



DEFENSE INFORMATION SYSTEMS AGENCY
JOINT INTEROPERABILITY TEST COMMAND
FORT HUACHUCA, ARIZONA 85613-7020

IN REPLY
REFER TO:

Networks, Transmission and
Intelligence Division (JTE)

MEMORANDUM FOR DISTRIBUTION

Signed 4 Feb 02

SUBJECT: Joint Interoperability Test Certification of Avaya
DEFINITY G3R, G3I, and G3CSI Digital Switching
Systems

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

(b) CJCSI 6212.01B, "Interoperability and
Supportability of National Security Systems
and Information Technology Systems," May 8,
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. JITC tested the Avaya DEFINITY G3R Digital Switching System as set forth in reference (c) using test procedures in reference (d). The DEFINITY G3R Small End Office Switch (SMEOS), utilizing Commercial Base Software Release 8.2, and MLPP Software Release XDr.07585.4.0.04 (with software patch group 3838) met all critical interoperability requirements. The Avaya DEFINITY G3 switch product line, consisting of the G3R, G3I, and G3CSI, is certified for joint use as a Defense Information Systems Network (DISN) SMEOS. This certification expires upon system changes that affect interoperability, but no later than three years from the date of this memorandum.

3. The Avaya DEFINITY G3 switch product line offers a Remote Switch Unit (RSU) capability referred to as the Expansion Port Network (EPN). This product line also offers a Voice over

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Internet Protocol (VoIP) capability. These capabilities were not tested and are not covered by this certification.

4. This certification is based on interoperability testing conducted 10 October 2000 through 2 August 2001 at the JITC, Fort Huachuca, Arizona. Subsequent testing of the Avaya DEFINITY G3R Software Release G3V9.7585.5.0.1 identified discrepancies that were also applicable to Avaya's DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838). As a result, further regression testing was conducted from 15 August to 19 December 2001. This certification also includes a review of letters of compliance submitted by Avaya. The Certification Testing Summary in enclosure 2 provides more details about the test.

5. Network Management (NM) capabilities of the DEFINITY G3R platform were tested in accordance with the new DISA NS53 requirements as set forth in references (e) and (f). The DEFINITY G3R, G3I, and G3CSI Digital Switches are capable of meeting the NM requirements through the use of both serial and Ethernet connections.

6. JITC disseminates certification testing information to the Department of Defense (DOD) community via the Joint Interoperability Tool (JIT), which resides on the Secret Internet Protocol Router Network (SIPRNET) at <http://199.208.204.125/> or at <http://198.17.54.202/> (mirror site), and on the Unclassified but Sensitive Internet Protocol Router Network (NIPRNET) at <http://jit.fhu.disa.mil/>. A copy of this certification memorandum and the Certification Testing Summary will be available on the JIT. Instructions for obtaining access to JIT information are contained in the above home pages.

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

FOR THE COMMANDER:

2	Enclosures:	//Signed//
1	Additional References	LESLIE F. CLAUDIO
2	Certification Testing Summary	Chief
		Networks, Transmission and Intelligence Division

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Distribution:

Joint Staff J6I, Joint Chief of Staff, Room-1E833,
Pentagon, Washington, DC 20318-6000
Joint Interoperability Test Command, Indian Head Division,
NSWC, ATTN: JTCA-IPTP, Building 900, 101 Strauss Avenue,
Indian Head, MD 20640-5035
Defense Information Systems Agency, Joint Interoperability
& Engineering Organization, ATTN: Code JECO, 5600
Columbia Pike, Suite 240, Falls Church, VA 22204-2199
Chief Naval Operations/N6, Department of the Navy/N62/CTCS,
2000 Navy Pentagon, Washington, DC 20350
Headquarters, US Air Force Communications Information
Center/ITA, 1250 Air Force Pentagon, Washington, DC
20330-1250
Department of the Army, Office of the Secretary of the
Army, Office Symbol SAIS-IAA, 107 Army Pentagon DISC4,
Washington, DC 20310
United States Marine Corps, MARCORSYSCMD, C4I Directorate,
Suite 315, 2033 Barnett, Quantico, VA 22134-5010
Defense Intelligence Agency/DS-MB1, Building 6000, Bolling
AFB, Washington, DC 20340-3342
Office of Secretary of Defense, Director of Operational
Test and Evaluation, Room-3D1067, 1700 Defense Pentagon,
Washington, DC 20301-1700
Office of Secretary of Defense, Director of Operational
Test and Evaluation, Room-3A1073, 1700 Defense Pentagon,
Washington, DC 20301-1700
Office of Assistant Secretary of Defense, C3I/I3
Directorate, Crystal Mall 3, 7th Floor, 1931 Jefferson
Davis Highway, Arlington, VA 22202
Deputy Director for I/O Testing, Office of Under
Secretary of Defense, AT&L Interoperability, Room 3C261,
Pentagon, Washington, DC 20301
United States Joint Forces Command, J6I, C4I Plans and
Policy, 1562 Mitscher Ave, Norfolk, VA 23551-2488
United States Coast Guard, COMDT/G-SCE (C4), 2100 2nd
Street SW, Washington, DC 20593
JS-J38, JCS, Pentagon, Washington, DC 20318
Commander, Defense Information Systems Agency (DISA), ATTN:
NS53 (Mr. Osman), Room 5w23, 5275 Leesburg Pike (RTE 7)
Falls Church, VA 22041

ADDITIONAL REFERENCES

- (c) Defense Information Systems Agency (DISA), Joint Interoperability and Engineering Organization (JIEO), Technical Report 8249, "Defense Information System 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.** Avaya DEFINITY G3R Digital Switching System's Commercial Base Software Release 8.2, Multilevel Precedence and Preemption (MLPP) Software Release XDr.07585.4.0.04 (w/ software patch group 3838).
2. **PROPONENT.** Defense Information Systems Agency (DISA).
3. **PROGRAM MANAGER.** Mr. Howard Osman, ATTN NS53, Room 5w23 5275, Leesburg Pike (RTE 7), 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 Avaya DEFINITY G3 digital switching system product line consists of three switch platforms (G3R, G3I, and G3CSI). The three platforms utilize the same software and hardware and were developed to satisfy scalability requirements. Avaya's DEFINITY G3R, G3I, and G3CSI digital switching systems are currently in use within the Defense Information Systems Network (DISN) providing Small End Office Switching (SMEOS) and Private Branch Exchange (PBX) functionality.
6. **OPERATIONAL ARCHITECTURE.** Avaya's DEFINITY G3R Digital Switching System's Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) was tested at the JITC's Network Engineering and Integration Laboratory (NEIL) and Strategic Switching Laboratory (SSL), 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 were 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. Figure 3 depicts Avaya's DEFINITY G3R, G3I, and G3CSI Network Management System Interfaces for the Advanced Defense Switched Network Integrated Management Support System (ADIMSS).
7. **REQUIRED SYSTEM INTERFACES.** The DEFINITY G3R, G3I, and G3CSI Digital Switching System's Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) 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 its associated Generic Switch Test Plan (GSTP) paragraph.

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	No	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	No	21.3.10
System Interface	II-4.2	Yes	10.1 through 10.12
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	Yes	6.6, 21.1 21.2, 21.3
Attendant Services	II-7.2	No	2.1.3
System Admin, Measurements, and Service Standards	II-8.2	Yes	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	No	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	Yes	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

Table 1. GSCR Functional Interface Requirements (continued)

GSCR Functional Interface Requirements	DSN GSTP Criteria para(s)	Critical	GSCR Requirement para(s)
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
Note: CDC is an optional requirement unique to DISN-E. Switches that have a requirement to interface to the DSN European KNS-4100 switches must be capable of passing CDC links transparently.			

8. TEST NETWORK DESCRIPTION. Interfaces tested between the DEFINITY G3R 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

System Name	Hardware	Software
Nortel Networks' MSL-100	RISC Processor	MSL-14 with software patch groups, DSN00BLE, DSN01BCR, DSN02BTJ, XQM11X14, XQM12X14, XQM13X14
Avaya DEFINITY G3R	RISC Processor	Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838)
Siemens EWSD	CP 113C	Version 18 with patch set 17++
Siemens KN(S)4100	SAB 8086 Processor	APS4V2.3
SMU 96 Tactical Gateway	Litton Processor	Version RD302185
DSS Red Switch	Force Board Processor	Version 8.03
MARCONI ATM switch ASX-1000, TNX-1000, and ASX-200BX	SCP-I960 Processor	Versions 6.0.1 and 6.2

10. TESTING LIMITATIONS. The DEFINITY G3R was the only switch platform tested by JITC, but the test results are applicable to the entire DEFINITY G3 product line.

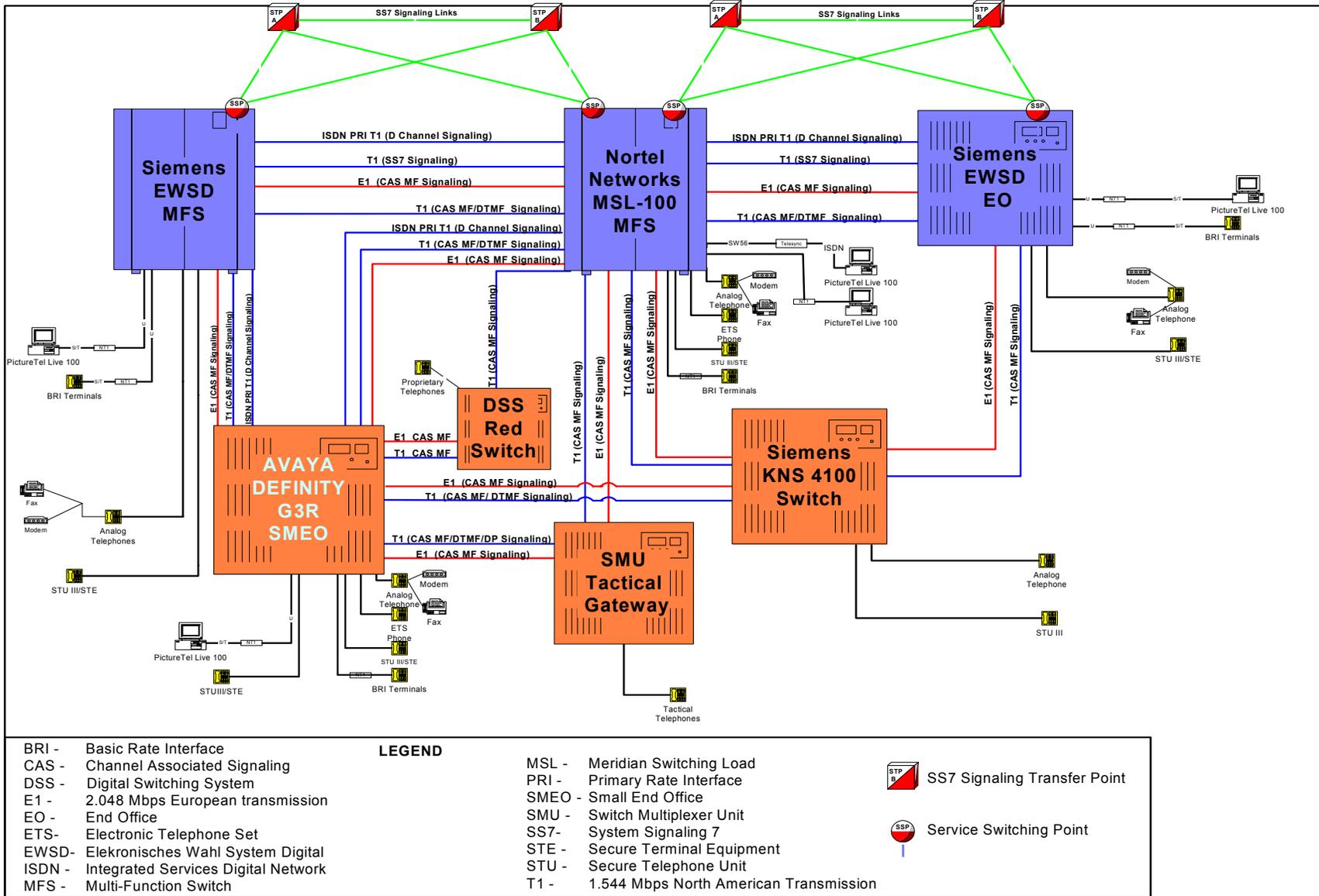


Figure 1. Test Configuration

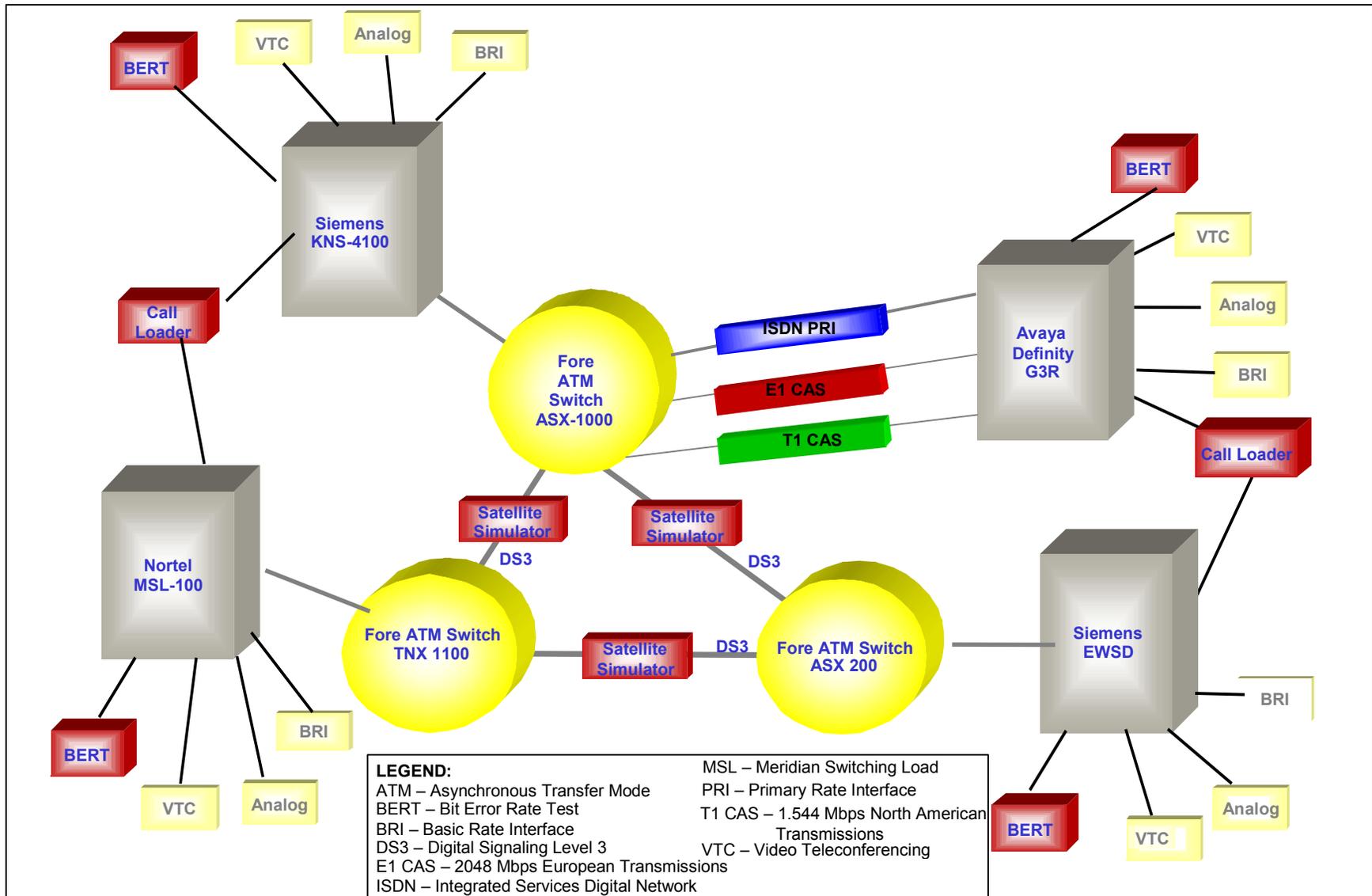
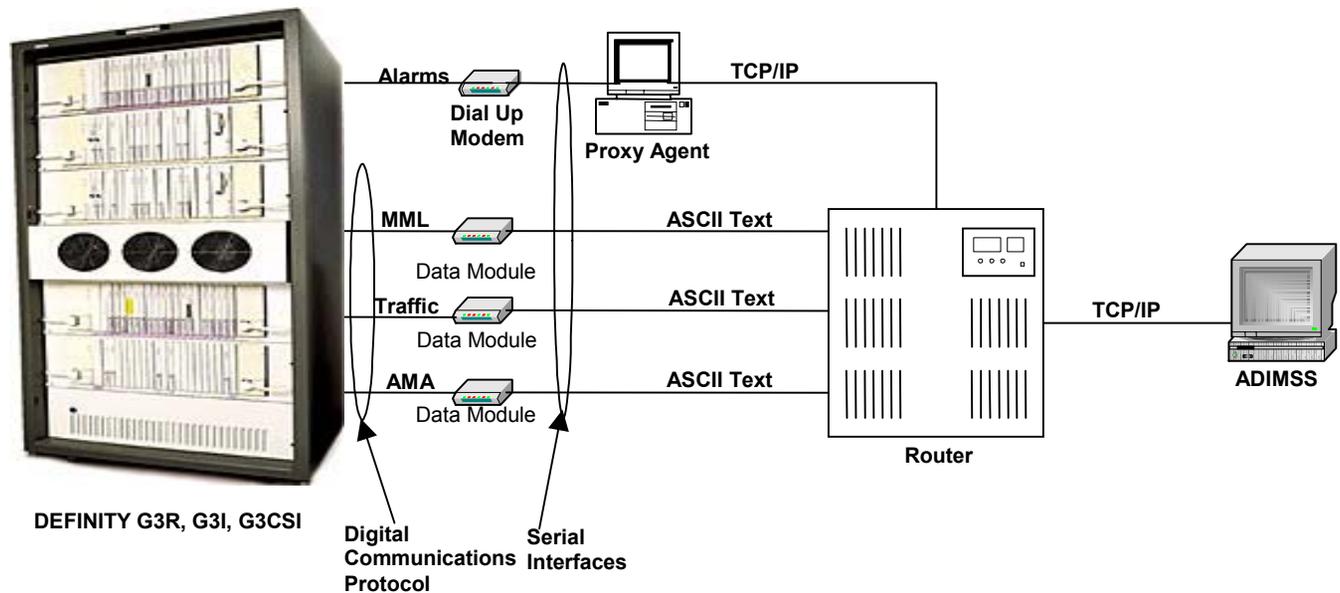


Figure 2. Network Integration Test Configuration



LEGEND:

- ADIMSS – Advanced Defense Switched Network Integrated Management Support System
- AMA – Automated Message Accounting
- ASCII – American Standard Code for Information Interchange
- MML – Man Machine Language
- PC – Personal Computer
- TCP/IP – Transmission Control Protocol/Internet Protocol

Figure 3. DEFINITY G3R, G3I, G3CSI ADIMSS Network Management System Interface

11. TEST RESULTS. Table 3 synthesizes the DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) test results. Paragraph 12 provides a detailed discussion of test results and discussion of any test discrepancies for each of the functional interface requirements certified. The identified test discrepancies shown below denote only those test discrepancies that remained opened after testing was completed and software patches were applied.

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results

Sub-Test D-1 Preset Conference					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-1.1	Switch Capacity	No	NA	II-1.2.a	2.2.3
D-1.2	Originations and Recordings	No	NA	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	No	NA	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
D-1.4	ISDN Features	No	NA	II-1.2.k	21.3.11.1 21.3.11.2 21.3.11.3
Sub-Test D-2 Multi-Level Precedence and Preemption (MLPP)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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	No	NA	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

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-3 Hotline Services					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-3.1	Hot Line Services	Yes	No	II-3.2.a-f	21.3.10
Sub-Test D-4 System Interface					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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
Sub-Test D-5 CCS/SS7					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-5.1	Signaling Link Characteristics	No	NA	II-5.2.b-e	6.5.2
D-5.2	Signaling Network Mgmt. Performance Measurements	No	NA	II-5.2.f-l	6.5.4
D-5.3	MTP/ISUP Analysis-Analog	No	NA	II-5.2.m	2.2.5, 6.6.3 6.5.10.1.c 6.5.11
D-5.4	MTP/ISUP Analysis-ISDN Users	No	NA	II-5.2.m	Same as D-5.3
D-5.5	MTP/ISUP Analysis-Call to Busy Station	No	NA	II-5.2.m	Same as D-5.3
D-5.6	SS7/MF Interworking	No	NA	II-5.2.a	6.5.10
D-5.7	SS7/MLPP Interworking	No	NA	II-5.2.a	6.5.11
D-5.8	SCCP Capabilities	No	NA	II-5.2.g-h	6.5.5
Sub-Test D-6 Integrated Services Digital Network (ISDN)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-6.1	BRI/SS7 Interworking	No	NA	II-6.2.a	21.1
D-6.2	PRI/SS7 Interworking	No	NA	II-6.2.a	21.2
D-6.3	BRI/SS7 Interworking	No	NA	II-6.2.b	21.2

Table 3. DEFINITY G3R, G3I, and G3CSI Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-6 Integrated Services Digital Network (ISDN) (continued)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-6.4	PRI/SS7 Interworking	No	NA	II-6.2.b	21.2
D-6.5	MLPP and Interaction with other Services	Yes	No	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
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	No	NA	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, Preset Conference Calling	No	NA	II-6.2.e	21.3.11 21.3.11.1-4
D-6.16	DSN ISDN User to Network Signaling	Yes	Yes	II-6.2.f	21.3.11.8
D-6.17	Messaging	No	NA	II-6.2.g	21.3.11.9

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-7 Attendant Services					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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	No	II-7.2.h	2.1.3.9
D-7.9	Unattended Console	Yes	No	II-7.2.i	2.1.3.10
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
Sub-Test D-8 System Administration, Measurements, and Service Standards					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-8.1	Traffic Measurements	Yes	No	II-8.2.a	9.2.2.1
D-8.2	Database Management	Yes	No	II-8.2.b	9.5
Sub-Test D-9 Y2K Rollover Dates					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-9.1	Date Transition Test	Yes	No	II.9.2	None
Sub-Test D-10 Y2K Valid Set Dates					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-10.1	Valid Set Dates	Yes	No	II-10.2	None

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-11 Y2K Invalid Set Dates					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-11.1	Invalid Set Dates	Yes	No	II-11.2	None
Sub-Test D-12 Screening, Zone Restriction, and DSN Access Restriction					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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
Sub-Test D-13 Community of Interest (COI)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-13.1	Switch Capacity	No	NA	II-13.2.a	2.2.2.1
D-13.2	COI General Treatment	No	NA	II-13.2.b	2.2.2.1
D-13.3	COI Precedence Treatment	No	NA	II-13.2.c	2.2.2.2
Sub-Test D-14 Automatic Message Accounting (AMA)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-14.1	AMA Call Detail Record	Yes	Yes	II-14.2	8.1
Sub-Test D-15 Call Treatments					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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
Sub-Test D-16 Essential Service Protection (ESP)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-16.1	ESP	No	NA	II-16.2.a	5.3.9

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-17 Internal Overload Control (IOC)					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-17.1	IOC	No	NA	II-17.2.a-f	5.3.8
Sub-Test D-18 Automatic Call Gap (ACG)					
Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-18.1	Automatic Call Gap	No	NA	II-18.2.a-c	16.5.3.2
D-18.2	Manual Call Gap	No	NA	II-18.2.a-c	16.6.3.1
D-18.3	CanF, CanT, and SKIP	No	NA	II-18.2.a-c	16.6.3.2
Sub-Test D-19 DSN Announcements					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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
Sub-Test D-20 Nailed Up Connections					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-20.1	Nailed-Up Connections	Yes	Yes	II-20.2	2.2.4
Sub-Test D-21 Network Integration					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
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	No	NA	II-21.2	6.5.2 2.2.5 6.5.10-11 6.6

Table 3. DEFINITY G3R Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) Test Results (continued)

Sub-Test D-22 Tactical Switch/DSN Interoperability					
DSN GSTP Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-22.1	DSN Switch to Tactical Elements	Yes	No	II-22.2	10.6
Sub-Test D-23 Advanced Defense Switched Network Integrated Management Support System (ADIMSS)					
Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-23.1	Performance Management	Yes	No	II-23.2.a	2.1.10, 16.1
Sub-Test D-24 Common Data Channel (CDC)					
Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-24.1	CDC	Yes	No	II-24.2a	Optional
Sub-Test D-25 Electronic Key Telephone Service (EKTS)					
Test Title		Tested	Test Discrepancies	DSN GSTP Criteria para(s)	GSCR Requirement para(s)
D-25.1	EKTS	Yes	No	II-25.2.a	21.2

12. DISCUSSION. The following subparagraphs explain in further detail the test results and discrepancies noted in table 3 and assess interoperability compliance to the GSCR requirements.

a. D-1 Preset Conference. DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not offer a preset conferencing capability. However, this functional requirement is optional for a Small End Office Switch.

b. D-2 Multi-Level Precedence and Preemption (MLPP). All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for MLPP.

c. D-3 Hotline Services. All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for hotline services.

d. D-4 System Interface. All test procedures in this sub-test were conducted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for system interfaces, with the exception that only 4 and 5-digit intra-switch dialing is supported. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not support 7-digit intra-switch dialing. This discrepancy will have minimal operational impact.

e. D-5 CCS/SS7. DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not offer CCS/SS7 capability. However, this functional requirement is optional for a Small End Office Switch.

f. D-6 Integrated Services Digital Network (ISDN)

(1) All applicable test procedures in this sub-test were conducted. The DEFINITY G3R Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all the GSCR interoperability requirements, with the exception of the unique ISDN BRI Supplemental Services as specified in the GSCR paragraphs listed below.

- 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
- Preset Conference Calling. GSCR Para. 21.3.11

(2) ISDN BRI Supplemental Services are currently not supported in any of the DSN switches worldwide. Therefore, this discrepancy will have no adverse operational impact.

g. D-7 Attendant Services. All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for attendant services.

h. D-8 System Administration, Measurements, and Service Standards. All the test procedures in this sub-test were conducted. The DEFINITY G3R Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all the GSCR interoperability requirements for system administration, measurement, and service standards, with the exception that the traffic measurement's call usage is in hundred call seconds (CCS) not seconds as required by the GSCR. The DISN Network Management System (ADIMSS) has the

ability to convert CCS to seconds; therefore, this discrepancy has no adverse operational impact.

i. D-9 Year 2000 Rollover Dates. All test procedures in this sub-test were conducted and no discrepancies were noted. The DEFINITY G3R Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) responded properly to all rollover dates and meets all interoperability requirements for Y2K rollover dates.

j. D-10 Year 2000 (Y2K) Valid Set Dates. All test procedures in this sub-test were conducted and no discrepancies were noted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) responded properly to all valid set dates and meets all interoperability requirements for Y2K valid set dates.

k. D-11 Year 2000 Invalid Set Dates. All test procedures in this sub-test were conducted and no discrepancies were noted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) 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. All test procedures were conducted in this sub-test and no discrepancies were noted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for screening, zone restriction, and DSN access restriction.

m. D-13 Community of Interest (COI). DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not offer Community of Interest capability. However, this functional requirement is optional for a Small End Office Switch.

n. D-14 Automatic Message Accounting (AMA). All test procedures in this sub-test were conducted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for AMA, with the following exception: The date is in standard format (MM/DD/YY) not in Julian format as required by the GSCR. The DISN Network Management System (ADIMSS) has the ability to convert standard date format to Julian date format; therefore, this discrepancy has no adverse operational impact.

o. D-15 Call Treatments. All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for call treatments.

p. D-16 Essential Service Protection (ESP). DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software

patch group 3838) does not offer an essential service protection capability. However, this functional requirement is optional for a Small End Office Switch.

q. D-17 Internal Overload Control (IOC). DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not offer an Internal Overload Control capability. However, this functional requirement is optional for a Small End Office Switch.

r. D-18 Automatic Call Gap (ACG). DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) does not offer CCS/SS7 automatic call gap capability. However, this functional requirement is optional for a Small End Office Switch.

s. D-19 DSN Announcements. All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for DSN announcements.

t. D-20 Nailed-Up Connections

1) All test procedures in this sub-test were conducted. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for T-1 and E-1 Channel Associated Signaling (CAS) nailed-up connections, with the following exceptions:

(a) The T-1 and E-1 CAS nailed-up connections do not allow supervision at one side of the nailed-up connection to be repeated at the other end, as specified in the GSCR paragraph 2.2.4.f.

(b) Nailed-up connections between lines and trunks are not supported, as specified in the GSCR paragraph 2.2.4.b.

2) This functional requirement is optional for a Small End Office Switch.

u. D-21 Network Integration. All applicable test procedures were conducted in this sub-test and no discrepancies were noted. Sub-tests D-2 and D-4 were re-tested over the network shown in figure 2. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for network integration.

v. D-22 Tactical Switch/DSN Interoperability. All test procedures for this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for tactical switch/DSN interoperability.

w. D-23 Advanced Defense Switched Network Integrated Management Support System (ADIMSS). All test procedures were conducted for this sub-test with no noted discrepancies. The interfaces tested between the DEFINITY G3R and ADIMSS, as shown in figure 3, consist of three asynchronous serial and one Ethernet (802.3) connections. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for ADIMSS.

x. D-24 Common Data Channel (CDC). All test procedures in this sub-test were conducted with no noted discrepancies. There are no GSCR requirements for CDC. However, 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 DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) could correctly interface with the KNS-4100 to interoperate with CDC links.

y. D-25 Electronic Key Telephone Service (EKTS). All test procedures in this sub-test were conducted with no noted discrepancies. The DEFINITY G3R Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) meets all GSCR interoperability requirements for EKTS. The following sub-tests under EKTS were tested:

- (1) Multiple directory numbers per terminal (SR-3476 paragraph 2.1.3.1.1).
- (2) Analog member of an EKTS group (SR-3476 paragraph 2.1.3.1.2).
- (3) Multiple DN appearances per call appearance call handling (SR-3476 paragraph 2.1.3.1.3).
- (4) Hold and retrieve (SR-3476 paragraph 2.1.3.1.4).
- (5) Bridging and DN-bridging (SR-3476 paragraph 2.1.3.1.5).
- (6) Intercom calling (SR-3476 paragraph 2.1.3.1.6).
- (7) Membership in a multi-line hunt group. (SR-3476 paragraph 2.1.3.1.7).
- (8) Abbreviated and delayed ringing (SR-3476 paragraph 2.1.3.1.8).
- (9) Automatic and/or manual bridged call exclusion (SR-3476 paragraph 2.1.3.1.9).
- (10) Multi-Level Precedence and Preemption (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 Avaya. Avaya’s Commercial Base Software Release 8.2 MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838) 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 (DISA ITESO), D6, and determined to have no adverse operational impact.

13. SUMMARY. The Avaya’s DEFINITY G3R, G3I, and G3CSI Digital Switching System Commercial Base Software Release 8.2, MLPP Software Release XDr.07585.4.0.04 (w/ software patch group 3838), is certified for use in the DISN, in accordance with the requirements set forth in reference (c). Minor discrepancies identified during testing and the GSCR requirements not tested will have no adverse effects on capabilities essential for mission accomplishment. A summary for each functional interface required by the GSCR is provided in table 4.

Table 4. Functional Interface Certification Status Summary

GSCR Functional Interface Requirements	Critical	Status
Preset Conference	No	NA
Multi-Level Precedence and Preemption	Yes	Passed
Hot Line Services	No	NA
System Interface	Yes	Passed
CCS/SS7	No	NA
Integrated Services Digital Network	Yes	Passed
Attendant Services	No	Passed
System Admin, Measurements and Service Standards	Yes	Passed
Y2K Rollover Dates	Yes	Passed
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	NA
Automatic Message Accounting	Yes	Passed
Call Treatments	Yes	Passed
Essential Service Protection	No	NA
Internal Overload Control	No	NA
Automatic Call Gap	No	NA
DSN Announcements	Yes	Passed

Table 4. Functional Interface Certification Status Summary (continued)

GSCR Functional Interface Requirements	Critical	Status
Nailed-Up Connections	No	Failed
Network Integration	Yes	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