DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) 22 October 2012

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the General DataComm, Inc., Xedge 6000, Fixed Network Element (F-NE), with Software Release 7.3.14

References: (a) Department of Defense Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) Department of Defense Instruction 8100.04, "DoD Unified Capabilities (UC)," 9 December 2010
(c) through (e), 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 General DataComm, Inc., Xedge 6000 with Software Release 7.3.14, is hereinafter referred to as the System Under Test (SUT). The Xedge 6000 solution is a family of products with models submitted for testing that includes Xedge 6280 and 6645 platforms. The vendor submitted Desktop Review (DTR) 1, to include the Xedge T1/E1 16-port Multi-Protocol (MP) Line Interface Module (LIM) card to the existing UC Approved Product List (APL) entry. JITC conducted the original testing using F-NE requirements within the Unified Capabilities Requirements (UCR) 2008, Reference (c). The operational status of the SUT will be verified during deployment. Any new discrepancies that are discovered in the operational environment will be evaluated for impact and adjudicated to the satisfaction of the Defense Information Systems Agency (DISA) via a vendor Plan of Action and Milestones to address the concern(s) within 120 days of identification. No other configurations, features, or functions, except those cited within this memorandum are certified by JITC. This certification expires upon changes that affect interoperability, but no later than 3 years from the date of the original APL Approval Memorandum (23 April 2012).

3. JITC approves the extension of this certification for DTR 1, submitted to include the Xedge T1/E1 16-port MP LIM card. Approval is based on the review of the updated product information provided by the vendor and Interoperability (IO) testing conducted at the Indian Head, Maryland Test Facility, from 28 November 2011 through 10 January 2012. The test results for the SUT are published in separate reports under the Unified Capabilities Certification Office (UCCO) Tracking Number (TN) (see paragraph 6) and can be found on the Approved Products List Integrated Tracking System (APLITS) at https://aplits.disa.mil. The DISA IA CA concurrence was received on 27 March 2012.

4. The requirements for F-NE are established by Section 5.9.2 of Reference (c) and were used to evaluate the interoperability of the SUT. Tables 1 and 2 list the interface and CR/FR interoperability status of the SUT. Table 3 lists the component to be added to the certification.

Table 1. SUT Interface Interoperability Status

Interface		Critical (See note 1.)	Reference (UCR 2008, Change 2)	Threshold CR/FR (See note 2.)	Status	Remarks
NE	Analog	No	5.9.2.3.1	1, 2, and 4	NA	Not supported by the SUT.
	Serial	No	5.9.2.3.2	1, 2, and 4	Certified	SUT met requirements for specified interfaces.
	BRI ISDN	No	5.9.2.3.3	1, 2, and 4	NA	Not supported by the SUT.
	DS1	No	5.9.2.3.4	1, 2, 3, and 4	Certified	SUT met requirements for specified interfaces.
	E1	No	5.9.2.3.5	1, 2, 3, and 4	Certified	SUT met requirements for specified interfaces.
	DS3	No	5.9.2.3.6	1, 2, 3, and 4	Certified	SUT met requirements for specified interfaces.
	OC-X	No	5.9.2.3.8	1, 2, 3, and 4	Certified	SUT met requirements for the following interfaces: OC-3 ATM and OC-12 ATM
	IP (Ethernet) 10/100/1000 and GE	No	5.9.2.3.9	1, 2, 4, and 7	Certified	SUT met requirements for specified interfaces.
NM	10Base-X	Yes	5.3.2.4.4	8	Certified	SUT met NM requirements for specified interfaces.
	100Base-X	Yes	5.3.2.4.4	8	Certified	

NOTES:
1. UCR does not specify any minimum interfaces. The SUT must minimally provide one of the listed ingress and egress interfaces specified.
2. CR/FR requirements are contained in Table 2. CR/FR numbers represent a roll-up of UCR requirements.

LEGEND:

100Base-X	100 Mbps Ethernet generic designation	IP	Internet Protocol
10Base-X	10 Mbps Ethernet generic designation	ISDN	Integrated Services Digital Network
ATM	Asynchronous Transfer Mode	Mbps	Megabits per second
BRI	Basic Rate Interface	NA	Not Applicable
CR	Capability Requirement	NE	Network Element
DS1	Digital Signal Level 1 (1.544 Mbps)	NM	Network Management
DS3	Digital Signal Level 3 (44.736 Mbps)	OC-X	Optical Carrier - X (OC-3, OC-12, etc.,)
E1	European Interface Standard (2.048 Mbps)	SUT	System Under Test
FR	Functional Requirement	UCR	Unified Capabilities Requirements
GbE	Gigabit Ethernet		

Table 2. SUT CRs and FRs Status

CR/ FR ID	Capability/Function	Applicability (See note)	Reference (UCR 2008, Change 2)	Status	Remarks
F-NE CR/FR					
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**				
	G.726	Conditional	5.9.2.2	NA	Not supported by the SUT.
	G.728	Conditional	5.9.2.2	NA	Not supported by the SUT.
	G.729	Conditional	5.9.2.2	NA	Not supported by the SUT.
3	**Interface Requirements**				
	Timing	Required	5.9.2.3.7	Met	

Table 2. SUT CRs and FRs Status (continued)

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	NA	Not supported by the SUT.
6	**IPv6 Requirements**				
	Product Requirements	Required	5.3.5.4	Met	SUT is a Layer-2 device and transports IPv4 and IPv6 traffic transparently.
7	**NM Requirements**				
	VVoIP NMS Interface Requirements	Required	5.3.2.4.4	Met	
	General Management Requirements	Required	5.3.2.17.2	Met	

NOTE: Applicability refers to the high-level roll-up of section requirements. A detailed listing of individual requirements applicability is provided in Enclosure 3.

LEGEND:

ADPCM	Adaptive Differential Pulse Code Modulation
CR	Capability Requirement
CS-ACELP	Conjugate Structure Algebraic Code-Excited Linear Prediction
DLoS	Direct Line of Sight
F-NE	Fixed Network Element
FR	Functional Requirement
G.726	ITU-T speech codec for ADPCM (32 Kbps)
G.728	ITU-T speech codec for LD-CELP (16 Kbps)
G.729	ITU-T speech codec for CS-ACELP (8 Kbps)
ID	Identification
ITU-T	International Telecommunication Union – Telecommunication
IPv4	Internet Protocol version 4
IPv6	Internet Protocol version 6
Kbps	Kilobits per second
LD-CELP	Low Delay-Code Excited Linear Prediction
NA	Not Applicable
NM	Network Management
NMS	Network Management System
SUT	System Under Test
UCR	Unified Capabilities Requirements
VVoIP	Voice and Video over Internet Protocol

Table 3. New Component Proposed to be Added to the SUT in DTR 1

New Component	Description	Comparable Approved Component
16-port T1/E1 Multi-Protocol LIM	16-port LIM intended for use with the PCx-2 slot controller. It supports T1 data rates up to 1.544 Mbps, and E1 data rates up to 2.048 Mbps.	4-port T1 LIM and 4-port E1 LIM

LEGEND:

DTR	Desktop Review	Mbps	Megabits per second
E1	European Interface Standard (2.048 Mbps)	PC	Packet Controller
LIM	Line Interface Module	T1	Trunk 1 (1544 bps, 24-channel PCM)

5. In accordance with the Program Manager's request, JITC did not develop a detailed test report. JITC distributes interoperability information via the JITC Electronic Report Distribution 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, which .mil/.gov users can access 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 at http://jit.fhu.disa.mil (NIPRNet). Information related to APL testing is available on the DISA APL Testing and Certification website located at http://www.disa.mil/Services/Network-Services/UCCO. All associated test information is

available on the DISA Unified Capability Certification Office APL Integrated Tracking System (APLITS) website located at https://aplits.disa.mil.

6. JITC testing point of contact is Ms. Fanny Lee-Linnick, commercial (301) 743-4259. Her e-mail address is Fanny.Lee-Linnick.civ@mail.mil, mailing address: 3341 Strauss Avenue, Suite 236, Indian Head, Maryland 20640-5149. The TN for the SUT is 1027301.

FOR THE COMMANDER:

Enclosure a/s

BRADLEY A. CLARK
Acting Chief
Battlespace Communications Portfolio

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the General DataComm, Inc., Xedge 6000, Fixed Network Element (F-NE), with Software Release 7.3.14

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ADDITIONAL REFERENCES

(c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008, Change 2," December 2010

(d) General DataComm (GDC) Desk Top Review (DTR)-1 References: GDC Excerpts: T1/E1 MP LIM Rev2 with clarification to following documents: 1) Xedge 6000 Hardware Installation Manual, document No. 032R440-000, 10 August 2012, 2) Xedge 6000 Version 7.3 for MSPx Applications – Configuration Guide, document No. 032R401-V73, 3 July 2012, and 3) Xedge 6000 Version 7.3.14 Release Notes, document No. 032R901-V7314, 3 July 2012. TN 1027301 DTR 1, 13 July 2012

(e) Joint Interoperability Test Command Document, "Information Assurance Findings Summary for General DataComm, Xedge 6000, Version 7.3.14 (Tracking Number: 1027301), 17 February 2012