



## HP BladeSystem and StorageWorks Enterprise File Services (EFS) Clustered Gateway for Business Consolidation

Providing a consolidation utility for the Adaptive Infrastructure



Reduce the cost of success by 60% by controlling server and storage sprawl using HP BladeSystem, StorageWorks EFS Clustered Gateway and StorageWorks Enterprise Virtual Array (EVA) storage.

### Create a modular infrastructure to consolidate both file and block services

By combining the power of HP StorageWorks Enterprise Virtual Array (EVA), EFS Clustered Gateway, and HP BladeSystem, you can create an integrated file and block consolidation utility.

This integrated consolidation utility allows customers to consolidate both multiple file servers and file and block application storage, while improving overall system availability.

While traditional file servers or network attached storage (NAS) appliances suffer from a single point of failure and a single performance bottleneck, the StorageWorks EVA, BladeSystem and StorageWorks EFS Clustered Gateway based Consolidation Utility is able to serve both file and block data concurrently without a single point of failure and with aggregate performance far in excess of NAS appliances or traditional file servers. Plus, you get a single control point that can be centrally managed and backed up, providing operational simplicity.

This highly responsive consolidation utility optimizes workload balance and eliminates bottlenecks. You

can add file serving throughput and/or storage capacity as fast as rapidly shifting business conditions require—without disrupting your current operations.

### Deliver better control and high availability

Using the BladeSystem, StorageWorks EVA storage and StorageWorks EFS Clustered Gateway, you can now consolidate file servers, web servers, application and database servers and integrate file and block storage, gaining value that includes:

- High availability, no single-point-of-failure, high performance—provides industry-leading automation, simplified storage management; helps ensure that business-critical data and applications are available to your users when they need them
- Scalable—scales up to 120 TB, offering storage consolidation for mid-range and enterprise organizations
- State-of-the-art virtualization—automatically manage and optimize the storage array, saving time and lowering overall total cost of ownership (TCO)
- Cost effective—consolidate multiple file servers, manage more data with fewer IT resources; provides industry-leading TCO
- Agility—compatibility across major operating systems
- Integrated File and Block Services—supports scalable file serving for NFS and CIFS with complete data integrity in the event of a failure with uninterrupted file serving.

As one of HP's Adaptive Infrastructure offerings, the combination of HP BladeSystem, StorageWorks EFS Clustered Gateway and StorageWorks EVA storage helps IT managers lower IT costs, guarantee a higher quality of service, and provide uncompromising levels of availability.

## HP Services

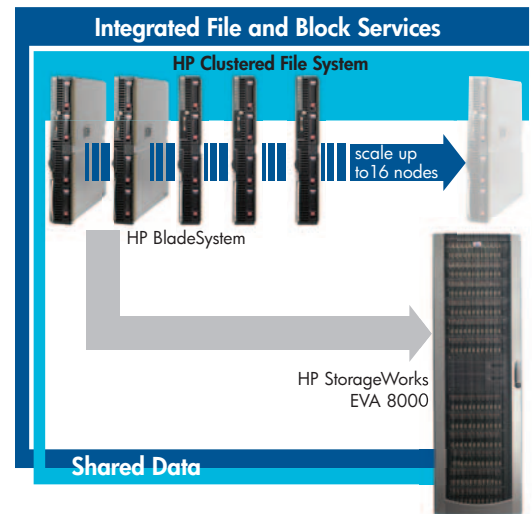
HP Services has end-to-end, industry-leading expertise in delivering solutions that help you improve your business agility. From initial assessment and design to technical integration and ongoing support, HP Services can be your single point of contact and accountability.

HP related services:

- **HP Enterprise File Services (EFS) Clustered Gateway Installation and Startup Service**—provides for the basic design, configuration, and verification of the Enterprise File Services Clustered Gateway. The service includes remotely-delivered, pre-installation consulting, onsite activities including installing and configuring the EFS Clustered Gateway-specific hardware, and staff training on how to maintain and expand the installation. The engagement is concluded with a fully documented summary of the actual hardware and software configuration of your EFS Clustered Gateway.
- **HP StorageWorks Disk Array Installation and Startup Service**—includes:
  - Verification that any service prerequisites are met prior to installation
  - Delivery of the service at a mutually scheduled time
  - Installation of the HP StorageWorks array per the product specifications
  - Availability of an HP certified service specialist to answer questions during the installation process
  - Customized installation plan to support your unique configuration requirements
- Other applicable HP storage services include:
  - Backup and Recovery Solution Service
  - HP Vdisk/LUN Design and Implementation Service
  - HP Data Migration Service
- **HP Care Pack Services**—a comprehensive portfolio of services for maintaining the highest levels of IT availability.
  - Critical Service
  - Proactive 24 service
  - Support Plus 24 service
- **Instant Support Enterprise Edition (ISEE)**—remote monitoring and support solution for your servers, storage, and networks.
- **Business Continuity Services**—protect and minimize disruption to IT infrastructure and associated business processes against site outages, disasters and environmental events.

Across the globe, enterprise customers rely on HP Services to design, deploy, manage, and support the IT systems that run their businesses. HP Services capabilities cover consulting and integration, outsourcing, and support services. With more than 67,000 services professionals operating in 170 countries, acknowledged technology leadership, and a heritage of innovation in services, HP Services can point to an extensive track record of helping customers improve their ability to support their changing business needs. For further details, contact your HP sales representative or visit: [www.hp.com/hps/storage](http://www.hp.com/hps/storage)

Figure 1



## Typical bill of material and options

The following is a blueprint of the products and options typically purchased to create a HP BladeSystem, StorageWorks EFS Clustered Gateway and StorageWorks EVA storage based file and block services consolidation utility. For more detailed information or to create your own solution, contact your Reseller/SI or your HP account manager.

Quantity	Description
1	HP c7000 3-Phase Enclosure w/16 BMS server blade licenses, 6 power supplies and 6 fans
4	Single (1) c7000 fan module
1	c7000 Onboard Administrator module
2	c-Class GbE2 switch module
16	10/100/1000 T/TX/T RJ-45 SFP modules
2	Brocade Fibre Channel 4/12 SAN switch module w/2 SFPs
4	HP BL480c 2P Server, 3.2GHz /4GB
16	HP 72GB 3G SAS 10K SFF HDD
4	Qlogic fibre channel mezzanine card
4	4 GB FBD PC2-5300 2 x 2 GB kit
8	HP Clustered File System - Windows
8	HP Clustered File System File Serving option
8	HP Clustered File System Volume Manager option
1	HP Clustered File System Installation and Media kit
14	300 GB 10K rpm dual-port 2 Gb/s FC-AL drive
1	HP EVA4000 2C1D
1	HP EVA4K/6K/8K 5.0a Controller Media kit
1	HP 10642 42U shock rack pallet
4	HP 1U 10Pk universal filler panel
1	HP 10K graphite metallic 42U side panel

© Copyright 2006 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

To learn more, visit [www.hp.com/go/efs](http://www.hp.com/go/efs)

4AA0-8850ENW, November 2006

