



HP 3PAR Replication Software Suite Installation and Startup Service

HP Care Pack Services

HP 3PAR Replication Software Suite Installation and Startup Service provides implementation of the HP 3PAR 7000 Replication Software Suite and the HP 3PAR 10000 Replication Software Suite products. The suite includes HP 3PAR Remote Copy, Virtual Copy, and Peer Persistence. This service provides the analysis, implementation, and testing services necessary for you to deploy HP 3PAR Replication Software Suite functionality.

HP 3PAR Replication Software Suite provides enhanced availability and disaster recovery protection. To help ensure a timely, cost-effective deployment that reduces risk and shortens your time to results, HP service professionals efficiently handle your implementation tasks.

The service, which provides installation and startup for HP 3PAR Replication Software Suite in your storage environment, is designed to help you get the HP 3PAR Replication Software Suite up and running quickly and to provide a demonstration of the product's key features using sample or test data only.

The following are excluded from this service but are available via the HP Data Replication Solution Service for 3PAR Remote Copy, Virtual Copy, and Peer Persistence:

- Implementation and testing of the 3PAR Remote Copy, Virtual Copy, and Peer Persistence configuration using production volumes or a production application
- Other services that address the unique requirements of your organization, such as verification of multiple applications you have configured; scripting; or integration and configuration by HP of your applications, backup environment, or databases

Implementation and configuration of host or host cluster failover is not included in the service. Separate HP implementation services are available to configure host failover.

Service benefits

- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, as well as the impact 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 software, 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 schedule the delivery of the service at a time mutually agreed upon between HP and the Customer, 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.</p> <p>The service specialist will perform the following installation planning and coordination activities:</p> <ul style="list-style-type: none">• Schedule and coordinate the service• Communicate with the Customer and handle queries from the Customer regarding service delivery• Verify, using a predelivery checklist, that all service prerequisites that the Customer is responsible for have been met• Provide the planning activities associated with working through the prerequisites of implementing HP 3PAR Virtual Copy, Remote Copy, and Peer Persistence, identify volumes (non-production) that will be used for a sample copy set, and identify a suitable host that will be used for the Peer Persistence Quorum Witness virtual machine• Collect preliminary documentation for the installation report on the array, volumes, and hosts involved; volumes may be virtual (Remote Copy IP snapshots) or physical copies (Remote Copy FC), as designated by the Customer
Service deployment	<p>Deployment activities include:</p> <ul style="list-style-type: none">• Review the engagement with the Customer using the predelivery checklist and verify that all service prerequisites have been met• Activate 3PAR Replication Software Suite licensing, as applicable• For Remote Copy:<ul style="list-style-type: none">– Configure dependent SAN switches to establish connectivity between HP 3PAR storage, as needed for Remote Copy FC (for Remote Copy IP, a dedicated subnet is required)– Configure Remote Copy connectivity on source and target arrays and establish Remote Copy functionality between the arrays for a single source-target relationship– Create a sample Remote Copy group compatible with the Customer's array configuration; the sample group will contain a maximum of one Remote Copy source-target relationship, two hosts (one associated with the source array and another associated with the target array), and sample/test volumes of up to a total of 500 GB containing no production data• For Virtual Copy:<ul style="list-style-type: none">– Implement a sample Virtual Copy job using test or sample data limited to 500 GB or less• For Peer Persistence:<ul style="list-style-type: none">– Assist the Customer with deployment of a Quorum Witness virtual machine on a suitable host provided by the Customer– Assist the Customer with configuration of Quorum Witness virtual machine for automatic transparent failover between the primary and secondary 3PAR arrays– Configure sample volumes for transparent failover between the source and target arrays, where the sample group will contain a maximum of one Peer Persistence source-target relationship, one standalone host or host cluster (where the standalone host or host cluster is associated with both the primary and secondary arrays), and sample/test volumes of up to a total of 500 GB containing no production data• Document the installed configuration details in the installation report
Installation verification tests (IVT)	<p>The IVT will be performed with the Customer's system administrator using replication jobs. It will be followed by comprehensive testing on the sample volumes (with no application integration or testing) to verify the operation of HP 3PAR Remote Copy, Virtual Copy, and Peer Persistence volumes as follows:</p> <ul style="list-style-type: none">• For Remote Copy, testing to verify Remote Copy operational status, including replication, failover, and failback, using the sample copy group and switching from a primary to an alternate management server, including such tasks as:<ul style="list-style-type: none">– Demonstration of the secondary site becoming the primary one for the sample group after a line failure occurs– Demonstration of role reversal of the primary and secondary sites for the sample group with resynchronization after simulated failback• For Virtual Copy, testing to demonstrate and verify the operation of common Virtual Copy functions (volume copy creation, promotion, and deletion for virtual copies of sample volumes on a source server)• Exporting sample volumes to a target server with the same OS and verifying data accessibility• For Peer Persistence, testing to demonstrate and verify the operation of common Peer Persistence functions:<ul style="list-style-type: none">– Demonstration from the standalone host or host cluster of a transparent failover operation of Peer Persistence volumes from the primary to a secondary array, as applicable– Demonstration from the standalone host or host cluster of a transparent failback from a secondary to the primary array for the Peer Persistence volumes, as applicable
Customer orientation session	<p>Upon completion of the service, the HP service specialist will provide one (1) orientation session of up to two (2) hours' duration on the product and/or technology. During this process, the HP service specialist will:</p> <ul style="list-style-type: none">• Familiarize the Customer with HP 3PAR Management Console (MC) and command-line interface (CLI)• Review the HP 3PAR Remote Copy, Virtual Copy, and Peer Persistence MC interface and review the basic features of each software product with the Customer, as applicable• Review the installation report and configuration details with the Customer, as implemented• Verify that the Customer understands how to gain access to product documentation

- Confirm that the Customer is aware of how to obtain service documentation and support
- Hold a brief question-and-answer forum with the Customer

The orientation session is informal, is 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. The Customer's participation in the product deployment and installation verification testing is also a key component of the orientation session.

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:

- Configuration of HP 3PAR Remote Copy with Customer production data, test or sample data of more than 500 GB, more than a single source-target relationship, or more than two hosts running more than a single operating system
- Configuration of HP 3PAR Virtual Copy with more than 500 GB of test data, with the Customer's production data, or with more than two hosts running more than a single operating system
- Configuration of HP 3PAR Peer Persistence with Customer production data, test or sample data of more than 500 GB, or more than a single standalone host or host cluster
- Implementation and configuration of host or host cluster failover; separate products and services are required to implement host or host cluster failover
- Any implementation of applications or products that integrate with HP 3PAR Replication Software Suite via APIs (e.g., SAP or HP Data Protector) or extensive Customer-specific scripting (unless provided for in a separate SOW)
- Planning, design, implementation, or assessment of the Customer's overall network, SAN, or fabric architecture
- Installation or configuration of any hardware or software products other than HP 3PAR Replication Software Suite, including, but not limited to, servers, host operating systems, host agent software, multipathing software, tape libraries, host bus adapters, network, SAN fabric, Enterprise Backup software, and Application Suite software
- Migration of existing data to the new array or to a new configuration within an existing array
- Design or implementation of high-availability and other complex configurations, such as host clustering
- Design or implementation of host-based logical volume managers and associated file system structures
- Implementation of software revisions, including hot fixes, patches, service packs, or upgrades from prior versions, on the Customer's existing SAN, host, and application environment
- Upgrades to HP 3PAR Operating System required for supported version of HP 3PAR Replication Software Suite
- Installation or configuration of network gateways or any hardware or software products not specified in this data sheet
- Performance testing or modeling
- Any services or documentation not clearly specified in this document or in an associated Statement of Work
- Integration with any hardware or software components not supported by HP 3PAR Replication Software Suite
- Configuration, consulting, and training for optional HP 3PAR software such as Data Optimization Software Suite, Security Software Suite, Application Software Suite, Reporting Software Suite, Adaptive Optimization software, Dynamic Optimization software, Peer Motion software, Policy Manager software, Virtual Lock software, Virtual Domains software, System Tuner software, and Multipath I/O; separate services are available for these products
- Loading, management, or manipulation of the Customer's data
- Operational testing of applications or troubleshooting of interconnectivity, network compatibility, or problems not related to HP 3PAR Replication Software Suite

Service eligibility

In order to be eligible for this service, the Customer must:

- Provide access to the HP 3PAR management interface and CLI

For Remote Copy:

- Provide an operational management station with IP connectivity to both source and target arrays
- Ensure that the HP 3PAR storage, SAN, and host environment (i.e., HP 3PAR Operating System, topology, firmware, patches, etc.) are compatible with HP 3PAR Remote Copy, operational, and verified by HP
- Ensure that network requirements are met, including provisioning of physical Ethernet ports and subnets, as required; for example, for Remote Copy IP (RCIP), a dedicated subnet is required
- Ensure that connectivity is implemented and operational between source and target locations and/or arrays, as applicable
- Ensure that sufficient bandwidth is provided to support the expected sustained and maximum I/O rates

For Virtual Copy:

- Ensure that the HP 3PAR storage environment is compatible with HP 3PAR Virtual Copy, operational, and HP supported, and is at HP 3PAR Operating System and firmware revision levels specified by HP
- Provide operational management stations with connectivity to the HP 3PAR storage system that meets the minimum requirements of HP 3PAR Virtual Copy and management software
- Install any recommended host- or SAN-based software upgrades, patches, device drivers, or multipathing software

For Peer Persistence:

- Ensure that the host cluster used with HP 3PAR Peer Persistence is running a supported OS, is operational, and has network connectivity to both primary and secondary 3PAR storage
- Ensure that the host used for the Quorum Witness virtual machine is running a supported OS, is operational, and has network connectivity to both primary and secondary 3PAR storage

Customer responsibilities

The Customer will:

- Contact an HP service specialist within 90 days of date of purchase to schedule the delivery of the service
- Ensure that all service prerequisites as identified in the 'Service eligibility' section have been met
- Assign a designated person from the Customer's staff who, on behalf of the Customer, will grant all approvals; provide information; ensure that all hardware, firmware, and software that the HP service specialist will need in order to deliver this service are available and that software products are properly licensed; and otherwise be available to assist HP in facilitating the delivery of this service
- Ensure that prerequisite volume capacity is available in the HP 3PAR storage to support the Virtual Copy implementation and in the HP 3PAR storage target/secondary array to support the 3PAR Remote Copy and Peer Persistence implementation
- Be responsible for all data backup and restore operations
- 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, as necessary
- Ensure that the latest 3PAR MC and CLI are installed and operational
- Ensure that any and all prerequisite HP 3PAR Operating System, firmware, or driver dependencies for the environment are completed before onsite service delivery begins
- Ensure that all hardware 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 the test and sample data used in delivery of the service, and for Peer Persistence also provide a host for the Quorum Witness virtual machine that meets minimum requirements
- 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
- Coordinate deployment activities on third-party-maintained hardware or software (if applicable) with the service specialist
- Provide all necessary network and administration assistance to enable connectivity to the HP 3PAR Storage to allow HP remote monitoring and support tools to communicate with the HP Support Center
- 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

- 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.
- Portions of the service are delivered remotely or onsite, at HP's discretion.
- The 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.
- The service is delivered during HP standard business hours. Service delivery outside these hours is available at additional cost.
- Travel charges may apply; please consult a local HP 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 Replication Software Suite Installation and Startup Service, contact a local HP sales representative and reference the following product numbers:

- HA124A1#5TN (U6Y03E) for HP 3PAR 7000 Replication Software Suite Installation and Startup Service (see Notes for more information)
- HA124A1#5UD for HP 3PAR 10000 Replication Software Suite Installation and Startup Service (see Notes for more information)

Notes:

- Service is limited to demonstration of the product's key features using sample or test data only.
- For more advanced implementation of HP 3PAR Remote Copy or Virtual Copy, see the HP Data Replication Solution Service for 3PAR Remote Copy (publication 4AA3-8627ENW/ENN) and the HP Data Replication Solution Service for 3PAR Virtual Copy (publication 4AA3-8107ENW/ENN).
- For advanced implementation of HP 3PAR Peer Persistence software that provides deliverables beyond the installation and startup service, order product number HA115A1#5U3 for HP 3PAR Peer Persistence Level 3 Implementation Service.

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/support

© Copyright 2012, 2013 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty or condition, express or implied, in fact or in law. HP shall not be liable for technical or editorial errors or omissions contained herein.

This data sheet is governed by HP's current standard sales terms or, if applicable, the Customer's purchase agreement with HP.

4AAA-2570ENW Created November 2012; Updated June 2013, Rev. 1

