



DEFENSE INFORMATION SYSTEMS AGENCY

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IN REPLY
REFER TO: Joint Interoperability Test Command (JTE)

9 Dec 09

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Tekelec Eagle® Signal Transfer Point (STP) with Software Release 35.6.1-56.52.0

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
(c) through (e), see Enclosure

1. References (a) and (b) establish the Defense Information Systems Agency, Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.
2. The Tekelec Eagle® STP with Software Release 35.6.1-56.52.0 is hereinafter referred to as the System Under Test (SUT). The SUT meets all of the critical interoperability requirements for the Defense Switched Network (DSN) and is certified for joint use. The SUT met the critical interoperability requirements for a Common Channel Signaling Number 7 STP as set forth in Reference (c) using test procedures in Reference (d). No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that affect interoperability, but no later than three years from the date of the original memorandum (5 August 2008).
3. The extension of this certification is based upon additional testing and Defense Information System Network (DISN) Security Accreditation Working Group (DSAWG) accreditation. The original certification is based on interoperability testing and review of the vendor's Letters of Compliance (LoC). Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona from 12 through 30 November 2007. Review of the vendor's LoC was completed on 22 January 2008. Additional testing was conducted from 24 through 27 June 2008 and documented in Reference (e). Testing was requested to include the Integrated Applications Solution (IAS) Release 4.0.1. The IAS is the optional network management system developed specifically for the SUT. The Tekelec IAS platform provides network management tools needed to capture network traffic data and convert it to facilitate troubleshooting. The Tekelec IAS provides the data needed for operators to be able to monitor the network and ensure that calls are being delivered, network access is being granted, and subscribers are experiencing the best quality of service. Testing with the IAS was conducted from 15 through 26 June 2009. It was determined that the IAS had no

impact on the SUT. The SUT is certified with or without the Tekelec IAS. DSAWG grants accreditation based on the security testing completed by DISA-led Information Assurance test teams and published in a separate report, Reference (f). DSAWG accreditation was granted on 10 November 2009.

4. The SUT Interoperability Test Summary is shown in Table 1 and the SUT Capability and Feature Interoperability Requirements are depicted in Table 2. The IAS components are depicted in Table 3 and Figure 1.

Table 1. SUT Interoperability Test Summary

Interface	Critical	Status	Remarks
ITU-T V.35 ¹	No ²	Certified	Met all CRs and FRs.
OCU-DP	No ²	Certified	Met all CRs and FRs.
DS0A	No ²	Not Tested	The SUT offers a DS0A interface; however, this interface was not tested and is not covered under this certification. Since this is not a required interface for a STP, there is no operational impact
DS1	No ²	Certified	Met all CRs and FRs.
E1	No ²	Certified	Met all CRs and FRs.

NOTES:
 1 The electrical physical interface tested was ITU-T V.35 in accordance with ITU-T V.36/V.37.
 2 The STP requirements can be met via one of the following interfaces: ITU-T V.35, DS0A, DS1, or OCU-DP.

LEGEND:

CRs	Capability Requirements	Mbps	Megabits per second
DS1	Digital Signal Level 1 (1.544 Mbps)	OCU-DP	Office Channel Unit-Data Port
DS0	Digital Signal Level Zero (64 kbps)	STP	Signal Transfer Point
DS0A	A process where a sub-rate signal is repeated 20, 10, or 5 times to make a 64-kbps DS0 channel	SUT	System Under Test
E1	European Basic Multiplex Rate (2.048 Mbps)	V.35	Standard for data transmission at 48 kbps using 60-108 kHz group band circuits
FRs	Feature Requirements	V.36	Modems for synchronous data transmission using 60-108 kHz group band circuits
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector	V.37	Synchronous data transmission at a data signaling rate higher than 72 kbps using 60-108 kHz group band circuits
kbps	kilobits per second		
kHz	kiloHertz		

Table 2. SUT Capability and Feature Requirements

Interface	Critical (See note.)	Requirements Required or Conditional	References
ITU-T V.35 (A,B,C Links)	No	<ul style="list-style-type: none"> • SS7 Network Structure (R) • Signaling System MTP Functions and Structure (R) • Signaling Network Functions and Messages (R) 	<ul style="list-style-type: none"> • GSCR para 5.6.1 • GSCR para 5.6.2 • GSCR para 5.6.3
OCU-DP (A,B,C Links)	No	<ul style="list-style-type: none"> • Non-circuit-Related Information Exchange-SCCP (R) • MTP Restart (R) 	<ul style="list-style-type: none"> • GSCR para 5.6.4 • GSCR para 5.6.6
DS0A (A,B,C Links)	No	<ul style="list-style-type: none"> • Signaling Link Management (R) • Signaling Route Management (R) 	<ul style="list-style-type: none"> • GSCR para 5.6.7 • GSCR para 5.6.8
DS1 (A,B,C Links)	No	<ul style="list-style-type: none"> • Common Characteristics of MSU (R) • Formats and Codes of Signaling Network Management Messages (R) 	<ul style="list-style-type: none"> • GSCR para 5.6.9 • GSCR para 5.6.10
E1 (A,B,C Links)	No	<ul style="list-style-type: none"> • Numbering of Signaling Point Codes (R) • Functional Descriptions of ISDN User Part (R) • Formats and Codes-ISDN User Part Parameters (R) 	<ul style="list-style-type: none"> • GSCR para 5.6.11 • GSCR para 5.6.12 • GSCR para 5.6.13

Table 2. SUT Capability and Feature Requirements (continued)

NOTE: The STP requirements can be met via one of the following interfaces: ITU-T V.35, DS0A, DS1, or OCU-DP.			
LEGEND:			
A-Link	Access Link (SS7)	kHz	kiloHertz
B-Link	Bridge Link (SS7)	Mbps	Megabits per second
C-Link	Cross Link (SS7)	MSU	Message Signaling Unit
DS1	Digital Signal Level 1 (1.544 Mbps)	MTP	Message Transfer Part
DS0	Digital Signal Level Zero: One 64-kbps channel	OCU-DP	Office Channel Unit-Data Port
DS0A	A process where a sub-rate signal is repeated 20, 10, or 5 times to make a 64-kbps DS0 channel	para	paragraph
E1	European Basic Multiplex Rate (2.048 Mbps)	R	Required
GSCR	Generic Switching Center Requirements	SCCP	Signaling Connection Control Part
ISDN	Integrated Services Digital Network	SS7	Signaling System 7
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector	STP	Signal Transfer Point
kbps	kilobits per second	SUT	System Under Test
		V.35	Standard for data transmission at 48 kbps using 60-108 kHz group band circuits

Table 3. IAS Components

Switch		Release		
Tekelec Eagle® STP		Software Release 35.6.1-56.52.0		
SUT				
Tekelec IAS Release 4.0.1 (SUT)	Hardware	Software		
	IMF 1 and 2: T1100 (TekServer II)	SW Version 8.0.0-26.0.5, Platform: Linux (TPD v3.1.3-61.22.0, derived from CentOS 4.5), COMCOL 5.11 (derived from MySQL v5.0.27),		
	Cisco 4948 Switches	IOS Version 12.2(25)EWA7		
	Cisco 3560G Switch	IOS Version 12.2(25) SEE3 release (fe2)		
	NSP Server: HP G5 DL360 Proliant	BIOS: P58 05/01/2007, SW Version: 4.0.1-7.1.0, Platform: Linux (TPD v3.1.3- 61.22.0, derived from CentOS 4.5), Apache 2.0.63, Oracle 10.1.0.5, WebLogic Server 10.0.1, J2EE, NetSTAT, NSPAdmin, NSPCCM, NSPPlatform, ProAlarmConfig, ProAlarmViewer, ProAlarmFwd, ProDiag, ProPerf, ProTrace, ProTraQ, XDR Browser		
	IXP Base: HP G5 DL360 Proliant	BIOS: P58 05/01/2007, SW Version 4.0.0-27.7.1, Platform: Linux (TPD v3.1.3- 61.22.0 derived from CentOS 4.5), J2EE, COMCOL 5.11 (derived from MySQL 5.0.27)		
	IXP PDU: HP G5 DL360 Proliant	BIOS: P58 05/01/2007, SW Version 4.0.0-27.7.1, Platform: Linux (TPD v3.1.3- 61.22.0 derived from CentOS 4.5), J2EE, COMCOL 5.11 (derived from MySQL 5.0.27)		
	IXP xDR: HP G5 DL360 Proliant	BIOS: P58 05/01/2007, SW Version 4.0.0-27.7.1, Platform: Linux (TPD v3.1.3- 61.22.0 derived from CentOS 4.5), J2EE, COMCOL 5.11 (derived from MySQL 5.0.27), Oracle 10.2.0.3		
	MSA30 Disk Array	(HP Storageworks RAID Controller BF0728B26A)		
	Part Number	Description	Revision	GPL
870-2508-02	STC Card (See note.) EDCM A	Rev A	126-029-0000	
870-2372-01	STC Card (See note.) EDCM	Rev J	126-029-0000	
NOTE: Two STC cards are installed in each Tekelec Eagle® STP cabinet.				
LEGEND:				
BIOS	Basic Input Output System	PDU	Protocol Data Unit	
HP	Hewlett Packard	RAID	Redundant Array of Inexpensive Disks	
IMF	Integrated Message Feeder	STC	Sentinel Transport Card	
IOS	Internetwork Operating System	STP	Signal Transfer Point	
IXP	Integrated xDR Platform	SUT	System Under Test	
NSP	Network Software Platform	xDR	eXtended Detailed Record	

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Tekelec Eagle® Signal Transfer Point (STP) with Software Release 35.6.1-56.52.0

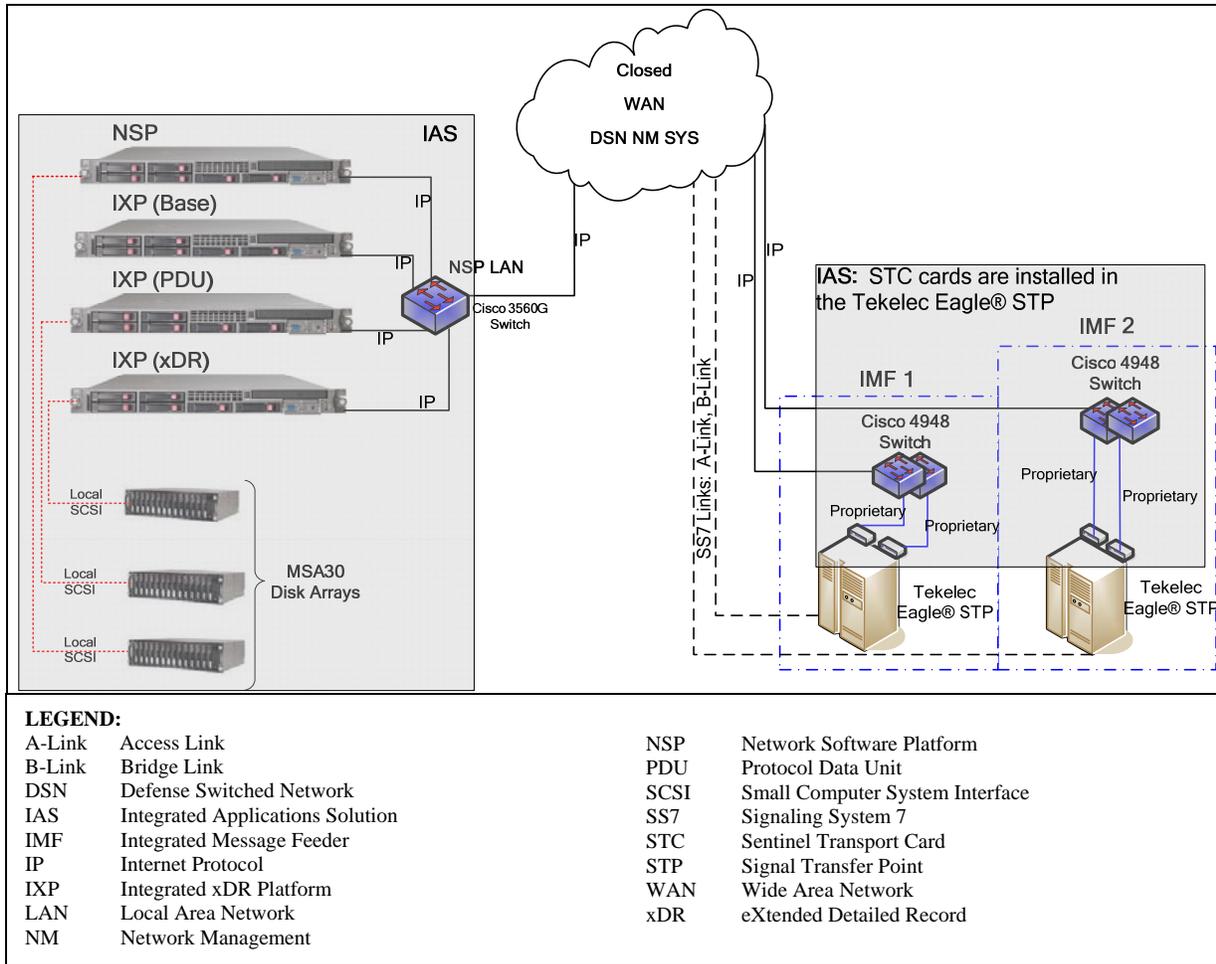


Figure 1. IAS Components

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. The System Tracking Program 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>.

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Tekelec Eagle® Signal Transfer Point (STP) with Software Release 35.6.1-56.52.0

6. The JITC point of contact is Joseph Roby, DSN 879-0507, commercial (520) 538-0507, FAX DSN 879-4347, or e-mail to joseph.robby@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The UCCO tracking number for the Tekelec Eagle STP is 0703201. The UCCO tracking number for the IAS is 0900801.

FOR THE COMMANDER:

Enclosure a/s


for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

Distribution (electronic mail):

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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, "Department of Defense Voice Networks Generic Switching Center Requirements (GSCR), Errata Change 2," 14 December 2006, Revised 27 March 2007
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (e) Joint Interoperability Test Command Memo, JTE, "Special Interoperability Test Certification of the Tekelec Eagle® Signal Transfer Point (STP) with Software Release 35.6.1-56.52.0," 5 August 2008
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Tekelec Eagle STP Integrated Application Solutions (IAS) Release (Rel.) 4.0.1 (Tracking Number 0900801)," 10 November 2009