HPE 3PAR All-inclusive Multi-system Software Installation and Startup Service

HPE Lifecycle Services

HPE 3PAR All-inclusive Multi-system Software Installation and Startup Service provides a limited implementation of the HPE 3PAR Remote Copy, HPE 3PAR Peer Motion, and HPE 3PAR Peer Persistence components of HPE 3PAR All-inclusive Multi-system Software. HPE 3PAR All-inclusive Multi-system Software is designed to provide enhanced availability and disaster recovery protection.

To help ensure a timely, cost-effective deployment that can help you to reduce risk and shorten your time to results, HPE service professionals efficiently handle your implementation tasks.

The service, which provides installation and startup for the HPE 3PAR Remote Copy, HPE 3PAR Peer Motion, and HPE 3PAR Peer Persistence functionality of HPE 3PAR All-inclusive Multi-system Software in your storage environment, is designed to help you get HPE 3PAR All-inclusive Multi-system Software up and running quickly and to provide a demonstration of the product's key features using sample or test data only.

This service excludes implementation of the HPE Cluster Extension Software component of the HPE 3PAR All-inclusive Multi-system Software product, which provides host cluster failover.

The following are excluded from this service but are available through the HPE Data Replication Solution Service for HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence software:

• Implementation and testing of the HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence software 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 Hewlett Packard Enterprise of your applications, backup environment, or databases

Refer to Service limitations in the limitations section

Service benefits

• Allows your IT resources to stay focused on their core tasks and priorities

• Designed to help reduce implementation time, as well as the impact and risk to your storage environment

• Helps ensure a successful implementation by providing HPE installation planning and coordination

• Provides service delivered by a trained specialist and based upon HPE recommended configurations and HPE best practices

• Helps you more effectively utilize your HPE 3PAR software, through knowledge sharing with the service specialist during on-site delivery of the service

Hewlett Packard Enterprise

Service feature highlights

- Service planning and coordination

- Service deployment

- Installation verification tests (IVTs)

- Customer orientation session

Table 1. Service features

Feature	Delivery specifications
Service planning and coordination	An HPE service specialist will schedule the delivery of the service at a time mutually agreed upon between HPE and the Customer, which shall be during local HPE standard business days and hours excluding HPE holidays, unless otherwise agreed by HPE. Any services provided outside of HPE standard business hours may be subject to additional charges. The service specialist will perform the following installation planning and coordination activities: • Schedule and coordinate the service • Communicate with the Customer, including handling 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 HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence, identifying volumes (nonproduction) that will be used for a sample copy set, and identifying a suitable host that will be used for the quorum witness virtual machine component of HPE 3PAR Peer Persistence • Collect preliminary documentation for the installation plan 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	Deployment activities include: • Reviewing the engagement with the Customer using the predelivery checklist and verifying that all service prerequisites have been met • Activating HPE 3PAR All-inclusive Multi-system Software licensing if necessary • For HPE 3PAR Remote Copy: – Configuring dependent SAN switches to establish connectivity between the HPE 3PAR Storage environment as needed for Remote Copy FC (for Remote Copy IP, a dedicated subnet is required) – Configuring Remote Copy connectivity on a single source and target array pair and establishing Remote Copy functionality between the arrays for the single source-target relationship – Creating 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 HPE 3PAR Peer Motion: – Configuring source and target HPE 3PAR arrays and demonstrating data mobility • For HPE 3PAR Peer Persistence: – Assisting the Customer with deployment of a quorum witness virtual machine on a suitable host provided by the Customer – Assisting the Customer with configuration of a quorum witness virtual machine for automatic transparent failover between the primary and secondary HPE 3PAR Storage arrays – Configuring sample volumes for transparent failover between the source and target arrays, where the sample group will contain a maximum of one HPE 3PAR Peer Persistence source-target relationship, one stand-alone host or host cluster (where the stand-alone 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

Table 1. Service features (continued)

Feature	Delivery specifications
IVTs	The service specialist will perform the appropriate IVTs to confirm product functionality, as follows:
	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), which will verify the operation of HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence volumes.

	• For HPE 3PAR Remote Copy, testing will verify HPE 3PAR Remote Copy operational status, including replication, failover, and failback, using the sample copy group, and switching from a primary to an alternate management server, and includes such tasks as:
	  – 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 a simulated failback
	• For HPE 3PAR Peer Motion, validate that the source and target arrays are connected and display array configuration status
	• For HPE 3PAR Peer Persistence, testing activities include demonstrating and verifying the operation of common HPE 3PAR Peer Persistence functions:
	  – Demonstration from the stand-alone host or host cluster of a transparent failover operation of HPE 3PAR Peer Persistence volumes from the primary to a secondary array, as applicable
	  – Demonstration from the stand-alone host or host cluster of a transparent failback from a secondary to the primary array for the HPE 3PAR Peer Persistence volumes, as applicable

Customer orientation session	Upon completion of the service, the HPE 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 HPE service specialist may cover the following topics:
	• Familiarize the Customer with HPE 3PAR StoreServ Management Console (SSMC) and HPE 3PAR Command Line Interface (CLI) • Review the HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence with SSMC interface and review the basic features of each software product with the Customer, as applicable. Demonstrate functionality of the HPE 3PAR Peer Motion Migration Manager for data migration and/or load balancing • Review the 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, provided on the same day as the installation, and 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 eligibility

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

• Provide access to the HPE 3PAR SSMC and HPE 3PAR CLI

For HPE 3PAR Remote Copy:

• Provide an operational management station with IP connectivity to both source and target arrays

• Ensure that the HPE 3PAR Storage, SAN, and host environment (that is, HPE 3PAR Operating System, topology, firmware, patches, and so on) are compatible with HPE 3PAR Remote Copy, operational, and verified by HPE

• 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 HPE 3PAR Peer Motion:

• The Customer is responsible for providing SAN connectivity between the fully operational HPE 3PAR source and target storage and that the arrays meet minimum HPE 3PAR OS requirements

For HPE 3PAR Peer Persistence:

- Ensure that the host cluster used with HPE 3PAR Peer Persistence is running a supported OS, is operational, and has network connectivity to both primary and secondary HPE 3PAR Storage systems

- 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 HPE 3PAR Storage systems

Service limitations

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

- Configuration of HPE 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

- For HPE 3PAR Peer Motion, configuration of HPE 3PAR Peer Motion Software for more than a single virtual volume on a single host or configuration of storage ports on more than a single array at more than a single Customer site; implementation of data migration or load balancing using HPE 3PAR Peer Motion is available as a separate service

- Configuration of HPE 3PAR Peer Persistence with Customer production data, test or sample data of more than 500 GB, or more than a single stand-alone 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 HPE 3PAR All-inclusive Multi-system Software through APIs (for example, SAP®) 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 HPE 3PAR All-inclusive Multi-system Software 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, including the use of HPE 3PAR Peer Motion for migration of Customer data or load balancing between arrays

- 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

- HPE 3PAR Operating System upgrades required for supported version of HPE 3PAR All-inclusive Multi-system Software

- 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

- Integration with any hardware or software components not supported by HPE 3PAR All-inclusive Multi-system Software

- Configuration, consulting, and training for HPE 3PAR All-inclusive Single-system Software; separate services are available for this product

- Loading, management, or manipulation of the Customer's data

- Operational testing of applications or troubleshooting of interconnectivity, network compatibility, or problems not related to HPE 3PAR All-inclusive Multi-system Software

Customer responsibilities

The Customer will:

- Contact an HPE 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 prior to service delivery

- 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 HPE 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 HPE in facilitating the delivery of this service

- Ensure that prerequisite volume capacity is available in the HPE 3PAR storage target / secondary array to support the implementation of HPE 3PAR Remote Copy and HPE 3PAR Peer Persistence

- Be responsible for all data backup and restore operations

- Complete and return the prerequisite HPE 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 most recent supported version HPE 3PAR SSMC and HPE 3PAR CLI are installed and operational

- Ensure that any and all prerequisite HPE 3PAR Operating System, firmware, or driver dependencies for the environment are completed before on-site 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 HPE 3PAR 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 HPE 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 HPE 3PAR Storage environment to allow HPE remote monitoring and support tools to communicate with the HPE Support Center

- Adhere to licensing terms and conditions regarding the use of any HPE 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 HPE identify or resolve problems, as requested by HPE

General provisions / other exclusions

- The on-site service delivers deployment of a single instance of HPE 3PAR All-inclusive Multi-system Software product at one physical site, and for HPE 3PAR Remote Copy the source and target arrays must be manageable from the same physical site as above.

- HPE reserves the right to reprice this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.

- HPE 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.

- HPE's ability to deliver this service is dependent upon the Customer's full and timely cooperation with HPE, as well as the accuracy and completeness of any information and data the Customer provides to HPE.

- Portions of the service are delivered remotely or on-site, at HPE'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 HPE standard business hours and days, excluding HPE holidays. Service delivery outside these hours is available and is subject to additional charges.

- Travel charges may apply; consult a local HPE office.

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

- Service deployment on hardware not covered by an HPE warranty or service maintenance contract

- Service deployment on hardware covered by an unauthorized third-party maintenance contract

- Services that, in the opinion of HPE, are required due to unauthorized attempts by third-party personnel to install, repair, maintain, or modify hardware, firmware, or software

- Service required due to causes external to the HPE maintained hardware or software

- Any services not clearly specified in this document

Supplemental terms

The following supplemental terms apply to these services and take precedence in the event of any conflict:

• Upon receipt of an acceptable order, HPE will contact the Customer within seven (7) business days to organize a service delivery date. Service delivery dates are subject to resource availability and may be scheduled up to 30 days from the order acceptance date.

• The Customer must schedule and receive delivery of these services within 180 days from order acceptance. HPE reserves the right to reprice for services not scheduled and delivered within 180 days. Backorders or shipment delays may affect the delivery timeline. Orders for services will expire after 365 days (one year) from the order acceptance date for services not scheduled and delivered, and the Customer will not be entitled to a refund for the unused services.

Ordering information

To obtain further information or to order HPE 3PAR All-inclusive Multi-system Software Installation and Startup Service, contact a local HPE sales representative and reference the following product numbers:

Suite level deployment services:

• HA124A1# 56X for HPE 3PAR 8000 All-inclusive Multi-system Software for Remote Copy, Peer Motion, and Peer Persistence Installation and Startup Service (see Notes for more information)

• HA124A1# 5BM for HPE 3PAR 9000 All-inclusive Multi-system Software for Remote Copy, Peer Motion, and Peer Persistence Installation and Startup Service (see Notes for more information)

• HA124A1# 57J for HPE 3PAR 20000 All-inclusive Multi-system Software for Remote Copy, Peer Motion, and Peer Persistence Installation and Startup Service (see Notes for more information)

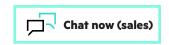Individually orderable deployment services:

• HA124A1#5Y6 for HPE 3PAR 8000 Peer Motion Installation and Startup Service

• HA124A1#5LT for HPE 3PAR 9000 Peer Motion Installation and Startup Service

• HA124A1#5XD for HPE 3PAR 20000 Peer Motion Installation and Startup Service

• HA124A1#5U1 for HPE 3PAR 8000/9000 Peer Persistence Installation and Startup Service

• HA124A1#5U2 for HPE 3PAR 20000 Peer Persistence Installation and Startup Service

• HA115A1#57M for HPE 3PAR Cluster Extension Implementation Service (see Notes for more information)

Notes:

• Fixed up-front support packages are only available in selected countries. Contact a local HPE sales representative for more information.

• Service is limited to demonstration of the product's key features using sample or test (nonproduction) data only. In the Service limitations section.

• For a more advanced implementation of HPE 3PAR Remote Copy, see the HPE Data Replication Solution Service for HPE 3PAR Remote Copy (publication 4AA3-8627ENW/ENN).

• For advanced implementation of HPE 3PAR Peer Persistence software that provides deliverables beyond the installation and startup service, order product number HA115A1#5U3 for HPE 3PAR Peer Persistence Level 3 Implementation Service.

• For implementation of HPE Cluster Extension Software order custom quote service product number HA115A1#57M.

Learn more at

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