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# Installation and Upgrade Checklist Report for Storage Foundation Cluster File System HA 5.1SP1, SUSE Linux Enterprise Server 10 , x86-64

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## Important Notes

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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 5.1 SP1 release, you can create and mount only file systems with disk layout Version 6, Version 7, or Version 8. Neither VxFS 5.1 nor VxFS 5.1 SP1 supports disk layout version 4. Before you install VxFS 5.1 you can upgrade this unsupported layout version online using the vxupgrade utility.

Before you install VxFS 5.1, you should upgrade VxFS disk layouts to a supported version. VxFS 5.1 SP1 can mount disk layout version 4 only to perform an online upgrade. Note that VxFS 5.1 cannot mount disk layout version 4.

For more information about this issue, see http://www.symantec.com/docs/TECH78028.
For more information about disk layouts, see Veritas File System Administrator's Guide.

**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

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**Required number of CPUs:** 2

**Required memory:** 1 GB

**Required disk space:**

| Partitions | Minimum space required | Maximum space required | Recommended space |
|---|---|---|---|

| | | | |
|---|---|---|---|
| /opt | 583 MB | 1063 MB | 990 MB |
| /root | 144 MB | 155 MB | 154 MB |
| /usr | 157 MB | 158 MB | 158 MB |
| /var | 1 MB | 1 MB | 1 MB |

**Supported architectures:**

AMD Opteron architecture [1]

Intel EM64T architecture [1]

1. Supports only the 64-bit versions of the software stacks.

## Product documentation

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| Product guides | |
|---|---|
| Release Notes | Veritas Storage Foundation Cluster File System Release Notes - English |
| Storage Foundation Cluster File System Guides | Veritas Storage Foundation Cluster File System Installation Guide - English |
| | Veritas Storage Foundation Cluster File System Administrator's Guide - English |
| File System Guides | Veritas File System Administrator's Guide - English |
| | Veritas File System Programmer's Reference Guide - English |

## Patches for Storage Foundation Cluster File System HA and Platform

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Product (recommended)

| Patch | Date | Size |
|---|---|---|
| cpi-5.1SP1RP4P3 | 2016-06-01 | 7.61 KB |
| cpi-5.1SP1HF14 | 2014-09-03 | 24.31 KB |
| sfha-sles10_x86_64-5.1SP1RP4 | 2013-08-21 | 214.98 MB |
| cpi-5.1SP1RP2P5 | 2013-03-27 | 5.15 KB |
| cpi-5.1SP1RP1P4 | 2012-10-31 | 6.77 KB |
| vea-5.1SP1RP1HF1 | 2012-03-22 | 31.57 MB |

Platform (required)

No patches required.

## End of Support Life information

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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) |
|---|---|---|---|
| 2010-10-30 | 2016-12-19 | 2018-12-31 | 2024-12-31 |

## Platform configuration

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Unless otherwise stated, the specified Veritas product supports all platform kernel versions.

**Supported platform version**

Product versionPlatform version5.1SP1 SUSE Linux Enterprise Server 10

**Required platform packages:**

compat-libstdc++ 5.0.7
coreutils 5.93
ed 0.2
findutils 4.2.27
glibc 2.4
glibc-32bit 2.4
ksh 93r
libacl-32bit 2.2.34
libgcc 4.1.0
libstdc++ 4.1.0
module-init-tools 3.2.2
pam 0.99.3.0
pam-32bit 0.99.3.0
parted 1.6.25.1

**Related documentation**

SUSE Linux Enterprise Server 10

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

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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

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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)

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| Array family (model) | Documentation | Libraries | |
|---|---|---|---|
| 3PAR E-Class, S-Class | | libvx3par (embedded in the package VRTSaslapm) | See TechNote |
| Dell EqualLogic PS3000 series | | libvxeqlogic (embedded in the package VRTSaslapm) | See TechNote |
| Dell EqualLogic PS4000 series | | libvxeqlogic (embedded in the package VRTSaslapm) | See TechNote |
| Dell EqualLogic PS5000 series | | libvxeqlogic (embedded in the package VRTSaslapm) | See TechNote |
| Dell EqualLogic PS6000 series | | libvxeqlogic (embedded in the package VRTSaslapm) | See TechNote |
| Dot Hill 5730 | | libvxdothill (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON AX series | | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON CX series | CLARiiON CX Series | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON CX3 series | | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON CX3 series with PowerPath | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON CX4 series | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |
| EMC CLARiiON CX4 series with PowerPath | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC Symmetrix 8000 series | EMC Symmetrix 8000 Series | libvxemc (embedded in the package VRTSaslapm) | See TechNote |
| EMC Symmetrix DMX series with PowerPath | EMC Symmetrix DMX Architecture | libvxemc (embedded in the package VRTSaslapm) | See TechNote |
| EMC Symmetrix DMX series | EMC Symmetrix DMX Architecture | libvxemc (embedded in the package VRTSaslapm) | See TechNote |
| EMC Symmetrix VMAX series | | libvxemc (embedded in the package VRTSaslapm) | See TechNote |
| EMC Symmetrix VMAX series with PowerPath | | libvxemc (embedded in the package VRTSaslapm) | See TechNote |
| EMC VNX series with PowerPath | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |

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| EMC VNX series | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC VNX2 series | | libvxCLARiiON (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC VNX2 series with PowerPath | | libvxpp (embedded in the package VRTSaslapm) | See TechNote |
| EMC VPLEX | | libvxInvista (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS DX400/DX500 /DX600 series | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS DX60/DX80/DX90 /DX100/DX200 series | | libvxfjtsye2k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxfjtsye2k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS DX8000 series | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS2000 series | ETERNUS2000 Disk Storage Systems | libvxfjtsye2k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxfjtsye2k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS4000 series | ETERNUS4000 Disk Storage Systems | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS8000 series | ETERNUS8000 Disk Storage Systems | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxFJTSYe8k (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu FibreCAT SX80/100 series | | libvxfsc (embedded in the package VRTSaslapm) | See TechNote |
| Fujitsu ETERNUS VS850 | | libvxibmsvc (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxibmsvc (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise 2000 G2 series | | libvxmsa2kfc_sa (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise 3PAR F/T-Class, StoreServ 7000/8000/10000 /20000 Storage | | libvx3par (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise EVA4000 /6000/8000 | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise EVA4100 /6100/8100 | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise EVA4400 /6400/8400 series | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise MSA2000fc series | | libvxmsa2k (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise P2000 G3 MSA series | | libvxmsa2kfc_sa (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise P6000 | | | |

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|---|---|---|---|
| EVA series | | libvxhpalua (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise XP10000 /12000 | | libvxxp12k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp256 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise XP20000 /24000 | | libvxxp256 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp12k (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| Hewlett Packard Enterprise P9500 | | libvxxp256 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp1281024 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxp12k (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi AMS/WMS series | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi HUS 100 series | Hitachi Unified Storage 100 Family | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi Lightning 9900V series | Lightning 9900V Series Enterprise Storage Systems | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi SMS/AMS2000 series | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi Thunder 9500V series | Thunder 9500V Series Modular Storage Systems | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi USP/NSC series | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi USPV/USPVM | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi HUS VM | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| Hitachi TMS1000 | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsalua (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |

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|---|---|---|---|
| Hitachi VSP | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| Huawei S5000 series | | libvxhuawei (embedded in the package VRTSaslapm) | See TechNote |
| Huawei S5000T series | | libvxhuawei (embedded in the package VRTSaslapm) | See TechNote |
| Huawei VIS series | | libvxhuawei (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhuawei (embedded in the package VRTSaslapm) | See TechNote |
| IBM Storwize series | | libvxibmsvc (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxibmsvc (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage DS3000 series | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage DS5000 series | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage DS6000 series | IBM System Storage DS6000 Series | libvxibmds6k (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage DS8000 series | IBM System Storage DS8000 series | libvxibmds8k (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage N series | IBM System Storage N series<br>IBM System Storage N7000 Modular Disk Storage System | libvxnetapp (embedded in the package VRTSaslapm) | See TechNote |
| IBM System Storage XIV series | | libvxxiv (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxxiv (embedded in the package VRTSaslapm) | See TechNote |
| IBM TotalStorage DS4000 series | IBM DS4000 series: Overview - IBM TotalStorage Disk Storage Systems | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| IBM DS3950 | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| IBM DS5020 | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| NetApp FAS2000/FAS900/FAS200 series | | libvxnetapp (embedded in the package VRTSaslapm) | See TechNote |
| NetApp FAS3000/V3000 series | | libvxnetapp (embedded in the package VRTSaslapm) | See TechNote |
| NetApp FAS6000/V6000 series | | libvxnetapp (embedded in the package VRTSaslapm) | See TechNote |
| NetApp FAS8000/FAS9000 Series | | libvxnetapp (embedded in the package VRTSaslapm) | See TechNote |
| Oracle Storage 6580/6780 series | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 2500 series | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 9900 series | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |

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| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 9985/9990 series | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| Oracle ZFS Storage Appliance series | | libvxsun7x10 (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 6140 array | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 9985V system | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| Oracle StorageTek 9990V system | | libvxhds9980 (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhdsusp (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxhds (embedded in the package VRTSaslapm) | See TechNote |
| Oracle Sun Storage 6180 array | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |
| | | libvxlsiall (embedded in the package VRTSaslapm) | See TechNote |