

Command Control Interface Release Notes

Version 01-61-03/01

Contents

About this document	1
Intended audience.....	1
Getting help	2
About this release	2
Applicable products	3
Supported storage systems	3
Supported hardware platforms and operating systems.....	4
New features and important enhancements	6
Fixed problems.....	7
Installation prerequisites	7
Documentation	8
Copyrights and licenses	8

About this document

This document (RN-90RD7194-34, February 2021) provides information about the Command Control Interface (CCI) software product, including supported systems, new features and important enhancements, fixed problems, and information that was not available when the documentation for this product was published.

Intended audience

This document is intended for customers and Hitachi Vantara partners who license and use Command Control Interface.

Getting help

Hitachi Vantara Support Connect is the destination for technical support of products and solutions sold by Hitachi Vantara. To contact technical support, log on to Hitachi Vantara Support Connect for contact information:

https://support.hitachivantara.com/en_us/contact-us.html.

Hitachi Vantara Community is a global online community for customers, partners, independent software vendors, employees, and prospects. It is the destination to get answers, discover insights, and make connections. **Join the conversation today!** Go to community.hitachivantara.com/, register, and complete your profile.

About this release

This release contains the support for I/O Preference Mode When Remote Path Failed and the addition of option to prevent connection to external storage system from being cut. For complete lists of new features and fixes, see New features and important enhancements and Fixed problems.

This document describes the differences between the following versions:

Version	CCI version	Required microcode/firmware for new features
New version	01-61-03/00	VSP 5000 series: 90-06-01-00/00 or later VSP G1x00, VSP F1500: 80-06-84-00/00 or later VSP E series: 93-04-01-x0/00 or later VSP G130, G/F350, G/F370, G/F700, G/F900: 88-08-01-x0/00 or later VSP G200, G/F400, G/F600, G/F800: 83-05-40-x0/00 or later VSP N series: 83-06-12-x0/00 or later
Previous version	01-59-03/00	VSP E590, E790: 93-03-22-40/00 or later VSP E990: 93-03-22-60/01 or later

Applicable products

The information described in this document applies to the following products:

#	Product name
1	Command Control Interface for HP-UX
2	Command Control Interface for Windows NT
3	Command Control Interface for Windows NT/x64
4	Command Control Interface for Solaris
5	Command Control Interface for Solaris/x86
6	Command Control Interface for AIX®
7	Command Control Interface for Tru64 UNIX (Digital UNIX)
8	Command Control Interface for Linux
9	Command Control Interface for Linux/IA64
10	Command Control Interface for IRIX
11	Command Control Interface for OpenVMS
12	Command Control Interface for OpenVMS/IA

Supported storage systems

This version of Command Control Interface supports the following storage systems:

Storage system	Minimum microcode/firmware
Virtual Storage Platform 5100, 5500, 5100H, 5500H	90-01-42-00/00 or later
Virtual Storage Platform E590, E790	93-03-22-40/00 or later
Virtual Storage Platform E990	93-01-02-60/00 or later
Virtual Storage Platform G130	88-02-01-00/00 or later
Virtual Storage Platform G/F350	88-01-02-20/00 or later

Storage system	Minimum microcode/firmware
Virtual Storage Platform G/F370, G/F700, G/F900	88-01-02-60/00 or later
Virtual Storage Platform G200	83-01-01-20/00 or later
Virtual Storage Platform G/F400, G/F600	83-01-01-40/00 or later
Virtual Storage Platform G/F800	83-01-01-60/00 or later
Virtual Storage Platform N400, N600	83-06-01-40/00 or later
Virtual Storage Platform N800	83-06-01-60/00 or later
Unified Storage VM	73-01-01-00/00 or later
Virtual Storage Platform G1000	80-01-01-00/00 or later
Virtual Storage Platform G1500, F1500	80-05-01-00/00 or later
Virtual Storage Platform	70-01-01-00/01 or later
Universal Storage Platform V/VM	60-01-30-00/00 or later
TagmaStore USP/NSC	50-09-37-00/00 or later
Freedom Storage Lightning 9980V	21-10-00 or later
Freedom Storage Lightning 9960	01-16-00 or later
Freedom Storage Lightning 7700E	52-47-xx or later

Supported hardware platforms and operating systems

The following table lists the supported hardware platforms and operating system (OS) compatibility for the Command Control Interface installation environment.

- All OS service packs, update programs, and patches are supported unless otherwise noted.
- Command Control Interface does not support hardware platforms that are not supported by the listed operating system.

Operating system	Platform
Solaris 10/11	SPARC
Solaris 10/11	IA32/x64
OL6.x (6.2 or later)	IA32/x64
OL7.x (7.3 or later)	x64
HP-UX 11.1x/11.2x/11.3x	PA-RISC
HP-UX 11.2x/11.3x	IA64
OpenVMS 8.x (8.3 or later)	IA64
AIX® 7.1	POWER
z/Linux (SLES 8/9)	zSeries® or S/390® Processor
Windows Server 2012	x64
Windows Server 2012R2	x64
Windows Server 2016	x64
Windows Server 2019	x64
RHEL 6	IA32/x64
RHEL 7	x64
RHEL8	x64
SLES11	x64
SLES12	x64
SLES15	x64
Ubuntu 14.x (14.04 or later)	x64
Ubuntu 16.x (16.04 or later)	x64

The following table lists the supported VMs and hardware for the Command Control Interface installation environment.

- All service packs, update programs, and patches of VMs are supported unless otherwise noted.
- Command Control Interface supports an OS listed in the OS compatibility table as a guest OS on which you can install Command Control Interface only when the VM vendor supports the OS.

VM vendor	Product/Version
VMware	ESXi 6.x/7.x
Microsoft	Windows Server 2012/2012R2 Hyper-V
IBM®	IBM® VIOS 2.2.0.0. (Support for only AIX® as VIOC)
Oracle	VM Server for SPARC 3.1
HP	HPVM 6.3

New features and important enhancements

#	Description
1	<p>Added support for I/O Preference Mode When Remote Path Failed.</p> <p>Target storage systems of the change: VSP 5000 series; VSP E series; VSP G1x00, VSP F1500; VSP G130, G/F350, G/F370, G/F700, G/F900; VSP G200, G/F400, G/F600, G/F800; VSP N series</p> <p>New option (indicated in italic below):</p> <pre>paircreate { -h -q -z[x] -I[H][M][instance#] or -I[TC][SI][instance#] -g <group> -d <pair Vol> -d[g] <raw_device> [MU#] -FHORC [MU#] or -FCA [MU#] -d[g] <seq#> <LDEV#> [MU#] -f[g] <fence>[CTG ID] -v -c <size> -nocopy -nomsg -split [-m <mode>] -jp <id> -jq <id> -js <id> -pid <PID> -fq <mode> -cto <o-time>[c-time] [r-time] -pvol(svol)[ldevgrp] -nocsus <i>-pr <io preference></i>}</pre> <pre>pairresync { -h -q -z[x] -I[H][M][instance#] or -I[TC][SI][instance#] -g <group> -d <pair Vol> -d[g] <raw_device> [MU#] -FHORC [MU#] -FMRCF [MU#] -d[g] <seq#> <LDEV#> [MU#] -c <size> -nomsg -l -restore -swaps -swapp -fq <mode> -cto <o-time> [ctime] [r-time] -f[g] <fence> [CTG ID] <i>-pr <io preference></i>}</pre>

#	Description
	<p>New command output:</p> <pre>pairstorage -fe (The PR column is added.)</pre>
2	<p>Added an option to prevent connection to external storage system from being dropped.</p> <p>Target storage systems of the change: VSP 5000 series; VSP E series; VSP G130, G/F350, G/F370, G/F700, G/F900; VSP G200, G/F400, G/F600, G/F800; VSP N series</p> <p>New option (indicated in italic below):</p> <pre>raidcom discover external_storage -port <port> [-safety_check enable] [-discovery_external_wwn <wwn strings>] raidcom discover lun -port <port> {-external_wwn <wwn strings> -external_iscsi_name <external iscsi name> -external_address <IP address> [-iscsi_virtual_port_id <iSCSI virtual port ID>]} [-safety_check enable] raidcom add path -path_grp <path group#> -port <port> {-external_wwn <wwn strings> -external_iscsi_name <external iscsi name> -external_address <IP address> [-iscsi_virtual_port_id <iSCSI virtual port ID>]} [-safety_check enable] raidcom add external_grp -path_grp <path group#> -external_grp_id <gnosgno> -port <port> {-external_wwn <wwn strings> -external_iscsi_name <external iscsi name> -external_address <IP address> [-iscsi_virtual_port_id <iSCSI virtual port ID>]} -lun_id <lun#> [-emulation <emulation type>] [-clpr <clpr#>] [-external_attribute migration] [-data_direct _mapping enable] [-command_device y -ldev_id <ldev#>] [-safety_check enable]</pre>
3	<p>Added an option for Hitachi Block Storage Driver to display LDEV NAA.</p> <p>Target storage systems of the change: VSP 5000 series; VSP E series; VSP G130, G/F350, G/F370, G/F700, G/F900</p>

Fixed problems

- None

Installation prerequisites

Before using any of the following software, you must install the RAID Manager/LIB that is located in the `../RL` directory on the installation CD.

- RAID management software provided by Hitachi or other vendor
- BMC Enterprise Snapshot software

Documentation

This release includes the following user documentation:

Title	Number and revision	Issue date
Command Control Interface Command Reference	MK-90RD7009-47	February 2021
Command Control Interface User and Reference Guide	MK-90RD7010-49	February 2021

Copyrights and licenses

© 2015, 2021 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 copying and recording, or stored in a database or retrieval system for commercial purposes without the express written permission of Hitachi, Ltd., or Hitachi Vantara LLC (collectively "Hitachi"). Licensee may make copies of the Materials provided that any such copy is: (i) created as an essential step in utilization of the Software as licensed and is used in no other manner; or (ii) used for archival purposes. Licensee may not make any other copies of the Materials. "Materials" mean text, data, photographs, graphics, audio, video and documents.

Hitachi reserves the right to make changes to this Material at any time without notice and assumes no responsibility for its use. The Materials contain the most current information available at the time of publication.

Some of the features described in the Materials might not be currently available. Refer to the most recent product announcement for information about feature and product availability, or contact Hitachi Vantara LLC at https://support.hitachivantara.com/en_us/contact-us.html.

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

By using this software, you agree that you are responsible for:

- 1) Acquiring the relevant consents as may be required under local privacy laws or otherwise from authorized employees and other individuals; and
- 2) Verifying that your data continues to be held, retrieved, deleted, or otherwise processed in accordance with relevant laws.

Notice on Export Controls. The technical data and technology inherent in this Document may be subject to U.S. export control laws, including the U.S. Export Administration Act and its associated regulations, and may be subject to export or import regulations in other countries. Reader agrees to comply strictly with all such regulations and acknowledges that Reader has the responsibility to obtain licenses to export, re-export, or import the Document and any Compliant Products.

Hitachi and Lumada are trademarks or registered trademarks of Hitachi, Ltd., in the United States and other countries.

AIX, AS/400e, DB2, Domino, DS6000, DS8000, Enterprise Storage Server, eServer, FICON, FlashCopy, IBM, Lotus, MVS, OS/390, PowerPC, RS/6000, S/390, System z9, System z10, Tivoli, z/OS, z9, z10, z13, z/VM, and z/VSE are registered trademarks or trademarks of International Business Machines Corporation.

Active Directory, ActiveX, Bing, Excel, Hyper-V, Internet Explorer, the Internet Explorer logo, Microsoft, the Microsoft Corporate Logo, MS-DOS, Outlook, PowerPoint, SharePoint, Silverlight, SmartScreen, SQL Server, Visual Basic, Visual C++, Visual Studio, Windows, the Windows logo, Windows Azure, Windows PowerShell, Windows Server, the Windows start button, and Windows Vista are registered trademarks or trademarks of Microsoft Corporation. Microsoft product screen shots are reprinted with permission from Microsoft Corporation.

All other trademarks, service marks, and company names in this document or website are properties of their respective owners.

Copyright and license information for third-party and open source software used in Hitachi Vantara products can be found at <https://www.hitachivantara.com/en-us/company/legal.html>.