



**DEFENSE INFORMATION SYSTEMS AGENCY**  
**JOINT INTEROPERABILITY TEST COMMAND**  
2001 Brainard Road  
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IN REPLY  
REFER TO: Networks, Transmission and  
Intelligence Division (JTE)

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Joint Interoperability Test Certification of  
Siemens Elektronisches Wahl-System Digital (EWSD)  
Switching System Software Release 19d with Patch  
Set 25

Reference: (a) DOD Directive 4630.5, "Interoperability and  
Supportability of Information Technology  
(IT) and National Security Systems (NSS),"  
11 January 2002

(b) CJCSI 6212.01B, "Interoperability and  
Supportability of National Security Systems  
and Information Technology Systems," 8 May  
2000

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. Additional references are provided in enclosure 1.

2. The Siemens EWSD Switching System Software Release 19d with Patch Set 25 (hereafter referred to as the system under test (SUT)) was tested by the JITC in accordance with the requirements set forth in reference (c). The SUT meets the Multi-Function Switch and End Office Switch critical interoperability requirements, and is certified for joint use in the Defense Information Systems Network (DISN). In order to meet the class of service display requirement for the attendant console, the SUT must be deployed with the Switching Control Center Network Management System (SCCNMS). This certification expires upon changes that affect interoperability, but no later than three years from the date of this memorandum.

JITC Memo, Networks, Transmission and Intelligence Division (JTE), Joint Interoperability Test Certification of Siemens Elektronisches Wahl-System Digital (EWS) Switching System Software Release 19d with Patch Set 25

3. The SUT offers a Remote Switching Unit (RSU) capability. The SUT also offers a Voice over Internet Protocol (VoIP) capability. Preliminary testing was performed on these capabilities, but neither are covered by this certification

4. This certification is based on interoperability testing conducted 16 April through 23 August 2002 at the JITC, Fort Huachuca, Arizona using the test procedures described in reference (d). Additionally, this certification includes a review of letters of compliance submitted by Siemens. The Certification Testing Summary (enclosure 2) provides more details about the test.

5. Network Management (NM) capabilities of the SUT were tested in accordance with the DISA NS53 requirements as set forth in references (e) and (f). The SUT meets the NM requirements through the use of X.25 or BX.25 connections. Furthermore, the Enhanced Dual Data Port (EDDP) configuration required by the Defense Information System Network Europe contract statement of requirement was also tested, and is covered by this certification.

6. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system -- ERD uses unclassified (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).

JITC Memo, Networks, Transmission and Intelligence Division (JTE), Joint Interoperability Test Certification of Siemens Elektronisches Wahl-System Digital (EWSD) Switching System Software Release 19d with Patch Set 25

7. The JITC point of contact is Mr. John Gese, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail gesej@fhu.disa.mil.

FOR THE COMMANDER:

2 Enclosures:  
1 Additional References  
2 Certification Testing  
Summary

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### ADDITIONAL REFERENCES

- (c) Defense Information Systems Agency (DISA), Joint Interoperability and Engineering Organization (JIEO), Technical Report 8249, "Defense Information Systems Network (DISN) Circuit Switched Subsystem, Defense Switched Network (DSN) Generic Switching Center Requirements (GSCR)," March 1997
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP)," 17 June 1999
- (e) Defense Information Systems Agency (DISA) NS53, Memorandum, "DSN Switch Network Management Interface," 26 July 2001
- (f) Defense Information Systems Agency (DISA) NS53, Memorandum, "DSN Network Management Requirements for End Offices," 2 August 2001

## CERTIFICATION TESTING SUMMARY

1. **SYSTEM TITLE.** Siemens Elektronisches Wahl-System Digital (EWSD) Switching System Software Release 19d with Patch Set 25 (hereafter referred to as the system under test (SUT)).
2. **PROPONENT.** Defense Information Systems Agency (DISA).
3. **PROGRAM MANAGER.** Mr. Howard Osman, NS53, Room 5W23, 5275 Leesburg Pike, Falls Church, VA 22041, E-mail: Osmanh@ncr.disa.mil.
4. **TESTERS.** Joint Interoperability Test Command (JITC), Fort Huachuca, AZ.
5. **SYSTEM UNDER TEST DESCRIPTION.** The SUT is currently used within the Defense Information Systems Network (DISN) in Europe (DISN-E) to provide both End Office Switch (EOS) and Multi-Function Switch (MFS) functionality.
6. **OPERATIONAL ARCHITECTURE.** The SUT was tested at the JITC's Network Engineering and Integration Laboratory (NEIL). Testing was conducted in a manner and configuration similar to that of the Defense Switched Network (DSN) operational environment. This test was completed using two configurations. Testing of the system's required functions and features was conducted using the test configuration depicted in figure 1. The configuration depicted in figure 2 is representative of the DSN operational environment and was used to complete the network integration sub-test. The configuration depicted in figure 3 was tested, and represents the Enhanced Dual Data Port (EDDP) DISN-E contract statement of requirement for network management.
7. **REQUIRED SYSTEM INTERFACES.** The SUT must interface with current DSN equipment as defined by the Generic Switching Center Requirements (GSCR). Functional interface requirements that must be met for interoperability certification are listed in table 1 along with the Generic Switch Test Plan (GSTP) criteria paragraphs.

**Table 1. GSCR Functional Interface Requirements**

GSCR Functional Interface Requirements	DSN GSTP Criteria para(s)	Critical	GSCR Requirement para(s)
Preset Conference	II-1.2	Yes	2.2.3, 21.3
Multi-Level Precedence and Preemption	II-2.2	Yes	2.2.1, 5.3.4.3 through 5.3.4.9
Hotline Services	II-3.2	Yes	21.3.10
System Interface	II-4.2	Yes	10.1 through 10.12

**Table 1. GSCR Functional Interface Requirements (continued)**

<b>GSCR Functional Interface Requirements</b>	<b>DSN GSTP Criteria para(s)</b>	<b>Critical</b>	<b>GSCR Requirement para(s)</b>
Common Channel Signaling/Signaling System Number 7 (CCS/SS7)	II-5.2	No	6.5 2.2.5
Integrated Services Digital Network	II-6.2	No	6.6, 21.1 21.2, 21.3
Attendant Services	II-7.2	Yes	2.1.3
System Admin, Measurements, and Service Standards	II-8.2	No	9.1 through 9.5
Y2K Rollover Dates	II-9.2	Yes	NA
Y2K Valid Set Dates	II-10.2	Yes	NA
Y2K Invalid Set Dates	II-11.2	Yes	NA
Screening, Zone Restriction, and DSN Access Restriction	II-12.2	Yes	5.3.4
Community of Interest	II-13.2	No	2.2.2
Automatic Message Accounting	II-14.2	Yes	8.1
Call Treatments	II-15.2	Yes	5.2
Essential Service Protection	II-16.2	No	5.3.9
Internal Overload Control	II-17.2	No	5.3.8
Automatic Call Gap	II-18.2	Yes	16.5.3 16.6.3
DSN Announcements	II-19.2	Yes	5.6
Nailed-Up Connections	II-20.2	No	2.2.4
Network Integration	II-21.2	No	2.2.1, 2.2.5, 6.5.2, 6.5.10- 11, 6.6, 10.5.5 5.3.4.7
Tactical Switch/DSN Interoperability	II-22.2	No	10.6
Advanced Defense Switched Network Integrated Management Support System (ADIMSS)	II-23.2	Yes	2.1.10, 16.1
Common Data Channel (CDC)	II-24.2	No	See Note
Electronic Key Telephone Service (EKTS)	II-25.2	No	21.2
<b>Legend:</b> DISN-E – Defense Information Systems Network Europe DSN – Defense Switched Network GSCR – Generic Switching Center Requirements GSTP – Generic Switch Test Plan NA – Not Applicable Y2K – Year 2000			

**8. TEST NETWORK DESCRIPTION.** Interfaces tested between the SUT and the other switches identified in figures 1 and 2 accurately emulate that of the DSN operational environment.

9. **SYSTEM CONFIGURATIONS.** Table 2 provides the system configurations used in the test.

**Table 2. Tested System Configurations**

<b>System Name</b>	<b>Hardware</b>	<b>Software</b>
Nortel Networks MSL-100	RISC Processor	MSL-15 with Software Patch Groups, DSN00BLF, DSN01BCL, DSN02BTZ, XQM66X5A, XQM67X5S, XRR99X5A, XTA90X5S
Avaya Definity G3R	RISC Processor	Release R10r.07585.6.0.2
Siemens EWSD	CP 113C	Release 19d with Patch Set 25
Tekelec Eagle STP	Eagle Data Packet Switch	Release 23.1
Nortel Networks Broadband STP	Eagle Data Packet Switch	3.0.3.18d
Siemens KN(S)4100	SAB 8086 Processor	APS4V2.3
SMU 96 Tactical Gateway	Litton Processor	Release RD302185
DSS Red Switch	Force Board Processor	Release 8.03.02
MARCONI ATM switch ASX-1000 and ASX-200BX	SCP-I960 Processor	Releases 7.1 and 6.2
Lucent 5ESS	5ESS	5E15
<b>Legend:</b> ATM – Asynchronous Transfer Mode MSL – Meridian Switching Load RISC – Reduced Instruction Set Computer CP – Central Processor DSN – Defense Switched Network DSS – Digital Switching System EWSD – Elektronisches Wahl-System Digital SMU – Switch Multiplexer Unit STP – Signaling Transfer Point		

10. **TESTING LIMITATIONS.** None

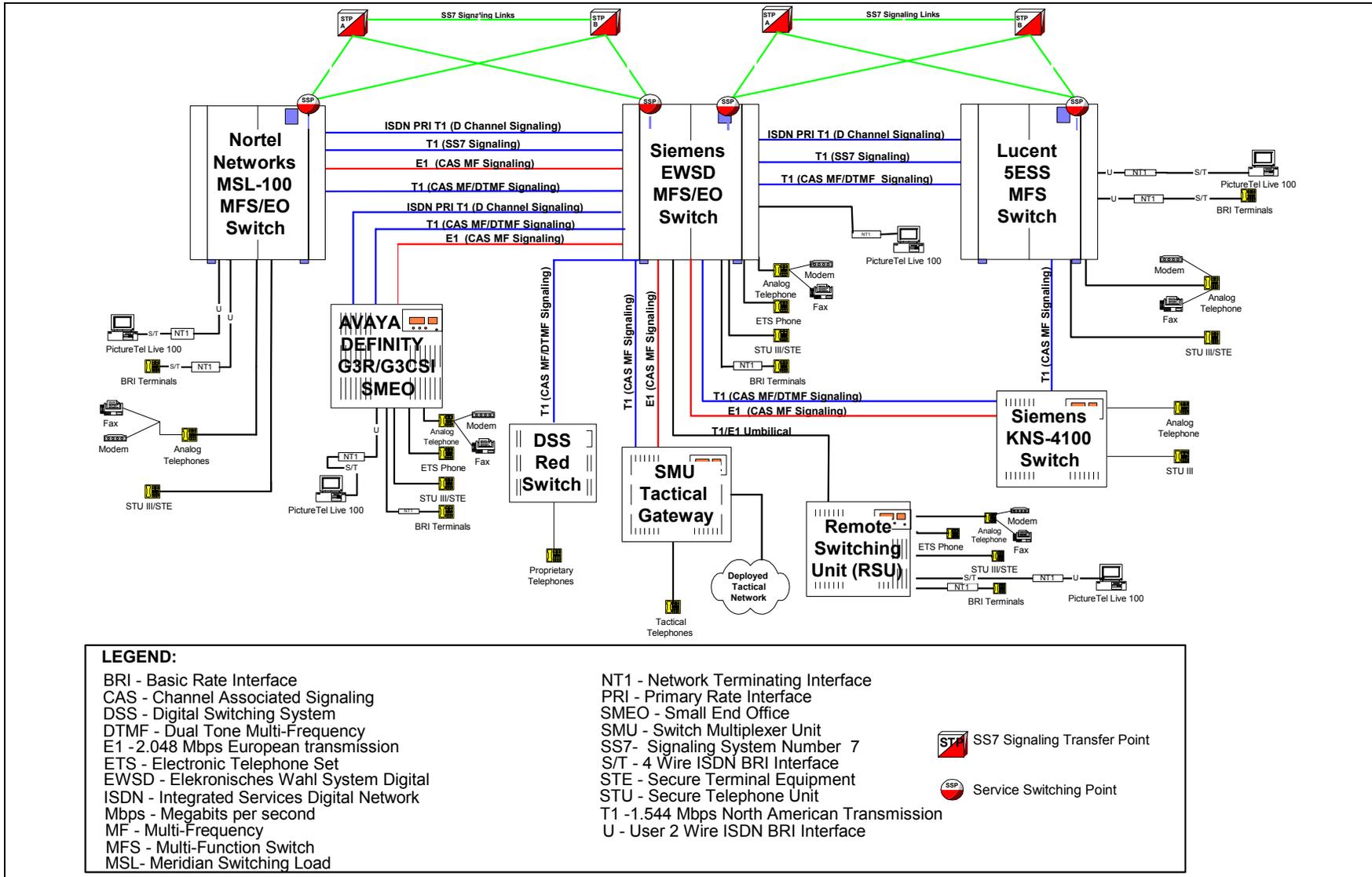


Figure 1. Test Configuration

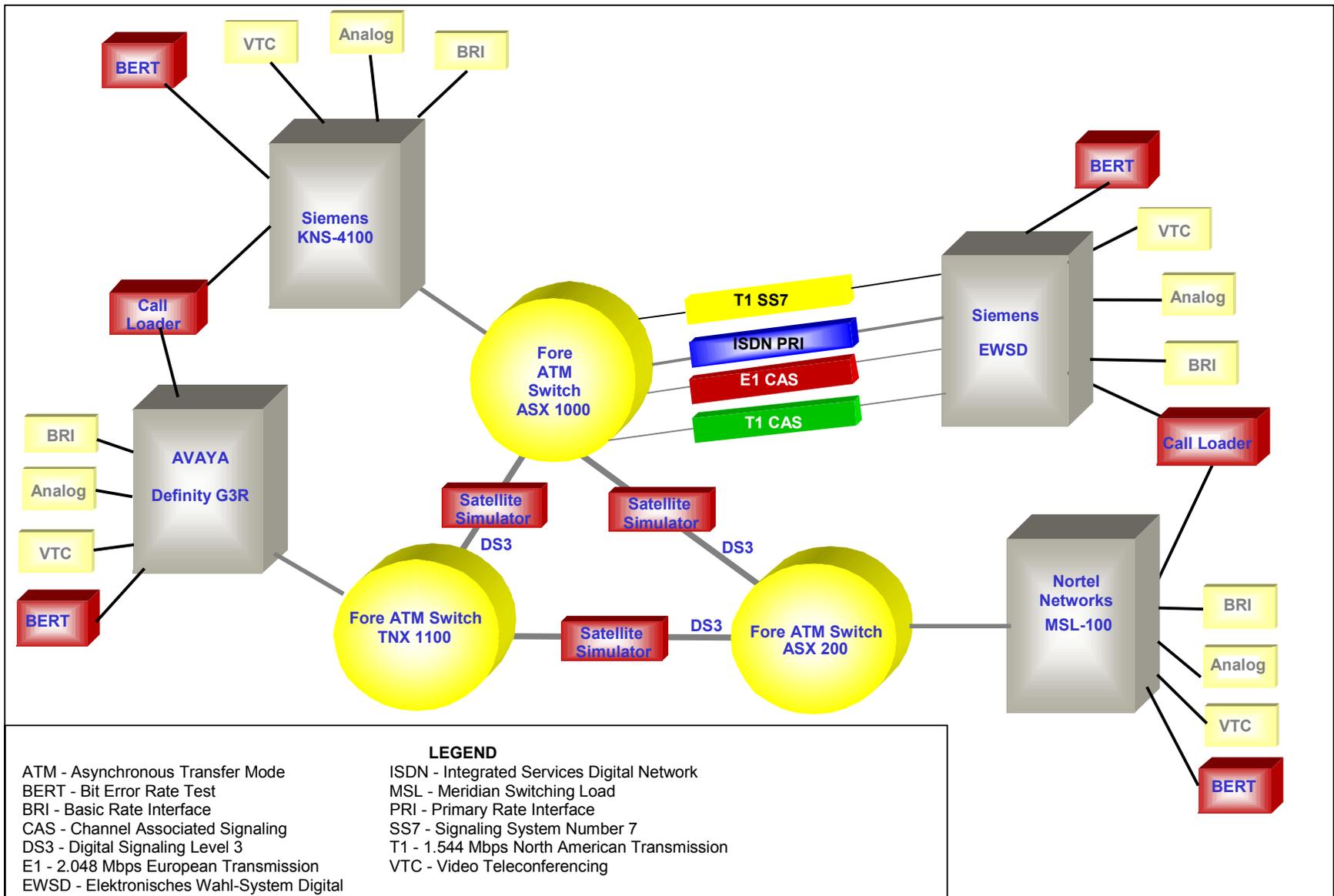


Figure 2. Network Integration Test Configuration

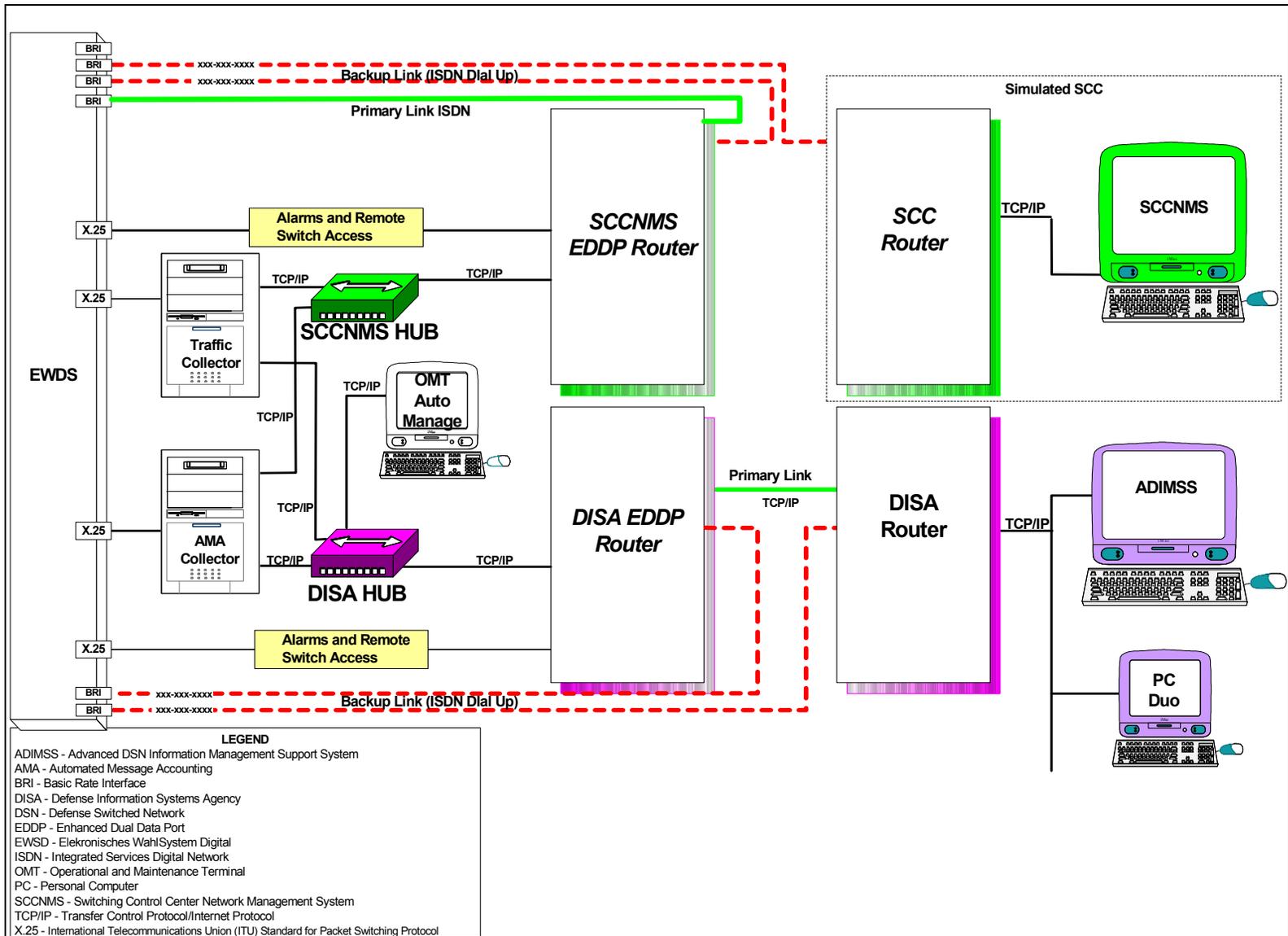


Figure 3. Enhanced Dual Data Port Test Configuration

**11. TEST RESULTS.** Table 3 synthesizes the SUT test results. Paragraph 12 provides a detailed discussion of test results and discussion of any test discrepancies for each of the functional interface requirements. The identified test discrepancies denote only those test discrepancies that remained open after testing was completed and after software patches were applied.

**Table 3. SUT Test Results**

DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
<b>Sub-Test D-1 Preset Conference</b>					
D-1.1	Switch Capacity	Yes	No	II-1.2.a	2.2.3
D-1.2	Originations and Recordings	Yes	No	II-1.2.b-d	2.2.3, 2.2.3.1
D-1.3	MLPP Interaction, Auto Redial, Alternate Address, Bridge Release, Secondary Conference, Preset Conference, and ISDN Interoperability	Yes	No	II-1.2.e-i	2.2.3.2 2.2.3.3 2.2.3.4 2.2.3.5 2.2.3.6
<b>Sub-Test D-2 Multi-Level Precedence and Preemption (MLPP)</b>					
D-2.1	Network Preemption	Yes	No	II-2.2.a-l	2.1.1-3
D-2.2	Call Waiting	Yes	No	II-2.2.k.1	5.3.4.7.1
D-2.3	Call Hold	Yes	No	II-2.2.k.2	5.3.4.7.2
D-2.4	Call Forward Busy Station	Yes	No	II-2.2.k.3	5.3.4.7.3
D-2.5	Call Forward No Reply	Yes	No	II-2.2.k.4	5.3.4.7.4
D-2.6	Call Transfer	Yes	No	II-2.2.k.5	5.3.4.7.5
D-2.7	Conference Calling	Yes	No	II-2.2.k.6	5.3.4.7.6
D-2.8	Precedence Calls to a Remote Office	Yes	No	II-2.2.k.9	5.3.4.7.9
D-2.9	Circular Line Hunting	Yes	No	II-2.2.k.11	5.3.4.7.7
<b>Sub-Test D-3 Hotline Services</b>					
D-3.1	Hotline Services	Yes	No	II-3.2.a-f	21.3.10
<b>Sub-Test D-4 System Interface</b>					
D-4.1	PCM-24 T1	Yes	No	II-4.2.a.1	10.2.1
D-4.2	PCM-30 E1	Yes	No	II-4.2.a.2	10.2.1
D-4.3	ISDN BRI	Yes	No	II-4.2.a.3	10.2.2
D-4.4	ISDN PRI	Yes	No	II-4.2.a.4	10.5.5
<b>Sub-Test D-5 CCS/SS7</b>					
D-5.1	Signaling Link Characteristics	Yes	No	II-5.2.b-e	6.5.2

**Table 3. SUT Test Results (continued)**

DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
<b>Sub-Test D-5 CCS/SS7 (continued)</b>					
D-5.2	Signaling Network Management Performance Measurements	Yes	No	II-5.2.f-l	6.5.4
D-5.3	MTP/ISUP Analysis-Analog	Yes	No	II-5.2.m	2.2.5, 6.5.10.1.c, 6.5.11
D-5.4	MTP/ISUP Analysis-ISDN Users	Yes	No	II-5.2.m	
D-5.5	MTP/ISUP Analysis-Call to Busy Station	Yes	No	II-5.2.m	
D-5.6	SS7/MF Interworking	Yes	No	II-5.2.a	6.5.10
D-5.7	SS7/MLPP Interworking	Yes	No	II-5.2.a	6.5.11
D-5.8	SCCP Capabilities	Yes	No	II-5.2.g-h	6.5.5
<b>Sub-Test D-6 Integrated Services Digital Network (ISDN)</b>					
D-6.1	BRI/SS7 (N X 64) Interworking	Yes	No	II-6.2.a	21.1
D-6.2	PRI/SS7 (N X 64) Interworking	Yes	No	II-6.2.a	21.2
D-6.3	BRI/SS7 (N X 56) Interworking	Yes	No	II-6.2.b	21.2
D-6.4	PRI/SS7 (N X 56) Interworking	Yes	No	II-6.2.b	21.2
D-6.5	MLPP and Interaction with other Services	Yes	Yes	II-6.2.c.1	21.3, 21.3.1
D-6.6	Supplemental Services Conference Calling	Yes	Yes	II-6.2.c.2	21.3.2
D-6.7	Supplemental Service, User to User Signaling	Yes	Yes	II-6.2.c.3	21.3.3
D-6.8	Supplemental Service, Call Hold	Yes	Yes	II-6.2.c.4	21.3.4

**Table 3. SUT Test Results (continued)**

DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
<b>Sub-Test D-6 Integrated Services Digital Network (ISDN) (continued)</b>					
D-6.9	Supplemental Service, Call Waiting	Yes	Yes	II-6.2.c.5	21.3.5
D-6.10	Supplemental Service, Normal Call Transfer	Yes	Yes	II-6.2.c.6	21.3.6
D-6.11	Supplemental Service, Explicit Call Transfer	Yes	Yes	II-6.2.c.7	21.3.7
D-6.12	Supplemental Service, ISDN Call Deflection	Yes	Yes	II-6.2.c.8	21.3.8
D-6.13	Supplemental Service, Community of Interest	Yes	No	II-6.2.c.9	21.3.9
D-6.14	Supplemental Service, Hotline	Yes	No	II-6.2.d	21.3.10
D-6.15	Supplemental Service Conference Calling	Yes	Yes	II-6.2.e	21.3.11
D-6.16	DSN ISDN User to Network Signaling	Yes	No	II-6.2.f	21.3.11.8
D-6.17	Messaging	Yes	No	II-6.2.g	21.3.11.9
<b>Sub-Test D-7 Attendant Services</b>					
D-7.1	Call Display	Yes	No	II-7.2.a	2.1.3.2
D-7.2	Class of Service Override	Yes	No	II-7.2.b	2.1.3.3
D-7.3	Busy Override and Busy Verification	Yes	No	II-7.2.c	2.1.3.4
D-7.4	Interposition Calling	Yes	No	II-7.2.d	2.1.3.5
D-7.5	Interposition Transfer	Yes	No	II-7.2.e	2.1.3.6
D-7.6	Call Extension	Yes	No	II-7.2.f	2.1.3.7
D-7.7	Call Hold	Yes	No	II-7.2.g	2.1.3.8
D-7.8	Two-Party Hold	Yes	Yes	II-7.2.h	2.1.3.9
D-7.9	Unattended Console	Yes	No	II-7.2.i	2.1.3.10

**Table 3. SUT Test Results (continued)**

DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
<b>Sub-Test D-7 Attendant Services (continued)</b>					
D-7.10	Audible Call Indicators	Yes	No	II-7.2.j	2.1.3.11
D-7.11	Automatic Recall of Attendant	Yes	No	II-7.2.k	2.1.3.12
<b>Sub-Test D-8 System Administration, Measurements, and Service Standards</b>					
D-8.1	Traffic Measurements	Yes	Yes	II-8.2.a	9.2.2.1
D-8.2	Database Management	Yes	No	II-8.2.b	9.5
<b>Sub-Test D-9 Y2K Rollover Dates</b>					
D-9.1	Date Transition Test	Yes	No	II-9.2	None
<b>Sub-Test D-10 Y2K Valid Set Dates</b>					
D-10.1	Valid Set Dates	Yes	No	II-10.2	None
<b>Sub-Test D-11 Y2K Invalid Set Dates</b>					
D-11.1	Invalid Set Dates	Yes	No	II-11.2	None
<b>Sub-Test D-12 Screening, Zone Restriction, and DSN Access Restriction</b>					
D-12.1	Zone Restriction Capacity	Yes	No	II-12.2.b	5.3.4.2
D-12.2	DSN Access Restriction	Yes	No	II-12.2.c	5.3.4.3
D-12.3	Screening	Yes	No	II-12.2.a	5.3.4
D-12.4	Zone Restriction	Yes	No	II-12.2.b	5.3.4.2
<b>Sub-Test D-13 Community of Interest (COI)</b>					
D-13.1	Switch Capacity	Yes	No	II-13.2.a	2.2.2.1
D-13.2	COI General Treatment	Yes	No	II-13.2.b	2.2.2.1
D-13.3	COI Precedence Treatment	Yes	No	II-13.2.c	2.2.2.2
<b>Sub-Test D-14 Automatic Message Accounting (AMA)</b>					
D-14.1	AMA Call Detail Record	Yes	Yes	II-14.2	8.1
<b>Sub-Test D-15 Call Treatments</b>					
D-15.1	Originating Busy Treatment	Yes	No	II-15.2.a	5.2.1.1
D-15.2	Busy/Idle Status Treatment	Yes	No	II-15.2.b	5.2.2.1
<b>Sub-Test D-16 Essential Service Protection (ESP)</b>					
D-16.1	ESP	Yes	No	II-16.2.a	5.3.9

**Table 3. SUT Test Results (continued)**

DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
<b>Sub-Test D-17 Internal Overload Control (IOC)</b>					
D-17.1	IOC	Yes	No	II-17.2.a-f	5.3.8
<b>Sub-Test D-18 Automatic Call Gap (ACG)</b>					
D-18.1	Automatic Call Gap	Yes	No	II-18.2.a-c	16.5.3.2
D-18.2	Manual Call Gap	Yes	No	II-18.2.a-c	16.6.3.1
D-18.3	CanF, CanT, and SKIP	Yes	No	II-18.2.a-c	16.6.3.2
<b>Sub-Test D-19 DSN Announcements</b>					
D-19.1	DSN Announcement Capacity	Yes	No	II-19.2.a	5.6
D-19.2	DSN Announcement	Yes	No	II-19.2.b-c	5.6
<b>Sub-Test D-20 Nailed-Up Connections</b>					
D-20.1	Nailed-Up Connections	Yes	No	II-20.2	2.2.4
<b>Sub-Test D-21 Network Integration</b>					
D-21.1	MLPP	Yes	No	II-21.2	2.2.1, 5.3.4.7
D-21.2	System Interface	Yes	No	II-21.2	2.2.1, 10.5.5
D-21.3	CCS/SS7	Yes	No	II-21.2	6.5.2, 2.2.5, 6.5.10-11, 6.6
<b>Sub-Test D-22 Tactical Switch/DSN Interoperability</b>					
D-22.1	DSN Switch to Tactical Elements	Yes	No	II-22.2	None
<b>Sub-Test D-23 Advanced Defense Switched Network Integrated Management Support System (ADIMSS)</b>					
D-23.1	Performance Management	Yes	No	II-23.2.a	2.1.10
<b>Sub-Test D-24 Common Data Channel (CDC)</b>					
D-24.1	CDC	Yes	No	II-24.2.a	Optional
<b>Sub-Test D-25 Electronic Key Telephone Service (EKTS)</b>					
D-25.1	EKTS	Yes	No	II-25.2.a	21.2

**Table 3. SUT Test Results (continued)**

<b>LEGEND:</b>	
BRI – Basic Rate Interface	MF – Multi-Frequency
CanF – Cancel From Network Management Manual Control	MTP – Message User Part
CanT – Cancel To Network Management Manual Control	NA – Not Applicable
CCS – Common Channel Signaling	PCM – Pulse Code Modulation
DSN – Defense Switched Network	PRI – Primary Rate Interface
E1 – 2.048 Megabits Per Second European Transmission	SCCP – Signaling Connect Control Point
GSCR – Generic Switching Center Requirements	SS7 – Signaling System Number 7
GSTP – Generic Switch Test Plan	WWNDP – Worldwide Numbering and Dialing Plan
ISDN – Integrated Services Digital Network	
ISUP – ISDN User Part	

**12. DISCUSSION.** The following subparagraphs explain in further detail the test results and assess interoperability compliance to the GSCR requirements.

**a. D-1 Preset Conference.** The SUT meets all GSCR interoperability requirements for Preset Conference.

**b. D-2 Multi-Level Precedence and Preemption (MLPP).** The SUT meets all GSCR interoperability requirements for MLPP.

**c. D-3 Hotline Services.** The SUT meets all GSCR interoperability requirements for Hotline Services.

**d. D-4 System Interface.** The SUT meets all GSCR interoperability requirements for System Interface.

**e. D-5 CCS/SS7.** The SUT meets all GSCR interoperability requirements for CCS/SS7.

**f. D-6 Integrated Services Digital Network (ISDN).** The SUT meets all the GSCR interoperability requirements, with the exception of the following unique ISDN BRI Supplemental Services as specified in the GSCR paragraphs listed below. There are currently no switches in the DISN that support ISDN BRI Supplemental Services, consequently this discrepancy will have no operational impact.

- Conference Calling. GSCR Para. 21.3.2
- User to User Signaling. GSCR Para. 21.3.3
- Call Hold. GSCR Para. 21.3.4
- Call Waiting. GSCR Para. 21.3.5
- Normal Call Transfer. GSCR Para. 21.3.6
- Explicit Call Transfer. GSCR Para. 21.3.7
- ISDN Call Deflection. GSCR Para. 21.3.8

**g. D-7 Attendant Services.** The SUT meets all GSCR interoperability requirements for Attendant Services with one exception. The SUT attendant console

does not support the minimum of three two-party holds (calling and called party). The SUT attendant console supports only one two-party hold. Siemens has demonstrated an alternative solution of this functionality with the use of an adjunct ISDN BRI Optiset. Furthermore, in order to meet the class of service display requirement for the attendant console, the SUT must be deployed with the Switching Control Center Network Management System (SCCNMS).

**h. D-8 System Administration, Measurements, and Service Standards.**

The SUT meets all GSCR interoperability requirements for System Administration, Measurements, and Service Standards with one exception. The SUT every 2.5 hours deletes 4 seconds of maintenance and traffic usage for each trunk of each trunk group in the Engineering and Administrative Data Acquisition System (EADAS) 5-minute and 30-minute reports. As a result, the EADAS traffic sent to the ADIMSS network management system every 2.5 hours contains erroneous traffic usage. Due to the small degree of inaccuracy, this anomaly will have a negligible impact on Network Traffic Management collection by the ADIMSS.

**i. D-9 Year 2000 (Y2K) Rollover Dates.** The SUT responded properly to all rollover dates and meets all interoperability requirements for Y2K Rollover Dates.

**j. D-10 Y2K Valid Set Dates.** The SUT responded properly to all valid set dates and meets all interoperability requirements for Y2K Valid Set Dates.

**k. D-11 Y2K Invalid Set Dates.** The SUT responded properly to all invalid set dates and meets all interoperability requirements for Y2K Invalid Set Dates.

**l. D-12 Screening, Zone Restriction, and DSN Access Restriction.** The SUT meets all GSCR interoperability requirements for Screening, Zone Restriction, and DSN Access Restriction.

**m. D-13 Community of Interest (COI).** The SUT meets all GSCR interoperability requirements for COI.

**n. D-14 Automatic Message Accounting (AMA).** The SUT meets all GSCR interoperability requirements for AMA with one exception. The date is in standard format (MM/DD/YY) not in Julian format as required by the GSCR. The ADIMSS has the ability to acknowledge the date in standard format, consequently this discrepancy will have no operational impact.

**o. D-15 Call Treatments.** The SUT meets all GSCR interoperability requirements for Call Treatments.

**p. D-16 Essential Service Protection (ESP).** The SUT meets all GSCR interoperability requirements for Essential Service Protection.

**q. D-17 Internal Overload Control (IOC).** The SUT meets all GSCR interoperability requirements for Internal Overload Control.

**r. D-18 Automatic Call Gap (ACG).** D-18 ACG comprises Manual Controls (i.e. CanF, CanT, SKIP) and SS7 Auto Call Gap. The SUT meets all GSCR interoperability requirements for Manual Controls. SS7 Automatic Call Gap will be tested as part of the SS7 Signaling Transfer Point (STP) testing.

**s. D-19 DSN Announcements.** The SUT meets all GSCR interoperability requirements for DSN Announcements.

**t. D-20 Nailed-Up Connections.** The SUT meets all GSCR interoperability requirements for Nailed-Up Connections.

**u. D-21 Network Integration.** Sub-tests D-2 (MLPP), D-4 (System Interface), and D-5 (CCS/SS7) were re-tested over the network shown in figure 2. The SUT meets all GSCR interoperability requirements for Network Integration.

**v. D-22 Tactical Switch/DSN Interoperability.** The SUT meets all GSCR interoperability requirements for Tactical Switch/DSN Interoperability.

**w. D-23 Advanced Defense Switched Network Integrated Management Support System (ADIMSS).** The interface tested between the MSL-100 and ADIMSS was comprised of three physical X.25/BX.25 interfaces with four logical connections to provide the four data information elements (AMA, traffic, alarms, and switch access). Additionally, the Enhanced Dual Data Port (EDDP) configuration as shown in figure 3 which was required by the Defense Information System Network Europe contract statement of requirement, was also tested, and was verified to pass required network management data elements to the ADIMSS. The SUT meets all the network management requirements described in reference (f).

**x. D-24 Common Data Channel (CDC).** CDC has been implemented on the KNS-4100 switching systems deployed in Europe. Switches that have a requirement to interface to the DSN European KNS-4100 switches must be capable of passing CDC links transparently. It was verified that the SUT could correctly interface with the KNS-4100 to pass CDC links.

**y. D-25 Electronic Key Telephone Service (EKTS).** The SUT meets all the GSCR interoperability requirements for EKTS to include:

- (1) Multiple Directory Numbers (DNs) per terminal.
- (2) Analog Member of an EKTS Group.
- (3) Multiple DN Appearances per Call Appearance Call Handling.

- (4) Hold and Retrieve.
- (5) Bridging and DN-Bridging.
- (6) Intercom Calling.
- (7) Membership in a Multi-line Hunt Group.
- (8) Abbreviated and Delayed Ringing.
- (9) Automatic and/or Manual Bridged Call Exclusion.
- (10) MLPP interaction with an EKTS Group.

**z. Letter of certification/compliance of “L” and “V” items listed in Table E-1 of Appendix E of the GSTP.** The certification/compliance of “L” and “V” items listed in appendix E of the GSTP were satisfied by a letter from Siemens. The SUT meets all the certification/compliance category “L” and “V” in Table E-1 of appendix E of the GSTP, with minor exceptions. Exceptions were reviewed and assessed by the Defense Information Systems Agency, Information Transport Engineering Support Organization D6 (DISA, ITESO D6), and determined to have no adverse operational impact.

**13. SUMMARY.** The Siemens Elektronisches Wahl-System Digital (EWSD) Switching System Software Release 19d with Patch Set 25 is certified for use in the DISN, in accordance with the requirements set forth in reference (c). Minor discrepancies identified during testing will have no adverse effects on capabilities essential for mission accomplishment. The status for each functional interface required by the GSCR is provided in table 4.

**Table 4. Functional Interface Certification Status Summary**

<b>GSCR Functional Interface Requirements</b>	<b>Critical</b>	<b>Status</b>
Preset Conference	Yes	Passed
Hotline Services	Yes	Passed
Multi-Level Precedence and Preemption	Yes	Passed
System Interface	Yes	Passed
CCS/SS7	No	Passed
Integrated Services Digital Network	No	Passed
Attendant Services	Yes	Passed
System Admin, Measurements and Service Standards	No	Passed
Y2K Rollover Dates	Yes	Passed

**Table 4. Functional Interface Certification Status Summary (continued)**

<b>GSCR Functional Interface Requirements</b>	<b>Critical</b>	<b>Status</b>
Y2K Valid Set Dates	Yes	Passed
Y2K Invalid Set Dates	Yes	Passed
Screening, Zone Restriction, and DSN Access Restriction	Yes	Passed
Community of Interest	No	Passed
Automatic Message Accounting	Yes	Passed
Call Treatments	Yes	Passed
Essential Service Protection	No	Passed
Internal Overload Control	No	Passed
Automatic Call Gap	Yes	Passed
DSN Announcements	Yes	Passed
Nailed-Up Connections	No	Passed
Network Integration	No	Passed
Tactical Switch/DSN Interoperability	No	Passed
Advanced Defense Switched Network Integrated Management Support System (ADIMSS)	Yes	Passed
Common Data Channel (CDC)	No	Passed
Electronic Key Telephone Service (EKTS)	No	Passed