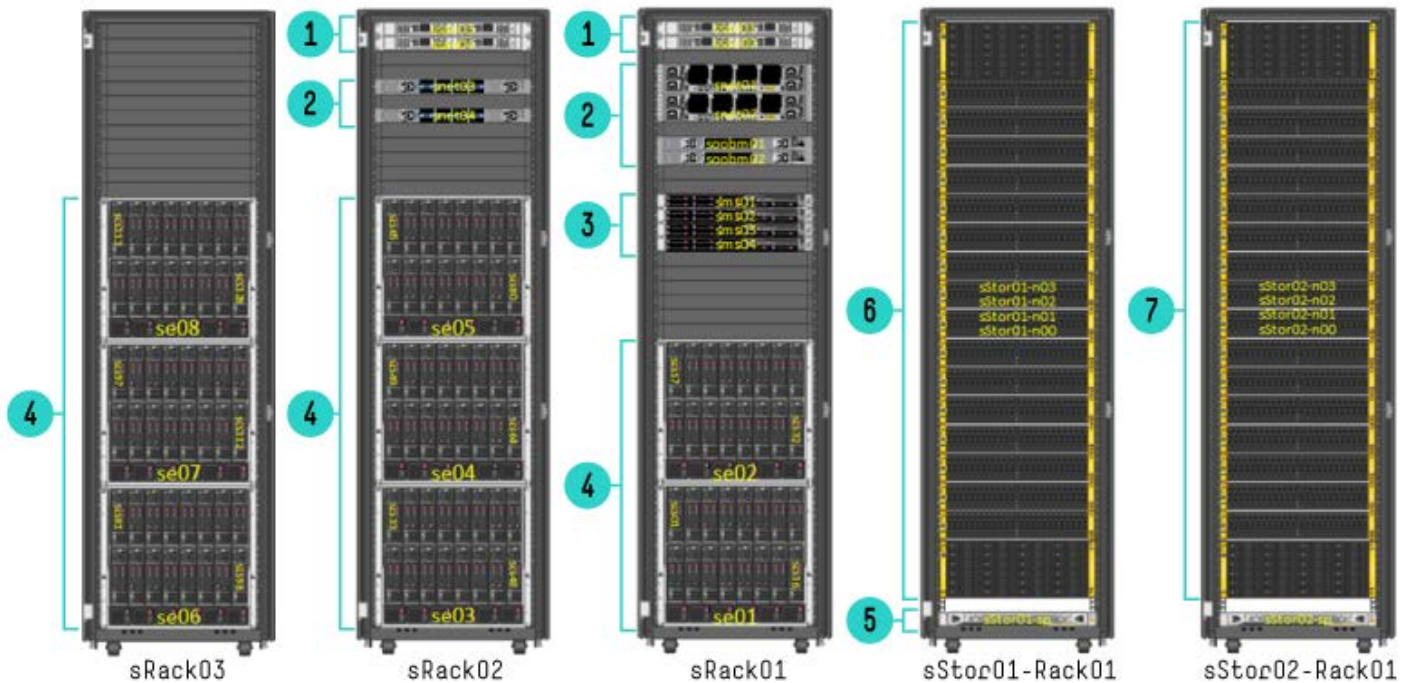


Overview

HPE ConvergedSystem 700 2.0



HPE ConvergedSystem 700 2.5 Multi-Rack

Key Components

- Two (2) or four (4) HPE SN6000B 16Gb 48/24 FC Switch or two (2) or four (4) HPE SN6000B 16Gb 48/48 FC switch.
- Three networking options.

HPE Segregated Networking Option: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches. Additional two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ for a total of four (4) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.

or

Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with three (3) HPE 5930 8-port QSFP+ Modules and (1) HPE 5930 24p SFP+ and 2 QSFP+ port module to support up-to (8) enclosures

- **HPE Converged Networking Option:** Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with four (4) HPE 5930 8-port QSFP+ Modules and three (3) HPE 24p Converged Port and 2 QSFP+ modules to support up-to (4) enclosures. Additional two (2) HPE Flex Fabric 5930-4Slot switches with

Overview

HPE 5930 8-port QSFP+ Modules and HPE 24p Converged Port and 2 QSFP+ modules, for a total of four (4) HPE Flex Fabric 5930-4Slot switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.

- **Cisco Networking Option:** Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 56128p switches. Additional (2) two Cisco Nexus 2348UPQ 10GE Fabric Extenders if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.

or

Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 9396PX switches. Additional (2) two Cisco Nexus 9396PX if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.

- Two (2), three (3), or four (4) HPE ProLiant DL360 Gen9 E5-(v3 or v4) management servers.
- One (1) to eight (8) HPE BladeSystem c7000 enclosures, Virtual Connect FlexFabric; two (2) to sixteen (16) HPE ProLiant BL460c Gen9 E5-v4 (or V3) server blades or two (2) to sixteen (16) WS460c workstation blades per enclosure. Mixed configurations are supported. The first enclosure is the base configuration and is mandatory in compute rack 1.
- HPE 3PAR service processor for each storage array physical or virtual. Physical Service processor is recommended..
- One (1) storage component of HPE 3PAR StoreServ 8xxx series. The HPE 3PAR StoreServ 8440 4-node controller is the recommended option.
- Additional drive shelves that attach to the first storage array.
- HPE 3PAR Physical or Virtual Service Processor for second storage array (not shown).
- One (1) storage component of HPE 3PAR StoreServ 8000 series (not shown) as the second array. The default is the HPE 3PAR StoreServ 8440 4-node controller, required for enclosures 5-8, optional with fewer enclosures.
- Additional drive shelves that attach to the second storage array (not shown).

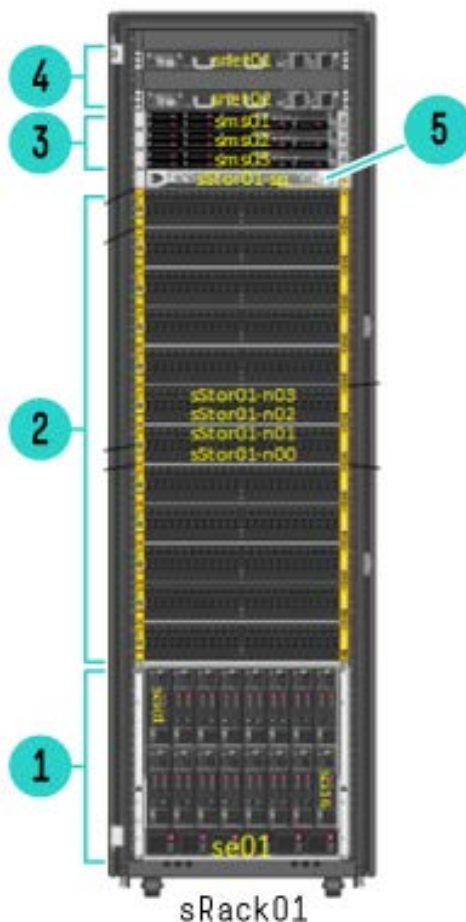
NOTE: The HPE ConvergedSystem 700 2.0 Multi-Rack offering is flexible in its configuration, based on a common, scale-out architecture that scales from 2 to 7 racks, 2 to 128 blade servers, 2 to 4 rack servers, networking, and multiple storage options. This flexibility puts the power of choice in the customer's hands to meet a wide range of requirements. Selection of server, storage and networking components are made at the time of ordering from a number of choices based on validated configurations of HPE Converged Infrastructure components that can be sized and optimized for physical, virtual, or cloud-based application workloads.

NOTE: Mixed blade configurations of BL460c and WS460c are allowed up to the maximum number of slots per BladeSystem enclosure. Check with your Hewlett Packard Enterprise representative or channel partner for details.

NOTE: HPE 3PAR configurations listed for HPE ConvergedSystem 700 2.0 are based on recommended options.

NOTE: When choosing processor types (E5-v3 or V4), all processors in the solution must be of the same type

Overview



HPE ConvergedSystem 700 2.0 Single-Rack - Using Direct-Attached HPE 3PAR StoreServ Storage

1. One (1) HPE BladeSystem c7000 enclosure, Virtual Connect FlexFabric; two (2) to sixteen (16) HPE ProLiant BL460c Gen9 E5-v4 (or v3) server blades or two (2) to sixteen (16) WS460c workstation blades per enclosure. Mixed configurations are supported.
2. One (1) HPE 3PAR StoreServ 8200 2-node or StoreServ 8400 or 8440 with 2- or 4-node controllers, with up to ten (10) additional drive shelves.
3. Two (2) or three (3) HPE ProLiant DL360 Gen9 E5-v4(or v3) management servers.
4. Four networking options:
 - HPE Networking option: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
or
 - Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option: Two (2) Cisco Nexus 56128p switches.
or
 - Cisco Networking Option: Two (2) Cisco Nexus 9396PX switches.

Overview

5. HPE 3PAR service processor for storage array.

HPE ConvergedSystem 700 2.0 Single-Rack - Using SAN-Switched HPE 3PAR StoreServ Storage

6. One (1) HPE BladeSystem c7000 enclosure, Virtual Connect FlexFabric; two (2) to sixteen (16) HPE ProLiant BL460c Gen9 E5-v4 (or v3) server blades or two (2) to eight (8) WS460c workstation blades per enclosure. Mixed configurations are supported.
7. One (1) HPE 3PAR StoreServ 8200 2-node or StoreServ 8440 with 2- or 4-node controllers, with up to ten (10) additional drive shelves.
8. Two (2) HPE SN6000B 16Gb 48/24 FC Switch or two (2) SN6000B 16Gb 48/48 FC switch.
9. Two (2) or three (3) HPE ProLiant DL360 Gen9 E5-v4 (or v3) management servers.
10. Four networking options:
 - HPE Networking option: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
 - or
 - Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option: Two (2) Cisco Nexus 56128p switches.
 - or
 - Cisco Networking Option: Two (2) Cisco Nexus 9396PX switches.
11. HPE 3PAR virtual or physical service processor for storage array.

What's New?

(as of March, 2017)

- HPE 5940 48SFP+ HPE Converged Switch option
- HPE CloudSystem E5v4 Management Kit – when configured with CloudSystem 10 (higher CPU core count (18c) server bundle)
- HPE 120GB RI-1 M.2 BL Enablement Kit
- HPE Dual 120GB RI-1 M.2 BL Enablement Kit
- All HPE 3PAR SKUs roll aligning to new HPE 3PAR licensing model
- Support for HPE OneView (HPE OneView 3.00.07 (Advanced LTU))
- Support for optional - HPE Helion CloudSystem 10.0.2

(as of June, 2016)

- Support for Intel Xeon Processor E5-26XX v4 Processors (with ability to continue to choose v3 if desired)
- Ability to configure a Single-Rack solution - by adding two SN6000 SAN switches instead of direct connect to Storage

(as of April, 2016)

- Support for VMware 6.0
- Support for Microsoft Hyper-V 2012 R2

Overview

- Support for OneView 2.0
- NVIDIA M6 Graphics additions
- HPE Flexfabric 5930 2 and 4Slot converged switches
- 3PAR 8000 – With Direct Attached Storage in a Single Rack

At A Glance

HPE ConvergedSystem 700 2.0 provides customers the fastest path to optimized infrastructure, delivered on a common platform that provides broad scalability as well as the flexibility to move to the cloud when ready. The end-to-end solution is covered by HPE Proactive Care support and can be sourced entirely from HPE, inclusive of VMware software licenses. Key features and benefits include:

- **Flexible architecture and easy expansion** - The system is based on a common architecture of HPE Converged Infrastructure that delivers new levels of flexibility in the configuration of compute and storage components. The variety of combinations provides an ability to uniquely meet a broader set of unique requirements, and expansion to accommodate additional capacity needs is made easy by simply scaling out the system with additional compute and storage nodes.
- **Complete, optimized system** - HPE ConvergedSystem 700 2.0 is built on the latest HPE Converged Infrastructure technology including HPE BladeSystem servers, HPE 3PAR StoreServ storage, and HPE or Cisco Networking, optimized and pre-integrated, creating an ideal platform for a wide variety of business applications. When ordering HPE ConvergedSystem 700 2.0 for VMware, the system is optimized and pre-integrated with VMware vCenter Server and VMware vSOM Enterprise Plus, creating an ideal virtualization platform for business applications.
- **Ready for the Cloud** - HPE ConvergedSystem 700 2.0 extends to the cloud with a factory integration option for HPE Helion CloudSystem 10 or other management stacks. **Integrated storage** - HPE 3PAR StoreServ storage and software platforms support multiple levels of integration with VMware vSphere, providing a doubling of VM density to improve performance and scalability, and TCO savings of up to 50%.
- **Simplified, consolidated management** - HPE OneView integrates the manageability features of HPE Converged Infrastructure products into VMware's vRealize Operations Manager. VMware vRealize Operations Manager provides intelligence and visibility on performance and capacity management via vCenter server to provide analytics to proactively ensure service levels and operational efficiency in dynamic virtualized environments. This combination of HPE OneView and VMware vRealize Operations Manager provides administrators increased control and insight from a single pane of glass.
- **Pre-built system, implement on-site** - The system is pre-integrated in the Hewlett Packard Enterprise factory based on extensively tested configuration guidelines. Included implementation services quickly get the system up and running to peak performance, reducing the risk of disruption to the existing
- **Solution level support** - Personalized and Proactive - Hewlett Packard Enterprise offers Proactive Care with Personalized Support Option and Proactive Select to support the complete solution, including the HPE hardware, software, VMware software and Microsoft software. Proactive Care is designed to accelerate time to access the Call Center of Excellence, bypassing level 1 to get to Converged Systems experts. These experts are well versed in all aspects of the offering as a total solution. Customers will be able to select their choice of reactive support from 4 hour response to 6 hour Call to Repair.
- HPE ConvergedSystem 700 2.0 for Microsoft Hyper-V includes a deployment acceleration service to deliver a complete Microsoft Hyper-V / System Center environment.

The HPE ConvergedSystem 700 2.0 is built on well-established Hewlett Packard Enterprise technologies and services including:

- HPE ProLiant DL360 Gen9 E5-v4 (or v3) rack mount servers – for redundant management
- HPE BladeSystem c7000 Platinum Enclosure
- HPE ProLiant BL460c Gen9 E5-v4 (or v3) server blades
- HPE ProLiant WS460c Gen 9 workstation blades
- HPE 3PAR StoreServ 8000 series storage
- HPE StoreOnce Recovery Manager Central
- HPE OneView for VMware vCenter or OnView for System Center
- HPE Networking 5900AF series switches or FlexFabric 5940 series switches or Cisco Nexus Switches
- HPE StoreFabric SN6000B series SAN switches or HPE FlexFabric 5940 series converged switches

Overview

- HPE 642 42U i-Series Shock Racks
- HPE Virtual Connect FlexFabric
- HPE OneView
- HPE Factory Integration through HPE Factory Express provides hardware integration, validation, and on-site installation.
- HPE Proactive Care provides a single source support for the HPE ConvergedSystem Foundation system.
- HPE Proactive Care provides a single source support for the complete HPE ConvergedSystem for VMware system, including the VMware software.
- HPE Proactive Care provides a single source support for the complete HPE ConvergedSystem for Hyper-V system, including the separately purchased Hyper-V software

For more information about the HPE ConvergedSystem 700 2.0, see: [**http://www.hpe.com/info/convergedsystems**](http://www.hpe.com/info/convergedsystems)

For more information about HPE OneView see: [**http://www.hpe.com/info/oneview**](http://www.hpe.com/info/oneview)

For more information about Hewlett Packard Enterprise and VMware see: [**http://www.hpe.com/info/vmware**](http://www.hpe.com/info/vmware)

For more information about Hewlett Packard Enterprise and Microsoft see: [**http://www.hpe.com/info/microsoft**](http://www.hpe.com/info/microsoft)

For more information about HPE 3PAR StoreServ Storage see: [**http://www.hpe.com/info/3par**](http://www.hpe.com/info/3par)

For more information about HPE blades see: [**http://www.hpe.com/info/bladesystem**](http://www.hpe.com/info/bladesystem)

For more information about HPE CloudSystem software, see: [**http://www.hpe.com/info/cloudsystem**](http://www.hpe.com/info/cloudsystem)

For more information about HPE Networking, see: [**http://www.hpe.com/info/networking**](http://www.hpe.com/info/networking)

Software

HPE ConvergedSystem 700 2.0 software The HPE ConvergedSystem 700 2.0 comes standard with HPE OneView 3.0 software licenses.

HPE ConvergedSystem 700 2.0 for VMware software The HPE ConvergedSystem 700 2.0 for VMware comes standard with HPE OneView 3.0 software. HPE OneView for vCenter, VMware vSphere 5.5 U3b or 6.0 U2, VMware vCenter Server 5.5 Update 3b and VMware vRealize Operations Manager. HPE OneView and VMware software is factory installed for convenience. VMware license registration and acceptance of the End User License Agreement (EULA) takes place onsite at time of installation. For customers that have existing VMware ELAs (Enterprise License Agreements) - please inform your sales team so that you are able to take advantage of your site license. For a complete Solution Level Support experience from Hewlett Packard Enterprise, customers will need to purchase their VMware licenses from Hewlett Packard Enterprise. This will include Hewlett Packard Enterprise support covering the VMware software. Microsoft Windows Server 2012 R2 Standard Edition is included on virtual machines that reside on the management nodes. VMware ESXi is installed on the management nodes, and customers will need to supply OS licensing for the VMs they deploy.

VMware vSphere Hewlett Packard Enterprise and VMware together provide powerful integrated solutions for customers who want the confidence of deploying VMware virtualization and cloud software on certified systems with comprehensive services and seamless support. The long-standing partnership between Hewlett Packard Enterprise and VMware, based on over 12 years of collaboration in engineering, sales, and marketing, has resulted in leading market positions and customer successes across a wide range of industries including financial services, health care, telecommunications, manufacturing and the public sector.

VMware vSphere and vCenter are preinstalled on the HPE ConvergedSystem 700 2.0 for VMware and necessary licenses are included, unless removed from the order based on an existing customer ELA. For customers that maintain ELAs (Enterprise License Agreements) for VMware software - please inform your sales team that your ConvergedSystem 700 2.0 should take advantage of your site license. For a complete Solution Level Support experience from Hewlett Packard Enterprise, customers will need to purchase their VMware licenses from HPE. When purchasing licenses with HPE ConvergedSystem 700 2.0 for VMware, one (1) VMware vSphere license per socket is included by default. Please ensure that you meet minimum entitlement requirements for your particular configuration. Additional VMware vSphere licenses can be purchased through Hewlett Packard Enterprise at the time of order.

For more information on VMware software licensing and packaging from Hewlett Packard Enterprise, see:

http://h18004.www1.hp.com/products/quickspecs/12307_div/12307_div.html#Overview

For more information about VMware vSphere, see: <http://www.vmware.com/products/datacenter-virtualization/vsphere/overview.html>

<http://www.vmware.com/products/vrealize-operations/>

For more information about VMware vCenter Server, see:

<http://www.vmware.com/products/vcenter-server/overview.html>

<http://www.vmware.com/products/vrealize-operations/>

NOTE: The default database installed for VMware vCenter 5.5 software is Microsoft SQL Server 2008 R2 Express database. VMware 5.5 guidelines state the Microsoft SQL Server 2008 R2 Express database is NOT recommended in a production environment exceeding 5 hosts, 50 virtual machines, or 10 GB database size. It is expected that all customers will need to perform an upgrade to a fully functional database during the lifecycle of the product. It is the customer's responsibility to perform this upgrade or contact HPE TS Services for assistance. For a list of supported databases, please refer to VMware Product Interoperability matrixes: [Solution/Database interoperability](http://www.vmware.com/resources/compatibility/sim/interop_matrix.php)

Software

For information on preparing vCenter Server Databases, refer to the VMware documentation Center: <http://pubs.vmware.com/vsphere-55/index.jsp#com.vmware.vsphere.install.doc/GUID-55F7FFDB-01B8-4C18-AA89-DC28BD9B1E9F.html>

For information on migrating to SQL Server, review to the VMware KB article: Migrating the vCenter Server database from SQL Express to full SQL Server (1028601) http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1028601

- Microsoft Hyper-V Hewlett Packard Enterprise and Microsoft together provide powerful integrated solutions for customers who want the confidence of deploying Hyper-V virtualization on certified systems with comprehensive services and seamless support. There is a two-step process to enabling an HPE ConvergedSystem 700 for Hyper-V.
- The first step includes delivering an HPE factory integrated system ready for Hyper-V hypervisor support. The factory build process includes: initial configuration for later Hyper-V install on-site; pre-configuring the network switches; performing initial OA/ iLOs configuration of the c7000 enclosures; creating SAN zones for management Server and 3PAR arrays and initial configuration of the 3PAR arrays, specific to Hyper-V. Site preparation and analysis takes place before shipment and installation at customer location.
- Once the solution is shipped to the customer site, an HPE Technical Service Consulting (TSC) Deployment Accelerator Service is used to install the solution onsite. This includes: deploying Windows Server 2012 R2; deploying the Hyper-V cluster on management nodes; installing System Center VMs in accordance with the Fast track V4 specification; and installing compute nodes on the BL460s and configuring them to be managed by System Center and complete storage integration. The TSC Accelerator Service is included when purchasing the HPE CS700 for Hyper-V solution.
- HPE Helion CloudSystem 10 HPE Helion CloudSystem is the most complete, integrated, and open cloud solution on the market. Powered by OpenStack® technology and developed with an emphasis on automation and ease-of-use, HPE Helion CloudSystem redefines how you build and manage cloud services. Created with enterprises and service providers in mind, our end-to-end service lifecycle management solution gives you the ability to effortlessly provision applications and their corresponding infrastructure resources. With an open-source approach and support for hybrid service delivery, you can run on-premises services in your private cloud while simultaneously managing off-premises services or bursting to external public cloud providers.
- For more information HPE Helion Cloudsystem, see: <http://www.hpe.com/info/cloudsystem>.

HPE management software **HPE OneView** HPE OneView radically simplifies everyday **management of server, storage, and network resources**. The single, integrated platform in HPE OneView increases the productivity of every member of the IT team by providing a unified user experience - facilitating collaboration, removing friction, and accelerating time to value. When performing an action, you have **one tool for all tasks** with **one operating model** that provides a consistent way of viewing your resources and results.

Administrators responsible for different areas (like servers, storage, networks, and virtualization) are empowered with appropriate access to authorized resources using the same tool. This allows them to collaborate and make authorized decisions without stepping on another's responsibilities. For example, virtualization administrators can automate control of HPE compute, storage, and networking resources without a detailed knowledge of each device. **True convergence gives real productivity.**

For more information, see: <http://www.hpe.com/info/oneview>.

Software

HPE OneView for vCenter & System Center (integration) **HPE OneView for VMware vCenter and HPE OneView for System Center** seamlessly integrates the manageability features of HPE ProLiant, BladeSystem, Virtual Connect, and Storage with VMware solutions. Gain deep control of your virtualized HPE Converged Infrastructure environment—reducing the time it takes to make important changes, increase capacity, or manage planned and unplanned downtime. When used with the automation power of HPE OneView, best practices for a Converged Infrastructure can be defined once and reused many times to provision an entire cluster with compute and storage fully configured in five easy steps.

Seamlessly integrate HPE's Converged Management with VMware and Microsoft management solutions

- Simplify administration with console access to HPE's infrastructure management.
- Reduce overhead by automating responses to hardware events.
- Take control by launching your trusted HPE management tools.
- Proactively manage changes with detailed relationship dashboards.
- Leverage on-demand server and storage capacity.
- Maintain stability and reliability with online firmware inventory and deployment.
- Leverage deep analytics and troubleshooting

Extensions for VMware vCenter and Microsoft System Center are licensed for use with both HPE OneView and HPE Insight Control. While only one of these two licenses is required on any given host, the advanced provisioning features are only available with HPE OneView licensed hosts. VMware vRealize Operations Manager integrations are licensed with HPE OneView only. To download, visit: <http://www.hpe.com/info/ovvcenter>

This integration enables you to provision, modify, and recover complex infrastructure -- both virtual and physical together -- from your preferred management console.

NOTE: VMware vCenter Server and Microsoft Systems Center must be purchased separately and is not included with HPE OneView.

Other Services

Warranty services

The HPE ConvergedSystem 700 2.0 is covered by a global limited warranty and supported by HPE Services. Beyond the warranty, Proactive Care is the recommended and default offering, providing 24x7 hardware and software support with 6 hour call-to-repair. See Step 2 in "How to Order" section.

NOTE: Warranty varies by component. Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>.

HPE Financial Services

If the HPE ConvergedSystem 700 2.0 is purchased from and integrated by Hewlett Packard Enterprise: To support customers' transition, HPE Financial Services (HPFS) can help in a way that you may not have considered. HPFS can help you invest in your business while preserving precious capital. For more information, contact your local HPE Financial Services Representative. In the United States, call 1-888-277-5942. In Canada, dial 1-800-HPE-LEASE. For more information please visit:

<http://www.hp.com/hpfinancialservices> for links to HPE Financial Services around the world.

If the HPE ConvergedSystem 700 2.0 is purchased and integrated through an Hewlett Packard Enterprise Channel Partner: For specific financial services, please contact your VAR.

End-of-life management and recycling

If the HPE ConvergedSystem 700 is purchased and integrated by HPE: Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in and recycling information, please go to:

<http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#>, or contact your nearest Hewlett Packard Enterprise sales office. 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 at: <http://www8.hp.com/us/en/hpe/hp-information/livingprogress/environmentalprogress/product-recycling.html#>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HPE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

If the HPE ConvergedSystem 700 2.0 is purchased and integrated by an HPE Channel Partner: For specific recycling policies, please contact your VAR.

Installation, Startup and Support Services

HPE ConvergedSystem 700 2.0 Services (For those systems purchased and integrated through HPE)

The following services are included with all HPE ConvergedSystem 700 2.0 systems:

- Factory integration services to rack and cable the hardware infrastructure, based in part on customer data collected with the Customer Intent Document (SmartCID) to ensure that system is built and ready for datacenter integration (see NOTE below).
- Installation and Startup Services (via HPE Factory Express service Level 4) start up services, including:
 - Unpack system and inspect for damages
 - Connection of HPE ConvergedSystem 700 2.0 into customer network environment
NOTE: typically not done for Foundation or Microsoft solutions
 - **Basic configuration of the network uplinks to the customer environment and connection verification NOTE: typically not done for Foundation solutions**
 - Assistance with license redemption and End User License Agreement (EULA) acceptance assurance
 - Review equipment and basic processes, including process for placing calls to request support
- 3yr HPE Proactive Care 6hr Call-to-Repair with Personalized Support Option is the recommended support level. It provides a single source support for the complete HPE ConvergedSystem 700 2.0. Additional support levels and services are available for additional operational and resource assistance and coverage in mission critical environments. See Step 2 in How to Order section below.

NOTE: Customer is required to provide cables for uplinks to the datacenter network core switch.

NOTE: The factory integration services included in this solution require a Customer Intent Document (SmartCID) to assist with the configuration and successful installation and implementation of the solution. The SmartCID Reference ID# is required to be in place prior to sale.

NOTE: HPE ConvergedSystem 700 2.0 does not include advanced data center network integration services. Some customers that do not have networking expertise internally may require Network Integration Services. For these customers, it is highly recommended that a custom network integration service be arranged with HPE TS Consulting. For more information, please contact your TS sales representative.

NOTE: For those systems that are purchased and integrated by an HPE Channel Partner, please see your VAR for specifics on Services.

HPE ConvergedSystem 700 2.0 for VMware Services (For those systems purchased and integrated through HPE)

The following services are included with all HPE ConvergedSystem 700 2.0 for VMware systems:

- Factory integration services to rack, cable, and configure the hardware and software (including VMware vSphere and vCenter) infrastructure, based in part on Customer Intent Document (SmartCID) to ensure that system is built and ready for datacenter integration (see NOTE below).
- Integration services into customer data center, using customer settings such as IP addresses, hostnames, and other information needed for datacenter integration.
- Installation and Startup Services (via HPE Factory Express service Level 4) start up services, including:
 - Unpack system and inspect for damages
 - Connection of HPE ConvergedSystem 700 2.0 into customer network environment
 - Basic configuration of the network uplinks to the customer environment and connection verification
 - Assistance with license redemption and End User License Agreement (EULA) acceptance assurance

Installation, Startup and Support Services

- Installation of HPE OneView (and associated components)
- Basic solution level functionality testing
- Review equipment and basic processes, including process for placing calls to request support
- 3yr HPE Proactive Care 6hr Call-to-Repair with Personalized Support Option is the recommended support level. Additional support levels and services are available. See Step 2 in How to Order section below.

NOTE: Customer is required to provide cables for uplinks to the datacenter network core switch.

NOTE: The factory integration services included in this solution require a Customer Intent Document (SmartCID) to assist with the configuration and successful installation and implementation of the solution. The SmartCID Reference ID# is required to be in place prior to sale. Before issuing a purchase order against this solution, please contact your Hewlett Packard Enterprise sales representative to engage an HPE Engagement Project Manager (EPM) who will manage the SmartCID process.

NOTE: HPE ConvergedSystem 700 2.0 for VMware does not include advanced data center Network Integration Services. Some customers that do not have networking expertise internally may require Network Integration Services. For these customers, it is highly recommended that a custom network integration service be arranged with HPE TS Consulting. For more information, please contact your TS sales representative.

NOTE: For those systems that are purchased and integrated by an Hewlett Packard Enterprise Channel Partner, please see your VAR for specifics on VMware Services.

HPE ConvergedSystem 700 2.0 for Microsoft Hyper-V Services (For those systems purchased and integrated through HPE)

The following services are included with all HPE ConvergedSystem 700 2.0 for Hyper-V systems:

- Factory integration services to rack, cable, and configure the hardware and software infrastructure, based in part on Customer Intent Document (CID) to ensure that system is built and ready for datacenter integration (see NOTE below).
- Integration services into customer data center, using customer settings such as IP addresses, hostnames, and other information needed for datacenter integration.
- Installation and Startup Services, including:
 - Unpack system and inspect for damages
 - Connection of HPE ConvergedSystem 700 2.0 into customer network environment
 - Basic configuration of the network uplinks to the customer environment and connection verification
 - Assistance with license redemption and End User License Agreement (EULA) acceptance assurance
 - Installation of HPE OneView (and associated components)
 - Basic solution level functionality testing
 - Review equipment and basic processes, including process for placing calls to request support
- HPE Deployment Accelerator Service, including:
 - Connection and integration of HP ConvergedSystem 700 for Hyper-V into customer network environment
 - Setup and configuration of the compute cluster(s)
 - installation of Windows Server 2012 R2 to all physical hosts
 - creation of the management cluster
 - Installation of HPE OneView (and associated components)
 - Configuration of the System Center Management Servers including installation of the following Microsoft System Center 2012 R2 Datacenter components:
 - SQL Server cluster
 - System Center Virtual Machine Manager cluster
 - System Center Operations Manager

Installation, Startup and Support Services

- System Center Service Manager
 - System Center Orchestrator
 - System Center AppController
- Installation of HP OneView for System Center and HP Storage management packs
- Basic validation of the Microsoft environment (for example: creation of test workloads and movement of those workloads within the cluster)
- Delivery of As-Built documentation to the customer as part of the review and handover of the solution
- 3yr HPE Proactive Care 6hr Call-to-Repair with Personalized Support Option is the recommended support level. Additional support levels and services are available. See Step 2 in How to Order section below.

NOTE: Customer is required to provide cables for uplinks.

NOTE: The factory integration services included in this solution require a Customer Intent Document (CID) to assist with the configuration and successful installation and implementation of the solution. The CID Reference ID# is required to be in place prior to sale. Before issuing a purchase order against this solution, please contact your Hewlett Packard Enterprise sales representative to engage an HPE Engagement Project Manager (EPM) who will manage the CID process.

NOTE: HPE ConvergedSystem 700 2.0 does not include advanced data center Network Integration Services. Some customers that do not have networking expertise internally may require Network Integration Services. For these customers, it is highly recommended that a custom network integration service be arranged with HPE TS Consulting. For more information, please contact your TS sales representative.

NOTE: For those systems that are purchased and integrated by an Hewlett Packard Enterprise Channel Partner, please see your VAR for specifics on VMware Services.

Connecting the HPE ConvergedSystem 700 2.0 solution in the datacenter

Compute Rack The multi-rack base solution has two (2) HPE 5900AF, two (2) HPE FF 5940 (Segregated), two (2) HPE FF 5900 + HPE FF 5930 (Converged) or four (4) Cisco Nexus top of rack switches with up to eight (8) network uplinks (four (4) 10GbE per HPE 5900AF-48XG-4QSFP+ or Cisco Nexus 56128P Switch, for (4) 10GbE and 2 (two) 40GbE per HPE FF 59xx) to connect to the datacenter. Transceivers and appropriate cables need to be ordered or provided separately. Both 10Gb and 1Gb options are supported on all switches with the HPE FF 59xx switches also supporting 40Gb options

The single-rack base solution has Two (2) HPE 59xxAF or HPE FF 59xx or Cisco Nexus top of rack switches with up to eight (8) network uplinks to connect to the datacenter and 2 (two) 40GbE per HPE FF 59xx40). Transceivers and appropriate cables need to be ordered or provided separately. Both 10Gb and 1Gb options are supported on all switches with the HPE FF 59xxs switches also supporting 40Gb options

For transceiver options refer to the HPE 5940 Converged Network Switch QuickSpecs.

<http://www.hpe.com/info/networking>

Storage There are two connectivity requirements for the storage, connectivity of the Service Processor and connectivity of the management ports on the controllers. There are CAT5 Ethernet cables included in the storage component for this connectivity which may be modified as necessary.

For Multi-Rack solutions and single-rack with SAN-Switching, fibre channel cabling is also required for connectivity back into the SAN switches. This connectivity is all pre-wired in the factory and will need to be adjusted if the compute and storage racks are not adjacent to each other.

Installation, Startup and Support Services

For Single-Rack direct-attached-storage solutions, cabling is required for Flat SAN connectivity from the c7000 to the 3PAR 8200, 8400 or 8440. This connectivity is all pre-wired in the factory.

How to Order

NOTE: The HPE ConvergedSystem 700 2.0 includes all HPE hardware, HPE software, and factory integration, onsite installation and startup, and 3 years of hardware and software support services.

NOTE: The HPE ConvergedSystem 700 2.0 for VMware includes all HPE hardware, HPE software, and VMware software components as well as factory integration, onsite installation and startup, and 3 years of hardware and software support services. All hardware components are factory integrated and have been localized to US English. ConvergedSystem 700 2.0 for VMware comes with either vSphere 6.0u2 or vSphere 5.5 U3b, VMware vRealize Operations Manager, OneView 3.0, Factory configuration and onsite integration as defaults. Customers that have ELAs (Enterprise License Agreements) covering vSphere 5.5 U3 and vCenter Server are not required to purchase these licenses from Hewlett Packard Enterprise

NOTE: Management servers are mandatory for the HPE ConvergedSystem 700 2.0 for VMware in order to ensure complete provisioning and initial installation and setup.

NOTE: All hardware components are factory integrated by Hewlett Packard Enterprise and have been localized to US English. HPE ConvergedSystem 700 2.0 comes with OneView licenses, Factory configuration and onsite integration as defaults.

NOTE: HPE ConvergedSystem 700 2.0 always uses blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels will result in improper cooling that can lead to thermal damage.

NOTE: Storage part numbers and quantities vary based on configurations chosen. For specific details refer to the **HPE 3PAR StoreServ 8000 QS**: <http://www.hpe.com/h20195/v2/GetDocument.aspx?docname=c04607918>

How to Order

Step 1: Order HPE ConvergedSystem 700 2.0 configuration. Select the appropriate level of compute and storage components to meet your performance needs.

Models

HPE ConvergedSystem 700 2.0 configuration includes the following:

Multi-Rack Solution

- One (1) to three (3) HPE 42U 1200mm i-Series Shock Racks to contain compute and networking components
 - One (1) to four (4) HPE 42U 1200mm i-Series Shock Racks for the HPE 3PAR storage.
 - One (1) to eight (8) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**
- NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider.**
- One (1) HPE FlexFabric 20Gb 2P 650FLB FIO adapter per server
 - One (1) HPE Smart Array P244br/1G FIO controller per server (optional if no drives selected)
- Two (2), three (3), or four (4) HPE ProLiant DL360 Gen9 server (Management Station). Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4(or v3)
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl

How to Order

- One (1) HPE Smart Array P440ar/2G FIO Controller
- One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) of the following storage options. Two (2) required with 5 or more enclosures. Refer to the product documentation at hp.com/go/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2-node
 - HPE StoreServ 3PAR 8400 2-node
 - HPE StoreServ 3PAR 8400 4-node
 - HPE StoreServ 3PAR 8440 2-node
 - HPE StoreServ 3PAR 8440 4-node
 - HPE StoreServ 3PAR 8450 2-node
 - HPE StoreServ 3PAR 8450 4-node

NOTE: HPE 3PAR 8000-series nodes connect at 16Gb.

- One (1) of the following storage switch options:
 - Two (2) or four (4) HPE SN6000B 16Gb 48/24 FC Switch
 - Two (2) or four (4) HPE SN6000B 16Gb 48/48 FC Switch
 - Two (2) or four (4) HPE Flex Fabric 5930-4Slot Switches with HPE 5930 24p Converged Port and 2p QSFP+ Modules
 - **NOTE: These same HPE FF 5930 Switches are also used for Ehternet Traffic**
- One (1) of the following networking switch options:
 - HPE Segregated Networking Option #1: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches. Additional two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ for a total of four (4) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - HPE Segregated Networking Option #2: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with three (3) HPE 5930 8-port QSFP+ Modules and (1) HPE 5930 24p SFP+ and 2 QSFP+ port module to support up-to (8) enclosures
 - HPE Converged Networking Option: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with four (4) HPE 5930 8-port QSFP+ Modules and three (3) HPE 24p Converged Port and 2 QSFP+ modules to support up-to (4) enclosures Additional two (2) HPE Flex Fabric 5930-4Slot switches with HPE 5930 8-port QSFP+ Modules and HPE 24p Converged Port and 2 QSFP+ modules, for a total of four (4) HPE Flex Fabric 5930-4Slot switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - Cisco Networking Option #1: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 56128p switches. Additional (2) two Cisco Nexus 2348UPQ 10GE Fabric Extenders if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.

Cisco Networking Option #2: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 9396PX switches. Additional (2) two Cisco Nexus 9396PX if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.

- HPE Metered and Switched PDU(maPDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP

How to Order

- HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
- HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
- HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
- HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
- HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp per blade FIO Bundle 16 Server License
- One (1) HPE OneView with iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server

Single-Rack Solution

- One (1) HPE 42U 1200mm i-Series Shock Rack.
- One (1) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hp.com/go/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**

NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider.

How to Order

- One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Two (2) SN6000B 16Gb 48/24 FC Switch or two (2) HPE SN6000B 16Gb 48/48 FC switch (For SAN-Switched option only)
- Two (2) or three (3) HPE ProLiant DL360Gen9 Server management stations. Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl
 - One (1) HPE Smart Array P440ar/2G FIO Controller
 - One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) of the following storage options. Refer to the product documentation at hp.com/go/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2 Node
 - HPE StoreServ 3PAR 8440 2 Node
 - HPE StoreServ 3PAR 8440 4 Node
- One (1) of the following switch options:
 - HPE Networking option #1: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
 - HPE Networking option #2: Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option #1: Two (2) Cisco Nexus 56128p switches.
 - Cisco Networking Option #2: Two (2) Cisco Nexus 9396PX switches.
- Two (2) to four (4) of the following HPE Metered and Switched PDU(Metered and Switched PDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License

How to Order

- One (1) HPE OneView with iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server

HPE ConvergedSystem 700 2.0 for VMware

Multi-Rack Solution

- One (1) to three (3) HPE 42U 1200mm i-Series Shock Racks to contain compute and networking components
 - One (1) to four (4) HPE 42U 1200mm i-Series Shock Racks for the HPE 3PAR 7200c/74x0c/8000 storage.
 - One (1) to eight (8) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hp.com/go/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**
- NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider.**
- One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Two (2), three (3), or four (4) HPE ProLiant DL360 Gen9 Server (Management Station). Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4(or v3)
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl
 - One (1) HPE Smart Array P440ar/2G FIO Controller
 - One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA

How to Order

- One (1) of the following storage options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2-node
 - HPE StoreServ 3PAR 8400 2-node
 - HPE StoreServ 3PAR 8400 4-node
 - HPE StoreServ 3PAR 8440 2-node
 - HPE StoreServ 3PAR 8440 4-node
 - HPE StoreServ 3PAR 8450 2-node
 - HPE StoreServ 3PAR 8450 4-node

NOTE: HPE 3PAR 8000-series nodes connect at 16Gb.

- One (1) of the following storage switch options:
 - Two (2) or four (4) HPE SN6000B 16Gb 48/24 FC Switch
 - Two (2) or four (4) HPE SN6000B 16Gb 48/48 FC Switch
 - Two (2) or four (4) HPE Flex Fabric 5930-4Slot Switches with HPE 5930 24p Converged Port and 2p QSFP+ Modules
 - **NOTE: These same HPE FF 5930 Switches are also used for Ethernet Traffic**
- One (1) of the following networking switch options:
 - HPE Segregated Networking Option #1: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches. Additional two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ for a total of four (4) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - HPE Segregated Networking Option #2: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with three (3) HPE 5930 8-port QSFP+ Modules and (1) HPE 5930 24p SFP+ and 2 QSFP+ port module to support up to (8) enclosures
 - HPE Converged Networking Option: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with four (4) HPE 5930 8-port QSFP+ Modules and three (3) HPE 24p Converged Port and 2 QSFP+ modules to support up to (4) enclosures. Additional two (2) HPE Flex Fabric 5930-4Slot switches with HPE 5930 8-port QSFP+ Modules and HPE 24p Converged Port and 2 QSFP+ modules, for a total of four (4) HPE Flex Fabric 5930-4Slot switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - Cisco Networking Option #1: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 56128p switches. Additional (2) two Cisco Nexus 2348UPQ 10GE Fabric Extenders if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
 - Cisco Networking Option #2: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 9396PX switches. Additional (2) two Cisco Nexus 9396PX if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
- HPE Metered and Switched PDU(Metered and Switched PDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL

How to Order

- HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
- HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- Optional HPE Virtual Services Router
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView and (1) iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server
- One (1) VMware vCenter Std 3yr, 9x5 (BD725A) (included as default may be removed in case of existing and valid ELA)
- Two (2) vSphere with Operations Management (vSOM) Enterprise Plus 1P 3yr 9x5 Nm Lic per server (D9Y42A/AE) (included as default per server, may be removed in case of existing and valid ELA)
- Two (2) Microsoft Windows Server 2012 R2 Standard Edition 2 CAL (included as default in the management nodes)

How to Order

Single-Rack Solution

- One (1) HPE 42U 1200mm i-Series Shock Rack
- One (1) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**
 - **NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider.**
 - One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Two (2) HPE ProLiant DL360 Gen9 Server (Management Station). Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4(or v3)
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl
 - One (1) HPE Smart Array P440ar/2G FIO Controller
 - One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) of the following storage options. Refer to the product documentation at hp.com/go/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2 Node
 - HPE StoreServ 3PAR 8440 2 Node
 - HPE StoreServ 3PAR 8440 4 Node

* Two (2) HPE SN6000B 16Gb 48/24 FC Switch or two (2) HPE SN6000B 16Gb 48/48 FC switch. (for San-Switched option only)

How to Order

- One (1) of the following switch options:
 - HPE Networking option #1: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
 - HPE Networking option #2: Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option #1: Two (2) Cisco Nexus 56128p switches.
- Cisco Networking Option #2: Two (2) Cisco Nexus 9396PX switches. One (1) HPE Metered and Switched PDU (Metered and Switched PDU)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView and (1) iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server
- One (1) VMware vCenter Std 3yr, 9x5 (BD725A) (included as default may be removed in case of existing and valid ELA)
- Two (2) vSphere with Operations Management (vSOM) Enterprise Plus 1P 3yr 9x5 Nm Lic per server (D9Y42A/AE) (included as default per server, may be removed in case of existing and valid ELA)
- Two (2) Microsoft Windows Server 2012 R2 Standard Edition 2 CAL (included as default in the management nodes)

How to Order

HPE ConvergedSystem 700 2.0 for HPE Helion CloudSystem 10

Multi-rack solution

- One (1) to three (3) HPE 42U 1200mm i-Series Shock Racks to contain compute and networking components
- One (1) to four (4) HPE 42U 1200mm i-Series Shock Racks for the HPE 3PAR 7200c/74x0c/8000 Storage.
- One (1) to eight (8) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**
 - **NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider. One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server**
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Three (3) or four (4) HPE ProLiant DL360 Gen9 servers (Management Station). Each server is configured with:
 - 1X HP DL360 Gen9 8SFF CTO Server
 - 1X HPE DL360 Gen9 E5-2695v4 FIO Kit
 - 1X HPE DL360 Gen9 E5-2695v4 Kit
 - 16X HPE 16GB 2Rx4 PC4-2400T-R Kit
 - 8X HP 600GB 12G SAS 10K 2.5in SC ENT HDD
 - 1X HP DL360 Gen9 SFF DVD-RW/USB Kit
 - 1X HP FlexFabric 10Gb 2P 556FLR-SFP+ Adapter
 - 1X HP Smart Array P440ar/2G FIO Controller
 - 1X HP 1U SFF Easy Install Rail Kit
 - 1X HP 82Q 8Gb Dual Port PCI-e FC HBA
 - 1X HP DL360 Gen9 Serial Cable
 - 2X HP 800W FS Plat Ht Plg Pwr Supply Kit
 - 1X HP DL360 Gen9 2P LP PCIe Slot CPU2 Kit
- 1X HP DL360 Gen9 SFF Sys Insght Dsply KitOne (1) of the following storage options. Refer to the product documentation at hpe.com/info/docs

How to Order

for configuration details:

- HPE StoreServ 3PAR 8200 2-node
- HPE StoreServ 3PAR 8400 2-node
- HPE StoreServ 3PAR 8400 4-node
- HPE StoreServ 3PAR 8440 2-node
- HPE StoreServ 3PAR 8440 4-node
- HPE StoreServ 3PAR 8450 2-node
- HPE StoreServ 3PAR 8450 4-node
- One (1) of the following storage switch options:
 - Two (2) or four (4) HPE SN6000B 16Gb 48/24 FC Switch
 - Two (2) or four (4) HPE SN6000B 16Gb 48/48 FC Switch
 - Two (2) or four (4) HPE Flex Fabric 5930-4Slot Switches with HPE 5930 24p Converged Port and 2p QSFP+ Modules
 - **NOTE: These same HPE FF 5930 Switches are also used for Ethernet Traffic**
- One (1) of the following networking switch options:
 - HPE Segregated Networking Option #1: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches. Additional two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ for a total of four (4) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - HPE Segregated Networking Option #2: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with three (3) HPE 5930 8-port QSFP+ Modules and (1) HPE 5930 24p SFP+ and 2 QSFP+ port module to support up to (8) enclosures
 - HPE Converged Networking Option: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with four (4) HPE 5930 8-port QSFP+ Modules and three (3) HPE 24p Converged Port and 2 QSFP+ modules to support up to (4) enclosures Additional two (2) HPE Flex Fabric 5930-4Slot switches with HPE 5930 8-port QSFP+ Modules and HPE 24p Converged Port and 2 QSFP+ modules, for a total of four (4) HPE Flex Fabric 5930-4Slot switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - Cisco Networking Option #1: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 56128p switches. Additional (2) two Cisco Nexus 2348UPQ 10GE Fabric Extenders if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
 - Cisco Networking Option #2: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 9396PX switches. Additional (2) two Cisco Nexus 9396PX if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
- HPE Metered and Switched PDU(Metered and Switched PDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP

How to Order

- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView and (1) iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server
- One (1) of the following Helion CloudSystem 10 solution software options:
 - OSI-based licensing
 - HPE Helion CloudSystem Enterprise 80-OSI 3-year LTU
 - HPE Helion CloudSystem Enterprise 160-OSI 3-year LTU
 - Server-based licensing. Purchase one (1) or more of the following to correspond to the number of physical servers:
 - HPE Helion CloudSystem Enterprise 8-server 3-year LTU
 - HPE Helion CloudSystem Enterprise 16-server 3-year LTU

Single-Rack Solution(s)

- One (1) HPE 42U 1200mm i-Series Shock Rack.
- One (1) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at [hpe.com/info/docs](https://www.hpe.com/info/docs) for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - Two (2) to sixteen (16) HPE ProLiant WS460c Graphics Server Blade with one (1) of the following:
 - NVIDIA GRID K1 PCIe GPU FIO Adapter for Double Width Blade with Graphics expansion module
 - NVIDIA GRID K2 Dual GPU PCIe Graphics Accelerator **for Double Width Blade with Graphics expansion module**
 - NVIDIA GRID Tesla M6 MXM for Single Width Blade
 - NVIDIA GRID Tesla M6 MXM for Double Width Blade with Graphics expansion module and two HPE Multi GPU carrier adapter **for a total of four M6 MXM adapters**
 - **NOTE: NVIDIA Tesla M6 video adapters require and NVIDIA license purchase through NVIDIA Preferred Solution Provider. One (1) HPE FlexFabric 20Gb 2P 650FLB** FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Three (3) HPE ProLiant DL360 Gen9 Server management stations. Each server is configured with:

How to Order

- 1X HP DL360 Gen9 8SFF CTO Server
- 1X HPE DL360 Gen9 E5-2695v4 FIO Kit
- 1X HPE DL360 Gen9 E5-2695v4 Kit
- 16X HPE 16GB 2Rx4 PC4-2400T-R Kit
- 8X HP 600GB 12G SAS 10K 2.5in SC ENT HDD
- 1X HP DL360 Gen9 SFF DVD-RW/USB Kit
- 1X HP FlexFabric 10Gb 2P 556FLR-SFP+ Adapter
- 1X HP Smart Array P440ar/2G FIO Controller
- 1X HP 1U SFF Easy Install Rail Kit
- 1X HP 82Q 8Gb Dual Port PCI-e FC HBA
- 1X HP DL360 Gen9 Serial Cable
- 2X HP 800W FS Plat Ht Plg Pwr Supply Kit
- 1X HP DL360 Gen9 2P LP PCIe Slot CPU2 Kit
- 1X HP DL360 Gen9 SFF Sys Insight Dsply Kit One (1) of the following storage options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2 Node
 - HPE StoreServ 3PAR 8440 2 Node
 - HPE StoreServ 3PAR 8440 4 Node
- Two (2) HPE SN6000B 16Gb 48/24 FC Switch or two (2) HPE SN6000B 16Gb 48/48 FC switch. (For SAN-Switched options only)
- One (1) of the following switch options:
 - HPE Networking option #1: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
 - HPE Networking option #2: Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option #1: Two (2) Cisco Nexus 56128p switches.
- Cisco Networking Option #2: Two (2) Cisco Nexus 9396PX switches.HPE Metered and Switched PDU(Metered and Switched PDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView with iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server
- One (1) of the following Helion CloudSystem 10 solution software options:
 - OSI-based licensing

How to Order

- HPE Helion CloudSystem Foundation 80-OSI 3-year LTU
 - HPE Helion CloudSystem Enterprise 80-OSI 3-year LTU
 - HPE Helion CloudSystem Foundation 160-OSI 3-year LTU
 - HPE Helion CloudSystem Enterprise 160-OSI 3-year LTU
- Server-based licensing. Purchase one (1) or more of the following to correspond to the number of physical servers:
 - HPE Helion CloudSystem Foundation 8-server 3-year LTU
 - HPE Helion CloudSystem Enterprise 8-server 3-year LTU
 - HPE Helion CloudSystem Foundation 16-server 3-year LTU
 - HPE Helion CloudSystem Enterprise 16-server 3-year LTU

HPE ConvergedSystem 700 2.0 for Microsoft Hyper-V

Multi-Rack Solution

- One (1) to three (3) HPE 42U 1200mm i-Series Shock Racks to contain compute and networking components
- One (1) to four (4) HPE 42U 1200mm i-Series Shock Racks for the HPE 3PAR 8000 storage.
- One (1) to eight (8) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Two (2), three (3), or four (4) HPE ProLiant DL360 Gen9 Server (Management Station). Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4(or v3)
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl
 - One (1) HPE Smart Array P440ar/2G FIO Controller
 - One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) of the following storage options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 -
 - HPE StoreServ 3PAR 8200 2-node
 - HPE StoreServ 3PAR 8400 2-node

How to Order

- HPE StoreServ 3PAR 8400 4-node
- HPE StoreServ 3PAR 8440 2-node
- HPE StoreServ 3PAR 8440 4-node
- HPE StoreServ 3PAR 8450 2-node
- HPE StoreServ 3PAR 8450 4-node

NOTE: HPE 3PAR 8000-series nodes connect at 16Gb.

- One (1) of the following storage switch options:
 - Two (2) or four (4) HPE SN6000B 16Gb 48/24 FC Switch
 - Two (2) or four (4) HPE SN6000B 16Gb 48/48 FC Switch
- One (1) of the following networking switch options:
 - HPE Segregated Networking Option #1: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches. Additional two (2) HPE Flex Fabric 5940 48SFP+ 6QSFP+ for a total of four (4) HPE Flex Fabric 5940 48SFP+ 6QSFP+ switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - HPE Segregated Networking Option #2: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with three (3) HPE 5930 8-port QSFP+ Modules and (1) HPE 5930 24p SFP+ and 2 QSFP+ port module to support up-to (8) enclosures
 - HPE Converged Networking Option: Two (2) HPE 5900AF-48G-4XG-2QSFP+ switches and two (2) HPE Flex Fabric 5930-4Slot switches with four (4) HPE 5930 8-port QSFP+ Modules and three (3) HPE 24p Converged Port and 2 QSFP+ modules to support up-to (4) enclosures. Additional two (2) HPE Flex Fabric 5930-4Slot switches with HPE 5930 8-port QSFP+ Modules and HPE 24p Converged Port and 2 QSFP+ modules, for a total of four (4) HPE Flex Fabric 5930-4Slot switches if five (5) to eight (8) HPE BladeSystem c7000 enclosures are present.
 - Cisco Networking Option #1: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 56128p switches. Additional (2) two Cisco Nexus 2348UPQ 10GE Fabric Extenders if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
 - Cisco Networking Option #2: Two (2) Cisco Nexus 3048 switches and two (2) Cisco Nexus 9396PX switches. Additional (2) two Cisco Nexus 9396PX if five (5) to eight (8) HPE BladeSystem c7000 enclosure are present.
- HPE Metered and Switched PDU(Managed and Switched)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power

How to Order

- Distribution Unit
- HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
- HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
- HPE 14.4kVA 40A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView with iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server

NOTE: The HP ConvergedSystem 700 2.0 for Hyper-V includes all HP hardware, and HP software, as well as factory integration, onsite installation and startup, delivery of the HP Deployment Accelerator Service, and 3 years of hardware and software* support services. The HP ConvergedSystem 700 2.0 for Hyper-V SKU DOES NOT contain the necessary licenses for Windows Server 2012 Datacenter and System Center 2012 Datacenter.

(* Includes support for separately purchased Windows Server and Systems Center software.)

Single-Rack Solution

- One (1) HPE 42U 1200mm i-Series Shock Rack
- One (1) HPE BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Enclosure is configured with:
 - Six (6) 2650W Platinum HotPlug Power Supplies
 - One (1) 6x HPE Active Cool 2000 Fan Bundle
 - Two (2) HPE c7000 Onboard Administrator with KVM Option
 - Two (2) HPE BLc VC FlexFabric-20/40 F8 Module
 - Choice of two (2) server options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - Two (2) to sixteen (16) HPE ProLiant BL460c Gen9 server blades
 - One (1) HPE FlexFabric 20Gb 2P 650FLB FIO Adapter per server
 - One (1) HPE Smart Array P244br/1G FIO Controller per server (optional if no drives selected)
- Two (2) HPE ProLiant DL360 Gen9 Server (Management Station). Each server is configured with:
 - 256 GB of memory (16 x 16GB 2Rx4 PC4-2133P-R)
 - Two (2) Intel® Xeon® E5-2680v4(or v3)
 - One (1) HPE 2GB Flash Backed Write Cache for P-Series Smart Array
 - Eight (8) HPE 600GB 12G SAS 10K 2.5in SC Enterprise Hard Drive
 - One (1) HPE DL360 Gen9 SFF DVD-RW/USB Kit
 - One (1) HPE FlexFabric 10Gb 2P 556FLR-SFP+ Adptr
 - One (1) HPE DL360 Gen9 SFF P440ar/H240ar SAS Cbl
 - One (1) HPE Smart Array P440ar/2G FIO Controller
 - One (1) HPE 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) of the following storage options. Refer to the product documentation at hpe.com/info/docs for configuration details:
 - HPE StoreServ 3PAR 8200 2 Node
 - HPE StoreServ 3PAR 8440 2 Node
 - HPE StoreServ 3PAR 8440 4 Node
- Two (2) HPE SN6000B 16Gb 48/24 FC Switch or two (2) HPE SN6000B

How to Order

- 16Gb 48/48 FC switch. (For SAN-Switched option only)
- One (1) of the following switch options:
 - HPE Networking option #1: Two (2) HPE Flex Fabric 5940AF 4SFP+ 6QSFP+ switches.
 - HPE Networking option #2: Two (2) HPE HP FF 5930-2Slot+2QSFP+ with one (1) HPE 5930 24p SFP+ and 2 QSFP+ port module per switch
 - Cisco Networking Option #1: Two (2) Cisco Nexus 56128p switches.
- Cisco Networking Option #2: Two (2) Cisco Nexus 9396PX switches.HPE Metered and Switched PDU(Metered and Switched PDUs)
 - HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP
 - HPE 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL
 - HPE 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP
 - HPE 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL
 - HPE 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP
 - HPE 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP
- HPE Intelligent Power Distribution Units
 - HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit
 - HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
 - HPE 11kVA iPDU 16A Three phase INTL Core Intelligent Modular Power Distribution unit
 - HPE 14.4kVA 40A Three Phase NA/JP Core Intelligent Modular Power Distribution unit
- One (1) HPE OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) HPE OneView with iLO Advanced - incl 3yr 24x7 Supp per DL360 Management Server

NOTE: The HPE ConvergedSystem 700 2.0 for Hyper-V includes all HPE hardware, and HP software, as well as factory integration, onsite installation and startup, delivery of the HP Deployment Accelerator Service, and 3 years of hardware and software* support services. The HP ConvergedSystem 700 2.0 for Hyper-V SKU DOES NOT contain the necessary licenses for Windows Server 2012 Datacenter and System Center 2012 Datacenter. (* Includes support for separately purchased Windows Server and Systems Center software.)

Step 2: Choose HPE Care Pack Support and Additional Services

HPE Service and Support HPE 3yr Proactive Care with Personalized Support Option is the recommended support level. For additional choices, select from one of the support offers below.

NOTE: Only 3yr and 5yr Care Pack durations are available to match the software subscription durations of the VMware licenses.

HPE Proactive Care - 3yr or 5yr

How to Order

HPE Proactive Care: Keep your systems stabilized and optimized to achieve a high level of appliance availability through a superior call experience with end-to-end case management, advanced technical expertise, and proactive service management. Customize your reactive support level by selecting either 6 hour call-to-repair or 24x7 with 4 hour onsite response.

HPE Proactive Care with Personalized Support Option: To enhance your Proactive Care experience, add the Personalized Support option. With this option, an assigned account services manager (ASM) will provide you personalized support. Operational and technical advice helps you meet your IT objectives. The work is guided through an agreed support plan and reviewed twice a year to enable alignment and proper focus on current and emerging issues.

NOTE: Choose from 24x7 or 6hr call-to-repair reactive levels. There is also the option to add Defective Media Retention.

5yr HP Proactive Care 6hr CTR with Personalized Support Option	H1K94A5 +
5yr HP Proactive Care 6hr CTR	H4B58A5#001
	H1K94A5
3yr HP Proactive Care 6hr CTR with Personalized Support Option	H1K94A3+
3yr HP Proactive Care 6hr CTR	H4B58A3#001
	H1K94A3
5yr HP Proactive Care 6hr CTR w/DMR with Personalized Support Option	H1K95A5 +
5yr HP Proactive Care 6hr CTR w/DMR	H4B58A5#001
	H1K95A5
3yr HP Proactive Care 6hr CTR w/DMR with Personalized Support Option	H1K95A3 +
3yr HP Proactive Care 6hr CTR w/DMR	H4B58A3#001
	H1K95A3
5yr HP Proactive Care 24x7 with Personalized Support Option	H1K92A5 +
5yr HP Proactive Care 24x7	H4B58A5#001
	H1K92A5
3yr HP Proactive Care 24x7 with Personalized Support Option	H1K92A3 +
3yr HP Proactive Care 24x7	H4B58A3#001
	H1K92A3
5yr HP Proactive Care 24x7 w/DMR with Personalized Support Option	H1K93A5 +
5yr HP Proactive Care 24x7 w/DMR	H4B58A5#001
	H1K93A5
3yr HP Proactive Care 24x7 w/DMR with Personalized Support Option	H1K93A3 +
3yr HP Proactive Care 24x7 w/DMR	H4B58A3#001
	H1K93A3

HPE Critical Service - 3yr or 5yr

HPE Critical Service: Prevent downtime and maximize availability using ITIL best practices for your mission-critical applications. Our mission-critical services keep your solution available 24x7. Our call to repair reactive support with access to the Global Mission Critical Solution Center enables quick resolution whenever unforeseeable problems occur.

5yr HP Critical Service	HA112A5
HP CP 3Y Critical Service	HA112A3
3yr HP Critical Service	HG932A5
3yr HP Critical Service with DMR	HG932A3

How to Order

HPE Proactive Select - 3yr or 5yr

NOTE: Proactive Select can be added to other support offers to have a complete support experience. Proactive Select provides an assigned account support manager who works with you to address technical and operational improvements specific to your business environment.

NOTE: With HPE Proactive Select, you purchase service credits today, and choose from around 100 services to consume the required level of expertise and resources

later depending on your requirements. For example, help with revision management, or proactive notification of critical network service problems.

NOTE: Available in packages of service credits, redeem them as you go, choosing the proactive services you need to fit your environment and critical IT and business goals.

NOTE: Care Pack Services for different duration and credit sizes are listed below.

HP 3Y Proactive Select 30 credits SVC	HK696A3
HP 3Y Proactive Select 90 credits SVC	HG921A3
HP 3Y Proactive Select 180 credits SVC	HG922A3
HP 3Y Proactive Select 540 credits SVC	HG923A3
HP 3Y Add 10 Proactive Select Credit SVC	HG924A3
HP 5Y Proactive Select 50 credits SVC	HK696A5
HP 5Y Proactive Select 150 credits SVC	HG921A5
HP 5Y Proactive Select 300 credits SVC	HG922A5
HP 5Y Proactive Select 900 credits SVC	HG923A5
HP 5Y Add 10 Proactive Select Credit SVC	HG924A5

Expansion Options

The following options are available for **Single Rack** configurations of the HPE ConvergedSystem 700 2.0, to expand the system with more compute and/or storage capacity

HPE ConvergedSystem 700 2.x Single Rack Add-on Enclosure	N1C11A
HPE ConvergedSystem 700 Gen9 Add-on Blade	N1C12A
HPE ConvergedSystem 700 2.x Single Rack Expansion	N1C13A
HPE ConvergedSystem 700 2.x Add-on Management Kit	N7L45A

NOTE: If the Storage array for the Single Rack configuration was based on a HPE 3PAR 7200c 2N or HPE 3PAR 8200 2N controller, the HPE ConvergedSystem 700 2.x Single Rack Expansion (N1C13A) option is not supported.

NOTE: If the Storage array for the Single Rack configuration was based on a HPE 3PAR 74x0c 2N or HPE 3PAR 84x0 2N controller, the HPE ConvergedSystem 700 Single Rack Add-on Enclosure (N1C11A) option is not supported.

The following options are available for **Multi Rack** configurations of the HPE ConvergedSystem 700 2.0, to expand the system. Expansion scenarios consider:

- Add enclosure blades or storage shelves, no expansion rack needed
- Add enclosure(s) and additional blades with expansion rack needed
- Add additional storage shelves with expansion rack needed
- Add Network and SAN Switches to support additional enclosures (Enclosures 5 through 8)
- Add a second array
- Add 3PAR 8000 2N Controller expansion

How to Order

- Add CS700 2.0 Add-on Mgmt Kit for RA/Cloud purposes
- Expansion available for processors for blades and Mgt servers
- Option to expand the network switches with the original segregated Network switches when adding a fifth enclosure.
- Any combination of the above

Multi-rack options:

HPE ConvergedSystem 700 Gen9 Add-on Blade	N1C12A
HPE ConvergedSystem 700 2.x Multi Rack Add-on Enclosure	N7L43A
HPE ConvergedSystem 700 2.x Multi Rack Expansion	N7L44A
HPE ConvergedSystem 700 2.x Add-on Management Kit	N7L45A

The following additions are available for HPE ConvergedSystem 700 2.0 after initial installation to ready the system for private cloud deployment or further enhance manageability or disaster recovery.

For integration services, please contact HPE TS Consulting.

NOTE: VMware vCenter Server Heartbeat delivers the maximum uptime for your virtual datacenter infrastructure, ensuring seamless failover and failback of VMware vCenter Server

VMware vCenter Site Recovery Manager Standard 25 Virtual Machines 1yr E-LTU	BD748AAE
VMware vCenter Site Recovery Manager Standard 25 Virtual Machines 3yr E-LTU	BD749AAE
VMware vCenter Site Recovery Manager Enterprise 25 Virtual Machines 1yr E-LTU	BD750AAE
VMware vCenter Site Recovery Manager Enterprise 25 Virtual Machines 3yr E-LTU	BD751AAE

NOTE: For a full list of VMware software available for use on your HPE ConvergedSystem 700 2.0 for VMware, please see the VMware Virtualization Software For HPE ProLiant Servers Quickspecs:

http://h18004.www1.hp.com/products/quickspecs/12307_div/12307_div.html

Technical Specifications

HPE ConvergedSystem 700 2.0	Dimensions HPE i-Series Shock Rack	Height	42U, 79 in (200.66 cm)		
		Width	23.54 in (59.8 cm)		
		Depth	51.19 in (130 cm)		
	Weight* (approximate for maximum rack configuration)	Per compute rack	Static	1808.33 (819.20kg)	
			Dynamic Maximum	5000 lb (2268 kg)	
	Color	Doors	Black		
		Frame	Black		
	Clearance (for air flow and access)	Front	48 in (121.9 cm)		
		Rear	30 in (76.2 cm)		
	Storage Temperature range	Operating	41° to 104° F (5° to 40° C) 7xx0c		
Shipping		32° to 140° F (0° to 60° C) 7xx0c			
Storage Relative humidity	Operating	10 to 90% non-condensing			
	Non-Operating	10 to 90%, non-condensing.			
Power Usage* - maximum	Single Rack	13,650.70 watts (at 250V)			
	Per compute rack for multi-rack solution	16,589.55 watts (at 250V)			
BTU rating, maximum	Single Rack	50,057.21 BTU/hour			
	Per compute rack for multi-rack solution	67,767.79 BTU/hour			

* **NOTE:** Due to storage variability in multi-rack configurations, weight, power usage, and BTU rating for HPE StoreServ 8000 arrays can be found in the StoreServ 8000 QuickSpecs. StoreServ 8000 QS:

<http://www.hpe.com/h20195/v2/GetDocument.aspx?docname=c04607918>

NOTE: Operating temperature has an altitude derating of 1.8° F (1° C) per 1,000 ft (304.8 m). No direct sustained sunlight. Upper operating limit is 10,000 ft (3,048 m) or 70Kpa/10.1 psia. Upper non-operating limit is 30,000 ft (9,144 m) or 30.3 KPa/4.4 psia.

NOTE: To review maximum server system power ratings for facilities planning purposes use the HPE Power Advisor at: <http://www.hp.com/go/hppoweradvisor>.

Summary of Changes

Date	Version History	Action	Description of Change:
08-May-2017	From version 12 to 13	Changed	Corrections to maintain version nomenclature ("2.0")
27-Mar-2017	From Version 11 to 12	Changed	Changes made throughout the QuickSpecs
06-Jun-2016	From Version 10 to 11	Changed	Changes made throughout the QuickSpecs
31-Mar-2016	From Version 9 to 10	Changed	Added additional NVIDIA information
04-Nov-2015	From Version 8 to 9	Changed	Changes made throughout the QuickSpecs
28-Sept-2015	From Version 7 to 8	Changed	Changes made throughout the QuickSpecs
18 Sept-2015	From Version 6 to 7	Changed	Changed the summary of changes description
04-Sept-2015	From Version 5 to 6	Deleted	Removed unsupported SKUs
17-Aug-2015	From Version 4 to 5	Changed	Updated the Step 3 in the How to Order Section
01-Jun-2015	From Version 3 to 4	Changed	Changes made to the Overview and How to Order Sections
24-Apr-2015	From Version 2 to 3	Added	Added picture for the Single Rack
10-Apr-2015	From Version 1 to 2	Changed	Changes made throughout the QuickSpecs



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