



## DEFENSE INFORMATION SYSTEMS AGENCY

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

**9 Oct 12**

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Cisco® Codec Quick Set C20, Codec C60, Codec C90, and Personal Telepresence EX90 from Version TC3.5.0 to Version TC3.5.2 with Video Communication Server (VCS) from Version X5.1 to Version X6.1

**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 (g), 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 Cisco® Codec Quick Set C20, Codec C60, Codec C90, and Personal Telepresence EX90 Version TC3.5.0 with VCS Version X5.1, are hereinafter referred to as the system under test (SUT). The Cisco® Codec Quick Set C20, Codec C60, Codec C90, and Personal Telepresence EX90 are Video Teleconferencing (VTC) codecs that only have an Internet Protocol (IP) (10/100 Megabits per second) interface. The VCS provides the core network services that are required for the C-Series Codec Family to operate. These services include, call switching, call admission control, address resolution, and endpoint registration and class of service. The SUT met all of the critical interface and functional interoperability requirements and is certified for use within the DSN as a VTC system. The SUT also met the conditional requirements for an 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 the SUT for ITU-T H.323 to ITU-T H.323 protocol VTC sessions. The SUT only offers an IP interface; therefore, the SUT requires an IP to Time Division Multiplexing (TDM) gateway to connect to the DSN. The SUT was tested with the Cisco® Codian 3241 Integrated Services Digital Network (ISDN) gateway version 2.0. The SUT is certified for use with any gateway listed on the Unified Capabilities Approved Products List. 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

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changes that affect interoperability, but no later than three years from the date of the original Unified Capabilities (UC) Approved Products List (APL) memorandum (24 September 2010).

3. The extension of this certification is based upon Desktop Reviews (DTR) 3 and 5. The original certification is based on interoperability testing, DISA adjudication of Test Discrepancy Reports (TDRs), 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 the Telecommunication Systems Security Assessment Program (TSSAP), 346<sup>th</sup> Test Squadron, 318<sup>th</sup> Information Operations Group (IOG), San Antonio, Texas, from 1 through 12 March 2010 and documented in Reference (e). The DISA adjudication of open TDRs was completed on 26 January 2010. Review of the LoC was completed on 16 September 2010. The DSAWG granted accreditation on 16 August 2010 based on the security testing completed by Department of Defense (DoD) Component lab IA test teams and published in a separate report, Reference (f). DTR 3 was requested to include version TC3.5.2, which supports Internet Protocol version 6 (IPv6) but is not dual stack-capable. TSSAP conducted Verification and Validation (V&V) testing for DTR 3 on 30 March 2011. DTR 5 was requested to include version TC3.5.2 and VCS version X6.1. These software updates in DTR5 include IPv6 with the dual stack capability and additional security patches. The VCS with version X6.1 is a required component of the SUT to allow for dual stack functionality of Internet Protocol version 4 (IPv4) and IPv6 video endpoints. TSSAP conducted V&V testing for DTR 5 on 22 August 2011. Review of the vendor’s LoC was completed on 16 May 2012. Both DTR3 and DTR 5 include IPv6 and DTR5 additionally adds security patches, all of which do not affect Assured Services. Therefore, JITC approves these DTRs. The DISA CA approved the new configuration on 11 July 2012 based on review of the DoD component lab IA test teams updated report, Reference (g).

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	Functional Requirements	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 <sup>3</sup>	5.2.4.2
			ITU-T H.323 in accordance with FTR 1080B-2002. (C)	Met	5.2.4.2
			Layer 3 Differentiated Services Code Point tagging as specified in UCR 2008, Change 1, Section 5.3.1. (C)	Met	5.2.4.2
			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	5.2.4.2
			Physical, electrical, and software characteristics shall not degrade or impair switch and associated network operations. (R)	Met	5.2.4.2
			The VTU IP interface must be IPv6 capable. (R)	Met <sup>2</sup>	Table 5.3.5.1
Security	Yes	Certified	GR-815, STIGs and DoDI 8510.bb (DIACAP) (R)	Met <sup>4</sup>	3, 5.4.6

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

<b>NOTES:</b>			
1. The UCR does not state a minimum required interface for a VTC. A VTC can offer any one of the following interfaces: ISDN BRI, Serial, T1 ISDN PRI, E1 ISDN PRI, and IP. The SUT consists of VTC codecs and a video communication server. The SUT only offers an IP (i.e. ITU-T H.323) interface; therefore, the SUT requires an IP to TDM gateway to connect to the DSN. The SUT was tested with the Cisco® Codian 3241 ISDN gateway version 2.0. The SUT is certified for use with any gateway listed on the UC APL.			
2. The SUT 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. The SUT did not support IPv6 during the original certification test. The ASD/NII granted a waiver for IPv6 until 1 January 2011. As part of the waiver stipulations in accordance with Department of Defense rules of engagement for waivers, the vendor must submit a request by 31 December 2010 to have IPv6 tested before 31 March 2011. The vendor submitted DTR 3 to request V&V testing of version TC3.5.2 to demonstrate IPv6 capability. The vendor submitted DTR 5 to request V&V testing of version TC3.5.2 and include VCS version X6.1 to demonstrate IPv6 capability. The SUT is certified for IPv6 with version TC3.5.2 and VCS version X6.1 based on this V&V testing and JITC review of the vendor's Letters of Compliance. The VCS with release X6.1 is a required component of the SUT to allow for dual stack functionality of Internet Protocol version 4 (IPv4) and IPv6 video endpoints.			
3. The SUT does not support NX56 bonding in accordance with the FTR 1080B-2002. This discrepancy was adjudicated by DISA on 26 January 2010 as having a minor operational impact.			
4. Security is tested by Department of Defense Component lab Information Assurance test teams and published in separate reports, References (f) and (g).			
<b>LEGEND:</b>			
APL	Approved Products List	IP	Internet Protocol
ASD/NII	Assistant Secretary of Defense for Networks and Information Integration	IPv6	Internet Protocol version 6
BRI	Basic Rate Interface	ISDN	Integrated Services Digital Network
C	Conditional	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
C2	Command and Control	Mbps	Megabits per second
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process	NX56	56 kilobits per second bit rate in N increments
DISA	Defense Information Systems Agency	PRI	Primary Rate Interface
DoDI	Department of Defense Instruction	R	Required
DSN	Defense Switched Network	STIGs	Security Technical Implementation Guides
DTR	Desktop Review	SUT	System Under Test
E1	European Basic Multiplex Rate (2.048 Mbps)	TDM	Time Division Multiplexing
FTR	Federal Telecommunications Recommendation	T1	Digital Transmission Link Level 1 (1.544 Mbps)
FTR1080B-2002	Video Teleconferencing Services	UCR	Unified Capabilities Requirements
GR	Generic Requirements	V&V	verification and validation
GR-815	Generic Requirements for Network Element/System Security	VCS	Video Communication Server
H.323	Standard for multi-media communications on packet-based networks	VTC	Video Teleconferencing
		VTU	Video Telephony Unit

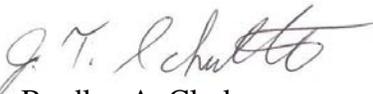
5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). 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](mailto:disa.meade.ns.list.unified-capabilities-certification-office@mail.mil).

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6. The JITC point of contact is Mr. Dale Fulton, DSN 879-0507, commercial (520) 538-0507, FAX DSN 879-4347, or e-mail to dale.h.fulton.civ@mail.mil. JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0929501.

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, "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® Codec Quick Set C20, Codec C60, Codec C90, and Personal Telepresence EX90 Version TC3.5.0 with Video Communication Server (VCS) Version X5.1," 21 September 2010
- (f) Air Force Test Facility, "Information Assurance (IA) Assessment of Cisco®, C-Series Codec Family version TC3.5.0 with VCS version X5.1 (Tracking Number 0929501)," 16 August 2010
- (g) Air Force Test Facility, "Information Assurance (IA) Assessment of Cisco®, C-Series Codec Family version TC3.5.2 with VCS version X6.1 (Tracking Number 0929501)," Draft