



## DEFENSE INFORMATION SYSTEMS AGENCY

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

IN REPLY

REFER TO: Joint Interoperability Test Command (JITE)

19 June 2008

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Callware Technologies Callegra.UC™ Server with Software Release 6.14-Joint Interoperability Test Command (JITC)

**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

1. References (a) and (b) establish the Defense Information Systems Agency, JITC, as the responsible organization for interoperability test certification. Additional references are provided in the enclosure.
2. The Callware Technologies Callegra.UC™ Server with Software Release 6.14-JITC 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 meets the interface requirements and all required functional capabilities and is certified for joint use within the DSN. The SUT met the interface and functional requirements for automated receiving devices set forth in appendix 7 of reference (c). The SUT offers integrated automated attendant (Auto Attendant) and voice messaging (Voicemail) functionality and included the following optional applications: CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The SUT also offers the Callegra.UC SDK™ application, which was not tested or certified and is not authorized for use on the DSN. All Callware applications run on the Callegra.UC™ Server and are administered using the included Microsoft Management Console (MMC) module. CallegraADMIN™ for MMC is an integral part of the SUT. The specific SUT applications certified on each interface are depicted in table 1. Testing was conducted using test procedures derived from reference (d).

The SUT is certified to support DSN assured services over IP with any Assured Services Voice Application Local Area Network (ASVALAN) on the DSN Approved Products List (APL). The SUT is also certified for joint use with any Voice Application Local Area Network (VALAN) on the DSN APL. However, since VALANs do not support the Assured Services Requirements detailed in reference (e), Command and Control (C2) users and Special C2 users are not authorized to be served by the SUT connected to a VALAN. The SUT does not provide Class of Service (CoS) 802.1p/Q tags and is certified only when connected to the ASVALAN at Core

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Layer 3. 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 the original memorandum (19 July 2007).

3. The extension of this certification is based upon a desktop review. The original 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 30 April through 11 May 2007 and documented in reference (e). Review of the vendor's LoC was completed on 1 June 2007. A desktop review was requested to include Auto Attendant on the T1 CAS wink start interface. The desktop review request was approved on 8 May 2008.

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 reference (c) verified through JITC testing and/or vendor submission of LoC.

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

c. Assured services as defined in reference (f).

d. Internet Protocol version 6 requirements specified in reference (c), paragraph 1.7, table 1-4, by 30 June 2008 in accordance with reference (g) verified through vendor submission of LoC signed by the Vice President of the company.

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

Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
EIA-232 Serial	No <sup>1</sup>	Yes	ANSI/TIA/EIA-232-F (C)	Met	A7.5
2-Wire Analog (GR-506-CORE) <sup>2</sup>  2-Wire Digital Proprietary <sup>3</sup>	No <sup>1</sup>	Yes	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, Section 3.3 (R)	Met	A7.5.5
T1 CAS (DTMF) (Wink Start) <sup>4</sup>	No <sup>1</sup>	Yes	TIA/EIA-470-B (R)	Met	A7.5.1
			PCM-24 (R)	Met	A7.1
			DISR compliance as applicable (R)	Met	A7.5
T1 CAS (DTMF) (Ground Start) <sup>5</sup>	No <sup>1</sup>	Yes	ROUTINE precedence only in accordance with GSCR, Section 3.3 (R)	Met	A7.5.5
			PCM-24 (R)	Met	A7.1
			DISR compliance as applicable (R)	Met	A7.5
IP 100BaseT (IEEE 802.3u) <sup>6</sup>	No <sup>1</sup>	Yes	ROUTINE precedence only in accordance with GSCR, Section 3.3 (R)	Met	A7.5.5
			CoS (R)	Met	A3.3.2.1
			Traffic Prioritization (R)	Met	A3.3.2.2
			IEEE 802.3u (C)	Met	A7.5
			DISR compliance as applicable (R)	Met	A7.5
Security	Yes	See note 8.	Security (R)	Met <sup>7</sup>	A1.7
				See note 8.	A7.6

**LEGEND:**

5ESS	- Class 5 Electronic Switching System	GR	- Generic Requirement
100baseT	- 100 Mbps (Baseband Operation, Twisted Pair) Ethernet	GR-506-CORE	- LSSGR: Signaling for Analog Interfaces
802.3u	- Standard for carrier sense multiple access with collision detection at 100 Mbps	GSCR	- Generic Switching Center Requirements
A	- Appendix	IEEE	- Institute of Electrical and Electronics Engineers, Inc.
ANSI	- American National Standards Institute	IP	- Internet Protocol
APL	- Approved Products List	IPv4	- Internet Protocol version 4
C	- Conditional	IPv6	- Internet Protocol version 6
CAS	- Channel Associated Signaling	LSSGR	- Local Access and Transport Area (LATA) Switching Systems Generic Requirements
CoS	- Class of Service	Mbps	- Megabits per second
DISA	- Defense Information Systems Agency	PBX 1	- Private Branch Exchange 1
DISR	- Department of Defense Information Technology Standards Registry	PCM-24	- Pulse Code Modulation - 24 Channels
DSN	- Defense Switched Network	PCM-30	- Pulse Code Modulation - 30 Channels
DTMF	- Dual Tone Multi-Frequency	R	- Required
EIA	- Electronic Industries Alliance	SUT	- System Under Test
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	T1	- Digital Transmission Link Level 1 (1.544 Mbps)
EWSD	- Elektronisches Wählsystem Digital	TIA	- Telecommunications Industry Association
FCC	- Federal Communications Commission	TIA/EIA-470-B	- Performance and Compatibility Requirements for Telephone Sets with Loop Signaling

**NOTES:**

- 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.
- The SUT analog interface supports all of the SUT applications which include: Auto Attendant, Voicemail, CallegraVOICE™, CallegraFAX™, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™.
- 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 Nortel Meridian1 M2616 and the Avaya 8434D.
- 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 Lucent 5ESS and Siemens EWSD switching systems listed on the DSN APL.
- 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™.
- The SUT IP interface supports the following SUT applications: Auto Attendant, Voicemail, CallegraINBOX™, CallegraWEB™, CallegraCOMMUNITY™, and CallegraTTS™. The SUT is certified with this interface specifically with the CISCO CallManager PBX 1 switching systems listed on the DSN APL.
- An IPv6 capable system or product, as defined in the GSCR, paragraph 1.7, shall be capable of receiving, processing, and forwarding IPv6 packets and/or interfacing with other systems and protocols in a manner similar to that of IPv4. IPv6 capability is currently satisfied by a vendor Letter of Compliance signed by the Vice President of the company. The vendor must state, in writing, compliance to the following criteria by 30 June 2008:
  - Conformant with IPv6 standards profile contained in the DISR.
  - Maintaining interoperability in heterogeneous environments and with IPv4.
  - Commitment to upgrade as the IPv6 standard evolves.
  - Availability of contractor/vendor IPv6 technical support.
- Security is tested by DISA-led Information Assurance test teams and published in a separate report.

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

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](mailto:michael.napier@disa.mil). The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the IP interface Cisco solution is 0703102. The tracking number for the TDM Solution is 0703103.

FOR THE COMMANDER:

Enclosure a/s



RICHARD A. MEADOR  
Chief  
Battlespace Communications Portfolio

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Distribution:

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U.S. Marine Corps (C4ISR), MARCORSSYSCOM, 2200 Lester St., Quantico, VA 22134-5010

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Director, Defense Information Systems Agency, ATTN: GS235, Room 5W24-8A, P.O. Box 4502, Falls Church, VA 22204-4502

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U.S. Joint Forces Command, J68, Net-Centric Integration, Communications, and Capabilities Division, 1562 Mitscher Ave., Norfolk, VA 23551-2488

Defense Information Systems Agency (DISA), ATTN: GS23 (Mr. McLaughlin), Room 5W23, 5275 Leesburg Pike (RTE 7), Falls Church, VA 22041

## 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 (GSTP), Change 2," 2 October 2006
- (e) JITC Memo, JTE, "Special Interoperability Test Certification of the Callware Technologies Callegra.UC™ Server with Software Release 6.14-Joint Interoperability Test Command (JITC)," 19 July 2007
- (f) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6215.01B, "Policy for Department of Defense Voice Services," 23 September 2001
- (g) Executive Office of the President, "Transition Planning for Internet Protocol version 6 (IPv6)," 2 August 2005