



HP 3PAR StoreServ 7000 Storage Installation and Startup Service

HP Care Pack Services

For a smooth startup, the HP 3PAR StoreServ 7000 Storage Installation and Startup Service provides deployment of your HP 3PAR StoreServ 7000 Storage, helping to ensure proper installation in your storage environment as well as helping you realize the maximum benefit from your storage investment.

The service provides the activities required to deploy your HP 3PAR StoreServ 7000 Storage into operation. With the assistance of your designated IT storage administrator, a service specialist deploys your array.

When ordered with the upgrade products, the service also provides deployment of hardware upgrades to your existing HP 3PAR StoreServ 7000 Storage.

The service includes:

- For new arrays, configuration and presentation of virtual volumes for up to two hosts
- For array upgrades, installation and configuration of the array upgrade products and the minimum activities required to make the upgrade products available to designated hosts

Reconfiguration of your existing array—for example, Virtual Volumes, hosts, or SAN—is excluded from this service.

For installation of the array into a rack you supply; assembly, configuration, and positioning of the rack are excluded from this service.

Additional configuration/integration activities can be accommodated at incremental cost.

Service benefits

- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, as well as the impact on and risk to your storage environment
- Helps ensure a successful implementation by providing HP installation planning and coordination
- Provides service delivered by a trained specialist and based upon HP recommended configurations and industry best practices
- Helps you more effectively utilize your HP 3PAR StoreServ 7000 Storage, thanks to the knowledge you gain from the service specialist during onsite delivery of the service

Service feature highlights

- Service planning and coordination
- Service deployment
- Installation verification tests (IVT)
- Customer orientation session

Specifications

Table 1. Service features

Feature	Delivery specifications
Service planning and coordination	<p>A service specialist will plan all the necessary activities, including the identification of any prerequisites (see the 'Service eligibility' section), and schedule the delivery of the service at a mutually agreed upon time, which shall be during local HP standard business hours excluding HP holidays, unless otherwise agreed by HP. Any services provided outside of HP standard business hours may be subject to additional charges. The service specialist will provide the planning and coordination activities detailed below either remotely or onsite, at HP's discretion.</p> <p>The service specialist will perform the following installation planning and coordination activities:</p> <p>Communicate with the Customer, including handling Customer queries regarding service delivery or requests for information needed from the Customer</p> <ul style="list-style-type: none">• Verify, using a predelivery checklist, that all service prerequisites have been met, including that the Customer has completed verification that their host and SAN environment is compatible with any required HP 3PAR Operating System upgrades or patches• Schedule the array deployment at a mutually agreed-upon time• Provide a brief consultation to guide the Customer in defining the array configuration objectives based on application performance, availability needs, virtual volume layout, and HP best practices• Create a written installation plan, which will serve as a guide for the coordination of the installation and startup deliverables
Service deployment	<p>The service specialist will perform the following array deployment activities:</p> <ul style="list-style-type: none">• Coordinate the installation plan• Confirm appropriate operating system patch levels on up to two hosts identified in the installation plan• Install HP 3PAR StoreServ 7000 Storage hardware and upgrades according to the product specifications• Upgrade to the latest release of HP 3PAR Operating System software and confirm that the HP 3PAR Operating System version is at a supported and appropriate version• Initialize the array• Assist the Customer with installation of HP 3PAR Management Console software on a Customer-provided server, as appropriate• Verify that the license keys for the purchased HP 3PAR 7000 OS Suite array-based features are installed, that the Customer has access to appropriate product documentation, and that the Customer understands how to obtain additional optional integration assistance if required• For initial installation of an array, create and present virtual volumes for up to two hosts as documented in the installation plan that the Customer has provided at the time of service delivery• For hardware performance, capacity, and functionality upgrades, as applicable, verify that the required HP 3PAR Operating System version or patches are installed, and, if not, install the required HP 3PAR Operating System updates or patches, and install and initialize any purchased upgrade components based on the agreed-upon upgrade installation plan• For HP 3PAR 7000 software beyond the HP 3PAR 7000 OS Suite, provide the Customer with instructions to access appropriate product documentation and how to obtain additional optional integration assistance if required• As applicable, provide limited integration of up to two hosts (physical or virtual) running a single OS into a preexisting operational SAN/network consisting of switch technologies that meet the supportability standards of the HP SAN Design Guide or other HP supported configuration. Integration of a host is defined as performance of the following essential tasks necessary to establish and confirm visibility of the desired virtual volumes to the intended host:<ul style="list-style-type: none">– Advise the Customer of zoning and multipathing requirements based on the host implementation guides– Verify that the Customer has read/write access to virtual volumes from the target hosts– Confirm that the Customer has path failover and failback functionality to the target hosts• For the HP 3PAR Service Processor:<ul style="list-style-type: none">– Install and configure Virtual Service Processor software on a supported host provided by the Customer, or– Install the optional 3PAR Service Processor host into the same rack with the HP 3PAR StoreServ 7000 Storage product and configure the Service Processor software• Configure the appropriate supported HP remote support and monitoring solution, as applicable
Installation verification tests (IVT)	<p>The service specialist will perform the appropriate installation verification tests to confirm product functionality, including verification that:</p> <ul style="list-style-type: none">• The event logs are accumulating data• The array is production ready, including confirming visibility of virtual volumes for up to two hosts, as applicable• The remote support and monitoring solution is installed and operational, as applicable
Customer orientation session	<p>For installation of a new array, the service specialist will conduct an orientation session of up to one-hour duration, with the goal of reviewing the configuration information and demonstrating basic operation of the installed HP 3PAR StoreServ 7000 Storage product.</p> <p>During the orientation, the service specialist will, in general:</p> <ul style="list-style-type: none">• Provide the Customer with information about how to obtain array configuration information• Demonstrate the creation of a virtual volume• Highlight the basic operation of the virtual service processor, array hardware, and HP 3PAR Operating System• Verify that the Customer understands how to gain access to product documentation• Provide an overview of the system architecture• Inform the Customer how to contact HP for support

- Hold a brief question-and-answer forum with the Customer

For upgrade installation, the service specialist will conduct an orientation session of up to one-hour duration, with the goal of reviewing the configuration following service delivery.

The orientation session is informal, typically conducted at a management console with selected members of the Customer's staff, and is not intended as a classroom activity or substitute for formal product training.

Service limitations

Unless specified in this document or in a separate Statement of Work, activities such as, but not limited to, the following are excluded from this service:

- A full site inspection, such as a comprehensive analysis of the Customer's power, cooling and humidity, airborne contaminant, and vibration levels, and determination of whether the data center's raised floor has sufficient structural capacity to accommodate the weight of the array to be installed; separate services are available for these tasks
- Integration with any hardware or software components not supported by the HP 3PAR StoreServ 7000 Storage product
- Implementation of software revisions, including hot fixes, patches, service packs, or upgrades from prior versions, on the Customer's existing SAN and host environment
- Implementation of major revisions to the HP 3PAR StoreServ 7000 Storage factory configuration; if needed, such revisions may require additional services
- Compatibility planning to ensure that required HP 3PAR Operating System upgrades or patches are compatible with the Customer's host and SAN environment
- Configuration, consulting, and training for optional HP 3PAR 7000 software such as HP 3PAR 7000 Replication Software Suite, HP 3PAR 7000 Data Optimization Software Suite, HP 3PAR 7000 Security Software Suite, HP 3PAR 7000 Application Software Suite, HP 3PAR 7000 Reporting Software Suite, HP 3PAR 7000 Adaptive Optimization Software, HP 3PAR Dynamic Optimization Software, HP 3PAR Peer Motion Software, HP 3PAR 7000 Policy Manager Software, HP 3PAR 7000 Remote Copy Software, HP 3PAR Virtual Copy Software, HP 3PAR Virtual Lock Software, HP 3PAR Virtual Domains Software, HP 3PAR System Tuner Software, and multipath I/O (MPIO); separate services are available for these products
- Redesign or reconfiguration of the existing array for hardware upgrades or software add-ons, including hardware reconfiguration
- Extensive racking, re-racking, or cabling activities, including cabling activities involving conduits, raceways, patch panels, and movement/configuration of computer room floor panels
- Software downgrades to the HP 3PAR Operating System; downgrades are limited to currently supported versions compatible with the HP 3PAR StoreServ 7000 Storage hardware configuration only
- Reconfiguration of existing environments, such as removal or movement of array disk drives and adapter cards, conversion and reformatting of existing storage between RAID levels or emulation types, or installation of extensive Fibre Channel and/or SAS cabling
- Design or implementation of high-availability and other complex configurations, such as host clustering
- Design or implementation of host-based logical volumes and associated file system structures
- Deployment activities, including planning, design, assessment, and configuration of switch technology related to the implementation of a new SAN or the redeployment or extension of an existing SAN
- Performance testing or modeling
- Installation or configuration of any hardware or software products external to the array subsystem, including, but not limited to, servers, host operating systems, host agent software, multipathing software, tape libraries, host bus adapters, network, SAN fabric, and Enterprise Backup software
- Migration of existing data to the new array or to a new configuration within an existing array, such as the migration of existing data to thin provisioned virtual volumes
- Loading, management, or manipulation of the Customer's data
- Operational testing of applications or troubleshooting of interconnectivity, network, compatibility, or problems not related to the HP 3PAR StoreServ 7000 Storage product
- Assembly, configuration, and positioning of the customer-supplied rack for the rackmount version of the array product; this limitation is applicable to any rack (including generic HP racks)

- For the virtual service processor software; assembly, configuration, and racking of the customer-supplied host
- Design or implementation of seismic bracing or supports
- Relocation services; relocation is available as a separate service that is scheduled separately

For installation of HP 3PAR StoreServ 7000 Storage, additional activities such as, but not limited to, the following are excluded from this service:

- Integration of more than two hosts (physical or virtual) into a preexisting operational SAN, consisting of switch technologies that meet the supportability standards of the HP SAN Design Guide or other HP supported configuration

For installation of HP 3PAR StoreServ 7000 Storage upgrades, additional activities such as, but not limited to, the following are excluded from this service:

- Physical movement of existing drives or data movement between drives within the array to rebalance data; the HP 3PAR Rebalance Service is available separately
- Integration of hosts (physical or virtual) into a preexisting operational SAN

Service eligibility

The Customer must meet certain hardware and software prerequisites prior to onsite delivery of the service. These prerequisites include, but are not limited to, the following:

- The Customer's existing computing operating system platform(s) must be supported by and be compatible with the HP 3PAR StoreServ 7000 Storage product being installed.
- The Customer's SAN environment must be fully operational in a configuration supported by HP, and connectivity must be available and operational in the location where the array will be installed.
- The Customer must provide and verify a suitable physical operating environment for the array product, including implementation of any power, cooling, and other environmental requirements.
- For the rackmount version of the array product, the Customer is responsible for assembling and configuring the customer-supplied rack and positioning it in the location where the array will be installed. This requirement is applicable to any rack (including generic HP racks).
- For array upgrade installation, the HP 3PAR StoreServ 7000 Storage product must be fully operational, in a supported configuration, and physically located where the upgrade will be installed.
- The Customer is responsible for determining and installing any HP required host- or SAN-based software upgrades, patches, device drivers, or multipathing software.
- The Customer is responsible for providing servers/workstations and network provisioning that meet the requirements for software products as applicable, such as the SmartStart, Virtual Service Processor software, and HP 3PAR Management Console.
- The Customer must provide appropriate network provisioning to enable the HP remote support and monitoring solution.

Customer responsibilities

The Customer will:

- Contact an HP service specialist within 90 days of date of purchase to schedule the delivery of the service
- Coordinate deployment activities on third-party-maintained hardware or software (if applicable) with the service specialist
- Ensure that all service prerequisites as identified in the 'Service eligibility' section have been met
- Complete and return the prerequisite HP predelivery checklist to the service specialist at least two weeks prior to the start of the service, including array configuration information for upgrade installations, as necessary
- Assign a designated person from the Customer's staff who, on behalf of the Customer, will grant all approvals, provide information, and otherwise be available to assist HP in facilitating the delivery of this service
- Ensure that all hardware, firmware, and software that the service specialist will need in order to deliver this service are available and that software products are properly licensed
- Ensure the availability, at all times during service delivery, of one or more individuals who will provide administrator-level access to the systems where the work is to be performed
- Provide all necessary network and administration assistance to enable connectivity to the HP 3PAR StoreServ 7000 Storage to allow HP remote monitoring and support tools to communicate with the HP Support Center
- Provide all necessary administration to enable end-to-end connectivity of the HP 3PAR StoreServ 7000 Storage, including network, SAN fabric, and host

- Provide server and network provisioning that meet the requirements for additional software products, such as SmartStart, Virtual Service Processor software, and HP 3PAR Management Console
- Ensure that any and all prerequisite firmware or driver dependencies for the environment are handled before onsite service delivery begins
- Place HP 3PAR StoreServ 7000 Storage products in the immediate location where the installation service will take place; HP will unpack products to be installed in a customer-supplied rack
- Assemble and configure the customer-supplied rack for the rackmount version of the array product and position it in the location where the array will be installed; this requirement is applicable to any rack (including generic HP racks) other than the enclosure that is factory integrated with the array
- Ensure that for the virtual service processor software; the customer-supplied host is fully assembled, configured, is installed in the same rack with the HP 3PAR StoreServ 7000 Storage product, and is ready for HP to install and configure the HP Virtual Processor software
- Adhere to licensing terms and conditions regarding the use of any HP service tools used to facilitate the delivery of this service or support tools used to provide ongoing remote monitoring, if applicable
- Prior to upgrade installation by HP and installation of any required HP 3PAR Operating System upgrades or patches, ensure that HP 3PAR Operating System upgrades or patches are compatible with the Customer's host and SAN environment
- Be responsible for all data backup and restore operations
- Provide a suitable work area for delivery of the service, including access to an outside telephone line, power, and any network connections required
- Allow HP full and unrestricted access to all locations where the service is to be performed
- Perform other reasonable activities to help HP identify or resolve problems, as requested by HP

General provisions/Other exclusions

- HP reserves the right to re-price this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.
- HP reserves the right to charge, on a time and materials basis, for any additional work over and above the service package pricing that may result from work required to address service prerequisites or other requirements that are not met by the Customer.
- HP's ability to deliver this service is dependent upon the Customer's full and timely cooperation with HP, as well as the accuracy and completeness of any information and data the Customer provides to HP.
- The service is delivered during local HP standard business hours. Service delivery outside these hours is available at additional cost.
- This service is delivered as a single, contiguous event. If Customer resource availability or other Customer restrictions delay installation or require additional visits beyond the defined scope of the service, additional charges may apply.
- Portions of the service are delivered remotely or onsite, at HP's discretion.
- Travel charges may apply; please consult your local office.

Activities such as, but not limited to, the following are excluded from this service:

- Service deployment on hardware not covered by an HP warranty or service maintenance contract
- Service deployment on hardware covered by an unauthorized third-party maintenance contract
- Services that, in the opinion of HP, are required due to unauthorized attempts by non-HP personnel to install, repair, maintain, or modify hardware, firmware, or software
- Service required due to causes external to the HP maintained hardware or software
- Any services not clearly specified in this document

Ordering information

To obtain further information or to order the HP 3PAR StoreServ 7000 Storage Installation and Startup Service, contact a local HP sales representative and reference the following product numbers:

- HA114A1#5TP (U6Y04E) for HP 3PAR 7200 2-Node Storage Base Installation and Startup Service (see Note 1 for more information)
- HA114A1#5TQ (U6Y05E) for HP 3PAR 7400 2-Node Storage Base Installation and Startup Service (see Note 1 for more information)
- HA114A1#5TR (U6Y06E) for HP 3PAR 7400 Upgrade Node Pair Installation and Startup Service (see Note 2 for more information)
- HA114A1#5TS (U6Y07E) for HP 3PAR 7400 4-Node Storage Base Installation and Startup Service (see Note 3 for more information)
- HA114A1#5TT (U7J34E) for HP 3PAR 7000 FC Adapter Installation and Startup Service
- HA114A1#5TU (U7J35E) for HP Startup 3PAR 7000 iSCSI-FCoE Adapter Installation and Startup Service
- HA114A1#5TV (U7J36E) for HP 3PAR 7000 2U SAS Enclosure Installation and Startup Service (see Note 4 for more information)
- HA114A1#5TW (U7J37E) for HP 3PAR 7000 4U SAS Enclosure Installation and Startup Service (see Note 4 for more information)
- HA124A1#5TX (U7J38E) for HP 3PAR 7000 HDD-SSD Drive Installation and Startup Service (see Note 5 for more information)

Notes:

1. Includes installation and startup of the 2-node storage base and up to 24 drives in the storage base.
2. Includes installation and startup of an upgrade node pair and up to 24 drives in the upgrade node pair.
3. Includes installation and startup of the 4-node storage base and up to 48 drives in the 4-node storage base.
4. Includes installation and startup of the enclosure and up to 24 drives in the enclosure.
5. Includes installation of up to 12 drives in a 2-node or 4-node storage base, an upgrade node pair, or an enclosure.

For more information

For more information on HP Services, contact any of our worldwide sales offices or visit our website at:

www.hp.com/services/alwayson

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