DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) **12 Oct 12**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Acme Packet Net-Net 3820 Session Director (SD) Edge Boundary Controller (EBC), Release 6.2.0 with specified patch releases

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 (f), see Enclosure

1. References (a) and (b) establish the Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The Acme Packet Net-Net 3820 SD EBC with Release 6.2.0 with specified patch releases is hereinafter referred to as the System Under Test (SUT). The SUT meets all the critical interoperability requirements as a High-Availability EBC with No Loss of Active Sessions (NLAS) in a dual chassis configuration. The SUT also meets the High Availability EBC requirements without NLAS, and Medium Availability EBC requirements in a dual-chassis configuration. The Low Availability EBC requirements are met by the SUT in a single-chassis configuration. The SUT is certified for joint use within the Defense Information System Network (DISN) in both classified and sensitive-but-unclassified (SBU) networks. DISA adjudicated Test Discrepancy Reports (TDRs) open at the completion of testing to have a minor operational impact. The minor operational impact of noted discrepancies was based on the SUT's conditions of fielding during the initial transition from legacy to Internet Protocol (IP) based communications. The fielding of the SUT is limited to IP version 4 (IPv4) across the DISN based on the fielding environment and a Plan of Action and Milestones (PoAM) addressing critical IP version 6 (IPv6) discrepancies by 30 April 2011. The certification status of the SUT will be monitored and verified during operational deployment in the Department of Defense Unified Capabilities Pilot. Any new discrepancy noted in the operational environment will be evaluated for impact on the existing certification. These discrepancies will be adjudicated to the satisfaction of DISA via a vendor PoAM that addresses all new critical TDRs within 120 days of identification. Testing was conducted using EBC requirements derived from the Unified Capabilities Requirements (UCR), Reference (c), and EBC test procedures, Reference (d). 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 1 September 2013, which is three years from the date of the Unified Capabilities (UC) Approved Products List (APL) memorandum.

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3. The extension of this certification is based upon Desktop Review (DTR) 4. The original certification is based on interoperability testing conducted by JITC, review of the vendor's Letters of Compliance (LoC), and DISA Information Assurance (IA) Certification Authority (CA) approval of the IA configuration. Interoperability testing was conducted by JITC, Fort Huachuca, Arizona, from 19 through 30 October 2009 and from 1 through 31 March 2010 and documented in Reference (e). Review of the vendor's LoC was completed on 29 September 2010. The DISA CA has reviewed the IA Assessment Report for the SUT, Reference (f), and based on the findings in the report has provided a positive recommendation. The acquiring agency or site will be responsible for the DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation. This DTR was requested to include the SUT in a configuration which splits the platform into several virtual EBCs allowing multiple LSCs to be placed on the internal side of the SUT. This configuration was extensively tested with no issues at JITC beginning 6 through 24 June 2011 with the following LSCs: Avaya AS5300, Avaya Communication Manager 6.0, Nokia-Siemens HiQ8000, REDCOM High Density Exchange (HDX), REDCOM Slice, Cisco Unified Communications Manager (CUCM). The IA posture has not changed. The original IA approval applies to this DTR. Therefore, JITC certifies this DTR without further testing.

4. The interface, Capability Requirements (CR) and Functional Requirements (FR), and component status of the SUT is listed in Tables 1 and 2. The threshold Capability/Functional requirements for EBCs are established by Section 5.3.2.14 of Reference (c) and were used to evaluate the interoperability of the SUT.

Table 1. SUT Interface Interoperability Status

Interface	Critical[1]	UCR Paragraph	Threshold CR/FR[2]	Status	Remarks[3]
WAN Interfaces					
10Base-X	No	5.3.2.4 / 5.3.3.10.1.2	1-3	Certified	IEEE 802.3i and IEEE 802.3j
100Base-X	No	5.3.2.4 / 5.3.3.10.1.2	1-3	Certified	IEEE 802.3u
1000Base-X	No	5.3.2.4 / 5.3.3.10.1.2	1-3	Certified	IEEE 802.3z
NM Interfaces					
10Base-X	No	5.3.2.4.4	4	Certified	IEEE 802.3i and IEEE 802.3j
100Base-X	No	5.3.2.4.4	4	Certified	IEEE 802.3u

NOTES:
1. The UCR does not define the provision of any specific interface. The SUT must minimally provide one of the WAN interfaces and one of the NM interfaces.
2. The SUT's high-level capability and functional requirement ID numbers depicted in the CRs/FRs column can be cross-referenced in Table 2. These high-level CR/FR requirements refer to a detailed list of requirements provided in Reference (e), Enclosure 3.
3. The SUT must meet IEEE 802.3 standards for interface provided.

Table 1. SUT Interface Interoperability Status (continued)

LEGEND:

10Base-X	Generic designation for 10 Mbps Ethernet	CR	Capability Requirement
100Base-X	Generic designation for 100 Mbps Ethernet	FR	Functional Requirement
1000Base-X	Generic designation for 1000 Mbps Ethernet	ID	Identification
802.3i	IEEE Ethernet standard for 10 Mbps over twisted pair	IEEE	Institute of Electrical and Electronics Engineers
		Mbps	Megabits per second
802.3j	IEEE Ethernet standard for 10 Mbps over fiber	NM	Network Management
802.3u	IEEE Ethernet Standard for 100 Mbps over twisted pair and fiber	SUT	System Under Test
		UCR	Unified Capabilities Requirements
802.3z	IEEE Ethernet standard for 1000 Mbps over fiber	WAN	Wide Area Network

Table 2. SUT CRs and FRs Status

CR/FR ID	Capability/Function	Applicability[1]	UCR Paragraph	Status	Remarks[2]
1	**Edge Boundary Controller Requirements**				
	AS-SIP Back-to-Back User Agent	Required	5.3.2.15.1	Met[3]	
	Call Processing Load	Required	5.3.2.15.2	Met	
	Network Management	Required	5.3.2.15.3 5.3.2.17	Partially Met	This was verified through the vendor's LoC with the minor exceptions[4, 5]
	DSCP Policing	Required[6]	5.3.2.15.4	Not Tested[7]	
	Codec Bandwidth Policing	Required[6]	5.3.2.15.5	Not Tested[7]	
	Availability	Required	5.3.2.15.6	Met	The SUT met this requirement for the high availability option. This was verified through the vendor's LoC.
	IEEE 802.1Q Support	Required	5.3.2.15.7	Met	
	Packet Transit Time	Required	5.3.2.15.8	Not Tested	This requirement was not tested at the JITC because of testing limitations.[8]
	ITU-T H.323 Support	Conditional	5.3.2.15.9	Not Tested	
2	**AS-SIP Requirements**				
	Requirements for AS-SIP Signaling Appliances	Required	5.3.4.7	Met	
	SIP Session Keep-Alive Timer	Required	5.3.4.8	Met	
	Session Description Protocol	Required	5.3.4.9	Met	
	Precedence and Preemption	Required	5.3.4.10	Met	
	Calling Services	Required	5.3.4.13	Met	
3	**IPv6 Requirements**				
	Product Requirements	Required	5.3.5.4	Partially Met	This was verified through the vendor's LoC with the exceptions[9, 10, 11]
4	**NM Requirements**				
	VVoIP NMS Interface Requirements	Required	5.3.2.4.4	Met	This was verified through the vendor's LoC.
	General Management Requirements	Required	5.3.2.17.2	Met	This was verified through the vendor's LoC.
	Requirement for FCAPS Management	Required	5.3.2.17.3	Partially Met	This was not tested at the JITC; however, this requirement was partially met based on fielded results[4, 5].
	NM requirements of Appliance Functions	Required	5.3.2.18	Met	This was verified through the vendor's LoC.

Table 2. SUT CRs and FRs Status (continued)

NOTES:

1. The notation of 'required' refers to the high-level requirement category. These high-level CR/FR requirements refer to a detailed list of requirements provided in Reference (e), Enclosure 3.
2. Paragraph 11 of Reference (e), Enclosure 2 provides detailed information pertaining to open TDRs and associated operational impacts.
3. The requirements for paragraph 5.3.2.15.1.6 and all subparagraphs dealing with the ability of an EBC to front a primary and secondary MFSS or SS were not tested. The SUT met these requirements via LoC.
4. The UCR states that an EBC shall have a pair of Ethernet management interfaces. The SUT supports one Ethernet management interface. The DISA adjudicated this discrepancy as having a low operational impact because DISA will be the only manager initially.
5. The UCR states that an EBC must support SNMPv3. The SUT currently does not support SNMPv3. The DISA adjudicated this finding as having a low operational impact because the SUT has provided a capability on the platform to encrypt SNMPV2c over IPsec tunnels. The vendor expects to have SNMPv3 capability in the S-C6.3.0 release of code.
6. This requirement represents a new UCR requirement where the vendor has 18-months (July 2011) to comply. The vendor expects to have DSCP Policing capability available in code release S-CX6.3.x; which as of the date of this DTR4 memorandum is currently under test.
7. The DISA adjudicated this discrepancy as having a low operational impact because vendors have until July 2011 to comply with this requirement. The vendor expects to have DSCP Policing capability available in code release S-CX6.3.x; which as of the date of this DTR4 memorandum is currently under test.
8. The JITC was unable to test this requirement because it would require special test equipment that could communicate with an EBC using appropriate protocols and security processes. The JITC did not note any issues during the operation of the EBC attributable to packet transit time and therefore determined that the SUT met the overall requirement.
9. The SUT does not support the following required RFCs 1981, 2710, and 4862. Per email guidance from DISA, these RFCs are no longer applicable to EBCs.
10. The SUT supports portions of the following required RFCs 4022, 4113, and 4293. The IPv6 portions are under consideration for future development.
11. The SUT does not support Transport Layer Security over IPv6. The DISA adjudicated this discrepancy as having a low operational impact based on vendor submission of a PoAM addressing IPv6 discrepancies by 30 April 2011. The vendor expects to have DSCP Policing capability available in code release S-CX6.3.x; which as of the date of this DTR4 memorandum is currently under test.

LEGEND:

802.1Q	IEEE VLAN tagging standard	JITC	Joint Interoperability Test Command
AS-SIP	Assured Services Session Initiation Protocol	LoC	Letters of Compliance
CR	Capability Requirement	MFSS	Multifunction Softswitch
DISA	Defense Information Systems Agency	NM	Network Management
DSCP	Differentiated Services Code Point	NMS	NM System
EBC	Edge Boundary Controller	PoAM	Plan of Actions and Milestones
FCAPS	Fault, Configuration, Accounting, Performance, and Security	RFC	Request for Comments
FR	Functional Requirement	SIP	Session Initiation Protocol
H.323	ITU-T recommendation that defines audio-visual session protocols	SNMPv3	Simple Network Management Protocol version 3
		SS	Softswitch
ID	Identification	SUT	System Under Test
IEEE	Institute of Electrical and Electronics Engineers	TDRs	Test Discrepancy Reports
IPsec	Internet Protocol Security	UCR	Unified Capabilities Requirements
IPv6	Internet Protocol version 6	VLAN	Virtual Local Area Network
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector	VVoIP	Voice and Video over Internet Protocol

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). 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

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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: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil.

6. The JITC point of contact is Ms. Anita Mananquil, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to anita.l.mananquil.civ@mail.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The UCCO tracking number is 1021601.

FOR THE COMMANDER:

Enclosure a/s

for BRADLEY A. CLARK
Acting Chief
Battlespace Communications Portfolio

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ADDITIONAL REFERENCES

(c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008, Change 1," 22 January 2010
(d) Joint Interoperability Test Command, "Unified Capabilities Test Plan (UCTP)," October 2009
(e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Acme Packet Net-Net 3820 Session Director (SD) Edge Boundary Controller, Release 6.2.0 with specified patch releases," 30 September 2011
(f) Joint Interoperability Test Command, Memo, JTE, "Information Assurance (IA) Assessment of ACME Packet Session Director (SD) 3820 Release (Rel.) 6.2 (Tracking Number 1012601)," November 2009