HP StorageWorks Enterprise File Services (EFS) WAN Accelerators

Data sheet


HP StorageWorks EFS DL320-510 WAN Accelerator

HP StorageWorks EFS DL380-510 WAN Accelerator

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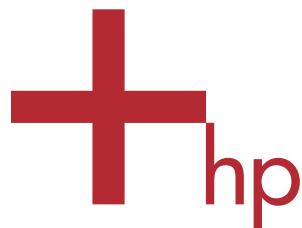
Increasing wide area network (WAN) performance and enterprise agility

HP StorageWorks Enterprise File Services (EFS) WAN Accelerators harness compression, latency optimization, and transaction prediction technologies to accelerate remote office application access to enterprise data center services, enabling LAN-like performance to centralized resources over the WAN.
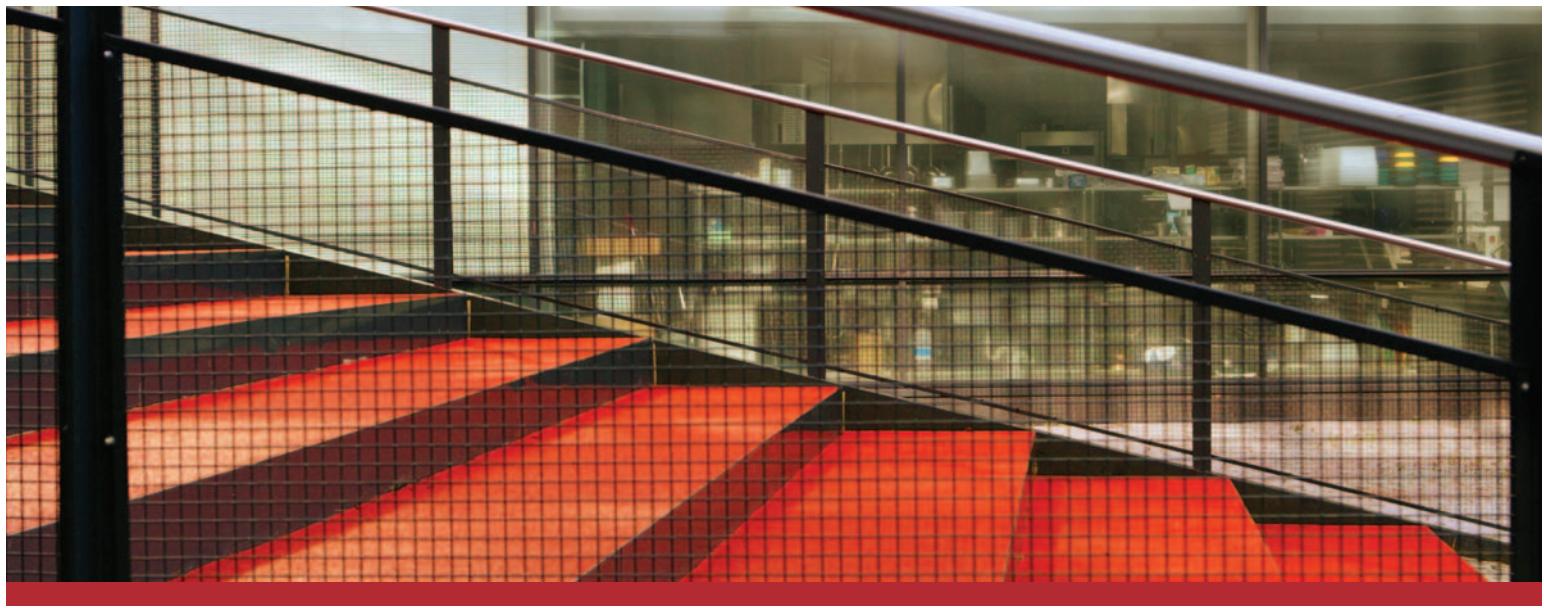
EFS WAN Accelerators are comprehensive remote office solutions that deliver a big performance boost to enterprise customers' IT agility. They provide the highest level of performance at a lower cost, enabling site consolidation of key IT infrastructure, reduction of WAN traffic by up to 95%, and acceleration of key applications by up to 100 times.

EFS WAN Accelerator solutions enable centralization of remote office IT infrastructure, resulting in savings through reduction of equipment, IT staffing, and complex global networks. For companies that rely on regional, national, or global collaboration, where WAN throughput is critical, EFS WAN Accelerators can dramatically accelerate many common enterprise applications, which transforms the way teams work together. Organizations gain seamless interaction between co-workers—across town or across the Pacific.

EFS WAN Accelerators allow companies to do more with their current resources by optimizing WAN bandwidth and eliminating WAN traffic—ultimately helping to delay or avoid major WAN bandwidth upgrades. EFS WAN Accelerators not only deliver the industry's highest bandwidth optimization, but also address the effects of high latency on TCP and TCP applications. Unlike application-specific caching approaches, which are inflexible, EFS WAN Accelerators optimize all TCP traffic for bandwidth and latency, offering additional application-specific optimization.

Built on industry-standard HP ProLiant servers, EFS WAN Accelerators offer the industry's most complete solution for problems affecting wide area networks, remote offices, and the applications they rely on. The family of EFS WAN Accelerator solutions also includes the HP Enterprise File Services (EFS) WAN Accelerator Manager, which can be used to centrally manage a fleet of up to 500 distributed EFS WAN Accelerator appliances.

Key features and benefits

- *Industry-leading technology*: EFS WAN Accelerators reduce WAN traffic for all applications running on TCP (including CIFS, NFS, HTTP, FTP, and MAPI) and combine three types of WAN optimization into one product—Transaction Prediction, Scalable Data Referencing (SDR), and Virtual Window Expansion (VWE). Other products available in the marketplace typically address only one or two types of WAN optimization and only address one type of traffic (file systems).

- *Centralization of distributed data*: The costs and complexity of distributed IT infrastructures are reduced when EFS WAN Accelerators are used to centralize file and application servers from remote offices to data centers. Compliance officers are able to gain tighter control over sensitive information and are more easily able to meet regulatory requirements.

- *Easy installation and seamless integration*: EFS WAN Accelerators are based on HP ProLiant server hardware, ensuring seamless integration into established HP ProLiant environments. The appliances can be easily integrated into any enterprise network and are transparent to existing servers and clients.

- *Cost-effective*: EFS WAN Accelerators can eliminate the need for costly WAN upgrades by removing repetitive traffic from the WAN; they will typically remove 60 percent to 95 percent of traffic, allowing for increased bandwidth of an existing WAN by up to twenty-fold. When it comes time to open new remote offices, instead of deploying local file servers, a local e-mail server, and local tape backup, it's much more economical to deploy an EFS WAN Accelerator appliance and minimize the remote office infrastructure that needs to be deployed, maintained, upgraded, and patched.

- *Elimination of remote office local backup*: EFS WAN Accelerators deliver high-performance, two-way access to storage—with faster file transfers and no bottlenecks—providing a means to eliminate backup headaches at remote offices by enabling remote data to be copied across the WAN to a server in the data center, and then go to tape from there.

- *High reliability and high availability*: In the event of hardware, software, or power failure, EFS WAN Accelerators have a dual-port NIC that fails through to wire. In that event, clients still have access to remote servers. Two data center models (EFS DL380-3010 and EFS DL380-5010 WAN Accelerators) include RAID and dual power supplies for higher reliability, and all EFS WAN Accelerators can also be deployed in a variety of high-availability configurations.

- *Centralized management*: EFS WAN Accelerators include a CLI- and GUI-based management system, and the optional HP EFS WAN Accelerator Manager can be used to manage up to 500 appliances simultaneously.

HP StorageWorks EFS WAN Accelerators

	HP StorageWorks EFS DL320-510 WAN Accelerator	HP StorageWorks EFS DL320-1010 WAN Accelerator	HP StorageWorks EFS DL320-2010 WAN Accelerator	HP StorageWorks EFS DL380-510 WAN Accelerator	HP StorageWorks EFS DL380-1010 WAN Accelerator	HP StorageWorks EFS DL320-M25 WAN Accelerator
HP ProLiant server base	DL320 G3	DL320 G3	DL320 G3	DL380 G4	DL380 G4	DL320 G3
Install location	Remote office	Remote office Central office	Remote office	Central office	Central office	Central office
WAN link support	512 kbps	2 Mbps	4 Mbps	10 Mbps	45 Mbps	N/A
Optimized TCP connections	200	625	1,300	2,400	4,000-5,000	N/A
User capacity (consolidated)*	Up to 25	Up to 80	Up to 200	Up to 1,200	Up to 1,600	N/A
User capacity (non-consolidated)*	Up to 150	Up to 500	Up to 1,100	Up to 3,500	Up to 6,000	N/A
Fan out***	N/A	N/A	Up to 20:1	Up to 50:1	Up to 150:1	Up to 500:1
Disk storage (raw)	250 GB	250 GB	500 GB	1.2 TB	1.8 TB	80 GB
CPUs	1	1	1	1	2	1
RAM	1.5 GB	1.5 GB	2 GB	3 GB	4 GB	1 GB
RAID	No	No	Yes (RAID 0)	Yes (RAID 10)	Yes (RAID 10)	No
Power supplies	Single power supply	Single power supply	Single power supply	Dual hot-plug power supplies	Dual hot-plug power supplies	Single power supply
Temperature range	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)	Operating: 50°F to 95°F (10°C to 35°C) Shipping: -40°F to 158°F (-40°C to 70°C)
Humidity (Non-condensing)	Operating: 10% to 90% Non-operating: 5% to 95%	Operating: 10% to 90% Non-operating: 5% to 95%	Operating: 10% to 90% Non-operating: 5% to 95%	Operating: 10% to 90% Non-operating: 5% to 95%	Operating: 10% to 90% Non-operating: 5% to 95%	Operating: 10% to 90% Non-operating: 5% to 95%
Dimensions (HxWxL)	1.70 x 16.78 x 24.0 in (4.32 x 42.62 x 60.96 cm)	1.70 x 16.78 x 24.0 in (4.32 x 42.62 x 60.96 cm)	1.70 x 16.78 x 24.0 in (4.32 x 42.62 x 60.96 cm)	3.38 x 17.54 x 26.01 in (8.59 x 44.54 x 66.07 cm)	3.38 x 17.54 x 26.01 in (8.59 x 44.54 x 66.07 cm)	1.70 x 16.78 x 24.0 in (4.32 x 42.62 x 60.96 cm)
Shipping weight	37 lb (16.78 kg)	37 lb (16.78 kg)	37 lb (16.78 kg)	60 lb (27.22 kg)	60 lb (27.22 kg)	37 lb (16.78 kg)
Form factor	1U	1U	1U	2U	2U	1U

* This is a guideline only, based on remote site server(s) consolidation environments. Actual number of supported users will vary based on use case.
** This is a guideline only, based on environments where server(s) remains in remote site. Actual number of supported users will vary based on use case.
*** This is a guideline only, and covers remote site EFS WAN Accelerators to data center WAN Accelerators or WAN Accelerator Managers. Actual fan-out will vary based on use case.

Ordering information

Part number	Model name	Model description
391683-B21	HP StorageWorks EFS DL320-510 WAN Accelerator	HP ProLiant DL320 server-based WAN Accelerator for remote offices with Transaction Prediction, Scalable Data Referencing (SDR) and Virtual Window Expansion (VWE), 10/100 fail-through interface, 2 Mbps WAN support, 250 GB raw data store, up to 80 users (estimated)
391684-B21	HP StorageWorks EFS DL320-1010 WAN Accelerator	HP ProLiant DL320 server-based WAN Accelerator for remote offices with Transaction Prediction, Scalable Data Referencing (SDR) and Virtual Window Expansion (VWE), 10/100 fail-through interface, 2 Mbps WAN support, 250 GB raw data store, up to 80 users (estimated)
391685-B21	HP StorageWorks EFS DL320-2010 WAN Accelerator	HP ProLiant DL320 server-based WAN Accelerator for remote offices with Transaction Prediction, Scalable Data Referencing (SDR) and Virtual Window Expansion (VWE), 10/100 fail-through interface, 4 Mbps WAN support, 500 GB raw data store, up to 200 users (estimated)
391686-B21	HP StorageWorks EFS DL380-3010 WAN Accelerator	HP ProLiant DL380 server-based WAN Accelerator for central offices with Transaction Prediction, Scalable Data Referencing (SDR), Virtual Window Expansion (VWE), 10/100 fail-through, Gigabit Ethernet interface, RAID, dual power supply, 10 Mbps WAN support, 1.2 TB raw data store, up to 1,200 users (estimated)
391687-B21	HP StorageWorks EFS DL380-5010 WAN Accelerator	HP ProLiant DL380 server-based WAN Accelerator for central offices with Transaction Prediction, Scalable Data Referencing (SDR), Virtual Window Expansion (VWE), 10/100 fail-through, Gigabit Ethernet interface, RAID, dual processor, dual power supply, 45Mbps WAN support, 1.8 TB raw data store, up to 1,600 users (estimated)
391688-B21	HP StorageWorks EFS DL320-M25 WAN Accelerator Manager	HP ProLiant DL320 server-based management console appliance platform providing central management of up to 25 WAN Accelerator appliances

Options

Part number	Model name	Model description
391689-B21	HP EFS M50 WAN Accelerator Manager LTU	LTU upgrade for 391688-B21. Increases number of manageable WAN Accelerator appliances from 25 to 50
391690-B21	HP EFS M100 WAN Accelerator Manager LTU	LTU upgrade for 391688-B21 with 391689-B21. Increases number of manageable WAN Accelerator appliances from 50 to 100
391691-B21	HP EFS M200 WAN Accelerator Manager LTU	LTU upgrade for 391688-B21 with 391689-B21 and 391690-B21. Increases number of manageable WAN Accelerator appliances from 100 to 200
391692-B21	HP EFS M500 WAN Accelerator Manager LTU	LTU upgrade for 391688-B21 with 391689-B21, 391690-B21, and 391691-B21. Increases number of manageable WAN Accelerator appliances from 200 to 500

HP StorageWorks EFS WAN Accelerators

What's included	**Models DL320-510, DL320-1010, DL320-2010, DL380-3010 and DL380-5010:** HP EFS WAN Accelerator appliance with software pre-installed, Quick Restore CD, documentation CD including user guides, end-user license agreement (EULA), rack-mount kit, HP ProLiant server documentation, universal rack-mount power cord (country independent), serial console cable, network patch cable, network crossover cable, HP ProLiant Essentials CD Pack, HP iLO Advanced Pack **Model DL320-M25:** HP EFS WAN Accelerator appliance with software pre-installed, Quick Restore CD, documentation CD including user guides, end-user license agreement (EULA), rack-mount kit, HP ProLiant server documentation, universal rack-mount power cord (country independent), serial console cable, network patch cable, HP ProLiant Essentials CD Pack, HP iLO Advanced Pack
Warranty and support	HP StorageWorks Enterprise File Services (EFS) DL320 WAN Accelerator SKUs include a 36/12/12 month (parts/labor/on-site) hardware warranty, which includes 12 months of Hardware Maintenance On-Site service with diagnosis, material, and repair labor. Next-business-day response time for one (1) year. HP StorageWorks Enterprise File Services (EFS) DL380 WAN Accelerator SKUs include a 36/36/36 month (parts/labor/on-site) hardware warranty, which includes 36 months of Hardware Maintenance On-Site service with diagnosis, material, and repair labor. Next-business-day response time for one (1) year. All EFS WAN Accelerator SKUs include one (1) year of 24 x 7 software advisory and remedial software telephone support, new version license rights for HP EFS WAN Accelerator software updates, and media and documentation distribution services from HP services, plus one (1) year of 24 x 7 four-hour response hardware support. HP warrants only that the software media will be free of physical defects for a period of ninety (90) days from delivery. For more information about HP's Global Limited Warranty and Technical Support, visit: http://h18006.www1.hp.com/products/storageworks/warranty.html.
Warranty and support options	HP Care Pack Services offer upgraded service levels to extend and expand your standard product warranty with easy-to-buy, easy-to-use support packages that help you make the most of your hardware and software investments. They let you choose the support levels that meet your business requirements, from basic to mission-critical. They help you contain total cost of ownership. HP Care Pack warranty extensions can be purchased along with HP products to cost-effectively upgrade or extend your warranty. For many products, post-warranty HP Care Pack Services are available when your original warranty has expired.
Financial services	HP Financial Services provides innovative financing and financial asset management programs to help customers cost-effectively acquire, manage, and ultimately retire your HP solutions. For more information on these services, please contact your HP sales representative or visit: www.hp.com/go/hpfinancialservices.
Customer support	HP Customer Support provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services, such as proactive mission-critical services and support management services for deployment of the entire IT infrastructure, including HP and multi-vendor environments. For more information on these services, contact your HP sales representative or visit: www.hp.com/hps/support.
For more information	For more information, visit: http://h18006.www1.hp.com/products/storageworks/efs/index.html

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