

# Hitachi Dynamic Link Manager (for AIX) 8.7.6-00 Release Notes

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## About this document

This document (RN-00HS271-55, December 2020) provides late-breaking information about Hitachi Dynamic Link Manager (for AIX) 8.7.6-00. 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 Vantara partners who license and use Hitachi Dynamic Link Manager (for AIX).

## Getting help

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## Accessing product downloads

Product software, drivers, and firmware downloads are available on Hitachi Vantara Support Connect: <https://support.hitachivantara.com/>.

Log in and select Product Downloads to access the most current downloads, including important updates that may have been made after the release of the product.

## About this release

This is a minor release that adds new features.

### Product package contents

Medium	CD-ROM	Revision	Release type	Prerequisite version of service pack
Software	Hitachi Dynamic Link Manager (for AIX)	8.7.6-00	Full package	-

# New features and important enhancements

## 8.7.6-00 Additional Functions and Modifications

- Hitachi Virtual Storage Platform E590 and Hitachi Virtual Storage Platform E790 are now supported.
- PowerHA 7.2.3 is now supported.

## System requirements

Refer to Chapter 3. Creating an HDLM environment of the Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide.

### Host

For details on supported hosts, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Host and OS support for HDLM

### Host bus adapter (HBA)

For information on supported HBAs and drivers, refer to Appendix A - Host Bus Adapter (HBA) Support Matrix.

### Storage

For details on supported storage systems, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Storage systems supported by HDLM

### Virtualization

For details on supported virtualization environment, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Host and OS support for HDLM

## Operating systems requirements

For details on supported operating system, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Host and OS support for HDLM

Each OS Patch for applicable OSs can be downloaded from IBM official website or FTP site (<ftp://ftp.software.ibm.com/aix/efixes/>).

## Prerequisite programs

For details on related programs, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Host and OS support for HDLM

## Related programs

For details on related programs, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Storage systems supported by HDLM - When handling intermediate volumes managed by Hitachi RapidXchange
- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Cluster software supported by HDLM

## Memory and disk capacity requirements

For details on memory and disk capacity requirements, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Memory and disk capacity requirements

## HDLM supported configurations

For details on the condition that HDLM can manage space requirements, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - HDLM system requirements - Number of LUs and paths that are supported in HDLM

## Resolved problems

None.

## Known problems

- 1) Precautions when deleting all HDLM devices on a server:

When deleting all devices managed by HDLM<sup>a</sup> in local boot disk environment<sup>b</sup>, note the following two items:

If Auto Failback is set to ON, set it to OFF before the deletion processing. After the deletion processing completes, reset it back to ON. Without this process, a server may crash due to an OS issue.

Do not execute the following procedures while deleting the devices managed by HDLM. If executed, a server may crash due to an OS issue.

- Online operation
- lspath/chpath/rmpath of the OS command execution

Notes:

- a) This operation will be performed when performing the following procedures:

- The upgrade installation, re-installation or uninstallation
- The deletion of all HDLM devices by dlrmdev or rmdev command in deleting LU.

- b) If using HDLM in the boot disk environment, these precautions are not applicable.

- 2) Notes for executing DLMgetras utility:

If you specify a directory under an NFS mount point as an output destination and then execute DLMgetras utility, an empty directory named "DLMgetras\_tmpdir.xxxx/the\_specified\_directory\_name" may be created for the output destination directory ("xxx" is an optional numeric value).

When the empty directory exists after executing DLMgetras utility, delete the directory.

3) Notes for run Live Update:

If you want to run Live Update while a Hitachi storage system is connected, you must apply APAR IJ08437 in advance.

To prevent the problem of AIX from occurring, before running Live Update, specify "no\_reserve" for the reserve\_policy attribute for the hdisk that is currently used as the rootvg.

4) Notes on using Virtual I/O Server 3.1.0.xx:

In a virtual I/O server environment where HDLM is installed, the following operation is not supported:

- Using the viosupgrade command to migrate the virtual I/O server.

5) When a volume of VSP G1500, VSP F1500, VSP F400, F600, or F800 is virtualized as a volume of a different storage system model, an incorrect model ID might be displayed for the physical volume that corresponds to the virtual volume.

- For VSP G1500, "VSP\_G1000" might be displayed instead of "VSP\_G1500".
- For VSP F1500, "VSP\_G1000" might be displayed instead of "VSP\_F1500".
- For VSP F400, F600, or F800, "VSP\_Gx00" might be displayed instead of "VSP\_Fx00".

The model ID of a physical volume is displayed by the following operations:

Function	Operation	Displayed item
HDLM Command (dlnkmgr)	dlnkmgr view -path -item phys -vstv	Physical-LDEV
	dlnkmgr view -lu -item phys -vstv	
	dlnkmgr view -path -stname -pstv	DskName
	dlnkmgr view -lu -pstv	Product
HGLM	Displaying the Paths tabbed-page in the host-name subwindow	Storage system name of Physical Information
	Displaying the Multipath LUs tabbed-page in the host-name subwindow	
	Displaying the Storage systems	Name

	subwindow (physical storage information)	
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## Closing known problems

None.

## Installation precautions

For details on HDLM installation, refer to the following manual:

Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - Notes on creating an HDLM environment

## Updating installation of HDLM precautions

For details on updating HDLM, refer to the following manual:

Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - Notes on creating an HDLM environment - Notes on an upgrade installation or re-installation of HDLM

## Uninstallation precautions

For details on HDLM uninstallation, refer to the following manual:

Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - Removing HDLM

## System generate precautions

For details on HDLM system generate, refer to the following manual:

Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 3. Creating an HDLM environment - Notes on creating an HDLM environment

## Usage precautions

For details on usage Precautions when using HDLM, refer to the following manual:

- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 4. HDLM operation - Notes on using HDLM
- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter 4. HDLM operation - HDLM operations using commands
- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter A. Functional differences between versions of HDLM
- Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide Chapter B. Differences between HDLM version 5.9 or later and version 5.8.1 or earlier

## Additional usage precautions

1) Version numbers to be displayed after this version of HDLM is installed are as

follows:

Function	Item	Version number
HDLM command (dlnkmgr)	HDLM version	8.7.6-00
	HDLM manager	8.7.6-00
	HDLM Alert Driver	8.7.6-00
	HDLM Driver	8.7.6-00
Islpp	Level	8.7.6.0

2) The following example shows the text displayed when `dlnkmgr view -sys` is executed:

```
# /usr/DynamicLinkManager/bin/dlnkmgr view -sys
HDLM Version                : 8.7.6-00
Service Pack Version        :
Load Balance                 : on(extended lio)
Support Cluster              :
Elog Level                   : 3
Elog File Size (KB)         : 9900
Number Of Elog Files         : 2
Trace Level                  : 0
Trace File Size (KB)        : 1000
Number Of Trace Files       : 4
Path Health Checking        : on(30)
Auto Failback                : on(60)
```

```

Intermittent Error Monitor      : off
Dynamic I/O path Control       : off(10)
HDLM Manager Ver               WakeupTime
Alive                           8.7.6-00    2020/09/30 14:51:00
HDLM Alert Driver Ver          WakeupTime      ElogMem Size
Alive                           8.7.6-00    2020/09/30 14:50:48 4000
HDLM Driver Ver                WakeupTime
Alive                           8.7.6-00    2020/09/30 14:50:56
License Type Expiration
Permanent                       -
KAPL01001-I The HDLM command completed normally. Operation name =
view, completion time = 2020/09/30 15:19:56

```

## Documentation

### Available documentation

Document name	Document number	Issue date
Hitachi Command Suite Dynamic Link Manager (for AIX) User Guide	MK-92DLM111-48	October 2020

### Documentation errata

No.	Location to be corrected	Corrections	
1	<p>Creating an HDLM environment</p> <p>Storage systems supported by HDLM</p> <p>Storage systems</p>	Before	<p>HDLM supports the following storage systems</p> <ul style="list-style-type: none"> <li>• Hitachi Virtual Storage Platform</li> <li>• Hitachi Virtual Storage Platform 5100</li> <li>• Hitachi Virtual Storage Platform 5500</li> <li>• Hitachi Virtual Storage Platform 5100H</li> <li>• Hitachi Virtual Storage Platform 5500H</li> <li>• Hitachi Virtual Storage Platform G1000</li> <li>• HPE StorageWorks P9500 Disk Array</li> <li>• HPE XP8 Storage• HPE XP7 Storage</li> <li>• Hitachi Virtual Storage Platform G1500</li> <li>• Hitachi Virtual Storage Platform F1500</li> <li>• Hitachi Virtual Storage Platform E990</li> <li>• Hitachi Virtual Storage Platform G200</li> <li>• Hitachi Virtual Storage Platform G350</li> <li>• Hitachi Virtual Storage Platform G370</li> </ul>

			<ul style="list-style-type: none"> <li>• Hitachi Virtual Storage Platform G400</li> <li>• Hitachi Virtual Storage Platform G600</li> <li>• Hitachi Virtual Storage Platform G700</li> <li>• Hitachi Virtual Storage Platform G800</li> <li>• Hitachi Virtual Storage Platform G900</li> <li>• Hitachi Virtual Storage Platform F350</li> <li>• Hitachi Virtual Storage Platform F370</li> <li>• Hitachi Virtual Storage Platform F400</li> <li>• Hitachi Virtual Storage Platform F600</li> <li>• Hitachi Virtual Storage Platform F700</li> <li>• Hitachi Virtual Storage Platform F800</li> <li>• Hitachi Virtual Storage Platform F900</li> <li>• Hitachi Virtual Storage Platform N400</li> <li>• Hitachi Virtual Storage Platform N600</li> <li>• Hitachi Virtual Storage Platform N800</li> <li>• HUS100 series• HUS VM</li> </ul>
		After	<p>HDLM supports the following storage systems</p> <ul style="list-style-type: none"> <li>• Hitachi Virtual Storage Platform</li> <li>• Hitachi Virtual Storage Platform 5100</li> <li>• Hitachi Virtual Storage Platform 5500</li> <li>• Hitachi Virtual Storage Platform 5100H</li> <li>• Hitachi Virtual Storage Platform 5500H</li> <li>• Hitachi Virtual Storage Platform G1000</li> <li>• HPE StorageWorks P9500 Disk Array</li> <li>• HPE XP8 Storage• HPE XP7 Storage</li> <li>• Hitachi Virtual Storage Platform G1500</li> <li>• Hitachi Virtual Storage Platform F1500</li> <li>• Hitachi Virtual Storage Platform E590</li> <li>• Hitachi Virtual Storage Platform E790</li> <li>• Hitachi Virtual Storage Platform E990</li> <li>• Hitachi Virtual Storage Platform G200</li> <li>• Hitachi Virtual Storage Platform G350</li> <li>• Hitachi Virtual Storage Platform G370</li> <li>• Hitachi Virtual Storage Platform G400</li> <li>• Hitachi Virtual Storage Platform G600</li> <li>• Hitachi Virtual Storage Platform G700</li> <li>• Hitachi Virtual Storage Platform G800</li> <li>• Hitachi Virtual Storage Platform G900</li> <li>• Hitachi Virtual Storage Platform F350</li> <li>• Hitachi Virtual Storage Platform F370</li> <li>• Hitachi Virtual Storage Platform F400</li> <li>• Hitachi Virtual Storage Platform F600</li> <li>• Hitachi Virtual Storage Platform F700</li> <li>• Hitachi Virtual Storage Platform F800</li> <li>• Hitachi Virtual Storage Platform F900</li> </ul>

			<ul style="list-style-type: none"> <li>• Hitachi Virtual Storage Platform N400</li> <li>• Hitachi Virtual Storage Platform N600</li> <li>• Hitachi Virtual Storage Platform N800</li> <li>• HUS100 series• HUS VM</li> </ul>
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## Appendix A: Host Bus Adapter (HBA) Support Matrix

Use the SCSI I/F adapter or Fibre Channel I/F adapters listed below. When using two or more adapters, use the same type of adapter. If you combine different types of HBA, HDLM may not be able to switch a path when an error occurs.

The combination of HBA which can exist together is as follows.

- FC5716, FC1977 and FC1957
- FC5758 and FC1905
- FC5759 and FC1910

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