



# DEFENSE INFORMATION SYSTEMS AGENCY

JOINT INTEROPERABILITY TEST COMMAND

P.O. BOX 12798

FORT HUACHUCA, ARIZONA 85670-2798

IN REPLY  
REFER TO:

Battle Space Communications Portfolio (JTE)

2 March 2007

## MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Special Interoperability Test Certification of the ACE\*COMM<sup>®</sup> Corporation Telecommunications Management System (TMS) with NetPlus Software Release 6.0 (Build 6.0.060808.8)

**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

1. References (a) and (b) establish the Defense Information Systems Agency, Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification. Additional references are provided in enclosure 1.

2. The ACE\*COMM<sup>®</sup> Corporation TMS with NetPlus Software Release 6.0 (Build 6.0.060808.8) is hereinafter referred to as the System Under Test (SUT). The SUT meets its interface requirements and all required functional capabilities and is certified for joint use within the Defense Switched Network (DSN). The SUT met the interface and functional requirements for a Customer Premise Equipment device as set forth in appendix 7 of reference (c). The SUT is certified specifically with switching systems listed in table 1. Testing was conducted using test procedures derived from reference (d). The Internet Protocol version 6 requirements set forth in references (c) and (e) were satisfied by the vendor's Letters of Compliance (LoC). This certification expires upon changes that affect interoperability, but no later than three years from the date of this memorandum.

**Table 1. SUT Certified Switching System Configurations**

Switch Name (See note 1.)	Software Release	NM Data Elements	Interfaces
Nortel MSL-100 <sup>2</sup>	SE06 with specific patch Groups	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Asynchronous
<u>Nortel DSN CS1000M Single Group</u> , DSN CS1000M Multi Group (supports VoIP)	4.5w with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
<u>Nortel DSN M1 Option 61C</u> , DSN M1 Option 81C	4.5w with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous

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**Table 1. SUT Certified Switching System Configurations (continued)**

Switch Name (See note 1.)	Software Release	NM Data Elements	Interfaces																																												
<b><u>Nortel DSN CS1000M Cabinet</u></b> , DSN CS1000M Chassis (supports VoIP)	4.5w with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
<b><u>Nortel DSN Option 11C Cabinet</u></b> , DSN Option 11C Chassis	4.5w with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
Nortel Succession DSN 1000M Single Group, Half Group, and Multi Group (supports VoIP)	Succession 3.0 with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
Nortel Succession DSN 1000M Cabinet, DSN 1000M Chassis, DSN 1000M (supports VoIP)	Succession 3.0 with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
Nortel Succession DSN Options 11C, 61C, and 81C	Succession 3.0 with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
Nortel M1 Options 11C, 61C, and 81C	25.47 with specified software patches	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
<b><u>Avaya S8700</u></b> , Avaya S8710 (supports VoIP)	CM 3.0 (R013X.00.0.340.3)	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- IEEE 802.3 Ethernet <sup>3</sup>																																												
Avaya S8700 (supports VoIP)	CM 2.0.1(R012X.00.1.221.1)	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- IEEE 802.3 Ethernet <sup>3</sup>																																												
<p><b>LEGEND:</b></p> <table border="0"> <tr> <td>802.3</td> <td>- Standard for carrier sense multiple access with collision detection at 10 Mbps</td> <td>IPv4</td> <td>- Internet Protocol version 4</td> </tr> <tr> <td>CDR</td> <td>- Call Detail Records</td> <td>IPv6</td> <td>- Internet Protocol version 6</td> </tr> <tr> <td>CM</td> <td>- Communication Manager</td> <td>JITC</td> <td>- Joint Interoperability Test Command</td> </tr> <tr> <td>CS</td> <td>- Communications Server</td> <td>LoC</td> <td>- Letters of Compliance</td> </tr> <tr> <td>DCE</td> <td>- Data Circuit-terminating Equipment</td> <td>M1</td> <td>- Meridian 1</td> </tr> <tr> <td>DSN</td> <td>- Defense Switched Network</td> <td>Mbps</td> <td>- Megabits per second</td> </tr> <tr> <td>DTE</td> <td>- Data Terminal Equipment</td> <td>MSL</td> <td>- Meridian Switching Load</td> </tr> <tr> <td>EIA</td> <td>- Electronic Industries Alliance</td> <td>NM</td> <td>- Network Management</td> </tr> <tr> <td>EIA-232</td> <td>- Standard for defining the mechanical and electrical characteristics for connecting DTE and DCE data communications devices</td> <td>SE</td> <td>- Succession Enterprise</td> </tr> <tr> <td>GSCR</td> <td>- Generic Switching Center Requirements</td> <td>SUT</td> <td>- System Under Test</td> </tr> <tr> <td>IEEE</td> <td>- Institute of Electrical and Electronics Engineers, Inc.</td> <td>VoIP</td> <td>- Voice over Internet Protocol</td> </tr> </table> <p><b>NOTES:</b></p> <p>1 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>2 The SUT was successfully tested with the MSL-100 with software release SE08. At this time, SE08 has not passed certification testing. However, the successful test results apply to the certified software release SE06.</p> <p>3 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 LoC signed by the Vice President of the company. The vendor stated, in writing, compliance to the following criteria by 30 June 2008:</p> <p>(a) Conformance with IPv6 standards profile contained in the Department of Defense Information Technology Standards Registry (DISR).</p> <p>(b) Maintaining interoperability in heterogeneous environments and with IPv4.</p> <p>(c) Commitment to upgrade as the IPv6 standard evolves.</p> <p>(d) Availability of contractor/vendor IPv6 technical support.</p>				802.3	- Standard for carrier sense multiple access with collision detection at 10 Mbps	IPv4	- Internet Protocol version 4	CDR	- Call Detail Records	IPv6	- Internet Protocol version 6	CM	- Communication Manager	JITC	- Joint Interoperability Test Command	CS	- Communications Server	LoC	- Letters of Compliance	DCE	- Data Circuit-terminating Equipment	M1	- Meridian 1	DSN	- Defense Switched Network	Mbps	- Megabits per second	DTE	- Data Terminal Equipment	MSL	- Meridian Switching Load	EIA	- Electronic Industries Alliance	NM	- Network Management	EIA-232	- Standard for defining the mechanical and electrical characteristics for connecting DTE and DCE data communications devices	SE	- Succession Enterprise	GSCR	- Generic Switching Center Requirements	SUT	- System Under Test	IEEE	- Institute of Electrical and Electronics Engineers, Inc.	VoIP	- Voice over Internet Protocol
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3. This certification is based on interoperability testing and review of the vendor's LoC. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 2 through 12 January 2007. Review of the vendor's LoC was completed on 16 January 2007. The Certification Testing Summary (enclosure 2) documents the test results and describes the test configuration. Users should verify

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interoperability before deploying the SUT in an environment that varies significantly from that described.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in table 2.

**Table 2. SUT Functional Requirements and Interoperability Status**

Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
Serial EIA-232	No <sup>1</sup>	Yes	In accordance with EIA-232 (C)	Met	A.7.5
			Configuration Management (C)	Met	
			Fault management (C)	Met	
			Performance management (C)	Met	
			Call Detail Records management (C)	Met	
IEEE 802.3 Ethernet <sup>2</sup>	No <sup>1</sup>	Yes	Call Detail Records management (C)	Met	A.7.5
	Yes	See note 3.	Security (R)	See note 3.	A7.6.5
<b>LEGEND:</b> 802.3 - Standard for carrier sense multiple access with collision detection at 10 Mbps A - Appendix C - Conditional DISA - Defense Information Systems Agency EIA - Electronic Industries Alliance EIA-232 - Standard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment and Data Circuit-terminating Equipment data communications devices GSCR - Generic Switching Center Requirements IEEE - Institute of Electrical and Electronics Engineers, Inc. IPv4 - Internet Protocol version 4 IPv6 - Internet Protocol version 6 LoC - Letters of Compliance Mbps - Megabits per second PCM-24 - Pulse Code Modulation - 24 Channels PCM-30 - Pulse Code Modulation - 30 Channels R - Required SUT - System Under Test					
<b>NOTES:</b> 1 The SUT interoperability requirement can be met with any of the following interfaces: Ethernet, analog, digital, serial, PCM-24, or PCM-30. 2 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 LoC 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. 3 Security is tested by DISA-led Information Assurance test teams and published in a separate report.					

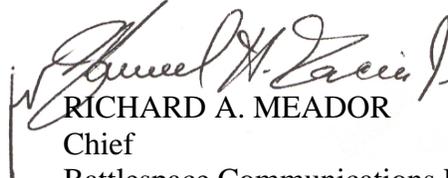
5. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (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 Mike Napier, DSN 879-6787, commercial (520) 538-6787, FAX DSN 879-4347, or e-mail to michael.napier@disa.mil. The tracking number for the SUT is 0624301.

FOR THE COMMANDER:

2 Enclosures a/s



RICHARD A. MEADOR  
Chief  
Battlespace Communications Portfolio

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Defense Information Systems Agency, Net-Centricity Requirements and Assessment Branch, ATTN: GE333, Room 244, P.O. Box 4502, Falls Church, VA 22204-4502

Office of Chief of Naval Operations (N71CC2), CNO N6/N7, 2000 Navy Pentagon, Washington, DC 20350

Headquarters U.S. Air Force, AF/XICF, 1800 Pentagon, Washington, DC 20330-1800

Department of the Army, Office of the Secretary of the Army, CIO/G6, ATTN: SAIS-IOQ, 107 Army Pentagon, Washington, DC 20310-0107

U.S. Marine Corps (C4ISR), MARCORSSYSCOM, 2200 Lester St., Quantico, VA 22134-5010

DOT&E, Net-Centric Systems and Naval Warfare, 1700 Defense Pentagon, Washington, DC 20301-1700

U.S. Coast Guard, CG-64, 2100 2nd St. SW, Washington, DC 20593

Defense Intelligence Agency, 2000 MacDill Blvd., Bldg 6000, Bolling AFB, Washington, DC 20340-3342

National Security Agency, ATTN: DT, Suite 6496, 9800 Savage Road, Fort Meade, MD 20755-6496

Director, Defense Information Systems Agency, ATTN: GS235, Room 5W24-8A, P.O. Box 4502, Falls Church, VA 22204-4502

Office of Assistant Secretary of Defense (NII)/DoD CIO, Crystal Mall 3, 7th Floor, Suite 7000, 1851 S. Bell St., Arlington, VA 22202

Office of Under Secretary of Defense, AT&L, Room 3E144, 3070 Defense Pentagon, Washington, DC 20301

U.S. Joint Forces Command, J68, Net-Centric Integration, Communications, and Capabilities Division, 1562 Mitscher Ave., Norfolk, VA 23551-2488

Defense Information Systems Agency (DISA), ATTN: GS23 (Mr. Osman), Room 5w23, 5275 Leesburg Pike (RTE 7), Falls Church, VA 22041

## **ADDITIONAL REFERENCES**

- (c) Defense Information Systems Agency, "Department of Defense Voice Networks Generic Switching Center Requirements (GSCR), Errata Change 2," 14 December 2006
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 1, Revision 1," 1 June 2005.
- (e) Executive Office of the President, "Transition Planning for Internet Protocol version 6 (IPv6)," 2 August 2005

## CERTIFICATION TESTING SUMMARY

**1. SYSTEM TITLE.** ACE\*COMM<sup>®</sup> Corporation Telecommunications Management System (TMS) with NetPlus Software Release 6.0 (Build 6.0.060808.8) is hereinafter referred to as the System Under Test (SUT).

**2. PROPONENT.** Defense Information Systems Agency (DISA).

**3. PROGRAM MANAGER.** Mr. Howard Osman, GS23, Room 5W23, 5275 Leesburg Pike, Falls Church, VA 22041, e-mail: Howard.Osman@disa.mil.

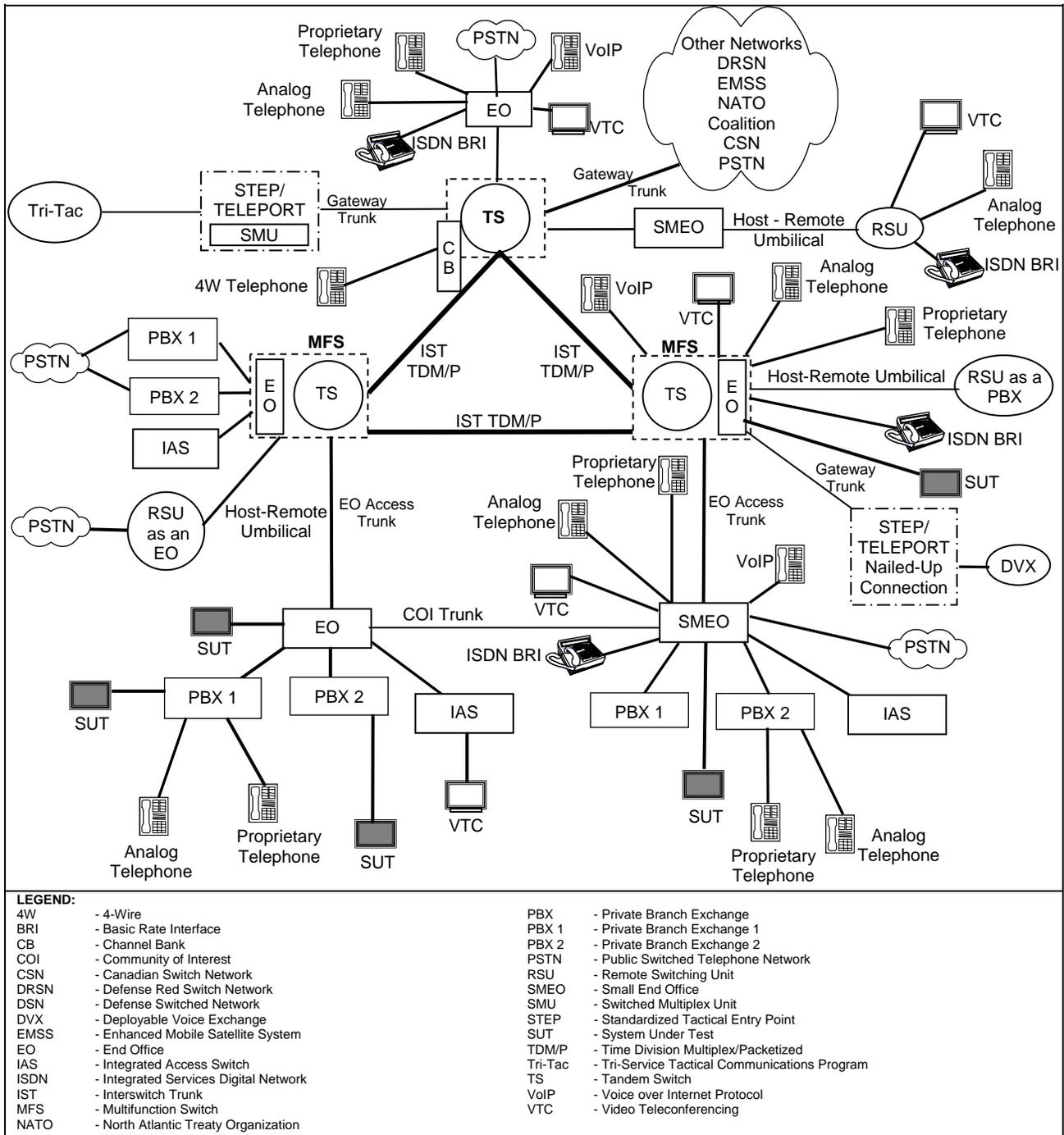
**4. TESTER.** Joint Interoperability Test Command (JITC), Fort Huachuca, Arizona.

**5. SYSTEM UNDER TEST DESCRIPTION.** The SUT is a browser-based interface that receives standardized records and Simple Network Management Protocol traps from multiple switch types. The SUT can be configured to actively poll the digital switching system for traffic reports and can perform remote switch configuration. The SUT software NetPlus6 uses centralized, database-driven applications administration with "thin client" access via Web browsers. All client-to-server communication is via HyperText Transfer Protocol and is easily encrypted with Secure Socket Layer encryption and can access a Lightweight Directory Access Protocol server for user authentication.

The SUT is composed of the following components:

- Dell Poweredge 2850 NetPlus Application TMS Server
- Dell Poweredge 2850 NetPlus Database TMS Server
- Dell PowerVault 220 Disk Array
- MRV Communications Inc. LX-8000 Terminal Server
- Western Telematics Netlink II POLLCAT Call Detail Record (CDR) recorder

**6. OPERATIONAL ARCHITECTURE.** The Generic Switching Center Requirements (GSCR) Defense Switched Network (DSN) architecture in figure 2-1 depicts the relationship of the SUT to the DSN switches.



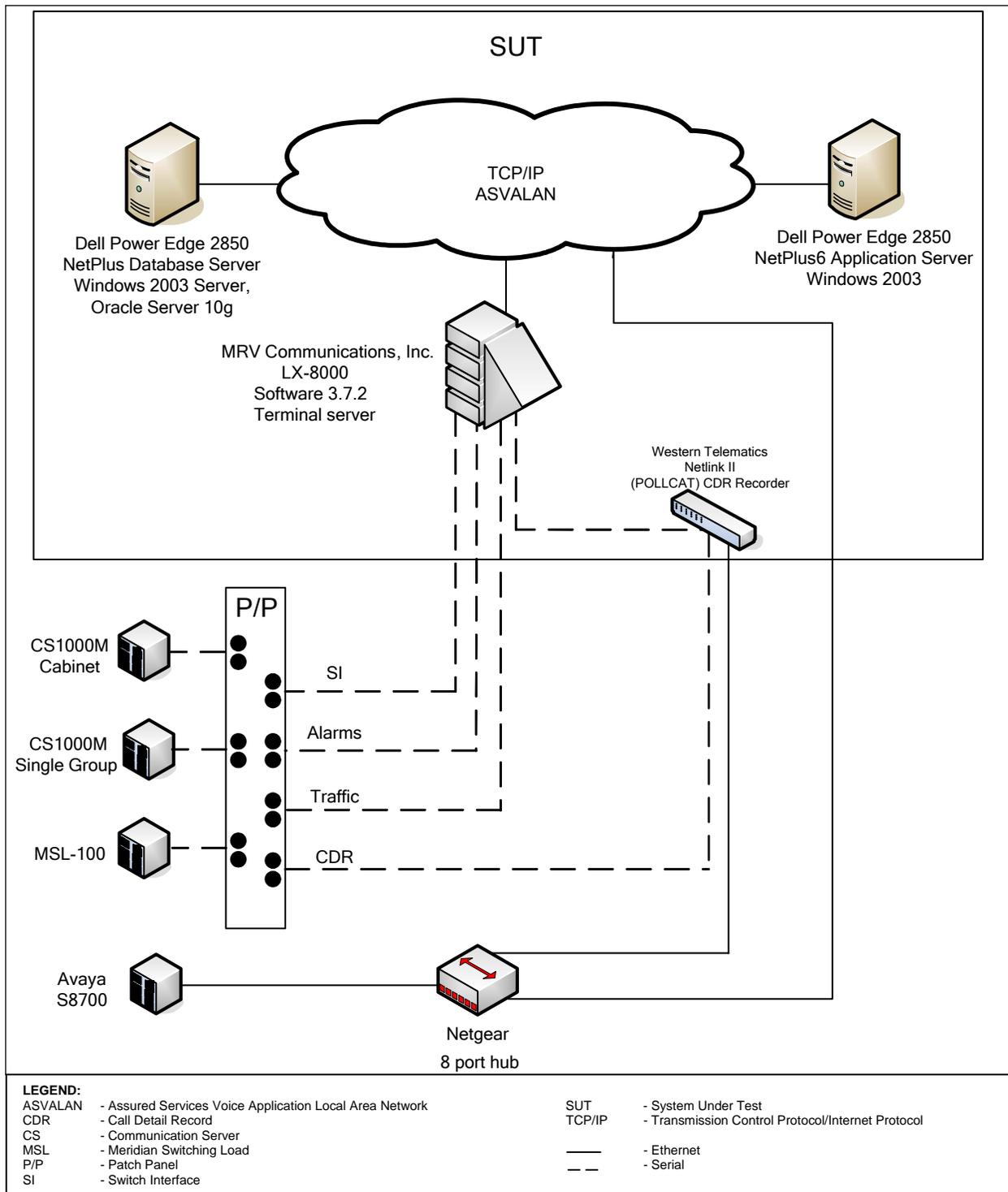
**Figure 2-1. DSN Architecture**

**7. REQUIRED SYSTEM INTERFACES.** Requirements specific to the SUT and interoperability results are listed in table 2-1. These requirements are derived from the GSCR Interface and Functional Requirements and were verified through JITC testing and vendor submission of Letters of Compliance.

**Table 2-1. SUT Functional Requirements and Interoperability Status**

Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
Serial EIA-232	No <sup>1</sup>	Yes	In accordance with EIA-232 (C)	Met	A.7.5
			Configuration Management (C)	Met	
			Fault management (C)	Met	
			Performance management (C)	Met	
			Call Detail Records management (C)	Met	
IEEE 802.3 Ethernet <sup>2</sup>	No <sup>1</sup>	Yes	Call Detail Records management (C)	Met	A.7.5
	Yes	See note 3.	Security (R)	See note 3.	A7.6.5
<b>LEGEND:</b> 802.3 - Standard for carrier sense multiple access with collision detection at 10 Mbps A - Appendix C - Conditional DISA - Defense Information Systems Agency EIA - Electronic Industries Alliance EIA-232 - Standard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment and Data Circuit-terminating Equipment data communications devices GSCR - Generic Switching Center Requirements IEEE - Institute of Electrical and Electronics Engineers, Inc. IPv4 - Internet Protocol version 4 IPv6 - Internet Protocol version 6 LoC - Letters of Compliance Mbps - Megabits per second PCM-24 - Pulse Code Modulation - 24 Channels PCM-30 - Pulse Code Modulation - 30 Channels R - Required SUT - System Under Test					
<b>NOTES:</b> 1 The SUT interoperability requirement can be met with any of the following interfaces: Ethernet, analog, digital, serial, PCM-24, or PCM-30. 2 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 LoC signed by the Vice President of the company. The vendor stated, in writing, compliance to the following criteria by 30 June 2008: (a) Conformant 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. 3 Security is tested by DISA-led Information Assurance test teams and published in a separate report.					

**8. TEST NETWORK DESCRIPTION.** The SUT was tested at JITC's Global Information Grid Network Test Facility in a manner and configuration similar to that of the DSN operational environment. Testing the system's required functions and features was conducted using the test configurations depicted in figure 2-2.



**Figure 2-2. Tested System Configurations**

**9. SYSTEM CONFIGURATIONS.** The tested system configurations are depicted in table 2-3 and the switching systems specifically certified with the SUT are shown in table 2-4.

**Table 2-3. Tested System Configuration**

System Name	Hardware/Software Release	
Nortel MSL-100	SE06 with specific patch Groups	
Nortel DSN CS1000M Single Group	Software Release 4.5w with Product Enhancement Packages	
Nortel DSN CS1000M Cabinet	Software Release 4.5w with Product Enhancement Packages	
Avaya S8700	CM3.0 (R013x.00.0.340.3)	
<b>SUT</b>	Hardware	Firmware/Software
	Dell Poweredge 2850 NetPlus Application Server	MS Windows Server 2003, Standard Addition, Service pack 1, NetPlus Software Release 6.0 (Build 6.0.060808.8)
	Dell Poweredge 2850 NetPlus Database Server	MS Windows Server 2003, Standard Addition, Service pack 1, Oracle Server 10g
	Dell PowerVault 220 Disk Array	NA
	MRV Communications Inc. LX-8000 Terminal Server	3.7.2
	Western Telematics Netlink II POLLCAT CDR recorder	
Telephone Instrument: 2-Wire Analog	Panasonic KX-TS15-W	NA
<b>LEGEND:</b> CDR - Call Detail Record CM - Communication Manager CS - Communications Server DSN - Defense Switched Network MS - Microsoft MSL - Meridian Switching Load NA - Not Applicable SE - Succession Enterprise SUT - System Under Test		

**Table 2-4. SUT Certified Switching System Configurations**

Switch Name (See note 1.)	Software Release	NM Data Elements	Interfaces
Nortel MSL-100 <sup>2</sup>	SE06 with specific patch Groups	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
<b><u>Nortel DSN CS1000M Single Group.</u></b> DSN CS1000M Multi Group (supports VoIP)	4.5W with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
<b><u>Nortel DSN M1 Option 61C.</u></b> DSN M1 Option 81C	4.5W with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
<b><u>Nortel DSN CS1000M Cabinet.</u></b> DSN CS1000M Chassis (supports VoIP)	4.5W with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
<b><u>Nortel DSN Option 11C Cabinet.</u></b> DSN Option 11C Chassis	4.5W with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
Nortel Succession DSN 1000M Single Group, Half Group, and Multi Group (supports VoIP)	Succession 3.0 with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous

**Table 2-4. SUT Certified Switching System Configurations (continued)**

Switch Name (See note 1.)	Software Release	NM Data Elements	Interfaces																																												
Nortel Succession DSN 1000M Cabinet, DSN 1000M Chassis, DSN 1000M (supports VoIP)	Succession 3.0 with product enhancement packages	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous																																												
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**10. TEST LIMITATIONS.** None.

**11. TEST RESULTS**

**a. Discussion.** The SUT connects to the DSN via certified digital switching systems over serial and Ethernet network management interfaces. The SUT was tested over an EIA-232 asynchronous interface with the digital switching systems referenced in table 2-4 and figure 2-2 except for the Avaya S8700. The Avaya S8700 was tested via IEEE 802.3 Ethernet link. The Avaya S8700 was the only digital switching system that was connected to the SUT via a TCP/IP connection over an IEEE 802.3 Ethernet link. All phone calls were completed manually using a standard analog telephone.

## **(1) Test Conduct**

**(a) CDR.** To verify the CDR, calls were placed from the digital switching systems referenced in table 2-4. These calls generated CDR and traffic and performance reports within the tested switches. The CDR data was stored at a prescribed interval on the digital switching system's hard drive. This file was then automatically pulled by the SUT via the Western Telematics Netlink II POLLCAT CDR recorder and parsed into a simulated detailed billing report.

**(b) Traffic and Performance Application.** The SUT application for Traffic and Performance was tested with all the digital switching systems listed in table 2-4. The SUT properly received the traffic and performance data from the switches and at specified intervals parsed this data into a detailed traffic and performance report without error.

**(c) Alarms.** The SUT application for Alarms was tested with all the digital switching systems listed in table 2-4. The switches pushed real time alarm data and it was parsed by the SUT into an alarm report.

**(d) Switch Interface.** The SUT application for Switch Interface was tested with all the digital switching systems listed in table 2-4. This application, as tested, allows the SUT with an assigned access account to access the respective switches and make software line additions, changes, and deletions.

**(2) Test Results.** The SUT applications tested over the EIA-232 asynchronous and IEEE 802.3 Ethernet interfaces had no negative interoperability impact on the DSN.

**b. Test Summary.** The SUT met the critical interoperability requirements for a customer premise equipment device and is certified for joint use within the DSN.

**12. TEST AND ANALYSIS REPORT.** 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>.