

Veritas InfoScale™ 7.0

What's new in this release

- Linux

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What's new in this release

This document includes the following topics:

- [About this document](#)
- [Objectives of the release](#)
- [About the Veritas InfoScale product suite](#)
- [About Veritas InfoScale Foundation](#)
- [About Veritas InfoScale Storage](#)
- [About Veritas InfoScale Availability](#)
- [About Veritas InfoScale Enterprise](#)
- [About the Dynamic Multi-Pathing for VMware component](#)
- [Components of the Veritas InfoScale product suite](#)
- [Licensing changes for InfoScale 7.0](#)
- [Changes related to installation and upgrades](#)
- [Changes related to support for SmartIO caching on SSD devices exported by FSS](#)
- [Changes related to ApplicationHA](#)
- [Changes related to documentation](#)
- [Platforms supported](#)
- [Not supported in this release](#)

About this document

This document covers the major new branding, licensing, and installation changes that are introduced in 7.0.

Objectives of the release

In response to continued feedback from both our customers and sales community that our current Storage Foundation High Availability product portfolio and pricing are too complex, we are moving to replace the 19 different product offerings (including Storage Foundation, Cluster Server, Cluster File System, etc.) with four products. Not only are the products being consolidated, the associated pricing and pricing meters are also being simplified -- in particular, we are moving away from Symantec Performance Value Units (SPVUs).

These significant changes are intended to:

- Simplify the customer buying experience
- Reduce complexity for sales
- Enable account penetration through an attractive entry-level offering

About the Veritas InfoScale product suite

The Veritas InfoScale product suite addresses enterprise IT service continuity needs. It draws on Veritas' long heritage of world-class availability and storage management solutions to help IT teams in realizing ever more reliable operations and better protected information across their physical, virtual, and cloud infrastructures. It provides resiliency and software defined storage for critical services across the datacenter infrastructure. It realizes better Return on Investment (ROI) and unlocks high performance by integrating next-generation storage technologies. The solution provides high availability and disaster recovery for complex multi-tiered applications across any distance. Management operations for Veritas InfoScale are enabled through a single, easy-to-use, web-based graphical interface, Veritas InfoScale Operations Manager.

The Veritas InfoScale product suite offers the following products:

- Veritas InfoScale Foundation
- Veritas InfoScale Storage
- Veritas InfoScale Availability
- Veritas InfoScale Enterprise

About Veritas InfoScale Foundation

Veritas InfoScale™ Foundation is specifically designed for enterprise edge-tier, departmental, and test/development systems. InfoScale Foundation combines the industry-leading File System and Volume Manager technology, and delivers a complete solution for heterogeneous online storage management while increasing storage utilization and enhancing storage I/O path availability.

Storage features included in InfoScale Foundation products are listed below:

- No restriction on number of Volumes or File Systems being managed
- Veritas InfoScale Operations Manager Support
- 1-256 TB File System
- Device names using Array Volume IDs
- Dirty region logging
- Dynamic LUN expansion
- Dynamic Multi-pathing
- Enclosure based naming
- iSCSI device support
- Keyless licensing
- Online file system defragmentation
- Online file system grow & shrink
- Online relayout
- Online volume grow & shrink
- Data Management Application Programming Interface
- File Change Log
- Mount lock
- Named data streams
- Partitioned directories

Storage features included in InfoScale Storage and Enterprise products, but not included in the InfoScale Foundation product are listed below:

- Hot-relocation
- Remote mirrors for campus clusters
- SCSI-3 based I/O Fencing

- SmartMove
- Split-mirror snapshot
- Thin storage reclamation
- File system snapshots
- Full-size instant snapshots
- Oracle Disk Manager library
- Portable Data Containers
- Quick I/O
- SmartIO support for read or write
- Flexible Storage Sharing
- Space-optimized instant snapshot
- User and group quotas

About Veritas InfoScale Storage

Veritas InfoScale™ Storage enables organizations to provision and manage storage independently of hardware types or locations. InfoScale Storage delivers predictable Quality-of-Service by identifying and optimizing critical workloads. InfoScale Storage increases storage agility enabling you to work with and manage multiple types of storage to achieve better ROI without compromising on performance and flexibility.

About Veritas InfoScale Availability

Veritas InfoScale™ Availability helps keep organizations' information available and critical business services up and running with a robust software-defined approach. Organizations can innovate and gain cost benefits of physical and virtual across commodity server deployments. Maximum IT service continuity is ensured at all times, moving resiliency from the infrastructure layer to the application layer.

About Veritas InfoScale Enterprise

Veritas InfoScale™ Enterprise addresses enterprise IT service continuity needs. It provides resiliency and software defined storage for critical services across your datacenter infrastructure. Realize better ROI and unlock high performance by integrating next-generation storage technologies. The solution provides high

availability and disaster recovery for complex multi-tiered applications across any distance in physical and virtual environments.

About the Dynamic Multi-Pathing for VMware component

Dynamic Multi-Pathing for VMware 7.0 (VxDMP) is a multi-pathing solution integrated with VMware's vSphere infrastructure, which brings the established and proven enterprise-class functionality to VMware virtual environments.

In Veritas InfoScale 7.0, there are two installers. The Veritas InfoScale installer does not install the Dynamic Multi-Pathing for VMware component. To install the Dynamic Multi-Pathing for VMware component, you must use one of the following:

- Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.zip
- Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.iso

For the procedure to mount an ISO image, See ["Mounting the ISO image"](#) on page 11.

For more information about the Dynamic Multi-Pathing for VMware component, refer to the following guides:

- *Dynamic Multi-Pathing Installation Guide - VMware ESXi*
- *Dynamic Multi-Pathing Administrator's Guide - VMware ESXi*

Components of the Veritas InfoScale product suite

Each new InfoScale product consists of two or more components. Each component within a product offers a unique capability that you can configure for use in your environment.

[Table 1-1](#) lists the components of each Veritas InfoScale product.

Table 1-1 Veritas InfoScale product suite

Product	Description	Components
Veritas InfoScale™ Foundation	Veritas InfoScale™ Foundation delivers a comprehensive solution for heterogeneous online storage management while increasing storage utilization and enhancing storage I/O path availability.	Storage Foundation (SF) Standard (entry-level features)

Table 1-1 Veritas InfoScale product suite (*continued*)

Product	Description	Components
Veritas InfoScale™ Storage	Veritas InfoScale™ Storage enables organizations to provision and manage storage independently of hardware types or locations while delivering predictable Quality-of-Service, higher performance, and better Return-on-Investment.	Storage Foundation (SF) Enterprise including Replication Storage Foundation (SF) Standard (entry-level features) Storage Foundation Cluster File System (SFCFS)
Veritas InfoScale™ Availability	Veritas InfoScale™ Availability helps keep an organization's information and critical business services up and running on premise and across globally dispersed data centers.	Cluster Server (VCS) including HA/DR
Veritas InfoScale™ Enterprise	Veritas InfoScale™ Enterprise addresses enterprise IT service continuity needs. It provides resiliency and software defined storage for critical services across your datacenter infrastructure.	Cluster Server (VCS) including HA/DR Storage Foundation (SF) Enterprise including Replication Storage Foundation and High Availability (SFHA) Storage Foundation Cluster File System High Availability (SFCFSHA) Storage Foundation for Oracle RAC (SF Oracle RAC) Storage Foundation for Sybase ASE CE (SFSYBASECE)

Licensing changes for InfoScale 7.0

The following sections describe the licensing changes in InfoScale

InfoScale Product keys

There are four new license keys that relate to the new InfoScale products. Each licenses a new range of functionality that is described in the product summaries.

The vxlicinstupgrade utility

If you are using AIX, Solaris and Linux platforms, you can license your product using the installer script. If you used to register keys manually at the command line using the vxlicinst binary, you need to use the vxlicinstupgrade binary instead in the following two circumstances:

- Upgrading from 6.0 or later
- Adding a new license when you transition a smaller product to a larger product. For more information, please see *Veritas InfoScale™ 7.0 Release Notes*.

Veritas Dynamic Multi-Pathing for VMware

You can use the vDMP installer to register the license.

For more info see *Veritas InfoScale™ 7.0 Release Notes*.

Changes related to installation and upgrades

The following changes are introduced to the installation and upgrading of 7.0 Veritas Infoscale:

- In 7.0, the following new products are supported:
 - Veritas InfoScale Foundation
 - Veritas InfoScale Storage
 - Veritas InfoScale Availability
 - Veritas InfoScale Enterprise
- The following old products are regarded as components and are converted to new products during the upgrade:
 - Symantec Storage Foundation (SF)
 - Symantec Cluster Server (VCS)
 - Symantec Storage Foundation and High Availability (SFHA)
 - Symantec Storage Foundation Cluster File System (SFCFS)
 - Symantec Storage Foundation Cluster File System and High Availability (SFCFSHA)
 - Symantec Storage Foundation for Oracle RAC (SF Oracle RAC)
 - Symantec Storage Foundation for Sybase ASE CE (SFSYBASECE)

The following old products are now part of the SF component and not offered as separate components.

Symantec Dynamic Multi-Pathing (DMP) standalone

Veritas Volume Manager (VxVM)

Veritas File System (VxFS)

For more information, See [“Components of the Veritas InfoScale product suite”](#) on page 7.

- Only the installation of all packages for the products is supported. Package sets such as recommended packages and minimum packages are not supported.
- After installation or upgrade, all the installer functions are invoked through the `/opt/VRTS/install/installer` script. There will not be `install<prod><version>` (for example, `installsf70`) scripts under the `/opt/VRTS/install/` directory.
- Installation of two products is not supported, Veritas InfoScale Enterprise will be installed to include Veritas InfoScale Storage and Veritas InfoScale Availability on all the systems.
For more information, See [“Components of the Veritas InfoScale product suite”](#) on page 7.
- In 7.0, Linux RPMs now include digital signatures to verify their authenticity. To install the RPMs manually, you must import keys first:

```
# cd /rpms

# rpm --import RPM-GPG-KEY-veritas-infoscale7
```

- For 7.0, the new release image file names are as follows:
Veritas_InfoScale_7.0_RHEL.tar.gz
Veritas_InfoScale_7.0_RHEL.iso
Veritas_InfoScale_7.0_SLES.tar.gz
Veritas_InfoScale_7.0_SLES.iso
Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.zip
Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.iso
To install the product for your platform, you can either expand the `.tar.gz` or `.zip` file or mount the `.iso` file. Note that the content of the `.iso` file and archive files are identical.
To mount the `.iso` file on your platform, See [“Mounting the ISO image”](#) on page 11.

Changes related to support for SmartIO caching on SSD devices exported by FSS

Note: You can get an installer for all the products except Dynamic Multi-Pathing for VMware, if you expand the `Veritas_InfoScale_7.0_<platform>.tar.gz` file or mount the `Veritas_InfoScale_7.0_<platform>.iso` file. You can get the installer for vDMP only if you expand the `Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.zip` file or mount the `Veritas_InfoScale_Dynamic_Multi-Pathing_7.0_VMware.iso` file

Mounting the ISO image

An ISO file is a disc image that must be mounted to a virtual drive for use. You must have superuser (root) privileges to mount the Veritas InfoScale ISO image.

To mount the ISO image

- 1 Log in as superuser on a system where you want to install Veritas InfoScale.
- 2 Mount the image:

```
# mount -o loop <ISO_image_path> /mnt
```

Changes related to support for SmartIO caching on SSD devices exported by FSS

For the VxVM and VxFS features in Veritas InfoScale Foundation, Veritas InfoScale Storage and Veritas InfoScale Enterprise products, SmartIO supports the use of SSD devices exported by FSS to provide caching services for applications running on VxVM volumes and VxFS file system. In this scenario, Flexible Storage Sharing (FSS) exports SSDs from nodes that have a local SSD. FSS then creates a pool of the exported SSDs in the cluster. From this shared pool, a cache area is created for those nodes in the cluster that do not have local SSDs. Each cache area is accessible only to that particular node for which it is created. The cache area can be a VxVM cache area or a VxFS cache area. The cache areas can be enabled to support warm or persistent caching across reboots.

For more information, see *Veritas InfoScale Solutions 7.0 SmartIO for Solid-State Drives Solutions Guide*.

Changes related to ApplicationHA

ApplicationHA is a standalone product and is not included in Veritas InfoScale product suite. You can use any earlier version.

Changes related to documentation

The following changes have been introduced to the documents in 7.0:

- The look-and-feel of the documents reflect the new Veritas brand.
- The release introduces a common Release Notes and Install Guide for the Veritas InfoScale products suite.
- This release introduces configuration and upgrade guides for each Veritas InfoScale component.
- *Symantec™ Dynamic Multi-Pathing Installation Guide* is deprecated. Related info is now available in the *Storage Foundation Configuration and Upgrade Guide*.
- The software image has an updated document directory structure to reflect the product changes.
- The documents that were titled *Storage Foundation and High Availability Solutions* are renamed to *Veritas Infoscale*. The file names for these documents are changed as well.

For more information please see *Veritas InfoScale™ 7.0 Release Notes*.

Platforms supported

For a detailed info of platforms supported see *Veritas InfoScale™ 7.0 Release Notes*.

Not supported in this release

The following features are not supported in this release:

- Rolling Upgrade and Phased Upgrade are not supported.
- The Deployment Server is not supported.
- Web-based installation is not supported.
- The `-makeresponsefile` option for installer is not supported.
You can use the response file that is created by operating the installer.
- The push installation of the Veritas InfoScale Availability product using the vSphere client is not supported.
- Symantec HA Console is not bundled with 7.0. You can use any earlier version.
- DiskReservation agent for Cluster Server is no longer supported.

- Oracle RAC 10g Release 2 is not supported in Storage Foundation for Oracle RAC.