



DEFENSE INFORMATION SYSTEMS AGENCY

P. O. BOX 549
FORT MEADE, MARYLAND 20755-0549

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

13 Sep 11

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Microlog ServiceFirst™ Version 5.1.1

References: (a) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008
(c) through (f), see Enclosures in the original certification memo (TN 1006201)

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 Microlog ServiceFirst™ with Version 5.1.1 is hereinafter referred to as the System Under Test (SUT). The SUT met the interface and functional requirements and is certified for joint use within the Defense Switched Network (DSN) as a Customer Premise Equipment Automatic Call Distributor (ACD). The SUT analog interface is certified for use with any switch on the Unified Capabilities (UC) Approved Product List (APL) that is certified with an analog interface. The SUT Digital Transmission Link Level 1 (T1) Primary Rate Interface (PRI) interface is certified specifically with switching systems listed in Table 1 that are listed on the UC APL. These are the only switches on the UC APL that allow ROUTINE only calls to be routed to the SUT. The SUT met the interface and functional requirements for an ACD system as set forth in Reference (c) verified 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 Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation.

3. The extension of this certification is based on Desktop Review (DTR) 1. The original certification is based on interoperability testing conducted by JITC and review of the vendor's Letters of Compliance (LoC). Interoperability testing was conducted by the JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 1 through 5 March 2010. Review of the vendor's LoC was completed on 13 July 2010. DSAWG granted accreditation on 5 October 2010 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (e). This DTR was submitted to update the software version from 5.1.1 to 5.1.2 to fix and close open IA findings in accordance with the vendor's Plans of Action

& Milestones (POA&Ms) specified in their IA assessment, Reference (f). This software version update applies to the SUT components, SF-IVR, SF Foundation and the Management Workstation. Regression testing was conducted on 27 April 2011 to verify and close POA&Ms. The JITC determined there was minor risk in approving this DTR based on the fact that software update only affects the IA posture and not the interoperability of the SUT. Therefore, JITC approves this DTR. The DISA Certifying Authority (CA) provided a positive Recommendation for the IA posture of this DTR 1 on 19 July 2011, but no later than three years from the date of the original memorandum (5 October 2010).

4. The Switching Systems Certified for joint use with the SUT with the T1 ISDN PRI interface are listed in Table 1. The Functional Requirements (FR) and Interoperability Status are listed in Table 2. The Tested Configuration of the SUT is listed in Table 3.

Table 1. Switching Systems Certified for joint use with the SUT with the T1 ISDN PRI interface.

Switch Name (See note.)																					
Alcatel-Lucent 5ESS, CDX, 5ESS VCDX																					
Avaya S8700, S8710, S8720, S8500, S8400, S8300																					
Siemens EWSD																					
<p>NOTE: The SUT analog interface is certified for use with any switch on the UC APL that is certified with an analog interface. The switches listed in this table are the only switches that are certified with the SUT for the T1 PRI interface. These are the only switches on the UC APL that allow ROUTINE only calls to be routed to the SUT.</p> <p>LEGEND:</p> <table border="0"> <tr> <td>5ESS</td> <td>Class 5 Electronic Switching System</td> <td>PRI</td> <td>Primary Rate Interface</td> </tr> <tr> <td>APL</td> <td>Approved Products List</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>CDX</td> <td>Compact Digital Exchange</td> <td>T1</td> <td>Digital Transmission Link Level 1 (1.544 Mbps)</td> </tr> <tr> <td>EWSD</td> <td>Elektronisches Wählsystem Digital</td> <td>UC</td> <td>Unified Capabilities</td> </tr> <tr> <td>Mbps</td> <td>Megabits per second</td> <td>VCDX</td> <td>Very Compact Digital Exchange</td> </tr> </table>		5ESS	Class 5 Electronic Switching System	PRI	Primary Rate Interface	APL	Approved Products List	SUT	System Under Test	CDX	Compact Digital Exchange	T1	Digital Transmission Link Level 1 (1.544 Mbps)	EWSD	Elektronisches Wählsystem Digital	UC	Unified Capabilities	Mbps	Megabits per second	VCDX	Very Compact Digital Exchange
5ESS	Class 5 Electronic Switching System	PRI	Primary Rate Interface																		
APL	Approved Products List	SUT	System Under Test																		
CDX	Compact Digital Exchange	T1	Digital Transmission Link Level 1 (1.544 Mbps)																		
EWSD	Elektronisches Wählsystem Digital	UC	Unified Capabilities																		
Mbps	Megabits per second	VCDX	Very Compact Digital Exchange																		

Table 2. SUT FRs and Interoperability Status

Interfaces	Critical	Certified	FRs	Status	UCR Paragraph
T1 PRI	No ¹	Yes ²	ROUTINE precedence only in accordance with UCR 2008, Section 5.2.2.3 (R)	Met	5.2.3.2
			DISR compliance as applicable (R)	Met	5.2.3.2
			PCM-24 in accordance with UCR 2008, Section 5.2.6.1 (C)	Met	5.2.3.2.5
2-Wire Analog (GR-506-CORE)	No ¹	Yes	ROUTINE precedence only in accordance with UCR 2008, Section 5.2.2.3 (R)	Met	5.2.3.2
			FCC Part 15/Part 68 and ACTA (R)	Met	5.2.3.2
			Auto answer ring interval (C)	Met	5.2.3.2
			DTMF outputting (C)	Met	5.2.3.2
			DISR compliance as applicable (R)	Met	5.2.3.2
IEEE 802.3u	No ¹	Yes	TIA/EIA-470-B (R)	Met	5.2.3.2.1
	Yes	Yes	in accordance with IEEE 802.3-2002 (C)	Met ³	5.2.3.2
			Security (R) ⁴		Section 5.4

Table 2. SUT FRs and Interoperability Status (continued)

NOTES:			
1	The Automatic Call Distributor requirements can be met via one of the following interfaces: 2-Wire Analog, 2- or 4-Wire Digital Proprietary, ISDN BRI, PCM-24, or PCM-30.		
2	The SUT is certified with the T1 PRI interface specifically with the switches noted in Table 1. These are the only switches on the UC APL that allow ROUTINE only calls to be routed to the SUT.		
3	In accordance with the UCR 2008, Change 1, Table 5.3.3-1, the OA&M IP packets shall be tagged with a DSCP value of 16 to 23. Using the WireShark IP capture tool to capture DSCP tagging within the SUT enclave between the ServiceFirst IVR and the ServiceFirst Foundation, it was determined that the SUT tagged the OA&M packets at 0 which does not meet this requirement. However, this discrepancy was previously reviewed by DISA and was adjudicated as having a minor operational impact.		
4	Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (e).		
LEGEND:			
802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	ISDN	Integrated Services Digital Network
ACTA	Administrative Council for Terminal Attachments	IVR	Interactive Voice Response
APL	Approved Products List	LSSGR	Local Access and Transport Area (LATA)
BRI	Basic Rate Interface		Switching Systems Generic Requirements
C	Conditional	Mbps	Megabits per second
DISA	Defense Information Systems Agency	OA&M	Operational Administration and Maintenance
DISR	Department of Defense Information Technology Standards Registry	PCM-24	Pulse Code Modulation - 24 Channels
DSCP	Differentiated Services Code Point	PCM-30	Pulse Code Modulation - 30 Channels
DTMF	Dual Tone Multi-Frequency	PRI	Primary Rate Interface
EIA	Electronic Industries Alliance	R	Required
FCC	Federal Communications Commission	SUT	System Under Test
GR	Generic Requirement	T1	Digital Transmission Link Level 1 (1.544 Mbps)
GR-506-CORE	LSSGR: Signaling for Analog Interfaces	TIA	Telecommunications Industry Association
IEEE	Institute of Electrical and Electronics Engineers	TIA/EIA-470-B	Performance and Compatibility Requirements for Telephone Sets with Loop Signaling
IP	Internet Protocol	UC	Unified Capabilities
		UCR	Unified Capabilities Requirements

Table 3. Tested System Configurations

System Name		Software Release	
Alcatel-Lucent 5ESS		5E16.2 Broadcast Warning Message (BWM) 09-002	
Avaya S8710		Communication Manager (CM 4.0 (R014x.00.2.732.1: Super Patch 16538)	
Avaya S8500		Communication Manager (CM 4.0 (R014x.00.2.732.1: Super Patch 16538)	
Avaya S8400		Communication Manager (CM 4.0 (R014x.00.2.732.1: Super Patch 16538)	
Siemens EWSD		Release 19d, Patch Set 46	
SUT	Hardware		Software/Firmware
	Component	Sub-Component	
Microlog ServiceFirst Version 5.1.2	SF-IVR	Digium 4-port Analog Board/ TE401P W/VPMOct123	Linux CentOS v5.4
			Linux kernel 2.6.32.15-jitc04
			Mircrolog ServiceFirst IVR v5.1.2
			Asterisk v1.6.1
			Digium Driver 1.6.1
	FreePBX 2.5.2		
	SF Foundation	N/A	Windows 2008 SP2
			Microlog ServiceFirst v5.1.2
			Sybase RDBMS v9.02.3508
			Attachmate Reflections v10.1
			Apache Tomcat 6.0.26
			IIS v7.0.6000.16386
			ServiceFirst Agent Desktop v5.1.2
	Management Workstation (Site-Provided)	N/A	Call Agent v5.1.2
			Window XP Pro

Table 3. Tested System Configurations (continued)

LEGEND:			
SESS	Class 5 Electronic Switching System	Pro	Professional
EWSD	Elektronisches Wählsystem Digital	RDBMS	Relational DataBase Management System
IIS	Internet Information Server	SF	ServiceFirst
IVR	Interactive Voice Response	SP	Service Pack
N/A	Not Applicable	SUT	System Under Test
OS	Operating System	v	version
PBX	Private Branch Exchange	XP	Experience

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). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. 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 through government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: ucco@disa.mil.

6. The JITC point of contact is Mr. Khoa Hoang, DSN 879-4376, commercial (520) 538-4376, FAX (520) 538-4347, or e-mail to khoa.hoang@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 1006201.

FOR THE COMMANDER:

Enclosure a/s


for BRADLEY A. CLARK
Chief
Battlespace Communications Portfolio

JITC MEMO, JTE, Extension of the Special Interoperability Test Certification of the Microlog ServiceFirst™ Version 5.1.1

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Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008 Change 1," 22 January 2010
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (e) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Microlog ServiceFirst (SF) Version (V) 5.1.1 (Tracking Number 1006201)," 5 October 2010
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Microlog ServiceFirst Release 5.1.2 (Tracking Number 1006201)."