



DEFENSE INFORMATION SYSTEMS AGENCY

P. O. BOX 4502
ARLINGTON, VIRGINIA 22204-4502

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

15 August 2008

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Special Interoperability Test Certification of the Amcom Software Inc. Smart Center™, Event Notification and Response (e.Notify), and Smart Web™ Version 4.0.6.1

References: (a) DoD Directive 4630.5, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01D, "Interoperability and Supportability of Information Technology and National Security Systems," 8 March 2006
(c) and (d), 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 Amcom Software Inc. Smart Center™, e.Notify, and Smart Web™ Version 4.0.6.1 is hereinafter referred to as the System Under Test (SUT). The SUT meets the interface requirements and all required functional capabilities and is certified for joint use within the Defense Switched Network (DSN). The SUT met the interface and functional requirements for automated receiving devices set forth in appendix 7 of reference (c). The SUT includes the Amcom Software Inc. Smart Center™ with e.Notify and Smart Web™ applications collectively; however, these applications can be purchased individually and are also certified in any combination with the Smart Center™. Only a small subset of the complete feature set offered by the SUT was tested by JITC. JITC assesses no risk of interoperability problems within the DSN using the other features not tested that are offered by the SUT, and these other valid features are also certified for joint use within the DSN. The SUT is certified with all switching systems listed on the DSN Approved Products List (APL) certified for analog and Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI) National ISDN 2 (NI2) interfaces. 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, or authorized by the Program Management Office for use within the DSN. This certification expires upon changes that affect interoperability, but no later than three years from the date of this memorandum.

3. This certification is based on interoperability testing and review of the vendor's Letter of Compliance (LoC). Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 26 March through 22 April 2007. Review of vendor's LoC was completed on 8 May 2007. The certification was on hold pending

Information Assurance review. Information Assurance verification of the SUT was conducted by a DISA-led team. Interoperability verification of the system was completed on 27 June 2008. 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 statuses are indicated in table 1.

Table 1. SUT Functional Requirements and Interoperability Status

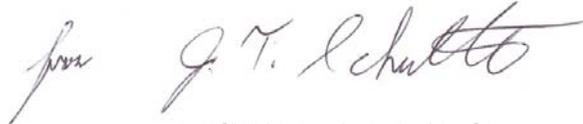
Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
2-Wire Analog (GR-506-CORE)	No ¹	Yes	MLPP in accordance with GSCR Section 3 (C)	Met	A7.5
			FCC Part15/Part 68 (R)	Met	A7.5
			DTMF outpulsing (C)	Met	A7.5, 5.4.1, 5.4.2
			DISR compliance as applicable (R)	Met	A7.5
			ROUTINE precedence only in accordance with GSCR 3.3 (R)	Met	A7.5
			TIA/EIA-470-B (R)	Met	A7.5.1
T1 ISDN PRI NI 1/2	No ¹	Yes	PCM-24 (R)	Met	7.1
			DISR compliance as applicable (R)	Met	A7.5
			ROUTINE precedence only in accordance with GSCR, Section 3.3 (R)	Met	A7.5
			T1 ISDN PRI NI 1/2 (R)	Met	2.3.4, 5.7
Security	Yes	See note 2.	Security (R)	See note 2.	A7.6.5
LEGEND: A - Appendix C - Conditional DISA - Defense Information Systems Agency DISR - Department of Defense Information Technology Standards Registry DTMF - Dual Tone Multi-Frequency EIA - Electronic Industries Alliance FCC - Federal Communications Commission GR - Generic Requirement GR-506-CORE - LSSGR: Signaling for Analog Interfaces GSCR - Generic Switching Center Requirements ISDN - Integrated Services Digital Network LSSGR - Local Access and Transport Area (LATA) Switching Systems Generic Requirements Mbps - Megabits per second MLPP - Multi-Level Precedence and Preemption NI 1/2 - National ISDN 1/2 PCM-24 - Pulse Code Modulation - 24 Channels PCM-30 - Pulse Code Modulation - 30 Channels PRI - Primary Rate Interface R - Required SUT - System Under Test T1 - Digital Transmission Link Level 1 (1.544 Mbps) TIA - Telecommunications Industry Association TIA/EIA-470-B - Performance and Compatibility Requirements for Telephone Sets with Loop Signaling					
NOTES: 1 The Automated Receiving Device requirements can be met via one of the following interfaces: 2-Wire Analog, 4-Wire Digital, PCM-24, or PCM-30. 2 Security is tested by DISA-led Information Assurance test teams and published in a separate report.					

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 TSSI website at <http://jitc.fhu.disa.mil/tssi>.

JITC Memo, JTE, Special Interoperability Test Certification of the Amcom Software Inc. Smart Center™, Event Notification and Response (e.Notify), and Smart Web™ Version 4.0.6.1

6. The JITC point of contact is Michael Napier, DSN 879-6787, commercial (520) 538-6787, FAX DSN 879-4347, or e-mail to michael.napier@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the Smart Center™ Version 4.0.6.1 is 0801003.

FOR THE COMMANDER:



RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

2 Enclosures a/s

Distribution (electronic mail):

Joint Staff J-6

Joint Interoperability Test Command, Liaison, TE3/JT1

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Defense Information Systems Agency, TEMC

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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) Defense Information Systems Agency, "Department of Defense Voice Networks Generic Switching Center Requirements (GSCR), Errata Change 2," 14 December 2006
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006

CERTIFICATION TESTING SUMMARY

- 1. SYSTEM TITLE.** The Amcom Software Inc. Smart Center™ Version 4.0.6.1, Event Notification and Response (e.Notify) Version 4.0.6.1, and Smart Web™ Version 4.0.6.1 is hereinafter referred to as the System Under Test (SUT).
- 2. PROPONENT.** White House Communications Agency (WHCA).
- 3. PROGRAM MANAGER.** Lt Col Alain Jones, 2743 Defense Blvd., Anacostia Annex, DC 20373, e-mail: ALJones@whmo.mil.
- 4. TESTER.** Joint Interoperability Test Command (JITC), Fort Huachuca, Arizona.
- 5. SYSTEM UNDER TEST DESCRIPTION.** The SUT includes the Amcom Software Inc. Smart Center™ with e.Notify and Smart Web™ applications collectively; however, these applications can be purchased individually and are also certified in any combination with the Smart Center™. The Smart Center™ and Smart Web™ applications enable organizations to process a majority of routine phone requests including directory assistance, messaging, and paging independently of a live operator. They can be integrated with existing call center applications, using a single database for combined operator, web, and speech-enabled directory functions.

The Amcom Smart Center™ uses the Oracle relational database and runs on the Linux operating system. It provides real-time logs and reports.

The e.Notify application enables information delivery to key personnel for any critical event by automatically delivering the messages and collecting the responses. The e.Notify application allows planning notifications in advance by creating lists of people, devices, and notification sequence for any number of anticipated scenarios.

The Smart Web™ applications enable employees and other authorized users to do directory searches, paging and on-call scheduling from their local network or the Internet. Smart Web™ is compatible with all standard browsers and accessible from a personal computer, wireless, or handheld device. Smart Web™ makes information from Amcom's Smart Center™ database available to users inside or outside of the organization. The Smart Web™ applications are security controlled to allow users access only to information that they are authorized to see. Multi-layered security (via password control and the Oracle database) allows some users to view only; while others can also edit directory information, send pages, or update on-call schedules.

- 6. OPERATIONAL ARCHITECTURE.** The Generic Switching Center Requirements (GSCR) DSN architecture in figure 2-1 depicts the relationship of the SUT to the DSN switches.

Table 2-1. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
2-Wire Analog (GR-506-CORE)	No ¹	Yes	MLPP in accordance with GSCR Section 3 (C)	Met	A7.5
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Security	Yes	See note 2.	Security (R)	See note 2.	A7.6.5
LEGEND: A - Appendix C - Conditional DISA - Defense Information Systems Agency DISR - Department of Defense Information Technology Standards Registry DTMF - Dual Tone Multi-Frequency EIA - Electronic Industries Alliance FCC - Federal Communications Commission GR - Generic Requirement GR-506-CORE - LSSGR: Signaling for Analog Interfaces GSCR - Generic Switching Center Requirements ISDN - Integrated Services Digital Network LSSGR - Local Access and Transport Area (LATA) Switching Systems Generic Requirements Mbps - Megabits per second MLPP - Multi-Level Precedence and Preemption NI 1/2 - National ISDN 1/2 PCM-24 - Pulse Code Modulation - 24 Channels PCM-30 - Pulse Code Modulation - 30 Channels PRI - Primary Rate Interface R - Required SUT - System Under Test T1 - Digital Transmission Link Level 1 (1.544 Mbps) TIA - Telecommunications Industry Association TIA/EIA-470-B - Performance and Compatibility Requirements for Telephone Sets with Loop Signaling					
NOTES: 1 The Automated Receiving Device requirements can be met via one of the following interfaces: 2-Wire Analog, 4-Wire Digital, PCM-24, or PCM-30. 2 Security is tested by DISA-led Information Assurance test teams and published in a separate report.					

8. TEST NETWORK DESCRIPTION. The SUT was tested at JITC’s Global Information Grid Network Test Facility in a manner and configuration similar to that of the DSN operational environment. Testing the system’s required functions and features was conducted using the test configuration depicted in figure 2-2.

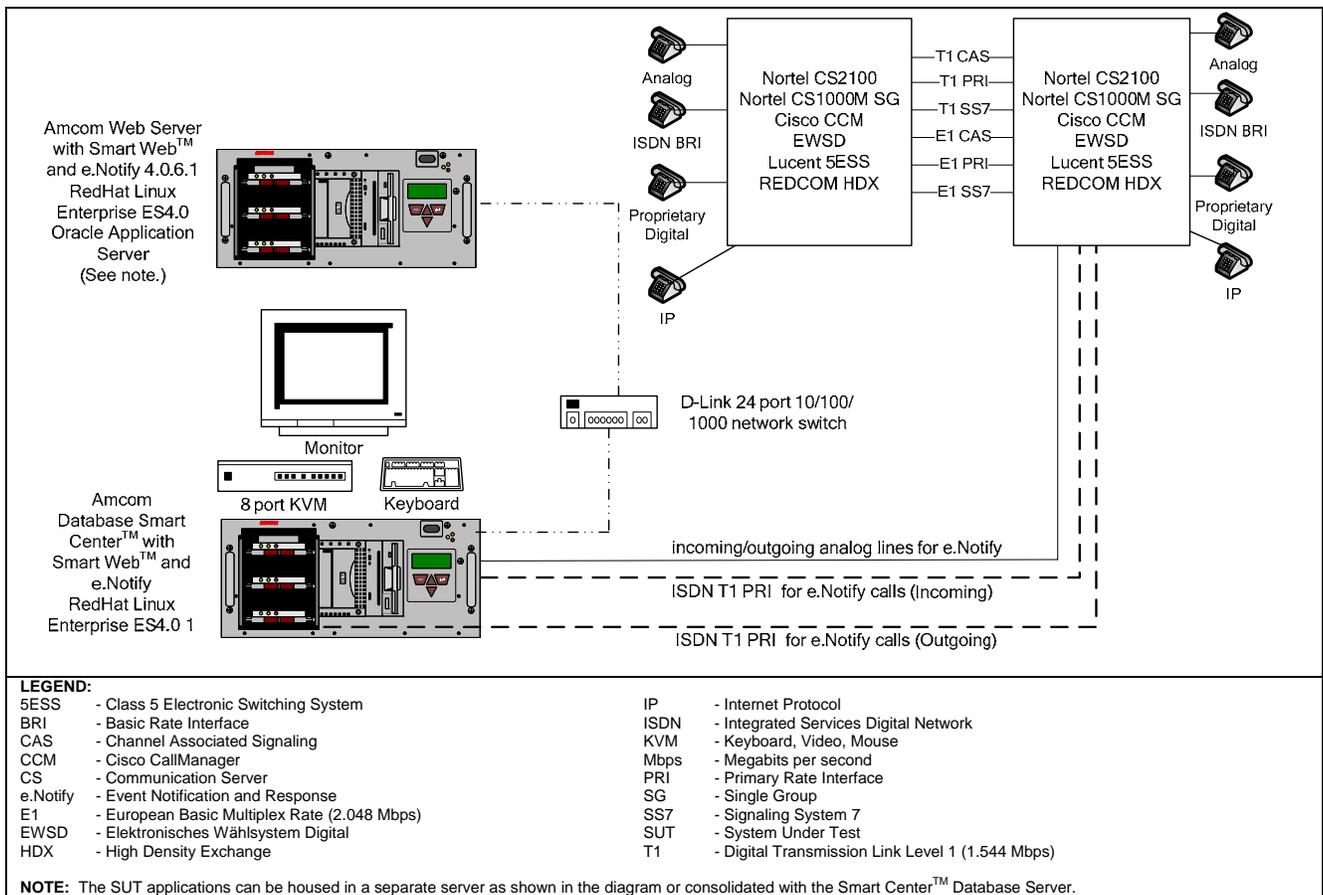


Figure 2-2. e.Notify Test Configuration

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 DSN Approved Products List (APL) that offer the same certified interfaces.

Table 2-2. Tested System Configurations

System Name	Hardware/Software Release		
Siemens EWSD	19d with Patch Set 46		
Nortel CS2100M SG	SE08		
Lucent 5ESS	5E16.2, Software Update 06-0002		
Nortel CS1000M Single Group	4.5w		
Cisco Call Manager	4.2(3) Service Release 1 IOS 12.4(9) T1		
Redcom HDX	2.0A R3P0		
Smart Speech™ Server	4.0.6.1		
SUT Release 4.0.6.1	Application	Hardware	Software/Firmware
	e.Notify Server Smart Web™	HP Proliant DL 360 Server Pentium 4 Processor 2.8 Gigahertz XEON, 1 Gigabyte RAM, 16 Gigabyte Hard Drives (x2)	RedHat Linux Enterprise ES4.0 Server, Oracle Application Server 10.1.2.0.2 Product Version "enotify_10gR2-1.4-0.19" Product Version "smartweb_10gR2-4.0-0.19"
	Smart Center™ Database Server e.Notify Server Smart Web™	HP Proliant DL 380 Server Pentium 4 Processor 2.8 Gigahertz XEON, 1 Gigabyte RAM, 72 Gigabyte Hard Drives (x2)	RedHat Linux Enterprise ES4.0 Server Product Version "smart_center_10gR2-4.0-0.23" Product Version "enotify_10gR2-1.4-0.19" Product Version "smartweb_10gR2-4.0-0.19"
		2W Analog Loop Start: Intel-Dialogic 12-Port Card (D/120JCT-LS)	FW SR6.1, Build 226
LEGEND: 2W - Two-Wire Analog 5ESS - Class 5 Electronic Switching System CS - Communication Server e.Notify - Event Notification and Response EWSD - Elektronisches Wählsystem Digital FW - Firmware HDX - High Density Exchange HP - Hewlett Packard IOS - Internetworking Operating System JITC - Joint Interoperability Test Command LS - Loop Start RAM - Random Access Memory SE - Succession Enterprise SG - Single Group SR - Software Release SUT - System Under Test T1 - Digital Transmission Link Level 1			
NOTE: JITC analysis determined there is no risk with also certifying the Smart Center™ database within the same server as the applications.			

10. TEST LIMITATIONS. Available test resources precluded testing every valid distribution and configuration of SUT components on various servers. Only a small subset of the complete feature set offered by the SUT was tested by JITC. JITC assesses no risk of interoperability problems within the DSN using the other features not tested that are offered by the SUT, and these other valid features are also certified for joint use within the DSN.

11. TEST RESULTS

a. Discussion. The SUT e.Notify application was tested by placing multiple ROUTINE precedence calls via the test configuration as shown in figure 2-2. In accordance with the GSCR, switching systems are required to route only ROUTINE calls to automated receiving devices such as the SUT. Simulated morale, welfare, recreation, automated directory assistance, and event notification calls were extended and completed via the SUT to verify interoperability between various switching systems. In addition, completed calls to the SUT were preempted within the simulated DSN to insure that the proper preemption action occurred as required by the GSCR, section 3. All preempted calls received the proper preemption notification tone, and were released

and returned to an idle state ready for the subsequent caller. The Smart Web™ application was tested by opening the application to view and manipulate the database to ensure there were no interoperability concerns.

b. Test Summary. The SUT includes the Amcom Software Inc. Smart Center™ with e.Notify and Smart Web™ applications collectively; however, these applications can be purchased individually and are also certified in any combination with the Smart Center™. Only a small subset of the complete feature set offered by the SUT was tested by JITC. JITC assesses no risk of interoperability problems within the DSN using the other features not tested that are offered by the SUT, and these other valid features are also certified for joint use within the DSN. The SUT is certified will all switching systems listed on the DSN APL certified for analog and ISDN PRI NI2 interfaces. The SUT met the critical interoperability requirements for an automated receiving device with two-wire analog and ISDN PRI NI2 interfaces as set forth in reference (c) and is certified for joint use within the DSN.

12. TEST 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://199.208.204.125> (SIPRNet). Information related to DSN testing is on the TSSI website at <http://jitc.fhu.disa.mil/tssi>.