



**DEFENSE INFORMATION SYSTEMS AGENCY**  
JOINT INTEROPERABILITY TEST COMMAND  
P.O. BOX 12798  
FORT HUACHUCA, ARIZONA 85670-2798

IN REPLY  
REFER TO: Networks and Transport Division (JTE)

**1 May 2006**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Special Interoperability Test Certification of Professional Computing Resources, Inc., COMIT with Software Release 4.0

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

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. Professional Computing Resources Inc., COMIT with Software Release 4.0 is hereinafter referred to as the system under test (SUT). The SUT meets the interface and functional requirements and is certified for joint use within the Defense Switched Network (DSN) specifically with the Nortel Network MSL-100 and the Lucent 5ESS switches. The SUT met the interface and functional requirements for customer premise equipment devices set forth in appendix 7 of reference (c). Testing was conducted using test procedures derived from reference (d). This certification expires upon changes that affect interoperability, but no later than three years from the date of this memorandum.
3. This certification is based on interoperability testing and review of the vendor's Letters of Compliance (LoC). Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 9 through 13 May 2005. Review of the vendor's LoC was completed on 30 May 2005. Regression testing was conducted from 13 through 16 March 2006. The Certification Testing Summary (enclosure 2) documents the test results and describes the test configuration. Users should verify 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 1.

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

Interfaces	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
EIA-232	No <sup>2</sup>	Yes	Automated Message Accounting (C) Configuration Management (C)	Met	A.7.5
IEEE 802.3 (10BaseT) <sup>1</sup>					
	Yes	See note 3.	Security in accordance with DITSCAP (R)	See note 3.	A.7.6.5

**LEGEND:**

802.3	- IEEE standard for carrier sense multiple access with collision detection at 10 Mbps	IEEE	- Institute of Electrical and Electronics Engineers, Inc.
10BaseT	- 10 Mbps (Baseband Operation, Twisted Pair) Ethernet	Mbps	- Megabits per second
A	- Appendix	MSL	- Meridian Switching Load
C	- Conditional Requirement	R	- Required
DISA	- Defense Information Systems Agency	SUT	- System Under Test
DITSCAP	- Department of Defense Information Technology Security Certification and Accreditation Process	X.25	- Interface between Data Terminal Equipment and Data Circuit-terminating Equipment for terminals operating in the packet mode and connected to public data networks by dedicated circuit
EIA	- Electronic Industries Alliance		
GSCR	- Generic Switching Center Requirements		
ITU-T	- International Telecommunication Union - Telecommunication Standardization Sector		

**NOTES:**

- This interface is only supported by the MSL-100.
- The Network Management interface can be met with one of the following interfaces: ITU-T X.25, IEEE 802.3, or Serial.
- Information assurance testing is accomplished via 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>.

6. The JITC point of contact is Mr. Michael Napier, DSN 879-6787, commercial (520) 538-6787, FAX DSN 879-4347, or e-mail to [Michael.Napier@disa.mil](mailto:Michael.Napier@disa.mil). The tracking number for the SUT is 50741.

FOR THE COMMANDER:



RICHARD A. MEADOR  
Chief  
Networks and Transport Division

2 Enclosures a/s

JITC Memo, JTE, Special Interoperability Test Certification of Professional Computing Resources, Inc., COMIT with Software Release 4.0

Distribution:

Joint Staff J6I, Room 1E596, Pentagon, Washington, DC 20318-6000  
Joint Interoperability Test Command, Liaison, ATTN: TED/JT1, 2W24-8C, P.O. Box 4502, Falls Church, VA 22204-4502  
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), MARCORSYSCOM, 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), Incorporated Change 1," 1 March 2005
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 1, Revision 1," 1 June 2005

## CERTIFICATION TESTING SUMMARY

**1. SYSTEM TITLE.** Professional Computing Resources, Inc., COMIT with Software Release 4.0, 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.

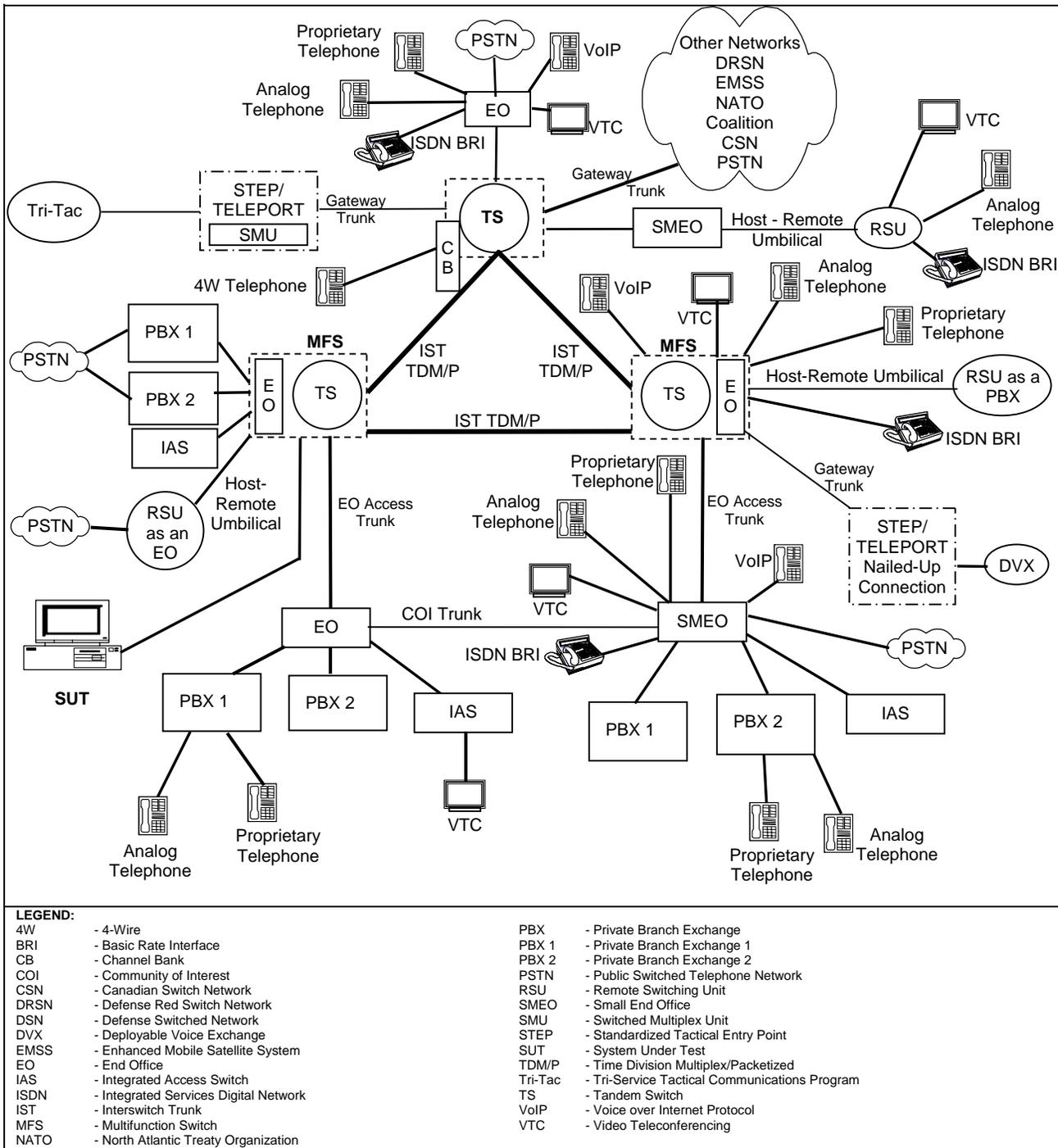
**5. SYSTEM UNDER TEST DESCRIPTION.** The SUT is an Internet Protocol-based network element monitoring application. The SUT is used to simultaneously monitor multiple switching systems in real-time and provide point and click access to Station Message Detail Recording call detail records (Automated Message Accounting). The SUT allows client configurable reports and databases including, but not limited to: help desk, service order processing, inventory, reporting, and billing. The SUT provides a Graphical User Interface (GUI) for maintaining station features, and allows command line maintenance terminal access to the switching systems (Configuration Management).

The SUT performs the basic call accounting services, as well as the following operations:

- Provides complete equipment inventory management by station number.
- Allows the telecommunications department to implement a service/work order processing function to update all SUT databases via a single input. The work order function provides the detail to manage both in-house technicians and vendors.
- The system includes a trouble reporting system. The trouble ticket uses available station information to identify equipment and cable-pair assignments, helping the technician to quickly resolve user problems. The trouble reports maintain the contact information needed to manage in-house technicians and other resources.
- Implements cable inventory for any cable system. The cable inventory module is used by service order and trouble reporting functions to further enhance the management capabilities of the SUT.

The SUT was tested specifically with the Nortel Network MSL-100 and the Lucent 5ESS switches.

**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**

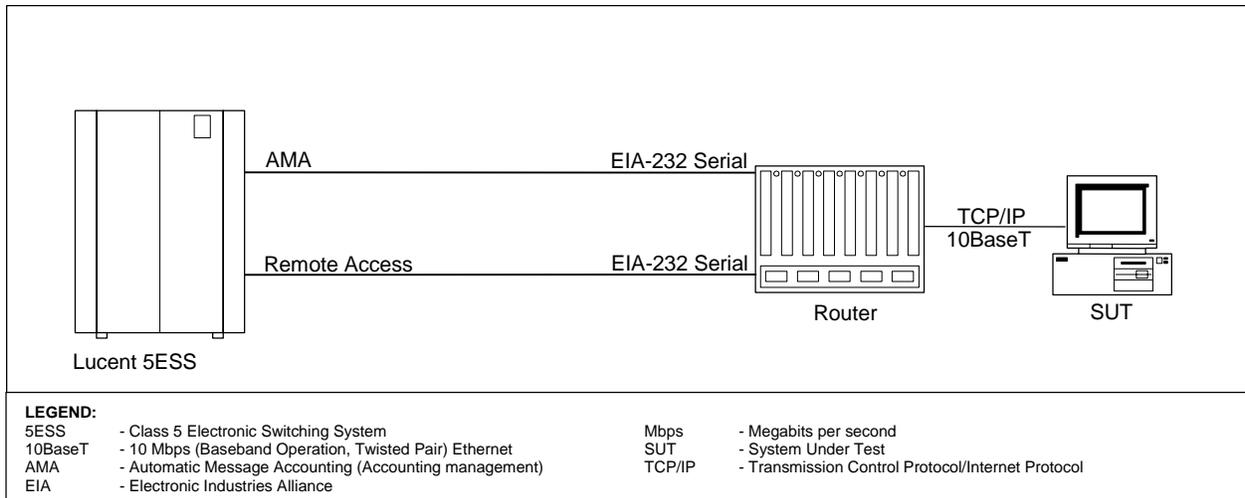
**7. REQUIRED SYSTEM INTERFACES.** Requirements specific to the SUT and interoperability results are listed in table 2-1. These requirements are derived from

GSCR Interface and Functional Requirements (FRs) verified through JITC testing and/or vendor submission of Letters of Compliance.

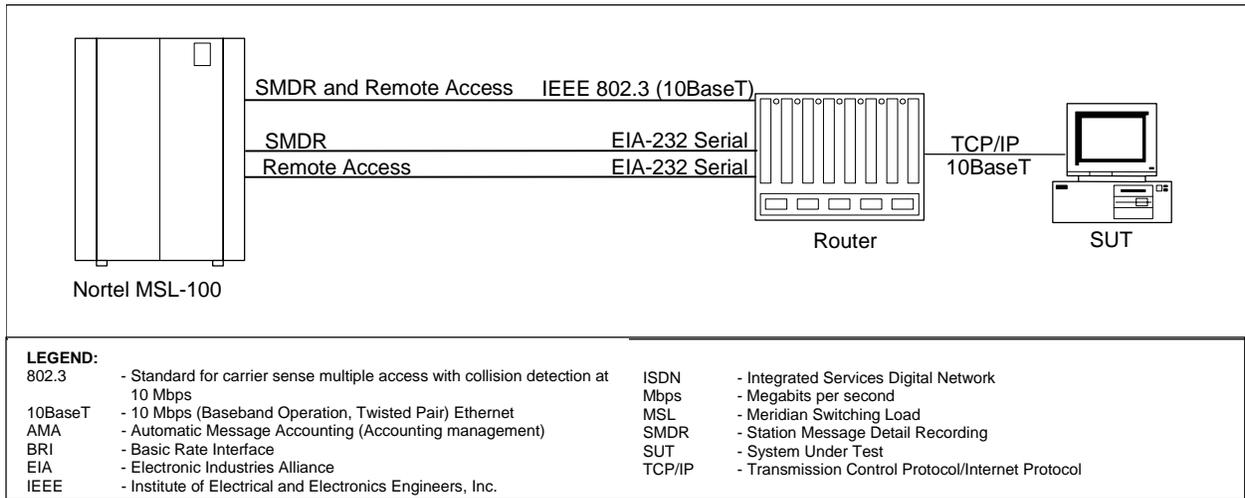
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**8. TEST NETWORK DESCRIPTION.** The SUT was tested at JITC's Global Information Grid Network Test Facility in a manner and configuration similar to that of the DSN operational environment. The test configurations depicted in figures 2-2 and 2-3 were used to test the system's interface functions and features.



**Figure 2-2. SUT Test Configuration with the Lucent 5ESS**



**Figure 2-3. SUT Test Configuration with the Nortel Networks MSL-100**

**9. SYSTEM CONFIGURATIONS.** The tested system configurations are shown in table 2-3.

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

System Name	Software Release	
Nortel Networks MSL-100	SE06	
Lucent 5ESS	5E16.2 SU 05-00002	
Cisco 2611XM Router	IOS 12.3(8)T3	
3COM OfficeConnect Ethernet Hub 4 Port	NA	
SUT COMIT Software v. 4.0	Hardware	Software/Firmware
	- Intel PC 2GHz - 2 GB RAM - 20GB Hard Drive - Ethernet Card (Etherlink P/N: 3C900-TPO)	- Operating System: Solaris 9 - Oracle 10g - COMIT version 4.0 - 5ESS Interface module version 4.16.001 - 5ESS Call Detail Recording module 4.002 - MSL100 Interface module version 4.2.001 - MSL100 Call Detail Recording module 4.002
<b>LEGEND:</b>		
5ESS - Class 5 Electronic Switching System	PC - Personal Computer	
GB - Gigabyte	P/N - Part number	
GHz - GigaHertz	RAM - Random Access Memory	
IOS - Internetworking Operating System	SE - Succession Enterprise	
MSL - Meridian Switching Load	SU - Software Update	
NA - Not Applicable	SUT - System Under Test	

**10. TEST LIMITATIONS.** None.

**11. TEST RESULTS**

**a. Discussion.** The SUT Network Management (NM) FRs (Automated Message Accounting and Configuration Management) were tested using the test configurations shown in figures 2-2 and 2-3. A bulk call loader was configured to generate call traffic via the MSL-100 and 5ESS switches. The SUT was then used to poll the respective call detail records, parse the data, and then display it in a GUI or save it to a file. The call detailed record data was adequately polled by the SUT with no noted interoperability problems. Furthermore, other NM sessions such as Advanced DSN Integrated Management Support System (ADIMSS) were established simultaneous to the SUT sessions with both the MSL-100 and 5ESS switches without any disruption. Accessing the two switches with the SUT required an appropriate password and login prior to invoking configuration management changes. This specific requirement is tested by the Information Assurance test team and covered under a separate report. The SUT adequately polled line features and configurations using the respective switches command lines when logged-in to the switch without any disruption of local changes on the maintenance terminal or ADIMSS.

**b. Test Summary.** The SUT met the critical interoperability requirements for a customer premise device for the interfaces shown in table 2-1, as set forth in reference (c), and is certified for joint use within the DSN specifically with the Nortel Network MSL-100 and the Lucent 5ESS switches.

**12. TESTS 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 TSSI website at <http://jitc.fhu.disa.mil/tssi>.