



DEFENSE INFORMATION SYSTEMS AGENCY

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

26 Oct 09

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Special Interoperability Test Certification of General Dynamics C4 Systems Sectera® Wireline Terminal (SWT) Version 12.05

References: (a) DoD Directive 4630.5, "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

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 General Dynamics C4 Systems SWT Version 12.05 is hereinafter referred to as the system under test (SUT). The SUT meets all of its critical interoperability requirements and is certified for joint use within the Defense Switched Network (DSN) as a Department of Defense (DoD) Secure Communications Device (DSCD). 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 of this memorandum.

3. This finding is based on interoperability testing conducted by JITC, review of the vendor's Letters of Compliance (LoC), and National Security Agency (NSA) Type I Accreditation. Interoperability testing of the SUT was conducted at JITC's Global Information Grid Network Test Facility at Fort Huachuca, Arizona, from 29 June through 24 July 2009. Review of vendor's LoC was completed on 3 September 2009. The security requirements for DSCD devices without Internet Protocol (IP) interfaces are satisfied with a NSA Type I Accreditation. The SUT NSA Type I accreditation was granted on 23 October 2008, reference (c). Enclosure 2 documents the test results and describes the tested network and system configurations.

4. The interoperability test summary of the SUT is indicated in Table 1. The Unified Capabilities Requirement DSCD Interoperability Requirements 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. DSCD interface and signaling requirements as specified in reference (e) verified through JITC testing and/or vendor submission of LoC.

c. DSCD Capability Requirements (CRs)/ Feature Requirements (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

DSCD Interoperability Requirements			
Interface & Signaling	Critical	Status	Remarks
2-Wire Analog (GR-506-CORE)	Yes	Certified	Met all Critical CRs and FRs.
EIA-232 Serial	No	Certified	Met all Critical CRs and FRs.
LEGEND: CRs Capability Requirements DoD Department of Defense DSCD DoD Secure Communications Devices EIA Electrical Industry Association FRs Feature Requirements GR-506-CORE LSSGR: Signaling for Analog Interfaces LSSGR Local Access and Transport Area (LATA) Switching Systems Generic Requirements			

Table 2. DSCD UCR Interoperability Requirements

DSN Line Interfaces			
Interface	Critical	Requirements Required or Conditional	References
2 Wire Analog (GR-506-CORE)	Yes	<ul style="list-style-type: none"> • Type Approved by NSA (R) • Shall meet 2-wire Analog End Instrument Requirements per UCR 5.2.12.3 (R) <ul style="list-style-type: none"> ◦ MLPP (R) ◦ Part 15 and part 68 of FCC (R) ◦ DTMF out pulsing in accordance with GR-506-CORE (R) ◦ 2-Wire Analog Interface in accordance with TIA/EIA-470-B (R) • Shall go secure with at least an 85% call completion rate (R) • Shall establish secure call within 60 seconds for duration of secure call (R) • Shall operate in a network that has an end-to-end latency of up to 600 milliseconds (R) • Maintain secure voice connection with MOS of 3.0 (R) • Process new key with 95% rekey completion rate (R) • Supports data and facsimile transmission rate of 9.6 kbps or better (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.12.6.6 • UCR Section 5.2.12.6.6 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5.1 • UCR Section 5.2.12.6.6
EIA-232	No	<ul style="list-style-type: none"> • Supports data and facsimile transmission rate of 9.6 kbps or better (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.12.6.6
LEGEND: C Conditional GR Generic Requirement R Required DoD Department of Defense kbps kilobits per second TIA/EIA Telecommunications Industry Association/Electrical Industry Association DSCD DoD Secure Communications Device MLPP Multi-Level Precedence and Preemption DSN Defense Switched Network MOS Mean Opinion Score UCR Unified Capabilities Requirements DTMF Dual Tone Multi-Frequency NSA National Security Agency FCC Federal Communications Commission			

5. No detailed test report was developed in accordance with the Program Manager's request. The 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 Ms. Anita Bickler, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to anita.bickler@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0835702.

FOR THE COMMANDER:



for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

2 Enclosures a/s

JITC Memo, JTE, Special Interoperability Test Certification of the General Dynamics C4 Systems Sectéra®Wireline Terminal (SWT) Version 12.05

Distribution (electronic mail):

Joint Staff J-6

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Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) National Security Agency, "Information Assurance Directorate," 23 October 2008
- (d) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6215.01C, "Policy for Department of Defense Voice Services with Real Time Services (RTS)," 9 November 2007
- (e) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008," 22 January 2009
- (f) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006

CERTIFICATION TESTING SUMMARY

1. SYSTEM TITLE. General Dynamics C4 Systems Sectéra® Wireline Terminal (SWT) Version 12.05; hereinafter referred to as the System Under Test (SUT).

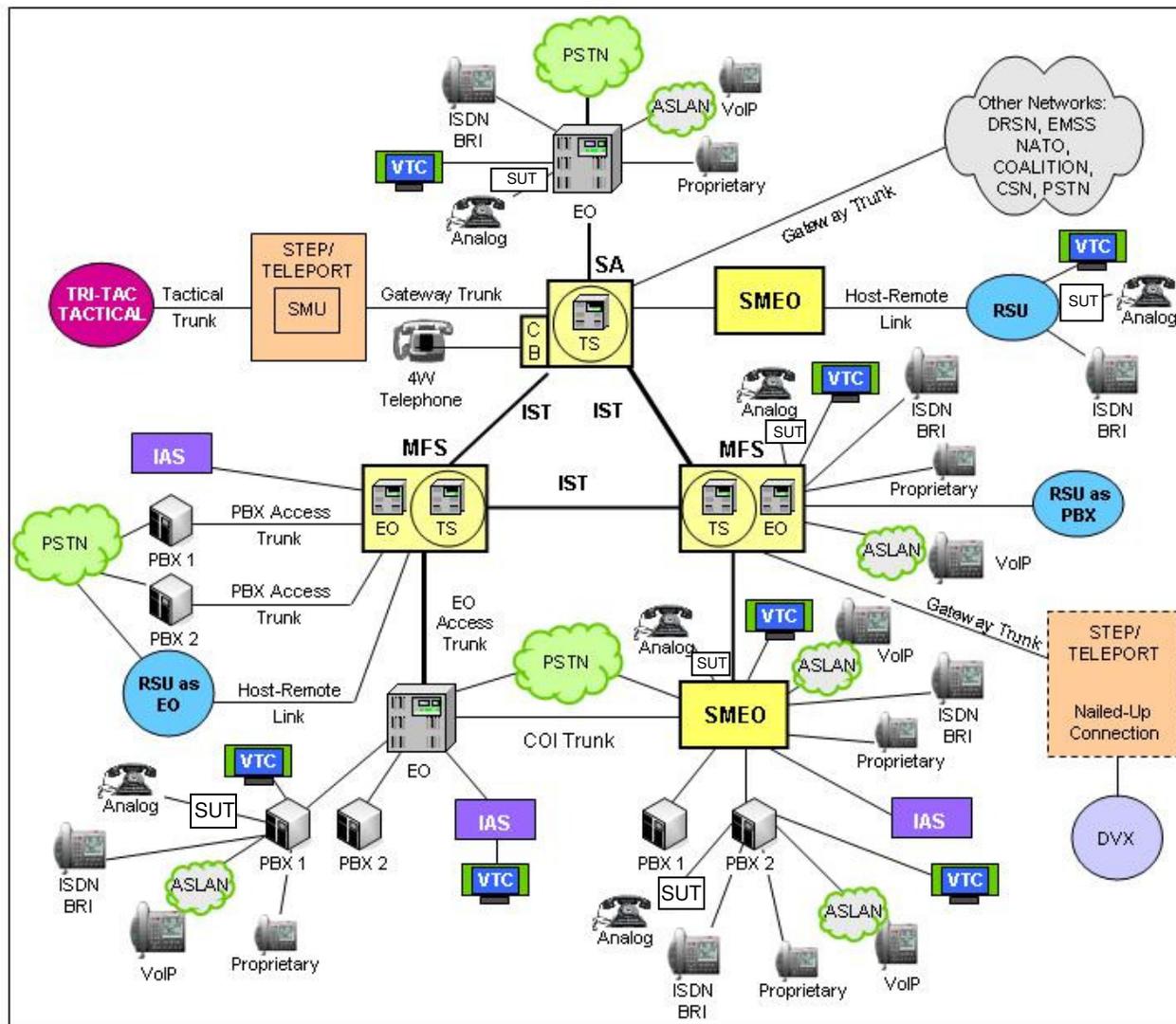
2. PROPONENT. U.S. Army Communications-Electronics Command.

3. PROGRAM MANAGER. Mr. John Kahler, EA-TJTN/GS13, Building 1210 Rittko Ave, Fort Monmouth, NJ, 07703, E-mail: john.kahler@us.army.mil.

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

5. SYSTEM UNDER TEST DESCRIPTION. The SUT is a secure device that provides Secure Communications Interoperability Protocol (SCIP) secure voice and secure data wireline connectivity between a locally connected device (e.g. an analog telephone or personal computer) and a remote comparably equipped device. The SUT supports Multi-Level Precedence and Preemption (MLPP) dialing through the Human Machine Interface (HMI). The SUT provides two RJ11 ports, one to connect to a local analog phone and one to connect to the Public Switched Telephone Network (PSTN). The SUT also provides a 9-pin serial data port to connect to a device to fill key material and to connect to a local computer for Secure Data applications. This serial port is also used to access a limited set of SWT specific utility commands. The SUT implements the Type 1 SCIP signaling and cryptography specifications as defined by the U.S. Government. The SUT is certified by the National Security Agency (NSA) to protect information classified Top Secret and below, using Type 1 encryption keys and algorithms for secure communications to a controlled group of user.

6. OPERATIONAL ARCHITECTURE. The Defense Switched Network (DSN) architecture is a two-level network hierarchy consisting of DSN backbone switches and Service/Agency installation switches. Joint Staff policy and subscriber mission requirements determine which type of switch can be used at a particular location. The DSN architecture, therefore, consists of several categories of switches, including Private Branch Exchanges (PBX)s. The Unified Capabilities Requirements (UCR) operational DSN Architecture is depicted in Figure 2-1.



LEGEND:

- | | | | |
|-------|--------------------------------------|---------|--|
| 4W | 4-Wire Subscriber Line | NATO | North American Treaty Organization |
| ASLAN | Assured Services Local Area Network | PBX | Private Branch Exchange |
| BRI | Basic Rate Interface | PBX1 | Private Branch Exchange (MLPP Capable) |
| CB | Channel Bank | PBX2 | Private Branch Exchange (Non-MLPP Capable) |
| COI | Community of Interest | PSTN | Public Switching Telephone Network |
| CSN | Canadian Switched Network | RSU | Remote Switching Unit |
| DRSN | Defense RED Switch Network | SA | Stand-Alone Switch |
| DSN | Defense Switched Network | SMEO | Small End Office |
| DVX | Deployable Voice Exchange | SMU | Switch Multiplex Unit |
| EMSS | Enhanced Mobile Satellite System | STEP | Standard Tactical Entry Point |
| EO | End Office | SUT | System Under Test |
| IAS | Integrated Access Switch | Tri-Tac | Tri-Service Tactical |
| ISDN | Integrated Services Digital Network | TS | Tandem Switch |
| IST | Interswitch Trunk | VoIP | Voice over Internet Protocol |
| MFS | Multifunction Switch | VTC | Video Teleconferencing |
| MLPP | Multilevel Precedence and Preemption | | |

Figure 2-1. DSN Architecture

7. REQUIRED SYSTEM INTERFACES. The SUT Interoperability Test Summary is shown in Table 2-1 and the Capability and Feature Requirements used to evaluate the interoperability of the SUT are indicated in Table 2-2.

Table 2-1. SUT Interoperability Test Summary

DSCD Interoperability Requirements			
Interface & Signaling	Critical	Status	Remarks
2-Wire Analog (GR-506-CORE)	Yes	Certified	Met all Critical CRs and FRs.
EIA-232 Serial	No	Certified	Met all Critical CRs and FRs.
LEGEND: CRs Capability Requirements DoD Department of Defense DSCD DoD Secure Communications Devices EIA Electrical Industry Association FRs Feature Requirements GR-506-CORE LSSGR: Signaling for Analog Interfaces LSSGR Local Access and Transport Area (LATA) Switching Systems Generic Requirements SUT System Under Test			

Table 2-2. DSCD UCR Interoperability Requirements

DSN Line Interfaces			
Interface	Critical	Requirements Required or Conditional	References
2 Wire Analog (GR-506-CORE)	Yes	<ul style="list-style-type: none"> • Type Approved by NSA (R) • Shall meet 2-wire Analog End Instrument Requirements per UCR 5.2.12.3 (R) <ul style="list-style-type: none"> ◦ MLPP (R) ◦ Part 15 and part 68 of FCC (R) ◦ DTMF out pulsing in accordance with GR-506-CORE (R) ◦ 2-Wire Analog Interface in accordance with TIA/EIA-470-B (R) • Shall go secure with at least an 85% call completion rate (R) • Shall establish secure call within 60 seconds for duration of secure call (R) • Shall operate in a network that has an end-to-end latency of up to 600 milliseconds (R) • Maintain secure voice connection with MOS of 3.0 (R) • Process new key with 95% rekey completion rate (R) • Supports data and facsimile transmission rate of 9.6 kbps or better (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.12.6.6 • UCR Section 5.2.12.6.6 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5 • UCR Section 5.2.12.3.5.1 • UCR Section 5.2.12.6.6
EIA-232	No	<ul style="list-style-type: none"> • Supports data and facsimile transmission rate of 9.6 kbps or better (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.12.6.6
LEGEND: C Conditional DoD Department of Defense DSCD DoD Secure Communications Device DSN Defense Switched Network DTMF Dual Tone Multi-Frequency EIA Electrical Industry Association FCC Federal Communications Commission GR Generic Requirement GR-506-CORE LSSGR: Signaling for Analog Interfaces kbps kilobits per second LATA Local Access and Transport Area LSSGR LATA Switching Systems Generic Requirements MLPP Multi-Level Precedence and Preemption MOS Mean Opinion Score NSA National Security Agency R Required TIA/EIA Telecommunications Industry Association/Electrical Industry Association UCR Unified Capabilities Requirements			

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 of the SUT required functions and features was conducted using the test configurations depicted in Figures 2-2 through 2-9. Figures 2-2 through 2-8 simulate actual DoD operationally deployed network to strategic core network test configuration strings. The SUT was tested with other DSCD devices between the various test points denoted in each figure. Figure 2-9 depicts the test configuration used to test fax and modem calls with the SUT.

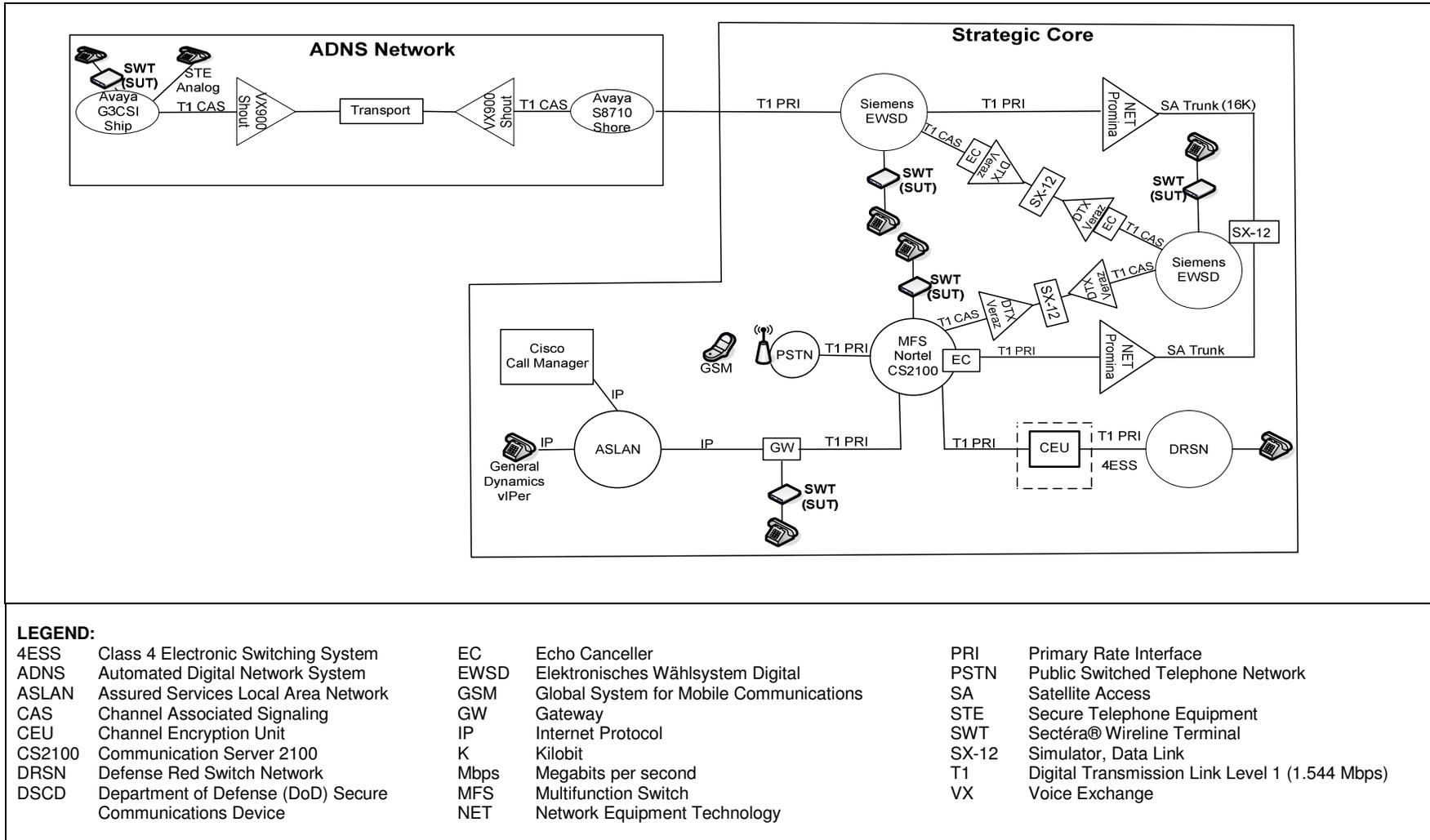
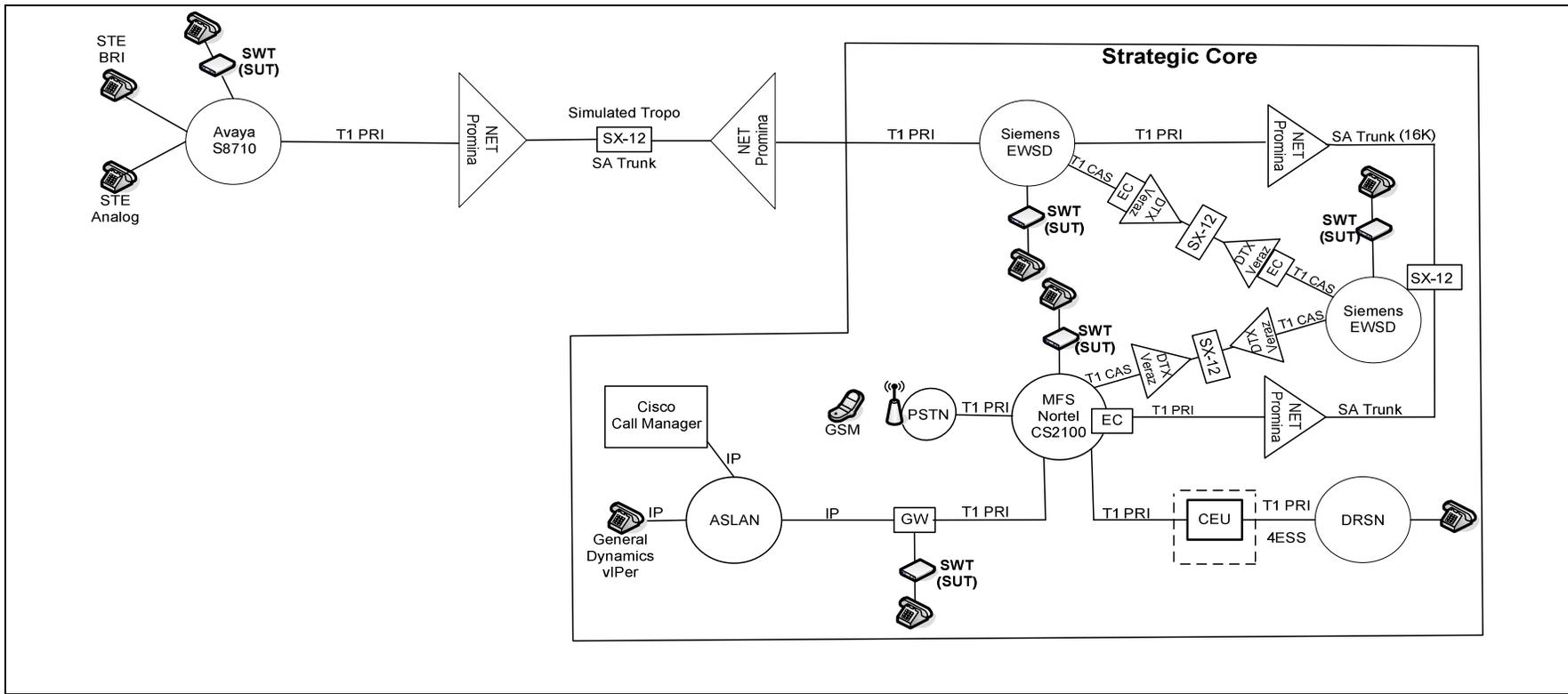


Figure 2-2. ADNS Composite Test Diagram



LEGEND:

4ESS	Class 4 Electronic Switching System	EC	Echo Canceller	PRI	Primary Rate Interface
ASLAN	Assured Services Local Area Network	EWSD	Elektronisches Wählsystem Digital	PSTN	Public Switched Telephone Network
BRI	Basic Rate Interface	GSM	Global System for Mobile Communications	SA	Satellite Access
CAS	Channel Associated Signaling	GW	Gateway	STE	Secure Telephone Equipment
CEU	Channel Encryption Unit	IP	Internet Protocol	SWT	Sectéra® Wireline Terminal
CS2100	Communication Server 2100	K	Kilobit	SX-12	Simulator, Data Link
DRSN	Defense Red Switch Network	Mbps	Megabits per second	T1	Digital Transmission Link Level 1 (1.544 Mbps)
DSCD	Department of Defense (DoD) Secure Communications Device	MFS	Multifunction Switch	Tropo	Tropospheric Scatter Radio
		NET	Network Equipment Technology		

Figure 2-3. Air Force Composite Test Diagram

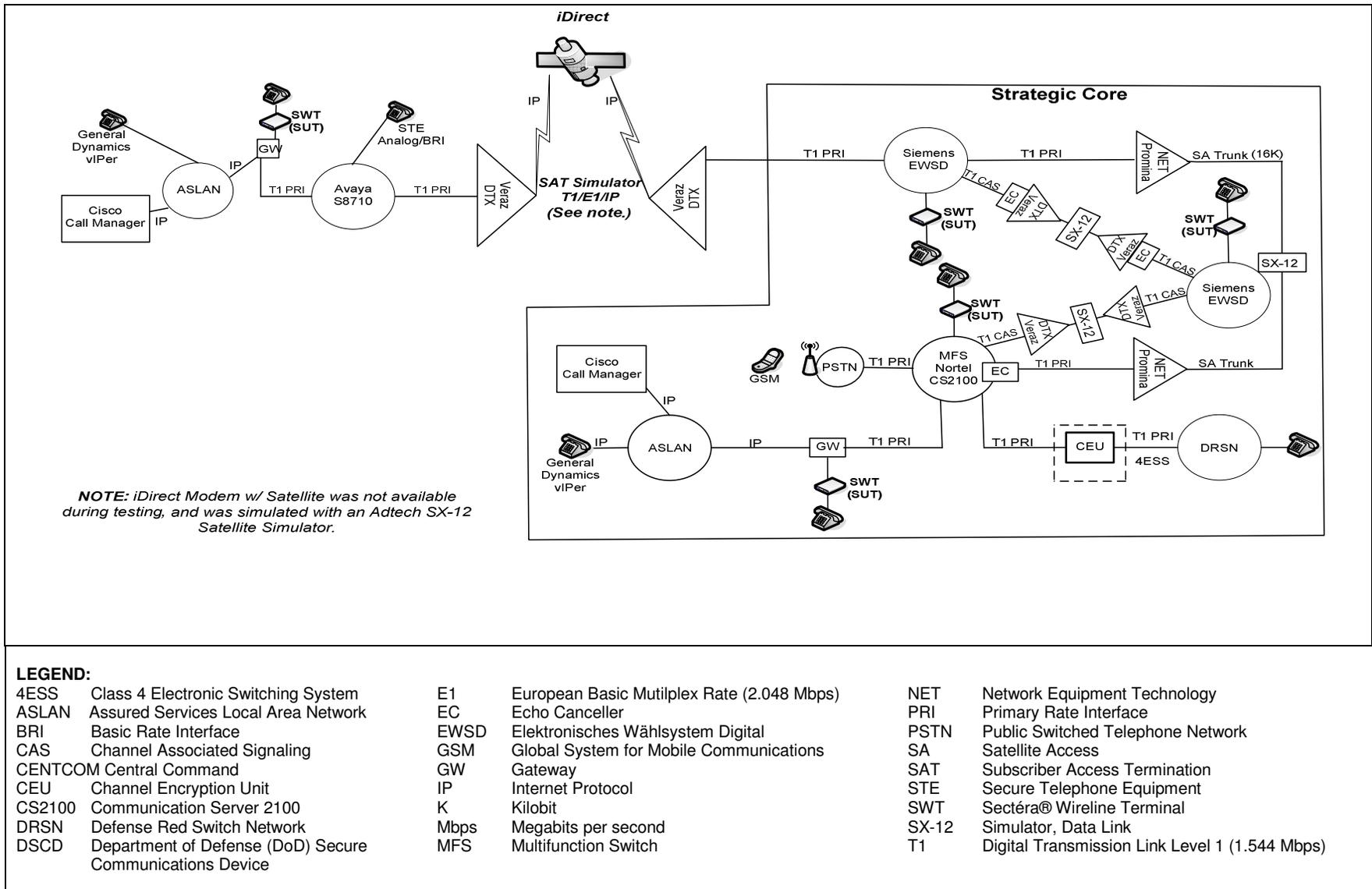


Figure 2-5. CENTCOM Composite Test Diagram

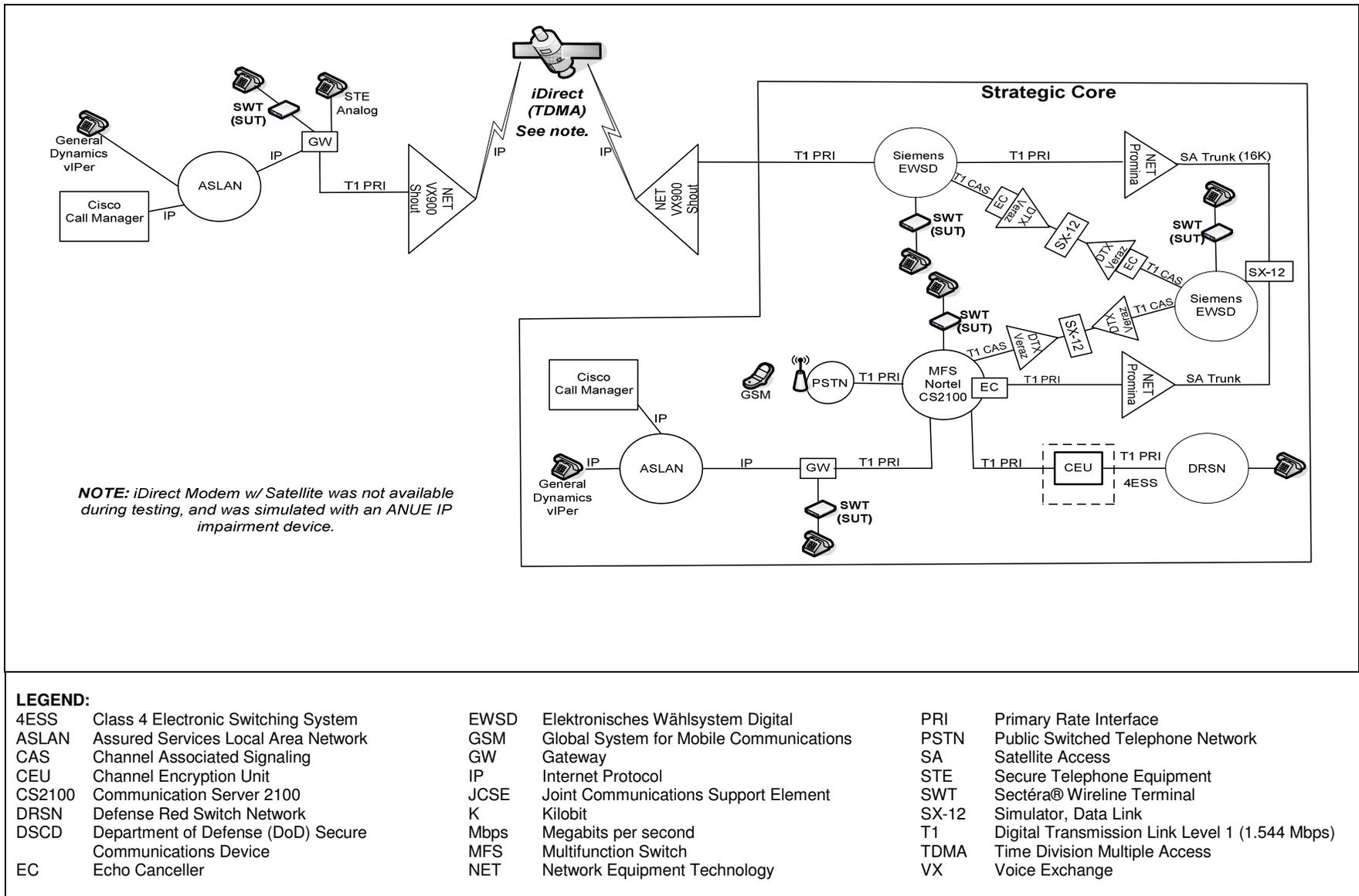


Figure 2-6. JCSE DSCD Composite Test Diagram

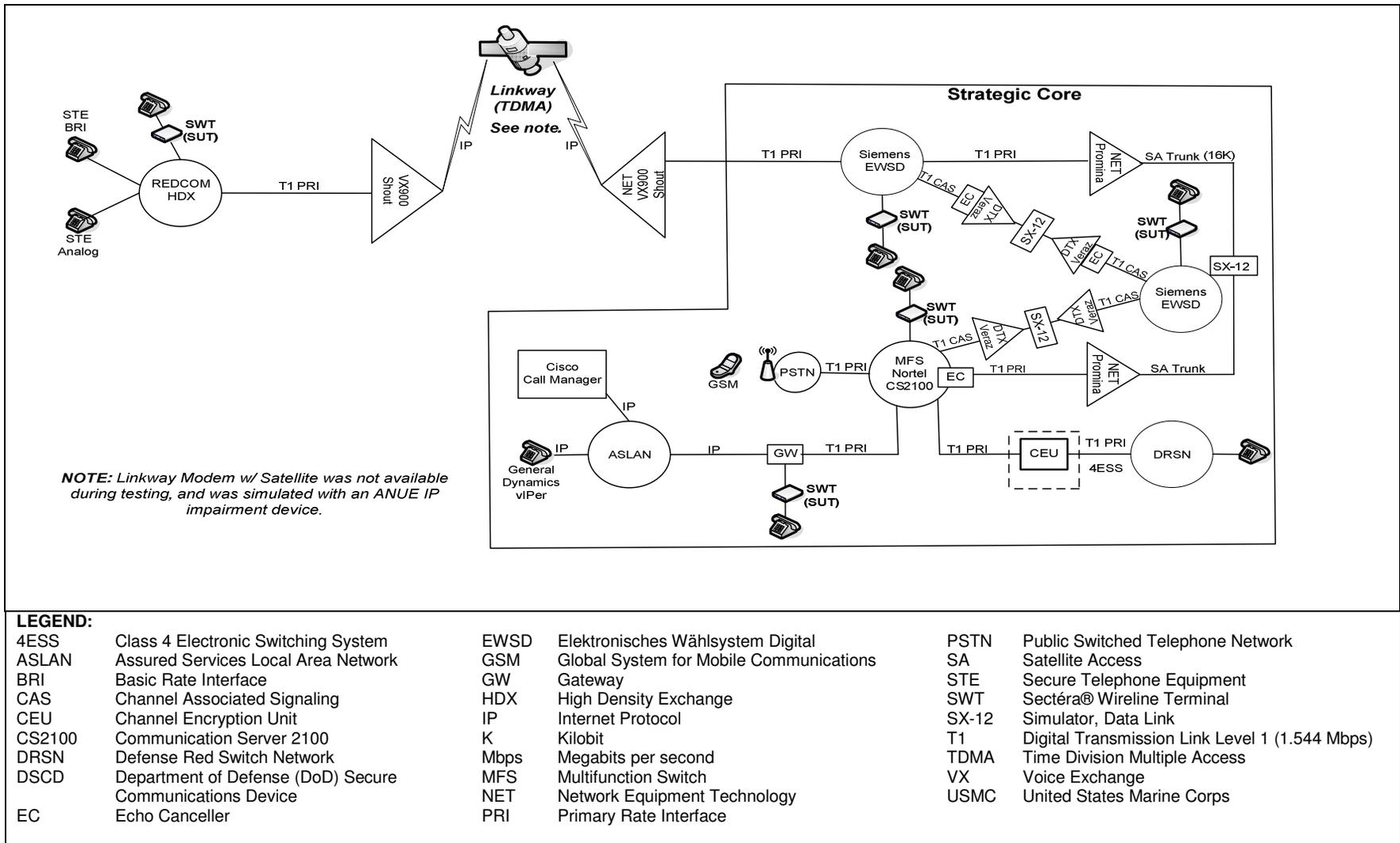
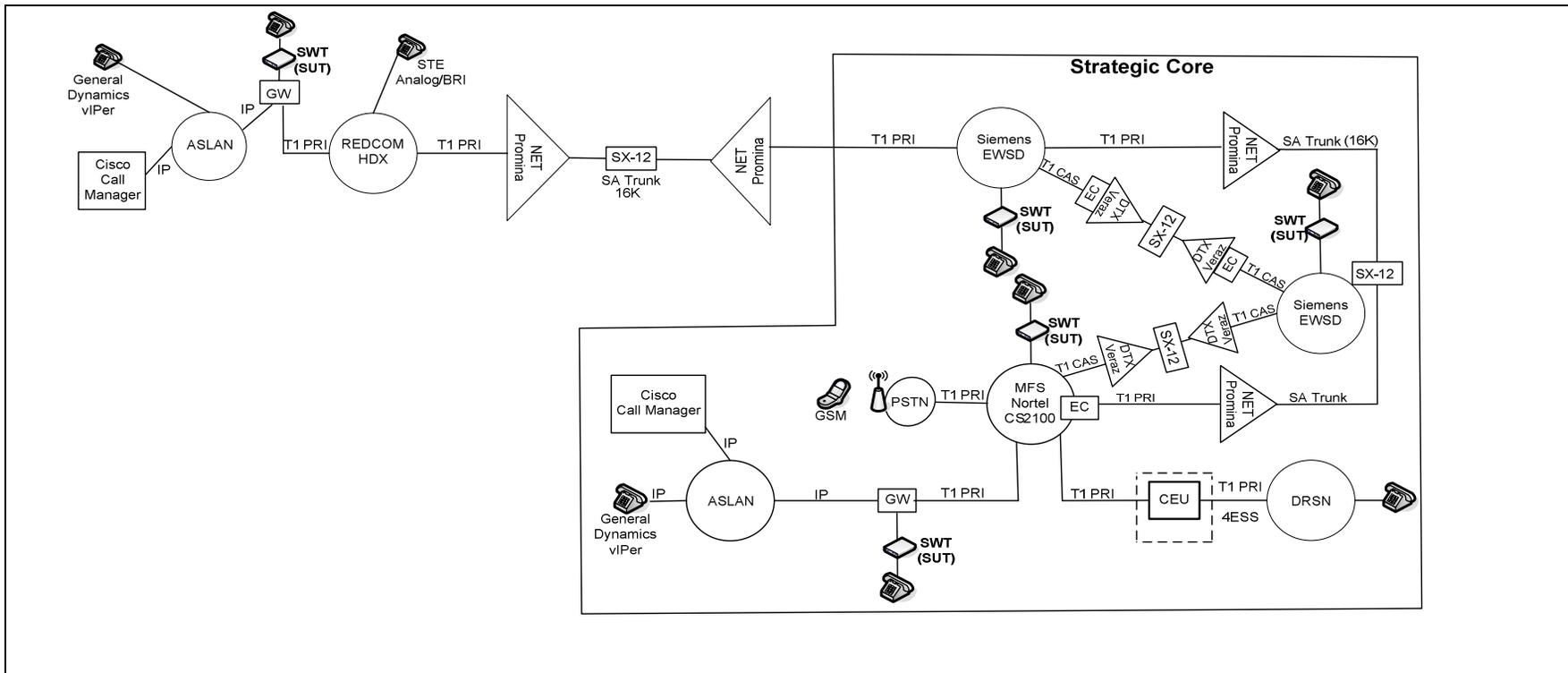


Figure 2-7. USMC Composite Test Diagram



LEGEND:

4ESS	Class 4 Electronic Switching System	EC	Echo Canceller	NET	Network Equipment Technology
ASLAN	Assured Services Local Area Network	EWSD	Elektronisches Wählsystem Digital	PRI	Primary Rate Interface
BRI	Basic Rate Interface	GSM	Global System for Mobile Communications	SA	Satellite Access
CAS	Channel Associated Signaling	GW	Gateway	STE	Secure Telephone Equipment
CEU	Channel Encryption Unit	HDX	High Density Exchange	SWT	Sectera® Wireline Terminal
CS2100	Communication Server 2100	IP	Internet Protocol	SX-12	Simulator, Data Link
DRSN	Defense Red Switch Network	K	Kilobit	T1	Digital Transmission Link Level 1 (1.544 Mbps)
DSCD	Department of Defense (DoD) Secure Communications Device	Mbps	Megabits per second	WIN-T	Warfighter Information Network - Tactical
		MFS	Multifunction Switch		

Figure 2-8. WIN-T Composite Test Diagram

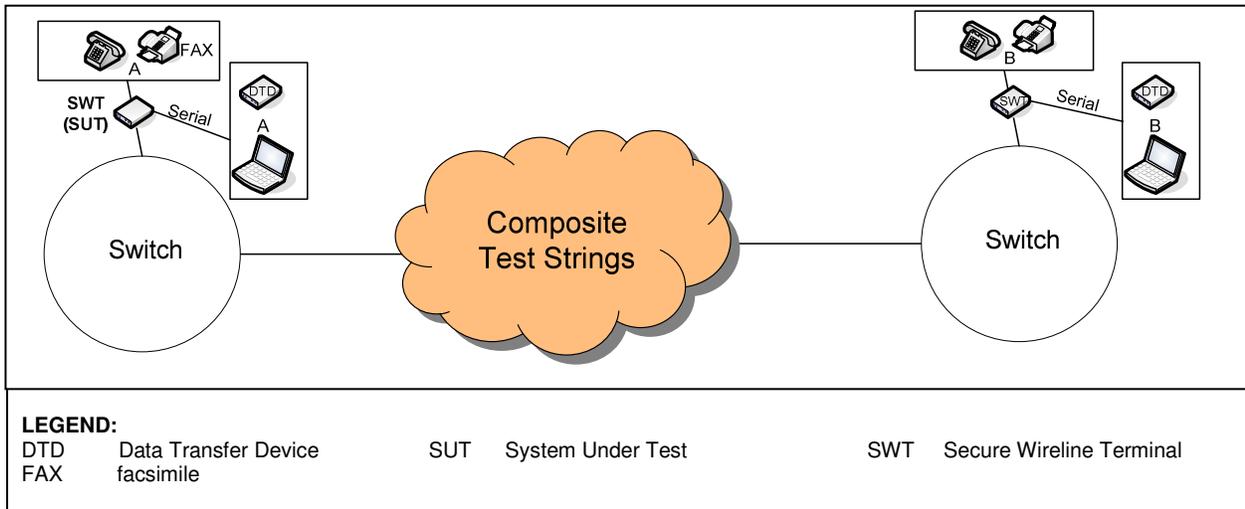


Figure 2-9. SUT FAX/Modem Test Configuration Diagram

9. SYSTEM CONFIGURATIONS. Table 2-2 provides the system configurations, hardware, and software components tested with the SUT. The SUT was tested in an operationally realistic environment to determine interoperability with a complement of DSN switches, network elements and comparable DSCD end instruments noted in Table 2-2. Table 2-2 lists the DSN switches and Network Elements which depict the tested configuration and is not intended to identify the only switches and Network Elements that are certified with the SUT. The SUT is certified with switching systems listed on the Unified Capabilities (UC) Approved Products List (APL) that offer the same certified interfaces.

Table 2-2. Tested System Configurations

System Name	Software Release
Nortel CS2100 (MFS)	Succession Enterprise (SE) 09.1
Nokia-Siemens EWSD (MFS)	19d with Patch Set 46
Avaya S8710 (SMEO)	Communication Manager (CM) 4.0 (R014x.00.2.731.7: Super Patch 14419)
Avaya G3CSI (PBX 1)	Communication Manager (CM) 3.0 (R013i.00.0.340.5: Patch 8893.1.0.7)
Cisco Unified CallManager (PBX 1)	Version 4.3(2) Service Release (SR) 1b, with Internetwork Operating System (IOS) Software Release 12.4(15) T7
REDCOM High Density Exchange (HDX) (SMEO)	Release 3.0A Revision 3, with Specified Patch Group 0 (3.0A R3P0)
Raytheon Channel Encryption Unit (CEU) (DSCD)	Release Version (v) 2.01.08 with LogiTel Mesh Router (MR) 1060 Release Version (v) 1.01.0205
L3 Communications STE (DSCD)	2.6 with KOV14
L3 Communications Omni Secure Wireline Terminal (DSCD)	5.07
NET Promina 800 and 400	4.x.2.02 Version 92.45
General Dynamics C4 Systems Sectéra® IP viPer (DSCD)	1.0 Version 6.04
NET VX900	4.3.5 Version 55
Veraz DTX 600	JITC022.1
SUT	Software Release
General Dynamics C4 Systems Sectéra® Wireline Terminal	12.05

Table 2-2. Tested System Configurations (continued)

LEGEND:			
CS	Communication Server	Mbps	Megabits per second
DSCD	Department of Defense (DoD) Secure Communications Device	MFS	Multifunction Switch
EWSD	Elektronisches Wählsystem Digital	NET	Network Equipment Technologies
IP	Internet Protocol	PBX 1	Private Branch Exchange 1
JITC	Joint Interoperability Test Command	SMEO	Small End Office
KOV	Key Operating Variable	STE	Secure Terminal Equipment
		SUT	System Under Test

10. TESTING LIMITATIONS. None.

11. TEST RESULTS

a. Discussion

(1) The UCR, section 5.2.12.6.6, states that the enabled DSCD shall be only those that are Type Approved by the NSA and are listed on the NSA Secure Product Web site. Each DSCD must support at least one NSA approved secure protocol. If the DSCD supports more than one secure protocol, it must meet all the requirements for at least one of the secure protocols, and must minimally support the other protocols that are provided on the DSCD. The SUT received an NSA Type I approval for SCIP on 23 October 2008, which meets this requirement.

(2) The UCR, section 5.2.12.6.6, states that the enabled DSCD devices that use a 2-wire analog or Basic Rate Interface shall meet the End Instruments requirements as specified in UCR, section 5.2.12.3. The following End Instrument requirements were met by the SUT with testing or by Letters of Compliance (LoC) submitted by the vendor.

- All CPE devices that support MLPP shall do so in accordance with the requirements as listed in the UCR, section 5.2.2, and shall not affect the DSN interface features and functions associated with line supervision and control. The SUT supports MLPP interaction in accordance with this requirement.
- All DSN CPE, as a minimum, must meet the requirements of Part 15 and Part 68 of the Federal Communications Commission (FCC) Rules and Regulations, and the Administrative Council for Terminal Attachments (ACTA). This requirement was met by the SUT with an LoC submitted by the vendor.
- Device(s) that can “out-dial” Dual-Tone Multifrequency (DTMF) and/or Dial Pulse (DP) digits (automatic and/or manual) shall comply to the requirements as stated in UCR 2008, section 5.2.4.4.1, Dial-Pulse Signals, and section 5.2.4.4.2, DTMF Signaling, respectively, for its address digit generating capabilities and shall be capable of outpulsing DTMF digits specified in Telcordia Technologies GR-506-CORE, *Signaling for Analog Interfaces*, Issue 1 with Revision 1, June 1996. The SUT met this requirement for DTMF signaling with an LoC submitted by the vendor.

- All 2-wire analog devices shall conform to the requirements of Telecommunication Industry Association/Electrical industry Association TIA/EIA-470-B. The SUT met this requirement with an LoC submitted by the vendor.

(3) The UCR, section 5.2.12.6.6, states that a DSCD device that supports one of the required signaling modes shall interoperate with and establish secure session with other compatible devices with at least a 85 percent secure call completion rate. A total of 3000 secure calls were placed with the SUT to other DSCD secure devices listed in Table 2-2 over the test configurations depicted in Figures 2-2 through 2-8 with a secure call completion rate of 90 percent, which meets this requirement.

(4) The UCR, section 5.2.12.6.6, states that the DSCD shall be capable of using the protocols provided to establish a secure session within 60 seconds and must maintain secure communications for the duration of the secure portion of the call. The SUT setup secure calls over the test configurations depicted in Figures 2-2 through 2-8. All calls established a secure connection within 30 seconds and maintained calls until sessions were ended, which meets this requirement.

(5) The UCR, section 5.2.12.6.6, states that the DSCD shall operate in a network that has an end-to-end latency of up to 600 milliseconds (ms). The SUT was able to establish secure calls over the test configurations depicted in Figures 2-2 through 2-8. The Maximum end-to-end latency was 700 ms, which meets this requirement.

(6) The UCR, section 5.2.12.6.6, states that the DSCD shall achieve and maintain a secure voice connection with a minimum Mean Opinion Score (MOS) of 3.0. A SAGE 935AT was used to measure MOS from the handset of the analog End Instrument connected to the SUT. MOS was measured between 3.71 and 3.85 in SCIP mode using the International Telecommunication Union - Telecommunication Standardization Sector (ITU-T) G.729 9.6 kbps Conjugate-Structure Algebraic-Code-Excited Linear-Prediction (CS-A CELP), which meets this requirement. Although it is not required by the UCR, the SUT also supports Mixed Excitation Linear Prediction (MELP). The MOS for MELP could not be measured with our SAGE 935AT test equipment. Instead a subjective MOS test was conducted on 1,000 calls using the following voice subjective quality scale depicted in Table 2-3. Based on this test, the MOS was 4 or better.

Table 2-3. Voice Subjective Quality Scale

Rating	Reference	Definition
1	<i>Unusable</i>	<u>Quality is unusable.</u> Voice and video may be heard and seen but is unrecognizable.
2	<i>Poor</i>	<u>Quality is unusable.</u> Words and phrases are not fully understandable or video cannot be properly identified.
3	<i>Fair</i>	<u>Quality is seriously affected by distortion.</u> Repeating words and phrases are required to convey speech or video is seriously impacted and barely recognizable.
4	<i>Good</i>	<u>Quality is usable. Audio or video is not impaired but some distortion is noticeable</u>
5	<i>Excellent</i>	<u>Quality is unaffected.</u> No discernable problems with either audio or video.

(7) The UCR, section 5.2.12.6.6, states that once connected to the rekey center, the DSCD shall obtain a new key and properly process that new key with a 95 percent rekey completion rate. The SUT rekey completion rate over test configurations depicted in Figures 2-2 through 2-8 was 100 percent for a total of 25 rekey calls attempted.

(8) The UCR, section 5.2.12.6.6, states that DSCD devices shall support a minimum data rate and facsimile (FAX) transmission rate of 9.6 kbps. A total of 15 secure data calls and 50 secure FAX calls were placed over the test diagrams depicted in Figure 2-9 with the SUT via the SUT's analog interface. All calls were successful with a data rate of 9.6 kbps, which meets this requirement. In addition, 36 encryption key data transfers using Data Transfer Devices were placed with the SUT at a data rate of 9.6 kbps. All data transfers were successful with a data rate of 9.6 kbps, which meets this requirement.

(9) Security. The security requirements for DSCD devices without Internet Protocol (IP) interfaces are satisfied with a NSA Type I accreditation. The SUT NSA Type I accreditation was granted on 23 October 2008, which meets this requirement.

12. TEST AND ANALYSIS REPORT. No detailed test report was developed in accordance with the Program Manager's request. The 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>.