

Hitachi Tiered Storage Manager

8.1.2-03 Release Notes

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About this document

This document (RN-00HS279-52, March 2015) provides late-breaking information about the Hitachi Tiered Storage Manager 8.1.2-03. It includes information that was not available at the time the technical documentation for this product was published, as well as a list of known problems and solutions.

Intended audience

This document is intended for customers and Hitachi Data Systems partners who license and use the Hitachi Device Manager.

Getting help

The Hitachi Data Systems Support Center staff is available 24 hours a day, seven days a week. To reach us, please visit the support website at <https://portal.hds.com> for current telephone numbers and other contact information. If you purchased this product from an authorized HDS reseller, contact that reseller for support.

About this release

This release resolves multiple known problems.

Product package contents

Medium	DVD-ROM	Revision	Release Type
Software	Hitachi Tiered Storage Manager	8.1.2-03	Full Package
Documents	Hitachi Command Suite User Guide	MK-90HC172-18	
	Hitachi Command Suite Administrator Guide	MK-90HC175-18	
	Hitachi Command Suite Messages	MK-90HC178-18	
	Hitachi Command Suite Installation and Configuration Guide	MK-90HC173-18	
	Hitachi Command Suite CLI Reference Guide	MK-90HC176-18	
	Hitachi Command Suite Audit Log Reference Guide	MK-92HC213-04	
	Hitachi Command Suite Tiered Storage Manager CLI Reference Guide	MK-90HC177-16	

New features and important enhancements

For 8.1.2-03

None

For 8.1.2-00

#	New Features and Enhancements	Applied products	Applied OS
1.	The Tiered Storage Manager GUI now supports Adobe Flash Player 16.	Tiered Storage Manager GUI	Windows
2.	The Tiered Storage Manager server, GUI, and CLI now support the virtualization server product VMware vSphere ESXi 5.1 Update 3.	Tiered Storage Manager server	-
3.	Tiered Storage Manager can now set the Full Allocation function to volumes of Hitachi Dynamic Provisioning and Hitachi Dynamic Tiering in Virtual Storage Platform	Tiered Storage Manager server Tiered Storage	*All

	G1000 storage systems.	Manager GUI Tiered Storage Manager CLI	
4.	The Tiered Storage Manager server, GUI, and CLI now support Red Hat Enterprise Linux 6.6.	Tiered Storage Manager server Tiered Storage Manager GUI Tiered Storage Manager CLI	*All
5.	Tiered Storage Manager now supports cluster environments for Red Hat Enterprise Linux 6.5.	Tiered Storage Manager server Tiered Storage Manager GUI Tiered Storage Manager CLI	Linux
6.	For the program products below, Tiered Storage Manager can now perform operations on volumes of up to 60 TB in Virtual Storage Platform G1000 storage systems. - Volume Migration V2	Tiered Storage Manager server	*All
7.	Tiered Storage Manager now supports SAS 10K 1.8-TB drives in Virtual Storage Platform G1000 storage systems.	Tiered Storage Manager server Tiered Storage Manager GUI Tiered Storage Manager CLI	*All

Note: See the System Requirements document for details.

*: Applies to all supported operating systems in Tiered Storage Manager server.

Resolved problems

From 8.1.2-00 to 8.1.2-03

None

From 8.1.1-00 to 8.1.2-00

#	Corrected Problems	Applied products	Applied OS
1.	The following problem has been corrected: Referencing performance information from the mobility tab might fail with KAIC08803-E.	Tiered Storage Manager server SER-135	*All
2.	The following problem has been corrected: The online Help has cross-site scripting vulnerabilities.	Online Help HLP-140	*All

Known problems

- The error KAIC16036-E displayed in [2. Migration Target] of the Migrate Data wizard

When you click the [Next>] button in the [2. Migration Target] screen, the error message KAIC16036-E might be displayed even though there are sufficient LDEV IDs. If there are sufficient LDEV IDs, wait a while without changing anything, and then click the [Next>] button again. If the same error message KAIC16036-E is displayed, cancel the Migrate Data wizard, wait a while, and then retry the operation.

- Restriction when a DP pool of a storage pool or a DP volume in a DP pool is specified as the destination of a data migration:

If any of the following conditions is met by the destination for a data migration, you will be unable to expand the storage pool from Device Manager:

- The destination is a DP pool making up a storage pool.
- The destination is a DP volume in a DP pool making up a storage pool.

In the resource selection screen for selecting the destination of a data migration, specify conditions so that a DP pool or DP volume described above is not selected as a destination, or change the destination in the migration pair screen.

- Restriction on specifying "is not" or "<>" in filter conditions

When "is not" or "<>" is specified in a filter condition for one of the following columns in a window that lists for parity groups, volumes, or Data Placement Profiles, data that does not meet the filter conditions may be displayed.

Columns related to parity groups:

- Parity Group
- Drive Type
- Drive Speed (RPM)

Columns related to volumes:

- Host
- Target ID
- Copy Info (S-VOL)
- Copy Info (P-VOL)
- Parity Group
- Volume Attributes

Columns related to Data Placement Profiles:

- Status
- Restriction on executing the GetFreeSpaces command for an SMI-S Enabled storage system

After changing the name of an SMI-S Enabled storage system from the Device Manager GUI, if the GetFreeSpaces command of the Tiered Storage Manager CLI is executed with the SubsystemName property specified for the filtercondition parameter, filtering is not correctly performed and the results output by the command are empty.

If you want to execute the GetFreeSpaces command for an SMI-S Enabled storage system whose storage name was changed from the Device Manager GUI, change the storage name by using the ModifyStorageArray command of the Device Manager CLI.

- Restriction on a logical group when creating Data Placement Profile

If there are 256 or more volumes in a logical group which is used in Data Placement Profile, it may take several minutes to display the volume list in Create Data Placement Profile dialog box and KAIC16902-E may occur depending on the environment.

When creating Data Placement Profile for the logical group which has 256 or more volumes, divide the logical group into multiple logical groups to make the number of volumes contained in each logical group is 255 or less.

- Restriction on deletion of the logical group concerning data placement profiles

When deleting a logical group concerning data placement profiles, at first delete the schedule set to data placement profiles.

If the logical group is deleted before deleting the schedule set to data placement profiles, the schedule remains. If the date of the schedule comes, the task concerning the data placement profiles will be executed and fail with KAIC15753-E.

- Restriction on Manage Data Placement Profiles(Logical Group View) dialog box

In performance chart of Manage Data Placement Profiles(Logical Group View) dialog box, the information on profile operation history may be displayed out of performance chart.

Though, the proper information is displayed within performance chart.

In this case, adjust Time period/interval to accommodate the information on profile operation history with performance chart.

- Restriction on deletion of volumes which are targets of data placement profile tasks

Do not delete volumes which are targets of data placement profile tasks.

To delete a target volume, be sure to cancel the task first.

If a target volume is deleted without canceling the task, task execution fails with the KAIC60000-E message. In this case, re-register the task.

- Restriction on estimated time for the search inconsistency task (search inconsistent data placement profile task)

The estimated time of a search inconsistency task is not displayed.

- Restriction on storage system links in Mobility tab

When a link concerning the following storage systems is clicked on volume list of the logical group, KAIC16850-E error dialog box is displayed:

- USP
- AMS/WMS/SMS series

If the KAIC16850-E error dialog box is displayed, close the error dialog box.

To refer information on the target storage system above, refer to it in Resource tab.

- Restriction on migrating Mainframe DP volumes

If a Mainframe DP volume is migrated with optional shredding specified, the volume is not deleted after the shredding. If necessary, delete the volume by using Element Manager.

The zero page reclaim option has no effect in migrations that have a Mainframe DP volume specified as a target. The storage system automatically executes a zero page reclaim.

- Restriction on message displayed in the License Registration dialog box of GUI

When a Permanent license key and a Subscription license key are registered, if the Subscription license key is expired, though a Permanent license key is valid, "All storage system licenses expired. Register valid license keys or license key files." of message may be displayed.

In this case, discard this message.

- Restriction on message to demand refreshing the storage domain

When the message text or action includes "Refresh the storage domain" or "Refresh Tiered Storage Manager", substitute "Refresh the storage system".

The name of the storage system that corresponds to the storage domain can be determined in the following methods:

When using the GUI:

In the <storage-domain-name> subwindow, on the [Detailed information] tab, refer to the first value of [Domain Ctrl.]

In [Domain Ctrl.], the storage system is displayed in the format <storage-system-name>:<model-name>:<serial-number>.

When using CLI:

Refer to the value of controllerName in the execution result of the command GetStorageDomains -d.

- Restriction on when a tier created from the Device Manager GUI is displayed on Tiered Storage Manager

When a tier created from the Device Manager GUI meets any of the following conditions, the tier is not displayed in the storage tiers of Tiered Storage Manager:

The tier was created by directly specifying 101 or more volumes.

The tier was created by directly specifying 101 or more DP volumes.

The tier was created by selecting either of the following attributes in advanced search criteria and specifying 101 or more values for the attribute:

- [ID/Number/Name] is specified for the category, and the [Parity group on a controller that hosts can access] is specified for the attribute.
- [ID/Number/Name] is specified for the category, and the [Parity group on a controller that contains drives] is specified for the attribute.
- Restriction on editing a storage tier created by CLI in Edit Tier dialog box

If a storage tier including the capacity conditions created by CLI is selected and Edit Tier dialog box is launched, GUI malfunctions.

In this case, use CLI `ModifyStorageTier` command to edit the storage tier. And then close the GUI browser and re-login.

- Restriction on Migration

When you search for USP V volumes by using P-VOL's Migration Group or P-VOL's MU Number as filter conditions, UNKNOWN might be shown as the volume type of Mainframe ShadowImage LDEVs in the search result. See the USP V manual Hitachi Storage Navigator User's Guide for details.

- About Mozilla 1.7.13 (HP-UX 11iv3) support:

In this release, Device Manager GUI does not support connecting to a Device Manager server by using Mozilla 1.7.13 (HP-UX 11iv3 on PA-RISC) with an IPv6 protocol.

Installation precautions

Refer to the following manual for installation prerequisites:

- *Hitachi Command Suite Installation and Configuration Guide.*

Usage precautions

SSL/TLS connections failing with KATS48000-E in the Tiered Storage Manager CLI

If an SSL/TLS connection fails with KATS48000-E in the Tiered Storage Manager CLI, in addition to the stated causes, the following causes are also possible:

- The protocols used for an SSL/TLS connection do not match between the Tiered Storage Manager server and Tiered Storage Manager CLI.
- The cipher suites used for an SSL/TLS connection do not match between the Tiered Storage Manager server and Tiered Storage Manager CLI.

If an SSL/TLS connection fails due to one of the causes above, revise the JRE used by the Device Manager server and Device Manager CLI. If the problem persists, in the `server.properties` file, revise the protocol settings (`server.rmi.security.protocols`) and cipher suites

(server.rmi.security.enabledCipherSuites) that are used by the Device Manager SSL/TLS connection.

Migrating copy pair configurations

If migrating copy pair configurations by using nondisruptive migration, the copy pair configurations of a source storage system should not be changed in between creating the migration project and completing the migrating copy pair configurations.

The migrating copy pair configuration should be completed before starting Step 5 (Unvirtualize Source Volumes) for the volumes that are managed by the configuration definition file to be migrated.

If above procedure is not followed, configuration definition files might be unmigratable and KAIC08551-E, KAIC08559-E, KAIC08560-E, or KAIC08565-E are displayed in the "Add/Remove Config Files" dialog box of the "Migrate Config Files" step.

If the above problem occurred, migrate the copy pair configurations manually by performing the following procedure:

1. Migrate the configuration definition files manually on the pair management server.
 - 1-1. Stop the CCI instance that corresponds to the configuration definition file.
 - 1-2. Copy the configuration definition file from the backup folder to the folder where the configuration definition file managed by Device Manager agent exists.
 - 1-3. Specify the command device of the target storage system on HORCM_CMD of the configuration definition file.
 - 1-4. Add HORCM_VCMD to the configuration definition file and specify the serial number of the virtual storage machine.
2. Refresh the target storage system.
3. Create copy pairs on the target storage system by using the configuration definition file that migrated in the procedure 1.

See the "Nondisruptive Migration User Guide" and manuals of "Command Control Interface" for details of the above procedure.

The configuration definition files that were migrated manually will be displayed as not migrated in the "Config Files" tab and in the "Add/Remove Config Files" dialog box after migration.

The end of support for the Tiered Storage Manager GUI in Legacy mode

To execute or confirm a task registered from the Tiered Storage Manager GUI in Legacy mode, use the Tiered Storage Manager CLI.

Notes on upgrade of Hitachi Command Suite from 7.4.1 or earlier (in Windows)

In an environment where Host Data Collector (for Windows) v7.4.1 or earlier is installed, the [Fatal Application Error] dialog box might appear during an upgrade installation of Hitachi Command Suite. If this dialog box appears, click [OK] to ignore it and to continue the upgrade installation. Even if this dialog box appears, there will be no problem in further Hitachi Command Suite operations.

Note on shortcuts after installation and removal (in Windows)

After an installation or removal, shortcut folder named "programs" might be incorrectly created under the Windows Start menu. This symptom is temporary, and this shortcut folder will no longer appear after you log off and log on to Windows.

Notes on performance analysis

Performance information for external parity groups cannot be displayed because the performance of external parity groups cannot be analyzed.

Also, if an external parity group is selected from the Parity Groups tab for DP pools in the Mobility tab, and then the Analyze Performance button is clicked, an incorrect message (KAIC26251-E) is displayed.

Notes on monitoring schedule templates

If a monitoring schedule template created in a version earlier than 7.2.0-00 is executed, stop-monitoring tasks and start-relocation tasks fail.

Also, if an old version monitoring schedule template is registered with a monitoring start time that is the same as the monitoring end time of another monitoring, the start-monitoring tasks may fail with KAIC06400-E error.

If CLI is executed from a client machine that is placed outside firewall, access to a Tiered Storage Manager server by SSH, etc. to execute CLI of server machine.

Notes on collecting performance information of storage systems by Tuning Manager

It is possible to collect performance information on the following storage systems which are not supporting optimization of data placement from the Mobility tab:

- SMS
- AMS/WMS

Even if performance data of these storage systems can be collected, optimization of the data placement cannot be done on Mobility tab.

Notes on starting the migration wizard

When starting the migration wizard, do not start the migration wizard in more than five screens in the entire system.

The following event might occur if the wizard is started in more than five screens:

Responses to the volumes search might take three minutes or more.

A memory shortage might occur because the amount of used memory (used, for example, by GUI processes and by the Web browser) increases greatly.

If the above problem occurs, restart the Device Manager server.

Note on when an unexpected error (KAIC16009-E) occurs in the Migrate Data dialog box

If an unexpected errors occurs, log in again.

Do not perform any operations on the volumes in the list of volumes in the Select Volumes window. (Use the list only to view the migration-source volumes for data migration.)

Notes on executing data migration

If the KAIC16902-E message is displayed when a migration plan is executed in the Migration Plan Display window, check the task status and do the following:

If the executed migration task is not displayed in the task list:

Execute the operation again. If the error occurs repeatedly, try specifying conditions that decrease the number of volumes satisfying those conditions.

If the KAIC15001-E message is displayed when a Migration Task Details window of the executed migration task is displayed:

Delete the migration task. Execute the operation again.

If the error occurs repeatedly, try specifying conditions that decrease the number of volumes satisfying those conditions.

If the Migration Task Details window of the executed migration task is displayed:

It is not necessary to make the migration plan again.

Note on the error of KAIC05607-E or KAIC06400-E during an operation of Migrate Data

If the KAIC05607-E or KAIC06400-E error occurs during an operation of Migrate Data, some of the configuration changes may be applied to the storage system. Therefore, a content of the Task Status displayed in the Migration pairs table on a Task Details dialog of Migrate Data may not be corresponding to the configuration of the storage system.

In this case, refresh the storage system information and check the current storage system configuration. After that, re-operate the "Migrate Data" by following the recent Task Status and the configuration of the storage system:

Notes on data migration by using volumes that are applied data placement profiles

Volumes to which data placement profiles are applied cannot be used as source volumes or target volumes for data migration.

In addition, do not perform the following operations:

Operation to apply source volumes or target volumes of data migration to a data placement profile during their data migration.

Data migration of a source volume or a target volume which is being applied to data placement profile.

Notes on estimated time for data placement profile operations

Estimated time displayed for the following data placement profile operations may be inaccurate:

Creating a data placement profile

Updating a data placement profile

Applying a data placement profile

Releasing a data placement profile

Repairing inconsistency (Repairing an inconsistent data placement profile)

Note: The more target volumes exist, the more inaccurate estimated time becomes.

Notes on stopping search inconsistency task (search inconsistent data placement profile task)

The stopping search inconsistency task operation is stopped immediately regardless of checking to "Stop the tasks immediately." check box.

Notes on selecting a tier during the creation of a migration plan

Do not select a tier which has more than 1,300 free volumes during the creation of a migration plan.

Notes on using Tiered Storage Manager CLI in firewall environment

If CLI is executed on a client machine to access via firewall to Tiered Storage Manager server to which firewall is enabled, KATS48000-E error occurs.

If CLI is executed on a client machine to access via firewall to a Tiered Storage Manager server by SSH, etc. to execute CLI of server machine.

Note that if Device Manager server is in Windows OS, this does not occur when the following conditions are met:

- (1) Windows firewall is enabled.
- (2) Firewall exception of htсмService.exe is enabled.

Documentation

Available documents

Document name	Document number	Issue date
Hitachi Command Suite User Guide	MK-90HC172-18	February 2015
Hitachi Command Suite Installation and Configuration Guide	MK-90HC173-18	February 2015
Hitachi Command Suite Administrator Guide	MK-90HC175-18	February 2015
Hitachi Command Suite Messages	MK-90HC178-18	February 2015
Hitachi Command Suite CLI Reference Guide	MK-90HC176-18	February 2015
Hitachi Command Suite Audit Log Reference Guide	MK-92HC213-04	February 2015
Hitachi Command Suite Tiered Storage Manager CLI Reference Guide	MK-90HC177-16	February 2015

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This product includes software developed by Greg Stein <gstein@lyra.org> for use in the mod_dav module for Apache (http://www.webdav.org/mod_dav/).

Portions of this software were developed at the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign.

This product includes software developed by the University of California, Berkeley and its contributors.

This software contains code derived from the RSA Data Security Inc. MD5 Message-Digest Algorithm, including various modifications by Spyglass Inc., Carnegie Mellon University, and Bell Communications Research, Inc (Bellcore).

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