DEFENSE INFORMATION SYSTEMS AGENCY
P. O. BOX 4502
ARLINGTON, VIRGINIA 22204-4502

IN REPLY REFER TO: Joint Interoperability Test Command (JTE) **11 Sep 12**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Amcom Software Inc., Personal Computer/Public Safety Answering Point (PC/PSAP™) from Version 11 to Version 11.9.0.301

References: (a) DoD Directive 4630.5, "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 (f), 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. The Amcom Software Inc., PC/PSAP™, Version 11 is hereinafter referred to as the system under test (SUT). The SUT met all of the critical interface and functional interoperability requirements and is certified for use within the Defense Switched Network (DSN) as a Customer Premise Equipment (CPE) PSAP system. The SUT was tested with the Avaya Meridian Switch Logic (MSL)-100 digital switching system and is certified specifically with the following Avaya MSL-100 interfaces: proprietary M5316 line and two-wire analog ground start line. Additionally, the SUT is certified with the Public Switched Telephone Network (PSTN) 2-wire analog Centralized Automatic Message Accounting (CAMA) trunk interface. The JITC analysis determined the Avaya Communication Server (CS) 2100 to be functionally identical to the Avaya MSL-100 for interoperability certification purposes. Therefore, the SUT is also certified with the Avaya CS 2100 digital switching system. The SUT is specifically certified with any Avaya MSL-100 and CS2100 listed on the Unified Capabilities Approved Product List certified with the aforementioned interfaces. The SUT meets 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 13 October 2009, which is the date of Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation.

3. The extension of this certification is based upon Desktop Review (DTR) 1. The original certification is based on interoperability testing, review of the vendor's Letters of Compliance

(LoC), and DSAWG accreditation. Interoperability testing was conducted by the Telecommunication Systems Security Assessment Program (TSSAP) at the testing facility of the 346th Test Squadron, 318th Information Operations Group, San Antonio, Texas, from 23 through 27 February 2009, and documented in Reference (e). The DSAWG granted accreditation on 13 October 2009, based on the security testing completed by DISA-led Information Assurance (IA) test teams and published in a separate report, Reference (f). Review of the vendors LoC was completed on 26 April 2010. This DTR was requested to include Version 11.9.0.301 and certification with additional Avaya switches using the M3904/5 telephone interfaces. The Avaya switches certified with the SUT are listed in Table 1. This DTR request also included the Avaya M2616 phone, which did not meet all requirements and is therefore not listed in Table 2 and not certified for joint use. This DTR additionally included component upgrades depicted in Table 2. This DTR request required interoperability and IA verification and validation (V&V) testing. JITC conducted V&V testing in support of this DTR from 4 through 6 June 2012. The DISA Certifying Authority (CA) provided a positive recommendation for this DTR on 12 July 2012, based on the security testing completed DISA-led IA test teams and published in a separate report, Reference (f). Therefore, JITC approves this DTR.

Table 1. SUT Certified Switching System Configurations

Avaya Switch[1]	Interfaces
CS2100 (MFS, MFSS)	2-wire analog Ground Start Line 2-wire CAMA Trunks (PSTN) Avaya Proprietary M5316 2-Wire Digital Line
MSL-100 (MFS)	2-wire analog Ground Start Line 2-wire CAMA Trunks (PSTN) Avaya Proprietary M5316 2-Wire Digital Line
CS1000M, DSN CS1000M Single Group, DSN CS1000M Multi-Group, DSN M1 Option 61C, DSN M1 Option 81C, Succession DSN 1000M Single-Group, Half-Group, and Multi-Group (SMEO)	2-wire analog Ground Start Line 2-wire CAMA Trunks (PSTN) Avaya Proprietary M3904 with CTIA Avaya Proprietary M3905[2]
CS1000E, Succession DSN 1000M Cabinet, DSN 1000M Chassis, DSN 1000M, Succession DSN Options 11C, 61C, and 81C, M1Options 11C, 61C, and 81C (SMEO, PBX)	2-wire analog Ground Start Line 2-wire CAMA Trunks (PSTN) Avaya Proprietary M3904 with CTIA Avaya Proprietary M3905[2]

NOTES:
1. The SUT is certified with all software versions of these digital switching systems which are listed or were previously listed on the UC APL. These switches were originally Nortel switches. Nortel was acquired by Avaya; therefore, the Nortel switches are now sold and supported by Avaya.
2. The M3905 was not tested; however, the M3905 telephone employs the same firmware and similar hardware as the M3904. The JITC analysis determined these telephones to be functionally identical for interoperability certification purposes and it is also certified for joint use.

LEGEND:

APL	Approved Products List	MFSS	Multifunction Soft Switch
CAMA	Centralized Automatic Message Accounting	PBX	Private Branch Exchange
CS	Communication Server	PSTN	Public Switched Telephone Network
CTIA	Computer Telephony Interface Adapter	SMEO	Small End Office
DSN	Defense Switched Network	SUT	System Under Test
M1	Meridian 1	UC	Unified Capabilities
MFS	Multifunction Switch		

Table 2. SUT DTR1 Component Upgrades

Switches tested with the SUT during the V&V		**Release**
Avaya CS1000M		5.0
Avaya Meridian 1 Option 81C		5.0
System Under Test (See note.)	**Hardware** (See note.)	**Software**
Amcom PC/PSAP™ **Version 11.9.0.301**	**Dell Power Edge R710**	Windows 2003 Server SP2 Microsoft SQL 2005 SP3 XNXID Version 2.5.0.199 XNALIMST Version 2.0.0.21 XNGETTMS Version 2.1.0.8 XNUPDATE Version 5.1.0.100 Gencpi Version 1.0.0.0
	Dell OptiPlex XE	Microsoft Windows Vista SP2 / Microsoft Windows 7 SP1 Microsoft SQL Express 2005 SP3 Xn911adox 5.7.0.113 Gencpi 1.0.0.0 Xntdd 2.0.0.1
	XID Unit	T600117-F S6000132-H
	Avaya M5316 Proprietary Phone	N/A
	M3904 Digital Phone with CTIA adapter (Computer Telephony Interface Adapter)	Core Firmware version 020, Flash Firmware version 084
	M3905	Core Firmware version 020, Flash Firmware version 084
	CPI 101	Revision # 11(hexadecimal)
	Ultratec Tele-Modem	ITM061694
	DynaMetric TMP636	N/A
	Kōnexx 109	N/A

NOTE: Hardware /software bolded and underlined were updated with this DTR after verification and validation testing.

LEGEND:

CPI	Computer to P-Phone Interface	SQL	Structured Query Language
DISA	Defense Information systems Agency	SUT	System Under Test
DTR	Desktop Review	TM	Trade Mark
pc/psap	Personal Computer /Public Safety Access Point	XID	Trunk Interface Device
SP	Service Pack		

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 3.

Table 3. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Status	UCR 2007 Paragraph[1]
2-Wire Analog Ground Start Lines	No[2]	Yes	The PSAP shall not be able to place callers to 911 on hold while connected to the 911 termination. (R)	Met	2.4.1.3
			FCC Part 15 and Part 68 and ACTA Compliance (R)	Met	A7.5
			When the originating line and the emergency service bureau are served by the same switching system, the bureau shall have the capability of: • Holding and releasing the calling line connection. (R) • Monitoring the supervisory state of the calling line. (R) • Ringing the originating station back. (R)	Met	A7.5
			As a minimum, the 911 and the E911 (tandem) Emergency Service shall have the capability to "hold" the originating subscriber/caller from releasing the call via the switch supervision interaction for line and trunk control by the "called-party" feature, in accordance with Telcordia Technologies GR-529. (R)	Met	A7.5
			Device(s) that can "out-dial" DTMF shall comply to the requirements stated in UCR Section A7.5 for its address digit generating capabilities and shall be capable of outpulsing DTMF digits specified in Telcordia Technologies GR-506-CORE. (R)	Met	A7.5
2-Wire Analog CAMA Trunks	No[2]	Yes[3]	The PSAP shall not be able to place callers to 911 on hold while connected to the 911 termination. (R)	Met	2.4.1.3
			FCC Part 15 and Part 68 and ACTA Compliance (R)	Met	A7.5
			When the originating line and the emergency service bureau are served by the same switching system, the bureau shall have the capability of: • Holding and releasing the calling line connection. (R) • Monitoring the supervisory state of the calling line. (R) • Ringing the originating station back. (R)	Met	A7.5
			As a minimum, the 911 and the E911 (tandem) Emergency Service shall have the capability to "hold" the originating subscriber/caller from releasing the call via the switch supervision interaction for line and trunk control by the "called-party" feature, in accordance with Telcordia Technologies GR-529. (R)	Met	A7.5
Avaya Proprietary M5316 2-Wire Digital Line	No[2]	Yes[3]	The PSAP shall not be able to place callers to 911 on hold while connected to the 911 termination. (R)	Met	2.4.1.3
			FCC Part 15 and Part 68 and ACTA Compliance (R)	Met	A7.5
			When the originating line and the emergency service bureau are served by the same switching system, the bureau shall have the capability of: • Holding and releasing the calling line connection. (R) • Monitoring the supervisory state of the calling line. (R) • Ringing the originating station back. (R)	Met	A7.5
			As a minimum, the 911 and the E911 (tandem) Emergency Service shall have the capability to "hold" the originating subscriber/caller from releasing the call via the switch supervision interaction for line and trunk control by the "called-party" feature, in accordance with Telcordia Technologies GR-529. (R)	Met	A7.5
	Yes	Yes	GR-815, STIGs, DoDI 8510.bb, and Security (DIACAP) (R)	Met[6]	A7.6

Table 3. SUT Functional Requirements and Interoperability Status (continued)

Interface	Critical	Certified	Functional Requirements	Status	UCR 2008 Paragraph[1]
Avaya Proprietary M3904 with CTIA / Avaya proprietary M3905 interface	No[2]	Yes[4]	The PSAP shall not be able to place callers to 911 on hold while connected to the 911 termination. (R)	Met	5.2.1.4.1.3
			When the originating line and the emergency service bureau are served by the same switching system, the bureau shall have the capability of: • Holding and releasing the calling line connection. (R) • Monitoring the supervisory state of the calling line. (R) • Ringing the originating station back. (R)	Met	5.2.1.4.1.3
			As a minimum, the 911 and the E911 (tandem) Emergency Service shall have the capability to "hold" the originating subscriber/caller from releasing the call via the switch supervision interaction for line and trunk control by the "called-party" feature, in accordance with Telcordia Technologies GR-529. (R)	Met	5.2.1.4.1.3
Avaya proprietary M2616 interface	No[2]	No	The PSAP shall not be able to place callers to 911 on hold while connected to the 911 termination. (R)	Met	5.2.1.4.1.3
			When the originating line and the emergency service bureau are served by the same switching system, the bureau shall have the capability of: • Holding and releasing the calling line connection. (R) • Monitoring the supervisory state of the calling line. (R) • Ringing the originating station back. (R)	Met	5.2.1.4.1.3
			As a minimum, the 911 and the E911 (tandem) Emergency Service shall have the capability to "hold" the originating subscriber/caller from releasing the call via the switch supervision interaction for line and trunk control by the "called-party" feature, in accordance with Telcordia Technologies GR-529. (R)	Not Met[5]	5.2.1.4.1.3
	Yes	Yes	GR-815, STIGs, DoDI 8510.bb, and Security (DIACAP) (R)	Met[6]	5.4

NOTES:
1. The SUT was originally tested and certified with UCR 2007 requirements. Testing for DTR 1 was conducted using the requirements in UCR 2008, Change 1.
2. The UCR does not specify a minimum required interface for customer premise equipment.
3. The SUT was tested with the Avaya MSL-100 digital switching system using the following Avaya MSL-100 interfaces: proprietary M5316 line and two-wire analog ground start line. Additionally, the SUT is certified with the PSTN 2-wire analog CAMA trunk interface. JITC analysis determined the Avaya MSL-100 and Avaya CS2100 to be functionally identical for interoperability certification purposes. Therefore, the SUT is specifically certified with the MSL-100 and CS2100 systems listed on the Unified Capabilities Approved Product List certified with these interfaces.
4. The SUT was tested with the Avaya CS1000M digital switching system using the Avaya Proprietary M3904 with CTIA interface. The M3905 was not tested; however, the M3905 telephone employs the same firmware and similar hardware as the M3904. The JITC analysis determined these telephones to be functionally identical for interoperability certification purposes and it is also certified for joint use. The SUT is certified with the CS1000 and M1 series switches listed in Table 1.
5. The SUT was tested with the Avaya M1 Option 81C using the Avaya proprietary M2616 interface. The Avaya M2616 digital phone sporadically sends a NORTEL logo via the proprietary interface to the PSAP operator terminal in lieu of the address information of the 911 caller. DISA adjudicated this on 12 June 2012 by stating the Avaya M2616 will not be certified.
6. Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f). The SUT was originally tested and certified with UCR 2007 requirements. IA testing for DTR 1 was conducted using the requirements in UCR 2008, Change 3.

Table 3. SUT Functional Requirements and Interoperability Status (continued)

LEGEND:

A	Appendix
ACTA	Administrative Council for Terminal Attachments
C	Conditional Requirement
CAMA	Centralized Automatic Message Accounting
CS	Communication Server
CTIA	Computer Telephony Interface Adapter
DIACAP	Department of Defense Information Assurance Certification and Accreditation Process
DISA	Defense Information Systems Agency
DoDI	Department of Defense Instruction
DTMF	Dual Tone Multi-Frequency
DTR	Desktop Review
FCC	Federal Communications Commission
GR	Generic Requirements
GR-506	LSSGR: Signaling for Analog Interfaces
GR-529	LSSGR: Public Safety
GR-815	Generic Requirements For Network Element/Network System (NE/NS) Security
JITC	Joint Interoperability Test Command
LSSGR	Local Access and Transport Area (LATA) Switching Systems Generic Requirements
MSL	Meridian Switch Logic
PSAP	Public Safety Answering Point
PSTN	Public Switched Telephone Network
R	Required Requirement
STIGs	Security Technical Implementation Guide
SUT	System Under Test
UCR	Unified Capabilities Requirements

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). 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: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil.

6. The JITC point of contact is Capt Stéphane Arsenault, DSN 879-5269, commercial (520) 538-5269, FAX DSN 879-4347, or e-mail to Stephane.P.Arsenault.fm@mail.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0823801.

FOR THE COMMANDER:

Enclosure a/s

for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Amcom Software Inc., Personal Computer/Public Safety Answering Point (PC/PSAP™) from Version 11 to Version 11.9.0.301

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ADDITIONAL REFERENCES

(c) Defense Information Systems Agency, "Department of Defense Networks Unified Capabilities Requirements," 21 December 2007

(d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006

(e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Amcom Software Inc., Personal Computer/Public Safety Answering Point (PC/PSAP™), Version 11," 21 May 2010

(f) Air Force Test Facility, "Information Assurance (IA) Assessment of Amcom Software Inc., Personal Computer/ Public Safety Answering Point™ (PC/PSAP), Version 11 (TN 0823801)," 4 August 2009