DEFENSE INFORMATION SYSTEMS AGENCY
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Joint Interoperability Test Command (JTE)   27 February 2023

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Joint Interoperability Certification of the Teo Technologies, Inc.
Tone Commander 4000 and 7000 Series with Software Release xx.04.45

References: (a) Department of Defense Instruction 8100.04, "DoD Unified Capabilities (UC),"
9 December 2010
(b) Office of the Department of Defense Chief Information Officer, "Department of
Defense Unified Capabilities Requirements 2013 (UCR 2013) Change 2,"
September 2017
(c) through (f), see Enclosure

1.   **Certification Authority.** Reference (a) establishes the Joint Interoperability Test Command
(JITC) as the Joint Interoperability Certification Authority for the Department of Defense
Information Network (DoDIN) products, Reference (b).

2.   **Conditions of Certification.** The Teo Technologies Inc. Tone Commander 4000 and 7000
Series with Software Release xx.04.45, hereinafter referred to as the System Under Test (SUT),
meets the critical requirements of the Unified Capabilities Requirements (UCR), Reference (b),
as a Voice Assured Services Session Initiation Protocol (AS-SIP) End Instrument (EI) (AEI) and
is certified for joint use with no conditions, as noted in Table 1. JITC tested and certified the
Tone Commander 7810 and based on analysis the Tone Commander 7810-PoE-TSGA and Tone
Commander 7810-PoE-TSGB are also certified because they include the same software and
similar hardware as the tested device. In addition, the SUT is certified for joint use with the
following Session Controllers previously or currently listed on the DoDIN Approved Products
List (APL): NEC UNIVERGE 3C Local Session Controller (LSC), REDCOM Laboratories Inc.
High Density Exchange LSC, REDCOM Laboratories Inc. Slice LSC, REDCOM Laboratories
Inc. Sigma LSC, Ribbon Communications Federal Inc. Ribbon Application Server Enterprise
Session Controller, and Unify Inc. OpenScape Voice LSC. This certification expires upon
changes that affect interoperability, but no later than the expiration date specified in the DoDIN
APL memorandum.

This extension of the certification is for Desktop Review (DTR) 5. DTR 5 was requested to
update the SUT Software Release version from xx.04.38 to xx.04.45, extend the DoDIN APL
expiration date for an additional three (3) years, provide a current Federal Information
Processing Standards (FIPS) 140-2 Cryptographic Module Validation Program (CMVP)
certificate, and remove the Tone Commander 4104 endpoints from the list of certified SUT
components due to expiration of the corresponding FIPS CMVP certificate. See Table 4 for an
updated list of certified SUT components and Paragraph 4 for additional details.

JITC Memo, JTE, Extension of the Joint Interoperability Certification of the Teo Technologies, Inc. Tone Commander 4000 and 7000 Series with Software Release xx.04.45

Table 1. Conditions

Description	Operational Impact	Remarks
None; Teo Technologies, Inc. Tone Commander 4000 and 7000 Series with Software Release xx.04.45, meets all the joint critical interoperability requirements in accordance with the Unified Capabilities Requirements, Reference (b).		

3.   Interoperability Status. Table 2 provides the SUT interface interoperability status, Table 3 provides the Capability Requirements and Functional Requirements status, and Table 4 provides the DoDIN APL Product Summary, to include subsequent DTR updates.

Table 2. SUT Interface Status

Interface (See note 1.)	Applicability (R), (O), (C)	Status	Remarks
IP Trunk Interfaces			
10BaseT	C	Met	
100BaseT	C	Met	
1000BaseT	C	Not Tested	See note 2.
IP Line Interfaces			
10BaseT	C	Not Tested	See note 3.
100BaseT	C	Not Tested	See note 3.
1000BaseT	O	Not Tested	See note 3.
Legacy Line Interface			
2-wire Analog	C	Met	
Network Management Interfaces			
10BaseT	C	Met	
100BaseT	C	Met	
1000BaseT	O	Not Tested	See note 3.

NOTE(S):
1. Table 3 depicts the high-level requirements. Table 3-2 in Enclosure 3 of Reference (c) provides a detailed list of requirements.
2. The SUT does not support this conditional interface.
3. The SUT does not support video over IP, which is an optional requirement for an AEI.

LEGEND:

AEI	Assured Services SIP End Instrument	O	Optional
BaseT	Megabit (Baseband operation, twisted pair) Ethernet	R	Required
C	Conditional	SIP	Session Initiation Protocol
IP	Internet Protocol	SUT	System Under Test

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	UCR Requirement (See note.)	UCR 2013 Change 2 Reference	Status
1	Voice Features and Capabilities (R)	2.2	Met
2	Signaling Protocols (R)	2.4	Met
3	Registration and Authentication (R)	2.5	Met
4	Product Interface (R)	2.7	Met
5	Product Physical, Quality, and Environmental Factors (R)	2.8	Met
6	End Instrument (R)	2.9	Met
7	Internet Protocol Version 6 (R)	5.2	Met

NOTE(S): The annotation of 'required' refers to a high-level requirement category. Table 3-2 in Enclosure 3 of Reference (c) provides the applicability of each sub-requirement.

LEGEND:
CR	Capability Requirements	R	Required
FR	Functional Requirement	SUT	System Under Test
ID	Identification	UCR	Unified Capabilities Requirements

Table 4. DoDIN APL Product Summary

Product Identification	
Product Name	Tone Commander 4000 and 7000 Series (See note 1.)
Software Release	xx.04.45 (See note 2.)
UCR Product Type(s)	Assured Services Session Initiation Protocol End Instrument (AEI)
Product Description	The Tone Commander 4000 and 7000 Series Internet Protocol (IP) telephones are Assured Services Session Initiation Protocol (AS-SIP) generic End Instruments (EIs) (AEIs) designed to interoperate with multiple types of Session Controllers. They include full support for precedence calls and provide dual-stack IP version (v) 4/IPv6 signaling. The Transport Layer Security (TLS) and Secure Real-Time Transport Protocol protocols are used for secure signaling and voice transmission; mutual TLS is used for server authentication. Connection to the phones is through an Ethernet interface; support for Power over Ethernet, as well as a local power option, is provided. A 10/100Base-T switched Ethernet (unpowered) personal computer (PC) port is provided that can be used to connect a local workstation to the Assured Services Local Area Network over a shared drop that is provisioned with separate voice and data Virtual Local Area Networks. The PC port can also be disabled, if required.

Product Components (See note 3.)	Component Name (See notes 4 and 5.)	Version (See note 2.)	Remarks
AEI	**Tone Commander 7810** (See note 2.)	05.04.45	This model is certified with or without the optional 8030x 30-button expander.
	Tone Commander 7810-PoE-TSGA (See note 2.)	05.04.45	
	Tone Commander 7810-PoE-TSGB (See note 2.)	05.04.45	
	Tone Commander 4101 (See note 2.)	07.04.45	

NOTE(S):
1. With DTR 2, the SUT model names were updated from "4000 and 7000 Series" to "Tone Commander 4000 and 7000 Series," and the SUT Product Name was updated accordingly.
2. The SUT was originally certified with Software Release version xx.04.30. Subsequent DTRs updated the Software Release version as follows: DTR 1 - from xx.04.30 to xx.04.33; DTR 3 - from xx.04.33 to xx.04.37; DTR 4 - from xx.04.37 to xx.04.38; DTR 5 - from xx.04.38 to xx.04.45.
3. Table 3-3 in Enclosure 3 of Reference (c) provides the detailed descriptions for the initially tested components and sub-components.
4. Components bolded and underlined were tested by JITC. The other components in the family series were not tested; however, JITC certified the other components for joint use because they utilize the same software and similar hardware as tested and certified components and analysis determined they were functionally identical for interoperability certification purposes.
5. With DTR 5, the Vendor requested removal of the Tone Commander 4104 endpoints due to expiration of the corresponding FIPS CMVP certificate, as documented in Reference (d).

(Table continues next page.)

Table 4. DoDIN APL Product and Certification Summary (continued)

LEGEND:	
AEI Assured Services Session Initiation Protocol End Instrument	IP Internet Protocol
APL Approved Products List	JITC Joint Interoperability Test Command
AS-SIP Assured Services-Session Initiation Protocol	PC Personal Computer
CMVP Cryptographic Module Validation Program	PoE Power over Ethernet
DoDIN Department of Defense Information Network	SUT System Under Test
DTR Desktop Review	TLS Transport Layer Security
EI End Instrument	UCR Unified Capabilities Requirements
FIPS Federal Information Processing Standard	v Version

4. Test Details. This extension of the certification is based on DTR 5. The original certification, documented in Reference (c), was based on interoperability (IO) testing, review of the Vendor's Letter of Compliance (LoC), and the Defense Information Systems Agency (DISA) Certifying Authority Recommendation for inclusion on the DoDIN APL. JITC completed review of the Vendor's LoC on 10 October 2019 and conducted testing at the JITC Global Network Test Facility (GNTF), Fort Huachuca, Arizona, from 11 November through 15 November 2019, using test procedures derived from Reference (e). A JITC-led Cybersecurity (CS) test team conducted CS testing and published the results in a separate report, Reference (d). Enclosure 2 of Reference (c) documents the test results and describes the test network and system configurations. Enclosure 3 of Reference (c) provides the detailed interface, capability, and functional requirements and test results.

DTR 5 was requested to update the SUT Software Release version from xx.04.38 to xx.04.45, extend the DoDIN APL expiration date for an additional three (3) years, provide a current FIPS 140-2 CMVP certificate, and remove the Tone Commander 4104 endpoints from the list of certified SUT components due to expiration of the corresponding FIPS CMVP certificate.

JITC analysis determined no CS or IO testing was required because the xx.04.45 software version update to implement minor user enhancements and bug fixes, the CMVP updates, and the removal of the Tone Commander 4104 endpoints did not change the certified IO features and functions or approved CS posture of the SUT. Analysis of the DTR 5 request was performed based on current UCR 2013 Change 2 test procedures, Reference (f). See Table 4 for an updated list of certified SUT components.

Based on analysis and no change to the certified SUT IO features and functions, JITC approves DTR 5.

In addition, the current CS posture of the SUT and the current FIPS 140-2 CMVP certificate are documented in a separate report, Reference (d).

5. Additional Information. JITC distributes interoperability information via the JITC Electronic Report Distribution system, which uses Sensitive but Unclassified Internet Protocol data (formerly known as NIPRNet) e-mail. Interoperability status information is available via the JITC System Tracking Program (STP). STP is accessible by .mil/.gov users at https://stp.jitc.disa.mil/. Test reports, lessons learned, and related testing documents and references are on the JITC Industry Toolkit (JIT) at https://jit.fhu.disa.mil/. Due to the sensitivity

of the information, the CS Assessment Package that contains the approved configuration and deployment guide must be requested directly from the Approved Products Certification Office (APCO) via e-mail: disa.meade.ie.list.approved-products-certification-office@mail.mil. All associated information is available on the DISA APCO website located at https://aplits.disa.mil/.

6.   Point of Contact (POC). JITC POC: Captain Stephane N. Castonguay, commercial telephone (520) 538-2251, DSN telephone 312-879-2251, FAX DSN 312-879-4347; E-mail stephane.n.castonguay.fm@mail.mil; mailing address: Joint Interoperability Test Command, ATTN: JTE2 (Captain Stephane N. Castonguay), P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The APCO tracking number for the SUT is 1921201.

FOR THE COMMANDER:

Enclosure a/s   LAWRENCE T. DORN
                                                                       Chief
                                                                       Specialized Test Division

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ADDITIONAL REFERENCES

(c) Joint Interoperability Test Command (JITC) Memo, JTE, "Joint Interoperability Certification of the Teo Technologies 4000 and 7000 Series with Software Release xx.04.30,"
15 January 2020
(d) JITC, "Cybersecurity Assessment Report for Teo Technologies, Inc. Tone Commander 4000 and 7000 Series, Software Release (Rel.) xx.04.45, Tracking Number (TN) 1921201,"
February 2023
(e) JITC, "Soft Switch (SS) and Session Controller (SC) Test Procedures Version 1.0 for Unified Capabilities Requirements (UCR) 2013 Change 2," September 2018
(f) JITC, "Assured Services Session Initiation Protocol (AS-SIP) End Instrument (EI) Interface Gateway (AEIG) Test Procedures Version 1.2 For Unified Capabilities Requirements (UCR) 2013 Change 2," April 2022 (Draft)

Enclosure