



## DEFENSE INFORMATION SYSTEMS AGENCY

P. O. BOX 549  
FORT MEADE, MARYLAND 20755-0549

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

### MEMORANDUM FOR DISTRIBUTION

**23 Feb 11**

**SUBJECT:** Special Interoperability Test Certification of the Enera Incorporated RapidReach® Emergency Notification Service (ENS) WEB Enterprise Release 2.0.1.1

**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

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 Enera Incorporated RapidReach® ENS WEB Enterprise Release 2.0.1.1 is hereinafter referred to as the System Under Test (SUT). The SUT meets all of its critical interoperability requirements and is certified as interoperable for joint use within the Defense Information System Network (DISN) as an Automated Receiving Device (ARD). The SUT is certified with the following interface: Digital Transmission Link Level 1 (T1) Integrated Services Digital Network (ISDN) Primary Rate Interface National ISDN 2 (NI2). JITC analysis determined a minor risk in certifying the SUT with all digital switching systems listed on the Unified Capabilities (UC) Approved Product List (APL) certified with the T1 ISDN PRI NI2 interface. The SUT met the critical interoperability requirements set forth in Reference (c) 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 affect interoperability, but no later than three years from the date of Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation.
3. This certification is based on interoperability testing, review of the vendor's Letters of Compliance (LoC), and DSAWG accreditation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 26 through 30 July 2010. Review of vendor's LoC was completed on 2 December 2010. DSAWG granted accreditation on 2 February 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (e). The Certification Testing Summary (Enclosure 2) documents the test results and describes the test configuration.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability status is indicated in Table 1.

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

Interfaces	Critical	Certified	Functional Requirements	Met	UCR Paragraph																												
T1 ISDN PRI NI2	No <sup>1</sup>	Yes	FCC Part 15/Part 68 and ACTA (R)	Met	5.2.12.3.5																												
			PCM-24 in accordance with UCR paragraph 5.2.6.1 (C)	Met	5.2.12.3.5.5																												
Security	Yes	Yes	Security (R)	See note 2.	3.2.3/3.2.5																												
<p><b>NOTES:</b></p> <p>1 The Automated Receiving Device requirements can be met via one of the following interfaces: 2-Wire Analog, 2-Wire Digital, 4-Wire Digital, PCM-24, or PCM-30.</p> <p>2 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).</p> <p><b>LEGEND:</b></p> <table> <tr> <td>ACTA</td> <td>Administrative Council of Terminal Attachments</td> <td>PCM-24</td> <td>Pulse Code Modulation - 24 Channels</td> </tr> <tr> <td>C</td> <td>Conditional</td> <td>PCM-30</td> <td>Pulse Code Modulation - 30 Channels</td> </tr> <tr> <td>DISA</td> <td>Defense Information Systems Agency</td> <td>PRI</td> <td>Primary Rate Interface</td> </tr> <tr> <td>FCC</td> <td>Federal Communications Commission</td> <td>R</td> <td>Required</td> </tr> <tr> <td>ISDN</td> <td>Integrated Services Digital Network</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>Mbps</td> <td>Megabits per second</td> <td>T1</td> <td>Digital Transmission Link Level 1 (1.544 Mbps)</td> </tr> <tr> <td>NI2</td> <td>National ISDN Standard 2</td> <td>UCR</td> <td>Unified Capabilities Requirements</td> </tr> </table>						ACTA	Administrative Council of Terminal Attachments	PCM-24	Pulse Code Modulation - 24 Channels	C	Conditional	PCM-30	Pulse Code Modulation - 30 Channels	DISA	Defense Information Systems Agency	PRI	Primary Rate Interface	FCC	Federal Communications Commission	R	Required	ISDN	Integrated Services Digital Network	SUT	System Under Test	Mbps	Megabits per second	T1	Digital Transmission Link Level 1 (1.544 Mbps)	NI2	National ISDN Standard 2	UCR	Unified Capabilities Requirements
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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://199.208.204.226> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitic.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 government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: [ucco@disa.mil](mailto:ucco@disa.mil).

JITC Memo, JTE, Special Interoperability Test Certification of the Enera Incorporated RapidReach® Emergency Notification Service (ENS) WEB Enterprise Release 2.0.1.1

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](mailto: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 1005601.

FOR THE COMMANDER:

2 Enclosures a/s

  
for BRADLEY A. CLARK  
Acting Chief  
Battlespace Communications Portfolio

Distribution (electronic mail):

Joint Staff J-6

Joint Interoperability Test Command, Liaison, TE3/JT1

Office of Chief of Naval Operations, CNO N6F2

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U.S. Marine Corps MARCORSYSCOM, SIAT, MJI Division I

DOT&E, Net-Centric Systems and Naval Warfare

U.S. Coast Guard, CG-64

Defense Intelligence Agency

National Security Agency, DT

Defense Information Systems Agency, TEMC

Office of Assistant Secretary of Defense (NII)/DOD CIO

## **ADDITIONAL REFERENCES**

- (c) Defense Information Systems Agency, "Department of Defense Networks Unified Capabilities Requirements," 21 December 2008
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (e) Joint Interoperability Test Command, Memo, "Information Assurance (IA) Assessment of Enea Rapidreach Emergency Notification System (ENS) WEB Release (Rel.) 2.0 (Tracking Number 1005601)," 2 February 2011

## **CERTIFICATION TESTING SUMMARY**

**1. SYSTEM TITLE.** Enera Incorporated RapidReach® Emergency Notification Service (ENS) WEB Enterprise Release 2.0.1.1; hereinafter referred to as the System Under Test (SUT).

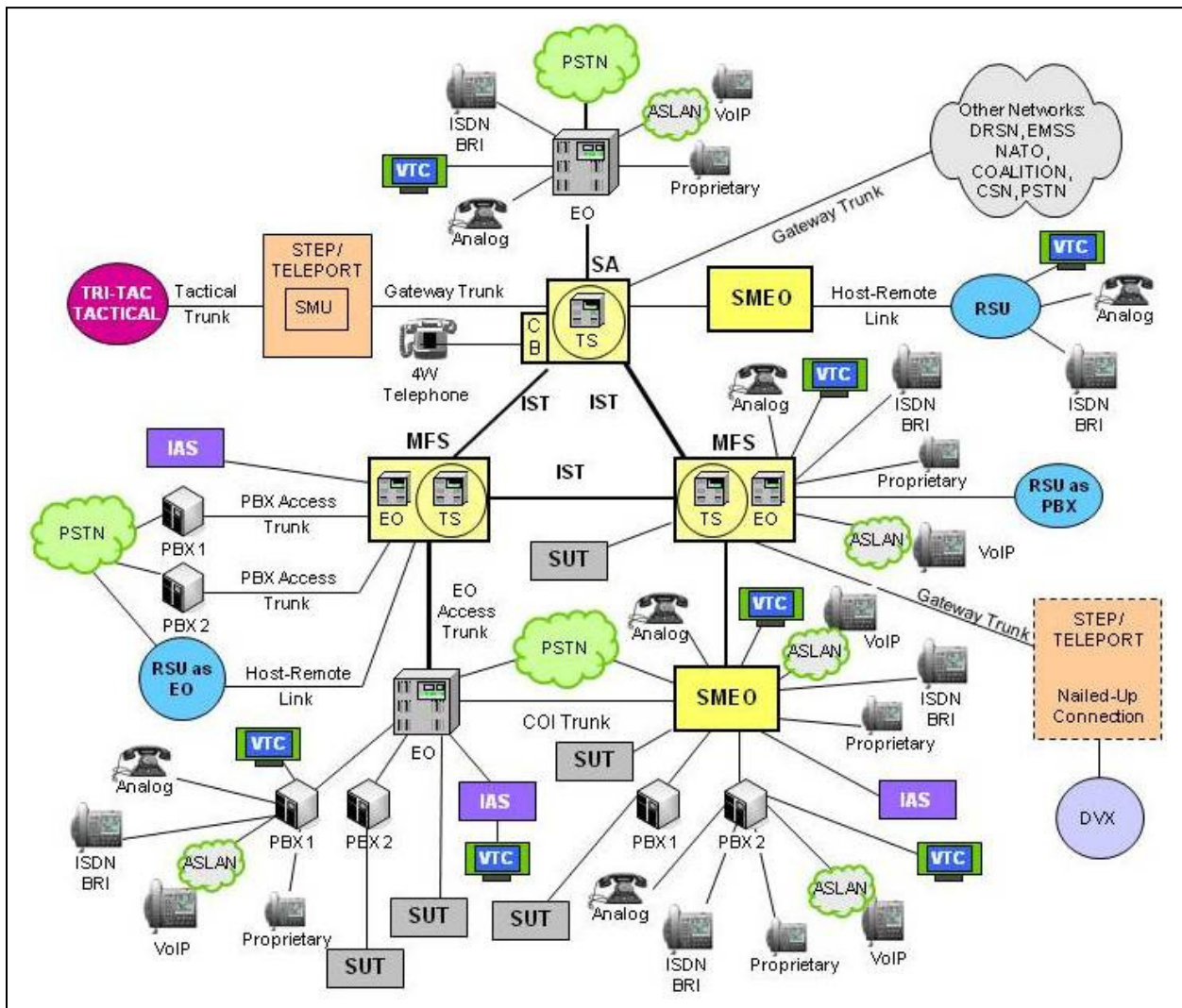
**2. PROPONENT.** Directorate of Plans, Training, Mobilization, and Security (DPTMS).

**3. PROGRAM MANAGER.** Mr. Michael Wilkins, 1386 Troop Row Southwest, Fort McPherson, Georgia 30330, e-mail: Michael.e.Wilkins@us.army.mil.

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

**5. SYSTEM UNDER TEST DESCRIPTION.** The SUT is a modular emergency notification system that transmits information in critical or emergency situations. The SUT automatically handles recall lists and call trees, and records responses of personnel contacted in real time. The SUT notifies personnel through the telephone network and Local Area Network (LAN), using a variety of contact devices including ordinary phones, mobile phones, wireless devices, personal digital assistants, Fax and email. The SUT provides a single screen presentation of all call out activities including status modes, start and stop times, contact numbers and answers. The call outs may be predefined and activated quickly. The SUT supports Digital Transmission Link Level 1 (T1), European Basic Multiplex Rate (E1), and analog trunk interfaces; however, E1 and analog interfaces were not tested and are not covered under this certification. The SUT is certified with the T1 Integrated Services Digital Network (ISDN) Primary Rate Interface National ISDN 2 (NI2) interface.

**6. OPERATIONAL ARCHITECTURE.** The Unified Capabilities Requirements (UCR) DSN architecture in Figure 2-1 depicts the relationship of the SUT to the DSN switches.



**LEGEND:**

4W	4-Wire	NATO	North Atlantic Treaty Organization
ASLAN	Assured Services Local Area Network	PBX	Private Branch Exchange
BRI	Basic Rate Interface	PBX 1	Private Branch Exchange 1
CB	Channel Bank	PBX 2	Private Branch Exchange 2
COI	Community of Interest	PSTN	Public Switched Telephone Network
CSN	Canadian Switch Network	RSU	Remote Switching Unit
DRSN	Defense Red Switch Network	SA	Standalone
DSN	Defense Switched Network	SMEO	Small End Office
DVX	Deployable Voice Exchange	SMU	Switched Multiplex Unit
EMSS	Enhanced Mobile Satellite System	STEP	Standardized Tactical Entry Point
EO	End Office	SUT	System Under Test
IAS	Integrated Access Switch	Tri-Tac	Tri-Service Tactical Communications Program
ISDN	Integrated Services Digital Network	TS	Tandem Switch
IST	Interswitch Trunk	VoIP	Voice over Internet Protocol
MFS	Multifunction Switch	VTC	Video Teleconferencing

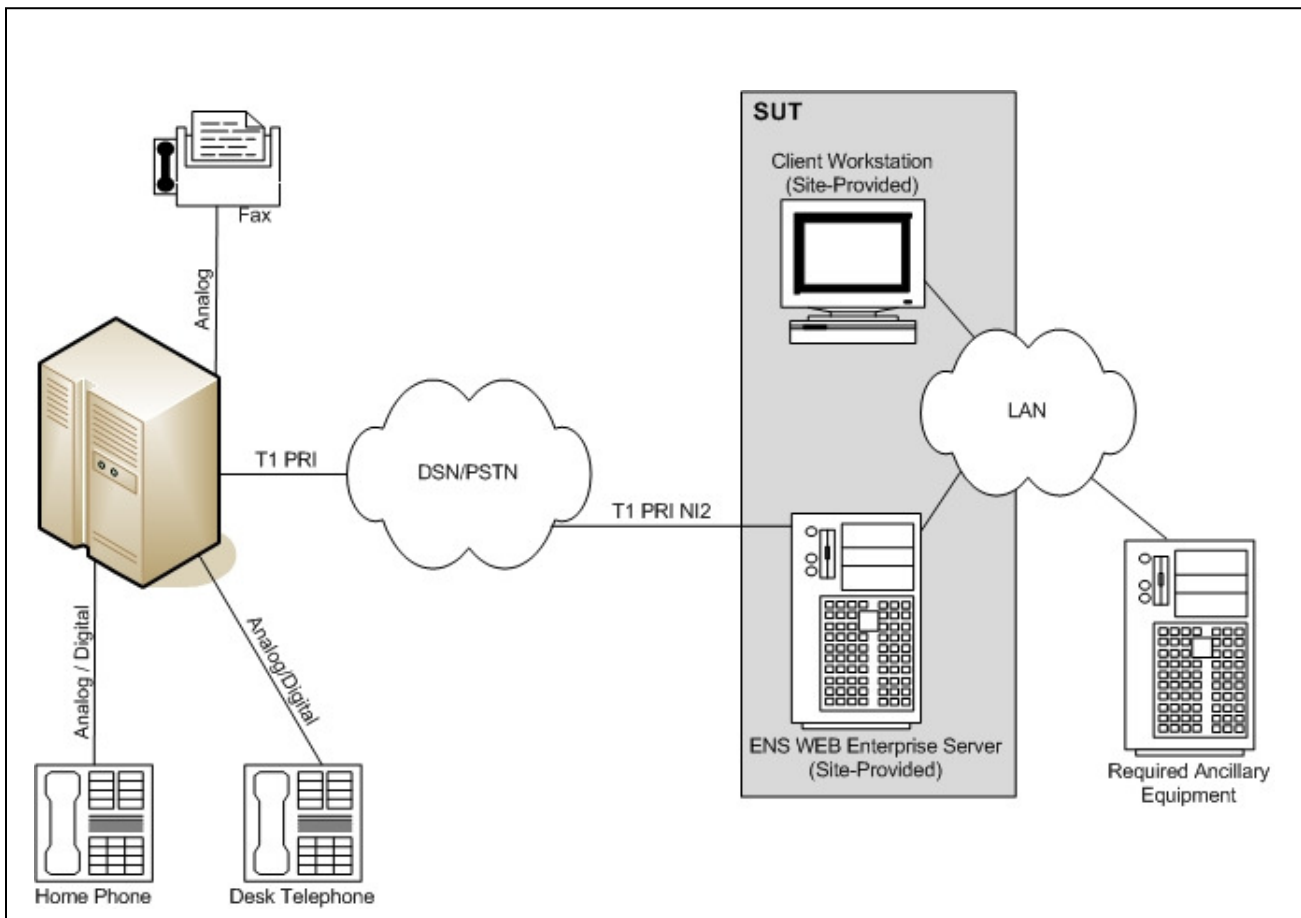
**Figure 2-1. DSN Architecture**

**7. REQUIRED SYSTEM INTERFACES.** Requirements specific to the SUT and interoperability results are listed in table 2-1. These requirements are derived from the UCR Interface and Functional Requirements (FRs) and verified through JITC testing and review of vendor Letters of Compliance (LoC).

**Table 2-1. SUT Functional Requirements and Interoperability Status**

Interfaces	Critical	Certified	Functional Requirements	Met	UCR Paragraph																												
T1 ISDN PRI NI2	No <sup>1</sup>	Yes	FCC Part 15/Part 68 and ACTA (R)	Met	5.2.12.3.5																												
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**8. TEST NETWORK DESCRIPTION.** The SUT was tested at JITC's Global Information Grid Network Test Facility in a manner and configuration similar to that of the DSN operational environment. The test configuration depicted in Figure 2-2.



**LEGEND:**

DSN	Defense Switched Network	NI2	National ISDN Standard 2
ENS	Emergency Notification Service	PRI	Primary Rate Interface
ISDN	Integrated Services Digital Network	PSTN	Public Switched Telephone Network
LAN	Local Area Network	SUT	System Under Test
Mbps	Megabits per second	T1	Digital Transmission Link Level 1 (1.544 Mbps)

**Figure 2-2. SUT Test Configuration**



**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 noted in Table 2-2. Table 2-2 lists the DSN switches which depict the tested configuration and is not intended to identify the only switches 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 interface.

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

System Name		Hardware/Software Release		
Siemens EWSD		19d with Patch Set 46		
Avaya CS2100		Succession Enterprise (SE)09.1		
Alcatel-Lucent 5ESS		5E16.2 Broadcast Warning Message (BWM) 09-0002		
Avaya S8710		Communication Manager (CM) 4.0 (R014x.00.2.732.1: Super Patch 16538)		
Avaya CS1000M		5.0w ATV		
SUT	Enera Incorporated RapidReach® Emergency Notification Service (ENS) WEB Enterprise Release 2.0.1.1	Hardware	Hardware	Firmware/Software
		ENS WEB Enterprise Server (Site-provided)	DMV600BTEP	Dialogic System Release v6.0 SU 252
			Minimum Requirements: Current Intel or AMD CPU, 1 GHz or faster; 2 GB of RAM; 20 GB available hard disk space; DVD ROM (for installation); PCI-X or PCI- Express slots to accommodate the Telecom boards; Physical space in the case for each full length board (13.3 inches long x 3.9 inches high). Boards are available with two and four T1 interfaces on a single board; for larger configurations, multiple boards may be required.	Apache 2.2.15
				NexusDB v3
ENS WEB Enterprise Client (Site-provided)	Minimum Requirements: MS Windows System capable of running Internet Explorer 7 or later recommended.	Rapid Reach ENS WEB Enterprise 2.0.1.1	Windows Server 2008 SP2	
				N/A
<b>LEGEND:</b>				
5ESS	Class 5 Electronic Switching System	Mbps	Megabits per second	
CPU	Central Processing Unit	N/A	Not Applicable	
CS	Communication Server	PCI	Peripheral Component Interconnect	
DB	Data Base	PCI-X	Peripheral Component Interconnect-eXtended	
DVD	Digital Video Disc	RAM	Random Access Memory	
ENS	Emergency Notification Service	ROM	Read Only Memory	
EWSD	Elektronisches Wählsystem Digital	SP	Service pack	
GB	Gigabyte	SU	Service Update	
GHz	Gigahertz	SUT	System Under Test	
JDK	Java Development Kit	T1	Digital Transmission Link Level 1 (1.544 Mbps)	

**10. TEST LIMITATIONS.** None.

**11. TEST RESULTS**

**a. Discussion.** The UCR, section 5.2.12.3.5.5, states that all Customer Premise Equipment (CPE) devices interfacing to the DSN shall provide at least one of the following interface types: 2-wire, 4-wire, Pulse Code Modulation (PCM)-24, or PCM-30.

The SUT supports T1 ISDN PRI NI2. The SUT is an event notification device. Event notification tests were invoked from and to the SUT, and placed over the interface to intra-switch directory numbers over a simulated DSN network as shown in Figure 2-2. Calls were successfully placed to subscribers on pre-defined notification lists and received a notification announcement and calls were placed to the SUT and the subscribers on the pre-determined list were notified and received the notification announcement. In accordance with the UCR, the SUT interfaces are not required to support Multi-Level Precedence and Preemption. Therefore, the SUT is certified only for outgoing ROUTINE calls placed to the DSN. The following UCR requirements were met by the SUT:

(1) The UCR, section 5.2.12.3.5, states that 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). The SUT met this requirement with their LoC.

(2) The UCR, section 5.2.12.3.5.5, states that Automated Receiving Devices (ARDs) that interface with PCM-24 interfaces shall comply as specified in UCR, paragraph 5.2.6.1. The SUT met this requirement with their LoC and testing.

(3) Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).

**c. Test Summary.** The SUT meets the interface and functional requirements for an ARD and is certified for joint use within the Defense Information System Agency (DISA) with the T1 ISDN PRI NI2 interface. JITC analysis determined a minor risk in certifying the SUT with all digital switching systems listed on the UC APL certified with the same interface offered by the SUT.

**12. TESTS AND ANALYSIS REPORT.** No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet), or <http://199.208.204.226> (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 government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: [ucco@disa.mil](mailto:ucco@disa.mil).