



DEFENSE INFORMATION SYSTEMS AGENCY

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

21 October 2008

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the T-Metrics TM-2000 Multi-Purpose Automated Call Distributor (ACD) Release Version (v) 5.0

- 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 (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 T-Metrics TM-2000 Multi-Purpose ACD with Release v5.0 is hereinafter referred to as the System Under Test (SUT). The SUT met the interface and functional requirements and is certified for joint use within the Defense Switched Network (DSN). The SUT is certified specifically with switching systems listed in Table 1, which are listed on the Unified Capabilities Approved Products List. The SUT met the interface and functional requirements for an ACD system as set forth in reference (c). Testing was conducted using test procedures derived from reference (d). No other configurations, features, or functions, except those cited within this report, are certified by the JITC, or authorized by the Program Management Office for use within the DSN. This certification expires upon changes that affect interoperability, but no later than three years from the date of the original memorandum (9 June 2008).

Table 1. SUT Certified Switching Systems

Table with 3 columns: Switch Name (See note.), Interface(s), and Remarks. It lists various Nortel switches and their certification details.

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Table 1. SUT Certified Switching Systems (continued)

Switch Name (See note.)	Interface(s)	Remarks																																
Nortel Succession DSN 1000M Single Group, Half Group, and Multi Group	Digital Proprietary	The SUT interfaces to this switch via proprietary M2616 MBS lines.																																
Nortel Succession DSN 1000M Cabinet, DSN 1000M Chassis, DSN 1000M	Digital Proprietary	The SUT interfaces to this switch via proprietary M2616 MBS lines.																																
Nortel Succession DSN Options 11C, 61C, and 81C	Digital Proprietary	The SUT interfaces to this switch via proprietary M2616 MBS lines.																																
Nortel M1 Options 11C, 61C, and 81C	Digital Proprietary	The SUT interfaces to this switch via proprietary M2616 MBS lines.																																
<u>Cisco CallManager</u>	100BaseT	The CCM is not certified for standalone use with the SUT. The CCM must connect to one of the Nortel switches in this table through a T1 PRI interface and to the SUT through a 100BaseT interface to the RASM.																																
<u>Alcatel-Lucent 5ESS, CDX and VCDX</u>	ISDN BRI (5E Custom) Analog																																	
<p>NOTE: Those switching systems bolded and underlined were tested specifically with the SUT by JITC. The other switching systems were not tested with the SUT; however, these systems were previously tested and certified by JITC with the same serial interfaces and JITC analysis determined them to be functionally identical for interoperability certification purposes and they are also certified with the SUT.</p> <p>LEGEND:</p> <table> <tbody> <tr> <td>5E</td> <td>- 5ESS</td> <td>JITC</td> <td>- Joint Interoperability Test Command</td> </tr> <tr> <td>5ESS</td> <td>- Class 5 Electronic Switching System</td> <td>M1</td> <td>- Meridian 1</td> </tr> <tr> <td>802.3</td> <td>- Standard for carrier sense multiple access with collision detection at 10 Mbps</td> <td>Mbps</td> <td>- Megabits per second</td> </tr> <tr> <td>BRI</td> <td>- Basic Rate Interface</td> <td>MBS</td> <td>- Meridian Business Set</td> </tr> <tr> <td>CDX</td> <td>- Compact Digital Exchange</td> <td>MSL</td> <td>- Meridian Switching Load</td> </tr> <tr> <td>CS</td> <td>- Communications Server</td> <td>RASM</td> <td>- Remote Agent Status Module</td> </tr> <tr> <td>DSN</td> <td>- Defense Switched Network</td> <td>SUT</td> <td>- System Under Test</td> </tr> <tr> <td>ISDN</td> <td>- Integrated Services Digital Network</td> <td>VCDX</td> <td>- Very Compact Digital Exchange</td> </tr> </tbody> </table>			5E	- 5ESS	JITC	- Joint Interoperability Test Command	5ESS	- Class 5 Electronic Switching System	M1	- Meridian 1	802.3	- Standard for carrier sense multiple access with collision detection at 10 Mbps	Mbps	- Megabits per second	BRI	- Basic Rate Interface	MBS	- Meridian Business Set	CDX	- Compact Digital Exchange	MSL	- Meridian Switching Load	CS	- Communications Server	RASM	- Remote Agent Status Module	DSN	- Defense Switched Network	SUT	- System Under Test	ISDN	- Integrated Services Digital Network	VCDX	- Very Compact Digital Exchange
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3. The extension of this certification is based upon a desktop review. The original certification is based on interoperability testing and review of vendor's Letters of Compliance (LoC). Interoperability testing was conducted by the JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 7 through 11 April 2008 and documented in reference (e). Review of the vendor's LoC was completed on 5 May 2008. A desktop review was requested to include the following the following Alcatel-Lucent switches: Class 5 Electronic Switching System (5ESS), Compact Digital Exchange (CDX), and the Very Compact Digital Exchange (VCDX). These switches were tested with the TM-2000 Consolidated Answering System version 5.0. The desktop review request was approved on 17 October 2008.

4. The functional requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 2. The configuration of the SUT with the Alcatel-Lucent switches is depicted in Figure 1.

Table 2. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Met	UCR Paragraph
CS2100 2-Wire Proprietary Interface: M5216 MBS line	No ¹	Yes	Precedence Call Diversion (R)	Met	3.3
			FCC Part 15/Part 68 and ACTA (R)	Met	A7.5
			Auto Answer mode settable to more than the equivalency of 4 ROUTINE rings (C)	Met	A7.5
			MLPP precedence call alerting (C)	Met	A7.5
			DTMF Outpulsing in accordance with GR-506-CORE (C)	Met	A7.5, 5.4.2
			Conformance to TIA/EIA-470-B (C)	Met	A7.5.2

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

Interface	Critical	Certified	Functional Requirements	Met	UCR Paragraph
CS1000M 2-Wire Proprietary Interface: M2616 MBS line	No ¹	Yes	Precedence Call Diversion (R)	Met	3.3
			FCC Part 15/Part 68 and ACTA (R)	Met	A7.5
			Auto Answer mode settable to more than the equivalency of 4 ROUTINE rings (C)	Met	A7.5
			MLPP precedence call alerting (C)	Met	A7.5
			DTMF Outpulsing in accordance with GR-506-CORE (C)	Met	A7.5, 5.4.2
Cisco 100BaseT	No ¹	Yes	Conformance to TIA/EIA-470-B (C)	Met	A7.5.2
			Precedence Call Diversion (R)	Met	3.3
			Auto Answer mode settable to more than the equivalency of 4 ROUTINE rings (C)	Met	A7.5
Security	Yes	See note 2.	MLPP precedence call alerting (C)	Met	A7.5
			Security (R)	See note 2.	A7.6

NOTES:
1 The ACD requirements can be met via one of the following interfaces: 2-Wire Analog, 2-Wire Digital, 4-Wire Digital, PCM-24, or PCM-30 or IP.
2 Security is tested by DISA-led Information Assurance test teams and published in a separate report.

LEGEND:
100BaseT - 100 Mbps (Baseband Operation, Twisted Pair) Ethernet
A - Appendix
ACTA - Administrative Council for Terminal Attachments
ACD - Automated Call Distributor
C - Conditional
CS - Communication Server
DISA - Defense Information Systems Agency
DTMF - Dual Tone Multi-Frequency
EIA - Electronic Industries Alliance
FCC - Federal Communications Commission
GR - Generic Requirement
GR-506-CORE - LSSGR: Signaling for Analog Interfaces
IP - Internet Protocol
LSSGR - Local Access and Transport Area (LATA) Switching Systems Generic Requirements
Mbps - Megabits per second
MBS - Meridian Business Set
MLPP - Multi-Level Precedence and Preemption
PCM-24 - Pulse Code Modulation - 24 Channels
PCM-30 - Pulse Code Modulation - 30 Channels
R - Required
SUT - System Under Test
TIA - Telecommunications Industry Association
TIA/EIA-470-B - Performance and Compatibility Requirements for Telephone Sets with Loop Signaling
UCR - Unified Capabilities Requirements

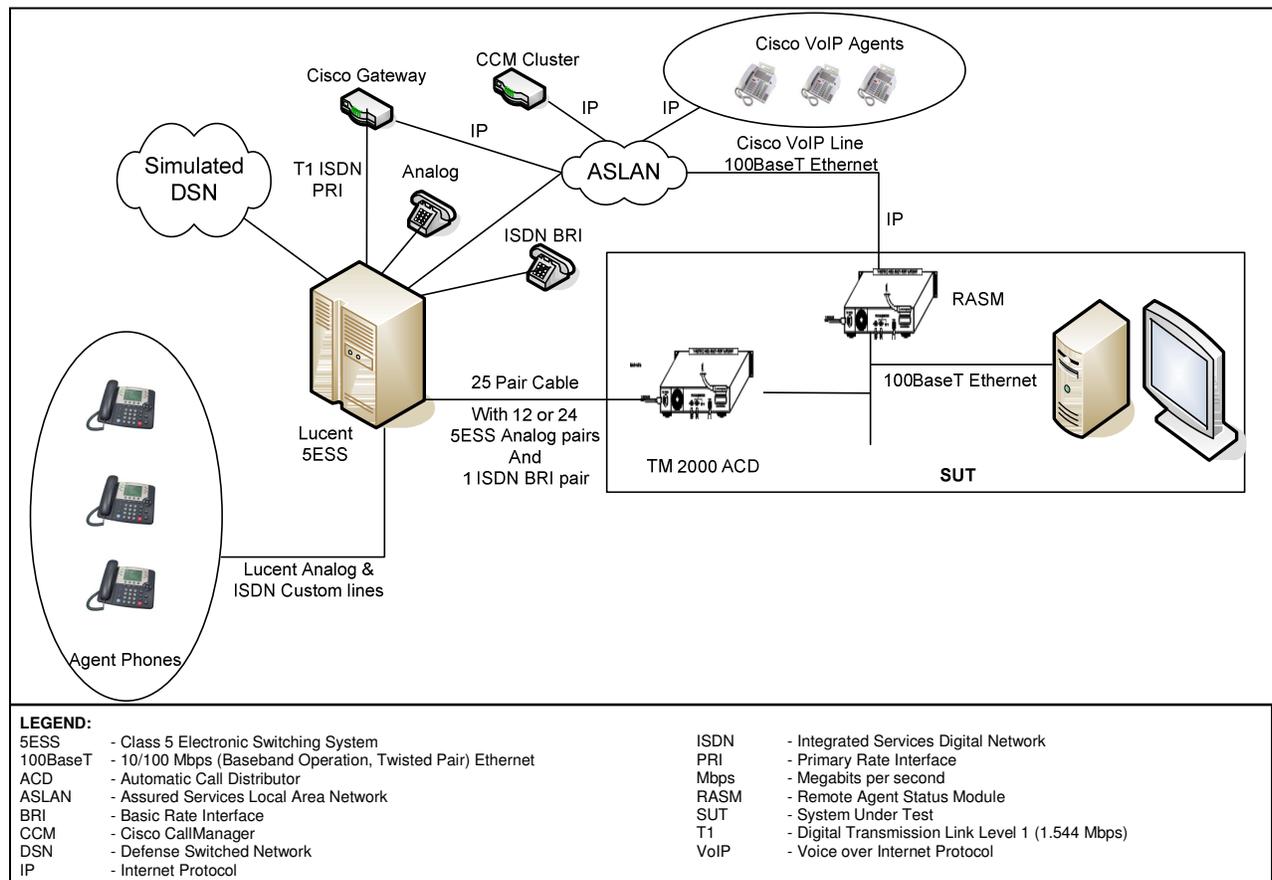


Figure 1. SUT Configuration with Alcatel-Lucent Switch

5. 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>.

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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 0733802.

FOR THE COMMANDER:

Enclosure a/s



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Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) Defense Information Systems Agency, "Department of Defense Networks Unified Capabilities Requirements," 21 December 2007
- (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 T-Metrics TM-2000 Multi-Purpose Automated Call Distributor (ACD) Release Version (v) 5.0," 9 June 2008