IN REPLY
REFER TO: Joint Interoperability Test Command (JTE)   22 March 2023

MEMORANDUM FOR DISTRIBUTION   Revision 1 (Enclosure 2)

SUBJECT: Extension of the Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2

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

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

2.   Conditions of Certification. Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2, is hereinafter referred to as the System Under Test (SUT). The SUT meets the requirements of the Unified Capabilities Requirements (UCR), Reference (b), as a Wireless Intrusion Detection System (WIDS) Security Device and is certified for joint use with no conditions (see Table 1).

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

This extension of the certification is for Desktop Review (DTR) 7. DTR 7 was requested to add the 9000 and 9200 Series Mobility Controllers and the AP-615, AP-635, and AP-655 APs to the list of certified components. DTR 7 also requested to update the Model/Product Name from "7000 and 7200 Series Mobility Controllers with specified Virtual Controllers and APs" to "Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs)". See Table 4 for an updated list of certified components and Paragraph 4 for additional details.

JITC Memo, JTE, Extension of the Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2

Table 1. Conditions

Description		Operational Impact	Remarks
UCR Waivers			
None.			
TDR#	**Conditions of Fielding**		
	None.		
TDR#	**Open Test Discrepancies**		
N/A	The AP-500 Series added via DTR 3 provides IEEE 802.11ax capability to the SUT; however, 802.11ax was not tested and was not certified for use with DTR 3. CoF: The site administrator must disable 802.11ax on the AP-500 Series before use, per instructions included in the MUDG.	CLOSED	See note.
NOTES(S): With DTR 4 testing conducted by USAISEC-TIC 16-19 February 2021 on AP-515, AP-535, and AP-555, the IEEE 802.11ax wireless protocol capability was certified on the AP-500 Series devices added with DTR 3; therefore, the corresponding CoF was CLOSED.			
LEGEND: AP Access Point MUDG Military Unique Deployment Guide CoF Condition of Fielding N/A Not Applicable DTR Desktop Review SUT System Under Test IEEE Institute of Electrical and Electronics Engineers TDR Test Discrepancy Report			

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	Applicability: (R), (O), (C)	Status	Remarks
Network Management Interfaces (See note 1.)			
10 Mbps	C	Met	IAW IEEE 802.3i or 802.3j
100 Mbps	C	Met	IAW IEEE 802.3u
1000 Mbps	C	Met	IAW IEEE 802.3ab or 802.3z
Serial (EIA/TIA)	C	Not Tested	See note 2.
Network Interfaces (See note 2.)			
5 GHz wireless, up to 54 Mbps	R	Met	IAW IEEE 802.11a
2.4 GHz wireless, up to 11 Mbps	R	Met	IAW IEEE 802.11b
2.4 GHz wireless, up to 54 Mbps	R	Met	IAW IEEE 802.11g
MIMO wireless, up to 100 Mbps	R	Met	IAW IEEE 802.11n
MIMO wireless, up to 433 Mbps	R	Met	IAW IEEE 802.11ac
Multi-user MIMO wireless, up to 6.93 Gbps	O	Met	IAW IEEE 802.11ax (See note 3.)
NOTE(S): 1. The UCR 2013, Change 2, Section 13, does not identify individual interface requirements for security devices. The SUT must minimally provide Ethernet interfaces that meet the requirements in Section 2.7.1. 2. To comply with UCR requirement SEC-000120, WIDS products shall support monitoring/scanning of all the wireless network interfaces. 3. With DTR 4 testing conducted by USAISEC-TIC 16-19 February 2021 on AP-515, AP-535, and AP-555, the IEEE 802.11ax interface was certified on the AP-500 Series added with DTR 3.			

(Table continues next page.)

JITC Memo, JTE, Extension of the Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2

Table 2. SUT Interface Status (continued)

LEGEND:				
802.3ab	1000BaseT Ethernet over twisted pair	EIA/TIA	Electronic Industries Alliance/ Telecommunications
802.3i	10BaseT Mbps over twisted pair		Industry Association
802.3j	10BaseF over Fiber-Optic	Gbps	Gigabits per second
802.3u	CSMA with collision detection at 100 Mbps	GHz	GigaHertz
802.3z	1 Gbps Ethernet	IAW	In accordance with
802.11a	1.5 to 54 Mbps	IEEE	Institute of Electrical and Electronics Engineers
802.11b	11 Mbps Maximum	Mbps	Megabits per second
802.11g	2.4 GHz band, 11 Mbps Maximum	O	Optional
802.11n	2.4 GHz and 5 GHz, 600 Mbps Maximum	R	Required
802.11ac	5 GHz band, 3.46 Gbps Maximum	SEC	Security
802.11ax	1 GHz to 7.125 GHz	SUT	System Under Test
BaseF	Megabit Ethernet over Fiber	TIC	Technology Integration Center
BaseT	Mbps (Baseband Operation, Twisted Pair) Ethernet	UCR	Unified Capabilities Requirements
C	Conditional	USAISEC	U.S. Army Information Systems Engineering Command
CSMA	Carrier Sense Multiple Access	WIDS	Wireless Intrusion Detection System
DTR	Desktop Review		

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	UCR Requirement (See note 1.)	UCR 2013 Change 2 Reference	Status
1	Cybersecurity (R)	See note.2	Met (See note.2)
2	IPv6 (R)	5.2	NA (See note 3.)
3	Security Device Requirements (R)	13.2	Met for WIDS

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. A Cybersecurity test team conducted Cybersecurity testing based on DISA STIGs/SRGs and published the results published in a separate report, Reference (d).
3. WIDS operates at Layer 2 therefore, IPv6 is not applicable.

LEGEND:			
CR	Capability Requirements	SRG	Security Requirements Guide
DISA	Defense Information Systems Agency	STIG	Security Technical Implementation Guide
FR	Functional Requirements	TIC	Technology Integration Center
ID	Identification	UCR	Unified Capabilities Requirements
IPv6	Internet Protocol version 6	USAISEC	U.S. Army Information Systems Engineering Command
NA	Not Applicable	WIDS	Wireless Intrusion Detection System
R	Required		

JITC Memo, JTE, Extension of the Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2

Table 4. DoDIN APL Product Summary

Product Identification				
Product Name	Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and APs			
Software Release	ArubaOS 8.10.0.2 (See note 1.)			
UCR Product Type(s)	WIDS			
Product Description	WIDS/Mobility Controllers and WIDS sensors/APs provide detection and location of wireless attacks and rogue wireless devices.			
DoDIN Certified Function	**Component/ Sub-Component Name** (See notes 2, 3, and 4.)		**Tested Version** (See note 1.)	**Remarks**
WIDS	**Aruba 7005**		ArubaOS 8.10.0.2	Mobility Controllers
	Aruba 7008			
	Aruba 7010			
	Aruba 7024			
	Aruba 7030			
	Aruba 7205			
	Aruba 7210			
	Aruba 7220			
	Aruba 7240/7240XM			
	Aruba 7280 (See note 5.)			
	Virtual Mobility Controller			Virtual Mobility Controller (See note 6.)
	Mobility Master			Mobility Master
	Virtual Mobility Master			Virtual Mobility Master (See note 6.)
	Name	**Chipset**		APs/WIDS sensors
	AP-203R/**AP-203RP**	Broadcom BCM 40000		
	AP-204/**AP-205**			
	AP-205H			
	AP-344/AP-345 (See note 5.)			
	AP-504/**AP-505** (See note 5.)			
	AP-514/AP-515 (See note 5.)			
	AP-565/567 (See note 7.)			
	AP-574/575/577 (See note 7.)			
	AP-334/**AP-335**	Freescale T1024		
	AP-303H	Qualcomm IPQ4000		
	AP-304/**AP-305**			
	AP-365/AP-367			
	AP-318 (See note 5.)	Qualcomm IPQ8000		
	AP-314/**AP-315**			
	AP-374/AP-375/AP-377 (See note 5.)			
	AP-387 (See note 5.)			
	AP-534/AP-535 (See note 5.)			
	AP-555 (See note 5.)			
	AP-584/585/587 (See note 7.)			

(Table continues next page.)

JITC Memo, JTE, Extension of the Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs) with Software Release Aruba Operating System (ArubaOS) 8.10.0.2

Table 4. DoDIN APL Product Summary (continued)

Components added with DTR 7 (See note 8.)			
Component (See notes 3 and 8.)		**Software Release** (See note 1.)	**Sub-component**	**Description**
Aruba 9004 TAA				Virtual Mobility Controllers
Aruba 9012 TAA				
Aruba 9240 FIPS/TAA Campus		ArubaOS 8.10.0.2	N/A	
Name	**Chipset**			
AP-615	Broadcom BCM 40000			APs/WIDS sensors
AP-635	Qualcomm IPQ6000			
AP-655	Qualcomm IPQ8000			

NOTE(S):

1. The SUT was initially certified with ArubaOS 8.2. The ArubaOS Software Release version was updated with subsequent DTRs as follows: DTR1 - from 8.2 to 8.5; DTR 2 - from 8.5 to 8.6.0.3; DTR 5 – from 8.6.0.3 to 8.10.0.2.

2. Table 3-3 in Enclosure 3 of Reference (c) provides the detailed descriptions on the initially tested components and sub-components.

3. Components bolded and underlined were tested by. 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 analysis determined they were functionally identical for interoperability certification purposes.

4. With DTR 5, the following APs were removed from the list of certified SUT components due to expiration of Federal Information Processing Standard (FIPS) Cryptographic Module Validation Program (CMVP) certification #3485: AP-214/AP-215, AP-224/AP-225, AP-228, AP-274/AP-275/AP-277, and AP-324/AP-325.

5. With DTR 3, the following APs and MC were added based on analysis and similarity to the previously tested and certified APs and MCs: AP-318, AP-344/345, AP-374/375/AP-377, AP-387, AP-504/505, AP-514/515, AP-534/535, AP-555 and MC7280. With DTR 4, the IEEE 802.11ax capability was certified on the AP-500 Series added with DTR 3 based on testing conducted by USAISEC-TIC 16-19 February 2021 on AP-515, AP-535, and AP-555.

6. USAISEC TIC tested the virtual components of the SUT on VMware ESXi 6.5. The site will need to provide hardware that meets or exceeds the minimum vendor-recommended hardware.

7. With DTR 6, the AP-560 and AP-570 series APs were added based on analysis and similarity to the currently certified AP-203R, and the AP-580 series APs were added based on analysis and similarity to the currently certified AP-314/315.

8. With DTR 7, the 9000 and 9200 Mobility Controllers and the AP-615, AP-635, and AP-655 APs were added without testing based on analysis and similarity to the previously certified components.

LEGEND:

2K	2,000	N/A	Not Applicable
AP	Access Point	OS	Operating System
APL	Approved Products List	PoE+	Power over Ethernet Type 2
ARM	Advanced RISC Machine	RISC	Reduced Instruction Set Computer
CAT	Category	SFP	Small Form-Factor Pluggable
CPU	Central Processing Unit	SUT	System Under Test
DoDIN	Department of Defense Information Network	TAA	Trade Agreement Act
DTR	Desktop Review	TIC	Technology Integration Center
ESXi	Elastic Sky X integrated	UCR	Unified Capabilities Requirements
FIPS	Federal Information Processing Standard	US	United States
GbE	Gigabit Ethernet	USAISEC	U.S. Army Information Systems Engineering Command
IEEE	Institute of Electrical and Electronics Engineers	VM	Virtual Machine
JITC	Joint Interoperability Test Command	VPN	Virtual Private Network
LTE	Long-term Evolution	WIDS	Wireless Intrusion Detection System
MC	Mobility Controller		

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4. Test Details. This extension of the certification is based on DTR 7. The original certification, documented in Reference (c), was based on interoperability (IO) testing, review of the Vendor's Letter of Compliance (LoC), and the Army CIO/G-6 Certifying Authority Recommendation for inclusion on the DoDIN APL. The United States Army Information Systems Engineering Command Mission Engineering Directorate, Technology Integration Center (USAISEC-MED TIC), hereafter referred to as USAISEC TIC, conducted IO testing at Fort Huachuca, Arizona from 11 June through 15 June 2018, using test procedures derived from Reference (e), and completed review of the Vendor's LoC on 12 June 2018. There were no test discrepancies. A USAISEC TIC-led test team conducted Cybersecurity (CS) testing and published the results in a separate report, Reference (d). Enclosure 2 of Reference (c) documents the test results and describes the test network and system configurations. Enclosure 3 of Reference (c) provides a detailed list of the interface, capability, and functional requirements.

DTR 7 was requested to add the 9000 and 9200 Mobility Controllers and AP-615, AP-635, and AP-655 APs to the list of certified components.

JITC analysis determined no additional IO or CS testing was required because the new components had similar hardware and operate on the same software as previously tested and certified components and therefore addition of these components did not change the certified IO features and functions or approved CS posture of the SUT. Additionally, with the addition of these new components, the Model/Product Name was updated from "7000 and 7200 Series Mobility Controllers with specified Virtual Controllers and APs" to "Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs)". See Table 4 for an updated list of certified SUT components. Analysis of this DTR request was performed based on current UCR 2013 Change 2 test procedures, Reference (f).

Based on analysis and no change to the certified SUT IO features and functions, JITC approves DTR 7.

In addition, the current CS posture of the SUT is documented in a separate report, Reference (d).

5. Additional Information. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) 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.jitc.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) 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/.

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6. Point of Contact (POC). JITC POC: Mr. Edward Mellon; commercial telephone (301) 225-5354; DSN (312) 375-5354; e-mail address: edward.a.mellon.civ@mail.mil; mailing address: Joint Interoperability Test Command, ATTN: JTE2 (Mr. Edward Mellon), 6910 Cooper Avenue, Fort Meade, Maryland 20755-7085. The APCO tracking number for the SUT is 1805301.

FOR THE COMMANDER:

2 Enclosures a/s   LAWRENCE T. DORN
                                                               Chief
                                                               Specialized Test Division

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Medical Health Systems, JMIS PEO T&IVV
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ADDITIONAL REFERENCES

(c) Joint Interoperability Test Command (JITC) Memo, JTD, "Joint Interoperability Certification of Aruba, a Hewlett Packard Enterprise company, 7000 and 7200 Series Mobility Controllers with specified Virtual Controllers and Access Points (APs), Software Release Aruba Operating System (ArubaOS) 8.2," 12 September 2018

(d) JITC, "Cybersecurity Assessment Report for Aruba, a Hewlett Packard Enterprise company, Mobility Controllers (7000/7200 and 9000/9200 Series) with specified Virtual Controllers and Access Points (APs), Software Release ArubaOS 8.10.0.2, Tracking Number (TN) 1805301," March 2023

(e) JITC, "Unified Capabilities Security Device Test Procedures Version 1.0 for Unified Capabilities Requirements (UCR) 2013 Change 2," September 2017

(f) JITC, "Wireless Intrusion Detection System (WIDS) Test Procedures Version 1.1 For Unified Capabilities Requirements (UCR) 2013 Change 2," December 2022 (Draft)

Table 2-1. Joint Interoperability Certification Revision History

Revision	Date	Approved By	Comment (See note.)
N/A	22 March 2023	Lawrence Dorn	Original Extension of the Joint Interoperability Certification for DTR 7.

1	14 August 2023	Elaine Macari	Revision 1 to this extension of the certification corrects the list of APs added with DTR 7 from "AP-610, AP-630, and AP-650" to "AP-615, AP-635, and AP-655" per the Vendor's request. The following sections of the certification memo were revised accordingly:
			
			• **2. Conditions of Certification**, 3rd sentence (description of DTR 7 request).
			• **Table 4. SUT Product Summary**:
			  - "**Components added with DTR 7**" section.
			  - "**NOTE(S):**" section, Note 8.
			• **4. Test Details**, 2nd sentence (description of DTR 7 request).

NOTE(S): Document reformatted as needed to accommodate the changes described in this table.

LEGEND:
AP	Access Point	N/A	Not Applicable
DTR	Desktop Review	SUT	System Under Test