



## DEFENSE INFORMATION SYSTEMS AGENCY

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

**21 May 13**

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Avaya Aura® Application Server (AS) 5300 Local Session Controller, Version 2.0 (with specified patch releases) from Patch Bundle 23 to Patch Bundle 28

**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 (e), see Enclosure

1. References (a) and (b) establish the Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.
2. The Avaya Aura® AS 5300, Version 2.0 (with specified patch releases), hereinafter referred to as the System Under Test (SUT) was originally certified as a Local Session Controller (TN 0911801), Reference (c). The vendor submitted a Desktop Review (DTR) to update the SUT software from Patch Bundle 23 to Patch Bundle 28 to resolve interoperability issues that were identified in the operational environment. Patch Bundle 28 is a rollup of all the fixes in Patch Bundles 24, 25, 26, 27, and 28. JITC conducted testing using product requirements derived from the Unified Capabilities Requirements (UCR), Reference (d) and test procedures, Reference (e). The SUT's certification status will be evaluated during operational deployment. Any new discrepancy noted in the operational environment will be evaluated for impact on the existing certification. These discrepancies will be adjudicated to the satisfaction of Defense Information Systems Agency (DISA) via a vendor Plan of Action & Milestones (PoAM), which will address all new critical Test Discrepancy Reports (TDRs) within 120 days of identification. JITC does not certify any other configurations, features, or functions, except those cited in this memorandum. This certification expires upon changes that affect interoperability, but no later than three years from 1 September 2010, which is the date the SUT was posted on the Unified Capabilities (UC) Approved Products List (APL).
3. JITC approves the extension of this certification for DTR 21 submitted to add Patch Bundle 28. All the interoperability fixes in Patch Bundle 28 were regression tested by JITC, Fort Huachuca, Arizona, from 15 through 18 January 2013. Release notes for the Patch Bundles can be found on the Approved Products List Integrated Tracking System (APLITS). As decided as part of the TDR adjudication, the SUT will be retired from the UC APL immediately after the UC APL memorandum including Patch Bundle 28 is posted.

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JITC determined this DTR would require interoperability and Information Assurance (IA) Verification and Validation (V&V) testing. JITC conducted DTR testing from 15 through 18 January 2013. There were no new interoperability discrepancies found during testing for this DTR. The six interoperability discrepancies mentioned in the subparagraphs below were closed as a result of this V&V test.

- a. The SUT softphones on Microsoft Vista and Windows 7 platforms did not properly support Differentiated Services Code Point (DSCP) tagging.
- b. The SUT to Avaya Media Application Server (MAS) video calls did not complete.
- c. Any interswitch attended call transfers failed with the SUT transferring the call.
- d. All call features (transfer, conference, three-way call, etc) involving an Internet Protocol version 6 (IPv6) preferred End Instrument (EI) experienced one-way audio (no receive) at the IPv6 preferred EI for approximately 20-30 seconds at the IPv6 EI after the called party answers.
- e. There was only one-way audio after a call was transferred from an analog EI to an Internet Protocol (IP) EI on the SUT.
- f. The SUT did not properly failover to the secondary Provisional Server (PROV) when the Transport Layer Security (TLS) was lost between the primary PROV and MAS, which caused intermittent call failures.

The DISA CA provided a positive recommendation for these DTRs on 16 April 2013, based on the security testing completed DISA-led IA test teams and published in a separate report, Reference (f). Therefore, JITC approves this DTR.

4. Table 1 depicts the SUT summary. Table 2 lists the interface status of the SUT. Table 3 lists the Capability Requirements (CR) and Functional Requirements (FR), and component status of the SUT. The threshold CR and FR for LSCs are established by Sections 5.3.2, 5.3.4, 5.3.5, and 5.4 of Reference (d) and were used to evaluate the interoperability of the SUT.

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**Table 1. Tested System Configurations**

<b>SUT Local Session Controller</b>		
Avaya AS 5300	AS 5300 Release 2.0 with Patch Bundle 28 Load: MCP_13.0.0.0_2010-05-05-2108 Patch: MCP_13.0.0.28_2012-11-21-1436	
<b>SUT Components</b>		
<b>SIP Core OAM&amp;P</b>		
<b>Part Number</b>	<b>Part Description</b>	<b>Firmware/Software</b>
NTVW02AD	AS 5300 Release 2.0 SIP Core New System Software Package	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436 Oracle version: 10.2.0.4.0, patch level 28
NTVW02AF	AS 5300 R1.0 to R2.0 Upgrade w/SRS PrePaid	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436 Oracle version: 10.2.0.4.0, patch level 28
NTVW02AG	AS 5300 R1.0 to R2.0 Upgrade and Expansions	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436 Oracle version: 10.2.0.4.0, patch level 28
NTVW02DE	AS 5300 Release 2.0 OS Software Kit – CDROM and DVD	Version: 13.0.36
NTVW02DD	AS 5300 Release 2.0 Core Apps Software Kit CDROM and DVD	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436 Oracle version: 10.2.0.4.0, patch level 28
<b>SIP Core LSC Session Manager</b>		
NTVW02AD	AS 5300 Release 2.0 SIP Core New System Software Package	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436
NTVW02AF	AS 5300 R1.0 to R2.0 Upgrade w/SRS PrePaid	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436
NTVW02AG	AS 5300 R1.0 to R2.0 Upgrade and Expansions	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436
NTVW02DE	AS 5300 Release 2.0 OS Software Kit – CDROM and DVD	Version: 13.0.36
NTVW02DD	AS 5300 Release 2.0 Core Apps Software Kit CDROM and DVD	Load: MCP_13.0.0.5_2010-10-07-1208 Patch: MCP_13.0.0.28_2012-11-21-1436
<b>Media Application Server</b>		
NTVW02AE	AS 5300 Release 2.0 MAS New System Software Package	Version: 6.6.0.99
NTVW02AF	AS 5300 R1.0 to R2.0 Upgrade w/SRS PrePaid	Version: 6.6.0.99
NTVW02AG	AS 5300 R1.0 to R2.0 Upgrade and Expansions	Version: 6.6.0.99
NTVW02DF	AS 5300 R1s 2.0 MAS Base and Applications	Version: 6.6.0.99
NTVW02DE	AS 5300 Release 2.0 OS Software Kit – CDROM and DVD	Version: 13.0.36

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**Table 1. Tested System Configurations (continued)**

<b>SUT Components (continued)</b>																																																						
<b>Audiocodes PRI Gateway</b>																																																						
<b>Part Number</b>	<b>Part Number</b>	<b>Part Number</b>																																																				
NTVW02CF	AS 5300 Release 2.0 Audiocodes M3K PRI GW 8 Span Bundle DC	Version: 5.80A.061																																																				
NTVW02CG	AS 5300 Release 2.0 Audiocodes M3K PRI GW 8 Span Bundle AC	Version: 5.80A.061																																																				
NTVW02CH	AS 5300 Release 2.0 Audiocodes M3K PRI GW 12 Span Bundle DC	Version: 5.80A.061																																																				
NTVW02CI	AS 5300 Release 2.0 Audiocodes M3K PRI GW 12 Span Bundle AC	Version: 5.80A.061																																																				
NTVW02CJ	AS 5300 Release 2.0 Audiocodes M3K PRI GW 16 Span Bundle DC	Version: 5.80A.061																																																				
NTVW02CK	AS 5300 Release 2.0 Audiocodes M3K PRI GW 16 Span Bundle AC	Version: 5.80A.061																																																				
NTVW02CL	AS 5300 Release 2.0 Audiocodes M3K PRI GW 42 Span Bundle DC	Version: 5.80A.061																																																				
NTVW02CM	AS 5300 Release 2.0 Audiocodes M3K PRI GW 42 Span Bundle AC	Version: 5.80A.061																																																				
NTVW02DG	AS 5300 Release 2.0 Audiocodes M3K PRI GW Software CD	Version: 5.80A.061																																																				
NTVW02CN	AS 5300 Release 2.0 Audiocodes M3K PRI GW OC3 Bundle DC	Version: 5.80A.061																																																				
NTVW02CO	AS 5300 Release 2.0 Audiocodes M3K PRI GW OC3 Bundle AC	Version: 5.80A.061																																																				
NTVW02DH	AS 5300 Release 2.0 Audiocodes M3K/6310 PRI GW Software CD	Version: 5.80A.061																																																				
<b>Audiocodes Element Management System</b>																																																						
NTVW02AY	AS 5300 Audiocodes EMS Server Package AC	Version: 5.8.96																																																				
NTVW02AZ	AS 5300 Audiocodes EMS Server Package DC																																																					
NTVW02DK	AS 5300 Release 2.0 Audiocodes EMS Application SW on Sun Netra T2000 Server with Oracle 9.2 and Solaris 10 and JAVA ES installed																																																					
<b>Device Name</b>		<b>Software Release</b>																																																				
CPE AS 5300 UC Client (previously MMPC Client)		Version: 7.2.3097_20121120																																																				
Avaya 1120E and 1140E ASSIP IP Deskphones		SIP Based Version: 03.01.22.00																																																				
Audiocodes MP112 (2 port Integrated Access Device)		Version: 5.80A.054.001																																																				
Audiocodes MP124 (24 port Integrated Access Device)		Version: 5.80A.054.001																																																				
Management Workstation		Customer Provided STIG'd PC																																																				
<p><b>LEGEND:</b></p> <table> <tbody> <tr> <td>AC</td> <td>Alternating Current</td> <td>MAS</td> <td>Media Application Server</td> </tr> <tr> <td>Apps</td> <td>Applications</td> <td>MMPC</td> <td>Multimedia Personal Computer</td> </tr> <tr> <td>AS</td> <td>Assured Services</td> <td>OC3</td> <td>Optical Carrier-Level 3</td> </tr> <tr> <td>CDROM</td> <td>Compact Disk Read-Only Memory</td> <td>OS</td> <td>Operating System</td> </tr> <tr> <td>CPE</td> <td>Customer Premise Equipment</td> <td>PC</td> <td>Personal Computer</td> </tr> <tr> <td>DC</td> <td>Direct Current</td> <td>PRI</td> <td>Primary Rate Interface</td> </tr> <tr> <td>DVD</td> <td>Digital Video Disk</td> <td>SIP</td> <td>Session Initiation Protocol</td> </tr> <tr> <td>EMS</td> <td>Element Management System</td> <td>STIG</td> <td>Security Technical Implementation Guide</td> </tr> <tr> <td>EWSD</td> <td>Elektronisches Wählsystem Digital</td> <td>SUT</td> <td>System Under Test</td> </tr> <tr> <td>GW</td> <td>Gateway</td> <td>SW</td> <td>Software</td> </tr> <tr> <td>IP</td> <td>Internet Protocol</td> <td>UC</td> <td>Unified Capabilities</td> </tr> <tr> <td>LSC</td> <td>Local Session Controller</td> <td>UNISTIM</td> <td>Unified Networks IP Stimulus</td> </tr> <tr> <td>M3K</td> <td>M3000</td> <td></td> <td></td> </tr> </tbody> </table>			AC	Alternating Current	MAS	Media Application Server	Apps	Applications	MMPC	Multimedia Personal Computer	AS	Assured Services	OC3	Optical Carrier-Level 3	CDROM	Compact Disk Read-Only Memory	OS	Operating System	CPE	Customer Premise Equipment	PC	Personal Computer	DC	Direct Current	PRI	Primary Rate Interface	DVD	Digital Video Disk	SIP	Session Initiation Protocol	EMS	Element Management System	STIG	Security Technical Implementation Guide	EWSD	Elektronisches Wählsystem Digital	SUT	System Under Test	GW	Gateway	SW	Software	IP	Internet Protocol	UC	Unified Capabilities	LSC	Local Session Controller	UNISTIM	Unified Networks IP Stimulus	M3K	M3000		
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**Table 2. SUT Interface Interoperability Status**

Interface	Critical	UCR Reference	Threshold CR/FR Requirements (See note 1.)	Status	Remarks (See note 2.)
<b>Line Interfaces</b>					
10Base-X	Yes	5.3.2.6.3	2, 4, 10, 13, 16	Certified	Met threshold CRs/FRs for IEEE 802.3i and 802.3j. Applies to PEIs (voice) and Softphones (voice and video).
100Base-X	Yes	5.3.2.6.3	2, 4, 10, 13, 16	Certified	Met threshold CRs/FRs for IEEE 802.3u. Applies to PEIs (voice) and Softphones (voice and video).
1000Base-X	No	5.3.2.6.3	2, 4, 10,13, 16	Not Tested	This interface is not offered by the SUT PEIs.
2-wire analog	Yes	5.3.2.6.1.6	2, 4, 10, 13,	Certified	Met threshold CRs/FRs for 2-wire instruments. Applies to 2-wire secure and non-secure analog instruments. Requirement met through use of an IAD that supports IEEE 802.3i, 802.3u, and 802.3ab.
BRI	No	5.3.2.6.1.8	2, 4, 10, 13	Not Tested	This interface is not supported by the SUT.
<b>External Interfaces</b>					
10Base-X	No (See note 3.)	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, 16	Certified	Met threshold CRs/FRs for IEEE 802.3i and 802.3j. Applies to AS-SIP trunk.
100Base-X	No (See note 3.)	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, 16	Certified	Met threshold CRs/FRs for IEEE 802.3u. Applies to AS-SIP trunk.
1000Base-X	No (See note 3.)	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, 16	Certified	Met threshold CRs/FRs for IEEE 802.3z and 802.3ab. Applies to AS-SIP trunk.
ISDN T1 PRI ANSI T1.619a	Yes	5.3.2.4.3	2, 3, 7, 8, 10, 13	Certified	Met threshold CRs/FRs . Provides legacy DSN and TELEPORT connectivity.
ISDN T1 PRI NI-2	Yes	5.3.2.4.3	2, 3, 7, 8, 10, 13	Certified	Met threshold CRs/FRs. Provides PSTN Connectivity
T1 CCS7 ANSI T1.619a	No	5.3.2.12.9	2, 3, 7, 8, 10, 13	Not Tested	This interface is not offered by the SUT.
T1 CAS	No	5.3.2.12.11	2, 3, 7, 8, 10, 13	Not Tested	This interface is not offered by the SUT.
E1 PRI ITU-T Q.955.3	No (See note 4.)	5.3.2.12.10	2, 3, 7, 8, 10, 13	Not Tested	This interface is not offered by the SUT.
E1 PRI ITU-T Q.931	No (See note 4.)	5.3.2.12.10	2, 3, 7, 8, 10, 13	Certified	This interface is not offered by the SUT.
<b>NM</b>					
10Base-X	No (See note 3.)	5.3.2.4.4 5.3.2.7.2.8	16, 17	Certified	Met threshold CRs/FRs. Verified via LoC.
100Base-X	No (See note 3.)	5.3.2.4.4 5.3.2.7.2.8	16, 17	Certified	Met threshold CRs/FRs. Verified via LoC.
<b>NOTES:</b>					
1. The CR/FR requirements are contained in Table 3. The CR/FR numbers represent a roll-up of UCR requirements. Reference (c) provides a list of more detailed requirements for LSC products.					
2. Reference (c) provides detailed information pertaining to open TDRs and associated operational impacts.					
3. The SUT must provide a minimum of one of the listed interfaces.					
4. This interface is conditionally required for deployment in Europe. The SUT met the E1 PRI ITU-T Q.931 requirements during testing for DTR 8.					

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**Table 2. SUT Interface Interoperability Status (continued)**

<b>LEGEND:</b>			
ANSI	American National Standards Institute	ISDN	Integrated Services Digital Network
ASD NII	Assistant Secretary of Defense for Networks and Information Integration	ITU-T	International Telecommunications Union - Telecommunication Standardization Sector
BRI	Basic Rate Interface	LoC	Letter of Compliance
CAS	Channel Associated Signaling	NI-2	National ISDN-2
CCS7	Common Channel Signaling 7	NM	Network Management
CR	Capability Requirement	PEI	Proprietary End Instrument
E1	2048 Mbps European trunk standard	PRI	Primary Rate Interface
FR	Functional Requirement	SUT	System Under Test
IAD	Integrated Access Device	T1	1.544 Mbps North American trunk standard
ID	Identification	TDR	Test Discrepancy Report
IEEE	Institute of Electrical and Electronics Engineers	UCR	Unified Capabilities Requirements

**Table 3. SUT CRs and FRs Status**

<b>CR/FR ID</b>	<b>Capability/Function</b>	<b>Applicability (See note 1.)</b>	<b>UCR Reference</b>	<b>Status</b>
<b>1</b>	<b>Assured Services Product Features and Capabilities</b>			
	DSCP Packet Marking	Required	5.3.2.2.1.4	Met
	Voice Features and Capabilities	Required	5.3.2.2.2.1	Partially Met (See notes 2, 3.)
	Public Safety Features	Required	5.3.2.2.2.2	Met
	ASAC – Open Loop	Required	5.3.2.2.2.3	Met
	Signaling Protocols	Required	5.3.2.2.3	Met
	Signaling Performance	Conditional	5.3.2.2.4	Met
<b>2</b>	<b>Registration, Authentication, and Failover</b>			
	Registration	Required	5.3.2.3.1	Met
	Failover	Required	5.3.2.3.2	Met
<b>3</b>	<b>Product Physical, Quality, and Environmental Factors</b>			
	Availability	Required	5.3.2.5.2.1	Met
	Maximum Downtimes	Required	5.3.2.5.2.2	Met
	Loss of Packets	Required	5.3.2.5.4	Met
<b>4</b>	<b>Voice End Instruments</b>			
	Tones and Announcements	Required	5.3.2.6.1.1	Partially Met (See notes 2, 4.)
	Audio Codecs	Required	5.3.2.6.1.2	Partially Met (See note 4.)
	VoIP PEI or AEI Audio Performance	Required	5.3.2.6.1.3	Partially Met (See note 4.)
	VoIP Sampling Standard	Required	5.3.2.6.1.4	Partially Met (See note 4.)
	Authentication to LSC	Required	5.3.2.6.1.5	Partially Met (See note 4.)
	Analog Telephone Support	Required	5.3.2.6.1.6	Partially Met (See notes 4, 5.)
	Softphones	Conditional	5.3.2.6.1.7	Partially Met (See notes 4, 6.)
ISDN BRI	Conditional	5.3.2.6.1.8	Not Tested	

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**Table 3. SUT CRs and FRs Status (continued)**

CR/FR ID	Capability/Function	Applicability (See note 1.)	UCR Reference	Status
5	<b>Video End Instruments</b>			
	Video End Instrument	Required	5.3.2.6.2	Partially Met (See note 7.)
	Display Messages, Tones, and Announcements	Required	5.3.2.6.2.1	Partially Met (See note 7.)
	Video Codecs (Including Associated Audio Codecs)	Required	5.3.2.6.2.2	Partially Met (See note 7.)
6	<b>LSC Requirements</b>			
	PBAS/ASAC Requirements	Required	5.3.2.7.2.1	Met
	Calling Number Delivery Requirements	Required	5.3.2.7.2.2	Met
	LSC Signaling Requirements	Required	5.3.2.7.2.3	Met
	Service Requirements under Total Loss of WAN Transport	Required	5.3.2.7.2.4	Met
	Local Location Server and Directory	Required	5.3.2.7.2.5	Met
	LSC Transport Interface Functions	Required	5.3.2.7.2.7	Met
	LSC to PEI, AEI, and Operator Console Status Verification	Required	5.3.2.7.2.10	Partially Met (See note 8.)
	Line-Side Custom Features Interference	Conditional	5.3.2.7.2.11	Met
	Loop Avoidance	Required	5.3.2.7.3	Met
7	<b>Call Connection Agent</b>			
	CCA IWF Component	Required	5.3.2.9.2.1	Met (See note 9.)
	CCA MGC Component	Required	5.3.2.9.2.2	Met
	SG Component	Conditional	5.3.2.9.2.3	Not Tested
	CCA-IWF Support for AS-SIP	Required	5.3.2.9.5.1	Met
	CCA-IWF Support for SS7	Conditional	5.3.2.9.5.2	Not Tested
	CCA-IWF Support for PRI via MG	Required	5.3.2.9.5.3	Met
	CCA-IWF Support for CAS Trunks via MG	Conditional	5.3.2.9.5.4	Not Tested
	CCA-IWF Support for PEI and AEI Signaling Protocols	Required	5.3.2.9.5.5	Partially Met (See note 10.)
	CCA-IWF Support for VoIP and TDM Protocol Interworking	Required	5.3.2.9.5.6	Met (See note 9.)
	CCA Preservation of Call Ringing State during Failure Conditions	Required	5.3.2.9.6	Met
	CCA Interactions with Transport Interface Functions	Required	5.3.2.10.3	Met
	CCA Interactions with the EBC	Required	5.3.2.10.4	Met
	CCA Support for Admission Control	Required	5.3.2.10.5	Met
	CCA Support for UFS	Required	5.3.2.10.6	Met
	CCA Support for IA	Required	5.3.2.10.7	Met
	CCA Interaction with EIs	Required	5.3.2.10.10	Partially Met (See notes 4, 6.)
	CCA Support for AS Voice and Video	Required	5.3.2.10.11	Partially Met (See notes 4, 6.)
	CCA Interactions with Service control Functions	Required	5.3.2.10.12	Met
CCA Interworking between AS-SIP and SS7	Conditional	5.3.2.11	Not Tested	

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**Table 3. SUT CRs and FRs Status (continued)**

CR/FR ID	Capability/Function	Applicability (See note 1.)	UCR Reference	Status
8	<b>MG Requirements</b>			
	Role of MG In LSC	Required	5.3.2.12.3.1	Met
	MG Support for ASAC	Required	5.3.2.12.4.1	Met
	MG and IA Functions	Required	5.3.2.12.4.2	Met
	MG Interaction with Service Control Function	Required	5.3.2.12.4.3	Met
	MG Interactions with IP Transport Interface Functions	Required	5.3.2.12.4.4	Met
	MG-EBC interactions	Required	5.3.2.12.4.5	Met
	MG IP-Based PSTN Interface Requirements	Conditional	5.3.2.12.4.7	Not Tested
	MG Interaction with EIs	Required	5.3.2.12.4.8	Partially Met (See note 4.)
	MG support for User Features and Services	Required	5.3.2.12.4.9	Met
	MG Interface to TDM	Required	5.3.2.12.5	Met (See note 9.)
	MG Interface to TDM Allied and Coalition	Conditional	5.3.2.12.6	Not Tested
	MG Interface to TDM PSTN in US	Required	5.3.2.12.7	Met (See note 9.)
	MG Interfaces to TDM PSTN OCONUS	Required	5.3.2.12.8	Partially Met (See note 10.)
	MG Support for CCS7	Conditional	5.3.2.12.9	Not Tested
	MG Support for ISDN PRI Trunks	Required	5.3.2.12.10	Met
	MG Support for CAS Trunks	Conditional	5.3.2.12.11	Not Tested
	MG requirements for VoIP Internal Interfaces	Required	5.3.2.12.12	Met
	MG Echo Cancellation	Required	5.3.2.12.13	Met
	MG Clock Timing	Required	5.3.2.12.14	Met
MGC-MG CCA Functions	Required	5.3.2.12.15	Met	
MG V.150.1	Required	5.3.2.12.16	Not Tested (See note 5.)	
MG Preservation of Call Ringing during Failure	Required	5.3.2.12.17	Met	
9	<b>SG Requirements</b>			
	SG and CCS7 network Interactions	Conditional	5.3.2.13.5.1	Not Tested
	SG Interactions with CCA	Conditional	5.3.2.13.5.2	Not Tested
	SG Interworking Functions	Conditional	5.3.2.13.5.3	Not Tested
10	<b>WWNDP Requirements</b>			
	WWNDP	Required	5.3.2.16	Met
	DSN WWNDP	Required	5.3.2.16.1	Met
11	<b>Commercial Cost Avoidance</b>			
	Commercial Cost Avoidance	Required	5.3.2.23	Partially Met (See note 11.)
12	<b>AS-SIP Based for External Devices (Voicemail, Unified Messaging, and Automated Receiving Devices)</b>			
	AS-SIP Requirements for External Interfaces	Conditional	5.3.2.24	Not Tested
13	<b>Precedence Call Diversion</b>			
	Precedence Call Diversion	Required	5.3.2.25	Met

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**Table 3. SUT CRs and FRs Status (continued)**

<b>CR/FR ID</b>	<b>Capability/Function</b>	<b>Applicability (See note 1.)</b>	<b>UCR Reference</b>	<b>Status</b>
<b>14</b>	<b>Attendant Station Features</b>			
	Precedence and Preemption	Required <sup>3</sup>	5.3.2.26.1	Not Tested (See note 12.)
	Call Display	Required <sup>3</sup>	5.3.2.26.2	Not Tested (See note 12.)
	Class of Service Override	Required <sup>3</sup>	5.3.2.26.3	Not Tested (See note 12.)
	Busy Override and Busy Verification	Required <sup>3</sup>	5.3.2.26.4	Not Tested (See note 12.)
	Night service	Required <sup>3</sup>	5.3.2.26.5	Not Tested (See note 12.)
	Automatic Recall of Attendant	Required <sup>3</sup>	5.3.2.26.6	Not Tested (See note 12.)
	Calls in Queue to the Attendant	Required <sup>3</sup>	5.3.2.26.7	Not Tested (See note 12.)
<b>15</b>	<b>AS-SIP Requirements</b>			
	SIP Requirements for AS-SIP Signaling Appliances and AS-SIP EIs	Required	5.3.4.7	Not Tested (See note 4.)
	SIP Session Keep-Alive Timer	Required	5.3.4.8	Met
	Session Description Protocol	Required	5.3.4.9	Met
	Precedence and Preemption	Required	5.3.4.10	Met
	Video Telephony – General Rules	Required	5.3.4.12	Not Met (See note 7.)
	Calling Services	Required	5.3.4.13	Met
	SIP Translation Requirements for Inter-working AS-SIP Signaling Appliances	Required	5.3.4.14	Met
	Relevant Timers for the Terminating Gateway and the Originating Gateway	Required	5.3.4.15	Met
	SIP Requirements for Interworking AS-SIP Signaling Appliances	Required	5.3.4.16	Met
	Keep-Alive Timer Requirements for Interworking AS-SIP Signaling Appliances	Required	5.3.4.17	Met
	Precedence and Preemption Extensions for Interworking AS-SIP Signaling Appliances	Required	5.3.4.18	Met
	Supplementary Services	Required	5.3.4.19	Met
<b>16</b>	<b>IPv6 Requirements</b>			
	Product Requirements	Required	5.3.5.4	Partially Met (See note 11.)
<b>17</b>	<b>NM</b>			
	LSC Management Function	Required	5.3.2.7.2.6	Partially Met (See note 13.)
	VVoIP NMS Interface Requirements	Required	5.3.2.4.4	Partially Met (See note 13.)
	General Management requirements	Required	5.3.2.17.2	Partially Met (See note 13.)
	Requirement for FCAPS Management	Required	5.3.2.17.3	Partially Met (See notes 13, 14.)
	NM requirements of Appliance Functions	Required	5.3.2.18	Partially Met (See note 13.)
	Accounting Management	Required	5.3.2.19	Partially Met (See note 13.)

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**Table 3. SUT CRs and FRs Status (continued)**

**NOTES:**

1. The annotation of 'required' refers to the high-level requirement category. The applicability of each sub-requirement is provided in Reference (c), Enclosure 3.
2. The SUT had outstanding open TDRs at the completion of testing, which were adjudicated by DISA to have a minor operational impact. The vendor has submitted a PoAM to address the open TDRs. Reference (c), Enclosure 2, Paragraph 11, provides additional details. The DTR 18 request resulted in V&V testing conducted from 8 through 23 March 2012. During this test, a discrepancy was noted in which an unattended transfer with a subsequent attended transfer with the REDCOM LSC results in one-way audio. The vendor submitted a PoAM stating they will work with REDCOM to resolve the issue. The one-way audio is cleared if the user puts the second "attended" transferred call on hold, then off hold, which results in two-way audio. This was adjudicated by DISA to have a minor operational impact.
3. The SUT IP EIs when placed on hold by a subscriber on a CUCM Release 8.0(2) cannot be retrieved, which affects call transfers and 3-way calls. This issue does not exist with the CUCM 8.6. This anomaly occurs when the initial call is placed to or from the CUCM. This discrepancy has been fixed in the SUT Release 3.0. Since this issue is unrelated to Patch Bundle 28, DISA adjudicated this discrepancy as minor with no PoAM for the SUT Release 2.0 with Patch Bundle 28 with the caveat that the SUT Release 2.0 will be retired from the UC APL immediately after the UC APL memorandum including Patch Bundle 28 is posted.
4. The SUT met the requirement for PEIs; SUT was not tested with generic AEI requirements because no AEI was provided. AEIs are a new UCR 2008, Change 1, requirement and the vendor has 18-months (until July 2011) to comply.
5. The vendor did not demonstrate V.150.1 support. Since this is a new requirement, the vendor has 18 months (until July 2011) to comply.
6. The SUT met both voice and video requirements via Softphone.
7. The SUT demonstrated video requirements via Softphone only, not PEIs (Proprietary Hard Video Phones). The vendor did not provide a PEI video capability. This was adjudicated by DISA to have a minor operational impact because of the limited deployment of PEIs with video.
8. The SUT partially met PEI requirements (no video). The AEI and Operator Console requirements were not tested. Since these are new requirements, the vendor has 18 months (until July 2011) to comply.
9. The SUT met T1 PRI (T1.619a and NI-2) IWF requirements. The T1 CAS and T1 CCS7 interfaces were not supported by the SUT. The T1 CAS and T1 CCS7 interfaces are conditional.
10. The SUT met PEI CCA-IWF requirements. The AEI CCA-IWF requirements were not tested. Since these are new requirements, the vendor has 18 months (until July 2011) to comply.
11. The vendor submitted an IPv6 LoC with noted discrepancies, which include the interface for Commercial Cost Avoidance functionality. The open TDRs were adjudicated by DISA to have a minor operational impact with a vendor submitted PoAM.
12. The Attendant Console requirements are new UCR requirements and the vendor has 18-months (until July 2011) to comply.
13. The vendor submitted a NM LoC with noted discrepancies. The open TDRs were adjudicated by DISA to have a minor operational impact with a vendor submitted PoAM.
14. The SUT does not support destination code controls. This was adjudicated by DISA to have a minor operational impact because of the limited deployment of users.

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**Table 3. SUT CRs and FRs Status (continued)**

<b>LEGEND:</b>			
AEI	AS-SIP End Instrument	LSC	Local Session Controller
APL	Approved Products List	MG	Media Gateway
AS	Assured Services	MGC	Media Gateway Controller
ASAC	Assured Services Admission Control	NM	Network Management
AS-SIP	Assured Services Session Initiation Protocol	NMS	Network Management System
BRI	Basic Rate Interface	OCONUS	Outside the Continental United States
CAS	Channel Associated Signaling	PBAS	Precedence-Based Assured Service
CCA	Call Connection Agent	PEI	Proprietary End Instrument
CCS7	Common Channel Signaling 7	PoAM	Plan of Actions and Milestones
CR	Capabilities Requirement	PRI	Primary Rate Interface
CUCM	Cisco Unified Communications Manager	PSTN	Public Switch Telephone Network
DSCP	Differentiated Services Code Point	SG	Signaling Gateway
DSN	Defense Switched Network	SIP	Session Initiation Protocol
EBC	Edge Boundary Controller	SS7	Signaling System Number 7
EI	End Instrument	SUT	System Under Test
FCAPS	Fault, Configuration, Accounting, Performance, and Security	T1	1.544 Mbps North American trunk standard
FR	Functional Requirement	TDM	Time Division Multiplexing
IA	Information Assurance	TDR	Test Discrepancy Report
IAD	Integrated Access Device	UC	Unified Capabilities
ID	Identification	UCR	Unified Capabilities Requirements
IP	Internet Protocol	UFS	User Features and Services
IPv6	Internet Protocol version 6	V&V	Validation and Verification
ISDN	Integrated Services Digital Network	VoIP	Voice over Internet Protocol
IWF	Interworking Function	VVoIP	Voice and Video over Internet Protocol
LoC	Letter of Compliance	WAN	Wide Area Network
		WWNDP	World Wide Numbering and Dialing Plan

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). 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). 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: [disa.meade.ns.list.unified-capabilities-certification-office@mail.mil](mailto:disa.meade.ns.list.unified-capabilities-certification-office@mail.mil). All associated data is available on the DISA UCCO website located at website located at <http://www.disa.mil/Services/Network-Services/UCCO>.

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6. The JITC point of contact is Capt Stéphane Arsenault, DSN 879-5269, commercial (520) 538-5269, FAX DSN 879-4347, or e-mail to Stephane.P.Arsenault.fm@mail.mil. JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The UCCO tracking number for the SUT is 0911801.

FOR THE COMMANDER:



for RICHARD A. MEADOR  
Chief  
Battlespace Communications Portfolio

Enclosure a/s

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US Army, DA-OSA, CIO/G-6 ASA(ALT), SAIS-IOQ

US Air Force, A3CNN/A6CNN

US Marine Corps, MARCORSYSCOM, SIAT, A&CE Division

US Coast Guard, CG-64

DISA/TEMC

DIA, Office of the Acquisition Executive

NSG Interoperability Assessment Team

DOT&E, Netcentric Systems and Naval Warfare

Medical Health Systems, JMIS IV&V

HQUSAISEC, AMSEL-IE-IS

UCCO

## **ADDITIONAL REFERENCES**

- (c) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Avaya Aura™ AS5300 Local Session Controller, Version 2.0 (with specified patch releases)," 29 December 2010
- (d) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008, Change 1," 22 January 2010
- (e) Joint Interoperability Test Command, "Unified Capabilities Test Plan (UCTP)," Draft
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Avaya Application Server (AS)5300 Release (Rel.) 2.0 (Tracking Number 0911801)," Draft