



DEFENSE INFORMATION SYSTEMS AGENCY

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IN REPLY REFER TO: Joint Interoperability Test Command (JTE)

9 May 2022

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Joint Interoperability Certification of the Cohesity Web-Scale Data Management Platform with Software Release 6.6.0d_u2

- References: (a) Department of Defense Instruction 8100.04, "DoD Unified Capabilities (UC)," 9 December 2010
(b) Office of the Department of Defense Chief Information Officer, "Department of Defense Unified Capabilities Requirements 2013, Change 2," September 2017
(c) through (f), see Enclosure

1. Certification Authority. Reference (a) establishes the Joint Interoperability Test Command (JITC) as the Joint Interoperability Certification Authority for the Department of Defense Information Network (DoDIN) products, Reference (b).

2. Conditions of Certification. The Cohesity Web-Scale Data Management Platform with Software Release 6.6.0d_u2, hereinafter referred to as the System Under Test (SUT), meets the critical requirements of the Unified Capabilities Requirements (UCR), Reference (b), as a Data Storage Controller (DSC) and is certified for joint use with the conditions described in Table 1. This certification expires upon changes that affect interoperability (IO), but no later than the expiration date listed in the DoDIN Approved Products List (APL) memorandum.

This extension of the certification is for Desktop Reviews (DTR) 4 and 5. DTR 4 was requested to add the Cohesity Virtual Edition to the list of certified SUT components. DTR 5 was requested to update the SUT Software Release version from 6.6.0c to 6.6.0d_u2 and add multiple Fujitsu, Cisco, and HPE hardware models to the list of certified SUT components.

See Table 4 for an updated list of certified SUT components and Section 4 for the test details.

Table 1. Conditions

Table with 3 columns: Description, Operational Impact, Remarks. Row 1: UCR Waivers. Row 2: None.

(Table continues next page.)

Table 1. Conditions (continued)

Description		Operational Impact	Remarks																																
TDR#	Open Test Discrepancies																																		
COH-0771-001	DAT-000010: The SUT does not support RAID as a fault tolerance measure. The SUT implements Erasure Coding to prevent data loss in the event of disk failures.	None with Change Requirement	On 2 March 2021, DISA adjudicated this discrepancy as a UCR Change Requirement																																
COH-0771-002	DAT-000120: Per the Vendor LoC, the SUT does not support CIFS/SMB1.	None with Change Requirement	On 2 March 2021, DISA adjudicated this discrepancy as a UCR Change Requirement																																
COH-0771-003	DAT-000550: DSCP tags are not configurable. The SUT supports DSCP marking on egress traffic, however the markings do not coincide with Section 6, Table 6.3-2 "Traffic Conditioning Specification". Observed traffic conformed to the Vendor-specified shaping plan. The shaping plan is not configurable through the administrative interface.	CLOSED	See note																																
COH-0771-004	DAT-000420: NIS not supported.	None with Change Requirement	On 2 March 2021, DISA adjudicated this discrepancy as a UCR Change Requirement																																
COH-0771-005	DAT-000430: NIS netgroups not supported.	None with Change Requirement	On 2 March 2021, DISA adjudicated this discrepancy as a UCR Change Requirement																																
COH-0771-006	DAT-000450: iSNS is not supported.	None with Change Requirement	On 2 March 2021, DISA adjudicated this discrepancy as a UCR Change Requirement																																
<p>NOTE: With DTR 2, the Vendor provided sufficient artifacts with the 6.6.0c Software Release update to demonstrate the shaping plan is now configurable through the administrative interface and DCSP markings coincide with Section 6, Table 6.3-2 "Traffic Conditioning Specification." Therefore, corresponding TDR COH-0771-003 was CLOSED.</p> <p>LEGEND:</p> <table border="0"> <tr> <td>CIFS</td> <td>Common Internet File System</td> <td>NIS</td> <td>Network Information Service</td> </tr> <tr> <td>COH</td> <td>Cohesity</td> <td>RAID</td> <td>Redundant Array of Independent Disks</td> </tr> <tr> <td>DAT</td> <td>Data</td> <td>SMB</td> <td>Server Message Block</td> </tr> <tr> <td>DISA</td> <td>Defense Information Systems Agency</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>DSCP</td> <td>Differentiated Services Code Point</td> <td>TDR</td> <td>Test Discrepancy Report</td> </tr> <tr> <td>DTR</td> <td>Desktop Review</td> <td>UCR</td> <td>Unified Capabilities Requirement</td> </tr> <tr> <td>iSNS</td> <td>Internet Storage Name Service</td> <td></td> <td></td> </tr> <tr> <td>LoC</td> <td>Letter of Compliance</td> <td></td> <td></td> </tr> </table>				CIFS	Common Internet File System	NIS	Network Information Service	COH	Cohesity	RAID	Redundant Array of Independent Disks	DAT	Data	SMB	Server Message Block	DISA	Defense Information Systems Agency	SUT	System Under Test	DSCP	Differentiated Services Code Point	TDR	Test Discrepancy Report	DTR	Desktop Review	UCR	Unified Capabilities Requirement	iSNS	Internet Storage Name Service			LoC	Letter of Compliance		
CIFS	Common Internet File System	NIS	Network Information Service																																
COH	Cohesity	RAID	Redundant Array of Independent Disks																																
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3. Interoperability Status. Table 2 provides the SUT interface interoperability status, Table 3 provides the Capability Requirements and Functional Requirements status, and Table 4 provides a DoDIN APL Product Summary, to include subsequent DTR updates.

Table 2. SUT Interface Status

Interface	Applicability R/O/C	Status	Remarks
Network Attached Storage (NAS) Interfaces			
GbE IAW IEEE 802.3ab	C	Met	
10 GbE IAW IEEE 802.3ae	C	Met	
Storage Array Net (SAN) Interfaces			
FC physical interfaces and FCP interfaces IAW ANSI X3.230, X3.297, and X3.303	C	Not Tested	The SUT does not support this conditional Interface.

(Table continues next page.)

Table 2. SUT Interface Status (continued)

Interface	Applicability R/O/C	Status	Remarks
Out-of-band Management Interfaces			
100 Mbps Ethernet	C	Met	See note 2.
1 GbE	C	Met	
10 GbE	C	Met	
Converged Network Adapter (CNA) Interfaces			
FCoE services over a 10 GbE physical interface IAW ANSI T11 FC-BB-5 standard for FCoE with a CNA	O	Not Tested	The SUT does not support this optional Interface.
Data Center Bridging also known as Converged Enhanced Ethernet features IAW IEEE 802.1Qbb for Priority-Based Flow Control	O	Not Tested	The SUT does not support this optional Interface.
Data Center Bridging also known as Converged Enhanced Ethernet features IAW IEEE 802.1Qaz for Enhanced Transmission Selection	O	Not Tested	The SUT does not support this optional Interface.
Data Center Bridging also known as Converged Enhanced Ethernet features IAW IEEE 802.1Qaz Data Center Bridging Exchange Protocol	O	Not Tested	The SUT does not support this optional Interface.
Data Center Bridging also known as Converged Enhanced Ethernet features IAW IEEE 802.1Qau for Congestion Notification	O	Not Tested	The SUT does not support this optional Interface.
NOTE(S):			
1. The UCR does not identify interface CR/FR applicability. The SUT high-level CR and FR ID numbers depicted in the Threshold CRs/FRs column are cross-referenced with Table 3.2.			
2. Testing was conducted on the higher data rate interfaces (1 and 10 GbE). JITC analysis determined the lower interface rates are low risk for certification based on the Vendor's LoC with the IEEE 802.3i and 802.3u standards and the test data collected at all other data rates.			
LEGEND:			
ANSI	American National Standards Institute	IEEE	Institute of Electrical and Electronics Engineers
C	Conditional	JITC	Joint Interoperability Test Command
CNA	Converged Network Adapter	LoC	Letters of Compliance
CR	Capability Requirement	Mbps	Megabits per second
FC	Fiber Channel	NAS	Network Attached Storage
FCoE	Fibre Channel over Ethernet	O	Optional
FCP	Fiber Channel Protocol	R	Required
FR	Functional Requirement	SAN	Storage Array Network
GbE	Gigabit Ethernet	SUT	System Under Test
IAW	In Accordance With	UCR	Unified Capabilities Requirements
ID	Identification		

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	UCR Requirement (High-Level) (See note 1.)	UCR 2013 Reference	Status
1-7, 9-11	Data Storage Controller (DSC) (R)	Section 14	Partially Met (See note 2.)
12	IPv6	Section 5	Met
8	Cybersecurity	Section 4	Met (See note 3.)
NOTE(S):			
1. The annotation of 'required' refers to a high-level requirement category. Enclosure 3 of Reference (c) provides the applicability of each sub-requirement.			
2. See Table 1 for SUT Conditions.			
3. USAISEC-TIC-led Cybersecurity test team conducted Cybersecurity testing and published the results in a separate report, Reference (d).			
LEGEND:			
CR	Capability Requirement	R	Required
DSC	Data Storage Controller	SUT	System Under Test
FR	Functional Requirement	TIC	Technology Integration Center
ID	Identification	UCR	Unified Capabilities Requirements
IPv6	Internet Protocol version 6	USAISEC	U.S. Army Information Systems Engineering Command

Table 4. DoDIN APL Product Summary

Product Identification				
Product Name	Cohesity Web Scale Data Management Platform			
Software Release	6.6.0d_u2 (See note 1.)			
UCR Product Type(s)	Data Storage Controller			
Product Description	Cohesity Web-Scale Data Management Platform node provides compute, flash and HDD capacity to consolidate data and execute workflows. The Cohesity Web-Scale Data Management Platform with DataPlatform and DataProtect is used to hyperconverge secondary storage workloads (i.e., enterprise data backups) into a single managed backup solution, which may be distributed across multiple distributed appliances.			
Product Components	Component Manufacturer	Component Name (See notes 2, 3, and 4.)	Tested Version (See note 1.)	Remarks
Web-Scale Data Management Platform (See note 5.)	Cohesity	C2305	6.6.0d_u2	Hardware Node Block (See note 6.)
		C2505		
		C2515		
		C2605		
		C3500		
		C4300		
		C4500		
		C4600		
		C4700		
		C6025		
		C6035		
		C6045		
		CX8205		
		CX8305		
		CX8405		
		Virtual Edition (See note 5.)		
	Fujitsu	Fujitsu PRIMERGY RX2540M5 48TB Fujitsu PRIMERGY RX2540M5 96TB		
	Cisco	C220 (Hybrid) C220 (All Flash) C240 S3260		
	Hewlett Packard Enterprise	Proliant DL360 G10 (Hybrid) Proliant DL360 G10 (All Flash) Proliant DL380 G10 Apollo 2000 Chassis with Proliant XL450 G10 24TB Node Apollo 2000 Chassis with Proliant XL450 G10 36TB Node Apollo 4200 G10 Apollo 4510 G10		

NOTE(S):

- The SUT was initially certified with Software Release version 6.6.0a. DTR 2 updated the SUT Software Release version from 6.6.0a to 6.6.0c. DTR 5 updated the SUT Software Release version from 6.6.0c to 6.6.0d_u2.
- Components bolded and underlined were tested by USAISEC-TIC. The specific node/model tested during initial certification was the C4600-SFP-4. The other components in the family series were not tested; however, JITC certified the other components for joint use because they utilize the same software and similar hardware as tested and certified components and JITC analysis determined they were functionally identical for interoperability certification purposes.
- With DTR 3, the following hardware models were added to this certification based on analysis and similarity to the previously tested and certified C4600 model: C2305, C2505, C2515, C2605, C3500, C4700, CX8205, CX8305, and CX8405. DTR 4 added the Cohesity Virtual Edition through testing.
- With DTR 5, the following hardware was added based on IO testing conducted by USAISEC-TIC 18-22 April 2022: Fujitsu PRIMERGY RX2540M5 48TB, C220 (Hybrid), and Proliant DL360 G10 (Hybrid). The following hardware was also added with DTR 5 based on analysis and similarity to the tested hardware: Fujitsu PRIMERGY RX2540M5 96TB, C220 (All Flash), C240, S3260, Proliant DL360 G10 (All Flash), Proliant DL380 G10, Apollo 2000 Chassis with Proliant XL450 G10 24TB Node, Apollo 2000 Chassis with Proliant XL450 G10 36TB Node, and Apollo 4200 G10, Apollo 4510 G10.

(Table continues next page.)

Table 4. DoDIN APL Product Summary (continued)

NOTE(S): (continued)			
5. With DTR 4, the Cohesity Virtual Edition was added based on IO testing conducted by USAISEC-TIC 18-22 April 2022. Virtual Machine images were hosted by VMware ESXi 6.7.0 running on a 1RU Dell server.			
6. The Web-Scale Data Management Platform is comprised of a Hardware Node Block with DataPlatform for provision of Distributed Storage Services and DataProtect for provision of Replication Services.			
LEGEND:			
APL	Approved Products List	RU	Rack Unit
DoDIN	Department of Defense Information Network	SFP	Small Form-factor Pluggable
DTR	Desktop Review	SUT	System Under Test
ESXi	Elastic Sky X integrated	TIC	Technology Integration Center
HDD	Hard Disk Drive	UCR	Unified Capabilities Requirements
IO	Interoperability	USAISEC	U.S. Army Information Systems Engineering Command
JITC	Joint Interoperability Test Command	VM	Virtual Machine

4. Test Details. This extension of the certification is based on DTRs 4 and 5. The original certification, documented in Reference (c), was based on interoperability (IO) testing, review of the Vendor’s Letters of Compliance (LoC), DISA adjudication of open test discrepancy reports (TDRs), and DISA Certifying Authority (CA) Recommendation for inclusion on the DoDIN APL. The United States Army Information Systems Engineering Command Technology Integration Center (USAISEC-TIC) completed review of the Vendor’s LoC on 5 February 2021 and conducted testing at the Technology Integration Center (TIC), Fort Huachuca, Arizona from 9 February 2021 through 12 February 2021, using test procedures derived from Reference (e). DISA adjudicated outstanding TDRs on 2 March 2021. A USAISEC-TIC-led CS test team conducted CS testing and published the results in a separate report, Reference (d). Enclosure 2 of Reference (c) documents the test results and describes the tested network and system configurations. Enclosure 3 of Reference (c) provides a detailed list of the interface, capability, and functional requirements.

DTR 4 was a request to add the Cohesity Virtual Edition to the list of certified SUT components. DTR 5 was requested to update the SUT Software Release version from 6.6.0c to 6.6.0d_u2 and add the following Fujitsu, Cisco, and HPE hardware models to the list of certified SUT components:

- Fujitsu PRIMERGY RX2540M5 48TB
- Fujitsu PRIMERGY RX2540M5 96TB
- Cisco C220 (Hybrid)
- Cisco C220 (All Flash)
- Cisco C240
- Cisco S3260
- HPE Proliant DL360 G10 (Hybrid)
- HPE Proliant DL360 G10 (All Flash)
- HPE Proliant DL380 G10
- HPE Apollo 2000 Chassis with HPE Proliant XL450 G10 24TB Node
- HPE Apollo 2000 Chassis with HPE Proliant XL450 G10 36TB Node
- HPE Apollo 4200 G10
- HPE Apollo 4510 G10

JITC Memo, JTE, Extension of the Joint Interoperability Certification of the Cohesity Web-Scale Data Management Platform with Software Release 6.6.0d_u2

JITC analysis, with input from USAISEC-TIC, determined CS testing and was required to validate the software update and IO testing was required for the new hardware.

USAISEC-TIC conducted IO testing with the Cohesity Virtual Edition (VE) and the Fujitsu PRIMERGY RX2540M5 48TB, C220 (Hybrid), and Proliant DL360 G10 (Hybrid) hardware models running the 6.6.60d_u2 software from 18 April through 22 April 2022 using test procedures derived from Reference (f). Testing demonstrated the SUT met current UCR requirements, Reference (b), with no new IO test discrepancies. Furthermore, the following hardware models were also certified based on analysis and similarity to the tested models: Fujitsu PRIMERGY RX2540M5 96TB, C220 (All Flash), C240, S3260, Proliant DL360 G10 (All Flash), Proliant DL380 G10, Apollo 2000 Chassis with Proliant XL450 G10 24TB Node, Apollo 2000 Chassis with Proliant XL450 G10 36TB Node, Apollo 4200 G10, and Apollo 4510 G10. See Table 4 for an updated list of certified SUT components.

Based on analysis and the IO test results, JITC approves DTRs 4 and 5.

In addition, USAISEC-TIC conducted CS testing from 11 April through 15 April 2022 and published the results in a separate report, Reference (d).

5. Additional Information. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-but-Sensitive Internet Protocol Data (formerly known as NIPRNet) e-mail. Interoperability status information is available via the JITC System Tracking Program (STP). STP is accessible by .mil/.gov users at <https://stp.fhu.disa.mil/>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Industry Toolkit (JIT) at <https://jit.fhu.disa.mil/>. Due to the sensitivity of the information, the CS Assessment Package (CAP) that contains the approved configuration and deployment guide must be requested directly from the APCO via e-mail: disa.meade.ie.list.approved-products-certification-office@mail.mil. All associated information is available on the DISA APCO website located at <https://aplits.disa.mil/>.

JITC Memo, JTE, Extension of the Joint Interoperability Certification of the Cohesity Web-Scale Data Management Platform with Software Release 6.6.0d_u2

6. Point of Contact (POC). USAISEC-TIC Testing POC: Michelle W. Lavery; commercial telephone (520) 940-3250; email address: michelle.w.lavery.civ@mail.mil. JITC certification POC: Lisa Esquivel; commercial telephone (520) 538-5531; e-mail address: lisa.r.esquivel.civ@mail.mil; mailing address: Joint Interoperability Test Command, ATTN: JTE (Lisa Esquivel), P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The APCO tracking number for the SUT is 2007701.

FOR THE COMMANDER:

Enclosure a/s

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ADDITIONAL REFERENCES

- (c) Joint Interoperability Test Command (JITC) Memo, JTE, "Joint Interoperability Certification of the Cohesity Web-Scale Data Management Platform C4x00 Series and C60xx Series with Software Release 6.6.0a," 13 May 2021
- (d) U.S. Army Information Systems Engineering Command, Mission Engineering Directorate, Technology Integration Center (TIC) (USAISEC-MED-TIC), "Cybersecurity Assessment Report for Cohesity Web-Scale Data Management TN 2007701, Software Release 6.6.0d_u2, Data Storage Controller (DSC), (Tracking Number 2007701), April 2022
- (e) JITC, "Data Storage Controller (DSC) Test Procedures Version 1.1 for Unified Capabilities Requirements (UCR) 2013 Change 2," December 2020
- (f) JITC, "Data Storage Controller (DSC) Test Procedures Version 2.0 for Unified Capabilities Requirements (UCR) 2013 Change 2 Draft," April 2022