DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY
REFER TO: Joint Interoperability Test Command (JTE) **1 Nov 13**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Cornet Technology Incorporated, IPGate-Access Concentrator (AC) and IPGate-High Density (HD) Systems with Software Version 2.0.6-6

References: (a) Department of Defense Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) Chairman, Joint Chiefs of Staff Instruction 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 Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The IPGate-AC and IPGate-HD64 with Software Release 2.0.6-6 are hereinafter referred to as the System Under Test (SUT). The SUT meets all of the critical interoperability requirements for the Defense Information Systems Network (DISN) and is certified for joint use as Fixed Network Element (F-NE). The IPGate-HD32 chassis utilize the same port cards and the same software as the IPGate-HD64. JITC analysis determined the IPGate-HD32 to be functionally identical for interoperability certification purposes, and therefore it is also certified for joint use within the DISN. The IPGate Fixed Network Element uses Circuit Emulation Service (CES) over Internet Protocol (IP) to transport Time Division Multiplexing (TDM) circuits over Transmission Control Protocol (TCP)/IP Networks. The SUT met all critical Capability and Functional Requirements between switching systems in accordance with Reference (c) using test procedures derived from Reference (d). No other configurations, features, or functions, except those cited within this memorandum, are certified by JITC. This certification expires upon changes that could affect interoperability, but no later than three years from the date of the original Unified Capabilities (UC) Approved Products List (APL) memorandum (14 November 2012).

3. The extension of this certification is based upon Desktop Review (DTR) 1. The original certification, documented in Reference (e), is based on interoperability testing, review of the vendor's Letters of Compliance (LoC), and DISA Certifying Authority (CA) Recommendation. Interoperability testing was conducted at JITC's Global Information Grid Network Test Facility at Fort Huachuca, Arizona, from 16 through 26 July 2012. Review of vendor's LoC was completed on 9 July 2012. JITC conducted additional interoperability testing from 4 through

7 September 2012. The DISA CA provided a positive Recommendation on 24 October 2012 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 update from IPGate software version 2.0.6-6 to version 2.0.11, including an update to Cornet's IntelView management and control platform software from version 2.0.6-5 to version 2.6. In addition, IntelView has been changed to combine the server and client into one application. The IntelView application was originally supported on Microsoft Windows 7 or Linux; however, it is now only supported for Microsoft Windows 7. JITC determined IA Verification and Validation (V&V) testing was required prior to approval. The DISA-led IA test team conducted V&V testing from 11 through 14 October 2013 and successfully verified the IA changes associated with this DTR. JITC analysis determined that this software update would not have any impact on the interoperability of the SUT; therefore, no interoperability testing was conducted. The DISA CA provided a positive recommendation for this update on 24 October, 2013. Therefore, JITC approves this DTR. The results of the IA testing are published in a separate report, Reference (f).

4. Section 5.9 of Reference (c) establishes the interfaces and Capability Requirements (CRs), Functional Requirements (FRs) used to evaluate the interoperability of the SUT. Table 1 depicts the SUT as updated with DTR 1. Tables 2 and 3 list the interface, CRs/FRs, and component status of the SUT.

Table 1. SUT Configuration

SUT				
IPGate-AC Hardware	**Software Version**	**Firmware Version**	**Type**	**FPGA Version**
Controller Card 2 each	2.0.11 (See note 1.)	2.0.6-6	NA	1.8
T1/E1 Port Card	NA	2.0.6-6	1	1.8
LSWAN (Serial) Port Card	NA	2.0.6-5	3	2.0
E&M Port Card	NA	2.0.6-5	5	1.7
IPGate-HD Hardware (See note 2.)	**Software Version**	**Firmware Version**	**Type**	**FPGA Version**
Controller Card (1 per Shelf)	2.0.11 (See note 1.)	2.0.6-6	NA	1.4
T1/E1 Port Card (See note 3.)	NA	2.0.6-6	1	1.8
LSWAN (Serial) Port Card	NA	2.0.6-5	3	2.0
E&M Port Card	NA	2.0.6-5	5	1.7
Database Server/Client (See note 4.)	MS Windows 7 with IntelView Management Software Release 2.6			NA

NOTES:
1. The SUT was updated from software release 2.0.6-6 to 2.0.11 with DTR 1.
2. The IPGate-HD64 was the chassis tested. The IPGate-HD32 chassis utilize the same port cards and the same software as the IPGate-HD64. JITC analysis determined the IPGate-HD32 to be functionally identical for interoperability certification purposes, and therefore it is also certified for joint use within the DISN
3. Although the part name is T1/E1 Port Card, the SUT does not currently support E1 interfaces.
4. IntelView, Cornet Technology's management and control platform, was originally included in the testing as separate server and client packages. IntelView has been changed to combine server/client into one application with DTR 1, indicated in the SUT configuration as a change from version 2.0.6-5 to version 2.6. The IntelView application was originally supported on MS Windows 7 or Linux, but now is only supported for MS Windows 7.

Table 1. SUT Configuration (continued)

LEGEND:

CS	Communication Server	LSWAN	Low Speed Wide Area Network
E&M	Ear and Mouth	MS	Microsoft
E1	European Basic Multiplex Rate	NA	Not Applicable
EWSD	Elektronisches Wählsystem Digital	PSTN	Public Switched Telephone Network
DSN	Defense Switched Network	R	Revision
DTR	Desktop Review	SLC	Scientific Linux CERN
FPGA	Field–Programmable Gate Array	T1	Digital Transmission Link Level 1

Table 2. SUT Interface Interoperability Status

Interface	Critical	UCR Reference	Threshold CR/FR Requirements (See note 1.)	Status	Remarks
Access Interfaces					
Analog	No (See note 2.)	5.9.2.3.1	1, 2	Certified	Met all critical CRs and FRs for 2 and 4-wire E&M only. Single Frequency and Dual Frequency are not supported.
Serial	No (See note 2.)	5.9.2.3.2	1, 2	Certified	Met all critical CRs and FRs.
BRI ISDN	No (See note 2.)	5.9.2.3.3	1, 2	Not Tested	The SUT does not support this interface.
DS1	No (See note 2.)	5.9.2.3.4	1, 2, 3	Certified	Met all critical CRs and FRs.
E1	No (See note 2.)	5.9.2.3.5	1, 2, 3	Not Tested	The SUT does not support this interface.
DS3	No (See note 2.)	5.9.2.3.6	1, 2, 3	Not Tested	The SUT does not support this interface.
OC-X	No (See note 2.)	5.9.2.3.8	1, 2, 3	Not Tested	The SUT does not support this interface.
IP (Ethernet)	No (See note 2.)	5.9.2.3.9	1, 2, 7	Not Tested	The SUT does not support this interface.
Transport Interfaces					
Analog	No (See note 2.)	5.9.2.3.1	1, 2	Not Tested	The SUT does not support this interface.
Serial	No (See note 2.)	5.9.2.3.2	1, 2	Not Tested	The SUT does not support this interface.
BRI ISDN	No (See note 2.)	5.9.2.3.3	1, 2	Not Tested	The SUT does not support this interface.
DS1	No (See note 2.)	5.9.2.3.4	1, 2, 3	Not Tested	The SUT does not support this interface.
E1	No (See note 2.)	5.9.2.3.5	1, 2, 3	Not Tested	The SUT does not support this interface.
DS3	No (See note 2.)	5.9.2.3.6	1, 2, 3	Not Tested	The SUT does not support this interface.
OC-X	No (See note 2.)	5.9.2.3.8	1, 2, 3	Not Tested	The SUT does not support this interface.
IP (Ethernet)	No (See note 2.)	5.9.2.3.9	1, 2, 7	Certified	Met all critical CRs and FRs for 10/100/1000 Mbps.
DLoS	No (See note 2.)	5.9.2.3.9	1, 2, 5	Not Tested	The SUT does not support this interface.
Device Management Interfaces					
10/100 Mbps Ethernet	No (See note 2.)	5.9.2.4.1	4	Certified	Met all critical CRs and FRs via this interface.
Serial	No (See note 2.)	5.9.2.4.1	4	Not Tested	The SUT does not support this interface.

NOTES:
1. The SUT's specific capability and functional requirement ID numbers depicted in the CRs/FRs column can be cross-referenced in Table 3.
2. The UCR does not specify minimum required interfaces for access, transport, or management interfaces; however, the SUT must provide at least one for connectivity.

LEGEND:

BRI	Basic Rate Interface	ID	Identification
CR	Capability Requirement	IP	Internet Protocol
DLoS	Direct Line of Sight	ISDN	Integrated Services Digital Network
DS1	Digital System Level 1 (1.544 Mbps)	Mbps	Megabits per second
DS3	Digital System Level 3 (44.736 Mbps)	OC-X	Optical Carrier - X (OC-3, OC-12, etc.,)
E&M	Ear and Mouth	SUT	System Under Test
E1	European Interface Standard (2.048 Mbps)	UCR	Unified Capabilities Requirements
FR	Functional Requirement		

Table 3. SUT Capability Requirements and Functional Requirements Status

CR/FR ID	Capability/ Function	Applicability (See note 1.)	UCR Reference	Status
1	**General NE Requirements**			
	General Requirements	Required	5.9.2.1	Met
	Alarms	Required	5.9.2.1.1	Met
	Congestion Control & Latency	Required	5.9.2.1.2	Met
2	**Compression**			
	ITU-T G.726	Conditional	5.9.2.2	Not Tested (See note 2.)
	ITU-T G.728	Conditional	5.9.2.2	Not Tested (See note 2.)
	ITU-T G.729	Conditional	5.9.2.2	Not Tested (See note 2.)
3	**Interface Requirements**			
	Timing	Required	5.9.2.3.7	Met
4	**Device Management**			
	Management Options	Required	5.9.2.4.1	Met
	Fault Management	Conditional	5.9.2.4.2	Met
	Loop-Back Capability	Conditional	5.9.2.4.3	Met
	Operational Configuration Restoral	Required	5.9.2.4.4	Met
5	**DLoS**			
	DLoS Transport	Conditional	5.9.2.4.5	Not Tested (See note 2.)
6	**D-NE Requirements**			
	D-NE General Requirements	Required	5.9.3.1	Not Tested (See note 3.)
	D-NE TDM Requirements	Conditional	5.9.3.2	Not Tested (See note 3.)
	D-NE IP Requirements	Conditional	5.9.3.3	Not Tested (See note 3.)
	Encapsulated TDM Requirements	Conditional	5.9.3.4	Not Tested (See note 3.)
	Carrier Group Alarms	Required	5.9.3.5	Not Tested (See note 3.)
	Long-Local Requirements	Conditional	5.9.3.6	Not Tested (See note 3.)
	Proprietary IP Trunk Requirements	Conditional	5.9.3.7	Not Tested (See note 3.)
	Secure Call Handling	Required	5.9.3.8	Not Tested (See note 3.)
	Voice Packet Multiplexing	Conditional	5.9.3.9	Not Tested (See note 3.)
7	**IPv6 Requirements**			
	Product Requirements	Required	5.3.5.4	Met

NOTES:
1. The annotation of 'required' refers to a high-level requirement category. The applicability of each sub-requirement is provided in Reference (e), Enclosure 3.
2. This conditional feature is not supported by the SUT.
3. The SUT was tested and certified for joint use as Fixed Network Element only. All UCR D-NE requirements are conditional for a Fixed Network Element and therefore the SUT was not tested to any of the D-NE requirements.

LEGEND:

ADPCM	Adaptive Differential Pulse Code Modulation	IP	Internet Protocol
CR	Capabilities Requirement	IPv6	Internet Protocol version 6
CS-ACELP	Conjugate Structure Algebraic Code-Excited linear Prediction	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
DLoS	Direct Line of Sight	kbps	kilobits per second
D-NE	Deployed Network Element	LD-CELP	Low Delay Code Excited Linear Prediction
FR	Functional Requirement	NE	Network Element
G.726	ITU-T speech codec for ADPCM (32 kbps)	SUT	System Under Test
G.728	ITU-T speech codec for LD-CELP (16 kbps)	TDM	Time Division Multiplexing
G.729	ITU-T speech codec for CS-ACELP (8 kbps)	UCR	Unified Capabilities Requirements
ID	Identification		

5. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Sensitive but Unclassified IP 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.fhu.disa.mil/. Test reports, lessons

learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at https://jit.fhu.disa.mil/. 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 from the Unified Capabilities Certification Office (UCCO), e-mail: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil. All associated information is available on the DISA UCCO website located at http://www.disa.mil/Services/Network-Services/UCCO.

6. The JITC point of contact is Mr. Dale Fulton, DSN 879-0507, commercial (520) 538-0507, FAX DSN 879-4347, or e-mail to dale.h.fulton.civ@mail.mil. JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The Unified Capabilities Certification Office tracking number for the SUT is 1119901.

FOR THE COMMANDER:

Enclosure a/s

for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

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ADDITIONAL REFERENCES

(c) Office of the Department of Defense Chief Information Officer, "Department of Defense Unified Capabilities Requirements 2008, Change 3," September 2011
(d) Joint Interoperability Test Command Document, "Unified Capabilities Test Plan," May 2009
(e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Cornet Technology Incorporated, IPGate-Access Concentrator (AC) and IPGate-High Density (HD) Systems with Software Version 2.0.6-6," 24 October 2012
(f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Cornet Technology IPGate Release (Rel.) 2.0.6 (Tracking Number 1119901)," Draft