## HP ProLiant DL160 G5 Storage Server

Data sheet





Add affordable file storage rackmount capacity to your small or remote IT environment quickly and manage it more easily with the HP ProLiant DL160 G5 Storage Server.

You have better things to do than worry about file storage in your small or remote office. But your users continue to demand more space for their data, and data protection is becoming more of a concern. You need to add file storage that's both powerful and easy to manage remotely, and you need to do it quickly.

The HP ProLiant DL160 G5 Storage Server is a fast, easy, and affordable way to add compact rackmount file storage to your small or remote IT environment, and manage it more easily. The Microsoft® Windows® powered operating system is pre-installed and internal storage is pre-configured, so you're up and serving files in minutes. It supports multiple file-sharing protocols, so you can consolidate a single centralized platform to manage and protect, or you can create a scalable disk-based backup/replication target.

Once you've installed your solution, you'll find that you spend less time and effort on file management and maintenance. You can manage and troubleshoot from

outside the office with either remote desktop or Lights-Out 100i remote management. Since your DL160 G5 Storage Server is running Windows, it integrates seamlessly into your Active Directory and distributed file system (DFS) environments, runs your preferred antivirus and backup software, and has a familiar management look and feel. What's more, you can use it as a print server, too.

All DL160 G5 Storage Servers are built on industry standards and include features that protect and optimize your investment. They pack all the performance and flexibility you need into only 1U of rack space, with quad-core processing and support for serial ATA (SATA) or serial-attached SCSI (SAS) drives. The operating system offers intelligent tools like Single-Instance Storage—which de-duplicates file storage to save disk space—and supports the optional Microsoft iSCSI Software Target, so you can add the capability to host block-based Exchange, SQL, or other application storage.

#### Features and benefits

- Go from out-of-the-box to file serving in minutes, not hours: The Windows-powered operating system is pre-installed and user storage is pre-configured, so it's the quick and easy way to add storage to your small/remote office network.
- A single centralized file server platform to manage and protect: Consolidate islands of direct-attached storage (DAS) or low-capacity network-attached storage (NAS) devices to one easy-to-use, heterogeneous file-serving platform, or create a scalable disk-based backup or replication target.
- Microsoft Windows-powered operating system: It's
  Windows, so it integrates seamlessly into your Active
  Directory and DFS environments, runs your antivirus
  and backup applications, and limits your learning
  curve with its familiar user interface.
- Intelligent storage management features: Make more efficient use of storage space using the file de-duplicating single-instance storage (SIS) feature, and enjoy the benefits of other storage-specific tools such as indexed search, SharePoint services support, quotas, file screening, storage reporting, and DFS replication.
- Remote manageability: Manage and troubleshoot from almost anywhere at both the operating system level (with remote desktop or HTTPS) and the hardware component level (using Lights-Out 100i remote management).
- HP ProLiant industry-standard hardware: Protect your investment because you're not locked into a proprietary platform. The compact 1U rackmount platform features quad-core processing (with an option for a second processor) and supports four SATA or SAS 3.5" internal hot-plug hard drives.
- Print server support: Reap consolidation benefits to your Windows print environment with the DL160 G5 Storage Server—which is a Windows print server too.
- Microsoft iSCSI software target support: Upgrade your HP ProLiant DL160 G5 Storage Server to host block-based application storage to further consolidate and lower hardware and administrative costs.

## Warranty

All DL160 G5 Storage Servers come with a standard 1-1-1 warranty (one-year parts exchange, one-year labor, and one-year onsite, next business day response). HP also includes one year of HP Software Support, with standard 9x5 business hours (software technical support and software product and documentation updates).

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 Global Limited Warranty and Technical Support, visit <a href="https://www.hp.com/products/storageworks/warranty">www.hp.com/products/storageworks/warranty</a>.

#### HP Care Pack services

HP Care Pack services are scalable, flexible, and reliable—like your storage. With HP Care Pack services, you can enhance technology operations, minimize risk, and drive business outcomes with easy-to-buy, easy-to-use, scalable support packages for servers, storage, networking, desktops, mobile computing, printing and imaging, and software. These services help you make the most of your hardware and software investments. They extend your standard product warranty and let you choose the support levels

#### **HP Services**

To fully capitalize on your HP ProLiant DL160 G5 Storage Server capabilities requires a service partner who thoroughly understands your server technology and systems environment. With HP Services, you gain the advantage of established methodologies and the industry's broadest portfolio of integrated storage solutions for enhanced information management and optimization.

- Support: hardware and software HP Care Pack, integrated support, remote technologies, multivendor environment support services, and education services:
- Support Plus and Support Plus 24—to extend HP Services committed response as well as speed resolution of more complex inter-operability problems
- Proactive 24—proactive and reactive integrated hardware and software support to help increase IT performance and availability and to improve IT management
- Critical Service—comprehensive support solution for businesses that cannot tolerate downtime
- Remote Support—HP Instant Support Enterprise Edition (ISEE) 24x7 remote and local monitoring for the entire business infrastructure—servers, storage, and networks
- **Deployment:** installation and startup, implementation, and Factory Express integration services
- Availability: mission-critical, data center and ITSM assessment and improvement services
- Performance: performance analysis, tuning and optimization,
   Vdisk/LUN design and implementation, and packaged assessment services
- Solutions: Storage Essentials, Data Migration, Backup and Recovery, Electronic Vaulting, Data Replication for Continuous Access, Disaster Tolerant Management, and Fast Recovery Services

Your IT infrastructure has become the business infrastructure—where delivering successful business outcomes is the key goal. HP can help you manage and evolve your storage environment so that you can facilitate future growth, decrease operational costs, and protect data while reducing risk.

For more information about HP services and support, contact your HP sales representative or HP-authorized Channel Partner. Or, visit www.hp.com/hps/storage.

#### HP ProLiant DL160 G5 Storage Server

#### 3-41-41-41

Operating system	Microsoft® Windows Storage Server 2003 Release 2, Standard x64 Edition
Processor	Quad-Core Intel® Xeon® E5405 (2.00 GHz, 80 W, 1333 MHz FSB)
Processor cache	12 MB (2 x 6 MB) Level 2
Standard number of processors	1
Maximum number of processors	2
Standard memory	1 GB (2 x 512 MB) [640 GB SATA model] 2 GB (2 x 1 GB) [1 TB, 2 TB, 3 TB SATA, and 1.2 TB SAS models]
Maximum memory	32 GB
Memory type	PC2-5300 fully buffered DIMMs (DDR2-667) with Advanced ECC
Network adapter	Two embedded NC105i PCIe Gigabit server adapters
Storage controller	Smart Array E200/128MB Controller with BBWC
Drives/model description	4 x 160 GB 1.5 G SATA 7.2k rpm HDD (640 GB SATA model) 4 x 250 GB 1.5 G SATA 7.2k rpm HDD (1 TB SATA model) 4 x 500 GB 1.5 G SATA 7.2k rpm HDD (2 TB SATA model) 4 x 750 GB 1.5 G SATA 7.2k rpm HDD (3 TB SATA model) 4 x 750 GB 1.5 G SATA 7.2k rpm HDD (3 TB SATA model) 4 x 300 GB 3 G SAS 15k rpm 3.5" DP HDDs (1.2 TB SAS model)
External expansion support	MSA50, MSA60, MSA70 with addition of SA E500 controller
Maximum storage capacity (raw)	12 TB (4 x 750 GB LFF SATA int. + 12 x 750 GB LFF SATA ext.)
Expansion slots	1 x full-length, full-height PCle x16 slot (occupied by Smart Array E200/128 MB controller); 1 x half-length, low-profile PCle x16 slot
Optical drive	DVD-ROM
Redundant power	N/A
Redundant fan	N/A
Remote management	Lights-Out 100i with Advanced Pack
Form factor	1U rack
Warranty (parts/labor/onsite)	1/1/1
Number of users (starting)	10
Number of users (maximum)	50

that meet your business requirements—from basic to mission-critical—while helping you contain total cost of ownership. To cost-effectively upgrade or extend your warranty, you can purchase the HP Care Pack warranty extension along with HP products. For many products, post-warranty HP Care Pack services are available when your original warranty has expired. For more information on Storage Care Pack services, visit <a href="https://www.hp.com/services/storage\_carepacks">www.hp.com/services/storage\_carepacks</a>.

# Additional HP support services for storage

HP Services provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services. HP also offers support management services for deployment of the entire IT infrastructure, including HP and multivendor environments. For more information on these additional HP support services, visit <a href="https://www.hp.com/hps/storage">www.hp.com/hps/storage</a>.

## Proactive and remote support services

As your information technology environment becomes closely aligned with your business strategies, optimizing your IT infrastructure investments and improving overall system availability and utilization become central to your success in the marketplace. HP Services provides a full spectrum of Web-based resources that deliver efficient problem-solving and fast answers. We offer tools to help you manage product lifecycles, and furnish remote monitoring and support solutions for your servers, storage devices, and networks—in addition to proactive and preventive tools to help you manage your IT environment.

### **HP Factory Express**

HP Factory Express is a comprehensive portfolio of flexible, pre-defined, pre-priced, and pre-configured solutions that are customized and integrated with factory solutions and deployment services. This portfolio includes more than 50 HP factory-based services for personal computing, server, storage, and imaging and printing product lines, supporting HP commercial products from the desktop to the data center with Microsoft Windows, Linux, and HP-UX.

A source for configuration, customization, and integration solutions as well as deployment services, HP Factory Express is designed to help you get more from your technology investment, extend your valuable resources, and accelerate your business results. It provides predictable, trusted, and tested IT solutions designed to enhance your productivity.

With Factory Express, you can customize hardware to your exact specifications at the HP factory—helping you plan and meet budget goals, reduce costs, speed deployment, and free up internal resources. You can:

- Save time, money, and resources on product rollouts
- Access HP expertise
- Experience a smoother implementation
- Get accurate and reliable results
- Leverage a comprehensive choice of offerings

For more information on HP Factory Express, visit <a href="https://www.hp.com/go/factory-express">www.hp.com/go/factory-express</a>.

#### Education services

HP offers a variety of educational methods to fit your training needs, including traditional instructor-led courses at one of our 120 training centers worldwide or customized onsite training. In addition, HP provides remotely assisted instructional learning (RAIL) that combines the best of traditional classroom training (including its live instructor and labs) with the best of online training (no traveling required). And if you like learning on your own schedule, at your own pace, then you can make use of e-learning opportunities on the award-winning HP IT Resource Center: a "learning community" with extensive on-demand resources that you can access 24x7. For more information on Education services, visit

education.hp.com/curr-storsan.htm.

#### Financial services

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage, and ultimately retire your HP solutions.

For more information on Financial Services, visit www.hp.com/qo/hpfinancialservices.

© Copyright 2008 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.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. Intel and Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

