

# Hitachi Virtual Storage Platform Documentation Roadmap

**FASTFIND LINKS**

Contents

© 2011 Hitachi Ltd, All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or stored in a database or retrieval system for any purpose without the express written permission of Hitachi, Ltd. (hereinafter referred to as "Hitachi"), and Hitachi Data Systems Corporation (hereinafter referred to as "Hitachi Data Systems").

Hitachi and Hitachi Data Systems reserve the right to make changes to this document at any time without notice and assume no responsibility for its use. This document contains the most current information available at the time of publication. When new or revised information becomes available, this entire document will be updated and distributed to all registered users.

All of the features described in this document may not be currently available. Refer to the most recent product announcement or contact your local Hitachi Data Systems sales office for information about feature and product availability.

Notice: Hitachi Data Systems products and services can be ordered only under the terms and conditions of Hitachi Data Systems' applicable agreements. The use of Hitachi Data Systems products is governed by the terms of your agreements with Hitachi Data Systems.

Hitachi is a registered trademark of Hitachi, Ltd., in the United States and other countries. Hitachi Data Systems is a registered trademark and service mark of Hitachi in the United States and other countries.

ShadowImage and TrueCopy are registered trademarks of Hitachi Data Systems.

AIX, FICON, FlashCopy, IBM, MVS/ESA, MVS/XA, OS/390, S/390, VM/ESA, VSE/ESA, z/OS, zSeries, z/VM, and zVSE are registered trademarks or trademarks of International Business Machines Corporation.

All other trademarks, service marks, and company names are properties of their respective owners.

Microsoft product screen shots reprinted with permission from Microsoft Corporation.



# Contents

<b>1</b>	<b>Virtual Storage Platform Tasks and Related Manuals . . . . .</b>	<b>1-1</b>
	Required setup tasks . . . . .	1-2
	General task list. . . . .	1-2
	1. Installation tasks . . . . .	1-2
	2. Startup tasks . . . . .	1-3
	3. Basic system admin tasks . . . . .	1-3
	4. Provisioning and configuration tasks . . . . .	1-4
	5. Storage virtualization tasks . . . . .	1-4
	6. Data replication and disaster recovery tasks . . . . .	1-5
	Optional setup tasks . . . . .	1-5
	1. Provisioning and configuration. . . . .	1-5
	2. Performance monitoring and tuning tasks. . . . .	1-6
	3. Troubleshooting and other tasks . . . . .	1-6
<b>2</b>	<b>Virtual Storage Platform User Guides . . . . .</b>	<b>2-1</b>
	Virtual Storage Platform user guides by topic . . . . .	2-2



# Virtual Storage Platform Tasks and Related Manuals

This section provides an ordered task list with pointers to the Virtual Storage Platform user guide that provides the instructions for the task.

- [Required setup tasks](#)
- [Optional setup tasks](#)

## Required setup tasks

The following tables show ordered lists of the tasks that must be completed to set up a Virtual Storage Platform storage system.

### General task list

The following table provides a high-level list of installation and configuration tasks. The tables following it provide more detailed task lists. See the related user guides for detailed task lists and instructions.

Task	User Guide
1. Install the storage system hardware	See <a href="#">1. Installation tasks on page 1-2</a>
2. Turn the storage system power on.	<i>Hitachi Virtual Storage Platform User and Reference Guide</i>
3. Log in to Storage Navigator	<i>Hitachi Storage Navigator User Guide</i>
4. Set up Storage Navigator user accounts, enable software licenses	<i>Hitachi Storage Navigator User Guide</i>
5. Provision and configure the system	See <a href="#">4. Provisioning and configuration tasks on page 1-4</a>
6. Set up virtualization	See <a href="#">5. Storage virtualization tasks on page 1-4</a>
7. Set up replication	See <a href="#">6. Data replication and disaster recovery tasks on page 1-5</a>
8. Set up monitoring, logs, and alerts	<ul style="list-style-type: none"><li>• <i>Hitachi Audit Log User Guide</i></li><li>• <i>Hitachi Storage Navigator User Guide</i></li></ul>
9. Tune system for performance	<i>Performance Guide</i>
10. Troubleshoot and maintain system	<i>Hitachi Storage Navigator Messages</i>

### 1. Installation tasks

Storage Management Task	User Guide
1. Plan the hardware installation	<i>Hitachi Virtual Storage Platform Installation Planning Guide</i>
Install the system	<i>Hitachi Virtual Storage Platform Installation Planning Guide</i>
1. Create installation plan.	
2. Prepare the facility	
3. Prepare the location where the system will be installed	
4. Assist service personnel as needed.	
5. Connect the system to a host.	

## 2. Startup tasks

Storage Management Task	User Guide
<ol style="list-style-type: none"><li>1. Verify that power to the rack is correct and turned on</li><li>2. Verify that all PDU breakers and switches are ON.</li><li>3. Turn on system power</li><li>4. Verify that the ready LED is ON.</li></ol>	<i>Hitachi Virtual Storage Platform User and Reference Guide</i>

## 3. Basic system admin tasks

Storage Management Task	User Guide
<ol style="list-style-type: none"><li>1. Log in</li><li>2. Change admin password</li><li>3. Set up user accounts</li><li>4. Enable license keys</li></ol>	<i>Hitachi Storage Navigator User Guide</i>

## 4. Provisioning and configuration tasks

Storage Management Task	User Guide
<p>Provision the Virtual Storage Platform system for use with open systems.</p> <ol style="list-style-type: none"><li>1. Verify that the system on which you are installing the software meets the minimum requirements for the software release.</li><li>2. Prepare the fibre-channel HBAs for the installation.</li><li>3. Connect the system to a host.</li><li>4. Verify recognition of the new devices.</li><li>5. Verify device files and the driver.</li><li>6. Create open-systems volumes</li><li>7. Partition disk devices, create file systems, and set device parameters.</li><li>8. Create mount directories, mount and verify the file systems, and set and verify auto-mount parameters.</li><li>9. Configure hosts and ports.</li><li>10. Define paths to volumes.</li><li>11. Assign access attribute to volumes.</li><li>12. Implement dynamic allocation of disk space on an as-needed basis.</li></ol>	<ul style="list-style-type: none"><li>• <i>Provisioning Guide for Open Systems</i></li><li>• <i>Hitachi System Operations Using Spreadsheets</i></li></ul>

Storage Management Task	User Guide
Provision the Virtual Storage Platform system for use with mainframe systems. 1. Create mainframe volumes.	<i>Provisioning Guide for Mainframe Systems</i>

## 5. Storage virtualization tasks

Storage Management Task	User Guide
1. Connect external storage systems to VSP system for storage virtualization . 2. Set up virtual volumes.	<ul style="list-style-type: none"> <li>• <i>Hitachi Universal Volume Manager User Guide</i></li> <li>• <i>Performance Guide</i></li> <li>• <i>Hitachi System Operations Using Spreadsheets</i></li> </ul>

## 6. Data replication and disaster recovery tasks

Storage Management Task	User Guide
Perform synchronous remote replication and disaster recovery in open systems.	<i>Hitachi TrueCopy® User Guide</i>
Perform synchronous remote replication and disaster recovery in mainframe systems.	<i>Hitachi TrueCopy® for Mainframe User Guide</i>
Perform asynchronous remote replication and disaster recovery in open systems.	<i>Hitachi Universal Replicator User Guide</i>
Perform asynchronous remote replication and disaster recovery in Mainframe systems.	<i>Hitachi Universal Replicator for Mainframe User Guide</i>
Perform local replication in open systems.	<i>Hitachi ShadowImage® User Guide</i>
Perform local replication in mainframe systems.	<i>Hitachi ShadowImage® for Mainframe User Guide</i>
Create point-in-time snapshot copies of data volumes to accelerate backup and recovery processes.	<i>Hitachi ShadowImage® for Mainframe User Guide</i>
Create point-in-time snapshots to accelerate backup and recovery processes.	<i>Hitachi Copy-on-Write Snapshot User Guide</i>
Store up to 1024 snapshots (duplicates of data) in a VSP storage system.	<i>Hitachi Thin Image User Guide</i>
Manipulate IBM FlashCopy pairs for full-.volume and data-set-level copy.	<i>Hitachi Compatible FlashCopy® V2 User Guide</i>
Use the Compatible Replication for IBM XRC software to perform asynchronous remote replication.	<i>Hitachi Compatible XRC User Guide</i>
Install Command Control Interface (CCI).	<i>Hitachi Command Control Interface Installation and Configuration Guide</i>
Use CCI commands to perform data replication.	<i>Hitachi Command Control Interface User and Reference Guide</i>



## Optional setup tasks

The following tables list the optional setup tasks that you can use to customize your storage system.

### 1. Provisioning and configuration

Storage Management Task	User Guide
Run scripted spreadsheets to make large-scale configuration changes to your storage system, and perform remote replication for mainframe.	<i>Hitachi System Operations Using Spreadsheets</i>
Use SNMP-based reporting on status and alerts for the storage system	<i>Hitachi SNMP Agent User Guide</i>
Protect the storage system against writing of invalid data in Oracle database environment	<i>Hitachi Database Validator User Guide</i>
Encrypt data as needed	<i>Hitachi Encryption License Key User Guide</i>
Delete data from volumes to prevent it from being restored	<i>Hitachi Volume Shredder User Guide</i>

### 2. Performance monitoring and tuning tasks

Storage Management Task	User Guide
Monitor performance statistics of disk drives, volumes, and other storage components	<i>Performance Guide</i>
Improve data access speed using cache	<i>Performance Guide</i>
Create and managing virtual cache partitions	<i>Performance Guide</i>
Improve data access speed by enabling multiple I/O requests to be issued to single logical devices (LDEVs) on IBM mainframe computers	<i>Hitachi Compatible PAV User Guide</i>

### 3. Troubleshooting and other tasks

Storage Management Task	User Guide
Review information about Storage Navigator messages	<i>Hitachi Storage Navigator Messages</i>
Review the log of operations to investigate causes of errors and avoid potential errors	<i>Hitachi Audit Log User Guide</i>
Review syntax of CCI commands	<i>Hitachi Command Control Interface Command Reference</i>



# Virtual Storage Platform User Guides

This section provides a list of all Virtual Storage Platform user documentation, by topic.

- [Virtual Storage Platform user guides by topic](#)

## Virtual Storage Platform user guides by topic

The following table provides a list of all Virtual Storage Platform user documentation, by topic.

Type of manual / Topic	Manual Name	Part Number
Introductory	<i>Hitachi Virtual Storage Platform Documentation Roadmap</i>	MK-90RD7039
Hardware	<i>Hitachi Virtual Storage Platform Installation Planning Guide</i>	MK-90RD7041
	<i>Hitachi Virtual Storage Platform User and Reference Guide</i>	MK-90RD7042
Provisioning	<i>Provisioning Guide for Open Systems</i> Covers tiered storage, dynamic provisioning, LUN manager, LUSE, virtual LUN, and data retention.	MK-90RD7022
	<i>Provisioning Guide for Mainframe Systems</i>	MK-90RD7021
	<i>Hitachi System Operations Using Spreadsheets</i>	MK-90RD7026
Host Configuration	<i>Configuration Guide for Sun™ Solaris™ Host Attachment</i>	MK-96RD632
	<i>Configuration Guide for IBM® AIX® Host Attachment</i>	MK-96RD636
	<i>Configuration Guide for HP-UX® Host Attachment</i>	MK-96RD638
	<i>Configuration Guide for Microsoft® Windows® Host Attachment</i>	MK-96RD639
	<i>Configuration Guide for Red Hat® Linux® Host Attachment</i>	MK-96RD640
	<i>Mainframe Host Attachment and Operations Guide</i>	MK-96RD645
	<i>Configuration Guide for SuSE® Linux® Host Attachment</i>	MK-96RD650
	<i>Configuration Guide for Novell® NetWare® Host Attachment</i>	MK-96RD652
	<i>Configuration Guide for HP® OpenVMS™ Host Attachment</i>	MK-96RD653
	<i>Configuration Guide for VMware™ ESX Server Host Attachment</i>	MK-98RD6716
Virtualization	<i>Hitachi Universal Volume Manager User Guide</i>	MK-90RD7033
Replication, Open Systems	<i>Hitachi ShadowImage® User Guide</i>	MK-90RD7024
	<i>Hitachi TrueCopy® User Guide</i>	MK-90RD7029
	<i>Hitachi Copy-on-Write Snapshot User Guide</i>	MK-90RD7013
	<i>Hitachi Universal Replicator User Guide</i>	MK-90RD7032
	<i>Hitachi High Availability Manager User Guide</i>	MK-90RD7018
	<i>Hitachi Thin Image User Guide</i>	MK-90RD7179
Replication, Mainframe	<i>Hitachi ShadowImage® for Mainframe User Guide</i>	MK-90RD7023
	<i>Hitachi TrueCopy® for Mainframe User Guide</i>	MK-90RD7030
	<i>Hitachi Universal Replicator for Mainframe User Guide</i>	MK-90RD7031
	<i>Hitachi Compatible FlashCopy® V2 User Guide</i>	MK-90RD7017
	<i>Hitachi Compatible XRC User Guide</i>	MK-90RD7011
Command Control Interface	<i>Hitachi Command Control Interface User and Reference Guide</i>	MK-90RD7010
	<i>Hitachi Command Control Interface Installation and Configuration Guide</i>	MK-90RD7008
	<i>Hitachi Command Control Interface Command Reference</i>	MK-90RD7009
Storage Navigator	<i>Hitachi Storage Navigator User Guide</i>	MK-90RD7027
	<i>Hitachi Storage Navigator Messages</i>	MK-90RD7028

Type of manual / Topic	Manual Name	Part Number
Security	<i>Hitachi Encryption License Key User Guide</i>	MK-90RD7015
	<i>Hitachi Volume Shredder User Guide</i>	MK-90RD7035
Performance	<i>Performance Guide</i>	MK-90RD7020
	<i>Hitachi Compatible PAV User Guide</i>	MK-90RD7012
System Maintenance	<i>Hitachi SNMP Agent User Guide</i>	MK-90RD7025
	<i>Hitachi Audit Log User Guide</i>	MK-90RD7007
Server-based	<i>Cross-OS File Exchange</i>	MK-96RD647
	<i>Hitachi Cross-OS File Exchange Code Converter User Guide</i>	MK-94RD253
	<i>Hitachi Cache Manager User Guide</i>	MK-96RD646





## **Hitachi Data Systems**

### **Corporate Headquarters**

2845 Lafayette Street  
Santa Clara, California 95050-2639  
U.S.A.

[www.hds.com](http://www.hds.com)

### **Regional Contact Information**

#### **Americas**

+1 408 970 1000

[info@hds.com](mailto:info@hds.com)

#### **Europe, Middle East, and Africa**

+44 (0)1753 618000

[info.emea@hds.com](mailto:info.emea@hds.com)

#### **Asia Pacific**

+852 3189 7900

[hds.marketing.apac@hds.com](mailto:hds.marketing.apac@hds.com)



**MK-90RD7039-06**