



DEFENSE INFORMATION SYSTEMS AGENCY

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

7'Pqx'35

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the OnPATH 2900 Physical Layer Switching System, Fixed Network Element (F-NE), with Software Release 1.2.3.1

- References:
- (a) Department of Defense Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
 - (b) Department of Defense Instruction 8100.04, "DoD Unified Capabilities (UC)," 9 December 2010
 - (c) through (f), 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 OnPATH Technologies 2900 Physical Layer Switching System with Software Release 1.2.3.1 is hereinafter referred to as the System Under Test (SUT). The SUT meets all its critical interoperability requirements and JITC certifies the SUT for joint use in the Defense Information Systems Network (DISN) as a Fixed-Network Element (F-NE). The operational status of the SUT will be verified during deployment. Any new discrepancies that are discovered in the operational environment will be evaluated for impact and adjudicated to the satisfaction of the Defense Information Systems Agency (DISA) in a vendor Plan of Action and Milestones to address the concern(s) within 120 days of identification. The JITC conducted testing using F-NE requirements within the Unified Capabilities Requirements (UCR) 2008, Change 2, Reference (c). JITC tested the SUT using F-NE test procedures, Reference (d). No other configurations, features, or functions, except those cited within this memorandum, are certified by JITC. This certification expires 22 May 2015 based upon the UC Approved Products List (APL) memorandum expiration, or upon changes that affect interoperability.
3. The extension of this certification is based upon Desktop Review (DTR) 1. The original certification, documented in Reference (e), is based on interoperability testing conducted by JITC, DISA adjudication of open test discrepancy reports, review of the vendor's Letters of Compliance (LoC), and DISA Information Assurance (IA) CA approval of the IA configuration. Interoperability testing of the SUT was conducted at JITC's Advanced Technologies Testbed (ATT) at Indian Head, Maryland, on 5 September 2013. Review of the vendor's LoC was completed on 11 April 2011. The DISA CA provided a positive Recommendation on 22 March 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f). This DTR successfully closes the 11 Category II IA findings. JITC analysis determined these security fixes will have no negative impact on the

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interoperability certified features and functions. JITC determined this DTR would require an IA Verification and Validation (V&V) test. The DISA-led IA team conducted a V&V test from 16 through 26 July 2013 and validated the security fixes, documented in Reference (f). The DISA CA provided a positive recommendation on 19 September 2013 for this DTR. The security fixes are very low risk to the certified interoperability posture; therefore JITC approves this DTR without further interoperability testing.

4. Section 5.9 of the UCR establishes the interfaces and threshold CRs/FRs used to evaluate the interoperability of the SUT as a F-NE. Tables 1 and 2 list the F-NE, sponsor-requested interfaces, CRs, FRs, and component status of the SUT.

Table 1. SUT Interface Interoperability Status

Interface		Critical (See note)	UCR Ref (UCR 2008, Change 2)	Threshold CR/FR	Status	Remarks																																				
NE	Analog	No	5.9.2.3.1	1,2,4	Certified	SUT met requirements for specified interfaces																																				
	Serial	No	5.9.2.3.2	1,2,4	Certified	SUT met requirements for specified interfaces																																				
	BRI ISDN	No	5.9.2.3.3	1,2,4	NA	Not supported by the SUT																																				
	DS1	No	5.9.2.3.4	1,2,3,4	Certified	SUT met requirements for specified interfaces																																				
	E1	No	5.9.2.3.5	1,2,3,4	NA	Not supported by the SUT																																				
	DS3	No	5.9.2.3.6	1,2,3,4	NA	Not supported by the SUT																																				
	OC-X	No	5.9.2.3.8	1,2,3,4	Certified	SUT met requirements for the following interfaces: OC-3; OC-48; OC-48 SONET																																				
IP (Ethernet) 10/100/1000 and 10GbE	No	5.9.2.3.9	1,2,4,7	Certified	SUT met requirements for specified interfaces																																					
NM	10Base-X	Yes	5.3.2.4.4	8	Certified	SUT met NM requirements for specified interfaces																																				
	100Base-X	Yes	5.3.2.4.4	8	Certified																																					
<p>NOTE: UCR does not specify any minimum interfaces.</p> <p>LEGEND:</p> <table> <tr> <td>100Base-X</td> <td>100 Mbps Ethernet generic designation</td> <td>Mbps</td> <td>Megabits per second</td> </tr> <tr> <td>10Base-X</td> <td>10 Mbps Ethernet generic designation</td> <td>NA</td> <td>Not Applicable</td> </tr> <tr> <td>BRI</td> <td>Basic Rate Interface</td> <td>NE</td> <td>Network Element</td> </tr> <tr> <td>CR</td> <td>Capability Requirement</td> <td>NM</td> <td>Network Management</td> </tr> <tr> <td>DS1</td> <td>Digital Signal Level 1 (1.544 Mbps)</td> <td>OC-X</td> <td>Optical Carrier - X (OC-3, OC-12, etc.)</td> </tr> <tr> <td>FR</td> <td>Functional Requirement</td> <td>SONET</td> <td>Synchronous Optical Networking</td> </tr> <tr> <td>GbE</td> <td>Gigabit Ethernet</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>IP</td> <td>Internet Protocol</td> <td>UCR</td> <td>Unified Capabilities Requirements</td> </tr> <tr> <td>ISDN</td> <td>Integrated Services Digital Network</td> <td></td> <td></td> </tr> </table>							100Base-X	100 Mbps Ethernet generic designation	Mbps	Megabits per second	10Base-X	10 Mbps Ethernet generic designation	NA	Not Applicable	BRI	Basic Rate Interface	NE	Network Element	CR	Capability Requirement	NM	Network Management	DS1	Digital Signal Level 1 (1.544 Mbps)	OC-X	Optical Carrier - X (OC-3, OC-12, etc.)	FR	Functional Requirement	SONET	Synchronous Optical Networking	GbE	Gigabit Ethernet	SUT	System Under Test	IP	Internet Protocol	UCR	Unified Capabilities Requirements	ISDN	Integrated Services Digital Network		
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Table 2. SUT CRs and FRs Status

CR/FR ID	Capability/Function	Applicability (See Note)	UCR Ref (UCR 2008, Change 2)	Status	Remarks																																																
1	General NE Requirements																																																				
	General Requirements	Required	5.9.2.1	Met																																																	
	Alarms	Required	5.9.2.1.1	Met																																																	
	Congestion Control & Latency	Required	5.9.2.1.2	Met																																																	
2	Compression																																																				
	G.726	Conditional	5.9.2.2	NA	Not supported by the SUT.																																																
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3	Interface Requirements																																																				
	Timing	Required	5.9.2.3.7	Met																																																	
4	Device Management																																																				
	Management Options	Required	5.9.2.4.1	Met																																																	
	Fault Management	Conditional	5.9.2.4.2	NA	Not supported by the SUT.																																																
	Loop-Back Capability	Conditional	5.9.2.4.3	NA	Not supported by the SUT.																																																
	Operational Configuration Restoral	Required	5.9.2.4.4	Met																																																	
5	DLoS																																																				
	DLoS Transport	Conditional	5.9.2.4.5	NA	Not supported by the SUT.																																																
6	IPv6 Requirements																																																				
	Product Requirements	Required	5.3.5.4	Met	SUT is a layer-1 device and transports IPv4 and IPv6 traffic transparently.																																																
7	NM Requirements																																																				
	VVoIP NMS Interface Requirements	Required	5.3.2.4.4	Met																																																	
	General Management Requirements	Required	5.3.2.17.2	Met																																																	
<p>NOTE: Annotation of 'required' refers to high-level requirement category. Applicability of each sub-requirement is provided in Enclosure 3.</p> <p>LEGEND:</p> <table> <tr> <td>ADPCM</td> <td>Adaptive Differential Pulse Code Modulation</td> <td>IPv6</td> <td>Internet Protocol version 6</td> </tr> <tr> <td>CR</td> <td>Capabilities Requirement</td> <td>ITU-T</td> <td>International Telecommunication Union – Telecommunication</td> </tr> <tr> <td>CS-ACELP</td> <td>Conjugate Structure Algebraic Code-Excited Linear Prediction</td> <td>Kbps</td> <td>Kilobits per second</td> </tr> <tr> <td>DLoS</td> <td>Direct Line of Sight</td> <td>LD-CELP</td> <td>Low Delay-Code Excited Linear Prediction</td> </tr> <tr> <td>D-NE</td> <td>Deployed Network Element</td> <td>NA</td> <td>Not Applicable</td> </tr> <tr> <td>FR</td> <td>Functional Requirement</td> <td>NE</td> <td>Network Element</td> </tr> <tr> <td>G.726</td> <td>ITU-T speech codec for ADPCM (32 Kbps)</td> <td>NM</td> <td>Network Management</td> </tr> <tr> <td>G.728</td> <td>ITU-T speech codec for LD-CELP (16 Kbps)</td> <td>NMS</td> <td>Network Management System</td> </tr> <tr> <td>G.729</td> <td>ITU-T speech codec for CS-ACELP (8 Kbps)</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>ID</td> <td>Identification</td> <td>TDM</td> <td>Time Division Multiplexing</td> </tr> <tr> <td>IP</td> <td>Internet Protocol</td> <td>UCR</td> <td>Unified Capabilities Requirements</td> </tr> <tr> <td>IPv4</td> <td>Internet Protocol version 4</td> <td>VVoIP</td> <td>Voice and Video over Internet Protocol</td> </tr> </table>						ADPCM	Adaptive Differential Pulse Code Modulation	IPv6	Internet Protocol version 6	CR	Capabilities Requirement	ITU-T	International Telecommunication Union – Telecommunication	CS-ACELP	Conjugate Structure Algebraic Code-Excited Linear Prediction	Kbps	Kilobits per second	DLoS	Direct Line of Sight	LD-CELP	Low Delay-Code Excited Linear Prediction	D-NE	Deployed Network Element	NA	Not Applicable	FR	Functional Requirement	NE	Network Element	G.726	ITU-T speech codec for ADPCM (32 Kbps)	NM	Network Management	G.728	ITU-T speech codec for LD-CELP (16 Kbps)	NMS	Network Management System	G.729	ITU-T speech codec for CS-ACELP (8 Kbps)	SUT	System Under Test	ID	Identification	TDM	Time Division Multiplexing	IP	Internet Protocol	UCR	Unified Capabilities Requirements	IPv4	Internet Protocol version 4	VVoIP	Voice and Video over Internet Protocol
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5. In accordance with the Program Manager's request, JITC did not develop a detailed test report. JITC distributes interoperability information via the JITC Electronic Report Distribution system, which uses Unclassified-But Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program, which .mil/.gov users can access 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 at <http://jit.fhu.disa.mil> (NIPRNet). Information related to APL testing is available on the DISA APL Testing and Certification website located at <http://www.disa.mil/Services/Network-Services/UCCO>. All associated test information is available on the DISA UC Certification Office APL Integrated Tracking System (APLITS) website located at <https://aplits.disa.mil>.

6. The JITC testing point of contact is Ms. Jackie Mastin, commercial (301) 743-4320. Her e-mail address is Jacquelyn.Mastin.civ@mail.mil, mailing address: 3341 Strauss Avenue, Suite 236, Indian Head, Maryland 20640-5149. The UCCO Tracking Number (TN) for the SUT is 1028501.

FOR THE COMMANDER:



for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

1 Enclosure a/s

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DIA, Office of the Acquisition Executive

NSG Interoperability Assessment Team

DOT&E, Netcentric Systems and Naval Warfare

Medical Health Systems, JMISIV&V

ADDITIONAL REFERENCES

- (c) Office of Assistant Secretary of Defense for Networks and Information Integration Document, "Department of Defense Unified Capabilities Requirements 2008, Change 1," 22 January 2010
- (d) Joint Interoperability Test Command, "Unified Capabilities Test Plan (UCTP)," 29 September 2010
- (e) Special Interoperability Test Certification of the OnPATH 2900 Physical Layer Switching System, Fixed Network Element (F-NE), with Software Release 1.2.3.1, 14 May 2012
- (f) Unified Capabilities (UC) Approved Products List (APL) Recommendation for OnPATH Technologies 2900 Version 1.2.3 (TN# 1028501/CA# 12D-APL-11-063-U)

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