# HP Disk Array Installation and Startup Service

**HP** Services

Technical data



Proper installation of your storage hardware is crucial to help you improve the return on your storage investment. Complementing your new HP array, the HP Disk Array Installation and Startup Service provides the necessary activities required to deploy your disk array into operation.

This service covers the HP Enterprise Virtual Array (EVA6x00, EVA8x00, and EVA P6500 series) and the HP XP disk array.

With the assistance of your designated IT storage administrator, an HP certified service specialist will engage in a discovery process designed to help HP understand your business and storage application needs. This collaboration provides the groundwork to plan, design, and employ a customized storage array configuration. Once you have approved the design, the HP certified service specialist will then apply the configuration and perform a suite of installation verification tests as described in table 1.

## Service benefits

- Verification that any service prerequisites are met prior to installation
- Delivery of the service at a mutually agreed scheduled time
- Installation of the HP array per the product specifications
- Availability of an HP certified service specialist to answer questions during the installation process
- Customized installation plan to support your unique configuration requirements
- Integration into an existing infrastructure of up to four array ports (for EVA arrays) or up to eight array ports (for XP arrays)

# Service feature highlights

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

Specifications Table 1. Service features	
Feature	Delivery specifications
Service planning	An HP certified service specialist will plan all the necessary activities and schedule the delivery of the service at a mutually agreed time between HP or an HP certified channel partner and the Customer, which shall be during local HP standard business hours, excluding HP holidays, unless otherwise agreed to by HP or the HP certified channel partner. Any services provided outside of HP standard business hours will be subject to additional charges.
	The service planning activities will include:
	<ul> <li>Communication with the Customer, including queries by the Customer regarding service delivery</li> </ul>
	<ul> <li>Brief consultation to provide guidance to the Customer in defining the array configuration objectives based upon application performance, availability needs, and HP best practices</li> <li>Creation of a written installation plan, which will serve as the guide for the coordination of the installation and startup deliverables and as the project plan for this service</li> <li>Development of a customized LUN design to meet the array configuration objectives as</li> </ul>
	previously agreed upon by the Customer
	• Verification, using a predelivery checklist, that all service prerequisites have been met
	<ul> <li>Scheduling of the service delivery at a mutually agreed-upon time</li> </ul>
Service deployment	The service deployment activities will include:
	<ul> <li>Confirmation of appropriate operating-system patch levels on a selected number of hosts identified in the installation plan</li> </ul>
	• Validation that the Customer array configuration objectives have not changed since the servic planning and coordination phase
	<ul> <li>Finalization and implementation of the design previously approved by the Customer; performance testing or modeling is not included with the service, but can be provided at additional cost</li> </ul>
	<ul> <li>Installation of HP storage array hardware according to the product specifications</li> </ul>
	Initialization of the HP storage array
	<ul> <li>Installation of an appropriate version of management software (if purchased)</li> </ul>
	<ul> <li>Limited integration of up to four external array ports for the EVA or up to eight array ports for the XP array into a pre-existing SAN, which may consist of switch, hub, or iSCSI bridge technology that meets the supportability standards of the HP SAN Design Guide</li> </ul>
	Creation of configuration documentation
	<ul> <li>Installation of HP standard remote monitoring and support solutions, as applicable</li> </ul>
Installation verification test	HP will perform the appropriate installation verification tests required for this service, including, but not limited to, power-on self-tests (POSTs).
Customer orientation session	The HP certified service specialist will provide a two-hour onsite orientation on the installed HP storage array at a mutually agreed-upon time, including the following:
	<ul> <li>Review of the configuration documentation mentioned above that outlines the storage virtual disk design and related host topology</li> </ul>
	Highlights of the basic operation of the array hardware
	A brief question-and-answer forum
	<ul> <li>Advice on locating and using online help</li> </ul>

# Service eligibility

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

- The Customer's existing computing operating system platform(s) and SAN environment must be supported by and be compatible with the HP array being installed.
- The Customer must provide a suitable physical operating environment for the array product, including implementation of any environmental recommendations made by HP.
- The Customer must provide suitable server(s) for the required/optional bundled software installation and configuration. This server must meet the software specifications and be at the required patch levels.
- The Customer is responsible for providing servers that meet the minimum requirements of HP remote support tools or optional management software (if purchased).
- The Customer must install any recommended host- or SAN-based software upgrades, patches, device drivers, or multipathing software.

## Service limitations

The following activities are not included in the service:

- A full site inspection, such as a comprehensive analysis of the Customer's power, cooling and humidity, airborne contaminants, vibration, and sufficient structural capability of the data center raised floor to accommodate the weight of the array to be installed; separate services are available
- Integration with any hardware or software components not supported by the relevant HP disk array family product(s)
- 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 cabling
- Extensive racking, re-racking, or cabling activities, including cabling activities involving conduits, raceways, patch panels, and movement/configuration of computer room floor panels
- 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 high-availability and other complex configurations such as host clustering
- Implementation of host-based logical volumes and associated file system structures
- Installation of operating-system patches and any associated device drivers
- Migration of existing data to the new array configuration
- Deployment activities, including planning, design, assessment, and configuration, related to the implementation of a new SAN or redeployment of an existing SAN

- Configuration of any optional software products, such as Continuous Access and Business Copy software; additional services will be required for implementation of software solutions deemed complex by HP
- Service deployment on hardware covered by a third-party maintenance contract
- Planning, design, implementation, or assessment of the Customer's new or preexisting SAN or fabric architecture
- Installation or configuration of any hardware or software products external to the array subsystem, including, but not limited to, servers, host operating systems, multipathing software, tape libraries, host bus adapters, and enterprise backup software
- Services that, in the opinion of the HP certified service specialist, are required due to unauthorized attempts by non-HP certified personnel to install, repair, maintain, or modify hardware, firmware, or software
- Services required due to causes external to the HP-maintained hardware or software
- Any services not clearly specified in this document

#### **Customer responsibilities**

The Customer will:

- Contact an HP certified service specialist to schedule the delivery of the service within 90 days of date of its purchase
- Coordinate service deployment on third-party-maintained hardware or software (if applicable) with the HP certified service specialist
- 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 the HP certified service specialist to facilitate the delivery of this service
- Ensure that all service prerequisites identified under 'Service eligibility' are met
- Ensure the availability of all hardware, firmware, and software that the HP certified service specialist will need in order to deliver this service
- Allow HP full access to all locations where the service is to be delivered
- Provide a suitable work area for delivery of the service, including access to an outside telephone line, power, and any network connections required
- Be responsible for all data backup and restore operations
- Uncrate products and place the boxes in the immediate location where the installation service will take place
- Adhere to licensing terms and conditions regarding the use of any HP service tools used to facilitate the delivery of this service, if applicable
- Supply a previously designed virtual disk map, if available
- Perform other reasonable activities to help HP identify or resolve problems, as requested by HP

# General provisions/Other exclusions

HP reserves the right to charge, on a time and materials basis, for any additional work over and above this service package pricing that may result from work required to address service prerequisites or other requirements not met by the Customer.

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.

The ability of the HP certified service specialist to deliver this service is dependent upon the Customer's full and timely cooperation with the HP certified service specialist, as well as the accuracy and completeness of any information and data the Customer may provide to HP.

The service is only available during local HP business hours. Any service delivery outside these hours will be subject to additional charges.

Travel charges may apply in some geographic locations. Please contact a local HP representative for details.

# Ordering information

To obtain further information or to order HP Disk Array Installation and Startup Service, contact a local HP sales representative.

### For more information

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

#### HP support services: www.hp.com/services/alwayson

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