

VERITAS Storage Migrator™ 3.4

VERITAS Storage Migrator Remote™ 3.4

Release Notes

UNIX

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VERITAS

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General Information

Introduction

These Release Notes help you get ready to install VERITAS Storage Migrator or VERITAS Storage Migrator Remote on a UNIX server system. They also contain any last minute changes that we were unable to put in the manuals. Refer to the *VERITAS Storage Migrator Installation Guide - UNIX* for any notes and cautions about these products.

Note Due to the large degree of commonality between VERITAS Storage Migrator and VERITAS Storage Migrator Remote, this document will use the term *VSM* to refer to both products. Where differences occur, full product names will be used.

Supported Platforms, Storage Devices, and Related

Supported Platforms

Release 3.4 is supported on the following server platforms:

Note Attention SGI Users: You must run the Java interface from NT or Windows 2000, or you must use the Motif-based interface (xhsmadm) from the server.

Table 1. Supported Platforms

Platform Type	Operating System	File System Type	Implementation	Java interface Location
HP9000-800	HP-UX 10.20	OnlineJFS 3.1	DMAPI	Server, NT, Windows 2000
	HP-UX 11.0	OnlineJFS 3.3		
HP9000-800	HP-UX 11.0	VxFS (3.3.2) Storage Edition 2.0	DMAPI	Server, NT, Windows 2000
SGI	IRIX 6.5 to 6.5.5	xfs	DMAPI	NT and Windows 2000
Sun UltraSPARC	Solaris 2.6, 7, 8	ufs	non-DMAPI	Server, NT, Windows 2000
Sun UltraSPARC	Solaris 2.6, 7, 8	VxFS (3.3.3)	DMAPI	Server, NT, Windows 2000



The DMAPI (nonkernel-based) implementations use the Data Management Application Programming Interface (DMAPI). The non-DMAPI (kernel-based) implementations use a parallel inode (.PAIN) file. These implementations are platform-dependent, and any differences between them are noted in the documentation.

Note For DMAPI (nonkernel-based) implementations running on Solaris, obtain and install the VxFS 3.3.3 binaries separately before installing VSM R3.4.

Note Non-DMAPI (kernel-based) and DMAPI (nonkernel-based) implementations of VSM cannot run simultaneously on the same platform.

Platforms Not Supported in This Release

- ◆ Sun4/SPARC platforms are no longer supported in R3.4.
- ◆ Solaris 2.5.1 is no longer supported in R3.4.
- ◆ Solaris systems running VxFS 3.3.2 must be upgraded to VxFS 3.3.3.

Items Not Supported in Future Releases

- ◆ The next major release of VSM will no longer contain software to upgrade some operating system levels and platforms to include new product features and capabilities. The following platforms will not be supported in the next major release: HP-UX 10.20 and Solaris 2.6.
- ◆ The next major release of VSM will no longer support the Motif-based interface, xhsmadm. It will be replaced by the Java-based administrator interface, VSM-Java.

Renamed Commands

The HSMMSA command is now the `migsa` command.

Supported Storage Devices

Drive types and robot types supported on the platforms listed in Table 1 are tabulated in the *VERITAS NetBackup Release Notes - UNIX*. For more current information, visit our web site:

<http://www.veritas.com/products/vhsm/>



New Features and Enhancements

- ◆ Support for the Solaris 8 operating system, with VxFS 3.3.3.
- ◆ Support for the IRIX 6.5 to 6.5.5 operating systems.
- ◆ A File System Analyzer tool that presents filesystem statistics through simple graphical charts. This tool shows administrators the benefits of using VSM by interactively analyzing file system data and evaluating configuration alternatives.
- ◆ Improved performance when caching file data from tape by using double-buffered I/O.
- ◆ Improved migrating performance, by writing fewer tape marks, when copying file data to tape.
- ◆ Improved consolidation performance, if file marks are not written between files when consolidating volumes to tape (a FLUSH file feature).
- ◆ A file list feature for the `migloc` command: `migloc -f <filelist>`
- ◆ An incremental capacity licensing structure based on the amount of data being migrated to secondary storage. Licensing is enforced when `migcopy` migrates data using the following storage methods: optical (`op` and `ow`), tape (`ct`, `dt`, and `mt`), and NetBackup (`nb`).
- ◆ Improved configuration process: a choice of two wizards, which allow faster and easier initial configuration of VSM. The Basic Wizard is used to create a configuration with preset or default values. The Advanced Wizard allows greater flexibility. Both wizards use a user-friendly interface.
- ◆ Enhanced usability by incorporating a file system browser, VSM File Browser, that encapsulates end-user functionality, such as individual file migration and recall and directory grouping.
- ◆ Enhanced usability by adding a job monitoring capability (with VSM Activity Monitor) in a Java-based interface for all jobs submitted via the interface. This also includes some jobs started through the command line interface.
- ◆ Enhanced usability by adding an integrated job scheduler in the VSM File Browser.
- ◆ Improved performance for recalls and multilevel migration. This includes implementation of double-buffered I/O for these cases, and enhancements to the VxFS invisible write interface.
- ◆ Improved FTP method: FTP storage is subdivided into directories to eliminate the performance and management issues associated with large directories on FTP servers. The `migstage` command is enhanced to allow optimal ordering of recall requests across FTP when Storage Migrator is used on both client and server.



- ◆ Improved online help documentation for the administrator (VSM-Java interface), end-user (VSM File Browser interface), and job monitor (VSM Activity Monitor) interfaces.

Problems Fixed Since Last Release

The following section describes notable problems resolved by the 3.4 release of this product.

- ◆ Nonroot users can now use the `migstage` command to cache files from the `nb` method on DMAPI implementations of Solaris.
- ◆ For Solaris 2.6, the `migstage` command will no longer wait until all of the specified files have been cached before returning control to the user. This operation is now asynchronous by default.
- ◆ `migdbcheck` no longer erroneously indicates that a volume is being written.
- ◆ The IP address can now be specified for the `server_name` when registering an `ft` volume.
- ◆ The `vh_blocks` field of the VOLDB entry is now updated if `ENOSPACE` occurs when writing to tape.
- ◆ Tape `read_position` failures are now handled gracefully.
- ◆ Files written to tape on an SGI/IRIX platform can be cached on a Solaris platform.
- ◆ Key words are now used to improved file caching speed from `ft` volumes.
- ◆ IRIX pids greater than five digits are now handled correctly.
- ◆ `fls` is now like `ls` on all platforms.
- ◆ When the sticky bit is set, `fls` now indicates execute permissions, just as `ls` does.
- ◆ The behavior of `fls`, with respect to “dot” files, is now the same as that of `ls` for each platform.
- ◆ `migloc` now indicates if a file is in the process of being cached with a “Staging” status.
- ◆ It is no longer possible to use `migreg` to register the same `ad` volume to more than one VSM managed filesystem.
- ◆ `migetvol` output now shows the correct date.
- ◆ The `obsdate` field is now correctly initialized for newly created FHDB entries.
- ◆ Improved performance for `fhdb_info`.
- ◆ `fhdb_info` no longer expands entries by default. If you desire an expansion, use a new “-e” option.

- ◆ `ihprint` now indicates how it was invoked: with `<pathname>` or `<hsmname>` `<inode>`.
- ◆ `migalter` and `gls` now correctly indicate file extent information.
- ◆ When the “-F” option is specified, `migalter` output now differentiates between the filesystem and file handles.
- ◆ Eliminated some `migdbclean` locking problems.
- ◆ Eliminated expected “*Not Enough Copies*” log messages when `migroup -d` is run.
- ◆ Eliminated bogus “*No active dk entry*” messages when `migroup -MP` is run.
- ◆ Do not attempt to use a non-existent or empty `s_badness` file.
- ◆ Temporary `migtarunobs` files are no longer left lying about.
- ◆ Site-defined scripts for `migsweep`, `migsweep`, and `migsweepm` now work correctly.
- ◆ `migsweepm` now includes the `machid` when matching handles.
- ◆ `migstage` of a key caching file now causes all files in the tie group to be staged.
- ◆ `migstage` from the `nb` method now works for non-root users on Solaris DMAPI platforms.
- ◆ `migstage` on Solaris 2.6 (and later) `.PAIN/ufs/kernel` implementations is once again asynchronous.
- ◆ In release 3.2.5, the `migstage` command failed to cache files when, (1) a non-root user invoked `migstage`, and (2) the files to be staged back would stage using the `ft` method. This problem has been corrected.
- ◆ Utilities that mount volumes now log informative messages in a timely manner.
- ◆ `migtscan -F` now creates correct VOLDB entries.
- ◆ Corrected the compression of entries at the end of the FHDB for a two-granule file with copies on tape or optical.
- ◆ Renamed files with copies on `nb` volumes can now be cached.
- ◆ `migttestbadness` now uses the user-set values; whenever the values are not user-set, Storage Migrator uses the system defaults.
- ◆ `migdbcheck` now correctly handles a value of 80000000 or larger in the FHSEQF file.
- ◆ `migroup -l` now works even if the non-root user is not the owner.
- ◆ `migloc` no longer reports erroneous granule numbers.



Known Limitations

- ◆ Dialogs on the Motif-based interface, `xhsmadm`, must be closed from the **Edit** menu instead of using the “Close” feature of the window manager.
- ◆ In Solaris 8, the mount option `noatime` prevents `atime` changes on read-access to files. Do not use this option with VSM. This can cause VSM to migrate recently accessed files more aggressively than intended.
- ◆ The `migfind` command is not supported on the HP-UX 10.20 operating system.
- ◆ The HP 10.20 operating system does not support the interface used in the File System Analyzer. However, since HP 10.20 does support the server portion of the File System Analyzer, you can view the interface (and the scan results) in any NT, HP 11 or Solaris 2.6, 2.7, or 2.8 operating system on your server.
- ◆ The File System Analyzer scans both migrated and nonmigrated files. As a result, you may observe capacity-used totals larger than what the server alone is designed to hold. For example, if you migrate 80G of data from your 100G server, and add 50G more data, the analyzer tool will plot capacity used as 130G, not 100G.
- ◆ If you use the File System Analyzer to scan file data over 1G, some graphs exclude files smaller than 1K.
- ◆ Due to file system internal overhead, calculated sizes for files can vary by a few percent. For example, your system could represent 1024 bytes as 1000 bytes.
- ◆ If you use `mignewlog` with the scheduler tool, VSM automatically creates a new log file and moves the old log file. For example, you have a log file `hsm1` and run `mignewlog`, you would see `hsm1`, which is the new log, and `hsm.date`, which is the old log file. Keep old log files to help troubleshoot VSM at a later time.



Release Material

The following release material comes with R3.4 of this product:

- ◆ Binary release CD-ROM
- ◆ *VERITAS Storage Migrator Release Notes - UNIX*
- ◆ *VERITAS Storage Migrator Installation Guide - UNIX*
- ◆ *VERITAS Storage Migrator System Administrator's Guide - UNIX*

The CD-ROM also contains on-line copies of these product manuals in Adobe Portable Document Format (PDF). You may copy these documents to your system manually. For information on downloading and installing the latest versions of Acrobat Reader, or for help with installation problems, visit the Adobe web site at:

<http://www.adobe.com>

Note VERITAS assumes no responsibility for the correct installation or use of the reader.

Other related manuals:

- ◆ *VERITAS NetBackup Release Notes - UNIX*
- ◆ *VERITAS Media Manager System Administrator's Guide - UNIX*
- ◆ *VERITAS NetBackup DataCenter Installation Guide*
- ◆ *VERITAS NetBackup Media Manager Device Configuration Guide*

Getting Help

- ◆ For updated information about this release, including system requirements, supported platforms, supported peripherals, and a list of current patches available from Technical Support, visit our web site:
<http://www.veritas.com/products/vhsm/>
- ◆ For product assistance, contact VERITAS Customer Support.

US and Canadian Customers: 1-800-342-0652

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- ◆ VERITAS Customer Support can also be reached through electronic mail at:
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