



## DEFENSE INFORMATION SYSTEMS AGENCY

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

24 Jan 13

### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Extension of the Special Interoperability Test Certification of the Cisco Unified Communications Manager (CUCM) Version 8.6.1

**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 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 CUCM Version 8.6.1 is hereinafter referred to as the System Under Test (SUT). The SUT is certified for joint use in the Defense Information System Network (DISN) as a Local Session Controller (LSC). The fielding of the SUT is limited to Internet Protocol (IP) version 4 (IPv4) across the DISN. Although the SUT supports Internet Protocol version 6 (IPv6), it was not tested inter-enclave because of test limitations within the network infrastructure. Therefore, inter-enclave IPv6 is not covered under this certification, but intra-enclave use of IPv6 is authorized for use. 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 DISA via a vendor Plan of Action and Milestones (POA&M), which will address all new critical Test Discrepancy Reports (TDRs) within 120 days of identification. Testing was conducted using LSC product requirements derived from the Unified Capabilities Requirements (UCR), Reference (c), and LSC test procedures, Reference (d). 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 the date of the original Unified Capabilities (UC) Approved Products List (APL) memorandum expiration (28 June 2015).
3. The extension of this certification is based upon Desktop Review (DTR) 2. The original certification, documented in Reference (e), is based on interoperability testing conducted by JITC, review of the vendor's Letters of Compliance (LoC), DISA adjudication of open TDRs, and DISA Information Assurance (IA) Certification Authority (CA) approval of the IA configuration. Interoperability testing was conducted by JITC, Fort Huachuca, Arizona, from

11 July through 5 August 2011. Verification and Validation (V&V) testing was conducted by JITC, Fort Huachuca, Arizona, from 5 through 23 December 2011. Review of the vendor's LoC was completed on 19 June 2012. Adjudication of open TDRs was completed by DISA on 31 July 2012. The DISA CA provided a positive recommendation on 14 June 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 include the VG350 with Internetwork Operating System (IOS) 15.2(4)M1 as a certified SUT voice gateway in addition to the VG224 with IOS 15.1(4)M2. JITC determined that this DTR would require V&V testing. JITC conducted V&V testing from 17 through 19 December 2012. JITC testing verified that the VG350 voice gateway with IOS 15.2(4)M1 worked properly as a voice gateway and introduced one new discrepancy. The VG350 gateway crashes when Precedence Call Waiting is invoked subsequently on an analog line. This only affects a precedence call above ROUTINE and is only caused when a second call above ROUTINE is placed to the same line in succession. DISA accepted the vendors PoA&M on 22 January 2013 and adjudicated this as minor. Therefore, JITC approves this DTR. The IA posture has not changed. Therefore, the original IA approval applies to this DTR.

4. The interface, Capability Requirements (CR) and Functional Requirements (FR), and component status of the SUT is listed in Tables 1 and 2. The threshold CR/FRs for LSCs are established by Sections 5.3.2, 5.3.4, 5.3.5, and 5.4 of Reference (c) and were used to evaluate the interoperability of the SUT.

**Table 1. SUT Interface Interoperability Status**

Interface	Critical	UCR Reference	Threshold CR/FR Requirements <sup>1</sup>	Status	Remarks
<b>Line Interfaces</b>					
10Base-X	Yes	5.3.2.6.3	2, 4, 10, 13, and 16	Certified	Met threshold CRs/FRs for IEEE 802.3i and 802.3j. Applies to PEIs and softphones.
100Base-X	Yes	5.3.2.6.3	2, 4, 10, 13, and 16	Certified	Met threshold CRs/FRs for IEEE 802.3u. Applies to PEIs and softphones.
1000Base-X	No	5.3.2.6.3	2, 4, 10,13, and 16	Certified	Met threshold CRs/FRs for IEEE 802.3ab. Applies to PEIs and softphones.
2-wire analog	Yes	5.3.2.6.1.6	2, 4, 10, and 13	Certified	Met threshold CRs/FRs for 2-wire instruments. Applies to 2-wire secure and non-secure analog instruments.
BRI	No	5.3.2.6.1.8	2, 4, 10, and 13	Not Tested	This interface is offered by the SUT; however, it was not tested because it does not support Assured Services.
<b>External Interfaces</b>					
10Base-X	No <sup>2</sup>	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, and 16	Certified	Met threshold CRs/FRs for IEEE 802.3i and 802.3j. Applies to AS-SIP trunk.
100Base-X	No <sup>2</sup>	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, and 16	Certified	Met threshold CRs/FRs for IEEE 802.3u. Applies to AS-SIP trunk.
1000Base-X	No <sup>2</sup>	5.3.2.4.2	1, 2, 3, 6, 7, 8, 10, 11, 13, 15, and 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, and 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, and 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, and 13	Not Tested	This interface is not offered by the SUT.
T1 CAS	No	5.3.2.12.11	2, 3, 7, 8, 10, and 13	Certified	Met threshold CRs/FRs for DTMF.

**Table 1. SUT Interface Interoperability Status (continued)**

Interface	Critical	UCR Reference	Threshold CR/FR Requirements <sup>1</sup>	Status	Remarks
<b>External Interfaces (continued)</b>					
E1 CAS (DP, DTMF, MFR1)	No	5.3.2.12.11	2, 3, 7, 8, 10, 13	Not Tested	This interface is offered by the SUT; however, it was not tested and is not covered under this certification.
E1 PRI ITU-T Q.955.3	No <sup>3</sup>	5.3.2.12.10	2, 3, 7, 8, 10, and 13	Not Certified	This interface is offered by the SUT; however, it was not tested and is not covered under this certification.
E1 PRI ITU-T Q.931	No <sup>3</sup>	5.3.2.12.10	2, 3, 7, 8, 10, and 13	Certified	Met threshold CRs/FRs for European PSTN connectivity.
<b>NM</b>					
10Base-X	No <sup>2</sup>	5.3.2.4.4 5.3.2.7.2.8	16 and 17	Certified	Met threshold CRs/FRs. Verified via LoC.
100Base-X	No <sup>2</sup>	5.3.2.4.4 5.3.2.7.2.8	16 and 17	Certified	Met threshold CRs/FRs. Verified via LoC.
<b>NOTES:</b>					
1. The SUT high-level CR and FR ID numbers depicted in the Threshold CRs/FRs column can be cross-referenced in Table 2. These high-level CR/FR requirements refer to a detailed list of requirements provided in Reference (e) Enclosure 3.					
2. The SUT must provide a minimum of one of the listed interfaces.					
3. This interface is conditionally required for deployment in Europe.					
<b>LEGEND:</b>					
10Base-X	10 Mbps Ethernet		IEEE	Institute of Electrical and Electronics Engineers	
100Base-X	100 Mbps Ethernet		ISDN	Integrated Services Digital Network	
1000Base-X	1000 Mbps Ethernet		ITU-T	International Telecommunication Union – Telecommunication Standardization Sector	
802.3ab	1000 Mbps Ethernet over Twisted Pair				
802.3i	10 Mbps twisted pair media for 10Base-X networks		LoC	Letter of Compliance	
802.3j	10 Mbps fiber media for 10Base-X networks		Mbps	Megabits per second	
802.3u	100BASE-TX, 100BASE-T4, 100BASE-FX Fast Ethernet at 100 Mbps with auto negotiation		MFR1	Multi-Frequency Recommendation 1	
802.3z	Standard for Gigabit Ethernet		MG	Media Gateway	
ANSI	American National Standards Institute		MLPP	Multi-Level Precedence and Preemption	
AS-SIP	Assured Services Session Initiation Protocol		NI-2	National ISDN Standard 2	
BRI	Basic Rate Interface		NM	Network Management	
CAS	Channel Associated Signaling		PEI	Proprietary End Instrument	
CCS7	Common Channel Signaling		PRI	Primary Rate Interface	
CR	Capability Requirement		PSTN	Public Switched Telephone Network	
DP	Dial Pulse		Q.931	Signaling Standard for ISDN	
DSN	Defense Switched Network		Q.955.3	ISDN Signaling Standard for E1 MLPP	
DTMF	Dual Tone Multi-Frequency		SS7	Signaling System 7	
E1	European Basic Multiplex Rate (2.048 Mbps)		SUT	System Under Test	
FR	Functional Requirement		T1	Digital Transmission Link Level 1 (1.544 Mbps)	
ID	Identification		T1.619a	SS7 and ISDN MLPP Signaling Standard for T1	
			UCR	Unified Capabilities Requirements	

**Table 2. SUT Capability Requirements and Functional Requirements Status**

CR/FR ID	Capability/ Function	Applicability <sup>1</sup>	UCR Reference	Status
<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 <sup>2,3</sup>
	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

**Table 2. SUT Capability Requirements and Functional Requirements Status (continued)**

CR/FR ID	Capability/ Function	Applicability <sup>1</sup>	UCR Reference	Status
2	<b>Registration, Authentication, and Failover</b>			
	Registration	Required	5.3.2.3.1	Met
	Failover	Required	5.3.2.3.2	Met <sup>4</sup>
3	<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
4	<b>Voice End Instruments</b>			
	Tones and Announcements	Required	5.3.2.6.1.1	Met <sup>5</sup>
	Audio Codecs	Required	5.3.2.6.1.2	Met <sup>5,6</sup>
	VoIP PEI or AEI Audio Performance	Required	5.3.2.6.1.3	Met <sup>5</sup>
	VoIP Sampling Standard	Required	5.3.2.6.1.4	Met <sup>5</sup>
	Authentication to LSC	Required	5.3.2.6.1.5	Met <sup>5</sup>
	Analog Telephone Support	Required	5.3.2.6.1.6	Met
	Softphones	Conditional	5.3.2.6.1.7	Partially Met <sup>7</sup>
5	<b>Video End Instruments</b>			
	Video End Instrument	Required	5.3.2.6.2	Not Tested <sup>8</sup>
	Display Messages, Tones, and Announcements	Required	5.3.2.6.2.1	Not Tested <sup>8</sup>
	Video Codecs (Including Associated Audio Codecs)	Required	5.3.2.6.2.2	Not Tested <sup>8</sup>
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 <sup>5,9</sup>
7	<b>Call Connection Agent Requirements</b>			
	CCA-IWF Component	Required	5.3.2.9.2.1	Partially Met <sup>10,11</sup>
	CCA MGC Component	Required	5.3.2.9.2.2	Met
	SG Component	Conditional	5.3.2.9.2.3	Not Tested <sup>10</sup>
	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 <sup>10</sup>
	CCA-IWF Support for PRI via MG	Required	5.3.2.9.5.3	Partially Met <sup>11</sup>
	CCA-IWF Support for CAS Trunks via MG	Conditional	5.3.2.9.5.4	Not Tested <sup>10</sup>
	CCA-IWF Support for PEI and AEI Signaling Protocols	Required	5.3.2.9.5.5	Partially Met <sup>12</sup>
	CCA-IWF Support for VoIP and TDM Protocol Interworking	Required	5.3.2.9.5.6	Met <sup>10</sup>
	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 <sup>13</sup>
	CCA Interaction with EIs	Required	5.3.2.10.10	Partially Met <sup>5</sup>
CCA Support for AS Voice and Video	Required	5.3.2.10.11	Partially Met <sup>8</sup>	
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 <sup>10</sup>	

**Table 2. SUT Capability Requirements and Functional Requirements Status (continued)**

CR/FR ID	Capability/ Function	Applicability <sup>1</sup>	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 <sup>13</sup>
	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 VoIP EIs	Required	5.3.2.12.4.8	Met <sup>5</sup>
	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	Partially Met <sup>10,11,14</sup>
	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	Partially Met <sup>11,14</sup>
	MG Interfaces to TDM PSTN OCONUS	Required	5.3.2.12.8	Partially Met <sup>14</sup>
	MG Support for CCS7	Conditional	5.3.2.12.9	Not Tested <sup>10</sup>
	MG Support for ISDN PRI Trunks	Required	5.3.2.12.10	Partially Met <sup>11</sup>
	MG Support for CAS Trunks	Required	5.3.2.12.11	Met
	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 ITU-T V.150.1	Required	5.3.2.12.16	Not Met <sup>15</sup>	
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	Not Tested <sup>15</sup>	
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	
14	<b>Attendant Station Features</b>			
	Precedence and Preemption	Required	5.3.2.26.1	Not Tested <sup>9</sup>
	Call Display	Required	5.3.2.26.2	Not Tested <sup>9</sup>
	Class of Service Override	Required	5.3.2.26.3	Not Tested <sup>9</sup>
	Busy Override and Busy Verification	Required	5.3.2.26.4	Not Tested <sup>9,17</sup>
	Night service	Required	5.3.2.26.5	Not Tested <sup>9</sup>
Automatic Recall of Attendant	Required	5.3.2.26.6	Not Tested <sup>9</sup>	
Calls in Queue to the Attendant	Required	5.3.2.26.7	Not Tested <sup>9,18</sup>	

**Table 2. SUT Capability Requirements and Functional Requirements Status (continued)**

CR/FR ID	Capability/ Function	Applicability <sup>1</sup>	UCR Reference	Status
15	<b>AS-SIP Requirements</b>			
	SIP Requirements for AS-SIP Signaling Appliances and AS-SIP EIs	Required	5.3.4.7	Not Tested <sup>5</sup>
	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 <sup>8</sup>
	Calling Services	Required	5.3.4.13	Met
	SIP Translation Requirements for Inter-working AS-SIP Signaling Appliances	Required	5.3.4.14	Met <sup>19</sup>
	Relevant Timers for the Terminating Gateway and the Originating Gateway	Required	5.3.4.15	Not Tested <sup>20</sup>
	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	
16	<b>IPv6 Requirements</b>			
	Product Requirements	Required	5.3.5.4	Partially Met <sup>21</sup>
17	<b>NM</b>			
	LSC Management Function	Required	5.3.2.7.2.6	Met
	VVoIP NMS Interface Requirements	Required	5.3.2.4.4	Met
	General Management requirements	Required	5.3.2.17.2	Met
	Requirement for FCAPS Management	Required	5.3.2.17.3	Met
	NM requirements of Appliance Functions	Required	5.3.2.18	Met
Accounting Management	Required	5.3.2.19	Partially Met <sup>22</sup>	

**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. The SUT does not support a "ping ring" notification. DISA adjudicated this as minor and stated the intent to change this to conditional in the next version of the UCR (UCR 2013).
3. DTR 2 was requested to include the VG350 with Internetwork Operating System (IOS) 15.2(4)M1 as a certified SUT voice gateway in addition to the VG224 with IOS 15.1(4)M2. JITC conducted verification and validation (V&V) testing from 17 through 19 December 2012. JITC testing verified that the VG350 voice gateway with IOS 15.2(4)M1 worked properly as a voice gateway; however, it introduced one new discrepancy. The VG350 gateway crashes when Precedence Call Waiting is invoked subsequently on an analog line. The only affects a precedence call above ROUTINE and is only caused when a second call above ROUTINE is placed to the same line in succession. DISA accepted the vendors PoA&M on 22 January 2013 and adjudicated this as minor.
4. The SUT does not support OPTIONS requests required to meet the failover to a secondary SS in accordance with UCR 2008, Change 2, section 5.3.2.3.2.1. DISA adjudicated this discrepancy and determined that the UCR failover requirements are immature and require a rewrite. DISA NS2 has agreed to a Condition of Fielding that the initial UC APL certification will not provide for failover capability on the condition the vendor will participate in an NS2-scheduled multi-vendor test event to refine failover requirements, modify software to support the new failover requirements, and demonstrate failover compliance.
5. The SUT only supports voice PEIs. The vendor does not support AEIs (voice or video). DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
6. The SUT gateways equipped with the PVD3 modules do not support the ITU-T G.723 codec. DISA adjudicated this as minor and stated the intent to change this to conditional in the next version of the UCR (UCR 2013).
7. The SUT softphone with Microsoft Windows Vista and Windows 7 OSs does not allow DSCP tagging per precedence level in accordance with UCR 2008, Change 2, Section 5.3.3.3.2. Microsoft Windows XP is the only OS that supports the five precedence levels. DISA adjudicated this as minor since all voice is queued together in the four-queue model currently used in deployed ASLANs.
8. The SUT did not offer a video PEI. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
9. The SUT Operator Console/Attendant Station was not tested; however the vendor submitted a LoC for the requirements.
10. The SUT met T1 ISDN PRI (ANSI T1.619a and ANSI T1.607), E1 PRI (ITU-T Q.931), and T1 CAS DTMF IWF requirements, which is all of the certified TDM interfaces.

**Table 3. SUT Capability Requirements and Functional Requirements Status (continued)**

**NOTES (continued):**

11. The SUT does not support NFAS on the T1 ISDN PRI interface. Although this is conditional for DSN connectivity, it is required for PSTN connectivity. DISA adjudicated this as minor and stated the intent to change this to conditional in the next version of the UCR (UCR 2013).
12. The SUT met PEI CCA-IWF requirements. The SUT does not support AEIs. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
13. The security requirements are tested by a DISA-led IA test team and published in a separate report, Reference (f).
14. The SUT must meet T1 PRI (T1.619a and NI2) IWF. The T1 CAS and T1 CCS7 IWF requirements are conditional. The SUT met T1 ISDN PRI (ANSI T1.619a and ANSI T1.607), E1 PRI (ITU-T Q.931), and T1 CAS DTMF IWF requirements.
15. The SUT does not properly handle ITU-T V.150 calls with the Avaya Communication Manager 6.0 and both vendors are working on the problem. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
16. The SUT does not support Commercial Cost Avoidance. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
17. The SUT does not fully comply with Busy Override and Busy Line Verification requirements. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
18. The SUT does not fully comply with attendant console queuing requirements. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
19. The SUT met this requirement with ANSI T1.619a ISDN PRI NI2 DSN and ISDN PRI NI2 PSTN TDM interfaces interworking with AS-SIP. This requirement was met with both testing and the vendor's LoC. The SUT does not support CCS7 TDM interface which is conditional for an LSC.
20. This requirement applies to gateways between AS-SIP and CCS7 links. Because CCS7 is a conditional requirement for LSCs and not supported by the SUT, this requirement was not tested.
21. The vendor submitted an IPv6 LoC with noted discrepancies. The SUT does not support RFCs 4861 and 4862. DISA has accepted and approved the vendor's POA&M and adjudicated this discrepancy as having a minor operational impact.
22. The vendor submitted an NM LoC with noted discrepancies. The SUT does not comply with the requirement for the equipment impairment factor to be in accordance with ITU-T G.107. DISA adjudicated this as minor with a vendor POA&M to provide a MOS score. DISA also stated the intent to change this to conditional in the next version of the UCR (UCR 2013). The SUT does not have the ability to transfer records to a removable physical storage media. DISA adjudicated this as minor and stated the intent to delete this requirement in the next version of the UCR (UCR 2013).

**Table 3. SUT Capability Requirements and Functional Requirements Status (continued)**

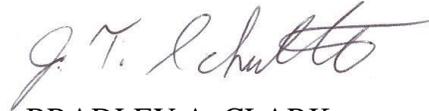
LEGEND:			
AEI	AS-SIP End Instrument	MLPP	Multi-Level Precedence and Preemption
ANSI	American National Standards Institute	MOS	Mean Opinion Score
APL	Approved Products List	NFAS	Non Facility Associated Signaling
AS	Assured Services	NI2	National ISDN Standard 2
ASAC	Assured Services Admission Control	NM	Network Management
ASLAN	Assured Services Local Area Network	NMS	Network Management System
AS-SIP	Assured Services Session Initiation Protocol	OCONUS	Outside the Continental United States
BRI	Basic Rate Interface	OS	Operating System
CAS	Channel Associated Signaling	PBAS	Precedence Based Assured Services
CCA	Call Connection Agent	PEI	Proprietary End Instrument
CR	Capability Requirement	POA&M	Plan of Action and Milestones
CCS7	Common Channel Signaling	PRI	Primary Rate Interface
DISA	Defense Information Systems Agency	PSTN	Public Switched Telephone Network
DSCP	Differentiated Services Code Point	PVDM3	Packet Voice Digital Signal Processor Module 3
DSN	Defense Switched Network	Q.931	Signaling Standard for ISDN
DSS1	Digital Subscriber Signaling 1	RFCs	Request for Comments
DTMF	Dual Tone Multi-Frequency	SG	Signaling Gateway
E1	European Basic Multiplex Rate (2.048 Mbps)	SIP	Session Initiation Protocol
EBC	Edge Boundary Controller	SS	Softswitch
EI	End Instrument	SS7	Signaling System 7
FCAPS	Fault, Configuration, Accounting, Performance and Security	SUT	System Under Test
FR	Functional Requirement	T1	Digital Transmission Link Level 1 (1.544 Mbps)
IA	Information Assurance	T1.607	ISDN – Layer 3 Signaling Specification for Circuit Switched Bearer Service for DSS1
ID	Identification	T1.619a	SS7 and ISDN MLPP Signaling Standard for T1
ISDN	Integrated Services Digital Network	TDM	Time Division Multiplexing
IP	Internet Protocol	UC	Unified Capabilities
IPv6	Internet Protocol version 6	UCR	Unified Capabilities Requirements
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector	UFS	User Features and Services
IWF	Interworking Function	US	United States
LoC	Letter of Compliance	V.150	Modem over Internet Protocol Networks
LSC	Local Session Controller	VoIP	Voice over Internet Protocol
Mbps	Megabits per second	VVoIP	Voice and Video over Internet Protocol
MG	Media Gateway	WAN	Wide Area Network
MGC	Media Gateway Controller	WWNDP	Worldwide 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). 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: [disa.meade.ns.list.unified-capabilities-certification-office@mail.mil](mailto:disa.meade.ns.list.unified-capabilities-certification-office@mail.mil).

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Cisco Unified Communications Manager (CUCM) Version 8.6.1

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FOR THE COMMANDER:



for BRADLEY A. CLARK  
Acting Chief  
Battlespace Communications Portfolio

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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) Joint Interoperability Test Command, "Unified Capabilities Test Plan (UCTP)," Draft
- (e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Cisco Unified Communications Manager (CUCM) Version 8.6.1," 6 September 2012
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Cisco Unified Communications Manager (CUCM), Version 8.6.1, (TN 1108301)," Draft