



DEFENSE INFORMATION SYSTEMS AGENCY

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

22 February 2021

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Joint Interoperability Certification of the NetApp Open Network Technology for Appliance Products (ONTAP) with Software Release 9.8 for Fabric Attached Storage (FAS) and specified All Flash FAS (AFF) Models

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 (e), see Enclosure

1. Certification Authority. Reference 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 NetApp Open Network Technology for Appliance Products (ONTAP) with Software Release 9.8 for Fabric Attached Storage (FAS) and specified All Flash FAS (AFF) Models is hereinafter referred to as the System Under Test (SUT). The SUT meets the critical requirements of the Unified Capabilities Requirements, Reference (b), as a Data Storage Controller (DSC) and is certified for joint use with the condition described in Table 1. The FAS8040 was the model tested and certified during initial certification for the SUT; however, with DTR 2 the FAS8040 model was no longer available for purchase and, since the DoDIN APL is used for procurement purposes, was removed from this certification. The other models listed in Table 4 that were certified via similarity to the tested FAS8040 model are still available for purchase and will remain on this certification.

This certification expires upon changes that affect interoperability, but no later than the expiration date listed in the DoDIN Approved Products List (APL) memorandum.

This extension of the certification is for Desktop Review (DTR). DTR 2 requested the following updates:

- Update the SUT Software Release version from 9.7 to 9.8.
- Add the AFF A250, AFF A320, AFF C190, and FAS500f platform models to the list of certified components for this SUT.
- Remove the FAS8040, FAS2520, FAS2552, FAS2554, FAS2620, FAS2650, FAS8020, FAS8060, FAS8080EX, AFF A200, AFF8020, AFF8040, and AFF8060 models, as those models are no longer available for purchase.

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See Table 4 for a list of components and Paragraph 4 for additional details.

Table 1. Conditions

Description		Operational Impact	Remarks
UCR Waivers			
None.			
TDR#	Conditions of Fielding		
	None.		
TDR#	Open Test Discrepancies		
001	Per the vendor's LoC, the SUT does not support Fibre Channel (FC) zones in accordance with UCR 2013, Change 2, DAT-000460, which states that if the system has an FC interface, then the system shall provide FC Name and Zone Service.	None UCR Change Requirement	See note.
NOTE(S): DISA accepted the vendor's POA&M and adjudicated this discrepancy as a change requirement having no operational impact; this requirement to be removed from the next version of the UCR.			
LEGEND:			
DISA	Defense Information Systems Agency	SUT	System Under Test
FC	Fibre Channel	TDR	Test Discrepancy Report
LoC	Letters of Compliance	UCR	Unified Capabilities Requirements
POA&M	Plan of Action and Milestones		

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 the DoDIN APL product summary, to include subsequent DTR updates.

Table 2. SUT Interface Status

Interface (See note 1.)	Applicability	Status	Remarks
Network Attached Storage (NAS) Interfaces			
1 GbE (Ethernet)	C	Met	See note 2.
10 GbE (Ethernet)	C	Met	
Storage Array Network (SAN) Interfaces			
Fibre Channel (FC)	C	Met	
FC Protocol (FCP)	C	Met	
Out-of-band Management Interfaces			
10 Mbps Ethernet	C	Met	
100 Mbps Ethernet	C	Met	
1 GbE Ethernet	C	Met	
Converged Network Adapter (CNA) Interfaces			
10 GbE (Ethernet)	O	Met	

(Table notes and legend on next page.)

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Table 2. SUT Interface Status (continued)

NOTE(S):		
1. The UCR does not identify interface CR/FR applicability. Table 3 depicts the SUT high-level requirements; these high-level requirements refer to a more detailed list of requirements provided in Enclosure 3 of Reference (c).		
2. Only the 10 GbE NAS interface was tested. Based on JITC analysis the 1 GbE interface is also certified for joint use.		
LEGEND:		
C	Conditional	JITC Joint Interoperability Test Command
CNA	Converged Network Adapter	Mbps Megabits per second
CR	Capability Requirement	NAS Network Attached Storage
FC	Fibre Channel	O Optional
FCP	FC Protocol	SAN Storage Array Net
FR	Functional Requirement	SUT System Under Test
GbE	Gigabit Ethernet	UCR Unified Capabilities Requirements

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	UCR Requirement (High-Level) (See note 1.)	UCR 2013 Reference	Status
1	Data Storage Controller (DSC) (R)	Section 14	Partially Met (See notes 2 and 3.)
NOTE(S):			
1. The annotation of 'required' refers to a high-level requirement category. The applicability of each sub-requirement is provided in Enclosure 3 of Reference (c).			
2. The SUT met the requirements with the exception noted in Table 1. DISA has accepted the vendor's POA&M and adjudicated this discrepancy as a change requirement having no operational impact with the intent to remove this requirement.			
3. A JITC-led Cybersecurity test team accomplished Cybersecurity testing and published the results in a separate report, Reference (e).			
LEGEND:			
CR	Capability Requirement	JITC Joint Interoperability Test Command	
DISA	Defense Information Systems Agency	POA&M Plan of Action and Milestones	
DSC	Data Storage Controller	R Required	
FR	Functional Requirement	SUT System Under Test	
ID	Identification	UCR Unified Capabilities Requirements	

Table 4. DoDIN APL Product Summary

Product Identification			
Product Name	ONTAP for Fabric Attached Storage (FAS), All Flash FAS (AFF) (See note 1.)		
Software Release	ONTAP Select 9.8 (See note 1.)		
UCR Product Type(s)	Data Storage Controller (DSC)		
Product Description	The SUT performs data replication, mirroring, backup, continuance of operation, and disaster recovery functions.		
Product Components (See note 2.)	Component Name (See note 3.)	Tested Version (See note 1.)	Remarks
Primary and Secondary Data Storage Controller (x2)	FAS500f, FAS2720, FAS2750, FAS8200, FAS8300, FAS8700, FAS9000, AFF A220, AFF 250, AFF A300, AFF A320, AFF A400, AFF A700, AFF A700s, AFF A800, AFF8080EX, AFF C190	9.8	See notes 4 and 5.
NOTE(S):			
1. With DTR 1, the SUT Software Release version was updated from 9.6 to 9.7. With DTR 2, the SUT Software Release version was updated from 9.7 to 9.8.			
2. The detailed component and subcomponent list is provided in Enclosure 3 of Reference (c).			

(Table notes continue on next page.)

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Table 4. DoDIN APL Product Summary (continued)

NOTE(S): (continued)			
3. The FAS8040 was the model tested and certified during initial certification; however, with DTR 2 the FAS8040 model was no longer available for purchase and, since the DoDIN APL is used for procurement purposes, was removed from this certification. In addition, the following models were also removed with DTR 2 as no longer available for purchase: FAS2520, FAS2552, FAS2554, FAS2620, FAS2650, FAS8020, FAS8060, FAS8080EX, AFF A200, AFF8020, AFF8040, and AFF8060. The remaining models listed in this table that were certified via similarity to the tested FAS8040 model removed with DTR 2 are still available for purchase and will remain on this certification.			
4. With DTR 1, the FAS8300, FAS8700, and AFF A400 DSC platforms were added to this certification based on analysis and similarity to the previously tested and certified FAS8040 DSC platform that tested and certified during initial certification for this SUT and subsequently removed with DTR 2 as no longer available for purchase.			
5. With DTR 2, the AFF A250, AFF A320, AFF C190, and FAS500f platforms were added to this certification based on analysis and similarity to the FAS8040 DSC platform tested and certified during initial certification for this SUT and subsequently removed with DTR 2 as no longer available for purchase.			
LEGEND:			
AFF	All Flash FAS	FAS	Fabric Attached Storage
APL	Approved Products List	JITC	Joint Interoperability Test Command
DoDIN	Department of Defense Information Network	ONTAP	Open Network Technology for Appliance Products
DSC	Data Storage Controller	SUT	System Under Test
DTR	Desktop Review	UCR	Unified Capabilities Requirements

4. Test Details. This extension of the certification is based on DTR 2. The original certification, documented in Reference (c), was based on interoperability (IO) testing, review of the Vendor’s Letters of Compliance (LoC), and the DISA Certifying Authority Recommendation for inclusion on the DoDIN APL. JITC conducted basic functionality testing (i.e., replication and mirroring) at the Global Network Test Facility, Fort Huachuca, Arizona, from 19 August through 23 August 2019, and on 27 August 2019 completed review of the Vendor’s LoC, to include all DSC requirements for the SUT. A JITC-led Cybersecurity (CS) test team conducted CS testing and published the results in a separate report, Reference (e).

DTR 2 requested the following updates:

- Update the SUT Software Release version from 9.7 to 9.8.
- Add the AFF A250, AFF A320, AFF C190, and FAS500f platform models to the list of SUT certified components.
- Remove the FAS8040, FAS2520, FAS2552, FAS2554, FAS2620, FAS2650, FAS8020, FAS8060, FAS8080EX, AFF A200, AFF8020, AFF8040, and AFF8060 models, as those models are no longer available for purchase.

JITC analysis determined no additional CS or IO testing was required to evaluate software version 9.8 because the minor enhancements, defect resolutions, and support for the new hardware platforms included in the software update did not change the certified IO features and functions or approved CS posture of the SUT. In addition, JITC analysis determined the new models added with this DTR have similar hardware and operate on the same software as the previously certified AFF and FAS8040 models and therefore did not require CS or IO testing.

The FAS8040 model is no longer available for purchase and, since the DoDIN APL is used for procurement purposes, was removed from this certification with DTR 2. Furthermore, the following models were also removed with DTR 2 as no longer available for purchase: FAS2520,

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FAS2552, FAS2554, FAS2620, FAS2650, FAS8020, FAS8060, FAS8080EX, AFF A200, AFF8020, AFF8040, and AFF8060. The remaining models listed in Table 4 that were certified via similarity to the tested FAS8040 model removed with this DTR are still available for purchase and will remain on this certification. Finally, there were no past due CS or IO Vendor Plan of Action and Milestones (POA&M).

Based on analysis, no change to the certified SUT IO feature and functions, and no past due Vendor POA&Ms, JITC approves this DTR without testing.

Additionally, the current CS posture of this SUT is documented in a separate report, Reference (e).

5. Additional Information. JITC distributes interoperability information via the JITC Electronic Report Distribution system, which uses Sensitive but Unclassified 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 Industry Toolkit (JIT) at <https://jit.fhu.disa.mil/>. Due to the sensitivity of the information, the CS Assessment Package that contains the approved configuration and deployment guide must be requested directly from the Approved Products Certification Office (APCO), 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/>.

6. Point of Contact (POC). JITC POC: Lorraine Gardner; commercial telephone (520) 538-5221; DSN FAX 312-879-4347; e-mail address: lorraine.gardner.civ@mail.mil; mailing address: Joint Interoperability Test Command, ATTN: JTE (Lorraine Gardner), P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The APCO tracking number for the SUT is 1835501.

FOR THE COMMANDER:

Enclosure a/s

for JEFFREY P. O'DONNELL
LTC, USA
Acting Division Chief
Networks/Communications &
DoDIN Capabilities Division

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ADDITIONAL REFERENCES

(c) Joint Interoperability Test Command, Memo, JTE, “Joint Interoperability Certification of the NetApp Open Network Technology for Appliance Products (ONTAP) Software Release 9.6 for Fabric Attached Storage (FAS) 8040 and specified All Flash FAS (AFF) Models,” 30 September 2019

(d) Joint Interoperability Test Command, “Data Storage Controller (DSC) Test Procedures Version 1.0 for Unified Capabilities Requirements (UCR) 2013 Change 2,” 4 September 2018

(e) Joint Interoperability Test Command, JTE, “Cybersecurity Assessment Report for NetApp, Incorporated, ONTAP Release (Rel.) 9.8 for Fabric Attached Storage (FAS), All Flash FAS (AFF) and ONTAP Select, Tracking Number (TN) 1835501, Desktop Review (DTR) 2,” February 2021