DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) 22 Dec 11

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of selected models from the Polycom High Definition Experience (HDX) family for the 9000 Series, 8000 High Definition (HD) Series, 7000 Series HD, 6000 HD, and 4000 HD Series with Software Release upgraded from version 2.7.0_J to 2.7.1_J

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 (e), see Enclosure 1

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 Polycom HDX 9004 and 9006 Rev. B Series, HDX 8000 HD Rev. A and B Series, HDX 7000 Rev. A, B and C Series, HDX 6000 HD, and HDX 4000 HD Rev. C Series with Software Release 2.7.0_J are hereinafter referred to as the System Under Test (SUT). The SUT meets all of its critical interface and functional interoperability requirements and is certified for joint use within the Defense Information System Network (DISN) as a Video Teleconferencing (VTC) system. The HDX 6000 HD codec (Internet Protocol (IP) only) is also certified, but not with Command and Control (C2) or Special C2 users unless the codec is connected to a certified IP to Time Division Multiplexing (TDM) gateway that interfaces with the Defense Switch Network. The Converged Management Application (CMA) provides remote centralized management of HDX video endpoints using a secure web interface and is certified as an optional management system with the SUT. The Polycom HDX 9002 and 9001models employ the same software and similar hardware as the Polycom HDX 9004. The Polycom HDX 8006, 8004, and 8002 employ the same software and similar hardware as the Polycom HDX 8000 HD Rev A and B. The Polycom HDX 7002 and 7001 employ the same software and similar hardware as the Polycom HDX 7000 HD Rev A, B, and C. The Polycom HDX 4002 and 4001 employ the same software and similar hardware as the Polycom HDX 4000 HD. The JITC analysis determined these systems to be functionally identical to the SUT for interoperability certification purposes and they are also certified for joint use. A summary of all models certified is provided in Table 1.

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of selected models from the Polycom High Definition Experience (HDX) family for the 9000 Series, 8000 High Definition (HD) Series, 7000 Series, 6000 HD, and 4000 HD Series using Software Release upgraded from 2.7.0_J to 2.7.1_J

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, 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. However, the SUT is certified for C2 and Special C2 VTC sessions via the TDM interfaces. 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 DISA Certifying Authority (CA) positive recommendation. The DISA CA recommendation was also referenced in the base certification as the Defense Information Assurance (IA) Security Accreditation Working Group (DSAWG) accreditation however the DSAWG should not have been referenced.

3. The extension of this certification is based upon Desktop Review (DTR) 1. The original certification is based on interoperability testing conducted by JITC, review of the vendor's Letters of Compliance (LoC), and DISA Certification and Accreditation (CA) Recommendation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 7 March through 25 March 2011. Review of the vendor's LoC was completed on 16 May 2011. The DISA CA provided a positive recommendation on 22 June 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (e) and (f). Note that reference (f) was not included in the base certification, this reference is IA assessment report for the CMA. This DTR was requested to meet the vendor's Plan of Actions & Milestones commitments as identified in Table 2 notes. Polycom HDX was upgraded from version 2.7.0_J to 2.7.1_J to correct TDRs 27J003 and 27J006. Polycom CMA version 5.2.0J was updated with Patch 7 to correct TDRs 27J004 and 27J005. JITC determined there was minor risk in approving this DTR without further testing as it does not change the security posture.

4. The SUT tested VTC systems and other VTC systems also certified by similarity are depicted in Table 1. The Functional Requirements used to evaluate the interoperability of the SUT, certified interfaces and the interoperability statuses are indicated in Table 2.

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Table 1. SUT VTC Systems and other VTC Systems Certified by Similarity

	Tested VTC System[1]	VTC System Certified by Similarity	Supported Interfaces
SUT Release 2.7.1_J	Polycom HDX 9004, 9006	Polycom HDX 9002	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, EIA-530, ITU-T V.35[2]
		Polycom HDX 9001	
	Polycom HDX 8000 HD (Rev A and B)	Polycom HDX 8006	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, EIA-530, ITU-T V.35[2]
		Polycom HDX 8004	
		Polycom HDX 8002	
	Polycom HDX 7000 HD (Rev A, B, and C)	Polycom HDX 7002	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, EIA-530, ITU-T V.35[2]
		Polycom HDX 7001	
	Polycom HDX 6000 HD[3]	NA	IP (10/100 Mbps with ITU-T H.323 protocol)
	Polycom HDX 4000 HD	Polycom HDX 4002	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, EIA-530, ITU-T V.35[2]
		Polycom HDX 4001	

NOTES:

1 These VTC systems were tested by JITC. The other VTC systems 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 HDX 6000 is an IP only codec and requires 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 as a component to other certified VTC systems.

LEGEND:

APL	Approved Products List	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
BRI	Basic Rate Interface	JITC	Joint Interoperability Test Command
DCE	Data Circuit-Terminating Equipment	kbps	kilobits per second
DSN	Defense Switched Network	kHz	kilohertz
DTE	Data Terminal Equipment	Mbps	Megabits per second
E1	European Basic Multiplex Rate (2.048 Mbps)	NA	Not Applicable
EIA	Electronic Industries Alliance	PRI	Primary Rate Interface
EIA-366A	Standard for interface between DTE and automatic calling equipment for data communication	Rev	Revision
EIA-449	Standard for 37-position and 9-position interface for DTE and DCE employing serial binary data interchange	SUT	System Under Test
		T1	Digital Transmission Link Level 1 (1.544 Mbps)
EIA-530	Standard for 25-position interface for DTE and DCE employing serial binary data interchange	UC	Unified Capabilities
		V.35	Standard for data transmission at 48 kbps using 60-108 kHz group band circuits
H.320	Standard for narrowband VTC		
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
HD	High Definition	V.37	Synchronous data transmission at a data signaling rate higher than 72 kbps using 60-108 kHz group band circuits
HDX	High Definition Experience		
IP	Internet Protocol	VTC	Video Teleconferencing
ISDN	Integrated Services Digital Network		

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 FTR1080B-2002. (R)	Met	5.2.4.2
			ITU-T H.323 in accordance with FTR 1080B-2002. (C)	Met	5.2.4.2
			Layer 3 Differential Service Code Point tagging as specified in the UCR, Section 5.3.1. (C)	Met	5.3.3.3.2
			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
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with the UCR, Section 5.2.3. (C)	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
			VTU IP interface must be IPv6 capable and meet the Simple Server/Network Appliance IPv6 profile (R)	Partial Met[3]	5.3.5.2
ISDN BRI	No[1]	Yes	The VTC system/endpoints shall meet the requirements of FTR1080B-2002. (R)	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
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with the UCR, Section 5.2.3. (C)	Met	5.2.4.2
			Integrated BRI interface shall be in conformance with the requirements associated with a TA as described in the UCR, Section 5.2.3. (C)	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
ISDN PRI T1 ISDN PRI E1	No[1]	Yes	The VTC system/endpoints shall meet the requirements of FTR1080B-2002. (R)	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
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with the UCR, Section 5.2.3. (C)	Met	5.2.4.2
			Integrated PRI interface shall be in conformance with IAS requirements in the UCR, Section 5.2.6. (C)	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
Serial Interfaces: EIA-366A EIA-449 EIA-530 ITU-T V.35[4]	No[1]	Yes	The VTC system/endpoints shall meet the requirements of FTR1080B-2002. (R)	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
			Audio add-on interface, implemented independently of an IAS, shall be in accordance with the UCR, Section 5.2.3. (C)	Met	5.2.4.2
			Connections shall be in conformance with the requirements for serial interface(s) as described in FTR 1080B-2002. (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
Security	Yes	Certified	GR-815, STIGs, and DoDI 8510.bb (DIACAP) (R)	See note 5.	4.3.1 and 5.4.6.1

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

NOTES:

1 The VTC system interface requirements can be met with ISDN PRI, Serial, or ISDN BRI. In addition the SUT may include an IP 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. However, the SUT is certified for C2 and Special C2 VTC sessions via the TDM interfaces. The HDX 6000 HD is certified for C2 and Special C2 VTC sessions via a certified gateway with the TDM interfaces.

3 The SUT met all of the IPv6 requirements for a VTC system with the following exceptions stipulated in the vendors letter of compliance that were adjudicated by DISA on 31 May 2011 as having a minor operational impact with the vendors delivered Plan of Action and Milestones (PoAM) of December 2011 to resolve:

- The SUT does not support Duplicate Address Detection (TDR 27J003).
- The SUT does not fully meet the ability to disable or enable Destination Unreachable Messages. (TDR 27J004)
- The SUT does not have capability to toggle Messages sent to any-cast or multi-cast. (TDR 27J005)
- The SUT only supports LDAP over IPv4 at this time. (TDR 27J006)

4 The electrical physical interface tested was ITU-T V.35 in accordance with ITU-T V.36/V.37.

5 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).

LEGEND:

ASD/NII	Assistant Secretary of Defense for Networks and Information Integration	HD	High Definition
BRI	Basic Rate Interface	HDX	High Definition Experience
C	Conditional	IAS	Integrated Access Switch
C2	Command and Control	IP	Internet Protocol
CPE	Customer Premise Equipment	IPv6	Internet Protocol version 6
DCE	Data Circuit-Terminating 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	kHz	kilohertz
DSN	Defense Switched Network	Mbps	Megabits per seconds
DTE	Data Terminal Equipment	MCU	Multipoint Control Unit
E1	European Basic Multiplex Rate (2.048 Mbps)	OSD	Office of the Secretary of Defense
EIA	Electronic Industries Alliance	PRI	Primary Rate Interface
EIA-366A	Standard for interface between DTE and automatic calling equipment for data communication	R	Required
EIA-449	Standard for 37-position and 9-position interface for DTE and DCE employing serial binary data interchange	STIGs	Security Technical Implementation Guides
EIA-530	Standard for 25-position interface for DTE and DCE employing serial binary data interchange	SUT	System Under Test
FTR	Federal Telecommunications Recommendation	T1	Digital Transmission Link Level 1 (1.544 Mbps)
GR	Generic Requirement	TDM	Time Division Multiplexing
GR-815	Generic Requirements For Network Element/Network System (NE/NS) Security	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
		V.37	Synchronous data transmission at a data signaling rate higher than 72 kbps using 60-108 kHz group band circuits
		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),

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or http://199.208.204.125 (SIPRNet). Information related to Defense Switched Network (DSN) testing is on the Telecom Switched Services Interoperability website at http://jitc.fhu.disa.mil/tssi. Due to the sensitivity of the information, the Information Assurance Accreditation Package 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, e-mail: ucco@disa.mil.

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 numbers for the SUTs are 1034102 and 1034105.

FOR THE COMMANDER:

Enclosure a/s

for BRADLEY A. CLARK
Chief
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Defense Information Systems Agency, GS23

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, "Information Assurance (IA) Assessment of Polycom High Definition Experience (HDX) Release (Rel.) 2.7.0_J (Tracking Number 1034102)"
(f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Polycom Converged Management Application (CMA) 5000 Family Release (Rel.) 5.2.0J (Tracking Number 1034105)"