DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) **30 Sep 11**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Callware Technologies Callegra.Unified Communications (UC) ™ Server with Software Release 6.14-Joint Interoperability Test Command (JITC) Service Pack 1 Release Update 2 (SP1RU2)

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 (f), see Enclosure

1. References (a) and (b) establish the Defense Information Systems Agency (DISA), JITC, as the responsible organization for interoperability test certification.

2. The Callware Technologies Callegra.UC ™ Server with Software Release 6.14-JITC SP1RU2 is hereinafter referred to as the System Under Test (SUT). The JITC suffix was attached to the SUT commercial software release 6.14 because it includes Defense Switched Network (DSN) military unique features. The SUT met the interface and functional requirements for automated receiving devices set forth in Reference (c). The SUT is certified for joint use within the DSN with the following interfaces with any voice circuit switch on the Unified Capabilities (UC) Approved Products List (APL) that has the same certified interface: analog and Digital Transmission Link Level 1 (T1) Channel Associated Signaling (CAS) Dual Tone Multifrequency (DTMF) ground start. The SUT is certified for other interfaces with specific switches as specified in Table 1. The SUT offers integrated automated attendant (Auto Attendant) and voice messaging (Voicemail) functionality with the following optional applications: CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The SUT also offers the Callegra.UC SDK™ application, which was not tested and is not covered under this certification. All Callware applications run on the Callegra.UC™ Server and are administered using the Microsoft Management Console (MMC) module. CallegraADMIN™ for MMC is an integral part of the SUT. The SUT was tested with the switching systems and their respective software releases listed in the Certification Testing Summary (Enclosure 2). The specific SUT applications certified on each available interface are depicted in Table 1. 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 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. The extension of this certification is based on Desktop Review (DTR) 1. The original certification is based on interoperability testing, review of the vendor's Letter of Compliance (LoC), and DSAWG accreditation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 30 April through 11 May 2007. Review of the vendor's LoC was completed on 1 June 2007. Regression testing to include Digital Transmission Link Level 1 (T1) Primary Rate Interface (PRI) Q Signaling (QSIG) and National Integrated Services Digital Network (ISDN) 2 (NI2) integration for voicemail, auto attendant and telephone notification functionality was conducted from 5 through 8 January 2009. Additional testing on the Avaya S8710 and Communication Server (CS)1000M switches was conducted from 22 through 26 February 2010. The SUT supports the same software, interfaces, and functionality as when it was tested in 2007. The only difference is that the SUT now supports either Microsoft XP or Microsoft Windows Vista operating system platform. A review of the SUT and comparison with the new requirements in References (c) and (e) was conducted on 15 December 2009 to determine the SUT was compliant to all applicable Unified Capabilities Requirements (UCR) requirements without additional interoperability testing. DSAWG granted accreditation on 16 July 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 certified UC APL version of the Nokia Siemens Networks (NSN) HiQ8000 LSC with Software Release 13.90.02.10 Patch Set (PS) 14, Patch (P) 102 Local Session Controller (LSC) for operation with the T1 PRI QSIG NI2 interface of the SUT. Based on technical analysis, this DTR could not be approved without additional testing. To address testing requirements a verification & validation (V&V) test window was held with the NSN HiQ8000 and SUT T1 PRI QSIG NI2 interface from 28 March through 2 April 2011 with no issues. Therefore JITC approves this DTR. The IA posture was not changed for this DTR, so the original DSAWG accreditation is still valid for this DTR 1 request.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 1. This interoperability test status is based on the SUT's ability to meet:

a. Automated receiving device requirements specified in References (c) and (e) verified through JITC testing and/or vendor submission of LoC.

b. The overall system interoperability performance derived from test procedures listed in Reference (d).

Table 1. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Status	UCR Paragraph
EIA-232 Serial	No[1]	Yes	ANSI/TIA/EIA-232-F (C)	Met	5.2.12.3.5
2-Wire Analog (GR-506-CORE)[2] 2-Wire Digital Proprietary[3]	No[1]	Yes	FCC Part15/Part 68 (R)	Met	5.2.12.3.5
			DTMF outpulsing (C)	Met	5.2.12.3.5, 5.2.4.4.1, and 5.2.4.4.2
			DISR compliance as applicable (R)	Met	5.2.12.3.5
			ROUTINE precedence only in accordance with UCR, section 5.2.2 (R)	Met	5.2.12.3.5
			TIA/EIA-470-B (R)	Met	5.2.12.3.5.1
T1 CAS (DTMF) (Wink Start)[4]	No[1]	Yes	PCM-24 (R)	Met	5.2.6.1
			DISR compliance as applicable (R)	Met	5.2.12.3.5
			ROUTINE precedence only in accordance with UCR, section 5.2.2 (R)	Met	5.2.12.3.5
T1 CAS (DTMF) (Ground Start)[5]	No[1]	Yes	PCM-24 (R)	Met	5.2.6.1
			DISR compliance as applicable (R)	Met	5.2.12.3.5
			ROUTINE precedence only in accordance with UCR, section 5.2.2 (R)	Met	5.2.12.3.5
T1 ISDN PRI NI 1/2 (ANSI T1.619a)[6]	No	Yes	PCM-24 (R)	Met	5.2.12.3.5.5 and 5.2.6.1
			DISR compliance as applicable (R)	Met	5.2.12.3.5
			ROUTINE precedence only in accordance with UCR, section 5.2.2 (R)	Met	5.2.12.3.5
T1 ISDN PRI Q-SIG (ISDN ITU-T Q.931)[7]	No	Yes	PCM-24 (R)	Met	5.2.12.3.5.5 and 5.2.6.1
			DISR compliance as applicable (R)	Met	5.2.12.3.5
			ROUTINE precedence only in accordance with UCR, section 5.2.2 (R)	Met	5.2.12.3.5
	Yes	Yes	Security (R) [8]	See note 8.	3.2.3, 3.2.5, and 5.4.6.1

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 This interface requires a serial SMDI link. The SUT analog interface supports all of the SUT applications which include: Auto Attendant, Voicemail, CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. This interface is certified with any voice circuit switch on the UC APL that has a certified analog interface.

3 The digital proprietary interface supports the following SUT applications: Auto Attendant, Voicemail, CallegraVOICE™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The SUT digital proprietary interface emulates the Avaya Meridian 1 M2616 and the Avaya 8434D.

4 This interface requires a serial SMDI link. The SUT T1 CAS wink start interface supports the following SUT applications: Auto Attendant, Voicemail, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The SUT is certified with this interface only with the Alcatel-Lucent 5ESS and Nokia-Siemens EWSD switching systems listed on the UC APL.

5 This interface requires a serial SMDI link. The SUT T1 CAS ground start interface supports all of the SUT applications which include: Auto Attendant, Voicemail, CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. This interface is certified with any voice circuit switch on the UC APL that has a certified T1 CAS ground start interface.

6 This interface requires a serial SMDI link. The SUT T1 PRI NI2 interfaces support all of the SUT applications which include: Auto Attendant, Voicemail, CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The T1 PRI NI2 interface is certified only with the Alcatel-Lucent 5ESS and Nokia-Siemens EWSD switching systems listed on the UC APL.

7 The SUT T1 PRI QSIG interface supports all of the SUT applications which include: Auto Attendant, Voicemail, CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The T1 PRI QSIG interface is certified only with Nokia Siemens Networks HiQ8000 LSC, Avaya S8400, S8500, S87XX series, CS1000M, or CS1000E switching systems on the UC APL.

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

Table 1. SUT Functional Requirements and Interoperability Status (continued)

LEGEND:

5ESS	Class 5 Electronic Switching System	LSSGR	Local Access and Transport Area (LATA) Switching Systems Generic Requirements
ANSI	American National Standards Institute		
APL	Approved Products List	Mbps	Megabits per second
C	Conditional	MLPP	Multi-Level Precedence and Preemption
CAS	Channel Associated Signaling	NI 1/2	National ISDN Standard 1 or 2
CS	Communication Server	NI2	National ISDN Standard 2
DISA	Defense Information Systems Agency	PCM-24	Pulse Code Modulation - 24 Channels
DISR	Department of Defense Information Technology Standards Registry	PCM-30	Pulse Code Modulation - 30 Channels
		PRI	Primary Rate Interface
DTMF	Dual Tone Multi-Frequency	Q.931	Signaling Standard for ISDN
EIA	Electronic Industries Alliance	QSIG	an ISDN based signaling protocol
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	R	Required
		SMDI	Simple Message Desk Interface
		SS7	Signaling System 7
		SUT	System Under Test
EWSD	Elektronisches Wählsystem Digital	T1	Digital Transmission Link Level 1 (1.544 Mbps)
FCC	Federal Communications Commission	T1.619a	SS7 and ISDN MLPP Signaling Standard for T1
GR	Generic Requirement	TIA	Telecommunications Industry Association
GR-506-CORE	LSSGR: Signaling for Analog Interfaces	TIA/EIA-470-B	Performance and Compatibility Requirements for Telephone Sets with Loop Signaling
ISDN	Integrated Services Digital Network		
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector	UC	Unified Capabilities
		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: ucco@disa.mil.

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Callware Technologies Callegra.Unified Communications (UC) ™ Server with Software Release 6.14-Joint Interoperability Test Command (JITC) Service Pack 1 Release Update 2 (SP1RU2)

6. The JITC point of contact is Mr. Khoa Hoang, DSN 879-4376, commercial (520) 538-4376, FAX DSN 879-4347, or e-mail to khoa.hoang@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0929601.

FOR THE COMMANDER:

Enclosure a/s

for BRADLEY A. CLARK
Chief
Battlespace Communications Portfolio

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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 (DISA), "Defense Switched Network (DSN) Generic Switching Center Requirements (GSCR), Errata Change 2," 14 December 2006

(d) Joint Interoperability Test Command, "Generic Switch Test Plan (GST), Change 2," 2 October 2006

(e) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008," 22 January 2009

(f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Callware Technologies Inc. (CTI), Callegra.UC Voicemail / Unified Messaging / Unified Communications (UC) Release (Rel.) 6.14 Joint Interoperability Test Command (JITC) Service Pack 1 Release Update 2 (SP1RU2) (Tracking Number 0929601)," 16 July 2010