



## DEFENSE INFORMATION SYSTEMS AGENCY

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

**23 Jan 12**

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Cisco Codian Media Services Engine (MSE) 8000 Version 2.0 (1.13)

**References:** (a) DoD Directive 4630.5, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004  
(b) CJCSI 6212.01D, "Interoperability and Supportability of Information Technology and National Security Systems," 8 March 2006  
(c) through (e), see Enclosure

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 Cisco Codian MSE 8000 Version 2.0 (1.13) is hereinafter referred to as the System Under Test (SUT). The SUT met all the critical interface and functional interoperability requirements and is certified for joint use within the Defense Switched Network (DSN) as a Video Teleconferencing (VTC) system. The SUT also met the conditional requirements for an Internet Protocol (IP) interface with the International Telecommunication Union – Telecommunication Standardization Sector (ITU-T) H.323 protocol; however, Assured Service is not yet defined for an IP interface with ITU-T H.323 protocol. Therefore, Command and Control (C2) VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol. The SUT meets the critical interoperability requirements set forth in Reference (c) 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 the original certification; 10 November 2009.
3. The extension of this certification is based on Desktop Review (DTR) 2. The original certification is based on interoperability testing conducted by JITC, review of the vendor's Letters of Compliance (LoC), and Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 15 through 26 June 2009. Regression testing of a patch to fix two interoperability discrepancies was conducted on 12 August 2009. Review of the vendor's LoC was completed on 20 July 2009. DSAWG granted accreditation on 10 November 2009 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (e). This DTR was

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requested to include the addition of a 8330 Serial Gateway and the upgrade of the Codian MSE 8050 Supervisor Software from 2.0 to 2.1. Based on DTR review, JITC determined that Verification and Validation (V&V) testing was required prior to approval. JITC V&V testing of the SUT with these DTR updates was successfully completed from 8 through 12 August 2011 with some minor discrepancies which include:

1. The 8330 Serial Gateway, when configured from the Graphic User Interface cannot configure the H.323 signaling packets with a Differentiated Services Code Point (DSCP) tag of any value. As a result, the H.323 signaling packets are set to a DSCP value of 0 (best effort). However the SUT can properly assign DSCP values to all video and voice packets.

2. The SUT can't properly tag the Operation, Administration and Management (OA&M) DSCP packets as required by the UCR 2008.

These two discrepancies were adjudicated by DISA as having a minor operational impact with a vendor POA&M to fix each discrepancy by 1 September 2012.

Additionally, the SUT 8330 Serial Gateway fails to establish video calls at 336 kilobits per second (kbps) with some tandem call strings. All other data rates established correctly. This was adjudicated by DISA as minor without a POA&M but with the condition of fielding that the SUT is certified with N x 64 kbps data rates and not N x 56 kbps.

The IA posture of this DTR did not change; therefore, the DSWAG approval date of 10 November 2009 remains the same.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 1.

**Table 1. SUT Functional Requirements and Interoperability Status**

Interface	Critical	Certified	Requirements Required or Conditional	Status	UCR Reference
IP 10/100 Mbps (ITU-T H.323)	No <sup>1</sup>	Yes <sup>2</sup>	The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R)	Met	5.2.12.4.5
			ITU-T H.323 in accordance with FTR 1080B-2002 (C)	Met	5.2.12.4.5
			Layer 3 Differential Service Code Point tagging as specified in UCR, 5.2.12.8.2.9 (C)	Met	5.2.12.4.5
			A loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees on the videoconference (R)	Met	5.2.12.4.5
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with UCR, 5.2.12.3 (CPE) (C)	Met	5.2.12.4.5
			Physical, electrical, and software characteristics shall not degrade or impair switch and associated network operations (R)	Met	5.2.12.4.5

**Table 1. SUT Functional Requirements and Interoperability Status (continued)**

Interface	Critical	Certified	Requirements Required or Conditional	Status	UCR Reference
Serial EIA-530	No <sup>1</sup>	Yes	The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R)	Partially Met <sup>3</sup>	5.2.12.4.5
			Layer 3 Differential Service Code Point tagging as specified in UCR, 5.2.12.8.2.9 (C)	Partially Met <sup>4</sup>	5.2.12.4.5
			A loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees on the videoconference (R)	Met	5.2.12.4.5
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with UCR, 5.2.12.3 (CPE) (C)	Met	5.2.12.4.5
			Physical, electrical, and software characteristics shall not degrade or impair switch and associated network operations (R)	Met	5.2.12.4.5
ISDN PRI T1, ISDN PRI E1 (ITU-T H.320)	No <sup>1</sup>	Yes	The VTC system/endpoints shall meet the requirements of FTR 1080B-2002 (R)	Met	5.2.12.4.5
			A loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees on the videoconference (R)	Met	5.2.12.4.5
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with UCR, 5.2.12.3 (CPE) (C)	Met	5.2.12.4.5
			Integrated PRI interface shall be in conformance with IAS requirements in UCR, 5.2.12.7 (IAS) (C)	Met	5.2.12.4.5
			Physical, electrical, and software characteristics of VTU system(s)/endpoint(s) that are used in the DSN network shall not degrade or impair the serving DSN switch and its associated network operations.(R)	Met	5.2.12.4.5
Security	Yes	Certified	GR-815, STIGs, and DoDI 8510.bb (DIACAP) (R)	Met <sup>5</sup>	3.2.3, 3.2.5, and 5.4.6.1

**NOTES:**

- 1 The VTC system interface requirements can be met with ISDN PRI, Serial, or ISDN BRI. In addition the SUT may include an ITU-T H.323 conditional interface.
- 2 The SUT also met the conditional requirements for an IP interface with the ITU-T H.323 protocol; however, Assured Service is not yet defined for an IP interface with ITU-T H.323 protocol. Therefore, C2 VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol. Furthermore, the SUT does not offer IPv6, however, this requirement is currently a conditional requirement for an MCU or VTU. This requirement will be changed as required in the UCR Change 1. In the interim OSD has issued an interim rules of engagement dated 23 June 2009, and the vendor will have 18 months from this date to comply. There is no operational impact.
3. The 8330 Serial to IP gateway fails to establish 336 Kbps with some tandem switching call strings. This was adjudicated by DISA on 20 December 2011 as having a minor operational impact with the stipulation that the SUT is certified for N x 64 Kbps bonded calls only. The N x 56 Kbps bonded calls are not certified for use with the SUT.
4. The 8330 Serial Gateway cannot configure the H.323 signaling packets with a Differentiated Services Code Point (DSCP) tag of any value. As a result, the H.323 signaling packets are set to a DSCP value of 0 (best effort). However the SUT can properly assign DSCP values to all video and voice packets. The 8330 Serial Gateway cannot properly assign DSCP tag to any of the Operation, Administration and Management (OA&M) packets as required by the UCR 2008. These discrepancies were adjudicated by DISA on 20 December 2011 as having a minor operational impact with the vendor's plan of action and milestone to fix by 1 September 2012.
- 5 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).

**Table 1. SUT Functional Requirements and Interoperability Status (continued)**

LEGEND:			
BRI	Basic Rate Interface	IAS	Integrated Access Switch
C	Conditional	IP	Internet Protocol
C2	Command and Control	IPv6	Internet Protocol version 6
CPE	Customer Premise Equipment	ISDN	Integrated Services Digital Network
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
DISA	Defense Information Systems Agency	Kbps	Kilobits per Second
DoDI	Department of Defense Instruction	Mbps	Megabits per seconds
DSCP	Differentiated Services Code Point	MCU	Multipoint Control Unit
DSN	Defense Switched Network	OA&M	Operation, Administration and Maintenance
E1	European Basic Multiplex Rate (2.048 Mbps)	OSD	Office of the Secretary of Defense
EIA	Electronic Industries Association	PRI	Primary Rate Interface
FTR	Federal Telecommunications Recommendation	R	Required
GR	Generic Requirement	STIGs	Security Technical Implementation Guides
GR-815	Generic Requirements For Network Element/Network System (NE/NS) Security	SUT	System Under Test
H.320	Standard for narrowband VTC	T1	Digital Transmission Link Level 1 (1.544 Mbps)
H.323	Standard for multi-media communications on packet-based networks	UCR	Unified Capabilities Requirements
		VTC	Video Teleconferencing
		VTU	Video Teleconferencing Unit

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 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](mailto:ucco@disa.mil).

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6. The JITC point of contact is Mr. Steven Lesneski, DSN 879-5400, commercial (520) 538-5400, FAX DSN 879-4347, or e-mail to steven.lesneski@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0818201.

FOR THE COMMANDER:

Enclosure a/s

  
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Office of Assistant Secretary of Defense (NII)/DOD CIO

U.S. Joint Forces Command, Net-Centric Integration, Communication, and Capabilities 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, "Information Assurance (IA) Assessment of Tandberg Codian Media Service Engine (MSE) 8000 Version 2.0(1 rev 13) (Tracking Number 0818201)," 10 November 2009