

Command Control Interface Release Notes

Version 01-51-03/02

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	8
Installation prerequisites.....	8
Documentation	9
Copyrights and licenses	9

About this document

This document (RN-90RD7194-24, October 2019) 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

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About this release

This release adds support for Virtual Storage Platform 5000 series (VSP 5000 series) and includes an enhancement for `raidcom get parity_grp`. For details about 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 number	Required microcode/firmware for new features
New version	01-51-03/02	VSP 5000 series: 90-01-42-00/00 or later VSP G1x00, VSP F1500: 80-06-66-00/00 or later VSP G130, G/F350, G/F370, G/F700, G/F900: 88-03-23-x0/00 or later VSP G200, G/F400, G/F600, G/F800: 83-01-01-x0/00 or later VSP N400, N600, N800: 83-06-01-x0/00 or later VSP: 70-06-61-00/00 or later HUS VM: 73-03-44-00/00 or later USP V/VM: 60-08-47-00/00 or later
Previous version	01-49-03/01	VSP G1x00, VSP F1500: 80-01-01-00/00 or later VSP G130, G/F350, G/F370, G/F700, G/F900: 88-01-02-x0/00 or later VSP G200, G/F400, G/F600, G/F800: 83-01-01-x0/00 or later VSP N400, N600, N800: 83-06-01-x0/00 or later VSP: 70-01-01-00/01 or later HUS VM: 73-01-01-00/00 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 CCI 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 G130	88-02-01-00/00 or later
Virtual Storage Platform G350	88-01-02-20/00 or later
Virtual Storage Platform G370, G700, G900	88-01-02-60/00 or later
Virtual Storage Platform F350	88-01-02-20/00 or later

Storage system	Minimum microcode/firmware
Virtual Storage Platform F370, F700, F900	88-01-02-60/00 or later
Virtual Storage Platform G200	83-01-01-20/00 or later
Virtual Storage Platform G400, G600	83-01-01-40/00 or later
Virtual Storage Platform G800	83-01-01-60/00 or later
Virtual Storage Platform F400, F600	83-02-01-40/00 or later
Virtual Storage Platform F800	83-02-01-60/00 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	80-05-01-00/00 or later
Virtual Storage Platform 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 CCI installation environment.

- All OS service packs, update programs, and patches are supported unless otherwise noted.
- CCI 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
OEL6.x (6.2 or later)	IA32/x64
HP-UX 11.1x/11.2x/11.3x	PA-RISC
HP-UX 11.2x/11.3x	IA64
Tru64 UNIX 5.x	Alpha
OpenVMS 8.x (8.3 or later)	IA64
AIX® 6.1	POWER
AIX® 7.1	POWER
z/Linux (SLES 8/9)	zSeries® or S/390® Processor
Windows Server 2008/2008R2	IA32/x64/IA64
Windows Server 2012	x64
Windows Server 2012R2	x64
Windows Server 2016	x64
Windows Server 2019	x64
RHEL 5/ RHEL AP 5	IA32/x64/IA64
RHEL 6	IA32/x64
RHEL 7	IA32/x64
SLES10/11	IA32/x64
SLES12	x64
SLES15	x64

Operating system	Platform
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 CCI installation environment.

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

VM vendor	Product/Version
VMware	ESXi 5.x/6.x
Microsoft	Windows Server 2008/2008R2/2012/2012R2 Hyper-V
IBM®	IBM® VIOS 1.x, 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	Added support for the VSP 5000 series storage systems. Target storage systems of the change: VSP 5100, VSP 5500, VSP 5100H, VSP 5500H
2	Added the parity group emulation type information to command output (indicated in italic below). Target storage systems of the change: VSP 5000 series; VSP G1x00, VSP F1500; VSP G130, G/F350, G/F370, G/F700, G/F900; VSP G200, G/F400, G/F600, G/F800; VSP; HUS VM # raidcom get parity_grp -I0 T GROUP Num_LDEV U(%) AV_CAP(GB) R_LVL R_TYPE SL CL DRIVE_TYPE M <i>E_TYPE</i> R 2-1 678 43 915 RAID5 3D+1P 0 0 DKR5D-J600SS - OPEN-V

#	Description																																			
3	<p>Added the ALL parameter to the <code>-port_attribute</code> option of the <code>raidcom modify port</code> command to reset the port attribute on VSP 5000 series bidirectional ports (indicated in italic below).</p> <p>Target storage systems of the change: VSP 5000 series</p> <pre>raidcom modify port ... -port_attribute {TAR MCU RCU ELUN <i>ALL</i>}</pre>																																			
4	<p>Added support for using the VSP 5000 series as an RCU.</p> <ul style="list-style-type: none">Added R900 as a value of the <code><id></code> parameter in the following commands: <code>raidcom add rcu</code>, <code>raidcom delete rcu</code>, <code>raidcom modify rcu</code>, <code>raidcom add rcu_path</code>, <code>raidcom delete rcu_path</code>, <code>raidcom add ssid</code>, <code>raidcom add rcu_iscsi_port</code>, <code>raidcom delete rcu_iscsi_port</code>, <code>raidcom modify ldev</code>, <code>raidcom add quorum</code>Added R9 as a value of ID displayed by the following commands: <code>raidcom get rcu_iscsi_port</code>, <code>raidcom get rcu</code>, <code>raidcom get ldev</code>, <code>raidcom get quorum</code>																																			
5	<p>Added support for using the virtualization function of VSP 5000 series.</p> <ul style="list-style-type: none">Added R900F and R900G as values of the <code><id></code> parameter in the <code>raidcom add resource</code> command.Added R9F and R9G as values of ID displayed by the <code>raidcom get resource</code> command.																																			
6	<p>Added support for displaying up to 48 deduplication system data volumes (indicated in italic below).</p> <p>Target storage systems of the change: VSP 5000 series</p> <pre># raidcom get pool -key saving</pre> <table><thead><tr><th>PID</th><th>SE_SAVING (BLK)</th><th>PL_SAVING (BLK)</th><th>PL_PRE_USED (BLK)</th><th>SES (%)</th><th>DDP (%)</th><th>CMP (%)</th></tr><tr><th>PLS (%)</th><th>Num</th><th>LDEV#</th><th></th><th></th><th></th><th></th></tr></thead><tbody><tr><td>000</td><td>12582912</td><td>9437184</td><td>28311552</td><td>20</td><td>15</td><td>5</td></tr><tr><td>33</td><td>1</td><td><i>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32</i></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td><i>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47</i></td><td></td><td></td><td></td><td></td></tr></tbody></table>	PID	SE_SAVING (BLK)	PL_SAVING (BLK)	PL_PRE_USED (BLK)	SES (%)	DDP (%)	CMP (%)	PLS (%)	Num	LDEV#					000	12582912	9437184	28311552	20	15	5	33	1	<i>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32</i>							<i>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47</i>				
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		<i>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47</i>																																		
7	<p>Added support for GAD pairs with 256 or more CTG IDs set.</p> <p>Target storage systems of the change: VSP 5000 series</p>																																			
8	<p>Added a function to display the NVMe drive information (indicated in italic below).</p> <p>Target storage systems of the change: VSP 5000 series</p>																																			

#	Description																																								
	<p>New command output:</p> <pre># raidcom get drive</pre> <table><tr><th>LOCATION</th><th>TYPE</th><th>RPM</th><th>TOTAL_CAP (GB)</th><th>CODE</th><th>USAGE</th><th>STS</th><th>GROUP</th></tr><tr><td>0-0</td><td>SSD</td><td>-</td><td>960</td><td>SNR5A-R960NC</td><td>DATA</td><td>NML</td><td>1-1</td></tr><tr><td>2-0</td><td>SSD</td><td>-</td><td>960</td><td>SNR5A-R960NC</td><td>DATA</td><td>NML</td><td>1-1</td></tr><tr><td>4-0</td><td>SSD</td><td>-</td><td>960</td><td>SNR5A-R960NC</td><td>DATA</td><td>NML</td><td>1-1</td></tr><tr><td>6-0</td><td>SSD</td><td>-</td><td>960</td><td>SNR5A-R960NC</td><td>DATA</td><td>NML</td><td>1-1</td></tr></table>	LOCATION	TYPE	RPM	TOTAL_CAP (GB)	CODE	USAGE	STS	GROUP	0-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1	2-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1	4-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1	6-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1
LOCATION	TYPE	RPM	TOTAL_CAP (GB)	CODE	USAGE	STS	GROUP																																		
0-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1																																		
2-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1																																		
4-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1																																		
6-0	SSD	-	960	SNR5A-R960NC	DATA	NML	1-1																																		
New features and important enhancements in CCI v01-49-03/03																																									
1	<p>Added a function to disable the output of unnecessary Windows event logs for REST API.</p> <p>Target storage systems of the change: VSP G1x00, VSP F1500; VSP G130, G/F350, G/F370, G/F700, G/F900; VSP G200, G/F400, G/F600, G/F800; VSP N400, N600, N800</p>																																								
2	<p>Added detailed information to an error message displayed when an LU number within the range from 2048 to 4095 is specified for the <code>-lun_id <lun#></code> option in a <code>raidcom</code> command.</p> <p>Target storage systems of the change: VSP G1x00, VSP F1500; VSP G130, G/F350, G/F370, G/F700, G/F900; VSP G200, G/F400, G/F600, G/F800; VSP N400, N600, N800; VSP; HUS VM</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 Installation and Configuration Guide	MK-90RD7008-25	October 2019
Command Control Interface Command Reference	MK-90RD7009-39	October 2019
Command Control Interface User Guide	MK-90RD7010-41	October 2019

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