



DEFENSE INFORMATION SYSTEMS AGENCY

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

23 Jan 13

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Cisco Unity Connection Software Release 8.6(1) with T1 Internet Protocol Media Gateway (TIMG) Interface with update of Engineering Special (ES) 4 to ES 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 (f), see Enclosure

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

2. The Cisco Unity Connection Software Release 8.6(1) with TIMG interface is hereinafter referred to as the System Under Test (SUT). The SUT meets all of its critical interoperability requirements and is certified as interoperable for joint use within the Defense Information Systems Network (DISN) as a Customer Premise Equipment voicemail system with the Siemens Elektronisches Wählsystem Digital, Avaya Communication Server (CS)2100, and Alcatel-Lucent Class 5 Electronic Switching System switching systems specifically with the Digital Transmission Link Level 1 (T1) and serial Simple Message Desk Interface (SMDI) interfaces and respective signaling, identified in Table 1. The SUT met the critical interoperability requirements set forth in Reference (c) using test procedures derived from Reference (d). Additionally, JITC analysis determined that the SUT is also certified for joint use with any version of the Alcatel-Lucent Compact Digital Exchange, Alcatel-Lucent Very Compact Digital Exchange, and Avaya Meridian Switching Load-100 switching systems listed on the Unified Capabilities (UC) Approved Products list (APL) that conform with the interface and signaling limitations described in Table 1. 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 the date of the original UC APL memorandum expiration (6 June 2015).

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, review of the vendor's Letters of Compliance (LoC), and DISA Certifying Authority (CA) Recommendation. Interoperability testing was conducted at JITC's Global Information Grid Network Test Facility, Fort Huachuca, Arizona from 5 through 15 July 2011. Review of the vendor's LoC was completed on 13 February 2012. The DISA CA provided a positive Recommendation on 30 May 2012 based

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on the security testing completed by DISA-led Information Assurance (IA) test teams and published in a separate report, Reference (f). This DTR was requested to update from ES 4 to ES 7. This release includes IA fixes and full Internet Protocol version 6 (IPv6) functionality. JITC determined Verification and Validation (V&V) testing was required prior to approval. JITC conducted IA and interoperability V&V testing from 17 through 21 December 2012 and successfully verified the changes associated with this DTR. The vendor also provided an LoC for the IPv6 requirements that were not tested. Therefore, JITC approves this DTR. The DISA CA provided a positive recommendation for this update on 23 January 2013. The results of the IA testing are published in a separate report, Reference (f).

4. The Functional Requirements (FR) used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 1. This interoperability test status is based on the SUT's ability to meet CPE voicemail system requirements specified in section 5 of Reference (c) verified through JITC testing and/or vendor submission of LoC.

Table 1. SUT FRs and Interoperability Status

Interface	Critical	Certified	FRs	Met	UCR Paragraph
EIA-232 Serial ¹ (SMDI)	No ²	Yes	ANSI/TIA/EIA-232-F (C)	Met	5.2.1.2
T1 ISDN PRI ³	No ²	Yes	PCM-24 (R)	Met	5.2.1.2.5
			FCC Part15/Part 68 (R)	Met	5.2.3.2
			DISR compliance as applicable (C)	Met	5.2.3.2
			CPE devices that support MLPP shall meet the requirements of UCR, Section 5 and shall not affect DISN interface features and functions associated with line supervision and control (C)	Met	5.2.1.2.5
			ROUTINE precedence only in accordance with UCR, Section 5.2 (R)	Met	5.2.1.2
T1 CAS (DTMF) E&M (Wink Start) ⁴	No ²	Yes	PCM-24 (R)	Met	5.2.1.2.5
			FCC Part15/Part 68 (R)	Met	5.2.3.2
			DISR compliance as applicable (C)	Met	5.2.3.2
			CPE devices that support MLPP shall meet the requirements of UCR, Section 5 and shall not affect DISN interface features and functions associated with line supervision and control (C)	Met	5.2.1.2.5
			ROUTINE precedence only in accordance with UCR, Section 5.2 (R)	Met	5.2.1.2
T1 CAS (DTMF) (Ground Start) ⁵	No ²	Yes	PCM-24 (R)	Met	5.2.1.2.5
			FCC Part15/Part 68 (R)	Met	5.2.3.2
			DISR compliance as applicable (R)	Met	5.2.3.2
			CPE devices that support MLPP shall meet the requirements of UCR, Section 5 and shall not affect DISN interface features and functions associated with line supervision and control (C)	Met	5.2.1.2.5
			ROUTINE precedence only in accordance with UCR, Section 3.3 (R)	Met	5.2.1.2
IP 1000BaseT (IEEE 802.3-2005)	No ²	Yes	Differentiated Service Code Point (R)	Met	5.2.12.8.2
			IPv6	Met ⁶	5.3.5
			IEEE 802.3u (C)	Met	5.3.3.12.4.2
			DISR compliance as applicable (C)	Met	5.2.3.2
Security	Yes		Security (R)	Met ⁷	3.2.3, 3.2.5

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Table 1. SUT FRs and Interoperability Status (continued)

NOTES:		
1. The SUT serial EIA-232 SMDI interface provides messaging interaction between the digital switching systems and the SUT (e.g. turn on and off the message waiting lamps and stutter dial tone etc.) and is required with the T1 interfaces.		
2. The UCR requirements for a CPE voicemail device do not stipulate a minimum interface requirement.		
3. The SUT T1 ISDN PRI interface is certified specifically with the following switching systems listed on the UC APL: Siemens EWSD, Alcatel-Lucent 5ESS, Alcatel-Lucent CDX, and Alcatel-Lucent VCDX.		
4. The SUT T1 CAS (DTMF) interface with E&M signaling is certified specifically with the following switching systems listed on the UC APL: Alcatel-Lucent 5ESS, Alcatel-Lucent CDX, and Alcatel-Lucent VCDX.		
5. The SUT T1 CAS (DTMF) interface with ground-start signaling is certified specifically with the following switching systems listed on the UC APL: Siemens EWSD, and Avaya CS2100, and Avaya MSL-100.		
6. SUT IPv6 capability was not included in the original certification. IPv6 capability was successfully demonstrated during the Verification and Validation testing conducted from 17 through 21 December in support of Desktop Review 1. The vendor also provided an LoC for the IPv6 requirements that were not tested.		
7. Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).		
LEGEND:		
5ESS	Class 5 Electronic Switching System	EIA-232-FStandard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) data communications devices
1000baseT	1000 Mbps (Baseband Operation, Twisted Pair) Ethernet	
802.3-2005	Local Area Network/metropolitan Area Network Carrier Sense Multiple Access/Collision Detection Access Method	EWSD Elektronisches Wählsystem Digital
802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	FCC Federal Communications Commission
A	Appendix	UCR Unified Capabilities Requirements
ANSI	American National Standards Institute	IEEE Institute of Electrical and Electronics Engineers, Inc.
APL	Approved Products List	IP Internet Protocol
C	Conditional	IPv6 Internet Protocol version 6
CAS	Channel Associated Signaling	ISDN Integrated Services Digital Network
CDX	Compact Digital Exchange	Mbps Megabits per second
CPE	Customer Premise Equipment	MSL Meridian Switching Load
CS	Communication Server	PCM-24 Pulse Code Modulation - 24 Channels
DISA	Defense Information Systems Agency	PCM-30 Pulse Code Modulation - 30 Channels
DISN	Defense Information Systems Network	PRI Primary Rate Interface
DISR	Department of Defense Information Technology Standards Registry	R Required
DSCP	Differentiated Service Code Point	SMDI Simple Message Desk Interface
DTMF	Dual Tone Multi-Frequency	SUT System Under Test
E&M	Ear and Mouth	T1 Digital Transmission Link Level 1 (1.544 Mbps)
EIA	Electronic Industries Alliance	TIA Telecommunications Industry Association
		UC Unified Capabilities
		VCDX Very Compact Digital Exchange

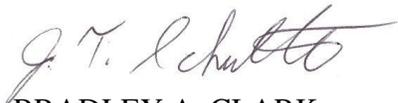
5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). 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 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. All associated data is available on the DISA UCCO website located at <http://www.disa.mil/ucco/>.

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6. The JITC point of contact is CPT Jonathan Kim, DSN 879-5182, commercial (520) 538-5182, FAX DSN 879-4347, or e-mail to jonathan.s.kim.mil@mail.mil. JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The UCCO tracking number for the SUT is 1109804.

FOR THE COMMANDER:

Enclosure a/s


for BRADLEY A. CLARK
Acting Chief
Battlespace Communications Portfolio

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DIA, Office of the Acquisition Executive
NSG Interoperability Assessment Team
DOT&E, Netcentric Systems and Naval Warfare
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ADDITIONAL REFERENCES

- (c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008 Change 2," December 2010.
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Cisco Unity Connection Software Release 8.6(1) with T1 Internet Protocol Media Gateway (TIMG) Interface," 1 June 2012
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Cisco Unity Connection Release (Rel.) 8.6 with (w)/ Transmission Carrier 1 Internet Protocol Media Gateway (TIMG) 6.0 Service Update (SU) 8 (Tracking Number 1109804)," Draft