

```
.feedback_submit { transform: translateX(280px) translateY(0px); font-weight: bold; } #tofeedback{ margin-top: 2px !important; color:#0057B8 !important; font-weight:600 !important; }
```

## Installation and Upgrade Checklist Report for Storage Foundation Cluster File System HA 6.0.1, HP-UX 11i v3 (11.31), PA-RISC

### ▼ Index

[Back to top](#)

- Important Notes
- System requirements
- Product features
- Product documentation
- Patches for Storage Foundation Cluster File System HA and Platform
- End of Support Life information
- Platform configuration
- High availability agents
- Host bus adapter (HBA) parameters and switch parameters
- Operations Manager
- Array Support Libraries (ASLs)

### ▼ Important Notes

[Back to top](#)

**Note:** You have not selected the latest product version. Consider installing or upgrading to the latest version; otherwise, you may encounter issues that have already been fixed. To run a new report for the latest product version, select it from the Veritas product drop-down list.

In the VxFS 6.0.1 release, you can create and mount only file systems with disk layout Version 5, Version 7, Version 8 and Version 9. VxFS 6.0.1 does not support disk layout version 4 and version 6. You can upgrade these unsupported layout versions online using the vxupgrade utility before installing VxFS 6.0.1. Or after installing VxFS 6.0.1, you can convert version 4 offline using vxfsconvert or upgrade version 6 online using vxupgrade utility.

It is recommended to upgrade VxFS disk layouts to a supported version prior to installing VxFS 6.0.1. However, VxFS 6.0.1 can mount disk layout version 6 locally only to perform an online upgrade. Cluster mount for disk layout version 6 is not supported in VxFS 6.0.1.

#### **Array Support Libraries (ASLs)**

When installing Veritas products, please be aware that ASLs updates are not included in the patches update bundle. Please go to the Array Support Libraries (ASLs) to get the latest updates for your disk arrays.

### ▼ System requirements

[Back to top](#)

**Required number of CPUs:** 2

**Recommended speed of CPUs:** 1 GHz

**Required memory:** 2 GB

**Required disk space:**

Partitions	Minimum space required	Maximum space required	Recommended space
/opt	464 MB	1155 MB	1121 MB
/root	545 MB	545 MB	545 MB
/usr	496 MB	498 MB	498 MB

**Supported architectures:**

PA8700 architecture  
PA8800 architecture  
PA8900 architecture

**Related documentation**

[PA-RISC 2.0 Architecture](#)  
[PA-RISC 2.0 Firmware Architecture reference specification](#)

## ▼ Product features

[Back to top](#)

The features in the list are enabled in this release.

Feature	Storage Foundation CFSHA
1-256 TB File System	✓
CFS Multi-transaction server	✓
Cluster File System	✓
Cluster Volume Manager	✓
Compression	✓
Concurrent I/O	✓
Data management application programming interface (DMAPI)	✓
Deduplication	✓
Device names consistent across cluster nodes	✓
Device names using Array Volume IDs	✓
Direct I/O	✓
Dirty region logging	✓
Dynamic LUN expansion	✓
Dynamic Multi-pathing	✓
Enclosure based naming	✓
File Change Log	✓
File system snapshots	✓
File system storage checkpoints	✓
Flashsnap: Disk group split & join	✓
Flashsnap: Fast resynchronization	✓
Full size instant snapshots	✓

Hardware assisted copy	✓
Hot-relocation	✓
Import cloned LUN	✓
Keyless licensing	✓
Mount lock	✓
Named data streams	✓
Online coordinator disk replacement	✓
Online file system defragmentation	✓
Online file system grow & shrink	✓
Online relay out	✓
Online volume grow & shrink	✓
Operations Manager	✓
Oracle Disk Manager (ODM) and Cached ODM (CODM)	✓
Partitioned directories	✓
Portable Data Containers (formerly known as Cross-Platform Data Sharing (CDS))	✓
Quick I/O (QIO) and Cached QIO (CQIO)	✓
Remote mirrors for campus clusters	✓
Rolling upgrade	✓
SCSI-3 based I/O fencing	✓
SSD device exploitation	✓
Site awareness with remote mirrors	✓
SmartMove	✓
SmartTier (formerly Dynamic Storage Tiering)	✓
Space-optimized instant snapshot	✓
Split-mirror snapshot	✓
Thin storage reclamation	✓
User & group quotas	✓
iSCSI device support	✓
Replicator option (formerly Volume Replicator)	Optional
Database storage checkpoints & rollback	Oracle only
FlashSnap: Database	Oracle only
SmartTier for Oracle (formerly Database DST)	Oracle only

## Product documentation

[Back to top](#)



### Product guides





Veritas Storage Foundation Cluster File System High Availability Administrator's

Storage Foundation Cluster File System High Availability Guides

Guide - English

  Veritas Storage Foundation Cluster File System High Availability Installation Guide - English

Storage Foundation Guides

  Veritas File System Programmer's Reference Guide - English

Release Notes

 Veritas Storage Foundation Cluster File System High Availability Release Notes - English

▼ Patches for Storage Foundation Cluster File System HA and Platform

[Back to top](#)

Product (recommended)

**Patch**

**Date**

**Size**

<a href="#">cpi-Patch-6.0.5.500</a>	2020-06-02	10.73 KB
<a href="#">fs-hpux1131-Patch-6.0.5.500</a>	2017-01-24	80.1 MB
<a href="#">fsadv-hpux1131-Patch-6.0.5.400</a>	2016-03-17	8.7 MB
<a href="#">glm-hpux1131-Patch-6.0.1.200</a>	2016-03-10	657.75 KB
<a href="#">vcscvm-hpux1131-Patch-6.0.5.400</a>	2016-03-03	341.18 KB
<a href="#">vm-hpux1131-Patch-6.0.5.300</a>	2015-09-22	439.03 MB
<a href="#">cpi-6.0.1.1100</a>	2015-01-06	18.5 KB
<a href="#">odm-hpux1131-6.0.5.100</a>	2014-09-15	7.4 MB
<a href="#">sfha-hpux1131-6.0.5</a>	2014-04-15	774.33 MB
<a href="#">fs-hpux1131-6.0.1.200</a>	2012-09-20	75.88 MB

Platform (required)

HP-UX patch number: [PHKL\\_38651](#)

HP-UX patch number: [PHKL\\_38952](#)

HP-UX patch number: [PHKL\\_40944](#)

HP-UX patch number: [PHKL\\_41086](#)

▼ End of Support Life information

[Back to top](#)

Last updated on 2024-03-25. Refer to [support fundamental](#) for more information about support.

Release Date(GA)	Extended Support Starts	Sustaining Support Starts	End of Support Life Date(EOSL)
2012-09-03	2018-12-01	2020-12-30	2026-12-30

▼ Platform configuration

[Back to top](#)

**Supported platform version. Last updated on 2018-06-12**

Product versionPlatform version6.0.1HP-UX B.11.31.1203, HP-UX B.11.31.1109, HP-UX B.11.31.1103

**Related documentation**[HPUX 11i v3](#)**High availability agents**[Back to top](#)

VCS agent	Documentation	Application version	Release date
<a href="#">Agent Builder 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	Application Agent Builder N/A	2014-10-01
<a href="#">MirrorView 5.0.18.0</a>	<a href="#">VCS Mirrorview Install</a>	EMC Clariion MirrorView N/A	2014-10-01
<a href="#">SRDF 5.0.20.0</a>	<a href="#">VCS Srdf Install</a>	EMC SRDF V7 up to V9.3	2014-10-01
<a href="#">HTC 5.0.12.0</a>	<a href="#">VCS Htc Install</a>	Hitachi TrueCopy; HP XP Continuous Access all versions	2014-10-01
<a href="#">HTC 5.0.12.0</a>	<a href="#">VCS Htc Install</a>	Hitachi Universal Replicator; HP XP Continuous Access all versions	2014-10-01
<a href="#">MetroMirror 5.0.04.0</a>	<a href="#">VCS Metromirror Install</a>	IBM Metro Mirror 5.4.0.656 or later	2014-10-01
<a href="#">WebSphereMQ 5.1.16.0</a>	<a href="#">Vha Webspheremqfte Install</a> <a href="#">Vha Webspheremq Install</a>	IBM WebSphere MQ 5.3, 6.0, 7.0, 7.1, 7.5, 8.x, 9.0, 9.1, 9.2, 9.3	2014-10-01
<a href="#">OracleAS9 5.1.7.0</a>	<a href="#">Vha Oraappserver Install</a>	Oracle Fusion Middleware 11g 11.1.x	2014-10-01
<a href="#">TibcoEMS 5.1.3.0</a>	<a href="#">VCS Tibco Appnote</a> <a href="#">VCS Tibcoems Install</a>	Tibco EMS 4.4.0, 4.4.1, 4.4.2, 4.4.3, 5.0.0, 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 6.0.0, 6.3, 7.0, 8.0, 8.1, 8.2, 8.3, 8.5, 8.6 and all intermediate minor versions of this release	2014-10-01
<a href="#">ActiveMQ 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	Apache ActiveMQ 4.0, 4.1, 5.0, 5.1, 5.2, 5.3	2014-07-01
<a href="#">IntegrationBus 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	IBM Integration Bus 9.0, 10.x	2014-07-01
<a href="#">WSCommerce 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	IBM WebSphere Commerce 5.0 , 5.1 , 6.0 , 6.1	2014-07-01
<a href="#">WebSphereMessageBroker 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	IBM WebSphere Message Broker 6.0, 6.1, 7.0, 8.0	2014-07-01
<a href="#">Dataguard 5.0.8.0</a>	<a href="#">VCS Oradg Install</a>	Oracle DataGuard 10.2.x.x	2014-07-01
<a href="#">SybaseLM 5.1.10.0</a>	<a href="#">Appnote Agentbuilder</a>	Sybase License Manager 12.5.X, 15.0	2014-07-01
<a href="#">RemoteCopy 5.0.04.0</a>		HP 3PAR RemoteCopy 2.3.1,3.2.2 and above	2014-04-01
<a href="#">WebSphereMQFTE 5.1.16.0</a>	<a href="#">Vha Webspheremqfte Install</a> <a href="#">Vha Webspheremq Install</a>	IBM WebSphere MQ FTE 7, 8.0	2014-04-01
<a href="#">MySQL 5.1.4.0</a>	<a href="#">VCS Mysql Install</a>	MySQL 5.0, 5.1, 5.5, 5.6, 5.7, 8.0	2014-04-01
<a href="#">OracleApps 5.0.10.0</a>	<a href="#">VCS Oraebizconcurrentmgr Install</a> <a href="#">VCS Oraebizcomponents Install</a>	Oracle E-Business Components 11i, R12 11.5.7, 11.5.8, 11.5.9, 11.5.10, 12.0, 12.0.4, 12.0.6, 12.1.1, 12.1.2, 12.1.3, 12.2.x	2014-04-01
<a href="#">OracleAppsCM 5.0.10.0</a>	<a href="#">VCS Oraebizconcurrentmgr Install</a> <a href="#">VCS Oraebizcomponents Install</a>	Oracle E-Business Concurrent Manager 11i, R12 11.5.7, 11.5.8, 11.5.9, 11.5.10, 12.0, 12.0.4, 12.0.6, 12.1.1, 12.1.2, 12.1.3, 12.2.x	2014-04-01
		Oracle PeopleSoft PeopleTools 8.x (8.41, 8.42, 8.43, 8.44, 8.45,	

Tuxedo 5.0.7.0	VCS Tuxedo Install	8.46, 8.47, 8.48, 8.49, 8.50, 8.52, 8.53)	2014-04-01
SAPMaxDB 5.0.7.0	VCS Sapmaxdb Install	SAP MAXDB 7.5, 7.6, 7.7, 7.8, 7.9 and all intermediate versions	2014-04-01
Apache 6.0.000.000		Apache 1.3, 2.0, 2.2, 2.4.x and IBM HTTP Server 7.x, 8.x	2014-01-01
ContentServer, ConnectionBroker 5.1.2.0	VCS Connectionbroker Install VCS Contentserver Install	Documentum 6.5, 7.x	2014-01-01
SVCCopyServices 5.0.13.0	VCS Svc Install	IBM Global Mirror (SVC); IBM Storwize V7000 All versions from 4.1 and above	2014-01-01
Informix 5.1.6.0	Vha Informix Install	IBM Informix Dynamic Server 7.31, 9.21, 9.30, 9.40, 10.0, 11.10, 11.50, 11.70, 12.10, 14.10	2014-01-01
SVCCopyServices 5.0.13.0	VCS Svc Install	IBM Metro Mirror (SVC); IBM Storwize V7000 All versions from 4.1 and above	2014-01-01
SnapMirror 5.0.06.0	VCS Netappsmr Install	Netapp SnapMirror 7 Mode 6.4, 7.3, 8.2, 8.3	2014-01-01
OracleAS9 5.1.7.0	Vha Oraappserver Install	Oracle Application Server 10g 10.1.x, 9.0.x	2014-01-01
OracleAS9 5.1.7.0	Vha Oraappserver Install	Oracle Enterprise Manager Grid Control 10g, 11g, 12c	2014-01-01
SAPNW04 5		SAP - DR (white paper) v4.6. 4.7, 6.2. 6.4, 7.0, NW04, NW04s	2014-01-01
PostgreSQL 5.1.5.0	VCS Postgresql Install	PostgreSQL 8.1, 8.4, 9.x, 10.x	2013-10-04
WebSphere 5.1.13.0	VCS Websphere Install	IBM WebSphere Application Server 5.0, 5.1, 6.0, 6.1, 7.0, 8.0, 8.5, 9.0	2013-10-03
SAPComponents 5.1.5.0	VCS Sapnetweaver Install VCS Saplivecache Install VCS Sapcomponents Install VCS Sapwebas Install	SAP Components - Gateway, WebDispatcher, MDM, Content Server NetWeaver MDM 7.1,7.5	2013-10-03
SAPLiveCache 5.0.8.0	VCS Sapnetweaver Install VCS Saplivecache Install VCS Sapcomponents Install VCS Sapwebas Install	SAP LiveCache 7.5, 7.6, 7.7, 7.9 and all intermediate versions	2013-10-03
SAPNW04 5.0.16.0	VCS Sapnetweaver Install VCS Saplivecache Install VCS Sapcomponents Install VCS Sapwebas Install	SAP NetWeaver SAP R/3 4.6, R/3 Enterprise 4.7, NW04, NW04s, ERP/ECC 5.0/6.0, SCM/APO 4.1/5.0/5.1/7.0, SRM 4.0/5.0/7.0, CRM 4.0/5.0/7.0	2013-10-03
SAPWebAS71 5.0.10.0	VCS Sapnetweaver Install VCS Saplivecache Install VCS Sapcomponents Install VCS Sapwebas Install	SAP NetWeaver 7.1, 7.2, 7.3, 7.4 PI, CE, Mobile	2013-10-03
WebLogic 5.1.17.0	VCS Weblogic Install	BEA AquaLogic Service Bus 3	2013-07-01
HTC3DC 5.0.1.0	VCS Htc3dc Install	Hitachi/HP XP 3 Data Center Replication All versions (that support 3 Data Center replication)	2013-07-01
WebLogic 5.1.17.0	VCS Weblogic Install	Oracle WebLogic Server 7, 8, 9.1, 9.2, 10, 10.3, 10.3.x, 12c, 12cR2, 14c	2013-07-01
Application N/A		SAPHostAgent SAPHostAgent [SAPNetWeaver 7.0 EhP 2 and higher]	2012-07-02

VPLEX N/A		EMC VPLEX N/A	2012-01-05
PowerCenterSvcMgr 5.0.4.0	VCS Powercentersvcmgr Install	Informatica PowerCenter 8.1.1, 8.5, 8.5.1, 8.6, 8.6.1, 9.1, 9.5, 9.5.1, 9.6	2012-01-05
Dataguard 5.0.8.0	VCS Oradg Install	Oracle DataGuard 11.2.x.x	2012-01-05
Essbase 5.1.1.0	VCS Essbase Install	Oracle Essbase 11.1.1, 11.1.2.4	2012-01-05
All File Share Agents 6.0.000.000		Veritas Bundled File Share agents 6.0	2012-01-05
All Infrastructure and support agents 6.0.000.000		Veritas Bundled Infrastructure and support agents 6.0	2012-01-05
All Network Agents 6.0.000.000		Veritas Bundled Network agents 6.0	2012-01-05
All VVR Agents 6.0.000.000		Veritas Bundled Replication agents 6.0	2012-01-05
All Service and Application Agents 6.0.000.000		Veritas Bundled Service and Application agents 6.0	2012-01-05
All Storage Agents 6.0.000.000		Veritas Bundled Storage agents 6.0	2012-01-05
All VVR Agents 6.0.000.000		Veritas Volume Replicator agents 6.0	2012-01-05
Db2udb 6.0		IBM DB2 Database 9.1, 9.5, 9.7, 10.1, 10.5	2012-01-04
Oracle, Netlsnr, ASMinst, ASMDG 6.0		Oracle Database with ASM 10gR2, 11gR1, 11gR2	2012-01-04
Sybase, SybaseBk 6.0		Sybase Database 12.5.x, 15.x (ASE/SQL Server, Backup Server)	2012-01-04
VRTSacclib 5.2.4.0	Acclib Install	ACC Library N/A	2011-12-22
SRDFStar 5.0.04.0	VCS Srdfstar Install	EMC SRDF/Star 6.4.1 and later	2010-10-04
EVACA 5.0.01.0	VCS Hp Eva Ca Install	HP EVA CA 8 and later	2010-10-04
GlobalMirror 5.0.05.0	VCS Metromirror Install	IBM Global Mirror 5.4.0.656 or later	2010-10-04

### ▼ Host bus adapter (HBA) parameters and switch parameters

[Back to top](#)

Unless otherwise stated, the specified Veritas product supports all HBAs (except iSCSI HBAs) and fibre channel switches supported by the platform and storage array manufacturers listed in the hardware compatibility list (HCL). For more details, click the link to the [HCL](#).

### ▼ Operations Manager

[Back to top](#)

Veritas InfoScale Operations Manager gives you a single, centralized management console for the InfoScale products. You can use it to monitor, visualize, and manage storage and cluster resources, and generate reports about these components in the Management Server domain. It can also help administrators centrally manage diverse data center environments. This section lists the documents for Veritas InfoScale Operations Manager 8.0.2.

Documentation

### ▼ Array Support Libraries (ASLs)

[Back to top](#)

Array family (model)	Documentation	Libraries

3PAR E-Class, S-Class		libvx3par (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Dell EMC CLARiiON CX series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Dell EMC CLARiiON CX3 series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Dell EMC CLARiiON CX4 series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Dell EMC Symmetrix DMX series		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Dell EMC Symmetrix VMAX series		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Dell EMC Unity series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Dell EMC VMAX3/VMAX All Flash Family series		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxemc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the	



Dell EMC VNX series		package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Dell EMC VNX2 series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Dell EMC VNX2e series		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxCLARiiON (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Dell EMC VPLEX		libvxInvista (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxInvista (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxInvista (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Fujitsu ETERNUS DX400/DX500 /DX600 series		libvxFJTSYe8k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS DX60/DX80/DX90 /DX100/DX200 series		libvxfjtsye2k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS DX8000 series		libvxFJTSYe8k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS2000 series	<a href="#">ETERNUS2000 Disk Storage Systems</a>	libvxfjtsye2k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS4000 series	<a href="#">ETERNUS4000 Disk Storage Systems</a>	libvxFJTSYe8k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS8000 series	<a href="#">ETERNUS8000 Disk Storage Systems</a>	libvxFJTSYe8k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Fujitsu ETERNUS VS850		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>

		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hewlett Packard Enterprise 2000 G2 series		libvxmsa2kfc_sa (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise 3PAR F/T-Class, StoreServ 7000/8000/9000 /10000/20000 Storage		libvx3par (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise EVA4000 /6000/8000		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hewlett Packard Enterprise EVA4100 /6100/8100		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise EVA4400 /6400/8400 series		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hewlett Packard Enterprise P2000 G3 MSA series		libvxmsa2kfc_sa (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise P6000 EVA series		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhpalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hewlett Packard Enterprise XP10000 /12000		libvxxp12k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxxp1281024 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise XP20000 /24000		libvxxp1281024 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxxp12k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hewlett Packard Enterprise P9500		libvxxp1281024 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxxp12k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxxp1281024 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media

Hewlett Packard Enterprise XP7		libvxxp12k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi AMS/WMS series		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hitachi HUS 100 series	<a href="#">Hitachi Unified Storage 100 Family</a>	libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hitachi SMS/AMS2000 series		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hitachi Thunder 9500V series	<a href="#">Thunder 9500V Series Modular Storage Systems</a>	libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhdsalua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi USP/NSC series		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hitachi USPV/USPVM		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already

Hitachi VSP G series		package <a href="#">VRTSaslapm</a> )	embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi VSP Gx00/Fx00 series		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi 9970V		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Hitachi 9980		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi HUS VM		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Hitachi VSP		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media

Huawei OceanStor Series		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Huawei S5000 series		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Huawei VIS series		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhuawei (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
IBM Spectrum Virtualize series		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
IBM Storwize series		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxibmsvc (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
IBM System Storage DS5000 series		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
IBM System Storage DS8000 series	<a href="#">IBM System Storage DS8000 series</a>	libvxibmds8k (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxibmds8k (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already

		package <a href="#">VRTSaslapm</a> )	embedded in the install media
IBM System Storage N series	<a href="#">IBM System Storage N series</a> <a href="#">IBM System Storage N7000 Modular Disk Storage System</a>	libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
IBM System Storage XIV series		libvxxiv (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
IBM TotalStorage DS4000 series	<a href="#">IBM DS4000 series: Overview - IBM TotalStorage Disk Storage Systems</a>	libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
IBM DS3950		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
IBM DS5020		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
NEC iStorage M series		libvxnipnyis (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
NetApp AFF Series		libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
NetApp FAS2000/FAS900/FAS200 series		libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
NetApp FAS3000/V3000 series		libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
NetApp FAS6000/V6000 series		libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
NetApp FAS8000/FAS9000 Series		libvxnetapp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Oracle Storage 6580/6780 series		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Oracle StorageTek 9900 series		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the	The required ASL is already

		package <a href="#">VRTSaslapm</a> )	embedded in the install media
Oracle StorageTek 9985V system		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
Oracle StorageTek 9990V system		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>
		libvxhds9980 (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxhdsusp (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
Oracle Sun Storage 6180 array		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	The required ASL is already embedded in the install media
		libvxlsialua (embedded in the package <a href="#">VRTSaslapm</a> )	See <a href="#">TechNote</a>