



## DEFENSE INFORMATION SYSTEMS AGENCY

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

12 Nov 09

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of REDCOM High Density Exchange (HDX) Digital Switching System with Software Release 2.0A Revision 3, with Specified Patch Group 1 (2.0A R3P1), certified as a Deployable Voice Exchange (DVX)

**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. 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 REDCOM HDX Digital Switching System with Software Release 2.0A R3P1 is hereinafter referred to as the System Under Test (SUT). The SUT met all of its critical interoperability requirements and is certified as interoperable for joint use within the Defense Switched Network (DSN). The SUT was tested and met the critical interoperability requirements for a DVX. Although the SUT offers a Voice over Internet Protocol capability, this capability was not tested by JITC. No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that could affect interoperability, but no later than three years from the date the original certification memorandum (17 January 2007).

3. The extension of this certification is based upon a Desktop Review (DTR) #2 and Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation. The original certification is based on interoperability testing and review of the vendor's Letters of Compliance (LoC) conducted by JITC. Interoperability testing was conducted at JITC's Global Information Grid Network Test Facility (GNTF) at Fort Huachuca, Arizona, from 17 July to 1 September 2006, and is documented in Reference (c). Review of the vendor's LoC was completed on 11 December 2006. Patch R3P1 was developed to fix a problem noted by the warfighter with an automatic switchover of active and standby processors. Regression testing of the patch update was conducted on 1 through 3 August 2007. DSAWG grants accreditation based on the security testing completed by DISA-led IA test teams and published in a separate report (Reference (c)). DSAWG accreditation was granted on 13 June 2008. DTR #2 was requested to include software patch v2.0AR3P2 to resolve the following issues: The system did

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not properly divert to an alternate route after two successive glare conditions on a trunk group; the two remaining devices did not remain in an active call when a BRI phone was preempted from a 3-way call. JITC determined that there was no risk to the DSN to include the additional patch. The DTR #2 was approved 28 August 2009. DSAWG accreditation was granted on 23 September 2009.

4. The interoperability test summary of the SUT is contained in Table 1. The DVX Capability Requirements (CRs) and Feature Requirements (FRs) are listed in Table 2. This interoperability test status is based on the SUT's ability to meet:

- a. DSN services for Network and Applications specified in Reference (d).
- b. DVX interface and signaling requirements for trunks/lines specified in Reference (e) verified through JITC testing and/or vendor submission of LoC.
- c. DVX CRs/FRs specified in Reference (e) verified through JITC testing and/or vendor submission of LoC.
- d. The overall system interoperability performance derived from test procedures listed in Reference (f).

**Table 1. SUT Interoperability Test Summary**

DSN Trunk Interfaces			
Interface & Signaling	Critical	Status	Remarks
T1 CAS (DTMF, DP)	Yes	Certified	Met all CRs and FRs.
T1 CAS (MFR1)	Yes	Certified	Met all CRs and FRs.
E1 CAS (DTMF, MFR1, DP)	Yes (Europe only)	Certified	Met all CRs and FRs.
T1 ISDN PRI NI 1/2 (ANSI T1.619a)	Yes	Certified	Met all CRs and FRs.
E1 ISDN PRI (ITU-T Q.955.3)	No (Europe only)	Certified	Met all CRs and FRs.
T1 SS7 (ANSI T1.619a)	No	Certified	Met all CRs and FRs.
E1 SS7 (ITU-T Q.735.3)	No	Not Tested	This interface is supported; however it was not tested and is not covered under this certification. There was no operational impact because it is not a required interface for a DVX.
Analog E&M Type I, II and V	Yes	Certified	Met all CRs and FRs.
DSN Line Interfaces			
Interface & Signaling	Critical	Status	Remarks
2-Wire Analog (GR-506-CORE)	Yes	Certified	Met all CRs and FRs with the following minor exceptions: The SUT does not properly support Precedence Call Diversion on an analog set that is configured for Precedence Call Waiting. <sup>1</sup> The SUT does not support the full complement of CoS tables. <sup>2</sup>
ISDN BRI NI 1/2 (ANSI T1.619a)	No	Certified	Met all CRs and FRs with the following minor exceptions: The SUT does not support the full complement of CoS tables. <sup>2</sup> Full compliance of multiple call appearances for incoming calls was not supported. <sup>3</sup>
2-Wire Proprietary Digital	No	Not Tested	This interface is not supported by the SUT. There was no operational impact because it is not a required interface for a DVX.

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**Table 1. SUT Interoperability Test Summary (continued)**

DSN Features and Capabilities				
Features and Capabilities	Critical	Status	Remarks	
Common Features	No	Certified	Met all CRs and FRs.	
Attendant	No	Certified	Met all CRs and FRs.	
Public Safety	Yes	Certified	Met all CRs and FRs.	
Preset Conferencing	Yes	Certified	Met all CRs and FRs.	
DSN Hotline Services	Yes	Certified	Met all CRs and FRs.	
Network Management	Yes	Certified	Met all CRs and FRs. The certified network management interface is IEEE 802.3 10BaseT. <sup>4</sup>	
Synchronization	Yes	Certified	Met all CRs and FRs.	
Reliability	No	Certified	Met all CRs and FRs.	
Security	Yes	See note 5.	See note 5.	
Network Gateways				
Gateway	Interface & Signaling	Critical	Status	Remarks
PSTN	T1 CAS (DTMF, DP)	Yes	Certified	Met all CRs and FRs.
	T1 CAS (MFR1)	Yes	Certified	Met all CRs and FRs.
	E1 CAS (DTMF, MFR1, DP)	Yes (Europe only)	Certified	Met all CRs and FRs.
	T1 ISDN PRI NI 1/2 (ANSI T1.607)	Yes	Certified	Met all CRs and FRs.
	E1 ISDN PRI (ITU-T Q.931)	No (Europe only)	Certified	Met all CRs and FRs.
	T1 SS7 (ANSI T1.619a)	No	Certified	Met all CRs and FRs.
	E1 SS7 (ITU-T Q735.3)	No	Not Tested	This interface is supported; however, it was not tested and is not covered under this certification. There was no operational impact because it is not a required interface for a DVX.
	Analog E&M Type I, II and V	Yes	Certified	Met all CRs and FRs.
Ground Start Line	Yes	Certified	Met all CRs and FRs.	
DRSN	TPC 2-Wire analog (GR-506-CORE)	No	Certified <sup>6</sup>	Met all CRs and FRs.

**NOTES:**

- 1 If an analog set, configured for Precedence Call Waiting on the SUT, is ringing with a precedence call above ROUTINE and another precedence call above ROUTINE is placed to the ringing analog set, the precedence call diversion timer does not start until the first call's precedence diversion timers expires and the first call is diverted. This limitation has posed a minor operational impact within the DSN since all calls are eventually diverted.
- 2 The SUT does not support the full complement of CoS tables as specified in the GSCR. The SUT supports 255 CoS tables for analog lines and does not support CoS tables on access lines, number codes, trunks, or groups of trunks. This limitation has posed a minor operational impact within the DSN when assigning lines and trunks on the SUT. This limitation may result in additional time required when initially configuring the SUT.
- 3 The SUT does not support multiple call appearances on the ISDN BRI for incoming calls. MLPP interaction functioned properly. The overall operational impact of the noted discrepancy is minor.
- 4 An IPv6 capable system or product, as defined in the GSCR, paragraph 1.7, shall be capable of receiving, processing, and forwarding IPv6 packets and/or interfacing with other systems and protocols in a manner similar to that of IPv4. IPv6 capability is currently satisfied by a vendor Letter of Compliance signed by the Vice President of the company. The vendor stated, in writing, compliance to the following criteria by 30 June 2008:
  - (a) Conformance with IPv6 standards profile contained in the Department of Defense Information Technology Standards Registry (DISR).
  - (b) Maintaining interoperability in heterogeneous environments and with IPv4.
  - (c) Commitment to upgrade as the IPv6 standard evolves.
  - (d) Availability of contractor/vendor IPv6 technical support.
- 5 Security is tested by DISA-led Information Assurance test teams and published in a separate report.
- 6 Interoperability Certification of the SUT does not constitute DRSN PM's approval for connectivity to the DRSN. It is the user's responsibility to request connectivity approval directly from the PM.

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**Table 1. SUT Interoperability Test Summary (continued)**

<b>LEGEND:</b>			
10BaseT	10 Mbps (Baseband Operation, Twisted Pair) Ethernet	IEEE	Institute of Electrical and Electronics Engineers, Inc IPv4 - Internet Protocol version 4
802.3	Standard for carrier sense multiple access with collision detection at 10 Mbps	IPv6	Internet Protocol version 6
ANSI	American National Standards Institute	ISDN	Integrated Services Digital Network
BRI	Basic Rate Interface	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
CAS	Channel Associated Signaling	Mbps	Megabits per second
CoS	Class of Service	MFR1	Multifrequency Recommendation 1
CRs	Capability Requirements	MLPP	Multi-Level Precedence and Preemption
DISA	Defense Information Systems Agency	NI 1/2	National ISDN Standard 1 or 2
DP	Dial Pulse	PM	Program Manager
DRSN	Defense Red Switch Network	PRI	Primary Rate Interface
DSN	Defense Switched Network	PSTN	Public Switched Telephone Network
DSS1	Digital Subscriber Signaling 1	Q.735.3	SS7 Signaling Standard for E1 MLPP
DTMF	Dual Tone Multi-Frequency	Q.931	Signaling Standard for ISDN
DVX	Deployable Voice Exchange	Q.955.3	ISDN signaling standard for E1 MLPP
E&M	Ear and Mouth	SS7	Signaling System 7
E1	European Basic Multiplex Rate (2.048 Mbps)	SUT	System Under Test
FRs	Feature Requirements	T1	Digital Transmission Link Level 1 (1.544 Mbps)
GR	Generic Requirement	T1.607	Layer 3 Signaling Specification for Circuit Switched Bearer Service for DSS1
GR-506-CORE	Telcordia Signaling for Analog Interface Generic Requirement	T1.619a	SS7 and ISDN MLPP Signaling Standard for T1
GSCR	Generic Switching Center Requirements	TPC	Twisted Pair Copper

**Table 2. DVX Requirements**

<b>DSN Trunk Interfaces</b>					
<b>Interface</b>	<b>Critical</b>	<b>Requirements Required or Conditional</b>		<b>References</b>	
T1 SS7 (ANSI T1.619a)	No	Trunking	<ul style="list-style-type: none"> <li>Framing (R)</li> <li>Line Code (R)</li> <li>Signaling (R)</li> <li>Alarms (R)</li> <li>WWNDP (R)</li> <li>Outpulsing digit formats (R: CAS only)</li> <li>Routing (R)</li> <li>Trunk Groups (R)</li> <li>Call Processing (R)</li> <li>CAS to CCS trunk interworking (C)</li> <li>PCM-24/PCM-30 Interoperation (R)</li> <li>Direct Inward Dialing (C)</li> </ul>	<ul style="list-style-type: none"> <li>GSCR Sect. 7</li> <li>GSCR Sect. 7</li> <li>GSCR Sect. 5</li> <li>GSCR Sect. 2.5.7, 7.1.4 &amp; 7.2.2</li> <li>GSCR Sect. 4.5.1</li> <li>GSCR Sect. 4.5.2</li> <li>GSCR Sect. 4.2</li> <li>GSCR Sect. 2.5.5 &amp; 2.5.6</li> <li>GSCR Sect. 4</li> <li>GSCR Sect. 3.10</li> <li>GSCR Sect. 7.3</li> <li>GSCR Sect. 2.3.2</li> </ul>	
E1 SS7 (ITU-T Q.735.3)	No		Voice	<ul style="list-style-type: none"> <li>MOS (R)</li> <li>MLPP (R)</li> <li>Secure calls (R)</li> </ul>	<ul style="list-style-type: none"> <li>CJCSI 6215.01B</li> <li>GSCR Sect. 3</li> <li>CJCSI 6215.01B</li> </ul>
T1 CAS (MFR1)	Yes			Facsimile	<ul style="list-style-type: none"> <li>Analog: TIA/EIA-465-A (R)</li> </ul>
T1 CAS (DTMF, DP)	Yes		Data		<ul style="list-style-type: none"> <li>Modem (VBD) (R)</li> <li>56 kbps switched data (R: PRI only)</li> <li>64 kbps switched data (R: PRI only)</li> <li>NX56 synchronous BER (R: PRI only)</li> <li>NX64 synchronous BER (R: PRI only)</li> <li>Secure data (STE/STU-III) (R)</li> </ul>
E1 CAS (MFR1, DTMF, DP)	Yes (Europe only)	VTC		<ul style="list-style-type: none"> <li>ITU-T H.320 (R: PRI only)</li> </ul>	<ul style="list-style-type: none"> <li>DISR</li> </ul>
T1 ISDN PRI NI 1/2 (ANSI T1.619a)	Yes				
E1 ISDN PRI (ITU-T Q.955.3)	No (Europe only)				
Analog E&M Type I, II, V	Yes				

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**Table 2. DVX Requirements (continued)**

<b>DSN Line Interfaces</b>				
<b>Interface</b>	<b>Critical</b>	<b>Requirements Required or Conditional</b>		<b>References</b>
2-Wire Analog (GR-506-CORE)	Yes	Access	<ul style="list-style-type: none"> <li>• Directory Number Identification (R)</li> <li>• Line signaling (R)</li> <li>• Alerting Signals and Tones (R)</li> <li>• WWNDP (R)</li> <li>• Call Processing (R)</li> <li>• Call Treatments (R)</li> <li>• 2W user access (C: 2-Wire Analog only)</li> <li>• Analog busy/idle (R: 2-Wire Analog only)</li> </ul>	<ul style="list-style-type: none"> <li>• GSCR Sect. 2.1.1</li> <li>• GSCR Sect. 5.2</li> <li>• GSCR Sect. 5.5</li> <li>• GSCR Sect. 4.5</li> <li>• GSCR Sect. 4.4</li> <li>• GSCR Sect. 4.1</li> <li>• GSCR Sect. 4.3.3</li> <li>• GSCR Sect. 4.3.4.1</li> </ul>
ISDN BRI NI 1/2 (ANSI T1.619a)	No	Voice	<ul style="list-style-type: none"> <li>• MOS (R)</li> <li>• Announcements (C)</li> <li>• MLPP (C)</li> <li>• Secure Calls (R)</li> </ul>	<ul style="list-style-type: none"> <li>• CJCSI 6215.01B</li> <li>• GSCR Sect. 3.1.3</li> <li>• GSCR Sect. 3.4.3/3.9</li> <li>• CJCSI 6215.01B</li> </ul>
		Facsimile	<ul style="list-style-type: none"> <li>• Analog: TIA/EIA-465-A (R)</li> </ul>	<ul style="list-style-type: none"> <li>• DISR</li> </ul>
2-Wire Proprietary Digital	No	Data	<ul style="list-style-type: none"> <li>• Modem (VBD) (R)</li> <li>• 56 kbps switched data (R)</li> <li>• 64 kbps switched data (R: BRI only)</li> <li>• NX56 synchronous BER (R: BRI only)</li> <li>• NX64 synchronous BER (R: BRI only)</li> <li>• Secure data (STE/STU-III) (R)</li> </ul>	<ul style="list-style-type: none"> <li>• CJCSI 6215.01B</li> <li>• GSCR Sect. 3.10</li> <li>• GSCR Sect. 3.10</li> <li>• GSCR Sect. 3.10</li> <li>• GSCR Sect. 3.10</li> <li>• CJCSI 6215.01B</li> </ul>
		VTC	<ul style="list-style-type: none"> <li>• ITU-T H.320 (R: BRI only)</li> </ul>	<ul style="list-style-type: none"> <li>• DISR</li> </ul>
<b>DSN Features &amp; Capabilities</b>				
<b>Feature/ Capability</b>	<b>Critical</b>	<b>Requirements Required or Conditional</b>		<b>References</b>
Common Features	Yes	<ul style="list-style-type: none"> <li>• Selective call rejection (C)</li> <li>• Denied originating service (C)</li> <li>• Code restriction and diversion (R)</li> <li>• Call waiting (C)</li> <li>• Three-way calling (C)</li> <li>• Add-on transfer and conference calling and call hold (C)</li> <li>• Call forwarding (C)</li> <li>• Call pick-up (C)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 2.1.2</li> <li>• GSCR Sect. 2.1.3</li> <li>• GSCR Sect. 2.1.4</li> <li>• GSCR Sect. 2.1.5</li> <li>• GSCR Sect. 2.1.6</li> <li>• GSCR Sect. 2.1.7</li> <li>• GSCR Sect. 2.1.8</li> <li>• GSCR Sect. 2.1.9</li> </ul>
Attendant	No	<ul style="list-style-type: none"> <li>• Initiate all precedence levels (C)</li> <li>• Visual display (C)</li> <li>• Override class of service (C)</li> <li>• Override busy line (C)</li> <li>• Call deflection (C)</li> <li>• Auto recall (C)</li> <li>• Waiting queue (C)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 2.2.1</li> <li>• GSCR Sect. 2.2.2</li> <li>• GSCR Sect. 2.2.3</li> <li>• GSCR Sect. 2.2.4</li> <li>• GSCR Sect. 2.2.5</li> <li>• GSCR Sect. 2.2.6</li> <li>• GSCR Sect. 2.2.7</li> </ul>
Public Safety	Yes	<ul style="list-style-type: none"> <li>• Basic Emergency Service (911) (C)</li> <li>• Trace of terminating calls (R)</li> <li>• Outgoing call trace (R)</li> <li>• Tandem call trace (R)</li> <li>• Trace of a call in progress (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 2.4.1</li> <li>• GSCR Sect. 2.4.2</li> <li>• GSCR Sect. 2.4.3</li> <li>• GSCR Sect. 2.4.4</li> <li>• GSCR Sect. 2.4.5</li> </ul>
Preset Conferencing	Yes	<ul style="list-style-type: none"> <li>• Support 10 bridges; 1 originator and 20 conferees per bridge (C)</li> <li>• Assign up to 20 address numbers per bridge (C)</li> <li>• Use KXX codes for bridge access (C)</li> <li>• Conference notification recorded announcement (C)</li> <li>• Auto retrial and alternate address (C)</li> <li>• Bridge release (R)</li> <li>• Lost connection (C)</li> <li>• Secondary conferencing (C)</li> <li>• Address translation (C)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 2.6</li> <li>• GSCR Sect. 2.6</li> <li>• GSCR Sect. 2.6</li> <li>• GSCR Sect. 2.6.1</li> <li>• GSCR Sect. 2.6.2</li> <li>• GSCR Sect. 2.6.3</li> <li>• GSCR Sect. 2.6.4</li> <li>• GSCR Sect. 2.6.5</li> <li>• GSCR Sect. 2.7</li> </ul>

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**Table 2. DVX Requirements (continued)**

<b>DSN Features &amp; Capabilities</b>				
<b>Feature/ Capability</b>	<b>Critical</b>	<b>Requirements Required or Conditional</b>		<b>References</b>
DSN Hotline Services	Yes	<ul style="list-style-type: none"> <li>• Hotline restrictions (R)</li> <li>• Auto initiate (R)</li> <li>• Analog and digital (R)</li> <li>• Subscription basis (R)</li> <li>• Protected hotline calling (R)</li> <li>• WWNDP interoperable (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 2.12</li> <li>• GSCR Sect. 2.12</li> <li>• GSCR Sect. 2.12</li> <li>• GSCR Sect. 2.12</li> <li>• GSCR Sect. 2.12.1-4</li> <li>• GSCR Sect. 2.12.5</li> </ul>
Network Management	Yes	<ul style="list-style-type: none"> <li>• Interfaces (R)</li> <li>• Measurements and data generation (R)</li> <li>• Fault management (R)</li> <li>• Configuration management (R)</li> <li>• Accounting management (R)</li> <li>• Performance management (R)</li> <li>• Network Management controls (R)</li> <li>• Remote access (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 9.1</li> <li>• GSCR Sect. 9.2</li> <li>• GSCR Sect. 9.3</li> <li>• GSCR Sect. 9.4</li> <li>• GSCR Sect. 9.5</li> <li>• GSCR Sect. 9.6</li> <li>• GSCR Sect. 9.7</li> <li>• GSCR Sect. 9.8</li> </ul>
Synchronization	Yes	<ul style="list-style-type: none"> <li>• Line timing mode (R)</li> <li>• Internal Stratum 4 (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 11.1.1.2</li> <li>• GSCR Sect. 11.1.2.2</li> </ul>
Reliability	No	<ul style="list-style-type: none"> <li>• GR-512-CORE (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 12</li> </ul>
Security	Yes	<ul style="list-style-type: none"> <li>• GR-815, STIGs, and DIACAP (replacement for DITSCAP) (R)</li> </ul>		<ul style="list-style-type: none"> <li>• GSCR Sect. 13</li> </ul>
<b>Network Gateways</b>				
<b>Gateway</b>	<b>Critical</b>	<b>Requirements Required or Conditional</b>		<b>References</b>
PSTN <sup>1</sup>	Yes	Trunking	<ul style="list-style-type: none"> <li>• Positive Identification Control (R)</li> <li>• On-Netting (R)</li> <li>• Off-Netting (R)</li> <li>• Ground Start Line</li> </ul>	<ul style="list-style-type: none"> <li>• CJCSI 6215.01B</li> <li>• CJCSI 6215.01B</li> <li>• CJCSI 6215.01B</li> <li>• GSCR Sect. 5.2.2</li> </ul>
DRSN <sup>2</sup>	No	Access	<ul style="list-style-type: none"> <li>• Alerting Signals and Tones (R)</li> <li>• Call Processing (R)</li> <li>• Call Treatments (R)</li> <li>• Analog busy/idle (R)</li> </ul>	<ul style="list-style-type: none"> <li>• GSCR Sect. 5.5</li> <li>• GSCR Sect. 4.4</li> <li>• GSCR Sect. 4.1</li> <li>• GSCR Sect. 4.3.4.1</li> </ul>
		Voice	<ul style="list-style-type: none"> <li>• MOS (C)</li> <li>• MLPP (C)</li> <li>• Secure calls (C)</li> </ul>	<ul style="list-style-type: none"> <li>• CJCSI 6215.01B</li> <li>• GSCR Sect. 3.1.1</li> <li>• CJCSI 6215.01B</li> </ul>
<b>NOTES:</b>				
1 Voice, facsimile, data, and VTC service requirements for PSTN are identical to DSN with the exception of MLPP.				
2 Facsimile, data, and VTC services are not provided via the DSN to DRSN interface.				

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**Table 2. DVX Requirements (continued)**

<b>LEGEND:</b>					
2W	2-Wire	GR-815	LSSGR: Synchronization, Section 18	PCM-30	Pulse Code Modulation – 30 Channels
A/D	Analog to Digital Conversion				
ANSI	American National Standards Institute	GSCR	Generic Switching Center Requirements	PRI	Primary Rate Interface
BER	Bit Error Ratio	H.320	Standard for Narrowband VTC	PSTN	Public Switched Telephone Network
BRI	Basic Rate Interface	IPv6	Internet Protocol version 6	Q.735.3	SS7 Signaling Standard for E1
C	Conditional	ISDN	Integrated Services Digital Network		MLPP
CAS	Channel Associated Signaling	IT	Information Technology	Q.955.3	ISDN Signaling Standard for E1
CCS	Common Channel Signaling	ITU-T	International Telecommunication Union Telecommunication Standardization Sector		MLPP
CJCSI	Chairman of the Joint Chiefs of Staff Instruction			R	Required
DIACAP	DoD Information Assurance Certification and Accreditation Process	LSSGR	Local Access and Transport Area (LATA) Switching Systems Generic Requirements	Sect.	Section
DISR	DoD IT Standards Registry	kbps	kilobits per second	SS7	Signaling System 7
DITSCAP	DoD IT Security Certification and Accreditation Process	KXX	K= any number 2-8; X= any number 1-9	STE	Secure Terminal Equipment
DoD	Department of Defense	Mbps	Megabits per second	STIGs	Security Technical Implementation Guides
DP	Dial Pulse	MFR1	Multi-Frequency Recommendation 1	STU-III	Secure Telephone Unit – 3 <sup>rd</sup> Generation
DRSN	Defense Red Switch Network			T1	Digital Transmission Link Level 1 (1.544 Mbps)
DSN	Defense Switched Network	MLPP	Multi-Level Precedence and Preemption	T1.619a	SS7 and ISDN MLPP Signaling
DTMF	Dual Tone Multi-Frequency	MOS	Mean Opinion Score		Standard for TIA - Telecommunications Industry Association
DVX	Deployable Voice Exchange	NI 1/2	National ISDN Standard 1or 2		
E&M	Ear and Mouth	NX56	Data format restricted to multiples of 56 kbps	VBD	Variable bit data
E1	European Basic Multiplex Rate (2.048 Mbps)	NX64	Data format restricted to multiples of 64 kbps	VTC	Video Teleconferencing
EIA	Electronic Industries Alliance	PCM-24	Pulse Code Modulation – 24 Channels	WWNDP	Worldwide Numbering and Dialing Plan
GR	Generic Requirement (Telcordia)				
GR-512-CORE	LSSGR: Reliability, Section 12				

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), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>.

JITC Memo, JTE, Special Interoperability Test Certification of REDCOM High Density Exchange (HDX) Digital Switching System with Software Release 2.0A, Revision 3, with Specified Patch Group 1 (2.0A R3P1), certified as a Deployable Voice Exchange (DVX)

6. The JITC point of contact is Ms. Anita Bickler, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to [oskar.widecki@disa.mil](mailto:oskar.widecki@disa.mil). The tracking number for the SUT is 604702.

FOR THE COMMANDER:



Enclosure a/s

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U.S. Joint Forces Command, Net-Centric Integration, Communication, and Capabilities  
Division, J68

Defense Information Systems Agency, GS23

## **ADDITIONAL REFERENCES**

- (c) Joint Interoperability Test Command (JITC), Memo, JTE, "Special Interoperability Test Certification of REDCOM Slice Digital Switching System with Software Release 2.0A, Revision 3 with Specified Patch Group 1 (2.0A R3P1) 17 January 2007
- (d) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6215.01B, "Policy for Department of Defense Voice Services," 23 September 2001
- (e) Defense Information Systems Agency, "Department of Defense Voice Networks Generic Switching Center Requirements (GSCR), Incorporated Change 1," 1 March 2005
- (f) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 1, Revision 1," 1 June 2005