



## DEFENSE INFORMATION SYSTEMS AGENCY

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

**10 Nov 11**

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Cisco Systems Wireless Products from Release 7.0.114.76 to 7.0.116.0

References: (a) DOD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004  
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008  
(c) through (e), see Enclosure 1

1. References (a) and (b) establish the Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.
2. The Cisco Systems Lightweight Access Points (LAPs) 1522 and 1524, with Release 7.0.114.76, was originally certified for joint use in the Defense Information System Network as a Wireless Local Area Network Access System (WLAS) and Wireless Access Bridge (WAB). The vendor submitted two Desktop Reviews (DTRs) per product to align the software with the Federal Information Processing Standard (FIPS) certification and submit additional products. The US Army Information Systems Engineering Command Technology Integration Center (USAISEC TIC) conducted testing using wireless requirements derived from the Unified Capabilities Requirements (UCR), Reference (c), and wireless test procedures, Reference (d). The JITC will verify the SUT's certification status during operational deployment and evaluate any new discrepancy noted in the operational environment for impact on the existing certification. These discrepancies will be adjudicated to the satisfaction of Defense Information Systems Agency (DISA) via a vendor Plan of Actions and Milestones that addresses all new critical Test Discrepancy Reports (TDRs) within 120 days of identification. No other configurations, features, or functions, except those cited within this memorandum, are certified by JITC. This certification expires upon changes that affect interoperability, but no later than three years from the date of the Department of Defense (DoD) Unified Capabilities Approved Product List approval memorandums (22 June 2011).
3. JITC approves the extension of this certification for DTRs 1 and 2 submitted to update the software and additional products. JITC reviewed the updated 7.0.116.0 FIPS-compliant version and determined that no additional Information Assurance (IA) or interoperability (IO) testing was required. JITC originally certified the Cisco Systems LAPs 1522 and 1524 with Wireless LAN Controllers (WLCs) 5508, 4404, and 4402, and the Wireless Service Module (WiSM) Integrated Controller. After comparison of the LAP 1552 to the LAP 1522, JITC determined that the LAP 1552 is certifiable without additional IA and IO testing. Also, after comparing the WiSM to its second generation product, WiSM2, JITC determined that no additional IO testing of the integrated controller was required. Approval is based on Verification and Validation (V&V) IO testing conducted from 16 through 18 August 2011 by the USA ISEC TIC, a Department of Defense (DoD) Component

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Test Lab, and DISA IA Certification Authority (CA) approval. The results of the tests for this product are published in a separate IA report, Reference (e). The DISA IA CA approval was granted on 2 June 2011.

4. The requirements for WLASs and WABs were established by Section 5.3.1 of Reference (c) and were used to evaluate the interoperability of the SUT. Tables 1 and 2 list the interface and CR/FR interoperability status of the SUT.

**Table 1. SUT Interface Interoperability Status**

Interface	Critical (See note 1.)	UCR Reference	Threshold CR/FR Requirements (See note 2.)	Status	Remarks
<b>WLAS</b>					
802.11a	No	5.3.1.7.2.3	1, 2, 3, 5, and 7	Certified	
802.11b	No	5.3.1.7.2.3	1, 2, 3, 5, and 7	Certified	
802.11g	No	5.3.1.7.2.3	1, 2, 3, 5, and 7	Certified	
802.16	No	5.3.1.7.2.3	1, 2, 3, 5, and 7	NA	
802.3i	No	5.3.1	1, 2, 3, 5, and 7	Certified	
802.3u	No	5.3.1	1, 2, 3, 5, and 7	Certified	
802.3z	No	5.3.1	1, 2, 3, 5, and 7	Certified	See note 3.
802.3ab	No	5.3.1	1, 2, 3, 5, and 7	Certified	See note 3.
<b>WAB</b>					
802.11a	No	5.3.1.7.2.3	1, 2, 3, 6, and 7	Certified	
802.11b	No	5.3.1.7.2.3	1, 2, 3, 6, and 7	Certified	
802.11g	No	5.3.1.7.2.3	1, 2, 3, 6, and 7	Certified	
802.16	No	5.3.1.7.2.3	1, 2, 3, 6, and 7	NA	
802.3i	No	5.3.1	1, 2, 3, 6, and 7	Certified	
802.3u	No	5.3.1	1, 2, 3, 6, and 7	Certified	
802.3z	No	5.3.1	1, 2, 3, 6, and 7	Certified	See note 3.
802.3ab	No	5.3.1	1, 2, 3, 6, and 7	Certified	See note 3.
<b>WEI</b>					
802.11a	No	5.3.1.7.2.3	1, 3, and 4	NA	Products tested did not include WEIs.
802.11b	No	5.3.1.7.2.3	1, 3, and 4	NA	
802.11g	No	5.3.1.7.2.3	1, 3, and 4	NA	
802.16	No	5.3.1.7.2.3	1, 3, and 4	NA	
<b>NOTES:</b>					
1. The UCR does not define any minimum interfaces. The SUT must minimally provide one of the wired interfaces (to the ASLAN) and wireless interfaces (subscriber).					
2. The SUT need not provide wireless capabilities; however, if such capabilities are present, the SUT must meet all threshold CR/FR requirements.					
3. Supported on controllers using SFP transceivers.					
<b>LEGEND:</b>					
ASLAN	Assured Services LAN		SFP	Small Form-Factor Pluggable transceiver	
CR	Capability Requirement		SUT	System Under Test	
FR	Functional Requirement		UCR	Unified capabilities Requirements	
ID	Identification		WAB	Wireless Access Bridge	
LAN	Local Area Network		WEI	Wireless End Instrument	
NA	Not Applicable		WLAS	Wireless LAN Access System	

**Table 2. SUT Capability Requirements and Functional Requirements Status**

CR/FR ID	Capability/Function	Applicability (See note 1.)	UCR Reference	Status	Remarks
1	<b>General Wireless Requirements</b>				
	IPv6	Required	5.3.1.7.2.1	Met	See note 2.
	WiFi Certified	Required (See note 3.)	5.3.1.7.2.1	Met	See note 4.
	Redundancy	Required	5.3.1.7.2.1	Met	See note 5
	FIPS 140-2 Level 1	Required	5.3.1.7.2.1	Met	See note 4.
	Latency	Required	5.3.1.7.2.1	Met	
	Traffic Prioritization	Required	5.3.1.7.2.1	Met	
	Wireless STIGs	Required	5.3.1.7.2.1	Met	See note 6.
2	<b>WIDS</b>				
	Continuous Scanning	Required	5.3.1.7.2.2	Met	See note 7.
	Location-sensing	Required	5.3.1.7.2.2	Met	See note 7.
3	<b>Wireless Interface Requirements</b>				
	Interface Standards	Required (See note 8.)	5.3.1.7.2.3	Met	
	802.11 Interface Standards	Required (See note 9.)	5.3.1.7.2.3	Met	
	802.16 Interface Standards	Required (See note 10.)	5.3.1.7.2.3	NA	See note 11.
	Fixed / Nomadic WEIs	Required (See note 12.)	5.3.1.7.2.3	NA	See note 13.
4	<b>Wireless End Instruments</b>				
	VoIP Solution	Required (See note 14.)	5.3.1.7.2.4	NA	The SUT tested does not include WEIs.
	Access Methods	Required (See note 15.)	5.3.1.7.2.4	NA	
	Call Control Authentication	Required (See note 16.)	5.3.1.7.2.4	NA	
Call Termination	Required (See note 12.)	5.3.1.7.2.4	NA		
5	<b>WLAS Requirements</b>				
	Loss of Call upon WLAS failure	Required (See note 16.)	5.3.1.7.2.5	Met	See note 17.
	Maximum supported EIs	Required (See note 16.)	5.3.1.7.2.5	Met	See notes 16 and 18.
	MOS	Required (See note 16.)	5.3.1.7.2.5	Met	See notes 16 and 18.
	Roaming	Required (See note 17.)	5.3.1.7.2.5	Met	See notes 17.
6	<b>Wireless Access Bridge</b>				
	Individual Interface Standards	Required (See note 9.)	5.3.1.7.2.6	Met	
	Maximum Voice Calls Transported	Required (See note 9.)	5.3.1.7.2.6	Met	See notes 16 and 18.
	Voice MOS	Required (See note 9.)	5.3.1.7.2.6	Met	See notes 16 and 18.
	E2E BER	Required (See note 9.)	5.3.1.7.2.6	Met	
	Secure Voice Transmission	Required (See note 9.)	5.3.1.7.2.6	Met	See note 19.
	Call Signaling Transport	Required (See note 9.)	5.3.1.7.2.6	Met	See note 19.
	Latency	Required (See note 9.)	5.3.1.7.2.6	Met	
Jitter	Required (See note 9.)	5.3.1.7.2.6	Met		
	WLAS/WAB Combination	Required (See note 9.)	5.3.1.7.2.6	Met	

**Table 2. SUT Capability Requirements and Functional Requirements Status (continued)**

CR/FR ID	Capability/Function	Applicability (See note 1.)	UCR Reference	Status	Remarks																																																				
7	<b>ASLAN Requirements Applicable to Wireless Products</b>																																																								
	General Performance Parameters	Required	5.3.1.3	Met																																																					
<p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>The SUT need not provide wireless capability. However, if wireless capability is present, the SUT must meet the wireless requirements (as applicable for product type WLAS, WAB, or WEI) in order to be certified.</li> <li>Vendor demonstrated IPv6 QoS and IPv6 packet transfer via Ethernet.</li> <li>Applies to 802.11 interfaces only.</li> <li>Verified via vendor LoC.</li> <li>A condition of fielding is to constrain to less than 96 telephony users. Controller transitions require client re-authentication prohibiting call continuance.</li> <li>Vendor met STIG requirements with submitted mitigations.</li> <li>Scanning conformed via management console on Cisco WCS.</li> <li>Individual sub-requirements apply to specific interface types.</li> <li>Applies to 802.11 interfaces only.</li> <li>Applies to 802.16 interfaces only.</li> <li>SUT does not provide an 802.16 (conditional) interface.</li> <li>Applies to WEIs; not applicable to WLASs or WABs.</li> <li>SUT does not include WEIs.</li> <li>The WEI is certified in conjunction with a call-control agent (VoIP solution).</li> <li>The WEI may be dedicated service (single traffic type) or shared service (voice, video, and data).</li> <li>Specified requirements are applicable to WLAS products only.</li> <li>Verified via emulated phone (Ixia).</li> <li>The SUT supports the ability to limit the number of subscribers, thereby controlling the number of voice subscribers.</li> <li>The USAISEC TIC did not test with secure instruments. This requirement was deemed to be met through use of test equipment to send emulated traffic.</li> </ol> <p><b>LEGEND:</b></p> <table> <tr> <td>802.11</td> <td>IEEE set of wireless standards in the 2.4,3.6, and 5 GHz</td> <td>STIG</td> <td>Security Technical Implementation Guide</td> </tr> <tr> <td>802.16</td> <td>IEEE series of wireless broadband standards</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>BER</td> <td>Bit Error Rate</td> <td>UCR</td> <td>Unified Capabilities Requirements</td> </tr> <tr> <td>CR</td> <td>Capability Requirement</td> <td>VoIP</td> <td>Voice over Internet Protocol</td> </tr> <tr> <td>E2E</td> <td>End-to-end</td> <td>WAB</td> <td>Wireless Access Bridge</td> </tr> <tr> <td>EIs</td> <td>End Instruments</td> <td>WEI</td> <td>Wireless End Instrument</td> </tr> <tr> <td>FIPS</td> <td>Federal Information Processing Standard</td> <td>WIDS</td> <td>Wireless Intrusion Detection System</td> </tr> <tr> <td>FR</td> <td>Functional Requirement</td> <td>WiFi</td> <td>Wireless Fidelity, trademark of the Wi-Fi Alliance that refers to a range of connectivity technologies, including WLAN</td> </tr> <tr> <td>GHz</td> <td>Gigahertz</td> <td>WLAN</td> <td>Wireless LAN</td> </tr> <tr> <td>IEEE</td> <td>Institute of Electrical and Electronics Engineers</td> <td>WLAS</td> <td>Wireless LAN Access System</td> </tr> <tr> <td>IPv6</td> <td>Internet Protocol version 6</td> <td></td> <td></td> </tr> <tr> <td>LAN</td> <td>Local Area Network</td> <td></td> <td></td> </tr> <tr> <td>MOS</td> <td>Mean Opinion Score</td> <td></td> <td></td> </tr> </table>						802.11	IEEE set of wireless standards in the 2.4,3.6, and 5 GHz	STIG	Security Technical Implementation Guide	802.16	IEEE series of wireless broadband standards	SUT	System Under Test	BER	Bit Error Rate	UCR	Unified Capabilities Requirements	CR	Capability Requirement	VoIP	Voice over Internet Protocol	E2E	End-to-end	WAB	Wireless Access Bridge	EIs	End Instruments	WEI	Wireless End Instrument	FIPS	Federal Information Processing Standard	WIDS	Wireless Intrusion Detection System	FR	Functional Requirement	WiFi	Wireless Fidelity, trademark of the Wi-Fi Alliance that refers to a range of connectivity technologies, including WLAN	GHz	Gigahertz	WLAN	Wireless LAN	IEEE	Institute of Electrical and Electronics Engineers	WLAS	Wireless LAN Access System	IPv6	Internet Protocol version 6			LAN	Local Area Network			MOS	Mean Opinion Score		
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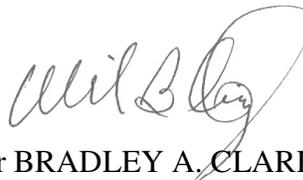
5. In accordance with the Program Manager’s request, the JITC did not prepare a detailed test report. The JITC distributes interoperability information via the JITC Electronic Report Distribution system, which uses Non-secure Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet). Information related to Defense Switched Network (DSN) testing is on the Telecom Switched Services Interoperability website at <http://jitc.fhu.disa.mil/tssi>. All associated data is available on the Defense Information Systems

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Agency Unified Capability Coordination Office (UCCO) website located at <http://www.disa.mil/ucco/>.

6. The JITC point of contact is Ms. Lisa Fardsalehi, commercial 520.538.5531 or DSN 879.5531; e-mail address is [lisa.fardsalehi@disa.mil](mailto:lisa.fardsalehi@disa.mil). The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The UCCO tracking numbers are 1019005 and 1019007.

FOR THE COMMANDER:



for BRADLEY A. CLARK  
Chief  
Battlespace Communications Portfolio

1 Enclosure a/s

Distribution (electronic mail):

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J68

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## **ADDITIONAL REFERENCES**

- (c) Office of the Assistant Secretary of Defense Document, "Department of Defense Unified Capabilities Requirements 2008, Change 2," December 2010
- (d) Joint Interoperability Test Command Document, "Unified Capabilities Test Plan (UCTP)," November 2009
- (e) United States Army Document, "Information Assurance (IA) Finding Summary for Cisco Systems Wireless Products, Release 7.0.116.0 (UC Tracking Numbers: 1019005, 1019007)" September 2011

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