DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) 16 December 2022

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Joint Interoperability Certification of the CommScope Ruckus ICX 7000 Series Switches with Software Release FastIron 9.0.10d

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 CommScope Ruckus ICX 7000 Series Switches with Software Release FastIron 9.0.10d, hereinafter referred to as the System Under Test (SUT), meets the critical requirements of the Unified Capabilities Requirements (UCR), Reference (b), as an Assured Services Local Area Network Core, Distribution, and Access switch and is certified for joint use with the conditions described in Table 1. The ICX 7000 Series products are available in stacked or standalone models, each offering different interface capabilities, as Core, Distribution, and Access products. This certification expires upon changes that 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) 3. DTR 3 requested to update the FastIron Software Release version from 9.0.10 to 9.0.10d.

See Paragraph 4 for additional details.

Table 1. Conditions

Description	Operational Impact	Remarks
UCR Waivers		
None.		

(Table continues next page.)

Table 1. Conditions (continued)

Description		Operational Impact	Remarks
TDR#	**Conditions of Fielding**		
CSc-0789-001	The ICX 7250 Layer 2/3 switch series does not comply with the auto-negotiation. The 10/100/1000Base-T interfaces in the ICX 7250 support auto-negotiation in accordance with IEEE 802.3, except that it does not support half-duplex operation except as a static configuration. CoF: Both ends must be set to auto negotiate.	Minor with CoF	DISA adjudicated this discrepancy as minor with CoF.
CSc-0789-004	The ICX 7750 switches in the ICX 7000 series do not support PoE 802.3af-2003 or 802.at-2009. CoF: The ICX 7750 series switches cannot be used in deployments requiring PoE.	Minor with CoF	DISA adjudicated this discrepancy as minor with CoF.
TDR#	**Open Test Discrepancies**		
	None.		

LEGEND:

Base-T	Megabit (Baseband Operation, Twisted Pair) Ethernet	POA&M	Plan of Action and Milestones
CoF	Condition of Field	PoE	Power over Ethernet
CSc	CommScope	TDR	Test Discrepancy Report
DISA	Defense Information Systems Agency	UCR	Unified Capabilities Requirements
IEEE	Institute of Electrical and Electronics Engineers		

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
	Co	D	A		
Network Management Interfaces					
IEEE 802.3i (10BaseT UTP)	C	C	C	Met	
IEEE 802.3u (100BaseT UTP)	C	C	C	Met	
IEEE 802.3ab (1000BaseT UTP)	C	C	C	Met	
Access Interfaces (See note 2.)					
IEEE 802.3i (10BaseT UTP)	C	C	C	Partially Met	See notes 3 and 4.
IEEE 802.3u (100BaseT UTP)	C	C	C	Partially Met	See notes 3 and 4.
IEEE 802.3u (100BaseFX)	C	C	C	Partially Met	See notes 3 and 4.
IEEE 802.3ab (1000BaseT UTP)	C	C	C	Met	
IEEE 802.3z (1000BaseX Fiber)	C	C	C	Met	
IEEE 802.3bz (2.5/5GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ae (10GBaseX)	C	C	C	Met	
IEEE 802.3by (25GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ba (40GBaseX Fiber)	C	C	C	Met	
IEEE 802.3cd (50GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ba (100GBaseX Fiber)	C	C	C	Met	

(Table continues next page.)

Table 2. SUT Interface Status (continued)

Interface (See note 1.)	Applicability			Status	Remarks
Uplink (Trunk) Interfaces (See note 2.)					
IEEE 802.3ab (1000BaseT UTP)	C	C	C	Met	
IEEE 802.3z (1000BaseX Fiber)	C	C	C	Met	
IEEE 802.3bz (2.5/5GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ae (10GBaseX)	C	C	C	Met	
IEEE 802.3by (25GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ba (40GBaseX Fiber)	C	C	C	Met	
IEEE 802.3cd (50GBaseX)	O	O	O	Not Tested	See note 5.
IEEE 802.3ba (100GBaseX Fiber)	C	C	C	Met	

NOTE(S):
1. Table 3 depicts the SUT high-level requirements. Table 3-2 in Enclosure 3 provides a more detailed list of requirements.
2. Core, Distribution, and Access products must minimally support one of the interfaces listed in this table as conditional for the given role. Other rates and standards may be provided as optional interfaces.
3. The 10/100 Mbps interface is not supported by the ICX 7750 model and was not tested. The ICX 7150, 7250, 7450, and 7650 models met the interface requirements.
4. JITC tested the 1/10 Gbps interfaces but not the 10/100BaseT interfaces. JITC analysis determined the 10/100BaseT interfaces are low risk for certification based on the Vendor's LoC to comply with the IEEE 802.3i/u standards and the testing data collected at all other data rates.
5. The SUT does not support this (conditional or optional) interface.

LEGEND:

802.3ab	1000BaseT Ethernet over twisted pair at 1 Gbps	BaseX	Megabit Ethernet over Fiber or Copper
802.3ae	10 Gbps Ethernet	C	Conditional
802.3ba	40 and 100 Gigabit Ethernet architecture	Co	Core
802.3by	25 Gbps Ethernet over Multi-Mode Fiber	D	Distribution
802.3bz	2.5/5 Gbps Ethernet over balanced Twisted Pair	GBaseX	Gigabit Ethernet over Fiber or Copper
802.3cd	50 Gigabit Ethernet Standard	Gbps	Gigabits per second
802.3i	10BaseT Mbps over twisted pair	IEEE	Institute of Electrical and Electronics Engineers
802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	JITC	Joint Interoperability Test Command
		LoC	Letters of Compliance
802.3z	Gigabit Ethernet Standard	Mbps	Megabits per second
A	Access	O	Optional
BaseFX	Megabit Ethernet over Fiber	SUT	System Under Test
BaseT	Megabit (Baseband Operation, Twisted Pair) Ethernet	UTP	Unshielded Twisted Pair

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	UCR Requirement (See note 1.)	UCR 2013 Change 2 Reference	Status
1	General LAN Switch and Router Product Requirements (R)	7.2.1	Partially Met (See notes 2 and 3.)
2	LAN Switch and Router Redundancy Requirements (R)	7.2.2	Met
3	LAN Product Requirements Summary (R)	7.2.3	Met
4	Multiprotocol Label Switching (O)	7.2.4	Not Met (See note 4.)

NOTE(S):
1. The annotation of "required" refers to a high-level requirement category. Enclosure 3 of Reference (c) addresses the applicability of each sub-requirement.
2. The SUT met the requirements with the exceptions noted in Table 1. DISA adjudicated these exceptions as minor.
3. A JITC-led Cybersecurity test team conducted Security testing and published the results in a separate report, Reference (d).
4. The Multiprotocol Label Switching optional requirement was not tested and is not covered under this certification.

LEGEND:

CR	Capability Requirement	LAN	Local Area Network
DISA	Defense Information Systems Agency	O	Optional
FR	Functional Requirement	R	Required
ID	Identification	SUT	System Under Test
JITC	Joint Interoperability Test Command	UCR	Unified Capabilities Requirements

Table 4. DoDIN APL Product Summary

Product Identification			
Product Name	CommScope Ruckus ICX 7000 Series Switches		
Software Release	FastIron 9.0.10d (See note 1.)		
UCR Product Type(s)	ASLAN Core/Distribution/Access Switch		
Product Description	The CommScope Ruckus ICX 7000 Series switches deliver voice-class availability, providing 1/10/25/40/100 Gigabit Ethernet for switching VoIP, video, and data traffic.		
DoDIN Certified Function	**Component Name** (See notes 2, 3, 4 and 5.)	**Tested Version** (See note 1.)	**Remarks**
ASLAN Switch Core/Distribution/Access	ICX 7450-24 ICX 7450-24P ICX 7450-48 ICX 7450-48P ICX 7450-48F ICX 7550-24 **ICX 7550-24F** ICX 7550-24P **ICX 7550-24ZP** ICX 7550-48 **ICX 7550-48F** **ICX 7550-48P** **ICX 7550-48ZP** ICX 7650-48F ICX 7650-48P ICX 7650-48ZP **ICX 7850-32Q** **ICX 7850-48F** ICX 7850-48C (See note 5.) ICX 7850-48FS	FastIron 9.0.10d	Redundant power modules
ASLAN Switch Access Only	ICX 7150-24 ICX 7150-24F ICX 7150-24P ICX 7150-48 ICX 7150-48P ICX 7150-48PF ICX 7150-48ZP ICX 7150-C10ZP ICX 7150-C12P ICX 7250-24 ICX 7250-24G ICX 7250-24P ICX 7250-48 ICX 7250-48P	FastIron 9.0.10d	Redundant power modules

NOTE(S):

1. The SUT was initially certified with Software Release FastIron 8.0.95d. Subsequent DTRs updated the FastIron Software Release version as follows: DTR 1 - from 8.0.95d to 9.0.10. DTR 3 - from 9.0.10 to 9.0.10d.
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 JITC test team at Fort Meade, Maryland. The other components in the family series were not tested; however, JITC certified the other components for joint used 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.
4. With DTR 1 the ICX 7750-26Q, ICX 7750-48C, and ICX 7750-48F models from the list of certified SUT components. These models were ineligible for the DTR 1 update to Software Release version 9.10.0 and will remain certified with version 8.0.95d until end of lifecycle.
5. With DTR 2 the ICX 7850-48C model was added with no testing based on analysis and similarity to the previously tested and certified ICX 7850-48F model, with the only difference being the 7850-48F model utilizes SFP+ interfaces for 10G fiber connectivity and the 7850-48C model utilizes copper interfaces for 10G connectivity.

LEGEND:

APL	Approved Products List	JITC	Joint Interoperability Test Command
ASLAN	Assured Services Local Area Network	SFP	Small Form-Factor Pluggable
DoDIN	Department of Defense Information Network	SUT	System Under Test
DTR	Desktop Review	UCR	Unified Capabilities Requirements
G	Gigabit per second	VoIP	Voice over Internet Protocol

4. Test Details. This extension of the certification is based on DTR 3. The original certification, documented in Reference (c), was based on interoperability (IO) testing, review of the Vendor's Letter of Compliance, Defense Information Systems Agency (DISA) adjudication of open Test Discrepancy Reports (TDRs), and the DISA Certifying Authority Recommendation for inclusion on the DoDIN APL. Conducted testing at the JITC test lab located at Fort Meade, Maryland, from 03 May through 19 May 2021, using test procedures derived from Reference (e), and completed review of the Vendor's LoC on 26 April 2021. DISA adjudicated outstanding TDRs on 14 July 2021. A JITC-led CS test team conducted Security 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 the detailed interface, capability, and functional requirements and test results.

DTR 3 requested to update the FastIron Software Release version from 9.0.10 to 9.0.10d.

JITC analysis determined no additional CS or IO testing was required because the 9.0.10d software version implemented minor feature enhancements that did not change the certified IO features and functions or approved CS posture of the SUT. Analysis of the DTR 3 request was performed based on current UCR 2013 Change 2 test procedures derived from Reference (f). Furthermore, there were no past due CS or IO Vendor Plan of Action and Milestones (POA&Ms).

Based on analysis, no change to the certified SUT IO features and functions, and no past due Vendor POA&Ms, JITC approves DTR 3.

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 Joint 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/.

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 2029601.

FOR THE COMMANDER:

MACARI.ELAINE.SUSAN.1067225585 Digitally signed by MACARI.ELAINE.SUSAN.1067225585 Date: 2022.12.16 15:51:17 -07'00'

Enclosure a/s

for LAWRENCE T. DORN
Chief
Specialized Test Division

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ADDITIONAL REFERENCES

(c) Joint Interoperability Test Command (JITC) Memo, JTE, "Joint Interoperability Certification of the CommScope Ruckus ICX 7000 Series Switches with Software Release Fastiron 8.0.95d," 13 August 2021
(d) JITC, "Cybersecurity Assessment Report for CommScope Ruckus ICX 7000 Series Switches, Software Release Fastiron 9.0.10d, Tracking Number (TN) 2029601," November 2022
(e) JITC, "Assured Services Local Area Network (ASLAN) and Non-ASLAN Test Procedures Version 1.0 for Unified Capabilities Requirements (UCR) 2013 Change 2," 22 February 2019
(f) JITC, "Assured Services Local Area Network (ASLAN) and Non-ASLAN Test Procedures Version 1.1 for Unified Capabilities Requirements (UCR) 2013 Change 2," April 2022 (Draft)