

```
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```

Installation and Upgrade Checklist Report for InfoScale Foundation 7.4.1, Red Hat Enterprise Linux 7 , x86-64

▼ Index

[Back to top](#)

- Important Notes
- Components for InfoScale
- System requirements
- Product features
- Product documentation
- Patches for InfoScale Foundation and Platform
- End of Support Life information
- Platform configuration
- Host bus adapter (HBA) parameters and switch parameters
- Operations Manager
- Array Support Libraries (ASLs)

▼ Important Notes

[Back to top](#)

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.

▼ Components for InfoScale

[Back to top](#)

The InfoScale product you selected contains the following component(s).

- Dynamic Multi-Pathing
- Storage Foundation Basic

Get more introduction of Veritas InfoScale.

▼ System requirements

[Back to top](#)

Required memory: 1 GB

Required disk space:

Total space required: 967MB

Product features[Back to top](#)

The features in the list are enabled in this release.

Feature	InfoScale Foundation
1-256 TB File System	✓
2FA/PKI (2 Factor Authentication) Support in InfoScale (VIOM)	✓
ALUA and Generic ALUA Array Support	✓
API for moving the host to DATA CENTER, based on organization rule (VIOM)	✓
Ability to visualize the replication groups - Discovery (VIOM)	✓
Alert for SG Freeze/Unfreeze with time counter	✓
Data management application programming interface (DMAPI)	✓
Deployment of InfoScale through CPI integration with CHEF automation platform	✓
Deployment simplification : Ansible support	✓
Device names consistent across cluster nodes	✓
Device names using Array Volume IDs	✓
Dirty region logging	✓
Dynamic LUN expansion	✓
Dynamic Multi-pathing	✓
Dynamic Multi-pathing - Intelligent pathing for EMC VPLEX	✓
Ease of Use: VIOM API Functionality and DR support using SRDF	✓
Enclosure based naming	✓
Encryption of data at rest - Federal Information Processing Standards (FIPS) Certified	✓
Fault tolerant file system	✓
File Change Log	✓
File system migration from EXT4 to VxFS	✓
File system snapshots	✓
Generic ASL support for NVMe or SSD type devices	✓
Import cloned LUN	✓
InfoScale Ansible module (tech preview)	✓
Installer - Required patches for OS updates	✓
Installer-SORT Integration	✓
Keyless licensing	✓
License Auditing Tool (VIOM)	✓
Licensing simplification: SLIC Migration	✓
Logging enhancements on Dynamic Multi-Pathing for VMware	✓
Modularized CPI (MCPI)	✓
Mount lock	✓
Moving HOST to child organization, based on OE rule (VIOM)	✓
Named data streams	✓

Native package install/upgrade support for Linux	✓
NetApp C-Dot Array Support	✓
Online file system defragmentation	✓
Online file system grow & shrink	✓
Online patching of selected Volume Manager packages	✓
Online relay out	✓
Online volume grow & shrink	✓
Operations Manager	✓
Partitioned directories	✓
Public Cloud support - Amazon Web Services (AWS) infrastructure	✓
Public-Sector Compliance: IPv6 InfoScale Stack-Wide Support	✓
Puppet support	✓
Quality of Service (QoS) for applications	✓
S3 cloud file level tiering	✓
SELinux Support with RHEL 7.6 & other security enhancements	✓
SNMP v3 support (VIOM)	✓
SSD device exploitation	✓
Security Improvements addressing issues reported by EOM partners and customers (Meltdown, Spectre, and Retpoline Kernel Support)	✓
Site awareness with remote mirrors	✓
SmartIO Support for vMotion with DMP for VMware with SmartPools	✓
SmartTier (formerly Dynamic Storage Tiering)	✓
Support for Erasure Coded volumes	✓
Support for native 4k sector size storage devices	✓
Support systemd	✓
Telemetry : Licensing & Compliance	✓
Thin storage reclamation using UNMAP	✓
Third Party Certificate Support	✓
Third-party components upgrade ensuring security	✓
VIOM API for service group management (Online/Offline/Switch)	✓
iSCSI device support	✓

Product documentation






















[Back to top](#)

Manual pages

Manual Pages



Veritas InfoScale Foundation Manual Pages - English

Compatibility lists	
Compatibility lists	 Veritas InfoScale Hardware Compatibility List - English
	 Veritas InfoScale Software Compatibility List - English
	 Veritas InfoScale™ Support Matrix for Sybase® - English
	 Veritas InfoScale™ Support Matrix for Oracle® - English
	 Veritas InfoScale Software Compatibility List - English
	 Veritas InfoScale Hardware Compatibility List - English
Product guides	
Getting Started	  Veritas InfoScale Getting Started Guide - English
Installation Guide	  Veritas InfoScale Installation Guide - English
Release Notes	  Veritas InfoScale 7.4.1 Release Notes - English
	  Veritas InfoScale 7.4.1 Patch 1200 Release Notes - English
	  Veritas InfoScale 7.4.1 Support for SUSE 15 Release Notes - Linux - English
	 Updates, Patches, and Late Breaking News (LBN) for Veritas InfoScale 7.4.1 (AIX, Linux, Solaris) - English
InfoScale Solutions Guides	  Veritas InfoScale Troubleshooting Guide - English
Dynamic Multi-Pathing Guide	  Dynamic Multi-Pathing Administrator's Guide - English

▼ Patches for InfoScale Foundation and Platform

[Back to top](#)

Product (recommended)

Patch

Date

Size

[cpi-Patch-7.4.1.4000](#)

2023-10-19

93.27 KB

[infoscale-rhel7...Patch-7.4.1.3100](#)

2022-01-16

680.81 MB

[infoscale-rhel7...Patch-7.4.1.2900](#)

2021-10-27

731.99 MB

[sig_licensing-rh...-Patch-7.4.1.203](#)

2021-09-28

151.98 MB

Platform (required)

No patches required.

▼ End of Support Life information

[Back to top](#)

Last updated on 2024-04-19. Refer to [EOSL page](#) for more information about support.

Release Date(GA)	Extended Support Starts	Sustaining Support Starts	End of Support Life Date(EOSL)
2019-02-01	2024-07-31	2026-07-31	-

▼ Platform configuration

[Back to top](#)

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

Supported platform version. Last updated on 2020-12-03

Product versionPlatform version7.4.1Update 4, 5, 6, 7 with product patch, 8 with product patch, 9 with product patch

Required platform packages:

- policycoreutils.x86_64
- bc.x86_64
- glibc.x86_64
- ncurses-libs.x86_64
- libgcc.x86_64
- coreutils.x86_64
- findutils.x86_64
- ed.x86_64

▼ 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).

▼ 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
Amazon Elastic Block Store		libvxxvd (embedded in the package VRTSaslapm)
Amazon Instance Store		libvxxvd (embedded in the package VRTSaslapm)
Dell EMC CLARiiON AX series		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC EqualLogic PS3000 series		libvxeqlogic (embedded in the package VRTSaslapm)
Dell EMC EqualLogic PS4000 series		libvxeqlogic (embedded in the package VRTSaslapm)
Dell EMC EqualLogic PS6000 series		libvxeqlogic (embedded in the package VRTSaslapm)
Dell EMC SC Series		libvxcompellent (embedded in the package VRTSaslapm)
Dell EMC Symmetrix DMX series		libvxemc (embedded in the package VRTSaslapm)
Dell EMC Symmetrix VMAX series		libvxemc (embedded in the package VRTSaslapm)
Dell EMC Symmetrix VMAX series with PowerPath		libvxemc (embedded in the package VRTSaslapm)
Dell EMC Unity series		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC VMAX3/VMAX All Flash Family series		libvxemc (embedded in the package VRTSaslapm)
Dell EMC VMAX3/VMAX All Flash Family series with PowerPath		libvxemc (embedded in the package VRTSaslapm)
Dell EMC VNX series		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC VNX2 series		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC ScaleIO		libvxemcscaleIO (embedded in the package VRTSaslapm)
Dell EMC VNXe1600		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC VNXe3200		libvxCLARiiON (embedded in the package VRTSaslapm)
Dell EMC VPLEX		libvxInvista (embedded in the package VRTSaslapm)
Dell EMC VPLEX with PowerPath		libvxInvista (embedded in the package VRTSaslapm)
Dell EMC XtremIO		libvxXtremio (embedded in the package VRTSaslapm)
Fujitsu ETERNUS DX400/DX500 /DX600 series		libvxFJTSYe8k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS DX60/DX80/DX90 /DX100/DX200 series		libvxfjtsye2k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS DX8000 series		libvxFJTSYe8k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS2000 series	ETERNUS2000 Disk Storage Systems	libvxfjtsye2k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS4000 series	ETERNUS4000 Disk Storage Systems	libvxFJTSYe8k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS8000 series	ETERNUS8000 Disk Storage Systems	libvxFJTSYe8k (embedded in the package VRTSaslapm)
Fujitsu ETERNUS VS850		libvxibmsvc (embedded in the package VRTSaslapm)

Hewlett Packard Enterprise 3PAR F/T-Class, StoreServ 7000/8000/9000 /10000/20000 Storage		libvx3par (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise MSA2000fc series		libvxmsa2k (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise MSA 1040 SAN		libvxmsa2kfc_sa (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise MSA 2040 SAN		libvxmsa2kfc_sa (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise MSA2012sa		libvxmsa2kfc_sa (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise P9500		libvxxp1281024 (embedded in the package VRTSaslapm)	
		libvxxp256 (embedded in the package VRTSaslapm)	
		libvxxp12k (embedded in the package VRTSaslapm)	
Hewlett Packard Enterprise XP7		libvxxp256 (embedded in the package VRTSaslapm)	
		libvxxp12k (embedded in the package VRTSaslapm)	
		libvxxp1281024 (embedded in the package VRTSaslapm)	
Hitachi HUS 100 series	Hitachi Unified Storage 100 Family	libvxhdsalua (embedded in the package VRTSaslapm)	
Hitachi SMS/AMS2000 series		libvxhdsalua (embedded in the package VRTSaslapm)	
Hitachi VSP E series		libvxhdsusp (embedded in the package VRTSaslapm)	
Hitachi VSP G series		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
Hitachi VSP Gx00/Fx00 series		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
		libvxhds9980 (embedded in the package VRTSaslapm)	
Hitachi HUS VM		libvxhds (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	

Hitachi VSP		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
Huawei OceanStor Series		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei S5000 series		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei VIS series		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei 18500		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei 18800		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei 18800F		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei HVS85T		libvxhuawei (embedded in the package VRTSaslapm)	
Huawei HVS88T		libvxhuawei (embedded in the package VRTSaslapm)	
IBM Spectrum Virtualize series		libvxibmsvc (embedded in the package VRTSaslapm)	
IBM Storwize series		libvxibmsvc (embedded in the package VRTSaslapm)	
IBM System Storage DS3000 series		libvxlsiall (embedded in the package VRTSaslapm)	
IBM System Storage DS3500 series		libvxlsiall (embedded in the package VRTSaslapm)	
IBM System Storage DS8000 series	IBM System Storage DS8000 series	libvxibm8k (embedded in the package VRTSaslapm)	
IBM System Storage XIV series		libvxixiv (embedded in the package VRTSaslapm)	
Imation Nexsan E-Series Systems		libvxnexsan (embedded in the package VRTSaslapm)	
Infinidat InfiniBox F-Series		libvxinfinibox (embedded in the package VRTSaslapm)	
		libvxinfinibox (embedded in the package VRTSaslapm)	
Kaminario K2		libvxKaminario (embedded in the package VRTSaslapm)	
NEC iStorage D1/D3 series		libvxnipnyis (embedded in the package VRTSaslapm)	
NEC iStorage D8 series		libvxnipnyis (embedded in the package VRTSaslapm)	
NEC iStorage M series		libvxnipnyis (embedded in the package VRTSaslapm)	
NEC Symmetrix DMX-4		libvxemc (embedded in the package VRTSaslapm)	
		libvxpp (embedded in the package VRTSaslapm)	
NEC Symmetrix DMX-4 with PowerPath		libvxpp (embedded in the package VRTSaslapm)	
		libvxemc (embedded in the package VRTSaslapm)	
NEC Symmetrix VMAX with PowerPath		libvxemc (embedded in the package VRTSaslapm)	
NEC Symmetrix VMAX		libvxemc (embedded in the package VRTSaslapm)	
NetApp AFF Series		libvxnetapp (embedded in the package VRTSaslapm)	
		libvxnetaplsi (embedded in the package VRTSaslapm)	
NetApp E_SERIES		libvxnetaplsi (embedded in the package VRTSaslapm)	
		libvxnetapp (embedded in the package VRTSaslapm)	
		libvxnetapp (embedded in the package VRTSaslapm)	

NetApp FAS2000/FAS900/FAS200 series		libvxnetaplsi (embedded in the package VRTSaslapm)	
NetApp FAS3000/V3000 series		libvxnetaplsi (embedded in the package VRTSaslapm)	
		libvxnetapp (embedded in the package VRTSaslapm)	
NetApp FAS6000/V6000 series		libvxnetapp (embedded in the package VRTSaslapm)	
		libvxnetaplsi (embedded in the package VRTSaslapm)	
NetApp FAS8000/FAS9000 Series		libvxnetapp (embedded in the package VRTSaslapm)	
Nexsan SATABeast2		libvxnexsan (embedded in the package VRTSaslapm)	
NimbleStorage CS/AF-Series		libvxnimble (embedded in the package VRTSaslapm)	
NimbleStorage CS/AF/HF-Series		libvxnimble (embedded in the package VRTSaslapm)	
Oracle Storage 6580/6780 series		libvxliall (embedded in the package VRTSaslapm)	
Oracle StorageTek 2500 series		libvxliall (embedded in the package VRTSaslapm)	
Oracle StorageTek 9900 series		libvxhds (embedded in the package VRTSaslapm)	
		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
Oracle StorageTek 9985/9990 series		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
Oracle ZFS Storage Appliance series		libvxsun7x10 (embedded in the package VRTSaslapm)	
Oracle FS1-2		libvxoracle-FS1 (embedded in the package VRTSaslapm)	
Oracle StorageTek 6140 array		libvxliall (embedded in the package VRTSaslapm)	
Oracle StorageTek 9985V system		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
Oracle StorageTek 9990V system		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhdsusp (embedded in the package VRTSaslapm)	
		libvxhds9980 (embedded in the package VRTSaslapm)	
		libvxhds (embedded in the package VRTSaslapm)	
Oracle Sun Storage 6180 array		libvxliall (embedded in the package VRTSaslapm)	

Pure Storage FlashArray series		libvxpurestorage (embedded in the package VRTSaslapm)	
		libvxpurestorage (embedded in the package VRTSaslapm)	
SanDisk ioMemory PX600 series		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ioMemory SX300 series		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ioMemory SX350 series		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ioDrive		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ioDrive Duo		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ioDrive2		libvxfusionio (embedded in the package VRTSaslapm)	
SanDisk ION Data Accelerator		libvxfusionION (embedded in the package VRTSaslapm)	
SanDisk ioScale2		libvxfusionio (embedded in the package VRTSaslapm)	
Shannon Direct-IO		libShannonSSD (embedded in the package VRTSaslapm)	
StorageTek FlexLine 200/300 series		libvxlsiall (embedded in the package VRTSaslapm)	
Sun StorEdge 3510/3511		libvxsunse3k (embedded in the package VRTSaslapm)	
Violin Memory Violin 3000/6000 series		libvxviolin (embedded in the package VRTSaslapm)	