



DEFENSE INFORMATION SYSTEMS AGENCY

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Fort Meade, Maryland 20755-0549

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

8 Sep 11

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of Real Time Monitors, Inc. Switch Expert Release 7.0

References: (a) DoD Directive 4630.05, "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. 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. Real Time Monitors, Inc Switch Expert Release 7.0 is hereinafter referred to as the system under test (SUT). The SUT met the interface and functional requirements for a Customer Premise Equipment (CPE) telecommunications management system as set forth in Reference (c). The SUT is certified only with specified Avaya digital switching systems listed within this document and listed on the Unified Capabilities (UC) Approved Products List (APL). Testing was conducted using test procedures derived from Reference (d). 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 the DISA Certifying Authority (CA) provided a positive Recommendation.
3. The extension of this certification is based on Desktop Review (DTR) 1. The original certification is based on interoperability testing conducted by JITC, DISA adjudication of open test discrepancy reports, review of Vendor's Letter of Compliance, and DISA CA recommendation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 23 through 27 April 2010 and documented in Reference (e). The DISA CA provided a positive Recommendation on 29 September 2010 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f). This DTR was requested to include the Internet Protocol (IP) connectivity feature offered by the SUT with the Avaya CS2100 with Secure Voice Zone, CS2100 MFSS and AS5300. This DTR was reviewed by JITC and determined that Verification and Validation (V&V) testing would be needed to validate the specified Avaya switches. An IA and IO V&V test was conducted from 11 through 15 April 2011. Testing was conducted with the SUT configured for IP connectivity as shown in figures 2 through 4. The SUT met all requirements

for a CPE device with the CS2100 with Secure Voice Zone, CS2100 MFSS and AS5300. Therefore, JITC approves this DTR. Additionally, as part of the IA V&V testing, there were no new IA findings or vulnerabilities introduced in the referenced IP configurations in this DTR. Therefore, the original DA CA recommendation applies to this DTR. The conditions of fielding specified in the IA assessment, Reference (f), and deployment guide must be implemented to maintain a secure IA posture.

4. The SUT is certified with all software versions of the digital switching systems depicted in Table 1 which are on the UC APL. Functional Requirements (FR) used to evaluate the interoperability of the SUT and the interoperability statuses are depicted in Table 2. Figure 1 depicts the original tested SUT configuration. Figure 2 depicts the tested configuration of the SUT with the AS5300. Figure 3 depicts the tested configuration of the SUT with the CS2100 with the secure voice zone. Figure 4 depicts the tested configuration of the SUT with the MFSS.

Table 1. SUT Certified Switching System Configurations

Switch Name ¹	Network Management Functions	Interface
Avaya CS2100 with the Secure Voice Zone ²	Configuration Management, Fault Management, Performance Management, and Automated Message Accounting	EIA-232 Serial Asynchronous IEEE 802.3u Ethernet
CS2100 MFSS	Configuration Management, Fault Management, Performance Management, and Automated Message Accounting	IEEE 802.3u Ethernet
Avaya CS1000M, CS1000M-SG, Succession DSN M1 Option 61C, and Succession DSN M1 Option 81C ²	Configuration Management, Fault Management, Performance Management, and Automated Message Accounting	EIA-232 Serial Asynchronous
Avaya CS1000E, CS1000M-Cabinet, CS1000M-Chassis, Succession DSN M1 Option 11C Cabinet, and Succession DSN M1 Option 11C chassis ²	Configuration Management, Fault Management, Performance Management, and Automated Message Accounting	EIA-232 Serial Asynchronous
Avaya AS5300 ³	Configuration Management, Fault Management, Performance Management, and Automated Message Accounting	IEEE 802.3u Ethernet

NOTES:

- The SUT is certified with all software versions of these digital switching systems which are listed on the UC APL with one exception: The SUT is certified with the Avaya CS2100 with the TDM interfaces only. This excludes VoIP end instruments and the MG9K IP Gateway.
- These switches were formerly Nortel products and may be listed on the UC APL under Nortel or Avaya.
- The SUT was tested and certified as a Network Management EMS subcomponent to the Avaya AS5300 under a separate TN# 0911801.

LEGEND:

APL	Approved Products List	IEEE	Institute of Electrical and Electronics Engineers, Inc.
AS	Application Server	IP	Internet Protocol
CS	Communication Server	M1	Meridian 1
DCE	Data Circuit-terminating Equipment	MG9K	Media Gateway 9000
DSN	Defense Switched Network	SG	Single Group
DTE	Data Terminal Equipment	SUT	System Under Test
EIA	Electronic Industries Alliance	TDM	Time Division Multiplexing
EIA-232	Standard for defining the mechanical and electrical characteristics for connecting DTE and DCE data communications devices	UC	Unified Capabilities
		VoIP	Voice over Internet Protocol

Table 2. SUT FRs and Interoperability Status

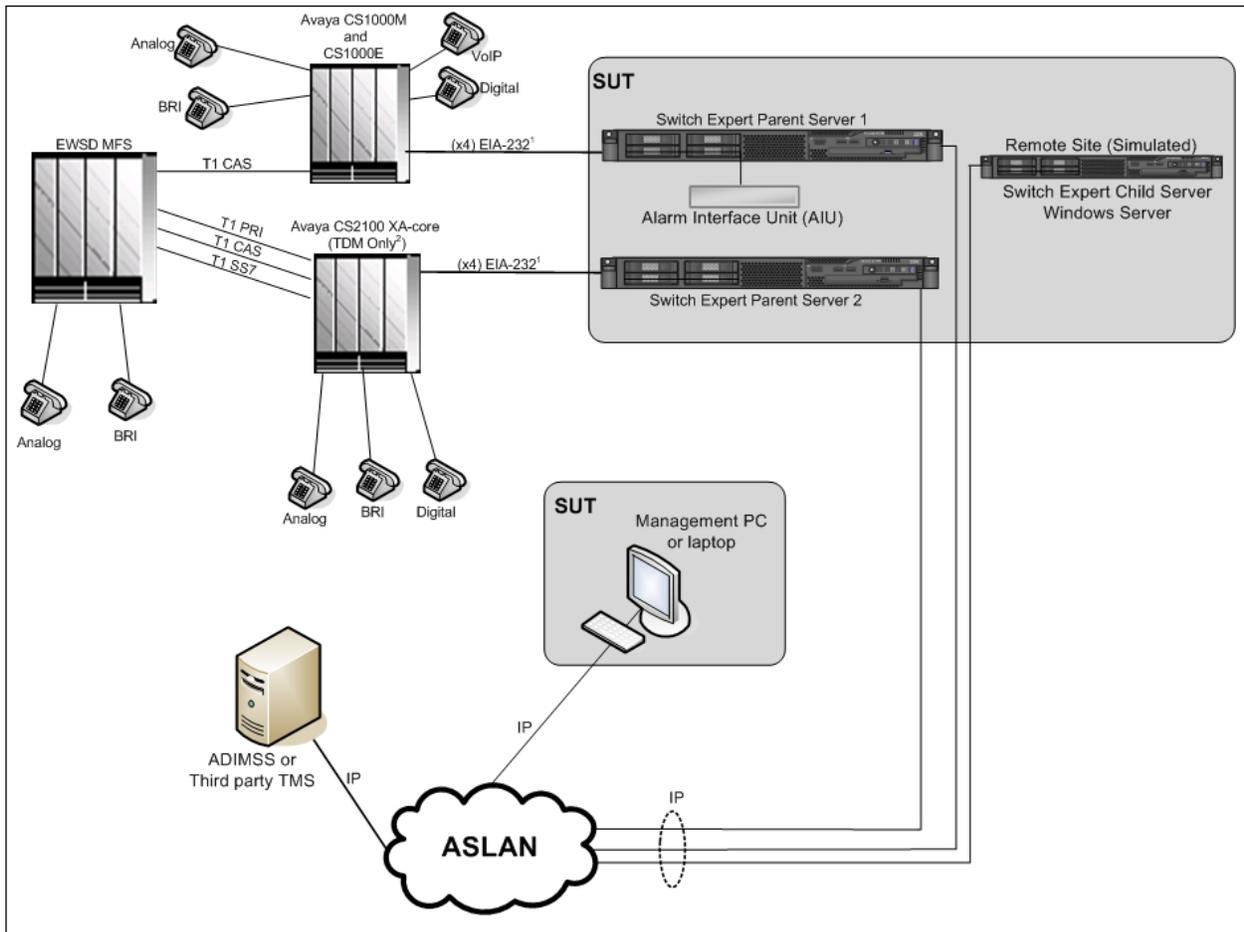
Interface	Critical	Certified	Functional Requirements	Status	UCR Reference
Serial EIA-232	No ¹	Yes	In accordance with EIA-232 (C)	Met	5.2.8.1
			Fault Management (C)	Met	5.2.8.3
			Configuration Management (Switch Access) (C)	Met	5.2.8.4
			Automated Message Accounting (C)	Met	5.2.8.5
			Performance Management (C)	Met	5.2.8.6
IEEE 802.3u Ethernet	No ³	Yes	In accordance with IEEE 802.3u (C)	Met	5.2.8.1
			Fault Management (C)	Met	5.2.8.3
			Configuration Management (Switch Access) (C)	Met	5.2.8.4
			Automated Message Accounting (C)	Met	5.2.8.3
	Yes	Yes	Security (R) ²		Section 3

NOTES:

- The SUT is a CPE device that provides network monitoring functions. Therefore, the SUT interfaces are based on the UCR, Section 5.2.8.1. The Network Management interoperability requirement can be met with any of the following interfaces: Ethernet, asynchronous serial, or synchronous serial.
- Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).
- The SUT was certified with the AS5300 during previous testing.

LEGEND:

C	Conditional	EIA-232	Standard for defining the mechanical and electrical characteristics for connecting DTE and DCE data communications devices
CPE	Customer Premises Equipment		
DCE	Data Circuit-terminating Equipment		
DISA	Defense Information Systems Agency	IEEE	Institute of Electrical and Electronic Engineers, Inc.
DTE	Data Terminal Equipment	R	Required
EIA	Electronic Industries Alliance	SUT	System Under Test
		UCR	Unified Capabilities Requirements



NOTES:

- 1 Configuration Management, Performance Management, and Fault Management are on separate EIA-232 interfaces.
- 2 The SUT is certified with the Avaya CS2100 with the TDM interfaces only. This excludes VoIP end instruments and the MG9K IP Gateway.

LEGEND:

ADIMSS	Advanced Defense Switched Network (DSN) Integrated Management Support System	EWSD	Elektronisches Wählsystem Digital
ASLAN	Assured Services Local Area Network	IP	Internet Protocol
BRI	Basic Rate Interface	Mbps	Megabits per second
CAS	Channel Associated Signaling	MFS	Multifunction Switch
CS	Communication Server	MG9K	Media Gateway 9000
EIA	Electronic Industries Alliance	PRI	Primary Rate Interface
EIA-232	Standard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) data communications devices	SUT	System Under Test
		T1	Digital Transmission Link Level 1 (1.544 Mbps)
		TDM	Time Division Multiplexing
		TMS	Telecommunications Management System
		VoIP	Voice over Internet Protocol

Figure 1. SUT Serial Interface Test Configuration

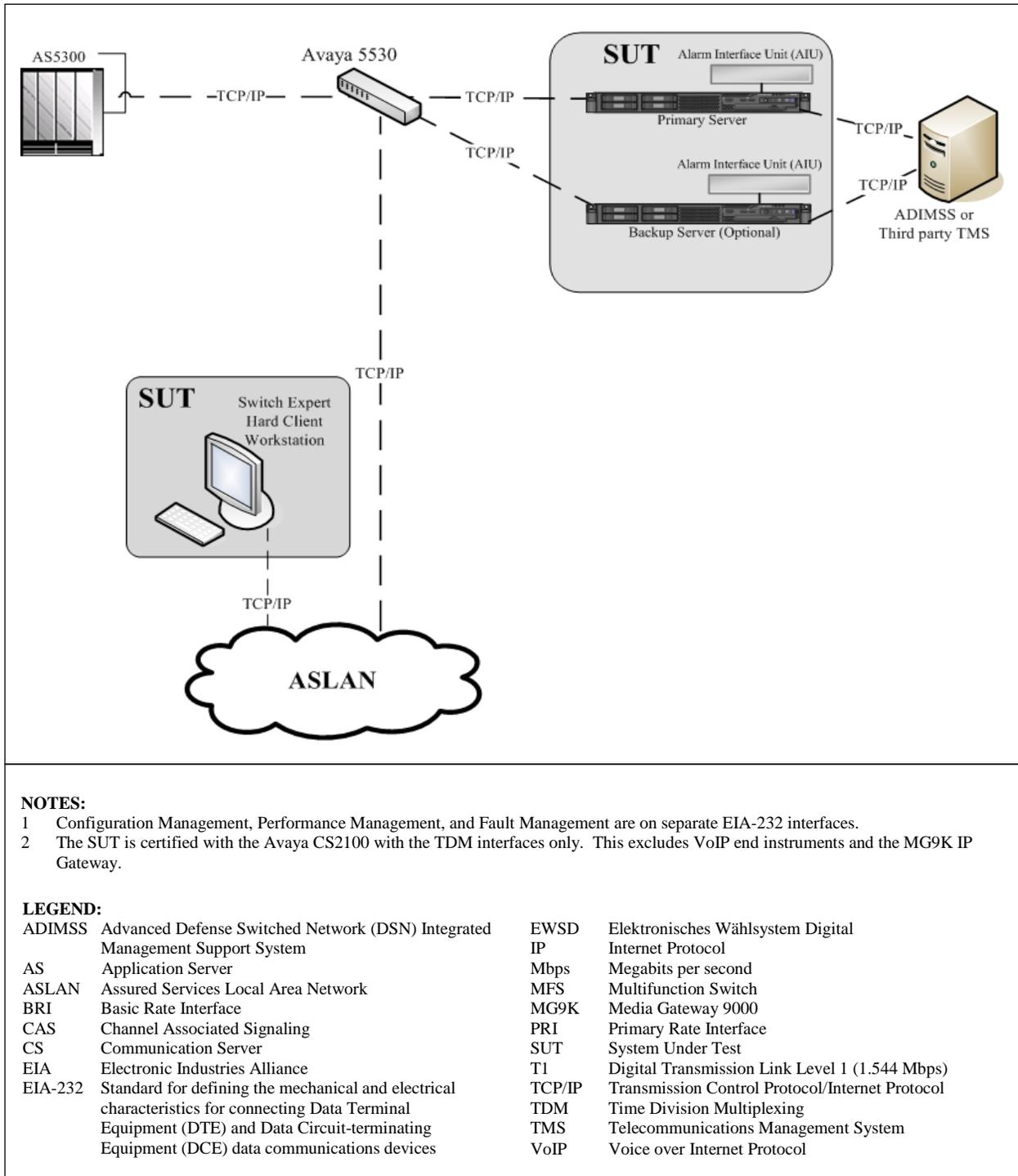


Figure 2. SUT TCP/IP Test Configuration with the Avaya AS5300

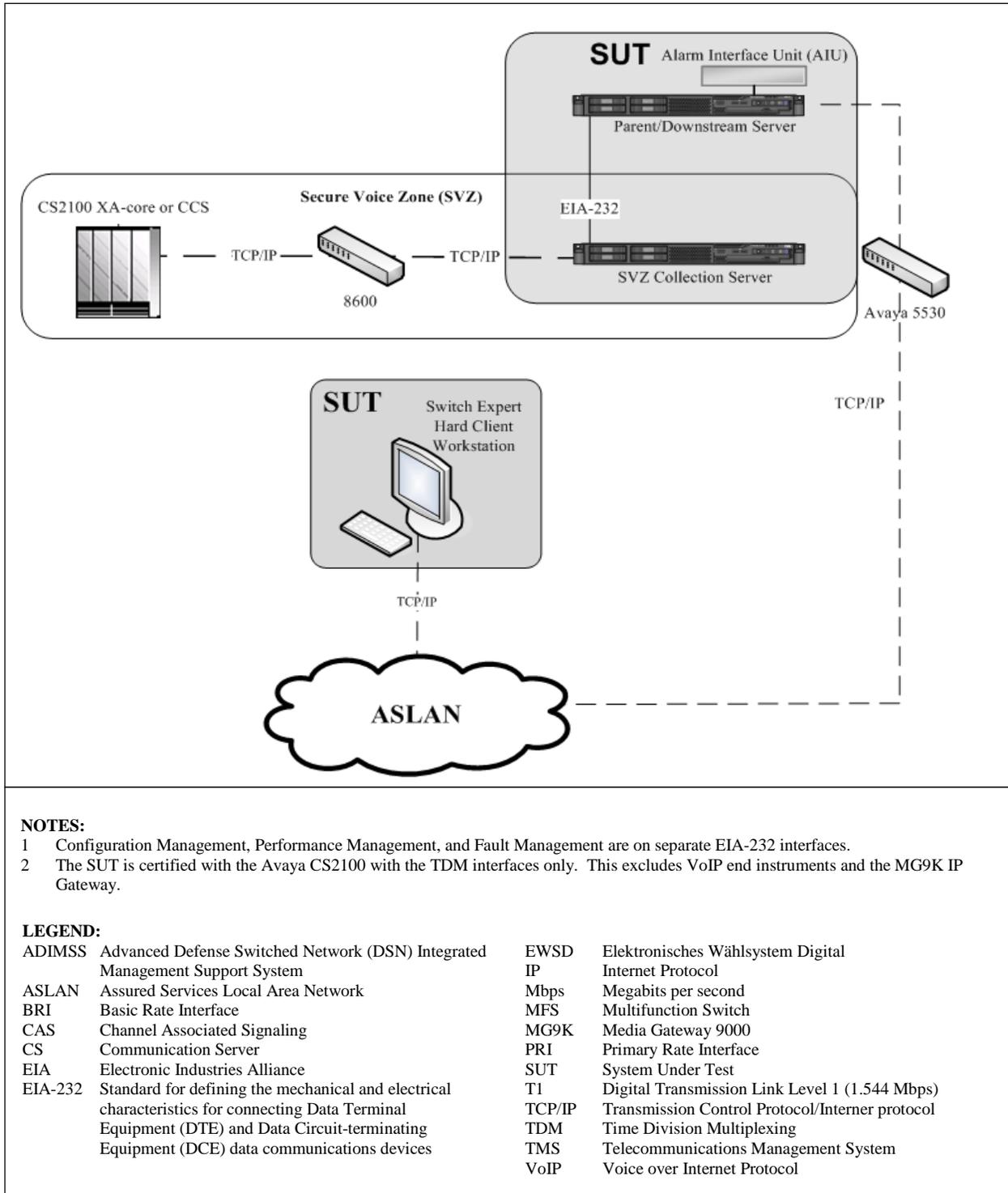


Figure 3. SUT TCP/IP Test Configuration with the Avaya CS2100 with SVZ

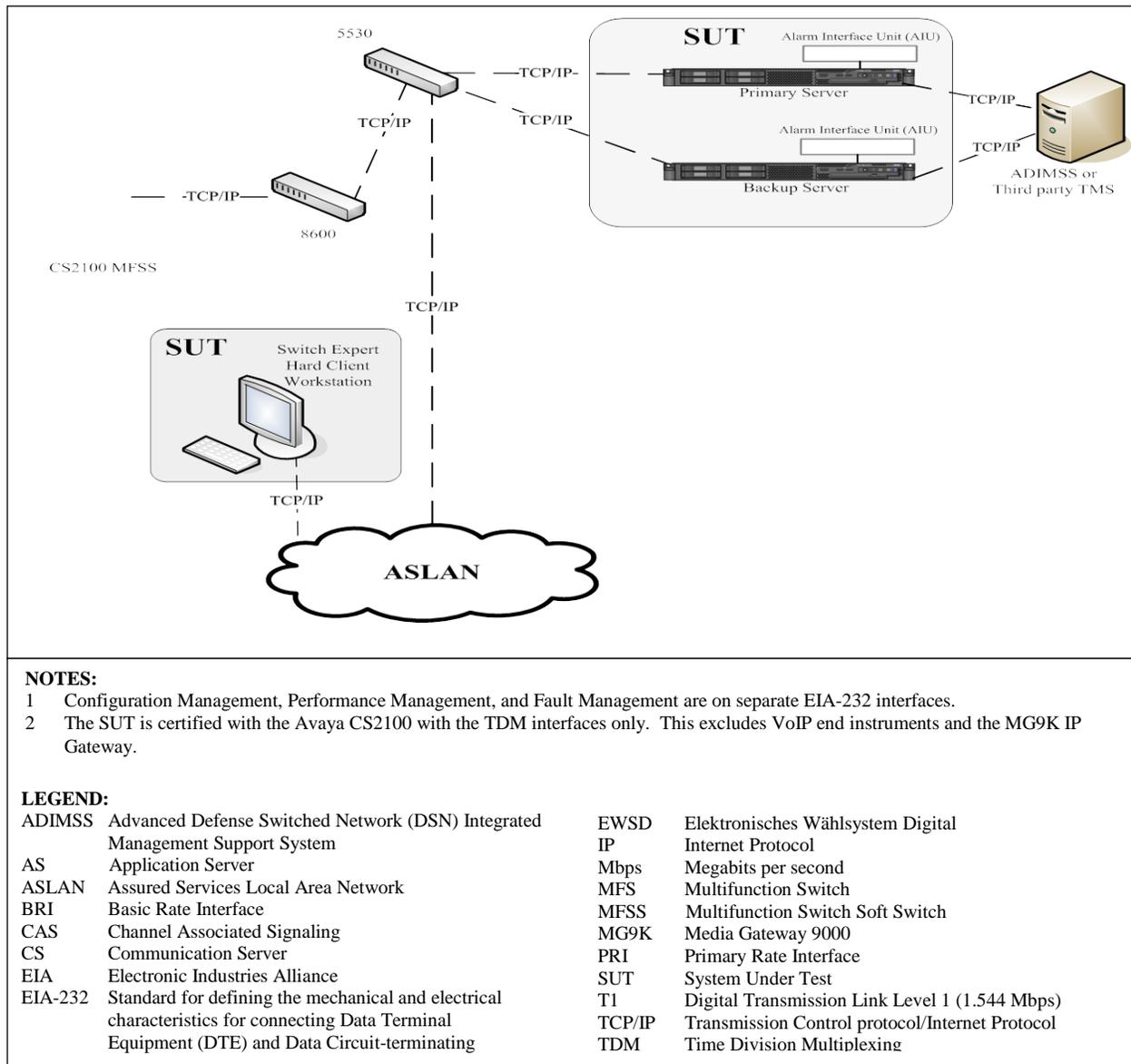


Figure 4. SUT TCP/IP Test Configuration with the Avaya CS2100 MFSS

5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through

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government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: ucco@disa.mil.

6. The JITC point of contact is Ms. Anita Mananquil, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to anita.mananquil@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 1001104.

FOR THE COMMANDER:



for BRADLEY A. CLARK
Chief
Battlespace Communications Portfolio

Enclosure a/s

Distribution (electronic mail):

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Defense Intelligence Agency

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U.S. Joint Forces Command, Net-Centric Integration, Communication, and Capabilities Division, J68

Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) Office of the Assistant Secretary of Defense, “Department of Defense Unified Capabilities Requirements 2008,” 22 January 2009
- (d) Joint Interoperability Test Command, “Defense Switched Network Generic Switch Test Plan (GSTP) Change 2,” 2 October 2006
- (e) Joint Interoperability Test Command, Memo, “Special Interoperability Test Certification of Real Time Monitors, Inc. Switch Expert Release 7.0,” 29 September 2010
- (f) Joint Interoperability Test Command, Memo, “Information Assurance (IA) Assessment of Real Time Monitors, Inc Switch Expert Release 7.0 (Tracking Number 1001104),” 29 September 2010