	Extensions for Microsoft Exchange (MAPI attachment caching) and HTTP (static Web page caching) deliver faster response and improved bandwidth utilization.
Disconnected Operations	File-aware design allows remote users to continue working on their files during WAN disruptions, and access cached data during WAN outages.
Branch Office IT Services	
Print Services	Local print services address branch office printing requirements, eliminating dedicated servers and reducing cost.
Domain Controller	Windows domain controller services enable faster branch logins and login support during WAN outages.
Network Services	DNS caching and DHCP server functions provide improved application performance and streamlined administration.
Software/Application Distribution	Optimized software and application distribution can be provided through integration with Microsoft SMS and leading application virtualization solutions, saving bandwidth and complexity.
Management/Deployment	
Web-based Management	Web-based GUI reports on device connectivity, bandwidth savings, traffic composition, cache usage and appliance health. SNMP and e-mail alerts are also supported.
Advanced Configuration	Pre-population, bandwidth throttling and inclusion/exclusion lists can be used to optimize system performance and ensure that data is available only where it needs to be.
Transparent Integration	Support for Microsoft Distributed File System Namespaces (DFS-N), Web Cache Control Protocol (WCCP) and Policy-based Routing (PBR) enables deployment without changing remote desktops or application/file server infrastructure.
High Availability	Automatic device failover and disaster recovery, as well as RAID, redundant power/cooling and hot-swappable drives support provide maximum system uptime.

Hardware Specifications				iShared Software
iShared Appliances	IS 50	IS 100	IS 300	Qualified Server Platforms
Appliance Profile	Small office (<5 users)	Medium office (6-50 users)	Large office (51-500 users)	Various
Memory (min/max)	1/2 GB	2/4 GB	4/4 GB	2/4 GB
Hard Drive	1 x 160 GB	2 x 250 GB w/RAID	2 x 500 GB w/RAID	2 x 250 GB+ w/RAID
Cache Storage	50 GB	100 GB	300 GB	100 GB to 1 TB
Operating System	Windows	Windows/Linux	Windows/Linux	Windows
Redundancy	No	Yes	Yes	Yes
Network	1 x GbE	2 x GbE	2 x GbE	2 x GbE
Form Factor	Set-top box 2U	Rack-mount 2U	Rack-mount	Various