



DEFENSE INFORMATION SYSTEMS AGENCY

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ARLINGTON, VIRGINIA 22204-4502

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

28 Sep 10

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Special Interoperability Test Certification of the Action Packed! Networks Live Action Version 1.7

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 Defense Information Systems Agency, Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.
2. The Action Packed! Networks Live Action Version 1.7 is hereinafter referred to as the system under test (SUT). The SUT met the interface and functional requirements for a Customer Premises Equipment Telecommunications Management System as set forth in Reference (c). The SUT is certified specifically with Cisco Assured Services Local Area Network (ASLAN) core layer components that are on the Unified Capabilities (UC) Approved Product List (APL). Testing was conducted using test procedures derived from Reference (d). No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that affect interoperability, but no later than three years from the date of Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation.
3. This finding is based on interoperability testing conducted by JITC and DSAWG accreditation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 14 through 16 October 2009. The DSAWG granted accreditation on 28 September 2010 based on the security testing completed by DISA-led Information Assurance test teams and published in a separate report, Reference (e).
4. Table 1 depicts the SUT Functional Requirements used to evaluate the interoperability of the SUT and the interoperability status.

Table 1. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Status	UCR Reference																				
IEEE 802.3u Ethernet	Yes	Yes	In Accordance with IEEE 802.3u (C)	Met	5.2.8.1																				
			Fault Management (C)	Met	5.2.8.3																				
			Performance Management (C)	Met	5.2.8.6																				
			Configuration Management (Switch Access) (C)	Met	5.2.8.4																				
			IPv6 (C)	Not Met ¹	5.3.5																				
	Yes	Yes	Security (R)	See note 2.	Section 3																				
<p>NOTES:</p> <p>1 IPv6 is not supported by the SUT. In accordance with the Interim Unified Capabilities (UC) IPv6 Rules of Engagement (ROE) signed by the Office of the Secretary of Defense on 31 July 2009, IPv6 is not required for a Customer Premises Equipment Telecommunications Management System. There is no risk associated with the SUT not supporting this requirement.</p> <p>2 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).</p> <p>LEGEND:</p> <table> <tr> <td>802.3u</td> <td>Standard for carrier sense multiple access with collision detection at 100 Mbps</td> <td>IPv6</td> <td>Internet Protocol version 6</td> </tr> <tr> <td>C</td> <td>Conditional</td> <td>Mbps</td> <td>Megabits per second</td> </tr> <tr> <td>DISA</td> <td>Defense Information Systems Agency</td> <td>R</td> <td>Required</td> </tr> <tr> <td>IEEE</td> <td>Institute of Electrical and Electronics Engineers</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td></td> <td></td> <td>UCR</td> <td>Unified Capabilities Requirements</td> </tr> </table>						802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	IPv6	Internet Protocol version 6	C	Conditional	Mbps	Megabits per second	DISA	Defense Information Systems Agency	R	Required	IEEE	Institute of Electrical and Electronics Engineers	SUT	System Under Test			UCR	Unified Capabilities Requirements
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DISA	Defense Information Systems Agency	R	Required																						
IEEE	Institute of Electrical and Electronics Engineers	SUT	System Under Test																						
		UCR	Unified Capabilities Requirements																						

5. No detailed test report was developed in accordance with the Program Manager’s request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) 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 (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), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: ucco@disa.mil.

6. The JITC point of contact is Mr. Edward Mellon, DSN 879-5159, commercial (520) 538-5159, FAX DSN 879-4347, or e-mail to edward.mellon@disa.mil. The JITC’s mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0921001.

FOR THE COMMANDER:

2 Enclosures a/s


 for RICHARD A. MEADOR
 Chief
 Battlespace Communications Portfolio

JITC Memo, JTE, Special Interoperability Test Certification of the Action Packed! Networks
Live Action Version 1.7

Distribution (electronic mail):

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Division, J68

Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008," 22 January 2009
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP) Change 2," 2 October 2006
- (e) Joint Interoperability Test Command, Memo, "Information Assurance (IA) Assessment of the Action Packed! Networks Live Action Version 1.7 (Tracking Number 0921001)," 28 September 2010

CERTIFICATION TESTING SUMMARY

- 1. SYSTEM TITLE.** Action Packed! Networks Live Action with Software Release 1.7 hereinafter referred to as the system under test (SUT).
- 2. PROPONENT.** Navy Headquarters United States Pacific Command (USPACOM).
- 3. SPONSOR.** LTC Creighton Barber, J623, Box 64029, Camp H.M. Smith, Hawaii, 96861-4029, creighton.barber@pacom.mil.
- 4. TESTER.** Joint Interoperability Test Command (JITC), Fort Huachuca, Arizona.
- 5. SYSTEM UNDER TEST DESCRIPTION.** The SUT is a software application that runs on a standard Personal Computer (PC) and provides situational awareness, real-time visualizations, monitoring, configuration, and troubleshooting of Cisco network devices through a Graphical User Interface (GUI). The SUT is installed on a standard Windows-based PC, utilizing a Windows eXperience (XP) management workstation or a Windows management server.
- 6. OPERATIONAL ARCHITECTURE.** The Unified Capabilities Requirements (UCR) Defense Switched Network (DSN) architecture in Figure 2-1 depicts the relationship of the SUT to the DSN switches.

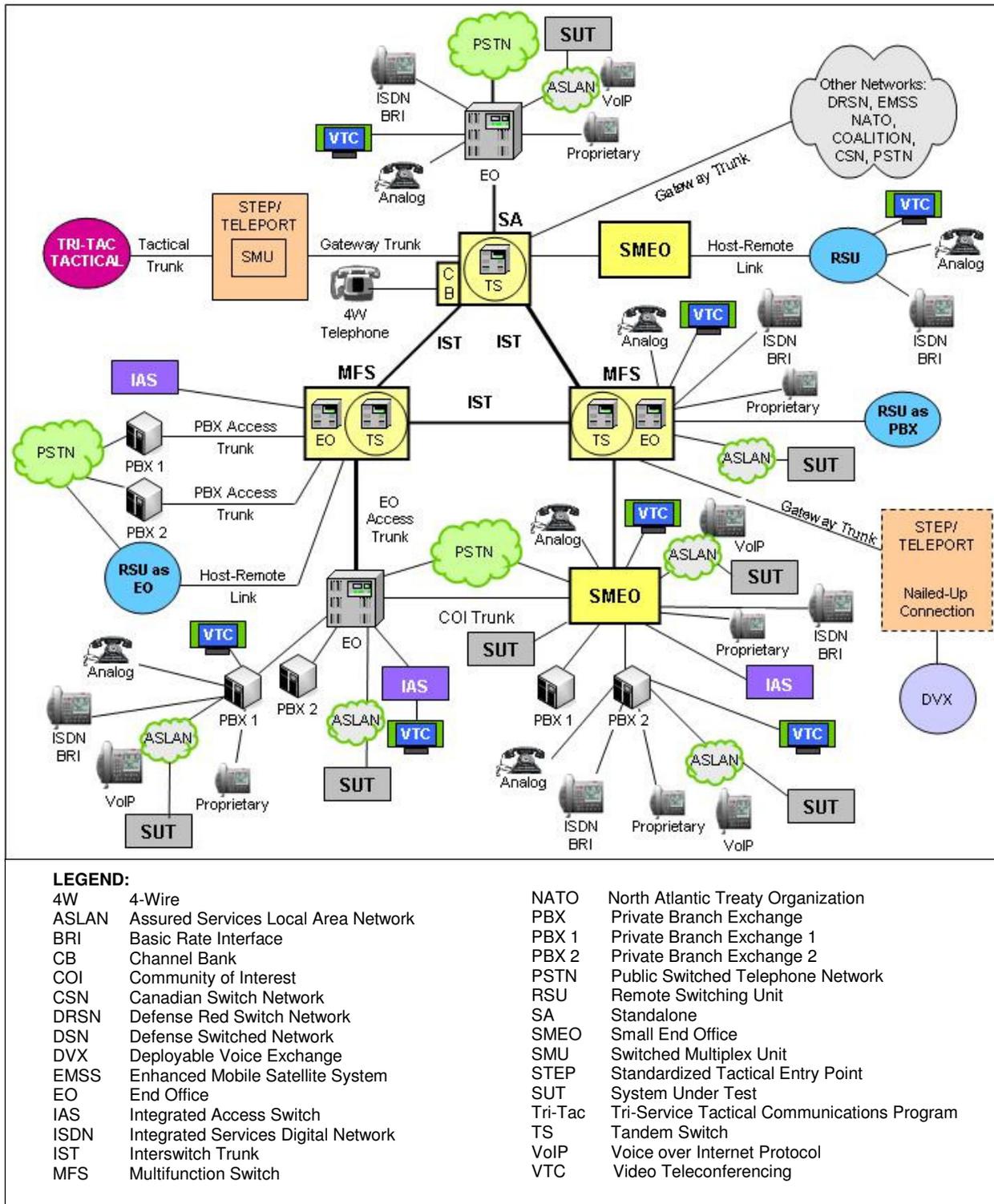


Figure 2-1. DSN Architecture

7. REQUIRED SYSTEM INTERFACES. Requirements specific to the SUT and interoperability results are listed in Table 2-1. These requirements are derived from Reference (c) and verified through the test procedures listed in Reference (d).

Table 2-1. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Status	UCR Reference
IEEE 802.3u Ethernet	Yes	Yes	In Accordance with IEEE 802.3u (C)	Met	5.2.8.1
			Fault Management (C)	Met	5.2.8.3
			Performance Management (C)	Met	5.2.8.6
			Configuration Management (Switch Access) (C)	Met	5.2.8.4
			IPv6 (C)	Not Met ¹	5.3.5
	Yes	Yes	Security (R)	See note 2.	Section 3

NOTES:

- IPv6 is not supported by the SUT. In accordance with the Interim Unified Capabilities (UC) IPv6 Rules of Engagement (ROE) signed by the Office of the Secretary of Defense on 31 July 2009, IPv6 is not required for a Customer Premises Equipment Telecommunications Management System. There is no risk associated with the SUT not supporting this requirement.
- Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).

LEGEND:

802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	IPv6	Internet Protocol version 6
C	Conditional	Mbps	Megabits per second
DISA	Defense Information Systems Agency	R	Required
IEEE	Institute of Electrical and Electronics Engineers	SUT	System Under Test
		UCR	Unified Capabilities Requirements

8. TEST NETWORK DESCRIPTION. The SUT was tested at JITC’s Global Information Grid Network Test Facility in a manner and configuration similar to that of the DSN operational environment. Testing the system’s required functions and features was conducted using the test configurations depicted in Figure 2-2.

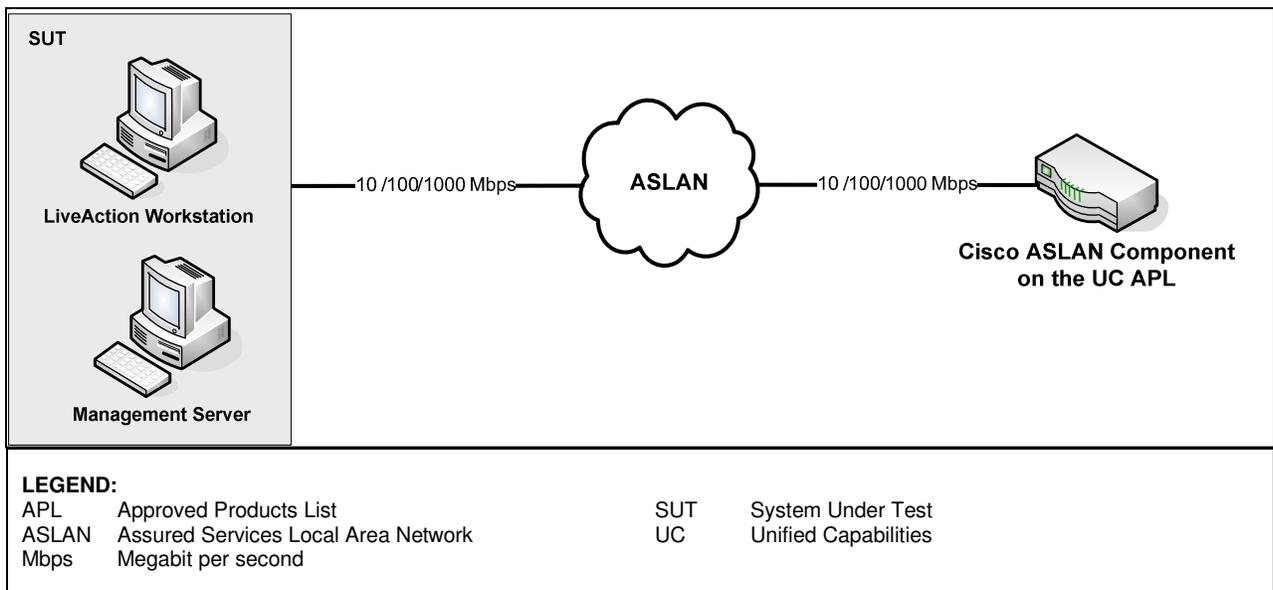


Figure 2-2. SUT Test Configuration

(3) In accordance with the UCR, section 5.2.8.4, Configuration Management in a switching system shall be in accordance with Telcordia Technologies GR-472-CORE, Network Element Configuration Management, Revision 2, Feb. 1999, Section 4. The SUT met all critical interoperability requirements for Configuration Management by connecting to the Cisco ASLAN core layer 3 switches remotely and emulating their local management terminals.

(4) In accordance with the UCR, section 5.2.8.6, the DSN switches must meet the switch performance data requirements in the UCR, Table 5.2.8-2. The SUT met all critical interoperability requirements for Performance Management by collecting and accurately storing traffic data of the respective Cisco switches.

(5) In accordance with the UCR, Table 5.4.1-3 Operational Administration and Maintenance (OAM) Internet Protocol (IP) packets shall be tagged with a Differential Services Code Point (DSCP) value of 16-23. Using the WireShark IP capture tool to capture DSCP tagging from the SUT to the ASLAN, it was determined that the SUT tagged the OAM packets at 0 which does not meet this requirement. However, this discrepancy was reviewed by DISA and was adjudicated as having a minor operational impact.

b. Test Summary. The SUT met the interface and functional requirements for Customer Premises Equipment Telecommunications Management System as set forth in Reference (c). The SUT is certified specifically with Cisco ASLAN core layer components that are on the UC APL.

12. TEST AND ANALYSIS REPORT. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) 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 (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), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: ucco@disa.mil.