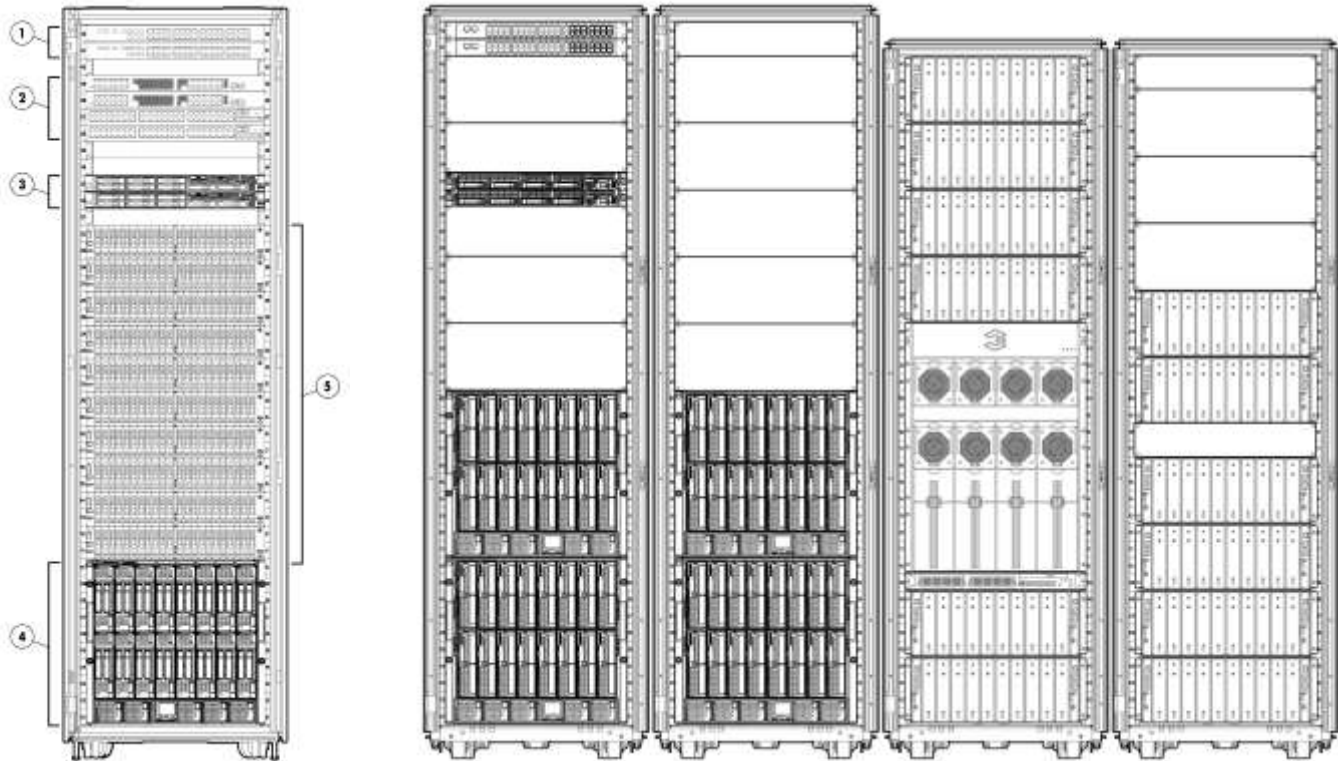


## Overview

## HP ConvergedSystem 700x 1.1



### Flexible Configuration Choices for HP ConvergedSystem 700x 1.1

1. Zero (0) or two (2) HP StoreFabric SN3000B 48-Port SAN switches or Two (2) HP StoreFabric SN6000B 48-port SAN switches
2. Two (2) HP 5900AF-48G-4XG-2QSFP+ switches and Two (2) HP 5900AF-48XG-4QSFP+ switches
3. Zero (0) to four (4) HP ProLiant DL360p Gen8 E5-v2 management servers per compute rack
4. One (1) to four (4) HP BladeSystem c7000 enclosures, Virtual Connect FlexFabric; four (4) to sixteen (16) HP ProLiant BL460c Gen8 E5-v2 server blades per enclosure (up to 64 BL460c Gen8 servers total)
5. One (1) Storage component of either HP 3PAR StoreServ 7000 series or 10000 series

**NOTE:** The option for zero (0) SAN switches is for a single rack solution only (utilizing FLAT SAN technology).

**NOTE:** Zero (0) management servers is for an expanded compute rack only. Every solution must include management servers.

**NOTE:** The HP ConvergedSystem 700x 1.1 is flexible in its configuration, based on a common, scale-out architecture that includes from 1 to multiple racks, 4–64 blade servers, 0–8 rack servers and multiple storage options. The combinations available deliver the right mix of price performance to meet unique customer requirements. Selection of server and storage components is made at the time of ordering from a number of controlled choices based on validated configurations of HP Converged Infrastructure that can be sized and optimized for physical or virtualized application workloads.

## Overview

**NOTE:** HP 3PAR configurations listed for HP ConvergedSystem 700x 1.1 are based on recommended options. Custom 3PAR configurations may be developed and used by consulting an HP 3PAR specialist.

## What's New?

- HP OneView
- VMware vCenter with Operations Management 5.5 update 1 support
- VMware vSphere Operations Manager 5.5 update 1 support
- HP 5900AF Switches replace the HP 5920AF and 5120 Switches.
- Microsoft 2012 R2 (for Microsoft Hyper-V deployments)
- Microsoft 2012 (for VMware deployments)
- 

## At A Glance

HP ConvergedSystem 700x 1.1 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 HP Proactive Care support and can be sourced entirely from HP, inclusive of VMware software licenses, Windows and System Center software licenses if needed. Key features and benefits include:

- **Flexible architecture and easy expansion** - The system is based on a common architecture of HP 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** - HP ConvergedSystem 700x 1.1 is built on the latest HP Converged Infrastructure technology including HP BladeSystem servers, HP 3PAR StoreServ storage, and HP Networking, optimized and pre-integrated, creating an ideal platform for a wide variety of business applications. When ordering HP ConvergedSystem 700x 1.1 for Microsoft, the system includes Microsoft Deployment Accelerator Service to integrate and setup the Microsoft Private Cloud environment. When ordering HP ConvergedSystem 700x 1.1 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** - HP ConvergedSystem 700x 1.1 extends to the cloud with a clear upgrade path to HP CloudSystem or other management stacks. HP ConvergedSystem 700x 1.1 for VMware extends to the cloud with a clear upgrade path to HP CloudSystem or to the VMware vCloud Suite. It can optionally be ordered and configured with vCloud Suite for immediate support of VMware-based cloud deployments. HP ConvergedSystem 700x 1.1 for Microsoft includes a deployment acceleration service to deliver a complete Microsoft Private Cloud environment.
- **Integrated storage** - HP 3PAR StoreServ storage and software platforms support multiple levels of integration with vSphere or Windows Server 2012 R2 Datacenter, providing a doubling of VM density to improve performance and scalability, and TCO savings of up to 50%.
- **Simplified, consolidated management** - HP OneView integrates the manageability features of HP Converged Infrastructure products into VMware's vCenter Operations Manager. VMware vCenter 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 HP OneView and VMware vCenter with Operations Management 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 HP 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 environment. Along with the included HP ConvergedSystem 700x 1.1 for Microsoft Deployment Accelerator Service to provide a turnkey solution for deploying a

### Overview

Microsoft Private Cloud.

- **Solution level support** - Personalized and Proactive - HP offers Proactive Care with Personalized Support Option and Proactive Select to support the complete solution, including the HP 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.

The HP ConvergedSystem 700x 1.1 is built on well-established HP technologies and services including:

- HP ProLiant DL360p Gen8 E5-v2 Rack Mount servers
- HP BladeSystem c7000 Platinum Enclosure
- HP ProLiant BL460c Gen8 E5-v2 Server Blades
- HP 3PAR StoreServ 7000 or 10000 series Storage
- HP 3PAR InForm Operating System Software 3.1.3
- HP 3PAR 7200/7400 Application Suite for VMware
- HP 3PAR Recovery Manager for vSphere
- HP 3PAR Plug-In for VMware vCenter
- HP Networking 5900 series switches
- HP StoreFabric SN3000B and SN6000B series SAN switches
- HP 642 42U i-Series Shock Racks
- HP Virtual Connect FlexFabric
- HP OneView 1.1
- HP Factory Integration through HP Factory Express provides hardware integration, validation, and on-site installation.
- HP Proactive Care provides a single source support for the HP VirtualSystem Foundation system.
- HP Proactive Care provides a single source support for the complete HP VirtualSystem for VMware system, including the VMware software.
- HP Proactive Care provides a single source support for the complete HP ConvergedSystem 700x 1.1 for Microsoft system, including the Microsoft OS and application software.
- HP ConvergedSystem 700x 1.1 for Microsoft Deployment Accelerator Service to integrate and install the Microsoft Private Cloud management software and deliver a certified and compliant Microsoft Fast Track Private Cloud solution.

For more information about the HP ConvergedSystem 700x 1.1, see: <http://www.hp.com/go/convergedsystems>

For more information about HP OneView, see: <http://www.hp.com/go/oneview>

For more information about HP and VMware see: <http://www.hp.com/go/vmware>

For more information about HP and Microsoft see: <http://www.hp.com/go/microsoft>

For more information about HP 3PAR StoreServ Storage see: <http://www.hp.com/go/3par>

For more information about HP blades see: <http://www.hp.com/go/bladeSystem>

For more information about HP Factory Express see: [www.hp.com/go/factoryexpress](http://www.hp.com/go/factoryexpress)

For more information about HP CloudSystem software, see: <http://www.hp.com/go/cloudsystem>

## Software

**HP ConvergedSystem 700x 1.1 software** The HP ConvergedSystem 700x 1.1 comes standard with HP OneView 1.1 software licenses.

**HP ConvergedSystem 700x 1.1 for VMware software** The HP ConvergedSystem 700x 1.1 for VMware comes standard with HP OneView 1.1 software, the HP OneView Control plug-in for vCenter, VMware vSphere 5.5 update 1 with Operations Manager and VMware vCenter Server 5.5 Update 1 with Operations Management. HP 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 HP, customers will need to purchase their VMware licenses from HP. This will include HP support covering the VMware software. Microsoft Windows Server 2012 Standard Edition is included on the management nodes. Customers will need to supply OS licensing for the VMs they deploy.

**VMware vSphere, vCenter Server, vCloud Suite** HP 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 HP 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 HP ConvergedSystem 700x 1.1 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 700x 1.1 should take advantage of your site license. For a complete Solution Level Support experience from HP, customers will need to purchase their VMware licenses from HP. When purchasing licenses with HP ConvergedSystem 700x 1.1 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 HP at the time of order.

For customers that are ready today to deploy a private cloud based on VMware technologies, the HP ConvergedSystem 700x 1.1 for VMware can optionally be ordered with VMware vCloud Suite, with installation occurring on-site when ordered with the HP Installation Service for VMware vCloud.

For more information on VMware software licensing and packaging from HP, see:

[http://h18004.www1.hp.com/products/quickspecs/12307\\_div/12307\\_div.html#Overview](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/vcenter-operations-management>

For more information about VMware vCenter Server, see:

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

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

For more information about VMware vCloud Suite, see: <http://www.vmware.com/products/datacenter-virtualization/vcloud-suite/overview.html>

**Note:** The default database installed for VMware vCenter software is Microsoft SQL Server 2008 R2 Express database. VMware 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

## Software

product. It is the customer's responsibility to perform this upgrade or contact HP 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](http://www.vmware.com/resources/compatibility/sim/interop_matrix.php)

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](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1028601)

**HP ConvergedSystem 700x 1.1 for Microsoft** The HP ConvergedSystem 700x 1.1 for Microsoft comes standard with HP OneView 1.1 software and the HP StorageWorks Management Pack for System Center Operations Manager. Additionally both the Windows Server 2012 R2 Datacenter and System Center 2012 Datacenter SP1 software licenses can be purchased from HP as part of the solution.

**HP management software** **HP OneView** HP OneView delivers lifecycle management from a single, integrated platform designed for every member of the team to increase their productivity. It facilitates collaboration, removes friction and accelerates time to value. Transform inefficiencies into converged, agile operations that collapse cycle times and eliminate error-prone work. And because HP OneView is designed for open integration with existing tools and processes, it enables you to more effectively pursue your organization's IT objectives. With HP OneView, you'll work smarter—with greater visibility and control—and fully capitalize on the benefits of a Converged Infrastructure. For more information, see: [www.hp.com/go/oneview](http://www.hp.com/go/oneview).

**HP OneView for vCenter (integration)** HP OneView for VMware vCenter combines in one download key integrations for VMware management solutions. When used with the automation power of HP OneView, best practices for a Converged Infrastructure can be defined once and reused many times and provision an entire cluster with compute and storage fully configured in five easy steps. New integrations in VMware vCenter Operations Manager and Log Insight deliver powerful Analytics and deeper troubleshooting tools to your VMware administrators. For more information, see: [www.hp.com/go/ovvcenter](http://www.hp.com/go/ovvcenter).

HP OneView for VMware vCenter combines in one download key integrations for VMware management solutions. When used with the automation power of HP OneView, best practices for a Converged Infrastructure can be defined once and reused many times and provision an entire cluster with compute and storage fully configured in five easy steps. New integrations in VMware vCenter Operations Manager and Log Insight deliver powerful Analytics and deeper troubleshooting tools to your VMware administrators.

### Seamlessly Integrate HP's Converged Management in VMware Management

## Software

**solutions**

- Simplify administration with easy access in VMware vCenter Server client to health, inventory, and configuration monitoring. Combine physical and virtual views of your virtualized infrastructure from within the VMware vCenter.
- Visually trace and monitor your infrastructure network end-to-end, from the host all the way to the individual network modules connected within your domain, delivering comprehensive network management and making it easy for you to review and change HP-specific info.
- View and monitor the configuration of your HP Arrays portfolio by using detailed tables that provide relationships between volumes to LUN connections to your VMs or ESX server hosts.
- Surface critical trend changes using HP OneView for VMware vCenter Operations Manager. This includes dashboards that facilitate the identification of root cause problems and impacted resources across the Converged Infrastructure.

**Reduce Planned and Unplanned Downtime with Automated Responses**

- Automate actions on alerts. Receive pre-failure and failure alerts on HP server components and automate evacuation of VMs based on events that affect your physical systems. Templates are provided and ready to be configured.
- Take control by invoking HP remote management tools, such as iLO and Onboard Administrator, in-context of the host you have selected, directly from the vCenter console.
- Accelerate configuration of VMware host networking and Virtual Connect by viewing required host networking changes and synchronizing configuration with a single click.
- Troubleshoot your environment faster when problems occur, using HP OneView for VMware vCenter Operations Manager and HP OneView for VMware Log Insight.

**Increase Capacity on Demand for Provisioning and Deployment**

- Provision your HP storage with HP OneView for VMware vCenter. Add a new datastore, delete or expand an existing datastore, create new VMs from template, or clone existing VMs.
- Fully automate the process for provisioning servers and storage from a simple 5-step wizard.

**Maintain Stability and Reliability of Your Environment**

- Maintain stability by monitoring and deploying firmware on HP ProLiant ESXi hosts that have the HP software bundle installed.
- Role-based security: Assign permissions for single-sign-on (SSO) to segment the level of access and control using the three role levels of VMware vCenter server.

This integration enables you to provision, modify and recover complex infrastructure -



## Software

- both virtual and physical together -- from your preferred management console.

NOTE: VMware vCenter Server must be purchased separately and is not included with HP OneView

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**HP OneView for Microsoft System Center (integration)**

HP OneView integrates with Microsoft System Center Server to deliver powerful HP hardware management capabilities directly from the System Center consoles for comprehensive system health, configuration management, and remote control. In conjunction with HP OneView, it also delivers robust deployment capabilities and is a key integration point for the broader portfolio of infrastructure management, service automation, and IT operations solutions available from HP.

By integrating HP converged management features into Microsoft System Center consoles, administrators can gain greater control of their technology environments. This provides consistency for software deployment and updates and enables a faster response in the event of server failure, reducing the risk of downtime.

HP OneView for Microsoft System Center Server provides the following capabilities from the Microsoft System Center consoles:

**System Center Virtual Machine Manager (SCVMM)**

- Enhanced provisioning uses HP OneView profiles to create or grow a Microsoft Hyper-V cluster consistently and reliably.
- Visually trace and monitor your infrastructure network end-to-end, from the host to the individual network modules within your domain, delivering comprehensive management of the network and making it easy for you to review and change any HP-specific information.
- Facilitate consistency and improve uptime with simplified driver and firmware updates via a rotating, automated workflow for Microsoft Hyper-V clusters using the HP ProLiant Updates Catalog.
- Take control by invoking HP remote management tools (such as iLO, OA, and HP OneView) in-context of the host you have selected, directly from the SCVMM console.

**System Center Operations Manager (SCOM)**

- Prevents problems from occurring by proactively monitoring and managing hardware health and intelligently responding to hardware events on servers running Windows and Linux, as well as BladeSystem enclosures and HP Virtual Connect. A consolidated health monitoring view reflects the HP OneView model, showing relationships between managed devices.
- Manage the health of HP ProLiant Gen8 servers without the need for loading OS-based SNMP agents or WBEM providers. It can be also used to monitor the health of servers that do not have an OS yet loaded, as well as ProLiant Gen8 servers running any operating system that has a supported Agentless Monitoring Service (such as VMware ESXi).
- Take control by invoking HP remote management tools (such as iLO, OA, and

## Software

HP OneView) in-context of the host you have selected, directly from the SCOM console.

**System Center Configuration Manager (SCCM)**

- Provides quick and reliable Windows deployment to bare metal HP servers
- Ensures consistency and maximize uptime with simplified Windows driver and firmware updates using the HP ProLiant Updates Catalog
- Provides detailed component level inventory of every managed HP Windows server using the HP ProLiant Inventory Tool.

Extensions for Microsoft System Center are delivered via 'HP OneView for Microsoft System Center' (previously known as 'HP Insight Control for Microsoft System Center'). To download, visit [www.hp.com/go/ovsc](http://www.hp.com/go/ovsc).

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

NOTE: Microsoft System Center must be purchased separately and is not included with HP OneView.



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## Other Services

### Warranty services

The HP ConvergedSystem 700x 1.1 is covered by a global limited warranty and supported by HP 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 HP 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>.

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### HP Financial Services

To support customers' transition, HP 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 HP Financial Services Representative. In the United States, call 1-888-277-5942. In Canada, dial 1-800-HP-LEASE. For more information please visit: [www.hp.com/hpfinancialservices](http://www.hp.com/hpfinancialservices) for links to HP Financial Services around the world.

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### End-of-life management and recycling

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP 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 web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

## Installation, Startup and Support Services

### HP ConvergedSystem 700x 1.1 Services

The following services are included with all HP ConvergedSystem 700x 1.1 systems:

- Factory integration services to rack and cable the hardware infrastructure, based in part on customer data collected with the Customer Intent Document (CID) to ensure that system is built and ready for datacenter integration (see NOTE below).
- Installation and Startup Services (via HP Factory Express service Level 4) start up services, including:
  - Unpack system and inspect for damages
  - Connection of HP ConvergedSystem 700x 1.1 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
  - Review equipment and basic processes, including process for placing calls to request support
- 3yr HP Proactive Care 6hr Call-to-Repair with Personalized Support Option is the recommended support level. It provides a single source support for the complete HP ConvergedSystem 700x 1.1. 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.

**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.

**NOTE:** HP ConvergedSystem 700x 1.1 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 HP TS Consulting. For more information, please contact your TS sales representative.

### HP ConvergedSystem 700x 1.1 for VMware Services

The following services are included with all HP ConvergedSystem 700x 1.1 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 (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 (via HP Factory Express service Level 4) start up services, including:
  - Unpack system and inspect for damages
  - Connection of HP ConvergedSystem 700x 1.1 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 HP OneView (and associated components)
- Basic solution level functionality testing
- Review equipment and basic processes, including process for placing calls to request support
- 3yr HP 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 HP sales representative to engage an HP Engagement Project Manager (EPM) who will manage the CID process.

**NOTE:** HP ConvergedSystem 700x 1.1 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 HP TS Consulting. For more information, please contact your TS sales representative.

### HP ConvergedSystem 700x 1.1 for Microsoft Services

The HP ConvergedSystem 700x 1.1 for Microsoft solution has been designed to deliver a rapid time to value between the time the platform is purchased through delivery and on-site setup. As part of the customer experience that is delivered with the HP ConvergedSystem 700x 1.1 for Microsoft there are several services that are included as part of the solution including the following:

- Factory Express Level 5 (FE5) Integration
  - With FE5 each HP ConvergedSystem 700x 1.1 for Microsoft order will have a project manager assigned to provide dedicated service to ensure each HP ConvergedSystem 700x 1.1 for Microsoft is delivered according to the customer requirements within the predefined flexibility of the solution. The FE5 PM will work with the customer to coordinate details for datacenter integration including power and cooling requirements, floor space, licensing options, and more as part of the customer intent discussion.
  - Factory integration of the solution including racking, cabling, and configuring the hardware infrastructure to ensure that system is built and ready for datacenter integration
- On-site startup and integration services which include:
  - Unpacking the system and validation of the HP ConvergedSystem 700x 1.1 for Microsoft state and health
  - Configuration of the HP 3PAR StoreServ storage array.
- HP ConvergedSystem 700x 1.1 for Microsoft Deployment Accelerator Service, including:
  - Connection and integration of HP ConvergedSystem 700x 1.1 for Microsoft into customer network environment
  - Setup and configuration of the compute cluster(s)
  - Configuration of the System Center Management Servers including installation of the following Microsoft System Center 2012 R2 Datacenter components:
    - SQL Server cluster

## Installation, Startup and Support Services

- System Center Virtual Machine Manager cluster
- System Center Operations Manager
- 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 Private Cloud environment (for example creation of new VMs from a service template)
- Delivery of As-Built documentation to the customer as part of the review and handover of the turnkey solution

3yr HP 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.

### Connecting the HP ConvergedSystem 700x 1.1 solution in the datacenter

#### Compute Rack

Each compute rack has four (4) 5900AF top of rack switches with up to eight (8) network uplinks (two per 10-Gigabit switch) to connect to the datacenter as shown here. Transceivers and appropriate cables need to be ordered or provided separately. Both 10Gb and 1Gb options are supported.

For transceiver options refer to the HP 5900 Network Switch QuickSpecs.

[http://h18000.www1.hp.com/products/quickspecs/14252\\_div/14252\\_div.pdf](http://h18000.www1.hp.com/products/quickspecs/14252_div/14252_div.pdf)

#### Storage

There are two connectivity requirements for the storage rack, 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

### How to Order

**NOTE:** The HP ConvergedSystem 700x 1.1 includes all HP hardware, HP software, and factory integration, onsite installation and startup, and 3 years of hardware and software support services.

**NOTE:** The HP ConvergedSystem 700x 1.1 for VMware includes all HP hardware, HP 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 700x 1.1 for VMware comes with vSphere 5.5 update 1 Operations Manager, vCenter Server operations manager, OneView 1.1, Factory Express level 4 configuration and onsite integration as defaults. Customers that have ELAs (Enterprise License Agreements) covering vSphere 5.5 U1 Operations Manager and vCenter Server Operations Manager are not required to purchase these licenses from HP.

**NOTE:** The HP ConvergedSystem 700x 1.1 for Microsoft includes all HP hardware, and HP software, as well as factory integration, onsite installation and startup, delivery of the HP Deployment Acceleration Service, and 3 years of hardware and software support services. The HP ConvergedSystem 700x 1.1 for Microsoft SKU DOES NOT contain the necessary licenses for Windows Server 2012 Datacenter and System Center 2012 Datacenter SP1. Customers that have ELAs (Enterprise License Agreements) covering Windows Server 2012 Datacenter and System Center 2012 Datacenter SP1 are not required to purchase these licenses from HP. For customers that do not have these licenses they can be purchased from HP as an addendum to the order.

**NOTE:** Management servers are mandatory for the HP ConvergedSystem 700x 1.1 for VMware order to ensure complete provisioning and initial installation and setup.

**NOTE:** While a single SKU is utilized for ease of ordering, the HP ConvergedSystem 700x 1.1 for Microsoft and VMware is not a single SKU system. The SKU number associated with the system configuration triggers the inclusion of all required and optional components of the solution at the time of ordering.

**NOTE:** Customers may choose to configure virtualization host servers within HP ConvergedSystem 700x 1.1 for VMware with up to 512GB of DDR3 memory.

**NOTE:** Customers may choose to configure virtualization host servers within HP ConvergedSystem 700x 1.1 for Microsoft with up to 384GB of DDR3 memory.

**NOTE:** All hardware components are factory integrated and have been localized to US English. HP ConvergedSystem 700x 1.1 comes with OneView licenses, Factory Express level 4 or Factory Express level 5 (Microsoft) configuration and onsite integration as defaults.

**NOTE:** HP ConvergedSystem 700x 1.1 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 HP 3PAR StoreServ 7000 and StoreServ 10000 QuickSpecs.

StoreServ 7000 QS: [http://h18000.www1.hp.com/products/quickspecs/14433\\_div/14433\\_div.html](http://h18000.www1.hp.com/products/quickspecs/14433_div/14433_div.html)

StoreServ 10000 QS: [http://h18004.www1.hp.com/products/quickspecs/14103\\_div/14103\\_div.html](http://h18004.www1.hp.com/products/quickspecs/14103_div/14103_div.html)

## How to Order

**Step 1: Order HP ConvergedSystem 700x 1.1 configuration. Select the appropriate level of compute and storage components to meet your performance needs.**

**Models**                      **HP ConvergedSystem 700x 1.1 configuration includes the following:**                      JOH71A

One (1) or two (2) HP 42U 1075mm i-Series Shock Racks and one (1), two (2), or three (3) 3PAR racks and includes:

- One (1) to four (4) HP BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
  - One (1) HP 6X 2400W Platinum Efficiency FIO Power Supply bundle
  - One (1) 6x HP Active Cool 2000 Fan Bundle
  - Two (2) HP c7000 Onboard Administrator with KVM Option
  - Two (2) or Four (4) HP BLc VC FlexFabric 10Gb/24-Port Opt
  - Four (4) to sixteen (16) HP ProLiant BL460c Gen8 Server. Each server is configured with:
    - Two (2) HP BL460c Gen8 Intel® Xeon® Processors (Choices below)
      - HP BL460c Gen8 E5-2650v2 kit
      - HP BL460c Gen8 E5-2670v2 Kit
      - HP BL460c Gen8 E5-2680v2 kit
      - HP BL460c Gen8 E5-2690v2 Kit
      - HP BL460c Gen8 E5-2650Lv2 Kit
      - HP BL460c Gen8 E5-2643v2 Kit
    - Up to 512 GB of memory (default 256GB) with the following memory options:
      - HP 16GB 2Rx4 PC3-14900R-13 Kit
      - HP 8GB 2Rx4 PC3-14900R-13 Kit
      - HP 16GB 2Rx4 PC3L-12800R-11 Kit
      - HP 32GB 4Rx4 PC3L-14900L-13 Kit
    - Zero (0) to Two (2) 6G SAS SFF SC Enterprise Hard Drive with the following options:
      - HP 300GB 15K HDD
      - HP 600GB 10K HDD
      - HP 900GB 10K HDD
    - Zero (0) to One (1) HP 8GB Micro SD EM Flash Media Kit
    - One (1) HP FlexFabric 10Gb 2P 554FLB FIO Adapter
    - Optional FlexFabric Mezz (slot 2)

**AND**

- Zero (0) to Eight (8) HP ProLiant DL360p Gen8 Server (Management Station). Each server is configured with:
  - Up to 768 GB of memory (default 256GB) with the following memory options
    - HP 16GB 2Rx4 PC3-14900R-13 Kit
    - HP 8GB 2Rx4 PC3-14900R-13 Kit
    - HP 16GB 2Rx4 PC3L-12800R-11 Kit
  - Two (2) Intel® Xeon® E5-2695v2 (2.4GHz/12-core/30MB/115W)
  - One (1) HP 2GB Flash Backed Write Cache for P-Series Smart Array



## How to Order

- Zero (0) to eight (0-8) 300GB 6G SAS SFF SC Enterprise Hard Drive with the following options:
  - HP 300GB 15K HDD
  - HP 600GB 10K HDD
  - HP 900GB 10K HDD
- One (1) HP 82Q 8Gb Dual Port PCI-e FC HBA
- One (1) HP FlexFabric 10Gb 554FLR-SFP+ FIO Adapter
- Zero (0) to One (1) HP 9.5mm SATA DVD ROM Jb Kit
- Two (2) HP 750w CS Platinum Power Supply Kit
- Optional 2<sup>nd</sup> HBA, 10G or 1G network card
- HP 32GB 4Rx4 PC3-14900L-13

**NOTE:** Maximum number of Management Servers is 8 and only for Foundation (JOH71A) and only when replication is chosen (4 by default and 8 when replicated). The max for ConvergedSystem 700x 1.1 for Microsoft (JOH73A) is 4. (2 by default and 4 when replicated). The max for HP ConvergedSystem 700x 1.1 for VMware (JOH72A) is always 2.

**AND, one of the following storage options ( Please see StoreServ 7000 and StoreServ 10000 QuickSpecs for complete details):**

- HP StoreServ 3PAR 7200 2 Node
- HP StoreServ 3PAR 7400 2 Node
- HP StoreServ 3PAR 7400 4 Node
- HP StoreServ 3PAR 10400 2 Node
- HP StoreServ 3PAR 10400 4 Node
- HP StoreServ 3PAR 10800 6 Node

**AND**

- Two (2) HP 5900AF-48G-4XG-2QSFP+ and Two (2) 2 x HP 5900AF-48XG-4QSFP+ Switches per compute rack
- Zero (0) to two (2) HPStoreFabric SN3000B 48-port SAN switches or Two (2) HP StoreFabric SN6000B 48-port SAN switches
- HP Intelligent Mod PDU with following options
  - 24A NA/Jpn Core
  - 40A NA/Jpn Core
  - 32A INTL Core
  - 3ph 40A NA/Jpn Core
  - 3ph 24A NA/Jpn Core
  - 3ph 32A Intl Core
  - 3ph 48A NA/Jpn Core
- Three (3) or 4 (Four) HP 5xC13 Intelligent PDU Ext Bars G2 Kit (pair) (per rack)

## How to Order

**HP ConvergedSystem 700x 1.1 for VMware configuration includes the following:**

JOH72A

One (1) or two (2) HP 42U 1075mm i-Series Shock Racks and one (1), two (2), or three (3) 3PAR racks and includes:

- One (1) to (4) HP BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
  - One (1) HP 6X 2400W Platinum Efficiency FIO Power Supply bundle
  - One (1) 6x HP Active Cool 2000 Fan Bundle
  - Two (2) HP c7000 Onboard Administrator with KVM Option
  - Four (4) to sixteen (16) HP ProLiant BL460c Gen8 E5-v2 Server. Each server is configured with:
    - Two (2) HP BL460c Gen8 Intel® Xeon® E5-2600 v2 series Processors (Choices below)
      - HP BL460c Gen8 E5-2650v2 Kit
      - HP BL460c Gen8 E5-2670v2 Kit
      - HP BL460c Gen8 E5-2680v2 Kit
      - HP BL460c Gen8 E5-2690v2 Kit
      - HP BL460c Gen8 E5-2650Lv2 Kit
      - HP BL460c Gen8 E5-2643v2 Kit
    - Up to 512 GB of memory ( default 256GB) with the following memory options
      - HP 16GB 2Rx4 PC3-14900R-13 Kit
      - HP 8GB 2Rx4 PC3-14900R-13 Kit
      - HP 16GB 2Rx4 PC3L-12800R-11 Kit
      - HP 32GB 4Rx4 PC3-14900L-13 Kit
    - Zero (0) to Two (2) 6G SASFF SC Enterprise Hard Drive with the following options:
      - HP 300GB 15K HDD
      - HP 600GB 10K HDD
      - HP 900GB 10K HDD
    - Zero (0) to One (1) HP 8GB Micro sd EM Flash Media Kit (726116-B21)
    - One (1) HP FlexFabric 10Gb 2P 554FLB FIO Adapter

**AND**

- Two (2) HP ProLiant DL360p Gen8 Server (Management Station). Each server is configured with:
  - Up to 768 GB of memory (default 256GB) with the following memory options
    - " HP 16GB 2Rx4 PC3-14900R-13 Kit
    - HP 8GB 2Rx4 PC3-14900R-13 Kit
    - HP 16GB 2Rx4 PC3L-12800R-11 Kit
    - HP 32GB 4Rx4 PC3-14900L-13
  - Two (2) Intel® Xeon® E5-2695v2 (2.4GHz/12-core/30MB/115W)
  - One (1) HP 2GB Flash Backed Write Cache for P-Series Smart Array

## How to Order

- o Six (6) to eight (8) 6G SAS SFF SC Enterprise Hard Drive with the following options
  - HP 300GB 15K HDD
  - HP 600GB 15K HDD
  - HP 900GB 15K HDD
- o One (1) HP 82Q 8Gb Dual Port PCI-e FC HBA
- o One (1) HP Ethernet 1Gb 4-port 331T Adapter
- o One (1) HP FlexFabric 10Gb 554FLR-SFP+ FIO Adapter
- o Zero (0) to One (1) HP 9.5mm SATA DVD ROM Jb Kit
- o Two (2) HP 750w CS Platinum Power Supply Kit

**NOTE:** Maximum number of Management Servers is 8 and only for Foundation (JOH71A) and only when replication is chosen (4 by default and 8 when replicated). The max for ConvergedSystem 700x 1.1 for Microsoft (JOH73A) is 4. (2 by default and 4 when replicated). The max for HP ConvergedSystem 700x 1.1 for VMware (JOH72A) is always 2.

**AND, one of the following 6 storage options: ( Please see StoreServ 7000 and StoreServ 10000 QuickSecs for complete details)**

- HP 3PAR StoreServ 7200 2 Node
- HP 3PAR StoreServ 7400 2 Node
- HP 3PAR StoreServ 7400 4 Node
- HP 3PAR StoreServ 10400 2 Node
- HP 3PAR StoreServ 10400 4 Node
- HP 3PAR StoreServ 10800 6 Node

**AND**

- Two (2) HP 59000AF-48G-4XG-2QSFP+ and Two (2) 2 x HP 5900AF-48XG-4QSFP+ Switches per compute rack
- Zero (0) or two (2) HP SN3000B 24-port SAN switches or Two (2) HP SN6000B 48-port SAN switches
- Four (4) to Twenty (20) HP Intelligent Mod PDU with following options: 24a Na/Jpn Core or 40a Na/Jpn Core or 32a INTL Core or 3ph 40a Na/Jpn Core or 3ph 24a Na/Jpn Core or 3ph 32a Intl Core or 3ph 48a Na/Jpn; plus Three (3) or (Four (4) or Six (6) HP 5xC13 Intelligent PDU Ext Bars G2 Kit (pair)
- One (1) HP OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- One (1) VMware vCenter Operations Manager Std 3yr, 9x5 (BD725A) (included as default may be removed in case of existing and valid ELA)
- Two (2) vSphere with Operations Management Enterprise Plus 1P 3yr 9x5 Nm Lic per server (BD715A) (included as default per server, may be removed in case of existing and valid ELA)

## How to Order

- Two (2) Microsoft Windows Server 2012 Standard Edition 2 CAL (included as default in the management nodes and may be removed at customer request)

Two (2) Microsoft Windows Server 2012 Standard Edition 2 CAL (included as default in the management nodes and may be removed at customer request)

**HP ConvergedSystem 700x 1.1 for Microsoft Solution**

JOH73A

HP ConvergedSystem 700x 1.1 for Microsoft defaults to one compute rack and one storage rack as follows:

One (1) or two (2) HP 42U 1075mm i-Series Shock Racks and one (1), two (2), or three (3) 3PAR racks and includes:

- One (1) to four (4) HP BLc7000 3 IN LCD ROHS Enclosure (virtualization host). Each enclosure is configured with:
  - One (1) HP 6X 2400W Platinum Efficiency FIO Power Supply bundle
  - One (1) 6x HP Active Cool 2000 Fan Bundle
  - Two (2) HP c7000 Onboard Administrator with KVM Option
  - Two (2) HP BLc VC FlexFabric 10Gb/24-Port Opt
  - Four (4) HP BLc VC FlexFabric 10Gb/24-port
  - Four (4) to sixteen (16) HP ProLiant BL460c Gen8 Server. Each server is configured with:
    - Two (2) HP BL460c Gen8 Intel® Xeon® Processors (choices below)
      - HP BL460c Gen8 E5-2650v2 Kit
      - HP BL460c Gen8 E5-2670v2 Kit
      - HP BL460c Gen8 E5-2680v2 Kit
      - HP BL460c Gen8 E5-2690v2 Kit
      - HP BL460c Gen8 E5-2650Lv2 Kit
      - HP BL460c Gen8 E5-2643v2 Kit
    - Up to 512 GB of memory (default 256GB) with the following memory options:
      - HP 16GB 2Rx4 PC3-14900R-13 Kit
      - HP 8GB 2Rx4 PC3-14900R-13 Kit
      - HP 16GB 2Rx4 PC3L-12800R-11 Kit
      - HP 32GB 4Rx4 PC3-14900L-13 Kit
    - Two (2) 300GB 6G SAS 15K rpm SFF SC Enterprise Hard Drive
    - One (1) HP FlexFabric 10Gb 2P 554FLB FIO Adapter
    - One (1) HP FlexFabric 10Gb 2P 554M Adptr

**NOTE:** Maximum number of Management Servers is 8 and only for Foundation (JOH71A) and only when replication is chosen (4 by default and 8 when replicated). The max for ConvergedSystem 700x 1.1 for Microsoft (JOH73A) is 4. (2 by default and 4 when replicated). The max for HP ConvergedSystem 700x 1.1 for VMware (JOH72A) is always 2.

## How to Order

**AND**

- Two (2) or four (4) HP ProLiant DL360p Gen8 Server (Management Station). Two management stations are required with a second pair of management stations optionally added in the 1st compute rack.
- Each server is configured with:
  - Up to 768 GB memory (default 256GB) with the following memory options
    - HP 16GB 2Rx4 PC3-14900R-13 Kit
    - HP 8GB 2Rx4 PC3-14900R-13 Kit
    - HP 16GB 2Rx4 PC3L-12800R-11 Kit
    - HP 32GB 4Rx4 PC3-14900L-13
  - Two (2) Intel® Xeon® E5-2695v2 (2.4GHz/12-core/30MB/115W)
  - Six (6) to eight (8) 6G SAS SFF SC Enterprise Hard Drive with the following options
    - HP 300GB 15K HDD
    - HP 600GB 10K HDD
    - HP 900GB 10K HDD
  - One (1) HP 82Q 8Gb Dual Port PCI-e FC HBA
  - One (1) HP FlexFabric 10Gb 554FLR-SFP+ FIO Adapter
  - One (1) HP 9.5mm SATA DVD ROM Jb Kit
  - Two (2) HP 750w CS Platinum Power Supply Kit
  - Option to include a 2nd PCI card for additional DC requirements from the following:
    - HP 82Q 8Gb Dual Port PCI-e FC HBA
    - HP Ethernet 1Gb 4-port 331T Adapter
    - HP FlexFabric 10Gb 554FLR-SFP+ FIO Adapter

**AND, one of the following storage options ( Please see StoreServ 7000 and StoreServ 10000 QuickSpecs for complete details):**

- HP StoreServ 3PAR 7200 2 Node
- HP StoreServ 3PAR 7400 2 Node
- HP StoreServ 3PAR 7400 4 Node
- HP 3PAR StoreServ 10400 2 Node
- HP 3PAR StoreServ 10400 4 Node
- HP 3PAR StoreServ 10800 6 Node

**AND**

- The following components are also pulled in as part of the base SKU for the HP ConvergedSystem 700x 1.1 for Microsoft
  - Two (2) HP 5900AF-48G-4XG-2QSFP+ and Two (2) 2 x HP 5900AF-48XG-4QSFP+ Switches per compute rack
  - Zero (0) or Two (2) HP HP SN3000B 48-port SAN switches or Two (2) HP SN6000B SAN Switches
  - Four (4), Six (6) or Eight (8) HP Intelligent Mod PDU with following options: 24a Na/Jpn Core or 40a Na/Jpn Core or 32a INTL Core or 3ph 40a Na/Jpn Core or 3ph 24a Na/Jpn Core or 3ph 32a Intl Core

## How to Order

- or 3ph 48a Na/Jpn; plus 3 (Three) or 4 (Four) or 6 (Six) HP 5xC13 Intelligent PDU Ext Bars G2 Kit (pair)
- One (1) HP OneView incl 3yr 24x7 Supp Enclosure FIO Bundle 16 Server License
- HP Proactive Care 6hr CTR HP, plus Proactive Select 30 Service Credits

HP Factory Express Integration Services plus Installation and Startup

## Step 2: Choose HP Care Pack Support and Additional Services

**HP Service and Support** HP 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.

### HP Proactive Care - 3yr or 5yr

**HP 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.

**HP 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



## How to Order

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

**HP Critical Service - 3yr or 5yr**

**HP 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

**HP 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 HP 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

## How to Order

**Step 3: Choose Recommended Additions**

The following additions are available for HP ConvergedSystem 700x 1.1 after initial installation to ready the system for private cloud deployment or further enhance manageability or disaster recovery.

For integration services, please contact HP TS Consulting.

**VMware Software Available from HP**

VMware vCloud Suite Standard 3yr E-LTU	BD807AAE
VMware vCloud Suite Standard 5yr E-LTU	BD808AAE
VMware vCloud Suite Advanced 3yr E-LTU	BD810AAE
VMware vCloud Suite Advanced 5yr E-LTU	BD811AAE
VMware vCloud Suite Enterprise 3yr E-LTU	BD813AAE
VMware vCloud Suite Enterprise 5yr E-LTU	BD814AAE
VMware vCenter Server Heartbeat 3yr E-LTU	BD729AAE
<b>NOTE:</b> VMware vCenter Server Heartbeat delivers the maximum uptime for your virtual datacenter infrastructure, ensuring seamless failover and failback of VMware vCenter Server	
VMware vCenter Chargeback 25 Virtual Machines 1yr E-LTU	BD730AAE
VMware vCenter Chargeback 25 Virtual Machines 3yr E-LTU	BD731AAE
VMware vCenter Operations Standard 25 Virtual Machines 1yr E-LTU	BD896AAE
VMware vCenter Operations Standard 25 Virtual Machines 3yr E-LTU	BD897AAE
VMware vCenter Operations Advanced 25 Operating System Instance 1yr E-LTU	BD899AAE
VMware vCenter Operations Advanced 25 Operating System Instance 3yr E-LTU	BD900AAE
VMware vCenter Operations Enterprise 25 Operating System Instance 1yr E-LTU	BD902AAE
VMware vCenter Operations Enterprise 25 Operating System Instance 3yr E-LTU	BD903AAE
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
VMware vCloud Director 25 Virtual Machines 1yr E-LTU	BD742AAE
VMware vCloud Director 25 Virtual Machines 3yr E-LTU	BD743AAE

**NOTE:** For a full list of VMware software available for use on your HP ConvergedSystem 700x 1.1 for VMware, please see the VMware Virtualization Software For HP ProLiant Servers QuickSpecs:

[http://h18004.www1.hp.com/products/quickspecs/12307\\_div/12307\\_div.html](http://h18004.www1.hp.com/products/quickspecs/12307_div/12307_div.html)

# QuickSpecs

## HP ConvergedSystem 700x

### Technical Specifications

<b>HP ConvergedSystem 700x 1.1</b>	<b>Dimensions HP i-Series Shock Rack</b>	Height	42U, 78.82 in (200.2 cm)	
		Width	23.54 in (59.8 cm)	
		Depth	42.74 in (108.6 cm)	
	<b>Dimensions HP 3PAR 7000 (i-Series)</b>	Height	42U, 78.82 in (200.2 cm)	
		Width	23.54 in (59.8 cm)	
		Depth	42.74 in (108.6 cm)	
	<b>Dimensions HP 3PAR Racks 10000</b>	Height	76.5 in (194.3 cm)	
		Width	23.6 in (60 cm)	
		Depth	36 in (91.3 cm)	
	<b>Weight*</b> (approximate for maximum rack configuration)	Single rack (contains compute and storage)	Static	1963.04 lb (890.42kg)
			Dynamic Maximum	2500 lb (1133.98 kg)
		Per compute rack for Multi-rack solution	Static	1808.33 (819.20kg)
			Dynamic Maximum	5000 lb (2268 kg)
	<b>Color</b>	Doors	Graphite Metallic	
		Frame	Carbon	
<b>Clearance</b> (for air flow and access)	Front	48 in (121.9 cm)		
	Rear	30 in (76.2 cm)		
<b>Temperature range</b>	Operating	50° to 95° F (10° to 35° C) 7400-2N/7400-4N		
		50° to 95° F (10° to 35° C) 10400-2N/10400-4N		
<b>Relative humidity</b>	Operating	50° to 95° F (10° to 35° C) 10800-6N		
		-22° to 140° F (-30° to 60° C)		
<b>Power Usage* - maximum</b>	Single Rack	15 to 85% relative humidity (Rh) 28°C (82.4°F) maximum wet bulb temperature, non-condensing		
		5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.		
<b>BTU rating, maximum</b>	Single Rack	13,650.70 watts (at 250V)		
		16,589.55 watts (at 250V)		
<b>BTU rating, maximum</b>	Single Rack	50,057.21 BTU/hour		
		67,767.79 BTU/hour		

**\* NOTE:** Due to storage variability in multi-rack configurations, weight, power usage, and BTU rating for HP StoreServ racks can be found in the StoreServ 7000 and StoreServ 10000 QuickSpecs.  
 StoreServ 7000 QS: [http://h18000.www1.hp.com/products/quickspecs/14433\\_div/14433\\_div.html](http://h18000.www1.hp.com/products/quickspecs/14433_div/14433_div.html)  
 StoreServ 10000 QS: [http://h18004.www1.hp.com/products/quickspecs/14103\\_div/14103\\_div.html](http://h18004.www1.hp.com/products/quickspecs/14103_div/14103_div.html)

**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.

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**Technical Specifications**

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

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**Environmental-friendly products and approach****End-of-life management and recycling**

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP 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 web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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## Summary of Changes

Date	Version History	Action	Description of Change:
15-Sep-2014	From Version 3 to 4	Changed	Added a note and update some Sku descriptions.
18-Aug-2014	From Version 2 to 3	Changed	Changes were made throughout the Overview, Software and How to Order Sections.
11-Apr-2014	From Version 1 to 2	Changed	Note was changed at the beginning of How to Order

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