HPE MSA Family Installation and Startup Service

HPE Lifecycle Event Services

HPE MSA Family Installation and Startup Service provides the necessary activities required to deploy the HPE Modular Storage Array (MSA) into your storage environment.

With the assistance of your designated IT storage administrator and using best practices, a Hewlett Packard Enterprise service specialist will help plan, design, and deploy your HPE MSA array system, resulting in a more efficiently configured system. The Hewlett Packard Enterprise service specialist will also perform installation verification tests and provide a customer orientation session.

Service benefits

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

• Reduces implementation time, impact, and risk to your storage environment

• Helps you effectively utilize HPE products from the knowledge gained during on-site delivery of the service

• Provides an installation plan that supports your unique configuration requirements

Service feature highlights

• Service planning

• Service deployment

• Installation verification tests (IVT)

• Customer orientation session

Service features

Feature	Delivery specifications
Service planning	The Hewlett Packard Enterprise service specialist will work with the Customer to plan all necessary activities and schedule the delivery of the service at a mutually agreed-upon time during local HPE standard business hours excluding HPE holidays, unless otherwise agreed to by HPE or the Hewlett Packard Enterprise certified channel partner. Any services provided outside of HPE standard business hours will be subject to additional charges.
	The service specialist will contact the Customer to review expectations and to validate that predelivery requirements have been, or will be, met prior to installation.
	The service planning activities will include:
	• Communication with the Customer, including queries by the Customer regarding service delivery
	• Verification, using a predelivery checklist, that all service prerequisites have been met, including OS, hardware, software, driver, and environmental prerequisites required for the installation of HPE MSA 10x0/20x0/P2000 Array System
	• Collection, using a predelivery checklist, of the information needed to plan the deployment, including:
	– Confirmation that the hosts are in a supported configuration and determination of any steps that are needed to bring them into a supported configuration
	– Verification of the hardware RAID levels to be implemented
	• Agreement on the proposed configuration and review of the service completion criteria
	• Confirmation of the viability of the installation of the HPE MSA 10x0/20x0/P2000 Array System hardware into the customer-supplied rack
	• Creation of a written installation plan to serve as both the project plan and completion point for this service
Service deployment	The service deployment activities will include:
	• Communicating the service delivery agenda
	• Verification that service prerequisites have been met
	• Installation of the array into the customer-supplied rack
	• Confirmation of appropriate operating system patch levels and firmware version on a selected number of hosts, as identified in the installation plan
	• Verification and update (as needed) of prerequisite array and host bus adapter (HBA) firmware versions
	• Deposit and license activation of any optionally purchased HPE MSA Snapshot software
	• Deployment of an the array configuration design as documented during service planning
	• Creation of configuration documentation as implemented
	The service includes the creation and demonstration of up to four manual and/or scheduled snapshots. VSS, Scripted, and remote snapshots are not included.
	The service includes connection of up to four hosts total, in any combination of Fibre Channel, SAS, or iSCSI protocols.
	For a Fibre Channel and SAS interconnect, if the Customer does not have a preexisting storage interconnect environment, the service specialist will implement a new one, up to a maximum size of 16 ports, into which the HPE MSA system will be integrated.
	For new storage interconnect environments, the deployment will include Fibre Channel and/or SAS switch installation and racking, and any configuration/zoning necessary to provide the required connectivity between the HPE MSA and any associated hosts. (Any hardware and software products needed to construct the new storage interconnect environment must be supplied by the Customer.)
	• For standalone servers, deployment is limited to a maximum:
	– Installation of up to two Fibre Channel and/or SAS switches
	– Installation of up to two HBAs per installed physical host
	– Configuration of multipath software instances for each installed physical host

Service features (continued)

Feature	Delivery specifications

	• For server blades, deployment includes:
	  – Installation of up to two blade enclosure Fibre Channel and/or SAS switches and installation of associated mezzanine cards in a single blade enclosure
	  – Configuration of multipath software instances for each installed physical host
	
	For an iSCSI interconnect, the service specialist will connect the array system into an existing operational Ethernet network environment supplied by the Customer.
	
	For new or existing standalone servers, the deployment is limited to iSCSI configuration tasks on the array and iSCSI host initiators on the installed physical host. The Customer must ensure prior network connectivity between the target array and iSCSI hosts.
	
	For new or existing blade environments, the implementation is limited to iSCSI configuration tasks on the array and iSCSI host initiators on the installed physical host. The Customer must ensure prior network connectivity between the array target and iSCSI hosts, including configuration of the blade enclosure's Ethernet network.
	
	For drive enclosures, deployment includes connection of cabling to any additional disk enclosures as defined in the HPE QuickSpecs or MSA User Guide.

Installation verification tests (IVT)	This service includes the appropriate installation verification tests including, but not limited to: • Power-on self-tests (POSTs) • Visibility of LUNs to target hosts via multipath software, if installed • Verification of the controller settings for each drive array • Failover and failback • Verification of functional snap capability • Event notification capability by SMTP, SNMP, or Syslog • Verification of the license installations and Snapshot usage Verification of the optional Remote Snap replication license is not included.
Customer orientation session	This service will provide up to a one-hour customer orientation session on the installed HPE MSA 10x0/20x0/P2000 Array System. The orientation session is informal, is typically conducted at a management console with selected members of the Customer's staff and/or including a customer representative during the delivery of the service, and is not intended as a classroom activity or substitute for formal product training. The orientation may include the following: • Review of the configuration documentation that outlines the storage virtual disk design and related host topology • Highlights of the basic operation of array management and a walk-through of the web management console • Demonstration of snapshot capabilities and usage • Verification that the Customer can locate and access product documents • Information on how to access Hewlett Packard Enterprise support • A brief question and answer forum

Service limitations

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

• Configuration of virtual management software or environments

• Array configuration design beyond a brief discussion with the Customer describing array configuration options

• 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 at additional cost

• Integration with any hardware or software components not supported by the HPE MSA/P2000 Disk Array family products

• Implementation of software revisions, including hot fixes, patches, service packs, or upgrades from prior versions, on the Customer's existing SAN, network, and host environment

• Extensive racking, re-racking, or cabling activities, including cabling activities involving conduits, raceways, patch panels, and the movement/configuration of computer room floor panels

• Configuration of VSS, Scripted, and Remote Snap software

• Implementation of other complex configurations such as host clustering, external replication/mirroring solutions, and storage management software external to an HPE MSA/P2000 array

• Implementation of host-based logical volumes and associated file system structures

• Installation or configuration of any hardware or software products external to the array subsystem including, but not limited to, servers, drive enclosures, host operating systems, and tape libraries

• Installation of host operating system patches and any associated device drivers

• Installation of any required software, patches, firmware updates, or topology changes needed to achieve an HPE-supported interconnect environment compatible with the HPE MSA/P2000 product

• Migration of existing data to the new array configuration, or de-installation of the Customer's legacy storage resource management environment

• Loading, management, or manipulation of Customer data

• Planning, design, implementation, or assessment of the Customer's new or preexisting storage interconnect environment beyond what is outlined in the **Service deployment** section

• Deployment activities, including planning, design, assessment, and configuration, related to the redeployment of an existing storage interconnect environment

- Implementation of hardware and software products other than those specified in this document

- Operational testing of applications or troubleshooting of interconnectivity, network, compatibility, or any problem not directly related to the installation of the HPE MSA 10x0/20x0/P2000 Array System

- Performance testing or modeling

The service is limited to installation of up to four instances of multipathing software only.

HBA installation is limited to up to four physical host servers; firmware/driver updates are limited to the four HBAs installed by Hewlett Packard Enterprise as part of this service.

Travel charges may apply in some geographic locations. Please contact your local Hewlett Packard Enterprise representative for details.

Service eligibility

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

- The Customer must provide a suitable physical operating environment for the array product, including implementation of any power, cooling, and other environmental requirements.

- The Customer's existing computer operating system platform(s) must be supported by and be compatible with the HPE MSA 2040, 1040, or P2000 hardware being installed.

- The Customer's existing SAN and/or network environment must be fully operational and in a supported configuration as defined in the HPE SAN Design Guide.

- Where geographically separated hosts are being configured, the Customer must ensure prior network connectivity between the HPE MSA/ P2000 target and iSCSI hosts.

- The Customer is responsible for providing servers that meet the minimum requirements of HPE remote support tools.

Customer responsibilities

The Customer will:

- Contact a Hewlett Packard Enterprise service specialist to schedule delivery within 90 days of date of purchase of the service

- Coordinate service deployment on third-party-maintained products (if applicable) with Hewlett Packard Enterprise

- 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 Hewlett Packard Enterprise in facilitating the delivery of this service

- Ensure that all site preparation, power supply compatibility requirements, network cabling, and other specified service prerequisites, as listed in the **Service eligibility** section, have been met

- Ensure that IP addresses and network connectivity are available for the HPE MSA 10x0/20x0/P2000 Array System, and that connectivity is established between target hosts and the array

- Provide remote access to hosts not local to the storage array

- Schedule downtime and provide access to the service specialist during service delivery for hosts requiring installation of an HBA

- Install any recommended host- or SAN-based software upgrades, patches, and device drivers

- Install any hosts or software beyond the limited deliverables provided by the service

- Provide Hewlett Packard Enterprise with full access to all locations where the service is to be delivered

- 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

- Provide IT administration resources (server, storage, network, and application) to gather necessary information, facilitate workshops and interviews as required, and perform any configuration activities needed to facilitate delivery of the service

- Ensure that the host, network, storage components, infrastructure management software, and application software with which the HPE MSA/P2000 product may interact are installed, configured, and operating normally

- Ensure that all hardware and software that the service specialist will need in order to deliver this service are available and, for software products, properly licensed

- Ensure that the required management servers meet the minimum hardware, OS, and software requirements for use with the HPE MSA product

- 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 HPE MSA 10x0/20x0/P2000 Array, allowing HPE remote monitoring and support tools to communicate with the HPE Support Center

- Place the HPE MSA 10x0/20x0/P2000 Array System in the immediate location where the installation service will take place

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

General provisions/Other exclusions

Hewlett Packard Enterprise reserves the right to re-price this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.

Hewlett Packard Enterprise 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.

Hewlett Packard Enterprise'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.

The service is delivered during local HPE 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 on-site, at Hewlett Packard Enterprise's discretion.

Travel charges may apply; please consult your local Hewlett Packard Enterprise office.

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

• Service deployment on hardware not covered by a Hewlett Packard Enterprise warranty or service maintenance contract

• Service deployment on hardware covered by a third-party maintenance contract

• Services that, in the opinion of Hewlett Packard Enterprise, are required due to unauthorized attempts by non-HPE personnel to install, repair, maintain, or modify hardware, firmware, or software

• Service required due to causes external to the Hewlett Packard Enterprise maintained hardware or software

• Any services not clearly specified in this document

Ordering information

To order HPE MSA Family Installation and Startup Service, use the following product numbers: HA114A1#5J0 or UA868E.

Learn more at
hpe.com/services/support
hpe.com/services/lifecycleevent

Sign up for updates

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