Proper configuration of storage hardware is crucial to help maximize the effectiveness of your storage. When redeploying an HP StorageWorks disk array, the HP Vdisk/LUN Design and Implementation Service provides the necessary activities required to design and implement a new LUN or Virtual Disk (Vdisk) configuration.

With the assistance of your designated IT storage administrator, an HP certified service specialist will engage in a discovery process designed to assist HP in understanding your organization’s 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 configuration, the HP certified service specialist will then apply it and perform a suite of installation verification tests, as described below in the specifications section.

**Service benefits**

- Verification prior to installation that all service prerequisites are met
- Delivery of the service at a mutually scheduled time
- Design and implementation of the approved LUN or virtual disk configuration
- Availability of an HP service specialist to answer basic questions related to this service during the orientation session.
- A customized LUN or virtual disk design and implementation plan to support your unique configuration requirements

**Service feature highlights**

- Service planning
- Service deployment
- Installation verification tests
- Customer orientation session

HP Customer Support Services are governed by the HP Terms and Conditions of Sale and Service (E16) or HP Business Terms (E99), and Exhibit SSS or the HP Care Pack Support Service Agreement.
Specifications

Table 1. Service features

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<th>Feature</th>
<th>Delivery specifications</th>
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| Service planning        | An HP certified service specialist will plan all the necessary activities and schedule the delivery of the service at a mutually agreed-upon 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 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:  
  • Communication with the Customer, including Customer queries regarding service delivery  
  • Verification, using a pre-delivery checklist, that all service prerequisites have been met  
  • Scheduling of the service delivery at a mutually agreed-upon time  
  • Creation of a written Virtual Disk or LUN implementation plan, which will serve as the project plan for this service |
| Service deployment      | The service deployment activities will include:  
  • Presentation of the service delivery agenda  
  • Development of a customized virtual disk or LUN design tailored to the Customer's software application and business requirements as identified by the Customer's IT storage administrator, database administrator, or any pre-identified Customer IT staff  
  • Implementation of the Customer-approved virtual disk or LUN design  
  • Configuration of additional paths in the Customer's existing, HP-supported, SAN  
  • Creation of configuration documentation |
| Installation verification testing (IVT) | HP will perform the appropriate installation verification tests required for this service, including power on self-tests (POSTs) and verification of virtual disk or LUN visibility to the pre-designated hosts.                                                                                                |
| Customer orientation    | Within 30 days of completion of the service deployment, the HP certified service specialist will provide a two-hour onsite orientation on the installed HP StorageWorks array at a mutually agreed-upon time, which will include:  
  • A review of the configuration documentation mentioned above that outlines the topology of the storage virtual disk or LUN design and related host  
  • Highlights of the basic operation of the hardware that has been added  
  • A brief question-and-answer forum |

Service eligibility

The Customer must meet the following prerequisites for delivery of this service:

• The Customer's existing computing operating system platform(s) must be supported by and compatible with the HP StorageWorks array being configured with the documented virtual disk or LUN configuration array on which the documented virtual disk or LUN configuration is being implemented.

• The Customer must provide a suitable physical operating environment for the array product, including implementation of any recommendations made by HP as a result of the site inspection.

• The Customer must install any recommended host-based patching, software upgrades, firmware, or microcode and device drivers.
Service limitations

The following activities are not included in this service:

• Reconfiguration of existing environments, such as removal or movement of array disk drives and adapter cards, conversion and reformattting of existing storage between RAID levels or emulation types, or installation of extensive Fibre Channel cabling

• 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

• Configuration or integration of any management software products, such as HP OpenView Storage Area Manager, IBM Tivoli, or CA Unicenter. Additional services will be required for implementation of software solutions deemed complex by HP and will be subject to additional costs.

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

• Planning, design, implementation, or assessment of the Customer's overall SAN or fabric architecture

• Installation of new SAN devices or redeployment of existing ones, including but not limited to hubs, switches, and directors

• Coordination or installation of complex cable runs

• Project management of other vendors when third-party hosts, SAN appliances, or interconnect devices are attached to the designated storage system

• 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 service delivery specialist within 90 days of date of purchase to schedule the delivery of the service

• Coordinate service deployment on third-party-maintained hardware and software (if applicable) with HP

• 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 service prerequisites as identified above under "Service eligibility" have been met
• Ensure that all hardware, firmware, and software that the HP service specialist will need in order to deliver this service are available and, for software products, are properly licensed.

• Be responsible for all data backup and restore operations.

• Allow HP full and unrestricted 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.

• Assure participation of the Customer's IT storage administrator, database administrator, and selected other staff in discussions of the Customer organization's business and operational objectives, plus any special requirements.

• Provide a current storage map, if applicable.

**General provisions/Other exclusions**

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

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

• 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.

• 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.

• This service is available for the following HP StorageWorks Disk arrays: XP, EVA, VA, MA, EMA and MSA on their respective supported operating systems.

**For more information**

For more information on HP Vdisk/LUN Design and Implementation Service, contact any of our worldwide sales offices or visit our Web site at:

www.hp.com/hps/support