



DEFENSE INFORMATION SYSTEMS AGENCY

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

14 Dec 11

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Cisco Media Experience (MXP) family to include the 6000 MXP, 3000 MXP, 1000 MXP, Edge 95 MXP, and the 1700 MXP with software release F7.3.1

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 (f), 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 Special Interoperability Test Certification of the Cisco MXP family to include the 6000 MXP, 3000 MXP, 1000 MXP, Edge 95 MXP, and the 1700 MXP with software release F7.3.1 are hereinafter referred to as the System Under Test (SUT). The SUT met all the critical interface and functional interoperability requirements of the Unified Capabilities Requirements Section 5.2.12.4, and is certified for joint use within the Defense Switched Network (DSN) as a Video Teleconferencing (VTC) system. The SUT meets the critical interoperability requirements for serial interfaces; however, the serial interfaces must connect to an Integrated Access Switch (IAS) or Terminal Adapter (TA), which provides an inverse multiplex capability and a direct interface to the DSN. The SUT is certified with any IAS or TA on the Unified Capabilities (UC) Approved Products List. 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 this memorandum.
3. The extension of this certification is based upon Desktop Review (DTR) 2. The original certification is based on interoperability testing conducted by JITC, review of the vendor's

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Special Interoperability Test Certification of the Cisco Media Experience (MXP) family to include the 6000 MXP, 3000 MXP, 1000 MXP, Edge 95 MXP, and the 1700 MXP with software release F7.3.1.

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 9 February through 6 March 2009. Review of the LoC was completed on 6 March 2009. DSAWG grants accreditation based on the security testing completed by DISA-led Information Assurance test teams and published in a separate report, Reference (e). DSAWG accreditation was granted on 12 May 2009. The Certification Testing Summary (Enclosure 2) documents the test results and describes the test configuration. All testing was conducted on Tandberg® VTC codecs, which have all been renamed to Cisco® VTC codecs because Cisco® purchased Tandberg® in 2010. The product names have not changed. This DTR was requested to upgrade from Version F9.0.2 to F9.1 which includes:

- On screen display call flash
- Serial port password protection
- H.323: Extended support for alternate gatekeepers in reject message from gatekeeper

JITC determined that there was minor risk in approving this DTR without further testing. The version upgrade is non interoperability affecting and provides additional enhancements provided with their normal maintenance cycle of commercial patch updates. The IA posture of this DTR did not change; therefore, the DSAWG accreditation date of 12 May 2009 remains the same.

4. The SUT certified hardware and software components and their supported interfaces are listed in Table 1. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 2.

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Table 1. SUT Certified Hardware Components

	Tested Component ¹	Component Certified by Similarity	Supported Interfaces
SUT Release F7.3.1	<u>Cisco 6000 MXP</u>	Cisco 6000 MXP Portable	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI, ISDN PRI T1, ISDN PRI E1, and the following Serial interfaces: EIA-366A, EIA-449, ITU-T V.35 ²
		Cisco Maestro MXP	
		Cisco Educator MXP	
		Cisco Collaborator	
		Cisco 8000 MXP	
	<u>Cisco 3000 MXP</u>	Cisco 3000 MXP Portable	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI, and the following Serial interfaces: EIA-366A, EIA-449, ITU-T V.35 ²
		Cisco Profile 3000 MXP	
		Cisco 880 MXP	
		Cisco 770 MXP	
		Cisco 990 MXP	
		Cisco Tactical MXP	
	<u>Cisco Edge 95 MXP</u>	Cisco MediaPlace	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI
		Cisco Intern MXP	IP (10/100 Mbps with ITU-T H.323 protocol)
		Cisco MediaPlus	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI
	<u>Cisco 1000 MXP</u>	Cisco Edge 85 MXP	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI
		Cisco Edge 75 MXP	
	<u>Cisco 1700 MXP</u> ³	Cisco Compass MXP	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN BRI
		Cisco Utility MXP	
			Cisco 150 MXP
NOTES:			
1 Components bolded and underlined were tested by JITC. The other components in the family series were not tested; however, they utilize the same software and hardware and JITC analysis determined them to be functionally identical for interoperability certification purposes and they are also certified for joint use.			
2 The electrical physical interface tested was ITU-T V.35 in accordance with ITU-T V.36/V.37.			
3 The 1700 MXP and 150 MXP are IP only codecs and require the use of an ITU-T H.323 to ITU-T H.320 gateway solution in order to connect to the DSN. In testing, JITC has found minimal risk in certifying this with any ITU-T H.323 to ITU-T H.320 gateways certified and on the UC APL.			
ACRONYMS:			
APL	Approved Products List	Mbps	Megabits per second
BRI	Basic Rate Interface	MXP	Media Experience
DSN	Defense Switched Network	PRI	Primary Rate Interface
E1	European Basic Multiplex Rate (2.048 Mbps)	SUT	System Under Test
EIA	Electronic Industries Alliance	T1	Digital Transmission Link Level 1 (1.544 Mbps)
EIA-366A	Standard for interface between DTE and automatic calling equipment for data communication	UC	Unified Capabilities
EIA-449	Standard for 37-position and 9-position interface for DTE and DCE employing serial binary data interchange	V.35	Standard for data transmission at 48 kbps using 60-108 kHz group band circuits
H.320	Standard for narrowband VTC	V.36	Modems for synchronous data transmission using 60-108 kHz group band circuits
H.323	Standard for multi-media communications on packet-based networks	V.37	Synchronous data transmission at a data signaling rate higher than 72 kbps using 60-108 kHz group band circuits
IP	Internet Protocol	VTC	Video Teleconferencing
ISDN	Integrated Services Digital Network		
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector		

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Table 2. 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 ¹	Yes ²	The VTC system/endpoints shall meet the requirements of FTR 1080B-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
ISDN BRI	No ¹	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 BRI interface shall be in conformance with Terminal Adaptor requirements in UCR, 5.2.12.3 (CPE) (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
ISDN PRI T1 ³ ISDN PRI E1 ³	No ¹	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
Serial Interfaces: ^{3,4} EIA-366A EIA-449 ITU-T V.35 ⁵	No ¹	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
			Connections shall be in conformance with the requirements for serial interface(s) as described in FTR 1080B-2002 (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
	Yes	Certified	Security (IA/DIACAP) (R)	Met ⁶ .	5.2.12.4.5

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Table 2. SUT Functional Requirements and Interoperability Status (continued)

NOTES:			
1	The VTC system interface requirements can be met with an ISDN BRI, ISDN PRI, Serial, or ITU-T H.323 interface.		
2	The SUT also met the requirements for the ITU-T H.323 interface standard; however, Assured Service is not yet defined for the ITU-T H.323 interface. Since ITU-T H.323 interfaces do not provide Assured Services during a crisis or contingency, users' access to the DSN will be on a best effort basis. Therefore, C2 VTC users and Special C2 VTC users are not authorized to be served by an ITU-T H.323 interface.		
3	These interfaces are only supported on the 6000 MXP. No other MXP product supports these interfaces.		
4	The SUT meets the critical interoperability requirements for serial interfaces; however, the serial interfaces must connect to an IAS or TA which provides an inverse multiplex capability and a direct interface to the DSN. The SUT is certified with any IAS or TA on the Unified Capabilities (UC) Approved Products List (APL).		
5	The electrical physical interface tested was ITU-T V.35 in accordance with ITU-T V.36/V.37.		
6	Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).		
LEGEND:			
BRI	Basic Rate Interface	ISDN	Integrated Services Digital Network
C	Conditional	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
C2	Command and Control	JITC	Joint Interoperability Test Command
CPE	Customer Premise Equipment	kbps	kilobits per second
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process	kHz	kiloHertz
DISA	Defense Information Systems Agency	Mbps	Megabits per seconds
DSN	Defense Switched Network	PRI	Primary Rate Interface
E1	European Basic Multiplex Rate (2.048 Mbps)	R	Required
EIA	Electronic Industries Alliance	SUT	System Under Test
EIA-366A	Standard for interface between data terminal equipment and automatic calling equipment for data communication	T1	Digital Transmission Link Level 1 (1.544 Mbps)
EIA-449	Standard for 37-position and 9-position interface for data terminal equipment and data circuit-terminating equipment employing serial binary data interchange	TA	Terminal Adapter
FTR	Federal Telecommunications Recommendation	UCR	Unified Capabilities Requirements
H.320	Standard for narrowband VTC	V.35	Standard for data transmission at 48 kbps using 60-108 kHz group band circuits
H.323	Standard for multi-media communications on packet-based networks	V.36	Modems for synchronous data transmission using 60-108 kHz group band circuits
IA	Information Assurance	V.37	Synchronous data transmission at a data signaling rate higher than 72 kbps using 60-108 kHz group band circuits
IAS	Integrated Access Switch	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.

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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 0831501.

FOR THE COMMANDER:

Enclosure a/s


for BRADLEY A. CLARK
Chief
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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 The Cisco MXP family to include the 6000 MXP, 3000 MXP, 1000 MXP, Edge 95 MXP, and the 1700 MXP with software release F7.3.1,” 12 May 2009
- (f) Joint Interoperability Test Command, Memo, JTE, “Special Interoperability Test Certification of the Cisco Media Experience (MXP) family to include the 6000 MXP, 3000 MXP, 1000 MXP, Edge 95 MXP, and the 1700 MXP with software release F7.3.1,” 3 June 2009