

Overview

HPE StoreEasy 1000 Storage with the HPE StoreEasy Management Console Sixth generation (1460, 1560, 1660, 1660 Expanded, 1860)

Whether you are a small, medium, or large distributed organization with remote offices, you need reliable, cost-efficient storage that can keep pace with users and growing volumes of file data without getting in the way of how your organization operates.

If you need an easy-to-manage centralized space for securely storing documents, images, audio, and video files, look no further than HPE StoreEasy 1000 Storage: flexible, efficient, and reliable network-attached storage, right-sized for your organization's needs and budget, without compromising on quality or capabilities.

Built from the foundation of the most secure industry-standard servers and running your choice of Microsoft Windows Server for Storage operating system (Windows Server IoT 2019 for Storage Standard Edition or Windows Storage Server 2016 Standard Edition), HPE StoreEasy 1000 Storage appliances deliver a radically simplified administration experience through HPE StoreEasy Management Console, lower-cost internal capacity expansion, and better performance options for resource-intensive workloads. More security protections built-in and included as standard help you better protect your customers, employees, and organization against loss, corruption, and breaches.

Start by choosing which operating system is the best fit for your IT environment. Then pick from a variety of pre-configured models that include the compute, capacity, and connectivity options most organizations need in a NAS solution, or tailor your performance and options with one of the configure-to-order models.

What's New

- All HPE StoreEasy 1000 Storage models are now available with the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system.
Notes:
 - HPE strongly encourages customers to choose the new HPE StoreEasy Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system.
 - HPE StoreEasy products that feature the previous version of the operating system (Microsoft Windows Storage Server 2016 Standard Edition) and the customers who purchase them are subject to Microsoft's Fixed Lifecycle Policy and will enter Microsoft's Extended Support phase (which includes paid support and security updates only) on January 12, 2022.
 - Microsoft Windows Server IoT 2019 for Storage will remain under Microsoft Mainstream Support (which includes incident support, security update support, and the ability to request non-security updates) until January 2024. Learn more about Microsoft's Fixed Lifecycle and support policy at <https://docs.microsoft.com/en-us/lifecycle/policies/fixed>
- HPE StoreEasy Management Console version 1.3 adds simplified storage provisioning and more intelligent consumption monitoring.
- Most sixth generation StoreEasy 1000 Storage models that shipped with Microsoft Windows Storage Server 2016 Standard Edition can now be upgraded to the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system.
- The StoreEasy 1660 Expanded model now includes an Intel® Xeon® Scalable Silver 4208 processor with PC4-2933 memory.
- Select models now support new 18TB hard drives, resulting in a maximum raw internal capacity of 288TB on the HPE StoreEasy 1660 Storage and 504TB on the HPE StoreEasy 1660 Expanded Storage.

Overview

HPE StoreEasy 1460 Storage

HPE StoreEasy 1460 Storage solutions deliver multi-protocol file serving and application storage in a compact and affordable 1U rack-mount form factor that’s perfect for a small workgroup, small business, or remote office. All HPE StoreEasy 1460 models come with the operating system pre-installed on the four internal LFF drives.



HPE StoreEasy 1460 Storage

Models

Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Description

SKU

HPE StoreEasy 1460 8TB SATA Storage with Microsoft Windows Server IoT 2019	R7G16A
HPE StoreEasy 1460 16TB SATA Storage with Microsoft Windows Server IoT 2019	R7G17A
HPE StoreEasy 1460 32TB SATA Storage with Microsoft Windows Server IoT 2019	R7G18A

Microsoft Windows Storage Server 2016 Standard Edition Operating System

HPE StoreEasy 1460 8TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R92B
HPE StoreEasy 1460 16TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R93B
HPE StoreEasy 1460 32TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R94B



Overview

HPE StoreEasy 1560 Storage

HPE StoreEasy 1560 Storage solutions are built on a compact and affordable tower form factor package and deliver multi-protocol file serving and application storage to environments that don't have rack space, including small workgroups, small businesses, and remote offices. All HPE StoreEasy 1560 models come with the operating system pre-installed on the four internal LFF drives.



HPE StoreEasy 1560 Storage

Models

Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Description

Description	SKU
HPE StoreEasy 1560 8TB SATA Storage with Microsoft Windows Server IoT 2019	R7G19A
HPE StoreEasy 1560 16TB SATA Storage with Microsoft Windows Server IoT 2019	R7G20A

Microsoft Windows Storage Server 2016 Standard Edition Operating System

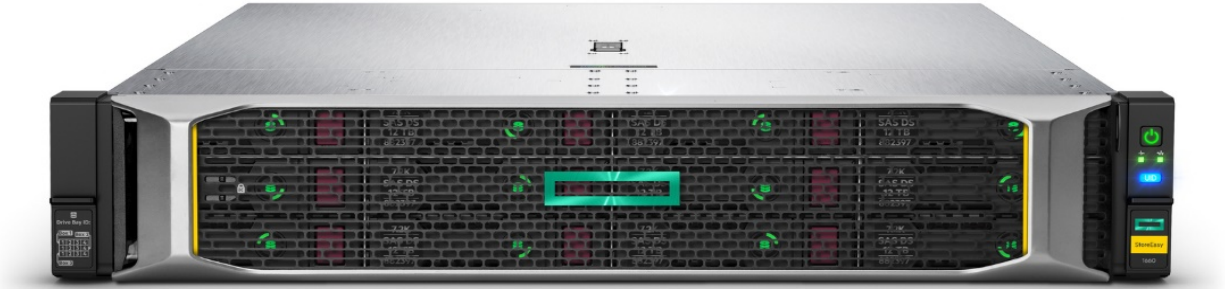
HPE StoreEasy 1560 8TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R96B
HPE StoreEasy 1560 16TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R97B



Overview

HPE StoreEasy 1660 Storage

HPE StoreEasy 1660 Storage solutions deliver high internal capacity (with up to 16 LFF hot-plug drive slots) and external expandability in a 2U rack-mount form factor for small, medium, or large IT environments. All HPE StoreEasy 1660 models come with the operating system pre-installed on mirrored solid state drives.



HPE StoreEasy 1660 Storage

Models

Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Description

SKU

HPE StoreEasy 1660 Performance Storage with Microsoft Windows Server IoT 2019	R7G25A
HPE StoreEasy 1660 Storage with Microsoft Windows Server IoT 2019	R7G24A
HPE StoreEasy 1660 16TB SAS Storage with Microsoft Windows Server IoT 2019	R7G21A
HPE StoreEasy 1660 32TB SAS Storage with Microsoft Windows Server IoT 2019	R7G22A
HPE StoreEasy 1660 64TB SAS Storage with Microsoft Windows Server IoT 2019	R7G23A

Microsoft Windows Storage Server 2016 Standard Edition Operating System

HPE StoreEasy 1660 Performance Storage with Microsoft Windows Storage Server 2016	Q2P71B
HPE StoreEasy 1660 Storage with Microsoft Windows Storage Server 2016	Q2P72B
HPE StoreEasy 1660 16TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P73B
HPE StoreEasy 1660 32TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P74B
HPE StoreEasy 1660 64TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P75B



Overview

HPE StoreEasy 1660 Expanded Storage

The HPE StoreEasy 1660 Expanded Storage is a density-optimized (with 28 LFF hot-plug drive slots) 2U rack-mount form factor platform ideal for bulk file and secondary storage workloads. All StoreEasy 1660 Expanded models come with the operating system pre-installed on mirrored solid state drives.



HPE StoreEasy 1660 Expanded Storage

Model

Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Description

HPE StoreEasy 1660 Expanded Storage with Microsoft Windows Server IoT 2019

SKU

R7G46A

Microsoft Windows Storage Server 2016 Standard Edition Operating System

HPE StoreEasy 1660 Expanded Storage with Microsoft Windows Storage Server 2016

R7L72A



Overview

HPE StoreEasy 1860 Storage

HPE StoreEasy 1860 Storage solutions deliver enterprise-class performance (with up to 26 SFF hot-plug drive slots in a 2U rack-mount form factor) for hybrid flash configurations and latency-sensitive file share or application workloads. All HPE StoreEasy 1860 models come with the operating system pre-installed on mirrored solid state drives.



HPE StoreEasy 1860 Storage

Models

Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Description

SKU

HPE StoreEasy 1860 Performance Storage with Microsoft Windows Server IoT 2019

R7G29A

HPE StoreEasy 1860 Storage with Microsoft Windows Server IoT 2019

R7G28A

Microsoft Windows Storage Server 2016 Standard Edition Operating System

HPE StoreEasy 1860 Performance Storage with Microsoft Windows Storage Server 2016

Q2P76B

HPE StoreEasy 1860 Storage with Microsoft Windows Storage Server 2016

Q2P77B

HPE StoreEasy 1860 9.6TB SAS Storage with Microsoft Windows Storage Server 2016

Q2P78B

HPE StoreEasy 1860 14.4TB SAS Storage with Microsoft Windows Storage Server 2016

Q2P79B



Standard Features

HPE StoreEasy 1000 Storage lets you focus on your business, not your file storage

- HPE StoreEasy 1000 Storage systems come with pre-configured hardware and a Microsoft Windows Server for Storage (either Windows Server IoT 2019 for Storage Standard Edition or Windows Storage Server 2016 Standard Edition) operating system for purpose-built file serving.
- All HPE StoreEasy 1000 Storage models feature HPE StoreEasy Management Console, which centralizes management workflows and helps you save time and effort.
 - HPE StoreEasy Management Console enables IT administrators to quickly and easily monitor and manage their HPE StoreEasy 1000 appliance, regardless of familiarity with the underlying Windows Server operating system.
 - Use the web-based interface to manage and monitor system health, capacity, performance, hardware events, quotas, snapshots, authentication, network services, and more.
 - Easily identify maintenance windows with both point-in-time and historical utilization views of throughput and traffic.
 - Simplify capacity planning with a granular historical utilization dashboard that helps predict when expansion is needed and provides a clear view of growth rate and usage trends.
 - Updates to the latest version through the HPE Support Center at any time during the warranty period of your HPE StoreEasy 1000 Storage system. You can leverage automatic updates within the application to take advantage of new features as soon as they are available, or you can stage updates for your next system maintenance window.
- The HPE-enhanced Initial Configuration Tasks Wizard simplifies installation and helps prevent network configuration errors for even faster deployment.
- HPE StoreEasy 1000 Storage accessories and adapters are industry-standard and are often the same as those in the HPE servers in your environment, and HPE StoreEasy hard drive bundles are the most efficient way to buy, deploy, and provision additional storage capacity over the life of the system.

The pre-installed operating system is tailored for file storage

You can now choose between two specially-licensed operating systems on your HPE StoreEasy 1000 Storage system: Microsoft Windows Server IoT 2019 Standard Edition or Microsoft Windows Storage Server 2016 Standard Edition. Both operating systems include a robust range of file serving and storage capabilities while leveraging your Windows Server management skill set and tools, including Active Directory, PowerShell and System Center. They address heterogeneous environments with support for CIFS/SMB (2.0, 2.1, 3.0, 3.02 and 3.1.1), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, and iSCSI protocols. And they enable more efficient storage utilization and protection with support for file quotas, screening, and classification, plus built-in deduplication and replication engines.

New features introduced in Microsoft Windows Server IoT 2019 for Storage are focused on bridging on-premises environments with Azure services, enabling HPE StoreEasy 1000 Storage to complement cloud applications and storage. With Windows Server IoT 2019 for Storage, you can integrate Azure services such as Azure Backup, Azure File Sync, disaster recovery, and much more. Windows Server IoT 2019 for Storage also introduces new storage migration and analytics tools, updated threat protection, and enhanced security capabilities. Finally, HPE StoreEasy 1000 Storage systems with Windows Server IoT 2019 for Storage can host DNS and DHCP services, increasing the number of roles the system can perform and adding even more solution value to small / remote and medium business environments.

When installed on HPE StoreEasy 1000 Storage systems, both Microsoft Windows Server IoT 2019 Standard Edition and Microsoft Windows Storage Server 2016 Standard Edition include an unlimited Client Access License (CAL), but come with some restrictions vs. mainstream Microsoft Windows Server versions.



Standard Features

The following summarizes HPE StoreEasy 1000 Storage supported features and roles:

	Microsoft Windows Server IoT 2019 for Storage Standard Edition	Microsoft Windows Storage Server 2016 Standard Edition
Maximum CPUs and VM Rights	N/A	2 CPUs + 2 VM
Maximum CPU cores and VM Rights	16 cores per system + 2 VM	N/A
# Disks per controller (see HPE Product Specifications for Specific constraints for each controller)	238	
Maximum SMB Connections	16,777,216	
File Server Resource Manager (FSRM)	Yes	
Domain Join	Yes	
File Classification Infrastructure (FCI)	Yes	
Windows Server Backup	Yes	
DFS-Replication	Yes (100TB maximum)	
Storage Replica	Yes (limited to 1 x 2TB volume, 1 partnership, 1 resource group)	No
Azure File Sync	Yes	
Azure Backup	Yes	
Shared block storage (iSCSI Target Server / Storage Provider)	Yes	
Storage Spaces, Storage Spaces Direct, and Volume Replication	No	
Deduplication	Yes	
Deduplication for ReFS	Yes	No
BranchCache - Hosted Cache	Yes	
Hyper-V Virtualization	Host + 2VM* (Shielded VMs not included)	
Clustering (including AD/DNS)	Not supported on StoreEasy 1000 Storage	
Networking Infrastructure Roles (DHCP & DNS)	Yes	No
Active Directory roles including Domain Controller (RODC)	No	
Active Directory (Domain Controller, Certificate Services, Federation services, Rights Management)	No	
Application Server, Network Policy, Remote Desktop Broker, WDS and Fax Server	No	
Windows Server Migration Tools	Yes	
Windows Storage Migration Service	Yes	No
Windows Server System Insights	Yes	No
Enhanced Windows Defender Advanced Threat Protection (ATP)	Yes	No

Notes: *Requires separate software license for each VM



Standard Features

Notes:

- HPE strongly encourages customers to choose the new HPE StoreEasy Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system.
- HPE StoreEasy products that feature the previous version of the operating system (Microsoft Windows Storage Server 2016 Standard Edition) and the customers who purchase them are subject to Microsoft's Fixed Lifecycle Policy and will enter Microsoft's Extended Support phase (which includes paid support and security updates only) on January 12, 2022.
- Microsoft Windows Server IoT 2019 for Storage will remain under Microsoft Mainstream Support (which includes incident support, security update support, and the ability to request non-security updates) until January 2024. Learn more about Microsoft's Fixed Lifecycle and support policy at <https://docs.microsoft.com/en-us/lifecycle/policies/extended-support>
- Microsoft Windows Server 2019 and Microsoft Windows Server IoT 2019 for Storage are built on the same code base. Along the same lines, Microsoft Windows Server 2016 and Microsoft Windows Storage Server 2016 are built on the same code base. Storage-centric (backup, replication, antivirus, etc.) applications certified for Windows Server 2019 and/or Windows Server 2016 are expected to have the same application compatibility profile on Windows Server IoT 2019 for Storage and Windows Storage Server 2016, respectively. Windows Server IoT for Storage / Windows Storage Server and Windows Server have the same application frameworks, services, and plumbing to support running the full breadth of Windows-compatible applications but do have unique licensing features and restrictions. Customers should review the End User License Agreement (EULA) to see what server roles are listed as unsupported and the types of applications that are permitted for installation on HPE StoreEasy 1000 Storage systems. Applications that rely upon certain roles that are removed from (or are listed in the EULA as unsupported on) Windows Server IoT 2019 for Storage and Windows Storage Server 2016, such as fax server, terminal services, Application Server, Network Policy Server, Remote Desktop Broker, Windows Deployment Services, and Active Directory domain controller (all HPE StoreEasy 1000 Storage systems can join an Active Directory domain, but they cannot be a domain controller or perform Certificate Services, Federation Services, or Rights Management) will not be able to leverage those roles. Independent Software Vendors (ISVs) ultimately decide what versions and editions of Windows are supported by their products and users should review ISV compatibility and support information before purchasing.

More Information on Microsoft Windows Server IoT 2019 for Storage can be found here:

<https://docs.microsoft.com/en-us/windows/iot-core/windows-server>

More Information on Microsoft Windows Storage Server 2016 can be found here:

<https://blogs.technet.microsoft.com/storageserver/2016/10/14/announcing-windows-storage-server-2016/>

Protect your data and your investment

- HPE StoreEasy 1000 Storage protects data while at rest with file system encryption and BitLocker Drive Encryption, and while it is being transferred with SMB encryption and signing.
 - Use built-on file classification, Volume Shadow Copy Service snapshots, and Distributed File System Replication (DFS-R) to keep your files safe and accessible.
 - Install and run endpoint protection (such as an antivirus) on the system itself, reducing the cost and complexity of connecting to an external endpoint protection server.
 - Increase uptime with standard features such as near-continuous health monitoring with HPE Active Health System, redundant OS drives, redundant fans (not available on all models) and power, and advanced memory protection.
 - Confidently deploy large file systems leveraging file system online self-healing, online verification, and precise and rapid repair that massively reduces downtime from file corruption.
 - Get support from file storage experts with 3-Year Parts, 3-Year Labor, and 3-Year Onsite support with next business day response. All HPE StoreEasy Storage systems also include one year of 9x5 software telephone support for the Windows Server for Storage operating system.
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Standard Features

Archiving with iTernity Compliant Archive Software

Get open, flexible, and expandable long-term archiving with iTernity Compliant Archive Solution (iCAS). iTernity iCAS is validated to meet the United States Securities and Exchange Commission (SEC) 17a-4(f) requirements. Together, HPE StoreEasy 1000 Storage and iCAS are your key to legally-compliant data archiving.

For more information on how to obtain the iCAS for archiving visit the [HPE Complete iTernity iCAS](#) product page.

Expansion with HPE MSA SAN Storage or D3X10 / D6020 /D8000 Disk Enclosures

All HPE StoreEasy models support external storage using HPE MSA SAN Storage or D3X10 / D6020 / D8000 Disk Enclosure product families. A Fibre Channel, SAS, or iSCSI connection must be added to support MSA SAN Storage (note that high-availability clustering is not supported) while a Smart Array controller with external ports must be added to support external Disk Enclosures. The maximum number of disk enclosures supported is 8, a limit imposed by the disk enclosures and controllers. See the MSA SAN Storage, D3X10 Disk Enclosure, D6020 Disk Enclosure, and D8000 Disk Enclosure [QuickSpecs](#) for more information.



Service and Support

Warranty

HPE StoreEasy 1460, 1560, 1660, 1660 Expanded, and 1860 Storage systems come with a standard 3-3-3 warranty (3 years parts exchange, 3 years labor and 3 years onsite, next business day response). Software media is warranted to be free of physical defect for a period of 90 days from delivery.

Services Included with the Product

One year of Hewlett Packard Enterprise Software Support for the Windows Server for Storage Operating System (either Windows Server IoT 2019 for Storage Standard Edition or Windows Storage Server 2016 Standard Edition), standard 9x5 business hours (software advisory and remedial software telephone support, and media and documentation distribution service).

Microsoft Operating System Support Statement

Standard support for the Microsoft Windows Server for Storage operating system (either Windows Server IoT 2019 for Storage Standard Edition or Windows Storage Server 2016 Standard Edition) installed on HPE StoreEasy 1000 Storage includes (but is not limited to) initial configuration, troubleshooting of operating system installation and/or recovery issues, hardware and driver problems, and system-specific / storage-centric features (Volume / File system creation; File/Folder/Share Permissions; Active Directory integration; DFS-R; DFS-N; quotas; deduplication; NFS, SMB, iSCSI protocols; performance tuning; etc.). Microsoft Clustering Services is not supported on HPE StoreEasy 1000 Storage. HPE Support Services will also not troubleshoot a Microsoft Operating System feature that has been deprecated or has limited functionality as per design by Microsoft. HPE Support Services will not troubleshoot third-party software or issues related to Microsoft Active Directory Services that are external to the HPE StoreEasy system that may be hindering implementation of Active Directory integration. In those cases, customers should resolve issues with their third-party software vendor and/or by opening a support case with Microsoft directly.

HPE Pointnext - Service and Support

Get the most from your HPE Products. Get the expertise you need at every step of your IT journey with **HPE Pointnext Services**. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services** focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our **Professional** and **Operational Services** can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

Consume IT on your terms

HPE GreenLake brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake accelerates digital transformation in a distributed, edge-to-cloud world.

- Get Faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

Discover, plan, and design

Choose from a rich portfolio of services to make the most of HPE StoreEasy Storage, so you can efficiently and affordably consolidate, manage, and extract value from unstructured data.

Hewlett Packard Enterprise Services can help you discover needs and create a plan for simplifying the environment, reducing risk, and maximizing your storage investments

HPE Backup Recovery Impact Analysis - Focus placed on service requirements and design as the key to success for gaining a clear understanding of the role of increasingly diverse data protection strategies.



Service and Support

HPE Storage Cloud Design Service - Build a scalable, low-cost enterprise storage environment with inherent cloud benefits to meet big data needs.

Deploy and integrate

We can help you configure, set up, and efficiently use your HPE StoreEasy Storage, as well as help migrate data, improve capacity utilization, and establish information management standards used across backup, replication, and archiving needs.

HPE StoreEasy 1000 Storage Installation and Startup Service

Expert system installation and setup by a Hewlett Packard Enterprise technical specialist designed to reduce implementation time and cost, with your basic questions about the service answered during the included orientation session.

<https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=4AA2-6112ENW>

HPE Storage Data Migration Services

End-to-end data migration service providing seamless discovery, assessment, planning, and design, completely customizable to your organization's storage area network or network attached storage environment and using innovative software to help you migrate to Hewlett Packard Enterprise storage quickly and efficiently.

<https://h20195.www2.hpe.com/V2/GetPDF.aspx/4AA5-3759ENW.pdf>

HPE Service Credits

Offer flexible services and technical skills to meet your IT demands as your business evolves. With a menu of services, you can access additional resources and specialist skills to help you maintain peak performance of your IT. HPE Service Credits help you proactively respond to your dynamic IT and business needs.

Recommended Services

HPE Pointnext Tech Care.

HPE Pointnext Tech Care is the new operational service experience for HPE products. Tech Care goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointnext Tech Care has been reimagined from the ground up to support a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Pointnext Tech Care is available in three response levels. Basic, which provides 9x5 business hour availability and a 2 hour response time. Essential which provides a 15 minute response time 24x7 for most enterprise level customers, and Critical which includes a 6 hour repair commitment where available and outage management response for severity 1 incidents.

<https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00108652enw>

HPE Datacenter Care

HPE Datacenter Care helps customers address the pressing needs of IT today and smoothly transform to a more agile cloud-like IT operations model. We help run and monitor your IT by offloading the day to day routine tasks, helping customers be more predictive and proactive, and saving time with one place to call with for all of their IT.

Partner with an assigned account team backed by local and global experts, access HPE enhanced call experience with priority access, use specialized support for complex, technologies, choose hardware and software support for your devices, implement proactive monitoring to stay ahead of issues, and access HPE IT best practices and IP. HPE Datacenter Care advantage options are available to add to your agreement to give you specialized expertise for performance, security, back up analysis, and much more. Datacenter Care is available as both tailored statement of work and as a packaged service for 3, 4, and 5 year terms.

<https://www.hpe.com/us/en/services/datacenter-hybrid-services.html>

For more information: <http://www.hpe.com/services>



Service and Support

Other related services from HPE Pointnext Services

Defective Media Retention

Is an option available with HPE Datacenter Care, HPE Proactive Care, Proactive Care Advanced, and HPE Foundation Care and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

HPE Education Services

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment. <http://www.hpe.com/ww/learn>

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and support options.

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

HPE Support Center

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers.

Learn more <http://www.hpe.com/support/hpesc>

The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Support Center is available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

Notes: *HPE Support Center Mobile App is subject to local availability

For more information

<http://www.hpe.com/services>

<https://www.hpe.com/us/en/services/operational.html>

To learn more about HPE Storage Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. HPE Pointnext operational services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

Contact information for a representative in your area can be found at "Contact HPE"

<https://www.hpe.com/us/en/contact-hpe.html>

- Services for customers purchasing from Hewlett Packard Enterprise or an enterprise reseller are quoted using Hewlett Packard Enterprise order configuration tools.
- Customers purchasing from a commercial reseller can find HPE Pointnext operational services at <http://ssc.hpe.com/portal/site/ssc/>



Configuration Information

HPE StoreEasy 1460 Storage

Common Specifications (all HPE StoreEasy 1460 Storage models)	
Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor; 2 nd processor optional
Storage Controller	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
Internal Drive Support	4 x LFF (3.5") hot-plug front drive bays standard
Network Ports Standard	4 x 1GbE
Network Adapter	HPE Ethernet 1Gb 4-port 366FLR FlexLOM Adapter; PCIe NIC optional
Expansion Slots	2 x PCIe; secondary riser with one additional PCIe slot optional
Power	1 x 500W Platinum standard; optional 2 nd redundant power supply
Cooling	5 hot-plug redundant fans (single processor), 7 hot-plug redundant fans (dual processors)
Form Factor	1U rackmount
Security	1U lockable security bezel; Trusted Platform Module 2.0 optional
Additional Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features Notes: For more information, visit: iLO Supported Servers and Features

R7G16A, R7G17A, and R7G18A

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2R92B, Q2R93B, and Q2R94B

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
Memory Standard	8GB
Memory Type	1 x HPE 8GB Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Notes: Options listed in the steps below are limited to those recommended for use with StoreEasy 1460 Storage models. For more information on the complete set of compatible options, please reference the ProLiant DL360 Gen10 QuickSpecs at: <https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=a00008159enw>



Configuration Information

Step 1: Choose your HPE StoreEasy 1460 Storage model

All HPE StoreEasy 1460 SKUs are pre-configured Build-to-Order (BTO) models with RAID10 partitions across the four factory-installed drives for both the pre-installed operating system and the pre-configured file storage capacity. All models can be factory-racked, but all options in the configuration steps below are not factory integrated and are shipped separately.

Notes:

- HPE strongly encourages customers to choose one of the new HPE StoreEasy 1460 Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system (R7G16A, R7G17A, or R7G18A) since Microsoft will be moving the Windows Storage Server 2016 Standard Edition operating system to their Extended Support phase starting in January of 2022. For more information, please visit <https://docs.microsoft.com/en-us/lifecycle/policies/fixed>
- All model names are based on raw storage capacity, not available user storage.
- The pre-configured file storage partition is set up as RAID10 across all four factory-installed drives; it can be reconfigured, but as a best practice, HPE recommends only RAID10 or RAID6 for data partitions.

Description

Description	SKU
HPE StoreEasy 1460 8TB SATA Storage with Microsoft Windows Server IoT 2019 Notes: (4 x 2TB SATA 6G Midline 7.2K LFF HDDs)	R7G16A
HPE StoreEasy 1460 16TB SATA Storage with Microsoft Windows Server IoT 2019 Notes: (4 x 4TB SATA 6G Midline 7.2K LFF HDDs)	R7G17A
HPE StoreEasy 1460 32TB SATA Storage with Microsoft Windows Server IoT 2019 Notes: (4 x 8TB SATA 6G Midline 7.2K LFF HDDs)	R7G18A
HPE StoreEasy 1460 8TB SATA Storage with Microsoft Windows Storage Server 2016 Notes: (4 x 2TB SATA 6G Midline 7.2K LFF HDDs)	Q2R92B
HPE StoreEasy 1460 16TB SATA Storage with Microsoft Windows Storage Server 2016 Notes: (4 x 4TB SATA 6G Midline 7.2K LFF HDDs)	Q2R93B
HPE StoreEasy 1460 32TB SATA Storage with Microsoft Windows Storage Server 2016 Notes: (4 x 8TB SATA 6G Midline 7.2K LFF HDDs)	Q2R94B

Step 2: Choose a second processor (optional)

Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02565-B21
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Step 3: Choose additional memory kit(s) (optional)

R7G16A, R7G17A, and R7G18A only

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-K21
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Q2R92B, Q2R93B, and Q2R94B only

HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-K21
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Notes:

- There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All HPE StoreEasy 1460 models come with one processor and one DIMM standard.
- Dual-processor HPE StoreEasy 1460 systems must have the same number and type of memory DIMMs installed for each processor.

Step 4: Choose a riser kit to add a PCIe slot (optional)

HPE DL360 Gen10 Low Profile Riser Kit	867982-B21
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Notes: Expands the number of available PCIe slots from 2 to 3, and also requires addition of a second processor.



Configuration Information

Step 5: Choose an external storage controller to connect to external enclosures (optional)

HPE Smart Array SAS Controllers

Description

	SKU
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Notes:

- If you wish to enable Data at Rest Encryption on the HPE StoreEasy 1460 using the included Smart Array P408i-a or with an optional Smart Array P408e-p listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE).
- HPE Smart Array SR SmartCache is optional and must be licensed separately. Since it requires at least one SSD (and HPE recommends at least two SSDs), an external storage controller plus external storage would also be required to enable it on StoreEasy 1460 Storage. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

HPE Special Reminder

Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above-mentioned requirement, you shall bear all the liabilities wholly and solely. Hewlett Packard Enterprise will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

Step 6: Choose additional network adapter(s) (optional)

Notes: SFP and SFP+ Adapters do not include a transceiver by default.

SFP transceiver(s) or direct connect cable(s) should be ordered according to the transceiver and cable compatibility matrix found at:

<https://www.hpe.com/us/en/pdfViewer.html?resource=/content/hpe/country/us/en/resources/servers/reference-guide/transceiver-networking-server&parentPage=/us/en/products/servers/networking>

PCIe Network Adapters

HPE StoreEasy 10GbE 2-port 530T Adapter	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter	Q2P92A
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21

Step 7: Choose the HPE Trusted Platform Module (optional)

HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
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Notes: HPE StoreEasy systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Step 8: Choose second power supply (optional)

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
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Step 9: Choose a System Recovery Media Kit (optional)

R7G16A, R7G17A, and R7G18A only

HPE StoreEasy 1X60 Recovery Software Media Kit with Microsoft Windows Server IoT 2019	R7G47B
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Configuration Information

Q2R92B, Q2R93B, and Q2R94B only

HPE StoreEasy 1X60 Recovery Software Media Kit for Microsoft Windows Storage Server 2016

Q2P95B

Notes:

- HPE StoreEasy 1X60 Recovery Software Media Kits contain a System Recovery USB key that is used to re-install the factory operating system image. Booting the system from the System Recovery media will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the HPE StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.
 - Alternatively, the HPE StoreEasy 1X60 Recovery Software image can be downloaded from the HPE's Software Depot at no charge. More information is available here: <https://myenterpriselicense.hpe.com/cwp-ui/free-software/>.
 - For more information on how to perform a system recovery on a HPE StoreEasy 1460 refer to the HPE StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the HPE StoreEasy system model in the drivers and download section.
 - All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.
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Configuration Information

HPE StoreEasy 1560 Storage

Common Specifications (all HPE StoreEasy 1560 Storage models)

Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor
Storage Controller	HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
Internal Drive Support	4 x LFF (3.5") hot-plug drive bays standard 4 x LFF second drive cage (optional)
Network Ports Standard	2 x 1GbE
Network Adapter	Embedded 2-Port 1GbE HPE Ethernet 332i Adapter; PCIe NICs optional
Expansion Slots	5 x PCIe (one slot occupied by Smart Array P408i-p controller)
Power	1 x 500W Platinum standard; optional 2nd redundant power supply
Cooling	2 non hot-plug redundant fans
Form Factor	4.5U tower
Security	Lockable security bezel; Trusted Platform Module 2.0 optional
Additional Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features Notes: For more information, visit: iLO Supported Servers and Features

R7G19A and R7G20A

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2R96B and Q2R97B

Operating System	Microsoft® Windows Storage Server 2016, Standard Edition with HPE StoreEasy Management Console
Memory Standard	8GB
Memory Type	1 x HPE 8GB Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Notes: Options listed in the steps below are limited to those recommended for use with StoreEasy 1560 Storage models.

For more information on the complete set of compatible options, please reference the ProLiant ML110 Gen10 QuickSpecs at:

<https://h20195.www2.hp.com/v2/getdocument.aspx?docname=a00021851enw>



Configuration Information

Step 1: Choose your HPE StoreEasy 1560 Storage model

All HPE StoreEasy 1560 SKUs are pre-configured Build-to-Order (BTO) models with RAID10 partitions across the four factory-installed drives for both the pre-installed operating system and the pre-configured file storage capacity. All options in the configuration steps below are not factory integrated and are shipped separately.

Notes:

- HPE strongly encourages customers to choose one of the new HPE StoreEasy 1560 Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system (R7G19A or R7G20A) since Microsoft will be moving the Windows Storage Server 2016 Standard Edition operating system to their Extended Support phase starting in January of 2022. For more information, please visit <https://docs.microsoft.com/en-us/lifecycle/policies/extended-support>
- All model names are based on raw storage capacity, not available user storage.
- The pre-configured file storage partition is set up as RAID10 across all four factory-installed drives; it can be reconfigured, but as a best practice, HPE recommends only RAID10 or RAID6 for data partitions.

Description	SKU
HPE StoreEasy 1560 8TB SATA Storage with Microsoft Windows Server IoT 2019 Notes: (4 x 2TB SATA 6G Midline 7.2K LFF HDDs)	R7G19A
HPE StoreEasy 1560 16TB SATA Storage with Microsoft Windows Server IoT 2019 Notes: (4 x 4TB SATA 6G Midline 7.2K LFF HDDs)	R7G20A
HPE StoreEasy 1560 8TB SATA Storage with Microsoft Windows Storage Server 2016 Notes: (4 x 2TB SATA 6G Midline 7.2K LFF HDDs)	Q2R96B
HPE StoreEasy 1560 16TB SATA Storage with Microsoft Windows Storage Server 2016 Notes: (4 x 4TB SATA 6G Midline 7.2K LFF HDDs)	Q2R97B

Step 2: Choose additional memory kit(s) (optional)

R7G19A and R7G20A only

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit P00922-K21

Q2R96B and Q2R97B only

HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit P00918-K21

Notes: There are 6 DIMM slots available on the HPE StoreEasy 1560. All HPE StoreEasy 1560 models come with one processor and one DIMM standard.

Step 3: Choose a second drive cage (optional)

HPE ML110 Gen10 4LFF Drive Backplane Cage Kit 869491-B21

Notes: Adding the 2nd LFF drive cage requires adding the 2nd power supply (865408-B21).

Step 4: Choose drives for the second drive cage (optional)

HPE single drive options

HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD 861686-K21

HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD 861681-K21

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD 861683-K21

HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD 861742-K21

HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD 834028-K21

HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD 881787-K21

Notes: As a best practice, HPE recommends ordering and installing 4 LFF drives for the 2nd drive cage that match the same capacity and type already installed in the first drive cage.



Configuration Information

Step 5: Choose an external storage controller to connect to external enclosures (optional)

Description	SKU
HPE Smart Array SAS Controllers	
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Notes:

- If you wish to enable Data at Rest Encryption on the HPE StoreEasy 1560 using the included Smart Array P408i-p or with an optional Smart Array P408e-p listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE).
- HPE Smart Array SR SmartCache is optional and must be licensed separately. Since it requires at least one SSD (and HPE recommends at least two SSDs), the second drive cage or an external storage controller plus external storage would also be required to enable it on StoreEasy 1560 Storage. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

HPE Special Reminder

Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above-mentioned requirement, you shall bear all the liabilities wholly and solely. Hewlett Packard Enterprise will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

Step 6: Choose additional network adapter(s) (optional)

Notes: SFP and SFP+ Adapters do not include a transceiver by default.

SFP transceiver(s) or direct connect cable(s) should be ordered according to the transceiver and cable compatibility matrix found at:

<https://www.hpe.com/us/en/pdfViewer.html?resource=/content/hpe/country/us/en/resources/servers/reference-guide/transceiver-networking-server&parentPage=/us/en/products/servers/networking>

PCIe Network Adapters

HPE StoreEasy 10GbE 2-port 530T Adapter	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter	Q2P92A
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21

Step 7: Choose the HPE Trusted Platform Module (optional)

HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
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Notes: HPE StoreEasy systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Step 8: Choose a second power supply (optional)

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
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Configuration Information

Step 9: Choose a System Recovery Media Kit (optional)

R7G19A and R7G20A only

HPE StoreEasy 1X60 Recovery Software Media Kit with Microsoft Windows Server IoT 2019

R7G47B

Q2R96B and Q2R97B only

HPE StoreEasy 1X60 Recovery Software Media Kit for Microsoft Windows Storage Server 2016

Q2P95B

Notes:

- HPE StoreEasy 1X60 Recovery Software Media Kits contain a System Recovery USB key that is used to re-install the factory operating system image. Booting the system from the System Recovery media will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the HPE StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.
 - Alternatively, the HPE StoreEasy 1X60 Recovery Software image can be downloaded from the HPE's Software Depot at no charge. More information is available here: <https://myenterpriselicense.hpe.com/cwp-ui/free-software/>.
 - For more information on how to perform a system recovery on a HPE StoreEasy 1560 refer to the HPE StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the HPE StoreEasy system model in the drivers and download section.
 - All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.
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Configuration Information

HPE StoreEasy 1660 Storage

Common Specifications (all HPE StoreEasy 1660 Storage models)

Storage Controllers	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller (for data drives); HPE Smart Array S100i SR Gen10 SW RAID (for mirrored OS drives only)
Internal Drive Support	12 x LFF (3.5") hot-plug front drive bays standard; 4 x LFF hot-plug mid-chassis drive cage optional
Network Ports Standard	4 x 1GbE
Network Adapter	HPE Ethernet 1Gb 4-port 366FLR FlexLOM Adapter; PCIe NIC(s) optional
Expansion Slots	3 x PCIe; 3-slot secondary riser optional
Power	2 x 800W Platinum hot-plug redundant
Cooling	6 hot-plug, high-performance redundant fans
Form Factor	2U rackmount
Security	2U lockable security bezel; Trusted Platform Module 2.0 optional
Additional Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features Notes: For more information, visit: iLO Supported Servers and Features

R7G25A (Performance model)

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor; 2 nd processor optional
Memory Standard	32GB
Memory Type	2 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

R7G24A, R7G21A, R7G22A, and R7G23A

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2P71B (Performance model)

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2P72B, Q2P73B, Q2P74B, and Q2P75B

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Notes: Options listed in the steps below are limited to those recommended for use with StoreEasy 1660 Storage models. For more information on the complete set of compatible options, please reference the ProLiant DL380 Gen10 QuickSpecs at: <https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00008180enw>



Configuration Information

Step 1: Choose your HPE StoreEasy 1660 Storage model

Fixed configuration models

These HPE StoreEasy 1660 SKUs are pre-configured Build-to-Order (BTO) models with the operating system pre-installed on mirrored solid state drives and include eight data drives factory-installed in front slots (leaving four open front LFF slots for expansion). These models can be factory-racked, but all options in the configuration steps below (including additional data drives) are not factory integrated and are shipped separately.

Notes:

- HPE strongly encourages customers to choose one of the new HPE StoreEasy 1660 Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system (R7G21A, R7G22A, R7G23A, R7G24A, or R7G25A) since Microsoft will be moving the Windows Storage Server 2016 Standard Edition operating system to their Extended Support phase starting in January of 2022. For more information, please visit <https://docs.microsoft.com/en-us/lifecycle/policies/fixed>
- All model names are based on raw storage capacity, not available user storage.
- When adding drives to the any open LFF slots for the models below, Hewlett Packard Enterprise recommends as a best practice to use all internal data drives of the same type and capacity.
- The operating system is mirrored on two SFF (2.5”) solid state drives in a rear drive cage, leaving all three standard PCIe slots available for expansion.

Description	SKU
HPE StoreEasy 1660 16TB SAS Storage with Microsoft Windows Server IoT 2019 Notes: (8 x 2TB SAS 12G Midline 7.2K LFF HDDs)	R7G21A
HPE StoreEasy 1660 32TB SAS Storage with Microsoft Windows Server IoT 2019 Notes: (8 x 4TB SAS 12G Midline 7.2K LFF HDDs)	R7G22A
HPE StoreEasy 1660 64TB SAS Storage with Microsoft Windows Server IoT 2019 Notes: (8 x 8TB SAS 12G Midline 7.2K LFF HDDs)	R7G23A
HPE StoreEasy 1660 16TB SAS Storage with Microsoft Windows Storage Server 2016 Notes: (8 x 2TB SAS 12G Midline 7.2K LFF HDDs)	Q2P73B
HPE StoreEasy 1660 32TB SAS Storage with Microsoft Windows Storage Server 2016 Notes: (8 x 4TB SAS 12G Midline 7.2K LFF HDDs)	Q2P74B
HPE StoreEasy 1660 64TB SAS Storage with Microsoft Windows Storage Server 2016 Notes: (8 x 8TB SAS 12G Midline 7.2K LFF HDDs)	Q2P75B

Configurable models

These HPE StoreEasy 1660 SKUs are Configure-to-Order (CTO) models with the operating system pre-installed on mirrored solid state drives and do not include data drives standard. These models can be factory-racked, and most added options (including data drives) can be factory integrated.

Notes: Hewlett Packard Enterprise recommends as a best practice that the internal data drives for the CTO models be the same type and capacity.

HPE StoreEasy 1660 Performance Storage with Microsoft Windows Server IoT 2019	R7G25A
HPE StoreEasy 1660 Storage with Microsoft Windows Server IoT 2019	R7G24A
HPE StoreEasy 1660 Performance Storage with Microsoft Windows Storage Server 2016	Q2P71B
HPE StoreEasy 1660 Storage with Microsoft Windows Storage Server 2016	Q2P72B

Notes: The operating system is mirrored on two SFF (2.5”) solid state drives in a rear drive cage, leaving all three standard PCIe slots available for expansion.



Configuration Information

Step 2: Choose a second processor (optional)

R7G25A and Q2P71B only

Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 P02491-B21

R7G24A, R7G21A, R7G22A, R7G23A, Q2P72B, Q2P73B, Q2P74B, and Q2P75B only

Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 P02489-B21

Step 3: Choose additional memory kit(s) (optional)

Description

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit P00922-K21

SKU

Notes:

- There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All HPE StoreEasy 1660 models come with one processor standard. R7G25A comes with 2 x 16GB DIMMs standard, while all other HPE StoreEasy 1660 SKUs come with one 16GB DIMM standard.
- Dual-processor HPE StoreEasy 1660 systems must have the same number and type of memory DIMMs installed for each processor.

Step 4: Choose a riser kit to add PCIe slots (optional)

HPE DL Gen10 x8/x16/x8 Riser Kit 870548-B21

Notes: Adds three PCIe slots; also requires addition of a second processor.

Step 5: Choose a drive cage to add LFF slots (optional)

HPE StoreEasy 1660 4LFF Midplane Drive Cage Q2P93A

Notes: Expands the total number of Large Form Factor (3.5") drive slots from 12 to 16.

Step 6: Choose internal storage drives (optional)

Drive Options

Maximum number of internal LFF drives supported

- 12 (in standard configuration)
- 16 (with optional mid-chassis 4LFF drive cage in step 5)

HPE StoreEasy 1660 LFF Drive Bundles

Business Critical (Midline) - 12G SAS

HPE StoreEasy 8TB SAS LFF (3.5in) Smart Carrier 4-pack HDD Bundle Q2P80A

Notes: Contains 4 x HPE 2TB SAS 12G 7.2K LFF HDDs (reference SKU 872485-K21)

HPE StoreEasy 16TB SAS LFF (3.5in) Smart Carrier 4-pack HDD Bundle Q2P81A

Notes: Contains 4 x HPE 4TB SAS 12G 7.2K LFF HDDs (reference SKU 861756-K21)

HPE StoreEasy 24TB SAS LFF (3.5in) Smart Carrier 4-pack HDD Bundle Q2P82A

Notes: Contains 4 x HPE 6TB SAS 12G 7.2K LFF HDDs (reference SKU 861754-K21)

HPE StoreEasy 32TB SAS LFF (3.5in) Smart Carrier 4-pack HDD Bundle N9Y12A

Notes: Contains 4 x HPE 8TB 12G SAS 7.2K LFF HDDs (reference SKU 861590-K21)

HPE StoreEasy 40TB SAS LFF (3.5in) Smart Carrier 4-pack HDD Bundle Q0F60A

Notes: Contains 4 x HPE 10TB 12G SAS 7.2K LFF HDDs (reference SKU 857644-K21)

HDDs

Business Critical (Midline) - 12G SAS

HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD 872485-K21



Configuration Information

Description	SKU
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872487-K21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861754-K21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819201-K21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857644-K21
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881779-K21
HPE 14TB SAS 12G Business Critical 7.2K LFF (3.5in) SC 1yr Wty Helium 512e HDD	P09153-K21
HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD	P23863-K21
HPE 18TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE HDD	P37664-K21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861691-K21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872489-K21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872491-K21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861750-K21
HPE 8TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD	819203-K21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857648-K21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881785-K21
HPE 14TB SATA 6G Business Critical 7.2K LFF (3.5in) SC 1yr Wty Helium 512e HDD	P09163-K21
HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD	P23857-K21
HPE 18TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE HDD	P37673-K21

SSDs

Mixed Use - 6G SATA

HPE 480GB SATA 6G Mixed Use LFF SCC 5300M SSD	P19978-K21
HPE 1.92TB SATA 6G Mixed Use LFF SCC 5300M SSD	P19982-K21

Notes:

- HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller. With the addition of at least one SSD (HPE recommends two 12G SAS Mixed Use SSDs), it can add a flash acceleration tier to the HPE StoreEasy 1660 to help increase performance for the most frequently accessed files. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>
- The recommended maximum number of data SSDs for the HPE StoreEasy 1660 is 8; however, there is nothing architecturally that prevents the use of more than 8 SSDs.



Configuration Information

Step 7: Choose an external storage controller to connect to external enclosures (optional)

HPE Smart Array SAS Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Notes:

- If you wish to enable Data at Rest Encryption on the HPE StoreEasy 1660 using the included Smart Array P816i-a or with an optional Smart Array P408e-p listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE).
- While HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller, it must be licensed separately for additional controllers. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

HPE Special Reminder: Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above-mentioned requirement, you shall bear all the liabilities wholly and solely. Hewlett Packard Enterprise will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

Step 8: Choose additional network adapter(s) (optional)

Notes: SFP and SFP+ Adapters do not include a transceiver by default.

SFP transceiver(s) or direct connect cable(s) should be ordered according to the transceiver and cable compatibility matrix found at: <https://www.hpe.com/us/en/pdfViewer.html?resource=/content/hpe/country/us/en/resources/servers/reference-guide/transceiver-networking-server&parentPage=/us/en/products/servers/networking>

Description	SKU
PCIe Network Adapters	
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE StoreEasy 10GbE 2-port 530T Adapter	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter	Q2P92A

Step 9: Choose the HPE Trusted Platform Module (optional)

HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
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Notes: HPE StoreEasy systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Step 10: Choose a System Recovery Media Kit (optional)

R7G25A, R7G24A, R7G21A, R7G22A, and R7G23A only

HPE StoreEasy 1X60 Recovery Software Media Kit with Microsoft Windows Server IoT 2019	R7G47B
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Q2P71B, Q2P72B, Q2P73B, Q2P74B, and Q2P75B only

HPE StoreEasy 1X60 Recovery Software Media Kit for Microsoft Windows Storage Server 2016	Q2P95B
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Notes:



Configuration Information

- HPE StoreEasy 1X60 Recovery Software Media Kits contain a System Recovery USB key that is used to re-install the factory operating system image. Booting the system from the System Recovery media will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the HPE StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.
 - Alternatively, the HPE StoreEasy 1X60 Recovery Software image can be downloaded from the HPE's Software Depot at no charge. More information is available here: <https://myenterpriselicense.hpe.com/cwp-ui/free-software/>.
 - For more information on how to perform a system recovery on a HPE StoreEasy 1660 refer to the HPE StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support> . Select HPE Support Center and search for the HPE StoreEasy system model in the drivers and download section.
 - All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.
-



Configuration Information

HPE StoreEasy 1660 Expanded Storage

Common Specifications (all HPE StoreEasy 1660 Expanded Storage models)	
Processor	1 x Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W); 2 nd processor optional
Memory Standard	32GB
Memory Type	2 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory
Storage Controllers	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller (for data drives) HPE Smart Array S100i SR Gen10 SW RAID (for mirrored OS drives only)
Internal Drive Support	24 x LFF (3.5") hot-plug front drive bays standard 4 x LFF hot-plug rear drive cage standard
Network Ports Standard	2 x 1GbE
Network Adapter	Embedded 2-Port 1GbE HPE Ethernet 332i Adapter; PCIe NIC(s) optional
Expansion Slots	5 x PCIe (One available in 1P configuration; four available in 2P configuration) Notes: One PCIe slot occupied by M.2 SSD card used for boot drives (half-height, half-length riser).
Power	2 x 1600W Platinum hot-plug redundant Notes: 1600W Flex Slot Platinum power supplies must be used with high-line input (200V - 240V AC).
Cooling	10 fans
Form Factor	2U rackmount
Security	2U lockable security bezel; Trusted Platform Module 2.0 optional
Additional Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features Notes: For more information, visit: iLO Supported Servers and Features

R7G46A

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
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R7L72A

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
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Notes: Options listed in the steps below are limited to those recommended for use with StoreEasy 1660 Expanded Storage models.

For more information on the complete set of compatible options, please reference the Apollo 4200 Gen10 QuickSpecs at:

<https://h20195.www2.hp.com/v2/getdocument.aspx?docname=a00056091enw>



Configuration Information

Step 1: Choose your HPE StoreEasy 1660 Expanded Storage model

HPE StoreEasy 1660 Expanded Storage SKUs are Configure-to-Order (CTO) models with the operating system pre-installed on mirrored solid state drives and do not include data drives standard. They can be factory-racked, and most added options (including data drives) can be factory integrated.

Notes:

- HPE strongly encourages customers to choose the new HPE StoreEasy 1660 Expanded Storage SKU featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system (R7G46A) since Microsoft will be moving the Windows Storage Server 2016 Standard Edition operating system to their Extended Support phase starting in January of 2022. For more information, please visit <https://docs.microsoft.com/en-us/lifecycle/policies/extended-support>
- Hewlett Packard Enterprise recommends as a best practice that any drives added to the 28 open LFF slots be the same type and capacity.

Description	SKU
HPE StoreEasy 1660 Expanded Storage with Microsoft Windows Server IoT 2019	R7G46A
HPE StoreEasy 1660 Expanded Storage with Microsoft Windows Storage Server 2016	R7L72A

Step 2: Choose a second processor (optional)

Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE Apollo 4200 Gen10.	P07903-B21
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Step 3: Choose additional memory kit(s) (optional)

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-K21
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Notes: There are 8 DIMM slots per processor for a total maximum of 16 DIMM slots. HPE StoreEasy 1660 Expanded models come with one processor and two 16GB DIMMs standard.

Step 4: Choose internal storage drives (optional)

Drive Options

Maximum number of internal LFF drives supported: 28

HPE StoreEasy 1660 Expanded LFF LP Drive Bundles

Business Critical (Midline) - 12G SAS

HPE StoreEasy 16TB SAS LFF (3.5in) Low Profile Carrier 4-pack HDD Bundle	N9Y43A
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Notes: Contains 4 x HPE 4TB SAS LFF LP HDDs

HPE StoreEasy 32TB SAS LFF (3.5in) Low Profile Carrier 4-pack HDD Bundle	N9Y45A
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Notes: Contains 4 x HPE 8TB SAS LFF LP HDDs

HPE StoreEasy 40TB SAS LFF (3.5in) Low Profile 4-pack HDD Bundle	Q0F61A
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Notes: Contains 4 x HPE 10TB SAS LFF LP HDDs

HPE 56TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 4-pack HDD Bundle	R0R66A
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Notes: Contains 4 x HPE 14TB SAS LFF LP HDDs

Business Critical (Midline) - 6G SATA

HPE StoreEasy 32TB SATA LFF (3.5in) Low Profile Carrier 4-pack HDD Bundle	N9Y46A
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Notes: Contains 4 x HPE 8TB SATA LFF LP HDDs

HPE StoreEasy 40TB SATA LFF (3.5in) Low Profile 4-pack HDD Bundle	Q0F62A
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Notes: Contains 4 x HPE 10TB SATA LFF LP HDDs

HPE StoreEasy 48TB SATA LFF (3.5in) Low Profile Carrier 4-pack HDD Bundle	Q2S06A
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Notes: Contains 4 x HPE 12TB SATA LFF LP HDDs



Configuration Information

Description	SKU
HPE 56TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 4-pack HDD Bundle Notes: Contains 4 x HPE 14TB SATA LFF LP HDDs	R0R65A
HPE 64TB SATA 6G Midline 7.2K LFF LP 1-year Warranty 4-pack HDD Bundle Notes: Contains 4 x HPE 16TB SATA LFF LP HDDs	R7G98A

HPE single drive options

HDDs

Business Critical (Midline) - 12G SAS

HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09155-K21
HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23608-K21
HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE HDD	P37669-K21

Business Critical (Midline) - 6G SATA

HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09165-K21
HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23449-K21
HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE HDD	P37678-K21

SSDs

Mixed Use - 6G SATA

HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD	P19980-K21
HPE 1.92TB SATA 6G Mixed Use LFF LPC 5300M SSD	P19984-K21

Read Intensive - 6G SATA

HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD	P19974-K21
HPE 960GB SATA 6G Read Intensive LFF LPC PM883 SSD	P09691-K21
HPE 1.92TB SATA 6G Read Intensive LFF LPC 5300P SSD	P19976-K21

Notes:

- HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller. With the addition of at least one SSD (HPE recommends two 12G SAS Mixed Use SSDs), it can add a flash acceleration tier to the HPE StoreEasy 1660 Expanded to help increase performance for the most frequently accessed files. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>
- For options outside of those listed above, carefully select LFF low profile carrier (LP) hard disk drives and Low Profile Converter (LPC) solid state drives.

Step 5: Choose an external storage controller to connect to external enclosures (optional)

HPE Smart Array SAS Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Notes:

- If you wish to enable Data at Rest Encryption on the HPE StoreEasy 1660 Expanded using the included Smart Array P816i-a or with an optional Smart Array P408e-p listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE).
- While HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller, it must be licensed separately for additional controllers. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>



Configuration Information

HPE Special Reminder

Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above-mentioned requirement, you shall bear all the liabilities wholly and solely. Hewlett Packard Enterprise will not be responsible for any related liabilities. For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

Notes: For additional details and Smart Array controller options, please see [HPE Smart Array Gen10 Controllers Data Sheet](#).

Step 6: Choose additional network adapter(s) (optional)

Notes: SFP and SFP+ Adapters do not include a transceiver by default.

SFP transceiver(s) or direct connect cable(s) should be ordered according to the transceiver and cable compatibility matrix found at: <https://www.hpe.com/us/en/pdfViewer.html?resource=/content/hpe/country/us/en/resources/servers/reference-guide/transceiver-networking-server&parentPage=/us/en/products/servers/networking>

Description	SKU
PCIe Network Adapters	
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21
HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter	813661-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21

Notes: If more than one PCIe card is added, a second processor is required to provide access to the remaining PCIe slots.

Step 7: Choose the HPE Trusted Platform Module (optional)

HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
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Notes: HPE StoreEasy systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Step 8: Choose a System Recovery Media Kit (optional)

R7G46A only

HPE StoreEasy 1X60 Recovery Software Media Kit with Microsoft Windows Server IoT 2019	R7G47B
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R7L72A only

HPE StoreEasy 1X60 Recovery Software Media Kit for Microsoft Windows Storage Server 2016	Q2P95B
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Notes:

- HPE StoreEasy 1X60 Recovery Software Media Kits contain a System Recovery USB key that is used to re-install the factory operating system image. Booting the system from the System Recovery media will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the HPE StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.
- Alternatively, the HPE StoreEasy 1X60 Recovery Software image can be downloaded from the HPE's Software Depot at no charge. More information is available here: <https://myenterpriselicence.hpe.com/cwp-ui/free-software/>.



Configuration Information

- For more information on how to perform a system recovery on a StoreEasy 1660 Expanded refer to the HPE StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the HPE StoreEasy system model in the drivers and download section.
 - All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.
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Configuration Information

HPE StoreEasy 1860 Storage

Common Specifications (all HPE StoreEasy 1860 Storage models)

Storage Controllers	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller (for data drives); HPE Smart Array S100i SR Gen10 SW RAID (for mirrored OS drives only)
Internal Drive Support	24 x SFF (2.5") hot-plug front drive bays standard; 2 x SFF hot-plug rear-chassis drive cage optional
Network Ports Standard	4 x 1GbE
Network Adapter	HPE Ethernet 1Gb 4-port 366FLR FlexLOM Adapter; PCIe NIC(s) optional
Expansion Slots	3 x PCIe (two available); 3-slot secondary riser optional Notes: One PCIe slot is occupied by a SAS Expander
Power	2 x 800W Platinum hot-plug redundant
Cooling	6 hot-plug, high-performance redundant fans
Form Factor	2U rackmount
Security	2U lockable security bezel; Trusted Platform Module 2.0 optional
Additional Licenses	HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features Notes: For more information, visit: iLO Supported Servers and Features

R7G29A (Performance model)

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor; 2 nd processor optional
Memory Standard	32GB
Memory Type	2 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

R7G28A

Operating System	Microsoft® Windows Server IoT 2019 for Storage Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2P76B (Performance model)

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Q2P77B, Q2P78B, and Q2P79B

Operating System	Microsoft® Windows Storage Server 2016 Standard Edition with HPE StoreEasy Management Console
Processor	1 x Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor; 2 nd processor optional
Memory Standard	16GB
Memory Type	1 x HPE 16GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory

Notes: Options listed in the steps below are limited to those recommended for use with StoreEasy 1860 Storage models. For more information on the complete set of compatible options, please reference the ProLiant DL380 Gen10 QuickSpecs at: <https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00008180enw>



Configuration Information

Step 1: Choose your HPE StoreEasy 1860 Storage model

Fixed configuration models

These HPE StoreEasy 1860 SKUs are pre-configured Build-to-Order (BTO) models with the operating system pre-installed on mirrored solid state drives and include eight data drives factory-installed in front slots (leaving 16 open front SFF slots for expansion). These models can be factory-racked, but all options in the configuration steps below (including additional data drives) are not factory integrated and are shipped separately.

Notes:

- HPE strongly encourages customers to choose one of the new HPE StoreEasy 1860 Storage SKUs featuring the Microsoft Windows Server IoT 2019 for Storage Standard Edition operating system (R7G28A or R7G29A) since Microsoft will be moving the Windows Storage Server 2016 Standard Edition operating system to their Extended Support phase starting in January of 2022. For more information, please visit <https://docs.microsoft.com/en-us/lifecycle/policies/fixed>
- All model names are based on raw storage capacity, not available user storage.
- When adding drives to the any of the 16 open SFF slots for the models above, Hewlett Packard Enterprise recommends as a best practice to use all internal data drives of the same type and capacity.
- The operating system is mirrored on two SFF (2.5”) solid state drives in a rear drive cage, leaving two standard PCIe slots available for expansion (one PCIe slot is occupied by a SAS Expander).

Description

HPE StoreEasy 1860 9.6TB SAS Storage with Microsoft Windows Storage Server 2016	SKU Q2P78B
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Notes: (8 x 1.2TB SAS 12G Enterprise 10K SFF HDDs)

HPE StoreEasy 1860 14.4TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P79B
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Notes:(8 x 1.8TB SAS 12G Enterprise 10K SFF HDDs)

Configurable models

These HPE StoreEasy 1860 SKUs are Configure-to-Order (CTO) models with the operating system pre-installed on mirrored solid state drives and do not include data drives standard. These models can be factory-racked, and most added options (including data drives) can be factory integrated.

Notes: Hewlett Packard Enterprise recommends as a best practice that the internal data drives for the CTO models be the same type and capacity.

HPE StoreEasy 1860 Performance Storage with Microsoft Windows Server IoT 2019	R7G29A
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HPE StoreEasy 1860 Storage with Microsoft Windows Server IoT 2019	R7G28A
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HPE StoreEasy 1860 Performance Storage with Microsoft Windows Storage Server 2016	Q2P76B
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HPE StoreEasy 1860 Storage with Microsoft Windows Storage Server 2016	Q2P77B
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Notes: The operating system is mirrored on two SFF (2.5”) solid state drives in a rear drive cage, leaving two standard PCIe slots available for expansion (one PCIe slot is occupied by a SAS Expander).

Step 2: Choose a second processor (optional)

R7G29A and Q2P76B only

Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02491-B21
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R7G28A, Q2P77B, Q2P78B, and Q2P79B only

Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02489-B21
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Step 3: Choose additional memory kit(s) (optional)

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-K21
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Notes:

- There are 12 DIMM slots per processor for a total maximum of 24 DIMM slots. All HPE StoreEasy 1860 models come with one processor standard. R7G29A comes with 2 x 16GB DIMMs standard, while all other HPE StoreEasy 1860 SKUs come with one 16GB DIMM standard.



Configuration Information

- Dual-processor HPE StoreEasy 1860 systems must have the same number and type of memory DIMMs installed for each processor.

Step 4: Choose a riser kit to add PCIe slots (optional)

Description

HPE DL Gen10 x8/x16/x8 Riser Kit

SKU

870548-B21

Notes:

- Adds three PCIe slots; also requires addition of a second processor.
- If the riser kit is selected, the optional rear HDD cage (826688-B21) cannot be selected.

Step 5: Choose a drive cage to add SFF slots (optional)

Notes: If the drive cage is selected, the optional riser kit (870548-B21) cannot be selected.

HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit

826688-B21

Notes: Expands the number of Small Form Factor (2.5") drive slots from 24 to 26 and adds a PCIe slot.

Step 6: Choose internal storage drives (optional)

Drive Options

Maximum number of internal SFF drives supported

- 24 (in standard configuration)
- 26 (with optional 2xSFF drive cage in step 5)

HPE StoreEasy 1860 SFF Drive Bundles

Mission Critical (Enterprise) - 12G SAS

HPE StoreEasy 4.8TB SAS SFF (2.5in) Smart Carrier 4-pack HDD Bundle

Q2P84A

Notes: Contains 4 x HPE 1.2TB SAS 12G Enterprise 10K SFF HDDs (reference SKU 872479-K21)

HPE StoreEasy 7.2TB SAS SFF (2.5in) Smart Carrier 4-pack HDD Bundle

Q2P85A

Notes: Contains 4 x HPE 1.8TB SAS 12G Enterprise 10K SFF HDDs (reference SKU 872481-K21)

HDDs

Mission Critical (Enterprise) - 12G SAS

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD

870753-K21

HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD

872475-K21

HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD

872477-K21

HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD

872479-K21

HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD

872481-K21

HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD

881457-K21

SSDs

Mixed Use - 12G SAS

HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD

P19913-K21

HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD

P19915-K21

HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD

P19917-K21



Configuration Information

Description	SKU
Read Intensive - 12G SAS	
HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD	P19903-K21
HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19905-K21

Notes:

- HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller. With the addition of at least one SSD (HPE recommends two 12G SAS Mixed Use SSDs), it can add a flash acceleration tier to the HPE StoreEasy 1860 to help increase performance for the most frequently accessed files. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>
- The recommended maximum number of SAS SSDs for the HPE StoreEasy 1860 is 8; however, there is nothing architecturally that prevents the use of more than 8 SSDs. HPE recommends the use of SAS SSDs as the HPE StoreEasy 1860 includes a SAS expander, which may impact SATA SSD performance.

VRO SSDs (R7G29A only)

Very Read Optimized - 6G SATA	
HPE 960GB SATA 6G Very Read Optimized SFF SC 5210 SSD	P24190-K21
HPE 1.92TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23487-K21
HPE 3.84TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23489-K21
HPE 7.68TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23493-K21

Notes:

- "Very Read Optimized" is an HPE term used to differentiate new QLC NAND-based SSDs that will have variable endurance levels or DDPD (Drive Writes Per Day) depending on how data is written to them. VRO SSDs can create a new, more economical option for StoreEasy environments with an all-flash initiative, essentially acting as HDD replacements. They are best for workloads that are read-centric and generally require that write percentage is understood and minimized as endurance can be very different than other SSDs in the market. For StoreEasy, home directories, file repositories, and other "read many / write few" workloads are good applications for VRO SSDs.
- VRO SSDs are supported only on the HPE StoreEasy 1860 Performance Storage with Microsoft Windows Server IoT 2019 (R7G29A).

Step 7: Choose an external storage controller to connect to external enclosures (optional)

HPE Smart Array SAS Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Notes:

- If you wish to enable Data at Rest Encryption on the HPE StoreEasy 1860 using the included Smart Array P816i-a or with an optional Smart Array P408e-p listed above, you must order the optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE).
- While HPE Smart Array SR SmartCache is included with the standard HPE Smart Array P816i-a SR Gen10 Storage Controller, it must be licensed separately for additional controllers. For more detailed information about HPE Smart Array SR SmartCache go to: <https://www.hpe.com/us/en/product-catalog/detail/pip.5364342.html>

HPE Special Reminder

Before enabling encryption on the Smart Array controller module on this system, you must ensure that your intended use of the encryption complies with relevant local laws, regulations and policies, and approvals or licenses must be obtained if applicable.



Configuration Information

For any compliance issues arising from your operation/usage of encryption within the Smart Array controller module which violates the above-mentioned requirement, you shall bear all the liabilities wholly and solely. Hewlett Packard Enterprise will not be responsible for any related liabilities.

For more information see the [HPE Smart Array SR Secure Encryption QuickSpecs](#).

Step 8: Choose additional network adapter(s) (optional)

Notes: SFP and SFP+ Adapters do not include a transceiver by default.

SFP transceiver(s) or direct connect cable(s) should be ordered according to the transceiver and cable compatibility matrix found at:

<https://www.hpe.com/us/en/pdfViewer.html?resource=/content/hpe/country/us/en/resources/servers/reference-guide/transceiver-networking-server&parentPage=/us/en/products/servers/networking>

PCIe Network Adapters

HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE StoreEasy 10GbE 2-port 530T Adapter	Q2P91A
HPE StoreEasy 10GbE 2-port 530SFP+ Adapter	Q2P92A

Step 9: Choose the HPE Trusted Platform Module (optional)

Description	SKU
HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21

Notes: HPE StoreEasy systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Step 10: Choose a System Recovery Media Kit (optional)

R7G29A and R7G28A only

HPE StoreEasy 1X60 Recovery Software Media Kit with Microsoft Windows Server IoT 2019	R7G47B
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Q2P76B, Q2P77B, Q2P78B, and Q2P79B only

HPE StoreEasy 1X60 Recovery Software Media Kit for Microsoft Windows Storage Server 2016	Q2P95B
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Notes:

- HPE StoreEasy 1X60 Recovery Software Media Kits contain a System Recovery USB key that is used to re-install the factory operating system image. Booting the system from the System Recovery media will restore the operating system image and logical drive to the factory default state. This enables recovery of the system if all other means to boot the system fail. Refer to the HPE StoreEasy 1X60 Administrator Guide for more information on performing a System Recovery.
- Alternatively, the HPE StoreEasy 1X60 Recovery Software image can be downloaded from the HPE's Software Depot at no charge. More information is available here: <https://myenterpriselicence.hpe.com/cwp-ui/free-software/>.
- For more information on how to perform a system recovery on a HPE StoreEasy 1860 refer to the HPE StoreEasy 1X60 Administrator's Guide. The guide can be downloaded from <http://www.hpe.com/support>. Select HPE Support Center and search for the HPE StoreEasy system model in the drivers and download section.
- All data on the original operating system logical drive is erased during the System Recovery process. Back up any data on the operating system drives before performing the System Recovery if possible. While the System Recovery process makes every attempt to preserve the existing data volumes, you should have a backup of your data before recovering the system.



Configuration Information

HPE StoreEasy 1X60 Storage Upgrade Kit to Microsoft Windows Server IoT 2019 for Storage Standard Edition Operating System

Specifications

Contents	New Microsoft Certificate of Authenticity (COA) sticker plus documentation containing directions for downloading the bootable image for installing Microsoft Windows Server IoT 2019 for Storage Standard Edition. Notes: Physical media is not included.
Compatibility	Sixth generation StoreEasy 1000 Storage models (1460, 1560, 1660, 1660 Expanded, and 1860) that shipped with Microsoft Windows Storage Server 2016 Standard Edition are eligible for upgrade. Notes: Since the kit includes a new COA sticker and requires its application to the StoreEasy model being upgraded, only one StoreEasy unit may be upgraded with the kit.

List of HPE StoreEasy 1X60 Storage System Products Compatible with the Upgrade Kit

Description	SKU
Active Products	
HPE StoreEasy 1460 8TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R92B
HPE StoreEasy 1460 16TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R93B
HPE StoreEasy 1460 32TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R94B
HPE StoreEasy 1560 8TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R96B
HPE StoreEasy 1560 16TB SATA Storage with Microsoft Windows Storage Server 2016	Q2R97B
HPE StoreEasy 1660 Performance Storage with Microsoft Windows Storage Server 2016	Q2P71B
HPE StoreEasy 1660 Storage with Microsoft Windows Storage Server 2016	Q2P72B
HPE StoreEasy 1660 16TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P73B
HPE StoreEasy 1660 32TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P74B
HPE StoreEasy 1660 64TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P75B
HPE StoreEasy 1660 Expanded Storage with Microsoft Windows Storage Server 2016	R7L72A
HPE StoreEasy 1860 Performance Storage with Microsoft Windows Storage Server 2016	Q2P76B
HPE StoreEasy 1860 Storage with Microsoft Windows Storage Server 2016	Q2P77B
HPE StoreEasy 1860 9.6TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P78B
HPE StoreEasy 1860 14.4TB SAS Storage with Microsoft Windows Storage Server 2016	Q2P79B

Obsolete Products*

Notes: *No longer available for purchase, informational only

- HPE StoreEasy 1460 8TB SATA Storage (Q2R92A)
- HPE StoreEasy 1460 16TB SATA Storage (Q2R93A)
- HPE StoreEasy 1460 32TB SATA Storage (Q2R94A)
- HPE StoreEasy 1560 8TB SATA Storage (Q2R96A)
- HPE StoreEasy 1560 16TB SATA Storage (Q2R97A)
- HPE StoreEasy 1660 Performance Storage (Q2P71A)
- HPE StoreEasy 1660 Storage (Q2P72A)
- HPE StoreEasy 1660 16TB SAS Storage (Q2P73A)
- HPE StoreEasy 1660 32TB SAS Storage (Q2P74A)



Configuration Information

- HPE StoreEasy 1660 64TB SAS Storage (Q2P75A)
- HPE StoreEasy 1660 Expanded Storage (R0R67A)
- HPE StoreEasy 1860 Performance Storage (Q2P76A)
- HPE StoreEasy 1860 Storage (Q2P77A)
- HPE StoreEasy 1860 9.6TB SAS Storage (Q2P78A)
- HPE StoreEasy 1860 14.4TB SAS Storage (Q2P79A)

Notes:

- The Microsoft Windows Server IoT 2019 for Storage Standard Edition upgrade kit contains directions to download bootable software (physical media is not included) that will re-image the operating system and revert the StoreEasy system to a factory default state. User data on the operating system partition will be destroyed in the upgrade process, so backup / migration / restore planning should be executed manually.
- The Microsoft Windows Server IoT 2019 for Storage Standard Edition upgrade kit also contains a new Microsoft Certificate of Authenticity (COA) sticker that must be physically applied to the StoreEasy system as part of the upgrade process (limit one system per upgrade kit).

Description

HPE StoreEasy Standard Edition Upgrade Kit with Microsoft Windows Server IoT 2019

SKU

R7G45B



Technical Specifications

Processors				
HPE StoreEasy 1460	HPE StoreEasy 1560	HPE StoreEasy 1660	HPE StoreEasy 1660 Expanded	HPE StoreEasy 1860
Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor		<u>R7G24A, R7G21A, R7G22A, R7G23A, Q2P72B, Q2P73B, Q2P74B, and Q2P75B</u> Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor <u>R7G25A and Q2P71B</u> Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor	Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor	<u>R7G28A, Q2P77B, Q2P78B, and Q2P79B</u> Intel® Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor <u>R7G29A and Q2P76B</u> Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor

Memory					
	HPE StoreEasy 1460	HPE StoreEasy 1560	HPE StoreEasy 1660	HPE StoreEasy 1660 Expanded	HPE StoreEasy 1860
Type	DDR4-2933 CAS-21-21-21 Registered (RDIMM) Smart Memory				
Standard	<u>R7G16A, R7G17A, and R7G18A:</u> 16GB (1 x 16GB) <u>Q2R92B, Q2R93B, and Q2R94B:</u> 8GB (1 x 8GB)	<u>R7G19A and R7G20A:</u> 16GB (1 x 16GB) <u>Q2R96B and Q2R97B:</u> 8GB (1 x 8GB)	<u>R7G25A:</u> 32GB (2 x 16GB) <u>R7G24A, R7G21A, R7G22A, R7G23A, Q2P71B, Q2P72B, Q2P73B, Q2P74B, and Q2P75B:</u> 16GB (1 x 16GB)	32GB (2 x 16GB)	<u>R7G29A:</u> 32GB (2 x 16GB) <u>R7G28A, Q2P76B, Q2P77B, Q2P78B, and Q2P79B:</u> 16GB (1 x 16GB)
DIMM Sockets	24	6	24	16	24
Maximum	24TB (limit based on operating system license)				



Technical Specifications

Networking					
	HPE StoreEasy 1460	HPE StoreEasy 1560	HPE StoreEasy 1660	HPE StoreEasy 1660 Expanded	HPE StoreEasy 1860
NIC Ports	4	2	4	2	4
Controller	1Gb Ethernet 4-port 366FLR FlexLOM	1Gb Ethernet 2-port	1Gb Ethernet 4-port 366FLR FlexLOM	1Gb Ethernet 2-port	1Gb Ethernet 4-port 366FLR FlexLOM Q2R76A only 10Gb Ethernet 2-port 562FLR-T FlexLOM + 1Gb Ethernet 4-port embedded

HPE StoreEasy 1460

Primary PCIe Riser

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 3.0	X16	X16	Full-height, 3/4-length (up to 9.5in) slot	Proc 1
2	PCIe 3.0	X8	X8	Low-Profile slot	Proc 1

HPE StoreEasy 1460 - Secondary PCIe Riser (optional)

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
3	PCIe 3.0	X16	X16	Low Profile or Full-height; 3/4 length (up to 9.5")	Proc 2

HPE StoreEasy 1560

PCIe slots

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 3.0	X16	X16	Full-height, ¾ length (up to 9.5") Slot	Proc 1
2	PCIe 3.0	X4	X8	Full-height, half-length slot	Proc 1
3	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 1 (occupied by Smart Array P408i-p Controller)
4	PCIe 3.0	X16	X16	Full-height, full-length slot	Proc 1
5	PCIe 3.0	X4	x8	Full-height, half-length slot	PCH



Technical Specifications

HPE StoreEasy 1660/1860

Primary PCIe Riser

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 3.0	x8	X8	Full-height, full-length slot	Proc 1
2	PCIe 3.0	X16	x16	Full-height, full-length slot	Proc 1 (Occupied by SAS Expander on HPE StoreEasy 1860 models)
3	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 1

HPE StoreEasy 1660/1860 Secondary

PCIe Riser

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
4	PCIe 3.0	x8	x8	Full height, full length slot	Proc 2
5	PCIe 3.0	x16	x16	Full height, full length slot	Proc 2
6	PCIe 3.0	x8	x8	Full-height, half-length slot	Proc 2

HPE StoreEasy 1660 Expanded -

PCIe slots

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 3.0	x16	x16	Low profile	Proc 1 (Occupied by M.2 riser card)
2	PCIe 3.0	x24	x24	Low profile	Proc 1
5	PCIe 3.0	x8	x8	Low profile	Proc 2
6	PCIe 3.0	x24	x24	Low profile	Proc 2
7	PCIe 3.0	x16	x16	Low profile	Proc 2



Technical Specifications

Storage Controller					
	HPE StoreEasy 1460	HPE StoreEasy 1560	HPE StoreEasy 1660	HPE StoreEasy 1660 Expanded	HPE StoreEasy 1860
Controller(s)	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes 2GB Cache / SmartCache) 12G SAS Modular Controller for data and OS drives	HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes 2GB Cache / SmartCache) 12G SAS Modular Controller for data and OS drives	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache / SmartCache) 12G SAS Modular Controller for data drives; HPE Smart Array S100i SR Gen10 SW RAID for OS drives only		
RAID (for data drives)	RAID 0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM (Advanced Data Mirroring) Not all RAID levels recommended or supported on HPE StoreEasy				
Internal SAS connectors	8 SAS lanes across 2 x4 internal Mini-SAS ports		16 SAS lanes across 4 x4 internal Mini-SAS ports		
External SAS connectors	None				
Data at Rest Encryption Support	Optional HPE Smart Array SR Secure Encryption E-LTU (SKU Q2F26AAE)				
Internal	4 LFF (3.5") hot-plug bays in front	4 LFF (3.5") hot-plug bays standard and 4 additional LFF (3.5") hot-plug bays optional (total of 8 internal LFF bays maximum)	12 LFF (3.5") hot-plug bays in front and optional 4 LFF hot-plug bays in mid-chassis drive cage (total of 16 internal LFF bays maximum)	24 LFF (3.5") hot-plug bays in front and 4 LFF hot-plug bays in rear (total of 28 internal LFF bays maximum)	24 SFF (2.5") hot-plug bays in front and optional 2 SFF hot-plug bays in rear drive cage (total of 26 SFF internal bays maximum)
Carrier type	Smart Carrier (SC)	Low Profile (LP)	Smart Carrier LFF (SC)	Low Profile (LP)	Smart Carrier SFF (SC)
External	Support for external D3X10, D6020, and D8000 Disk Enclosures requires optional Smart Array controller with external port				
Maximum Internal Capacity (raw)	32TB	64TB (with optional 4LFF drive cage and 4 x 12TB HDDs)	288TB (with optional 4LFF mid-chassis cage and 16 x 18TB LFF HDDs)	504TB (with 28 x 18TB LFF HDDs)	62.4TB (with optional 2SFF rear cage and 26 x 2.4TB SFF HDDs)



Technical Specifications

Power & Cooling					
Power Supplies	1 x 500 Watts Platinum, hot-plug (2 nd redundant power supply optional)	1 x 500 Watts Platinum, hot-plug (2 nd redundant power supply optional)	2 x 800 Watts Platinum, hot-plug	2 x 1600 Watts Platinum hot-plug (high-line input 200V - 240V AC only)	2 x 800 Watts Platinum, hot-plug
Power Cords	One high voltage power cords (IEC C13 to C14) standard; two if second power supply added	One 6-foot 10A, C13 U.S. Power cord; see notes	Two high voltage power cords (IEC C13 to C14) standard	Two high voltage power cords (IEC C13 to C14) standard	Two high voltage power cords (IEC C13 to C14) standard
Notes:					
<ul style="list-style-type: none"> – HPE StoreEasy 1460, 1660, 1660 Expanded and 1860 models ship with a standard 6-foot IEC C-13/C-14 jumper cord. This jumper cord is also included with each standard AC power supply option kit. – The HPE StoreEasy 1560 model comes with a standard 6-foot 10A, C13—U.S. power cord (AF556A). If you order the optional 2nd power supply you must order also order AF556A to get the above power cord. – If different power cords are required for any HPE StoreEasy 1000 model, please check ProLiant Power Cables to determine what power cord options are available. 					
System Fans	Single processor system includes 5 hot-plug, redundant fans, standard Dual processor system includes 7 hot-plug redundant fans	2 non hot-plug redundant fans, standard	6 hot-plug, high-performance, redundant fans, standard	10 hot-plug, high-performance redundant fans standard	6 hot-plug, high-performance, redundant fans, standard

Additional options

See the corresponding ProLiant and Apollo 4000 QuickSpecs for additional compatible options.

- HPE StoreEasy 1460 (ProLiant DL360 Gen 10)
<https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=a00008159enw>
- HPE StoreEasy 1560 (ProLiant ML110 Gen 10)
<https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=a00021851enw>
- HPE StoreEasy 1660 (ProLiant DL380 Gen10 LFF),
- HPE StoreEasy 1860 (ProLiant DL380 Gen10 SFF):
<https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00008180enw>
- HPE StoreEasy 1660 Expanded (Apollo 4200 Gen10 LFF)
<https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00056091enw>

Notes: Options offered in the HPE ProLiant and Apollo servers listed above will work in respective HPE StoreEasy products if supported on Windows Server 2016 Standard Edition / Windows Server 2019 Standard Edition.

Because HPE StoreEasy is a storage system, not every possible option available in the equivalent ProLiant server is listed in the HPE StoreEasy 1000 QuickSpecs. Options that are shown in this document are the most common and recommended ones needed for the primary HPE StoreEasy usage model as a file storage system.



Technical Specifications

HPE StoreEasy 1000 Storage Common System Specifications		
System Inlet Temperature	Standard Operating Support	<p>10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.</p> <p>System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).</p> <p>For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae</p>
	Extended Ambient Operating Support	<p>For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae</p> <p>System performance may be reduced if operating in the extended ambient operating range or with a fan fault.</p>
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity (non-condensing)	Operating	8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Emissions Classification (EMC)	To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center: http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts	



Technical Specifications

HPE StoreEasy 1460 Storage			
Dimensions	4.29 x 43.46 x 74.98 cm 1.69 x 17.11 x 29.5 in		
Weight (approximate)	16.78 kg 37 lb	Four LFF drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.	
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC	
	Rated Input Frequency	50 to 60 Hz	
	Rated Input Power	< 557 W (at 100 VAC); < 537 W (at 240 VAC)	
BTU Rating	Maximum	1902 BTU/hr (at 100 VAC); 1832 BTU/hr (at 240 VAC)	
Power Supply Output (per power supply)	Maximum Rated Output Wattage Rating (Watts)	500W (at 100 VAC); 500W (at 240 VAC)	
Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.		
		Minimum (Entry)	Maximum (Performance)
	Idle		
	LWAd	5.1 B	5.2 B
	LpAm	35 dBA	36 dBA
	Operating		
	LWAd	5.3 B	5.9 B
	LpAm	36 dBA	45 dBA
Notes: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.			



Technical Specifications

HPE StoreEasy 1560 Storage		
Tower Dimensions	44 x 19.5 x 48.05 cm 17.32 x 7.68 x 18.92 in	
Tower Weight (approximate)	Maximum:	55.0 lbs (25.0 kg)
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	< 557 W (at 100 VAC); < 537 W (at 240 VAC)
BTU Rating	Maximum	1902 BTU/hr (at 100 VAC); 1832 BTU/hr (at 240 VAC)
Power Supply Output (per power supply)	Maximum Rated Output Wattage Rating (Watts)	500W (at 100 VAC); 500W (at 240 VAC)
Acoustic Noise	Listed are the declared A-Weighted sound power levels ($L_{WA(d)}$) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.	
	Idle	
	LWAd	4.0 Bels Entry 4.0 Bels Perf
	LpAm	24.8 dBA Entry 24.1 dBA Perf
	Operating	
	LWAd	4.0 Bels Entry 4.0 Bels Perf
	LpAm	25.1 dBA Entry 24.1 dBA Perf
	Notes: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.	



Technical Specifications

HPE StoreEasy 1660 Storage and 1860 Storage		
Dimensions	8.73 x 44.54 x 73.02 cm 3.44 x 17.54 x 28.75 in	StoreEasy 1660 (LFF Drives)
	8.73 x 44.54 x 67.94 cm 3.44 x 17.54 x 26.75 in	StoreEasy 1860 (SFF Drives)
	Maximum	24.5 kg 54 lbs
		12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	< 899 W (at 100 VAC); < 864 W (at 240 VAC)
	BTU Rating	Maximum
Power Supply Output (per power supply)	Maximum Rated Output Wattage Rating (Watts)	800W (at 100 VAC); 800W (at 240 VAC)

Acoustic Noise

Listed are the declared A-Weighted sound power levels (L_{WAd}) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your Hewlett Packard Enterprise representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Configuration	Minimum (Entry)	Maximum (Performance)
Idle		
LWAd	4.8 B	4.6 B
LpAm	37 dBA	31 dBA
Operating		
LWAd	4.8 B	4.6 B
LpAm	37 dBA	31 dBA

Notes: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.



Technical Specifications

HPE StoreEasy 1660 Expanded Storage		
Dimensions	8.75 x 44.80 x 82.55 cm 3.44 x 17.63 x 32.50 in	
Weight (approximate)	Maximum	40.6 kg 89.51 lb
Input Requirements (per power supply)	Rated Line Voltage	200 to 240 VAC
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	< 1734 W (at 200 VAC); < 1725 W (at 240 VAC)
BTU Rating	Maximum	5918 BTU/hr (at 200 VAC); 5884 BTU/hr (at 240 VAC)
Power Supply Output (per power supply)	Rated Steady-State Power	1600W (at 200 VAC); 1600W (at 240 VAC)
Acoustic Noise		
Listed are the declared A-Weighted sound power levels ($L_{WA(d)}$) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your Hewlett Packard Enterprise representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.		
Configuration	Minimum (Entry)	Maximum (Performance)
Idle		
LWAd	5.1 B	5.2 B
LpAm	35 dBA	36 dBA
Operating		
LWAd	5.3 B	5.26 B
LpAm	36 dBA	45 dBA
Notes: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.		

HPE Smart Array

For latest information on **HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers** please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.



Summary of Changes

Date	Version History	Action	Description of Change
02-Aug-2021	Version 26	Changed	Standard Features and Configuration Information sections were updated.
06-Jul-2021	Version 25	Changed	Standard Features and Configuration Information sections were updated.
07-Jun-2021	Version 24	Changed	Overview and Configuration Information sections were updated.
04-May-2021	Version 23	Changed	Standard Features section was updated.
06-Apr-2021	Version 22	Changed	Standard Features, Configuration Information and Technical Specifications sections were updated.
01-Mar-2021	Version 21	Changed	Overview, Service and Support, Configuration Information and Technical Specifications sections were updated.
01-Feb-2021	Version 20	Changed	Configuration Information section was updated
07-Dec-2020	Version 19	Changed	Overview, Service and Support, Configuration Information and Technical Specifications sections were updated.
05-Oct-2020	Version 18	Changed	Overview, and Configuration Information sections were updated.
03-Aug-2020	Version 17	Changed	Overview, Standard Features, Features and Benefits, Configuration Information and Service and Support sections were updated.
06-Jul-2020	Version 16	Changed	Overview, Configuration Information and Technical Specifications sections were updated
01-Jun-2020	Version 15	Changed	Overview, Configuration Information and Technical Specifications sections were updated
06-Apr-2020	Version 14	Changed	Configuration Information Section was updated
02-Mar-2020	Version 13	Changed	Overview, Configuration Information and Technical Specifications sections were updated.
02-Dec-2019	Version 12	Changed	Configuration Information section was updated.
07-Oct-2019	Version 11	Changed	Overview and Configuration Information sections were updated
03-Sep-2019	Version 10	Added	Added HPE StoreEasy 1660 Expanded Storage including configuration information.
10-Jun-2019	Version 9	Changed	Overview, Features and Benefits and Configuration Information sections were updated.
06-May-2019	Version 8	Changed	Configuration Information section was updated
04-Mar-2019	Version 7	Changed	Configuration Information Section was updated.
04-Feb-2019	Version 6	Changed	Overview, Standard Features, Features and Benefits, Configuration Information and Service and Support sections were updated.
03-Dec-2018	Version 5	Changed	Standard Features, Configuration Information and Service and Support sections were revised.
04-Jun-2018	Version 4	Changed	Overview, Standard Features, HPE StoreEasy 1660 configuration information, HPE StoreEasy 1860 configuration information, and Technical Specifications were updated.
16-Apr-2018	Version 3	Changed	Optimized: Tailored for file storage and Optional Software were revised.
02-Apr-2018	Version 2	Changed	Overview and multiple SKU description were updated.
05-Mar-2018	Version 1	New	New QuickSpecs.

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For hard drives, 1 GB = 1 billion bytes. Actual formatted capacity is less.

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