



## DEFENSE INFORMATION SYSTEMS AGENCY

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

**19 Mar 12**

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Polycom RMX 1500, RMX 2000, and RMX 4000 using Software Release 7.5.0\_J and the Polycom Distributed Management Application (DMA) 7000 using Software Release 2.1.0\_J. with Patch Build 10

**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. 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™ RMX™ 1500, RMX 2000, and RMX 4000 with Software Release 7.5.0\_J and the Distributed Management Application (DMA) 7000 with Software Release 2.1.0\_J with patch build 10 are hereinafter referred to as the System under Test (SUT). The Polycom DMA 7000 is an optional SUT component. The SUT meets all of its critical interface and functional interoperability requirements and is certified for joint use within the Defense Information System Network as a Video Teleconferencing (VTC) Multipoint Conferencing Unit (MCU) 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 an IP interface with the ITU-T H.323 protocol. However, the SUT is certified for C2 and Special C2 VTC sessions via the Time Division Multiplexing (TDM) interface. The DMA 7000 provides the ability to manage resources of multiple RMXs as a single virtual MCU and provides gatekeeper functionality in the Internet Protocol (IP) network. The SUT met the minimum requirements for IP version 6 (IPv6) with the exception of the Gatekeeper functionality of the DMA 7000 which is certified only for IPv4. This discrepancy was adjudicated by DISA and Assistant Secretary of Defense for Networks & Information Integration as having a minor operational impact with the stipulation that DMA 7000 is certified only in the Afghanistan Theater Video Bridge until it is fully IPv6 compliant.

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The SUT meets the critical interoperability requirements set forth in References (c) and (d) using test procedures derived from Reference (e). 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 the DISA Certifying Authority (CA) provided a positive Recommendation.

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 CA Recommendation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 11 to 25 April 2011. Review of the vendor's LoC was completed on 16 May 2011. The DISA CA provided a positive Recommendation on 30 August 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (e). This DTR was requested to update the SUT RMX software from 7.5.0\_J to 7.5.1\_J and DMA software from 2.1.0\_J to 2.1.1\_J as depicted in Table 1. These applied updates fixed the following test discrepancies noted during the April 2011 test window:

- DMA Gatekeeper does not support IPv6 dual stack
- DMA IPv6 functions are not exactly the same as IPv4 functions
- RMX does not have the capability to toggle Echo Reply Message
- DMA does not fully meet the ability to disable or enable Destination Unreachable Messages

Interoperability Verification and Validation (V&V) testing was conducted from 9 through 13 January 2012, to verify fixes and as a result all fixes and their associated Test Discrepancy Reports were closed. Furthermore, during V&V an additional discrepancy in which the DMA does not accurately support the plain text Differentiated Services Code Point plan for user Operations Administration and Management was discovered. This discrepancy was adjudicated by DISA as having a minor operational impact based on vendor's submitted plan of action and milestone to fix with their new software release in 4<sup>th</sup> quarter 2012. This DTR update did not change the IA posture; therefore, the original DISA CA recommendation applies. JITC therefore approves this DTR.

4. The SUT certified hardware and software components and their supported interfaces are listed in Table 1. The Functional Requirements (FR) 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**

SUT	Tested VTC Systems	Supported Interfaces
	Polycom RMX 1500 Release 7.5.1_J	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN PRI T1, ISDN PRI E1
Polycom RMX 2000 Release 7.5.1_J	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN PRI T1, ISDN PRI E1	
Polycom RMX 4000 Release 7.5.1_J	IP (10/100 Mbps with ITU-T H.323 protocol), ISDN PRI T1, ISDN PRI E1	
	Polycom DMA 7000 Release 2.1.1_J (Optional Component)	IP (10/100 Mbps with ITU-T H.323 protocol)

**LEGEND:**

DMA	Distributed Management Application	Mbps	Megabits per seconds
E1	European Basic Multiplex Rate (2.048 Mbps)	PRI	Primary Rate Interface
H.323	Standard for multi-media communications on packet-based networks	SUT	System Under Test
IP	Internet Protocol	T1	Digital Transmission Link Level 1 (1.544 Mbps)
ISDN	Integrated Services Digital Network	VTC	Video Teleconferencing
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector		

**Table 2. SUT FR 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	5.2.4.2
			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. (R)	Met	5.3.5.2
ISDN PRI T1 ISDN PRI E1	No <sup>1</sup>	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
Security	Yes	Yes	GR-815, STIGs, and DoDI 8510.bb (DIACAP) (R)	Met <sup>3</sup>	4.3.1 and 5.4.6.1

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**Table 2. SUT FR and Interoperability Status (continued)**

<b>NOTES:</b>			
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. However, the SUT is certified for C2 and Special C2 VTC sessions via the TDM interfaces.			
3. Polycom RMX Conferencing System does not support bonded Nx56k call, this discrepancy was adjudicated by DISA on 31 May 2011 as having a minor impact.			
4. Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).			
<b>LEGEND:</b>			
ASD/NII	Assistant Secretary of Defense for Networks and Information Integration	HD	High Definition
ATVB	Afghanistan Theater Video Bridge	HDX	High Definition Experience
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
DCE	Data Circuit-Terminating Equipment	ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process	kbps	kilobits per second
DISA	Defense Information Systems Agency	kHz	kilohertz
DoDI	Department of Defense Instruction	Mbps	Megabits per seconds
DMA	Distributed Media Application	MCU	Multipoint Control Unit
DSN	Defense Switched Network	OSD	Office of the Secretary of Defense
DTE	Data Terminal Equipment	POA&M	Plan of Action and Milestones
E1	European Basic Multiplex Rate (2.048 Mbps)	PRI	Primary Rate Interface
EIA	Electronic Industries Alliance	R	Required
EIA-366A	Standard for interface between DTE and automatic calling equipment for data communication	STIG	Security Technical Implementation Guides
EIA-449	Standard for 37-position and 9-position interface for DTE and DCE employing serial binary data interchange	SUT	System Under Test
EIA-530	Standard for 25-position interface for DTE and DCE employing serial binary data interchange	T1	Digital Transmission Link Level 1 (1.544 Mbps)
FTR	Federal Telecommunications Recommendation	TDM	Time Division Multiplexing
GR	Generic Requirement	UCR	Unified Capabilities Requirements
GR-815	Generic Requirements For Network Element/Network System (NE/NS) Security	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
		VTC	Video Teleconferencing
		VTU	Video Teleconferencing Unit

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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 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 at <http://jit.fhu.disa.mil> (NIPRNet), or <http://199.208.204.125> (SIPRNet). Information related to Defense Switched Network (DSN) testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitic.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](mailto: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](mailto:steven.lesneski@disa.mil). JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 1034103 and 1034104.

FOR THE COMMANDER:

Enclosure a/s

  
for BRADLEY A. CLARK  
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Distribution (electronic mail):

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Joint Interoperability Test Command, Liaison, TE3/JT1

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U.S. Coast Guard, CG-64

Defense Intelligence Agency

National Security Agency, DT

Defense Information Systems Agency, TEMC

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, 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 RMX Release (Rel.) 7.5.0\_J (Tracking Number1034103)," 25 April 2011