# TOMORROW starts here.

11 11 11 CISCO

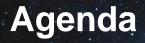


# Troubleshooting the TelePresence Experience

BRKEVT-3661

Abey K. George Escalation Engineer – Cisco TelePresence





TelePresence Troubleshooting approach

Signalling & Media issues

**Troubleshooting Tools** 

**Recovery Tools** 

**Questions and Answers** 



The participants will be able to

- Follow best practices for troubleshooting
- Utilise the best of the Serviceability features
- Capture the relevant data

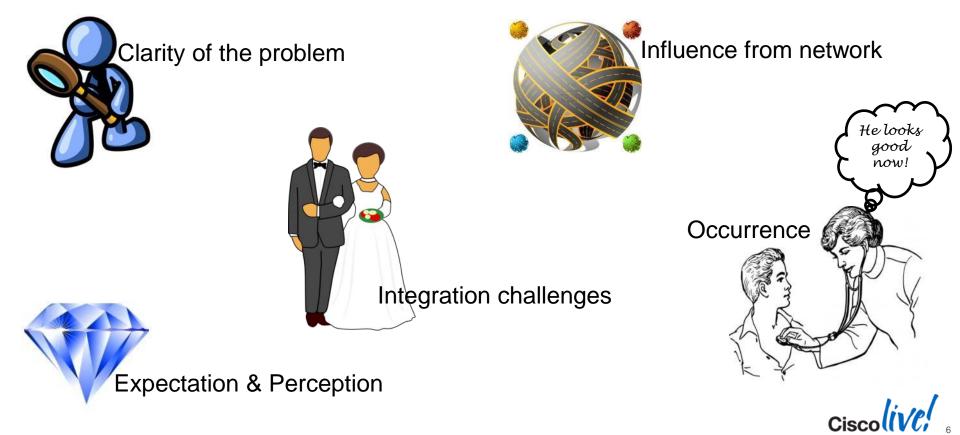


Ciscolive!

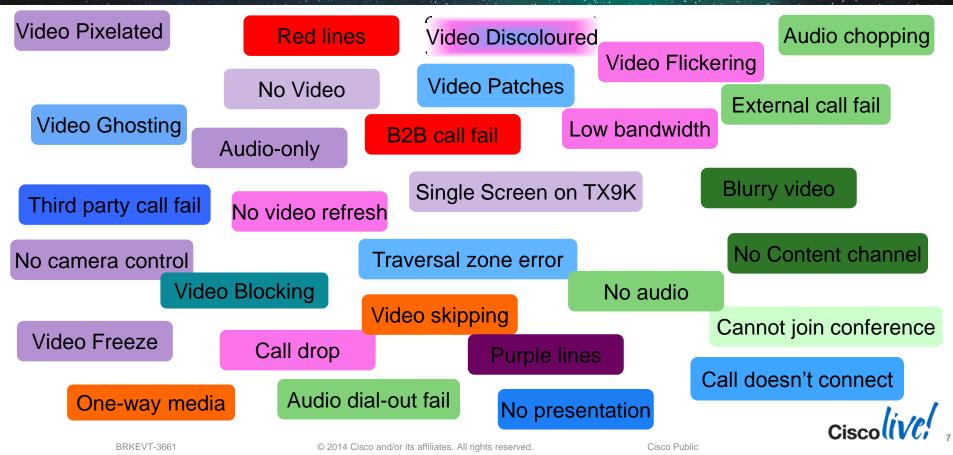


## TelePresence Troubleshooting Approach

## Challenges



## **Common Issues**



- Clarify
  - Problem Identification
  - Observation vs Expectations
  - Problem scenario
  - Deployment scenario
  - Issue impact



- Classify
  - Problem classification
  - Problem isolation



- Confirm
  - Factual, relevant evidence
  - Problem trigger and conditions
  - Other working scenario data



- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?

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### **Issue Classification**

#### Signalling issue

- Events
  - Call setup
  - SIP/H.323 messages
  - SDP/Capability negotiation
- Causes
  - Endpoint misconfiguration
  - Call Server misconfigurations
  - Firewall misconfiguration

#### Media issue

- Events
  - Established call
  - RTP/RTCP media stream
  - Media codecs
- Causes
  - Network impairments
  - Decoder / Encoded errors



Cisco (ive)

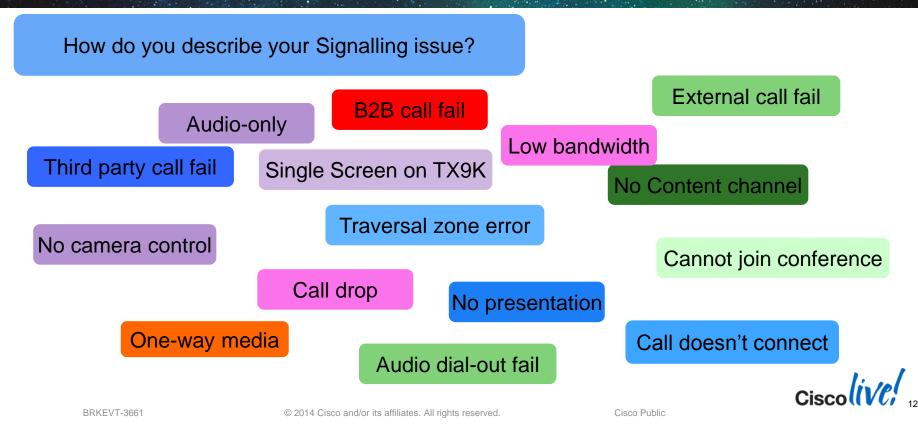






## "The misconfiguration is the primary cause of signalling issues."





- Clarify
  - Problem Identification
  - Observation vs Expectations
  - Problem scenario
  - Deployment scenario
  - Issue impact



- Classify
  - Problem classification
  - Problem isolation

- Confirm
  - Factual, relevant evidence
  - Problem trigger and conditions
  - Other working scenario data

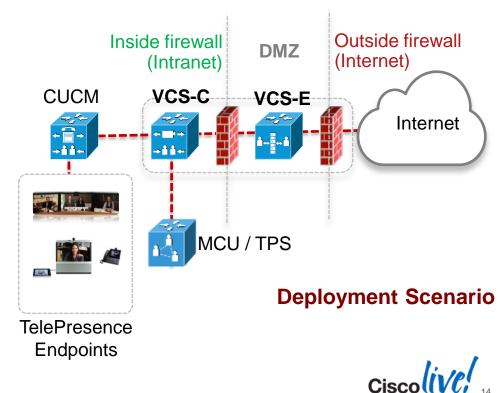
- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



Clarify: VCS Traversal Zone Working Scenario

Edit zone		You are here: VCS configuration > Zones > Zones > Edit zone					
Location							
Peer 1 address Peer 2 address Peer 3 address Peer 4 address Peer 5 address Peer 6 address	10.106.93.72		ve: 10.106.93.72:6001 : 10.106.93.72:7001				
Save Delete Ca	ncel	Expect	ed status				
State		Active					
Number of calls to this	zone	0					
Bandwidth used on this	VCS	0 kbps	0 kbps				
Total bandwidth used a	cross this cluster	0 kbps	0 kbps				
Search rules targeting t	this zone	3					

#### **VCS-Control Traversal zone status**



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Clarify: Traversal Zone Error (H.323 peer link failed)

Edit zone		You are here: VCS configuration + Zones + Zones + Edit zone				
Location						
Peer 1 address		23: Failed to connect to 10.106.93.72:6001 : No response from system : Active: 10.106.93.72:7001				
Peer 2 address						
VCS-C zone peer status						

#### **Observations** [VCS-C]

- H323 traversal zone status: Failed
- Error: "No response from system"
- SIP traversal zone link: Active
- Occurrence: Always

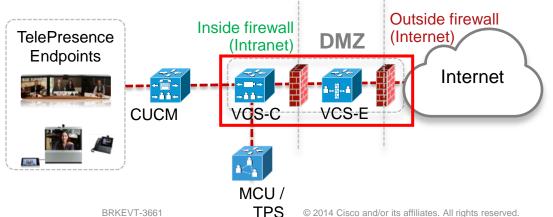
#### Deployment

- VCS-C in corporate network
- VCS-E in dual subnet DMZ
- H323 Traversal Protocol: Assent

### Priority & Impact: Medium

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#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data

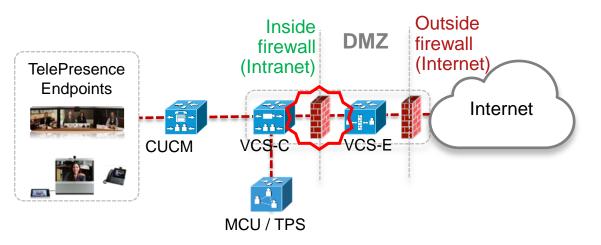
- Classify
  - Problem classification
  - Problem isolation



- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



Classify: Traversal Zone Error (H.323 peer link failed)



#### **Problem Classification**

- Signalling issue
- H.323 / Assent signalling

#### **Problem Isolation**

- VCS traversal zone
- VCS-C & VCS-E communication
- Inside Firewall



#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data

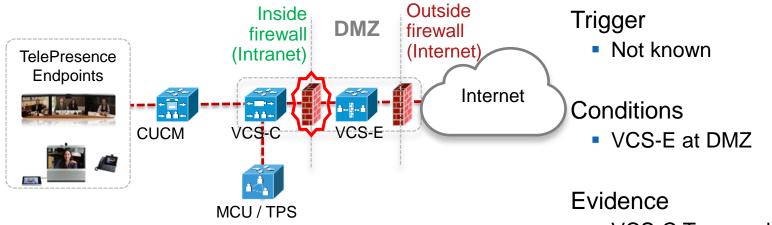


- Classify
  - Problem classification
  - Problem isolation

- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



Confirm: Traversal Zone Error (H.323 peer link failed)



- VCS-C Traversal Zone peer status
- VCS Event logs, Diagnostics logs
- Configuration backup



#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

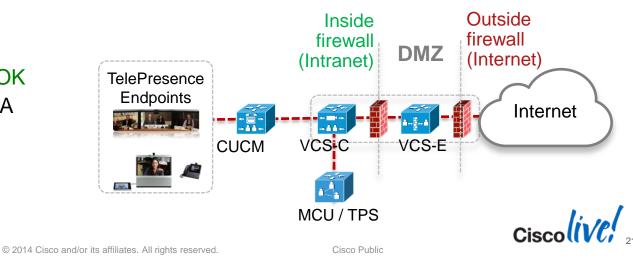
- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data

- Classify
  - Problem classification
  - Problem isolation

- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?

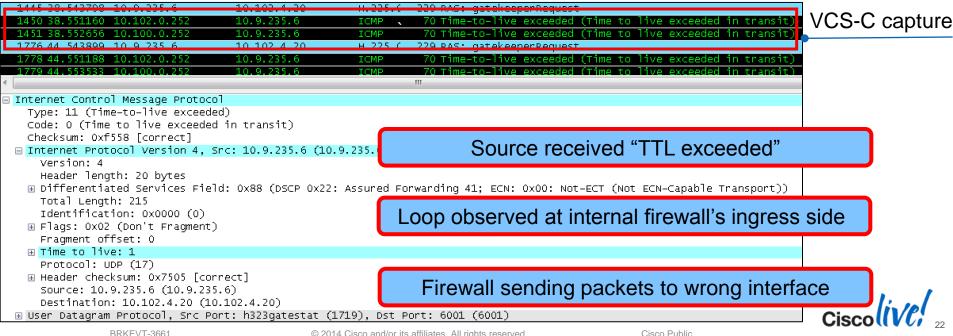
Checklist: Traversal Zone Error (H.323 peer link failed)

- Event logs & Diagnostics logs
  - Has H.323 packets delivered from VCS-C? : YES
  - Has H.323 packets received at VCS-E? : NO
- Configuration backup
  - VCS-C & VCS-E Traversal Zone Configuration: OK
- Inside Firewall
  - Outbound ports allow : OK
  - Inbound ports allow : N/A
- Packet capture
  - VCS-Control
  - VCS-Expressway
  - Firewall



Root Cause: Traversal Zone Error (H.323 peer link failed)

#### VCS-C & VCS-E packet capture analysis



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The Fix & Beyond: Traversal Zone Error (H.323 peer link failed)

- Question the cause
  - What caused this issue?
  - Where else could this cause lead to a problem?
- Question the fix
  - What issues could the fix cause?
  - Where else may we need a similar fix?



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## Media Issues - Troubleshooting Approach





#### A picture is worth a thousand words!

### A video is worth a million words!!!



### Media Issues – Troubleshooting Approach The Problem



- Clarify
  - Problem Identification
  - Observation vs Expectations
  - Problem scenario
  - Deployment scenario
  - Issue impact



- Classify
  - Problem classification
  - Problem isolation

- Confirm
  - Factual, relevant evidence
  - Problem trigger and conditions
  - Other working scenario data

- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



# Media Issues – Troubleshooting Approach

Clarify: Poor Video Quality at CTS

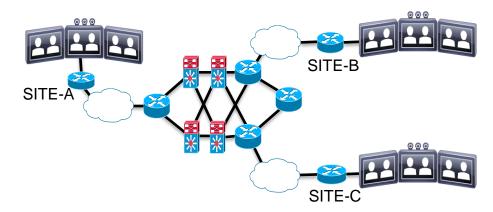


Observations

- Continuous video patches
- CTS Touch status indicate "packet loss"
- Issue observed at only one site
- Occurrence: Intermittent

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#### Deployment

- CTS deployed across all the branch locations
- MPLS network connecting the branch offices

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#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data

- Classify
  - Problem classification
  - Problem isolation

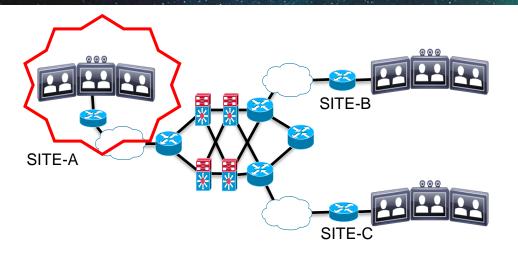


- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



### Media Issues – Troubleshooting Approach

Classify: Poor Video Quality at CTS



#### **Problem Classification**

- Media issue
- Video patches due to packet loss

#### **Problem Isolation**

- Point to Point and Multipoint calls
- Multi-site intra company calls
- Issue observed at one site (SITE-A)



#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data



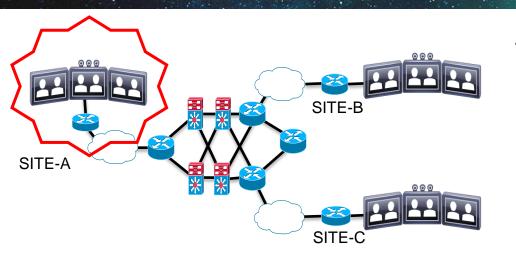
- Classify
  - Problem classification
  - Problem isolation

- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?



### Media Issues – Troubleshooting Approach

Confirm: Poor Video Quality at CTS





Not known

#### Conditions

Multi-site intra company calls

#### Evidence

- Call statistics [CTS Touch, Sysop stats]
- CTS logs
- Packet capture



### Media Issues – Troubleshooting Approach

#### Confirm: Poor Video Quality at CTS

<u>Troubleshooting</u> > Log Files				lest stats: syso	p log	src	: settings
Sysop Log Log Files SIP Messages				Configuration >	• Telephony S		
Statistics Rx Media Type Rx Frames Per Second Rx Bytes Rx Bit Rate Per Call	Left H.264 30 0 0	Center H.264 30 24705092 312	Right H.264 30 0 0	Auto Answer: Maximum Call L DSCP For Audio		No 0 EF DSCP (101110)	
Rx Bit Rate Per Period Rx Packets Rx Packets Lost Pkts % Call Pkts % Period	0 0 0.0000 0.0000	315 27096 7962 22.7109 22.2423	0 0 0.0000 0.0000	DSCP For TelePr Start Media Port End Media Port:		CS4(precedence 4) D 16384 32766	SCP (100000)
Packet loss	Sysop	26.0345 eshooting >	SIP Messages	Note: Use Unified			
	2014- 2014- 2014-	01-15 03:13: 01-15 03:13:	:00: INFO A :00: INFO V :00: INFO V	io DSCP Current Mar io COS Current Pric eo DSCP Current Mar eo COS Current Pric	prity: [0], E king: [BE],	Previous Priority: Previous Marking: Previous Priority:	[0] [BE]
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#### Clarify

- Problem Identification
- Observation vs Expectations
- Problem scenario
- Deployment scenario
- Issue impact

#### Confirm

- Factual, relevant evidence
- Problem trigger and conditions
- Other working scenario data

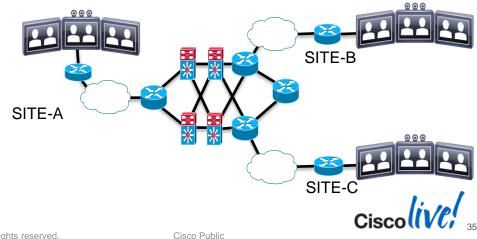
- Classify
  - Problem classification
  - Problem isolation

- Checklist
  - Problem based checklist
  - Do we have the required evidence?
  - Did we verify the basics?

### Media Issues – Troubleshooting Approach

Checklist: Poor Video Quality at CTS

- Sysop stats & logs
  - Packet loss reported at destination : YES
  - DSCP marking at Destination CTS: BE
- Configuration
  - DSCP marking at Source CTS: OK
- Packet capture
  - Source CTS
  - Destination CTS at SITE-A



### Media Issues - Troubleshooting Approach

#### Root Cause: Poor Video Quality at CTS

No.	204 0 205 0 206 0		Source 10.132.30.252 10.132.30.252 10.132.30.252	Destination 10.36.163.9 10.36.163.9 10.36.163.9	B UDP UDP D UDP	1299 Source port:	30090 30090 III	Destination port: 17862 Destination port: 25682 Destination port: 25682		Source capture
6	Vers Headd ∃ Diffo Tota Iden1	ion: 4 er length erentiate Length: cificatio	n: 20 bytes ed Services Field	No. Time 265 0.320805 266 0.322403 269 0.327886	Source 10.132.30.252 10.132.30.252 10.132.30.252	Destination 10.36.163.9 10.36.163.9 10.36.163.9		Protocol Length Info DP 224 Source port: 2 DP 1354 Source port: 3 DP 102 Source port: 3	0090 0091 III	Destination port: 17862 Destination port: 25682 Destination port: 25683
E	Fragr Time Proto Heado Souro Dest	nent offs to lives ocol: UDP er checks ce: 10.13 ination:	set: 0 : 64	Version: 4 Header length ∃ Differentiate Total Length: Identificatio ∃ Flags: 0x02 (	n: 20 bytes ed Services Field : 1340 on: 0x0000 (0) (Don't Fragment)		Defaul	30.252), Dst: 10.36.163.9 t; ECN: 0x00: Not-ECT (Not kets remarked to E	t ECN-	Capable Transport))
			capture	Time to live: Protocol: UDF Header checks Source: 10.13 Destination:	58 (17) sum: 0x6504 [corr 32.30.252 (10.132 10.36.163.9 (10.	.30.252)		configuration in sw	/itch	(s) at SITE-A
		-			2044.0:			Oliver Dublin		Ciscolive, 36

#### **Media Issues - Troubleshooting Approach**

The Fix & Beyond: Poor Video Quality at CTS

- Question the cause
  - What caused this issue?
  - Where else could this cause lead to a problem?
- Question the fix
  - What issues could the fix cause?
  - Where else may we need a similar fix?



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#### Signalling and Media issues - Evidence

Device	During Call	Q/E	After Call	Q/E	
	Touch Panel	1/3			
CTS	WebUI – Call Statistics	2/2	Sysop Logs	3/1	
	Sysop Logs	3/1			
	Touch: Call Status				
TC Codecs	Web: Call Control	2/2	Web: Log Files	3/1	
	API: xstatus	3/2			
VCS	Call Status	2/2	Call History	2/2	
MCU / TPS	Participant details on conference		CDR Logs – Media summary	2/1	
	Statistics Tab on Active Conference	3/2	Web: Log files	3/1	

Q=Quality of data

E=Ease of collection /reading

1=OK

2=Better

3=Best



#### **CTS** Devices

**TC Codecs** 

VCS & Conductor

**Call Manager** 

MCU & TelePresence Server





## Signalling / Media Issues – Troubleshooting Tools CTS Devices

Tools	Signalling issue	Media issue
Call Statistics from Touch panel		✓
Call Statistics from WebUI		✓
Sysop Logs	$\checkmark$	✓
SIP Messages	$\checkmark$	$\checkmark$
CTS log files	$\checkmark$	$\checkmark$
Network packet Capture		$\checkmark$



#### Signalling / Media Issues – Troubleshooting Tools CTS Devices: Touch Panel Call Statistics

Sunjay Dutt sdut	System Status Call Status System Status Peripherals Report Problem	> > >	Network Lat Jitter:	360p Non-se ality: 18% pa tency: Good Poor trate: 448 kb	acket loss		X
	1 Meetings	New Call	Directory	Presentation	More	ŝ	

- 1st checkpoint on media issues
  - Resolution
  - Packet loss
  - Latency
  - Jitter
  - Bitrate



#### Signalling / Media Issues – Troubleshooting Tools **CTS Devices: WebUI Call Statistics**

Address, Port, DSC				udio/Video Call: Video Stream Statistics
	10.104.134.204:25514			Local
	10.67.203.210:21542			Remote
	0			Average Latency (Call)
	0			Average Latency (Period)
	10			Time Period (seconds)
	[EF]; Previous Marking: [EF]	Current Marking:		DSCP
Transmit stat	y: [5]; Previous Priority: [5]	Current Prior		CoS
11/01/01/11/01/01	Right	Center	Left	
	<b>—</b>			Transmit
	0	0	0	Is Active
	H.264	H.264	H.264	Media Type
	30.00	30.00	30.00	Frames Per Second
	0	0	0	Total Bytes
	0	0	0	Bit Rate kbps (Call)
Receive stat	0	0	0	Bit Rate kbps (Period)
Receive Stat	0	0	0	Total Packets
				Receive
	1	1	1	Is Active
	H.264	H.264	H.264	Media Type
	30.00	30.00	30.00	Frames Per Second
	0	6669850	0	Total Bytes
	0	194	0	Bit Rate kbps (Call)
	0	305	0	Bit Rate kbps (Period)
	0	7556	0	Total Packets
Packet loss, Jitter, Dela	0	47	0	Lost Packets
	0.0000	0.6182	0.0000	Lost Packets % (Call)
	0.0000	10.0000	0.0000	Lost Packets % (Period)
	0.0000	10.0000	0.0000	Maximum Lost Packets % (Period)
	0	0	0	Duplicate Packets
	0	0	0	Late Packets
	0	0	0	Failed SRTP Authentication Packets
	0	279	0	Average Frame Jitter (Call)
	0	805	0	Average Frame Jitter (Period)
	0	279	0	Maximum Frame Jitter (Average - Call)
Cisco	0	842	0	Maximum Frame Jitter (Range - Period)

#### Signalling / Media Issues – Troubleshooting Tools CTS Devices: Sysop Log

#### <u>Troubleshooting</u> > Log Files

Sysop Log Log Files SIP Messages

2014-01-13 10:54:42: INFO Main Video negotiated Frame Rate is 30fps. 2014-01-13 10:54:44: INFO BFCP Status: Negotiated 2014-01-13 10:54:44: INFO Center Encoder Resolution is: 1280x720. 2014-01-13 10:54:44: INFO Left Encoder Resolution is: 1280x720. 2014-01-13 10:54:44: INFO Right Encoder Resolution is: 1280x720. 2014-01-13 10:54:44: INFO CTS is in an interop call and is not using TIP or MUX. 2014-01-13 10:54:44: INFO Bandwidth Negotiated: Local Bandwidth/Remote Bandwidth/Neg 2014-01-13 10:54:44: INFO After applying bandwidth allocation weights, main video v 2014-01-13 10:54:44: INFO Main display: Stop displaying mute icon 2014-01-13 10:54:53: INFO Audio DSCP Current Marking: [BE], Previous Marking: [BE] 2014-01-13 10:54:53: INFO Audio COS Current Priority: [0], Previous Priority: [0] 2014-01-13 10:54:53: INFO Video DSCP Current Marking: [BE], Previous Marking: [BE] 2014-01-13 10:54:53: INFO Video COS Current Priority: [0], Previous Priority: [0]

Download Sysop Files

- Crucial data here!
  - Event trace
  - Call history and trace
  - Call / Media Statistics
  - Bandwidth, Resolution
  - Call error logs
  - Timestamp is in UTC



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CTS Devices: SIP Messages

Troubleshooting > Log File						
Sysop Log Log Files SIP Messa						
SIP Messages						
Filter where SIP Message T	ype 🗘 is:	<enter here="" or="" select<="" th=""><th>from list&gt; <select< th=""><th>t message type&gt;</th><th>Filter</th><th>SIP message filter</th></select<></th></enter>	from list> <select< th=""><th>t message type&gt;</th><th>Filter</th><th>SIP message filter</th></select<>	t message type>	Filter	SIP message filter
				Showing 1 - 50	of 5350 records	
Date 🔻	Direction	Message Type	Message	То	From	
01/14/2014 @ 15:05:16.234	тх	200	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:05:16.228	RX	BYE	bd6ffc00-2d4	6110082	Sunjay Dutt	Click for message details
01/14/2014 @ 15:03:58.703	RX	200	1cdf0f76-fcf0	6110082	6110082 🗨	3
01/14/2014 @ 15:03:58.699	RX	100	1cdf0f76-fcf0	6110082	6110082	
01/14/2014 @ 15:03:58.691	тх	REGISTER	1cdf0f76-fcf0	6110082	6110082	
01/14/2014 @ 15:03:03.024	тх	200	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:03:03.022	RX	UPDATE	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:03:03.020	RX	ACK	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:03:03.014	ТХ	200	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:03:02.556	ТХ	100	bd6ffc00-2d4	6110082	Sunjay Dutt	
01/14/2014 @ 15:03:02.548	RX	INVITE	bd6ffc00-2d4	6110082	Sunjay Dutt	Cisco

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## Signalling / Media Issues – Troubleshooting Tools CTS Devices: SIP Messages

537-1e58-604e9251d3c5@10.104.134.204:41856;transport=tcp SIP/2.			
6.93.71:5060;branch=z9hG4bK2ae557b4c7f	Message header		
:sdutt@ciscolab.com>;tag=22169~69869e3a-c19c-4a1d-ba28-39c6d4			
.106.93.71>;tag=1cdf0f76fcf00007727f5c5f-5f622481			
04:10:42 GMT			
1-2a3c-475d6a0a@10.106.93.71			
prity, replaces			
ICX 4.5.7.16762) - Mac OS X			
INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIF			
llow-Events presence			
-Info <pre><pre><pre><pre>// Info</pre><pre>// Info</pre><pre>//</pre></pre></pre></pre>			
:sdutt@ciscolab.com>;party=calling;screen=yes;privacy=off			
.0.106.93.71:5060;transport=tcp>;video;audio			
	SDP		
CM-SIP 22169 2 IN IP4 10.106.93.71	• JUF		
Chu,	ving 1 - 21 of 21 records		
To			
Sunjay Dutt 6110082			
Sunjay Dutt 6110082			
6110082 Sunjay Dutt	Related SIP messages		
6110082 Sunjay Dutt	i tereste di en meesekgee		
6110082 Sunjay Dutt			
6110082 Sunjay Dutt			
6110082 Sunjay Dutt			

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#### Signalling / Media Issues – Troubleshooting Tools CTS Devices: Log Capture

Phone: 6110082	Troubleshooting > Log Files	Recreate the problem
<ul> <li>Device Information</li> <li>Configuration         <ul> <li>IP Settings</li> <li>Network Settings</li> <li>Network Settings</li> <li>Address Book</li> <li>Telephony Settings</li> <li>SNMP Settings</li> <li>System Settings</li> <li>Security Settings</li> <li>Troubleshooting</li> <li>Hardware Setup</li> <li>Diagnostics</li> <li>Log Files</li> <li>Touch Screenshot</li> </ul> </li> </ul>	Sysop Log       Log Files         Log Capture Status:       Not Generated (0%)         Previous Logs Captured At:       Not Generated         Problem Type:       Not Generated         Onne       Download existing log files         Capture new log files      Select Problem Type         Capture New Log Files	<ul> <li>Select the 'Problem Type'</li> <li>Capture new log files</li> <li>Download existing log files</li> <li>Collect logs soon after the issue</li> </ul>
BRKEVT-3661	© 2014 Cisco and/or its affiliates. All rights reserved.	elect the problem type

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## Signalling / Media Issues – Troubleshooting Tools

#### CTS Devices

#### TC Codecs

VCS & Conductor

#### **Call Manager**

MCU & TelepPresence Server







Tools	Signalling issue	Media issue
Call Statistics from Touch panel		$\checkmark$
Call Statistics from WebUI		✓
xStatus API	$\checkmark$	✓
Diagnostics logs / Extended logging	$\checkmark$	✓
Network packet Capture		$\checkmark$



TC Codecs: Touch & WebUI Call Statistics

Change Layout		C End
Sunjay Dutt sdutt@ciscolab.com		0 II
Call		
Protocol	SIP	
Transmit call rate	4000 kbps	
Receive call rate	6000 kbps	
Encryption	NONE	
Audio	Transmit	Receive
Protocol	AACLD	AACLD
Channel rate	63 kbps	63 kbps
Total packet loss	0.0%	0.4%
Current packet loss	0.0%	0.0%
Jitter	0 ms	0 ms
Video	Transmit	Receive
Protocol	H264	H264
Resolution	1920x1080	1280x720
Frame rate	30 fps	19 fps
Channel rate	5000 bps	473 kbps
Total packet loss	0.2%	0.4%
Current packet loss	0.0%	0.0%
Jitter	1 ms	2 ms

Settings					Exit	
Ringtone & Sound	PARTICIPANT(S)		•			
	URI:	sdutt@ciscol	olab.com			
Bluetooth Headset	Call Rate:	4000 kbps	Encryption Type:	None		
Camera Control	Protocol:	sip	Encryption Status:	Off		
	VIDEO	Transmit	Presentation	Receive	Presentation	
Main Source Selection	Protocol:	H264	Off	H264	Off	
Main Source Selection	Resolution:	1920x1080	n/a	1280x720	n/a	
	Frame Rate:	30	n/a	17	n/a	
Display	Channel Rate:	410 kbps	n/a	916 kbps	n/a	
	Total Packet Loss (%):	0.0%		0.4%		
Language	Current Packet Loss (%):	0.0%		0.0%		
Language	Jitter:	0 ms		2 ms		
Date, Time & Location	AUDIO	Transmit		Receive		
	Protocol:	AACLD - Mo	no	AACLD - Mono		
System Information	Channel Rate:	64 kbps		63 kbps		
-,	Total Packet Loss (%):	0.0%		0.4%		
	Current Packet Loss (%):	0.0%		0.8%		
Call Status	Jitter:	0 ms		0 ms		
Diagnostics						

#### Call statistics from WebUI



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#### Call statistics from Touch Panel

## Signalling / Media Issues – Troubleshooting Tools TC Codecs: Diagnostics Mode

Settings	Exit	
Camera Control	Diagnostics Mode OFF ON	On / Off diagnostic mode
Main Source Selection	Diagnostics Mode OFF ON OFF ON OFF ON OFF	On / Off diagnostic mode
Display	Follow these steps if you have a scenario you would like to report:	
Language	<ol> <li>Tap "On" above to enable Diagnostics</li> <li>Recreate the scenario you would like to report</li> </ol>	
Date, Time & Location	<ol> <li>Open the system's web interface and download the log files</li> <li>Send the log files to the support engineer or attach them to the</li> </ol>	Diagnostic Mode
System Information	service request	– Tap "On" to enable logs
Call Status		- Recreate issue
Diagnostics		<ul> <li>Tap "Off" to disable logs</li> <li>Download logs from WebL</li> </ul>
Restart		
Administrator		Cisco (ive:

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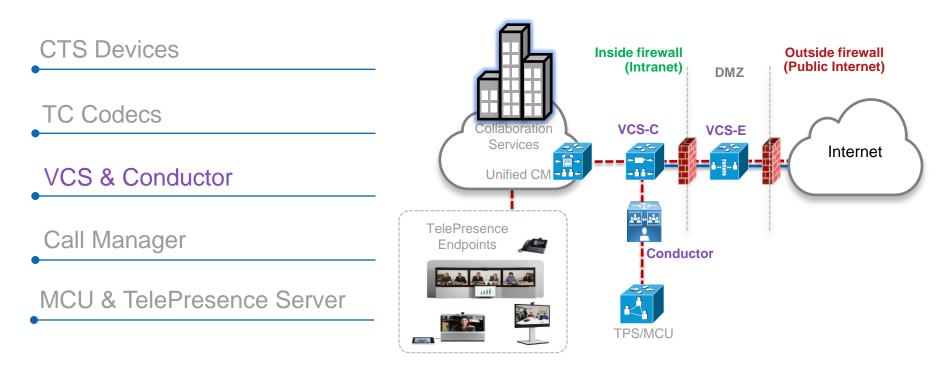
TC Codecs: Extended Logging & Log Capture

- No ssh to enable logs
- One place for log collection
- Easy start/stop log
- Issue recreate after Start lo
- Stop Extended logging
- Download log achieve
- Call history
  - Anonymised call history
  - Full call history

	# Home	Call Control	🖌 Configuration	Diagnostics	Maintenance			🛔 admin		
				Troubleshooting						
	Log Files	S		Call History						
ion	Download	Download log archive								
t log	A full archive of the logs on the device is useful for diagnosing problems. This archive includes all current and historical logs. Call history is not included by default.					To help diagnose network issues and problems during call setup, the syst can enter a timed extended logging mode. This mode is resource intensity populates the existing logs with more detailed information. Start extended logging for 5 minutes Extended logging is off.				
	Current log	S								
Extende	d loggin	g					Size	Last Modified		
							11 KB	2014-01-14 01:48		
-	-		-	-	etup, the syste		11 KB	2014-01-14 01:48		
			ng mode. This nore detailed		ource intensive	, and				
Stop ex	tended log	gging								
Extende	ed logging	j is on.					Cisc	live!		

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## Signalling / Media Issues – Troubleshooting Tools VCS & Conductor

Tools	Signalling issue	Media issue
VCS Search history	✓	
Call history, Call status	✓	$\checkmark$
Diagnostic logs	✓	✓
Maintenance Tools		
Check pattern	$\checkmark$	×
Locate	✓	
Port usage	✓	$\checkmark$
Network utilities	✓	$\checkmark$
Network packet Capture		$\checkmark$

## Signalling / Media Issues – Troubleshooting Tools VCS: Search history

Search history				You ar	e here: <u>Status</u> ► Search
Start time 🔺	Search type	Source	Destination	Status	Actions
2013-11-19 09:49:13	SIP (INVITE)	abegeorg.office.ex90@ciscolab.com	sip:7805789@ciscolab.com	Found	View
2013-11-14 14:27:30	H323 (LRQ)	iwf@10.106.93.72	7013123@ciscolab.com	Not found	View
2013-11-14 14:27:30	SIP (OPTIONS)	iwf@10.106.93.72	sip:7013123@ciscolab.com	Not found	View
2013-11-14 14:27:30	H323 (LRQ)	6111067@10.106.93.71	7013123@ciscolab.com	Not found	View
2013-11-14 14:27:30	SIP (INVITE)	6111067@10.106.93.71	sip:7013123@10.106.93.69:5060	Loop Detected	View
2013-11-14 14:19:28	SIP (INVITE)	6111067@10.106.93.71	sip:7103123@10.106.93.69:5060	Found	View

- Important tool for call failure analysis
- Status with reason for failure
- Search details for analysis

Link to Search details



#### Signalling / Media Issues – Troubleshooting Tools VCS & Conductor: Call History, Call Status

Call history									You are here: Sta	atus • Calls • Histo	ry
Records: 64										Page 1 of 1	
Start time 🔺	End time	Duration	Source		Destination	Туре	Protocol	Status	Peer	Actions	
2013-11-28 10:38:51	2013-11-28 10:41:44	2 minutes 53 seconds	7200097@ciscolab.com		6110010	Traversa	I H323 <-> SIP	Normal call clearing	This system	View	
2013-11-28 09:33:49	2013-11-28 10:37:15	1 hour 3 minutes 26 seconds	sip:abegeorg.office.ex90@ciscolab.com		sip:6110010@ciscolab.cor	n Non-trave	ersal SIP <-> SIP	200 OK	This system	View	
2013-11-28 09:33:03	2013-11-28 09:33:14	11 seconds	sip:abegeorg.office.ex90@cisc	olab.com	sip:6110010@ciscolab.cor	n Non-trave	ersal SIP <-> SIP	200 OK	This system	View	
2013-11-21 09:39:51	2013-11-21 10:05:43	25 minutes 52 seconds	sip:thanks.movi@ciscolab.com		sip:7805789@ciscolab.cor	n Non-trave	ersal SIP <-> SIP	200 OK	This system	View	
				Call s	tatus			Y	'ou are here: Sta	tus • Calls • Cal	ls • Vi
				Status							
Call hi	story			Status		Connected					
	•			Tag		2b375f2a-57	7eb-11e3-9520-00505	56ad6673			
Live C	all statu	S		Box-uni	Box-unique call serial number 2b375cb4-57eb-11e3-88a3-005056ad6673						
		0		Source	alias	7200097@d	ciscolab.com				
	-1-:1-			Destina	tion alias	6110010					
Call de	etalis			Start tin	ne	2013-11-28	10:38:51				
– Call i	informatio	n		Duration	n	21 seconds					
	mornau	511		Call co	mponents						
– Call I	legs			Local c	all serial number	s	Source alias	Destination alias	Protocol	Туре	
	U		_	2b375d	b8-57eb-11e3-adce-0050	56ad6673 7	200097@ciscolab.co	m 6110010	H323 <-> SIP	VCS	
– Banc	dwidth inf	ormation	ר		•						/
Call details Ciscoliv									colive	56	

#### Signalling / Media Issues – Troubleshooting Tools VCS & Conductor: Maintenance Tools

- Check Pattern
- Locate
- Port Usage
- Network Utilities
  - Ping
  - Traceroute
  - Tracepath
  - DNS lookup



## Signalling / Media Issues – Troubleshooting Tools VCS & Conductor: Network Utilities - DNS Lookup

	DNS look	-	here: Main	tenance •	Tools • I	Network utilities • D	NS lookup	
	Host Query type	cisco.com All			÷ (į	)	] (1)	Host & Query type
	Lookup Query type	Name	TTL	Class	Type	Response		Lookup results
Ľ	A	cisco.com.	86400	IN	A	72.163.4.161		
	AAAA	cisco.com.	86400	IN	AAAA	2001:420:1101:1:	:a	DNS Lookup
	SRV	_h323lsudp.cisco.com.	3600	IN	SRV	1 0 1719 vcsgw.ci	isco.com.	<ul> <li>B2B call verification</li> </ul>
	SRV	_h323cstcp.cisco.com.	3600	IN	SRV	1 0 1720 vcsgw.ci	isco.com.	– DNS Zone
	SRV	_sipstcp.cisco.com.	1305	IN	SRV	1 0 5061 vcsgw.ci	isco.com.	<ul> <li>SRV records</li> </ul>
	SRV	_siptcp.cisco.com.	1477	IN	SRV	1 0 5060 vcsgw.ci	isco.com.	- SRV lecolds Cisco

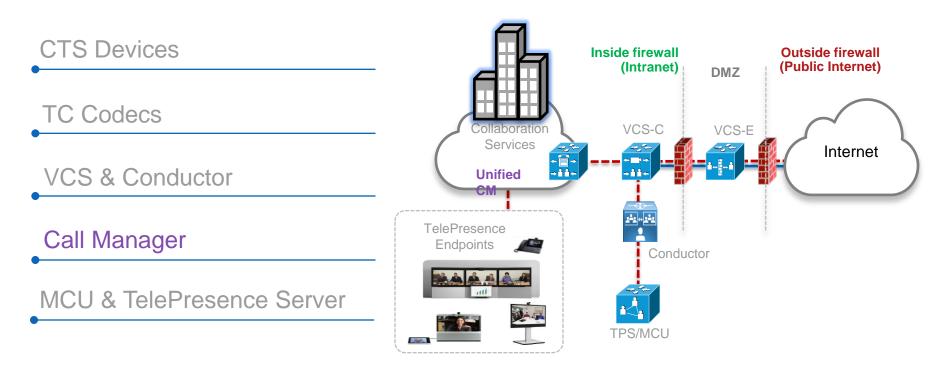
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VCS & Conductor: Diagnostics Log

- The diagnostic file contains
  - SIP & H.323 packet logs
  - Detailed debug level data to troubleshoot signalling & media issue
  - Traces for network transactions
- Log collection process
  - Set the log level to "DEBUG"
  - Start New logs
  - Recreate the issue
  - Stop logging and Download log
  - Capture the same from all cluster peer(s)

Logging status	
Started logging at	Friday 15th of November 2013 12:41:10 AM
Stopped logging at	Friday 15th of November 2013 12:42:33 AM
Marker	
	Add marker
Network log level	DEBUG 🗧
Interworking log level	DEBUG 🛟 👔
B2BUA calls log level	DEBUG ‡





#### Call Manager: Trace Filter Settings

Status:	
Ready	
Select Server, Service Group and Service	
Server* 10.106.93.71 ‡ Go	
Service Group* CM Services \$	Go
Service* Cisco CallManager (Active)	÷ Go
Apply to All Nodes	
☑ Trace On	
Trace Filter Settings	
Debug Trace Level Detailed \$	
Senable H245 Message Trace	Senable CDR Trace
Senable DT-24+/DE-30+ Trace	Enable Analog Trunk Trace
Enable PRI Trace	Enable All Phone Device Trace
Enable ISDN Translation Trace	Enable MTP Trace
Enable H225 & Gatekeeper Trace	Enable All GateWay Trace
Enable Miscellaneous Trace	Enable Forward & Miscellaneous Trace
Enable Conference Bridge Trace	Enable MGCP Trace
Enable Music On Hold Trace	Enable Media Resource Manager Trace
Enable CM Real-Time Information Server Trace	e 🗹 Enable SIP Call Processing Trace
Enable SIP Stack Trace	Enable SCCP Keep Alive Trace
Enable Annunciator Trace	Enable SpeedDial Trace
Enable SoftKey Trace	Enable SIP Keep Alive (REGISTER Refresh) Trace
Enable Route or Hunt List Trace	

- Trace Filter Settings
  - Enable SIP Stack Trace
  - Enable CDR Trace

Cisco Public

- Enable SIP Call Processing Trace
- Enable SIP Keep Alive Trace
- Enable All Phone Device Trace



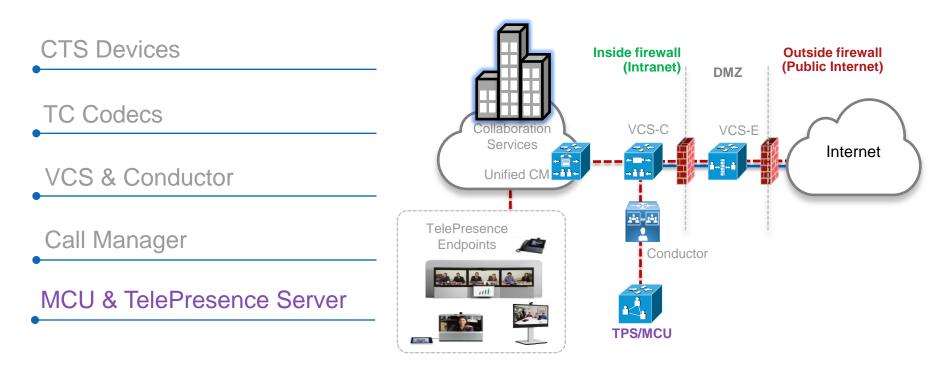
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## Signalling / Media Issues – Troubleshooting Tools Call Manager: Log Capture

		anholtccm9.panholt.com)			
e <u>S</u> ystem <u>C</u> allManager <u>A</u> nah					
Real Time Monitoring To	OO For Cisco Unified Communica	ns Selutions			
System	Trace & Log Central				
Istem Summary System Summary Prover Process Process CPU and Memory Process Critical Services Performance Performance Performance Log Viewer Pols	Trace & Log Central     Contect Files     Contect Files     Contect Files     Contect Files     Contect Files     Contect Files     Contect Contect Contect     Contect Contect Contect     Contect Contect Contect     Contect Contect Contect     Audit Logs	Collect Files	ions		
Alert Central			🗌 Select all Se	vices on all Servers	
률 Trace & Log Central		Name		All Servers	panholtccm9.panholt.com
Job Status		Cisco AXL Web Service			
		Cisco Bulk Provisioning Service	9		
🚚 SysLog Viewer		Cisco CAR Scheduler			
J VLT		Cisco CAR Web Service			
	ŝ	Cisco CDR Agent			
		Cisco CDR Repository Manage	Ir		
		Cisco CDR files on CM server			
		Cisco CDR files on Publisher P	Processed		
		Cisco CTIManager			
		Cisco CTL Provider			
	8	Cisco CallManager		2	2
		Cisco Call Manager Cisco IP Ph			
		Cisco CallManager SNMP Servi			
		Cisco Certificate Authority Proxy	Function		
		Cisco Change Credential Appli	cation		
		Cisco DHCP Monitor Service			
		Cisco Dialed Number Analyzer			
		Cisco Extended Functions			
	8	Cisco Extended Functions Rep	ort		
		Cisco Extension Mobility			
	0	Cisco Extension Mobility Applica	ation		
	8	Cisco IP Manager Assistant			
	8	Cisco IP Voice Media Streaming	a App	Ē	
	8	Cisco Intercluster Lookup Servi			
	8	Cisco License Manager		Ē	
	8	Cisco Location Bandwidth Mana	ner	- H	- i
		Cisco Location Bandwidth Man	agei	Ē	

- Download logs using RTMT
  - Select "Trace & Log Central"
  - Select "Collect Files"
  - Select "All Servers" under the "Cisco CallManager" UCM Service.
  - Proceed to download logs

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#### Signalling / Media Issues – Troubleshooting Tools MCU & TelePresence Server

Tools	Signalling issue	Media issue
Conference Status	✓	✓
Event log	✓	$\checkmark$
Syslog	✓	$\checkmark$
Protocol log	~	✓
CDR log	✓	✓
Network packet Capture		$\checkmark$



#### Signalling / Media Issues – Troubleshooting Tools MCU & TelePresence Server: Protocol Log

Ho	ome > Logs > H.323/S	SIP log								
	Event log		Event captu	re filter	Event display filter	Syslog	H.323/SIP log			MCU
	Current status Enabled									
					Messages logged 31		1			
						Enable H323/SIP logging	Disable H323/SIP logging			
			Protocols	log				You a	e here: • Logs • Protoc	cols log
	31 messages	logged	Status							
			Current status			Enabled				
	Download as XML	Clear log	Messages log			28				
		Time	Protocol filters	-						
	116	03:28:42.598	Protocol filters	5			H.323 🗹 SIP 🗹 XCCP			
	117	03:28:42.603	1			Enable protocols	logging Disable protocols logging			
	<u>118</u>	03:28:42.603								
	<u>119</u>	03:28:42.607	28 messag	ies loaaed						
	<u>120</u>	03:28:43.479		XML Clear log						
	121	03:28:43.481	#	Time	Handle	Source	Destination	Protocol		Description
	<u>122</u> 123	03:28:47.421 03:28:47.423	1	05:22:02.743	0000000	10.106.93.70:25030	10.104.214.212:5060	SIP	RX	OPTIONS
	123	03:28:49.327	2	05:22:02.744	0000000	10.104.214.212:5060	10.106.93.70:25030	SIP	ТХ	200_OK
	461	001201401027	3	05:22:10.304	00000000	10.106.93.69:5060	10.104.214.212:54506	SIP		INVITE
			4	05:22:10.306	C0020000	10.104.214.212:54506	10.106.93.69:5060	SIP	тх	420 Required Options Not Implemented
			5	05:22:10.309	0000000	10.106.93.69:5060	10.104.214.212:54506	SIP	RX	ACK
			6	05:22:10.409	0000000	10.106.93.69:5060	10.104.214.212:54506	SIP	RX	INVITE
	ТС		7	05:22:10.410	C0020001	10.104.214.212:54506	10.106.93.69:5060	SIP	ТХ	100_Trying
	TS		8	05:22:10.415	C0020001	10.104.214.212:54506	10.106.93.69:5060	SIP	ТХ	180_Ringing
			9	05:22:10.520	C0020001	10.104.214.212:54506	10.106.93.69:5060	SIP	ТХ	200_OK
			u							Cisco

# Packet Capture

-

C106	Edi	t View	Go	Capture	Ani	alyze .	Statistic	a Tele	phony ]	ools int	ternals <u>H</u> elp								
	٩	8	-		3 X	8	81	् 🔶	÷ 4	Ŧ 2		0, (	Q Q E	1		3 %	33		
Filt	er:									-	Expression	Clear	Apply						
No.		Time		Source				Destina	tion		Protocol L	ength	Info						
	377	21.76	6008	10.10	6.93	. 72		10.1	06.93.6	9	SIP	1238	Request	:: SU8	SCRIB	sip:	pchopr	a@cisc	:olab
	379	21.76	7331	10.10	6.93	. 69		10.10	06.93.7	2	SIP	1022	Status	: 407	Proxy	Authe	nticat	ton Re	autr
	383	21.92	2745	10.10	6.93	. 72		10.1	06.93.6	9	SIP		Request						
	384	21,92	4124	10.10	6,93	6,69		10.1	06.93.7	2	SIP		Status						
				10.10					06.93.6		SIP		Request						
-	470	77 70	0130	10.10	4 07	en.		10.11		-	CTD								
E E T	Ether Inter Frans	net I net P missi	I, Sr rator on Co	c: Vm c] Ve ntrol	stor Prot	_ad:6 n 4, tocol	7:b7 Src: 1	(00:5	0:56:ac	(10.1)	s captured ), Dst: Vm 06.93.72), ck (7001),	ware_ Dst:	ad:66:3	3 (00 5.93.6	9 (10.	106.9	3.69)	il, Ack	: 17
E I	Ether Inter Frans Sess	net I net P missi	I, Sr roto on Co itiat	c: Vm ol Ve ntrol	Prot Oto	_ad:6 n 4, tocol col	7:b7 Src: 3 , Src	(00:5 10.10 Port	0:56:ac 5.93.72 : afs3-	(10.1) (10.1) callba	), Dst: VM 06.93.72), ck (7001),	ware_ Dst:	ad:66:3	3 (00 5.93.6	9 (10.	106.9	3.69)	il, Ack	: 17
	Ether Inter Inter Sessi E Rec	net I net P missi on In uest-	I, Sr roto on Co itiat Line:	c: Vm cl Ve ntrol SUBS	Prot Oto	_ad:6 n 4, tocol col	7:b7 Src: 3 , Src	(00:5 10.10 Port	0:56:ac 5.93.72 : afs3-	(10.1)	), Dst: VM 06.93.72), ck (7001),	ware_ Dst:	ad:66:3	3 (00 5.93.6	9 (10.	106.9	3.69)	il, Ack	: 17
	Ether Inter Frans Sess Rec Nes Nes	net I missi on In uest- sage (ia: S (ia: S (ia: S (ia: S	I, Sr roto on Co itiat Line: Heade IP/2. IP/2. D: 00	of ver col ver of ve	vare, stor Prot 000 RIB 10.1 10.1 10.1	_ad:6 n 4, tocol col E s1p 106.9 137.8	7:b7 Src: 3 , Src :pcho 3.72: 1.37:	(00:5) 10.10 Port pra@c 7001; 50206	0:56:ac 5.93.72 : afs3- iscolat egress-	1:67:b7 (10.10 callba	), Dst: VM 06.93.72), ck (7001),	mare_ Dst: Dst	ad:66:3	73 (00 5.93.6 16136	9 (10. (26136 3872eb	106.9 i), Se	3.69) q: 125 d2fe38	161ba1	.0e04:
	Ether Inter Frans Sess Rec Nes Nes	net I missi on In uest- sage (ia: S (ia: S (ia: S (ia: S	I, Sr roto on Co itiat Line: Heade IP/2. IP/2. D: 00	C: Vm col Ver introl SUBS 0/TCP 0/TCP	vare, stor Prot 000 RIB 10.1 10.1 10.1	_ad:6 n 4, tocol col E s1p 106.9 137.8	7:b7 Src: 3 , Src :pcho 3.72: 1.37:	(00:5) 10.10 Port pra@c 7001; 50206	0:56:ac 5.93.72 : afs3- iscolat egress-	1:67:b7 (10.10 callba	), Dst: VM D6.93.72), ck (7001), IP/2.0 raversalzo	mare_ Dst: Dst	ad:66:3 10.100 Port: 2 anch=20 88b9ce80	73 (00 5.93.6 16136	9 (10. (26136 3872eb	106.9 i), Se	3.69) q: 125 d2fe38	161ba1	.0e04:
	Ether Inter Inans Sess Rec Nes Nes Nes Nes	net I net P missi on In uest- sage /ia: S /ia: S :all-I :Seq:	I, Sr roto on Co itiat Line: Heade IP/2. IP/2. D: 00	of ver col ver of ve	vare, stor Prot 000 RIB 10.1 10.1 10.1	_ad:6 n 4, tocol col E sip 106.9 137.8 1197f	7:b7 Src: 3 , Src :pcho 3.72: 1.37:	(00:5) 10.10 Port pra@c 7001; 50206	0:56:ac 5.93.72 : afs3- iscolat egress-	1:67:b7 (10.10 -callba 0.com 5 -zone-tr =z9hG4	), Dst: VM D6.93.72), ck (7001), IP/2.0 raversalzo	ware_ Dst: Dst Dst bne;br Sdc06	ad:66:3 10.100 Port: 2 Sanch=25	73 (00 5.93.6 16136 26136 26136	9 (10. (26136 3872eb	106.9 i), Se	3.69) q: 125 d2fe38	161ba1	.0e04:

#### Signalling / Media Issues – Troubleshooting Tools Packet Capture

- Capture on
  - Media issue
  - Signalling issues, when logs are not sufficient
  - Other network related issues
- Before starting the capture
  - Analyse the problem
  - Decide on the packet capturing nodes
- Capture from
  - Device(s) involved in the signalling / media flow
  - VCS on H.323-SIP interworking call
  - Potential suspect for the network related issues

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#### Signalling / Media Issues – Troubleshooting Tools Packet Capture

- Don't forget to
  - Disable TLS for the signalling
  - Disable encryption for the media
- Capture using
  - Port spanning
  - Built-in tool (tcpdump) available in the product
- Capture while
  - The problem is recreated



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#### System Errors - Evidence

## **System Errors - Evidence**

Troubleshooting Tools

Device	Tools	Q/E	
	Touch Panel	1/3	
CTS	Web UI	2/2	Q=Quality of data
	CLI	3/1	
	Touch: System Info	1/3	E=Ease of
TC Codecs	Web: Diagnostics -> Troubleshooting	2/2	collection/reading
	API: xStatus	3/1	
VCS / Conductor	Alarms	2/1	1=OK
VCS/Conductor	Event logs	3/2	2=Better
	Status	1/3	3=Best
TPS / MCU	Event logs	2/2	

#### **System Errors – Troubleshooting Tools**

#### **CTS** Devices

TC Codecs

VCS & Conductor

MCU & TelePresence Server



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#### System Errors – Troubleshooting Tools CTS Devices

- Touch Panel
  - System & peripheral status
- Web UI
  - System Status
  - System Information & Status Details
  - Sysop logs
  - Hardware troubleshooting
- Diagnostics commands
  - diag
  - show
  - utils



CTS Devices: Sysop logs

#### <u>Troubleshooting</u> > Log Files

Sysop Log Files SIP Messages											
2013-12-13 06:43:53:	ERROR IP Phone status is Not Ready( Check Device).										
2013-12-13 06:44:20:	ERROR Download unsuccessful: File CTLFile.tlv not found on host 10.106.93.71										
2013-12-13 06:44:20:	WARN No CTL found										
2013-12-13 06:44:22:	ERROR Download unsuccessful: File cts-ccp-servers.txt not found on host 10.106.93.71										
2013-12-13 06:44:52:	ERROR Center Camera status is Not Ready( Check Device).										
2013-12-13 06:45:04:	ERROR IP Phone status is Not Ready( Check Device).										
2013-12-13 06:45:09:	INFO DisplayTemperature State Change To : NOTFUNCTIONING[ 0]										
2013-12-13 06:45:27:	ERROR Audio Extension Board status is Not Ready( Software Issue).										

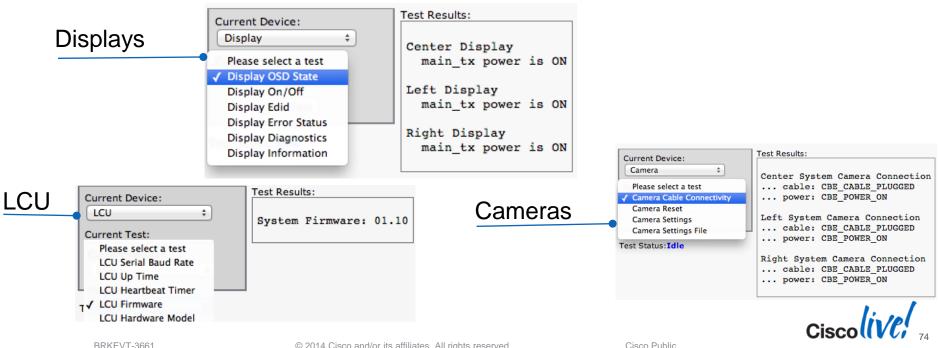
- Detailed error logs
- Recommendations given

#### Event trace

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CTS Devices: Hardware Troubleshooting



**CTS Devices: Diagnostics Commands** 

#### Diagnostics commands

admin: diag audio\* admin: diag camera\* admin: diag display\* admin: diag system\* admin diag ui\_device\*



#### Show commands

admin: show status admin: show hardware\* <more...>



#### • Utils commands

admin: utils ntp\* admin utils network\* admin utils system\*



Diagnostics commands provides recommendations for corrective action for issues detected



#### **CTS Devices: Diagnostic Commands**

Aug1504:41:52LCULAMP2State"Unknown"Failed *Aug1504:41:52DVICableStatus"Unplugged"Failed *Aug1504:41:52VGADeviceCableStatus"Unplugged"Failed *Aug1504:41:52SystemVideoAlive/LoadTestsPassedAug1504:41:52SystemVideoGPIOTestsPassedAug1504:41:52SystemVideoPCITestsPassed	Aug 1	5 04:41:52	LCU LAMP1 State "Unknown"	Failed *
Aug 15 04:41:52 VGA Device Cable Status "Unplugged"Failed *Aug 15 04:41:52 System Video Alive/Load TestsPassedAug 15 04:41:52 System Video GPIO TestsPassedAug 15 04:41:52 System Video PCI TestsPassed	Aug 1	5 04:41:52	LCU LAMP2 State "Unknown"	Failed *
Aug 15 04:41:52 System Video Alive/Load TestsPassedAug 15 04:41:52 System Video GPIO TestsPassedAug 15 04:41:52 System Video PCI TestsPassed	Aug 1	5 04:41:52	DVI Cable Status "Unplugged"	Failed *
Aug 15 04:41:52 System Video GPIO TestsPassedAug 15 04:41:52 System Video PCI TestsPassed				Failed *
Aug 15 04:41:52 System Video PCI Tests Passed	Aug 1	5 04:41:52	System Video Alive/Load Tests	Passed
8	Aug 1	5 04:41:52	System Video GPIO Tests	Passed
	Aug 1	5 04:41:52	System Video PCI Tests	Passed
Aug 15 04:41:52 Total 97 Tests: 93 Passed, 4 Failed and 0 Warning	Aug 1	5 04:41:52	Total 97 Tests: 93 Passed, 4 Failed and 0 Warning	
Aug 15 04:41:52 ================ Summary ====================================	Aug 1	5 04:41:52	======================================	
Aug 15 04:41:52 System Peripheral Test Failed	Aug 1	5 04:41:52	System Peripheral Test	Failed
Aug 15 04:41:52 Light Control Unit (LCU) Test Passed	Aug 1	5 04:41:52	Light Control Unit (LCU) Test	Passed
Aug 15 04:41:52 System Network Test Passed	Aug 1	5 04:41:52	System Network Test	Passed
Aug 15 04:41:52 System Video Test Passed	Aug 1	5 04:41:52	System Video Test	Passed
Aug 15 04:41:52 System Video Alive/Load Tests Passed	Aug 1	5 04:41:52	System Video Alive/Load Tests	Passed
Aug 15 04:41:52 System Video GPIO Tests Passed	Aug 1	5 04:41:52	System Video GPIO Tests	Passed
Aug 15 04:41:52 System Video PCI Tests Passed	Aug 1	5 04:41:52	System Video PCI Tests	Passed
Aug 15 04:41:52 System Audio Test Passed	Aug 1	5 04:41:52	System Audio Test	Passed
Aug 15 04:41:52 System Hardware Component Tests Failed	Aug 1	5 04:41:52	System Hardware Component Tests	Failed

Aug 15 04:41:52 Recommended Action: Aug 15 04:41:52 Auxiliary Document Lamp failure. Please check cable connections from Codec to Auxiliary LAMP. Aug 15 04:41:52 DVI Cable failure. Please check DVI cable connections. Aug 15 04:41:52 VGA Cable failure. Please check VGA cable connections. Please reboot or power-cycle Codec system. If the problem persists, please contact your local Admin or Cisco Systems.

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**CTS** Devices

**TC Codecs** 

VCS & Conductor

MCU & TelePresence Server



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#### System Errors – Troubleshooting Tools TC Codecs

- Touch Panel
  - System Information
- Web UI interface
  - System Information
  - Troubleshooting page
- Command Line Interface
  - xStatus



TC Codecs: WebUI System Information

System Informa	tion	There are possible issues with your system. See Diagnostics - Troubleshooting for more info.						
General		H323						
Product:	Cisco EX90	Status:	H323 is disabled					
Serial number:	A1AR16F00212							
Software version:	TC6.3.0 Alpha8	SIP						
Installed options:	DualDisplay							
	MultiSite	Status:	Registered					
	PremiumResolution	Proxy:	64.104.237.68					
Valid release key:	Yes	URI:	abegeorg.office.ex90@cisco.com					
System name:	Abey.K.George.Office							
IPv4 address:	64.104.205.82							
IPv6 address:								
MAC address:	D8:67:D9:73:08:5B							
Temperature:	65.0°C / 149.0°F							

#### Alert & Link to Troubleshooting page



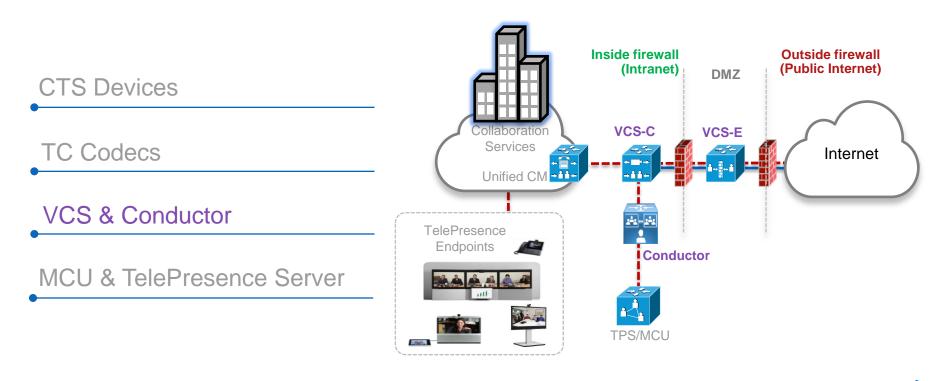
#### TC Codecs: Troubleshooting Page

Home	Call Control	Configuration	Diagnostics	Mainte	nance	🛔 adm		
Froubles	hooting					Deactivate standby	Re-run diagnostics	
)iagnostics tl	nat helps to identify is	sues that may cause the	e TelePresence syster	m to underperfo	m or fail to work as	s expected.		
					SIP Configuration			
	IP Profile Registration ation failed: Failed to	n send. Verify SIP configu	ration and connectivit	y to SIP proxy.	SIP			^
					ANAT	On	• Save	
WARNING	: Default Call Protoco	1			AuthenticateTransferror	Off	• Save	
		SIP, but system is not r	egistered on that prot	ocol. The syste	ListenPort	On	✓ Save	
		at the protocol is enable			PreferredIPMedia	IPv4	Save	
					PreferredIPSignaling	IPv4	Save	
					OCSP			^
OK: System					DefaultResponder		Save (0 to 255 characters)	
The device	has a system name	set.			Mode	Off	Save	
					Profile 1			^
1	ink to Cor	nfiguration	8 Statuc c	ention	DefaultTransport	TCP	Save	
L		ingulation	$\alpha$ Status s		DisplayName		Save (0 to 255 characters)	

TC Codecs: Log Capture

	# Home	Scall Control	Configuration	Diagnostics	Maintenance			👗 admin	
				Troubleshooting					
	Log File	S		Call History					
		log archive	vice is useful for diagnos	Log Files	Extended logging				
Download log achieve			d historical logs. Call his	0.1	To help diagnose network issues and problems during call setup, the system can enter a timed extended logging mode. This mode is resource intensive, and populates the existing logs with more detailed information.				
	Download	ogs archive			Start extended loggin	ng for 5 minutes	-		
					Extended logging is	off.			
Current logs	Current log	IS							
	File Name	*					Size	Last Modified	
	arm0-syste	n.log					11 KB	2014-01-14 01:48	
	arm1-syste	n.log					11 KB	2014-01-14 01:48	
	arm2-system	n.log					11 KB	2014-01-14 01:48	
	Historical I	ogs							
Historical logs	File Name	~					Size	Last Modified	
<b>—</b>	log.0.tar.gz						294 KB	2014-01-14 01:46	
	log.1.tar.gz						660 KB	2013-11-28 03:49	







VCS & Conductor

- On Device
  - Device status LED
  - Device LCD
- Web UI
  - Alarms
  - Event Log
  - Configuration Log
  - Network Log
  - Hardware Status

#### Command Line Interface



Cisco (ive: 33



#### VCS & Conductor: Alarms

								This system has 5 alarms				
Statu	is System Conference con	figuration Users Maintenan	ce						Cogout Cogout			
Ala	You are here: Status > Alarms											
	Alarm	Description	State	Severity	Peer	Action	First raised	Last raised	ID			
	One or more conference bridges unusable	One or more conference bridges have a status of 'Unusable'	Raised	Warning		Check that the address, username and password are correct and that the conference bridge is reachable	2013-11-05 15:17:47	2013-11-21 14:29:15	<u>50006</u>			
	Security alert	Firewall rules are not synchronized with network interfaces	Raised	Warning		Restart the system; if the problem persists, contact your Cisco representative	2013-11-05 15:12:10	2013-11-05 15:12:10	<u>40100</u>			
	TelePresence MCU pool resource warning	TelePresence MCU pool port usage is approaching or has reached full capacity	Raised	Warning	(	Add an additional TelePresence MCU to the pool	2013-11-19 13:47:57	2013-11-19 13:47:57	50068			
	TelePresence MCU resource warning	TelePresence MCU port usage is approaching or has reached full capacity	Raised	Warning		Add an additional TelePresence MCU to the pool	2013-11-19 13:47:57	2013-11-19 13:47:57	50017			
	Unreferenced conference template	A conference template is not referenced by either an alias or a Unified CM location.	Raised	Warning		Ensure that all conference templates are referenced by either an alias or a Unified CM location	2013-11-05 15:12:13	2013-11-05 15:12:13	50100			
Ack	nowledge Select all Unselect all											

- Alarm indicator
- Recommended actions, link to configuration & actions

#### Link to related event logs

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#### VCS & Conductor: Event Logs

Status System Con	onference configuration	Users	Maintenance										? Help	e Logout
Event Log											`	You are here:	Status • Log	s • Event Log
Filter														
Contains all of the words:			$\langle$	ld="50100"	>		i more options	<u>s</u>						
Filter Reset														
Configure the log settings   Download results	)													Page 1 of 1
Results		for the short of				0.44-4.00-500-		$\frown$	 	 				
2014-01-13T05:23:12+05:30 2014-01-08T13:30:43+05:30	or a Unified CM location	n." UTCTime= fig_checker: Lo	="2014-01-12 23:53:12 evel=" <u>INFO</u> " Event=" <u>A</u>	larm Raised" Id="50100"										

- Display filter options
- Link to quick filter
- Simple and detailed log with timestamp
- Download option

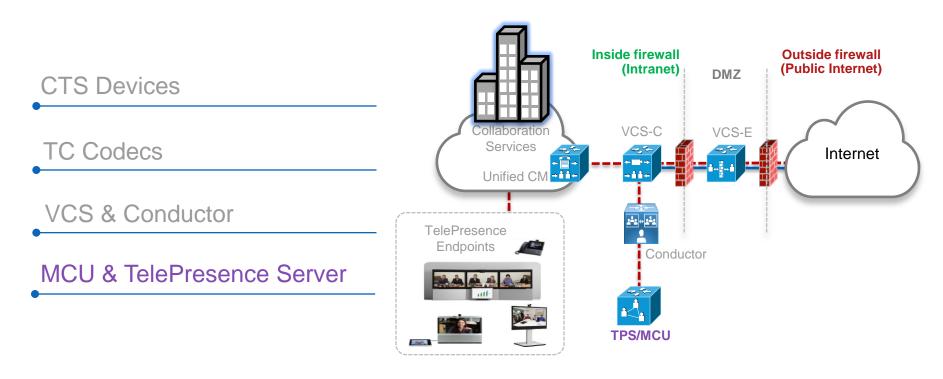


VCS & Conductor: System Snapshot

- Status snapshot
  - Configuration and status
- Logs snapshot
  - Last two instances of logs
- Full snapshot
  - All logs
  - Sysinit logs, coredumps, clusterdb, kernel logs
  - Disk usage, i-node usage, alarms
  - Many more information to diagnose the system errors
- System Snapshots are local to cluster peer

S	Status	System	VCS configuration	Applications	Maintenance	? Help Ge Logout
S	System	snapsho	ot			You are here: Maintenance > Diagnostics > System snapshot
	System	information				
	Software	version				X7.2.2
	Hardwar	e serial numbe	er			03B1DB47
				_		
	System	snapshot				
	WARNIN	IG				The system snapshot process may take several minutes to complete. You may experience a drop in system performance during this time.
	Create sta	atus snapshot	Create logs snapshot	Create full sn	apshot	
	Snapshot	status		_		
			vailable for download.			







**TelePresence Server & MCU** 

- Device status LED(s)
- System Status
- Health Status
- Event log
- Syslog
- Console logs
- Packet capture



#### TelePresence Server & MCU: System Status

Home Status Network Settings Streaming Conferences Users Endpoints ( Home > Status > General	MCU		
General Conferences Health			
System status			
Model <b>Codian MCU 4501</b> Serial number <b>SM002EE3</b> Software version <b>4.1(1.59)</b>	CISCO Cisco TelePresence Server		
Build 6.16(1.59) Uptime 9 days, 0 hours, 20 minutes	Status Network Configuration Conferences End	dpoints Users Logs User: admin 🎯 (	?
Host name <b>labmcu4501</b> IP address <b>10.104.214.215</b>	Status	You are here: • Status • Sta	atu
CPU load 32.5%	Video ports	0 / 24	
Media processing load 0% (video-0%, audio-0%)	Audio ports	0 / 10	
	Content ports	0 / 24	
System time	System log		=
Current time 06:54, January 9 2014			
New time		03:12:25.00 08/01/14 - Unknown	
		03:11:10.00 08/01/14 - Unknown	
System log 06:34:08.00 31/12/13 - User requested shutdown	Diagnostic information		-
06:29:36.00 31/12/13 - User requested upgrade 09:33:12.00 29/12/13 - Unknown	Diagnostic information	Download file	
0515511100 15/12/15 - Olikilowi			
Diagnostic information	Network capture file	Download file [Delete network capture]	
Download diagnostic information Download conference information	System logs	Download file	
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Status

TS

TelePresence Server & MCU: Event log

Home > Logs >	Event log									
Even	it log Ev	ent capture filter	Event di	isplay filter		Syslog		H.323	/SIP log Audit log	MCU
Download	as text Clear log									
# 🔽	Time	Module	Soverity	-	Maccana					
	November 28 2013	3 🔻	Status	Network C	Configuration	Conferences	Endpoints	Users	Logs	User: admin 🥪 🭞
44089	05:15:38.775	H.323	Event	loa						You are here: Logs + Event log
44090	05:15:41.706	API	1946577	09:39:33.	506 AF	P	Info		call 56: now joined conference "7805789"	
44091	05:15:56.031	FEEDBACK_NOTIFIERS	1946578	09:39:42.0	657 SI	P	Info		Incoming call	
44092	05:16:07.103	API	1946579	09:39:42.0			Info		call 57: new incoming SIP call from "abegeo	vra office ex90"
44093	05:16:08.747	H.323								ig.once.exso
44094	05:16:08.777	H.323	1946580	09:39:43.			Info		call 57: now joined conference "7805789"	
44095	05:16:36.899	SIP	1946581	09:39:47.			Warning		unable to handle XML RPC request system.	info from 10.104.215.29:34110 - invalid user / password
44096	05:16:36.899	SIP	1946582	09:39:51.	702 SI	P	Info		Incoming call	
44097	05:16:36.899	SIP	1946583	09:39:51.	704 AF	P	Info		call 58: new incoming SIP call from "Tom Ha	anks"
44098	05:16:36.900	SIP	1946584	09:39:53.	621 AF	P	Info		call 58: now joined conference "7805789"	
44099	05:16:38.750	H.323	1946585	09:40:49.	019 N	ETWORK	Error		Connect failed with errno 60	
44100	05:16:38.779	H.323	1946586	09:40:49.		EDBACK NOTIFIE			Notifier (index: 1) unable to connect to 10.76	5 74 177:80 for sending event potification
44101	05:16:45.529	API	1946587	09:41:23.		_	Warning		, ,	info from 10.104.215.29:34120 - invalid user / password
44102	05:16:56.032	FEEDBACK_NOTIFIERS								
44103	05:16:57.982	API	1946588	09:42:59.			Warning			info from 10.104.215.29:34134 - invalid user / password
44104	05:17:02.148	API	1946589	09:43:04.		ETWORK	Error		Connect failed with errno 60	
44105	05:17:05.072	API	1946590	09:43:04.	522 FE	EDBACK_NOTIFIE	RS Warning		Notifier (index: 1) unable to connect to 10.76	6.74.177:80 for sending event notification
			1946591	09:44:35.	993 AF	7	Warning		unable to handle XML RPC request system.	info from 10.104.215.29:34145 - invalid user / password
		TS	1946592	09:45:20.	023 NI	ETWORK	Error		Connect failed with errno 60	
		13	1946593	09:45:20.0	024 FE	EDBACK_NOTIFIE	RS Warning		Notifier (index: 1) unable to connect to 10.76	6.74.177:80 for sending event notification
			Download	d as text Cle	ear log	_				



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## **Recovery Tools**

## **Recovery Tools**

- General Tools
  - Revert to factory default configuration
  - Swap software image
  - Configuration backup and restore
- CTS Hardware troubleshooting
  - Displays
  - Cameras
  - Speakers
  - Microphones



## **Mitigation of Network Impairment by Codecs**

#### C/EX Series and Movi utilise ClearPath

- Dynamic bitrate adjustment
- Long Term Reference Frames (LTRF)
- Video aware Forward Error Correction (FEC)
- CTS/CTMS utilise Smart Media
  - Long Term Reference Picture (LTRP)
  - Rate adaption
  - Call Drop
  - Notification
- ClearPath Whitepaper
  - <u>http://www.cisco.com/en/US/docs/telepresence/endpoint/software/clearpath/clearpath\_whitepaper.pdf</u>



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## Q & A

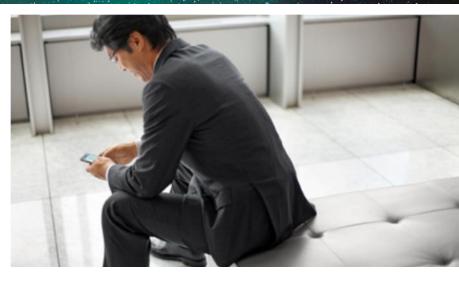
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# Appendix

#### Reference

- Troubleshooting Guide TC 6.0
  - <u>http://www.cisco.com/en/US/docs/telepresence/endpoint/codec-c-</u> series/tc6/troubleshooting\_guide/tc\_troubleshooting\_guide\_tc60.pdf
- Troubleshooting Procedures for Cisco VCS
  - <u>http://www.cisco.com/en/US/docs/telepresence/infrastructure/vcs/troubleshooting/Cisco-VCS-Troubleshooting-Procedures.pdf</u>
- Cisco TelePresence Server Troubleshooting Guides
  - <u>http://www.cisco.com/en/US/partner/products/ps11339/prod\_troubleshooting\_guides\_list.</u>
     <u>html</u>
- Cisco TelePresence Infrastructure & Endpoint Technical Handbook
  - <u>https://supportforums.cisco.com/docs/DOC-15644</u>
  - <u>https://supportforums.cisco.com/docs/DOC-15643</u>



### Signalling / Media Issues – Troubleshooting Tools CTS Devices: WebUI Call Statistics

onitoring > Call Statistics		Detailed real time call stats
Real Time Call Statistics	•	
Call Connected	Yes	
Registered to Cisco Unified Communications Manager	Yes	
Local Number	6110082	
Audio/Video Call		call start time
Call Start Time	Tue Jan 14 03:48:06 2014	
Call Duration	278 seconds	
Call Type	Incoming	Remote number
Remote Number	sdutt	
Call State	Answered	
Security Level	Non-Secure	Bitrate and resolution
Actual Bit Rate	384000 bps, 640x480	
Negotiated Bit Rate	448000 bps	
Historical Call Statistics (Not including current call, if any)		
Call Statistics Clear Time	Fri Jul 20 06:33:09 2012	
Number of Calls Since System Setup	256	
Time in Calls Since System Setup (seconds)	394894	
Number of Calls Since Last Reboot	0	
Time in Calls Since Last Reboot (seconds)	0	
Registered to Cisco Unified Communications Manager	Yes	
Configured Bit Rate	Highest Detail, Best Motion: 1080p	Ci

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#### Signalling / Media Issues – Troubleshooting Tools CTS Devices: Sysop Log

Sysop Log Log Files SIP Message					
	5				
Call Statistics					
Registered to Cisco Unified		Manager : Yes			
Call Connected	Yes				
Audio					
	134.204:24898	Dst : 64.103.2	28.117:16384		
Jitter Period : 10		-			
Latency Avg : 0		Period : 0			
Currently Active : No					
Statistics	Left	Center	Right	Legacy	Presentation Audio Add-in
Tx Media Type	AAC-LD	AAC-LD	AAC-LD	AAC-LD	AAC-LD
Tx Bytes	0	93687	0	0	0
Tx Bit Rate Per Call	0	62	0	0	0
Tx Bit Rate Per Period	0	64	0	0	0
Tx Packets	0	1171	0	0	0
Rx Media Type	AAC-LD	AAC-LD	AAC-LD	G.711U	AAC-LD
Rx Bytes	0	82862	0	0	0
Rx Bit Rate Per Call	0	74	0	0	0
Rx Bit Rate Per Period	0	72	0	0	0
Rx Packets	0	518	0	0	0
Rx Packets Lost	0	0	0	0	0
Pkts % Call	0.0000	0.0000	0.0000	0.0000	0.0000
Pkts % Period	0.0000	0.0000	0.0000	0.000	0.000
Max Pkts % Period	0.0000	0.0000	0.0000	0.0000	0.0000
Rx Pkts Dup'd	0	0	0	0	0
Rx Pkts Late	0	0	0	0	0
Rx Pkts AuthFail	0	0	0	0	0
Rx Avg Jitter/Call	0	2	0	0	0
Rx Avg Jitter/Period	0	2	0	0	0
Rx Max Jitter/Call	0	2	0	0	0
Rx Max Jitter/Period	0	2	0	0	0
Video					
IP Addr Src : 10.104.1	34.204:31978	Dat : 64.103.2	28.117:16386		
Jitter Period : 10					
Latency Avg : 0		Period : 0			

- Call statistics and history
- Packet loss, jitter
- Address, port



#### Signalling / Media Issues – Troubleshooting Tools TC Codecs: xStatus API

- xStatus H323
- xStatus SIP
- xStatus Call
- xStatus Conference
- xStatus Media
- xStatus MediaChannels



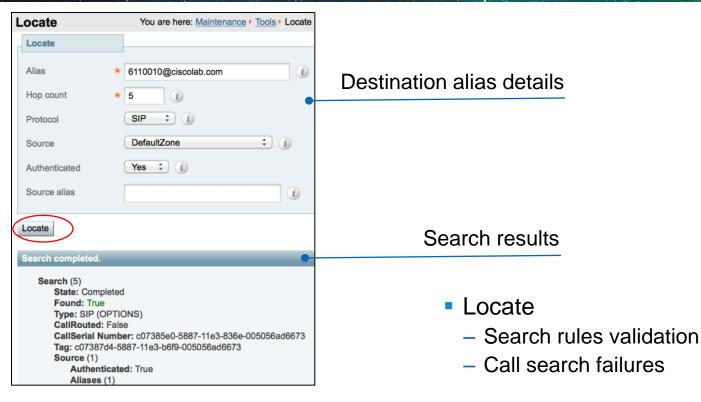
# Signalling / Media Issues – Troubleshooting Tools

#### TC Codecs: Log Capture

A Home	Call Control	Configuration	Diagnostics	Maintenance	🛔 admin					
				Software Upgrade						
System I	Recovery			Backup and Restore						
	•	n experiencing a severe			Reset can be performed. These recovery methods					
-	e attempted by a syste	em administrator or in co sort.	ntact with Cisco techn	Restart	d recovery method is to perform a Software Recovery					
The log files n	A factory reset deletes all logs and system configurations. Please consider taking a backup of logs and the system's configuration. The log files may be useful to help Cisco technical support identify the cause of the issues you may be experiencing. The configuration backup may be used to									
restore the de	The log files may be useful to help Cisco technical support identify the cause of the issues you may be experiencing. The configuration backup may be used to restore the device configurations back to the current settings.									
	Download Logs       Download Configuration Backup         Download log achieve       Download configuration backup									

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## Signalling / Media Issues – Troubleshooting Tools VCS & Conductor: Utilities - Locate





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#### Signalling / Media Issues – Troubleshooting Tools VCS & Conductor: API & Logs

- VCS xStatus CLI options
  - xStatus Call
  - xStatus H323
  - xStatus SIP
  - xStatus Registrations
- VCS and Conductor logs
  - Event Logs
  - Configuration Logs
  - Network Logs
  - Diagnostics Logs

#### Conductor Conference status

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## Signalling / Media Issues – Troubleshooting Tools TMS: CDR Collection

tisto TelePresence Management S	sco TelePresence Management Suite								P
🛐 Portal 🕘 Booking 🏼 nonitoring	A S	ystems T Phone Books	Reporting JA	dmir	nistrative Tools			) · · ·	9
Portal			Call Detail Record	Þ	All Endpoints and MCUs			You are here: • Portal • P	ortal
			Billing Code Statistics		Endpoint				
Systems		Systems sorted by ticket	Conferences	Þ	MCU	and reservations			
🚊 Endpoints	10	Systems with uppermos	System	۲	Content Server		0		
👧 MCUs	1	🔺 Systems with uppermos		•	Gateway		0		
A Gatekeepers	1	Systems with uppermos	Return On Investment	Þ	Gatekeeper and VCS		0		
🞫 Gateways	0	A Systems with uppermos	CO2 Savings		2 Request	si in the second se	0		
Rooms	0	Open Ticketing Service	Reporting Templates		Open Confe	rence Control Center			
Border Controllers	0			_			_		
Recording and streaming devices	0	System Usage							
a Equipment	0						_		
💁 Other	0	3.5				Booked Endpoint			
Total number of systems	12	3 +				Endpoints in Call			
Total number of licences	135	2.5							
Number of free licences	123	1.5							
		0.5							
		3/20/2012	3/30/2012		4/9/2012	4/19/2012			
Open System Navigator		Show Conference Statistics	1						



## Signalling / Media Issues – Troubleshooting Tools TMS: CDR Collection

#### Endpoint and MCU

cisco TelePre	sence Manag	ement Suite										Searc	b
				dat									
🎼 Portal 🕑 E	Booking 🐑 M	onitoring Syst	tems T Phone Books	ALL Rep	orting JA	dministrative To	ools						3 9 8
All Endpoints	and MCUs									You are I	nere: • Reporting •	Call Detail Record • A	Endpoints and MC
Query													
Start Date: 3/5/20 End Date: 4/4/20			Time: 12:00 AM	•	System Call Pro Graph Calcula	Type: By D	all Protocols Date Range	***			Filter Sys Stove Wayne Wayne	List	emplates as Template
Chart Data Re Grid Options Number of records to t		Ref	fresh										
Start Time 😎	System Name	Network Address	Remote Site	Duration	Call Direction	Call Type	Call Protocol	Encryption Mode	Bandwidth	Cause Code	Billing Code	Specific Type	Conference Id
/4/2012 9:21:49 AM	Steve	171.69.87.3	sip:wayne@cisco.com	00:01:13	Outgoing	Video	SIP	AES128	768 kbps	-1		TANDBERG EX90	977
/4/2012 9:21:49 AM	Wayne	171.69.87.254	sip:steve@cisco.com	00:01:13	Incoming	Video	SIP	AES128	768 kbps	16		TANDBERG EX90	978
4/2012 9:18:59 AM	Steve	171.69.87.3	sip:wayne@cisco.com	00:00:06	Outgoing	Video	SIP	AES128	768 kbps	-1		TANDBERG EX90	974
4/2012 9:18:59 AM	Wayno	171.69.87.254	sip:steve@cisco.com	00:00:06	Incoming	Video	SIP	AES128	768 kbps	16		TANDBERG EX90	976
4/2012 9:17:56 AM	Steve	171.69.87.3	sip:wayne@cisco.com	00:00:04	Outgoing	Video	SIP	AES128	768 kbps	-1		TANDBERG EX90	974
4/2012 9:13:11 AM	Steve	171.69.87.3	sip.wayne@cisco.com	00:00:11	Outgoing	Video	SIP	AES128	768 kbps	-1		TANDBERG EX90	973
4/2012 9:12:49 AM	Steve	171.69.87.3	sip:wayne@cisco.com	00:00:00	Outgoing	Unknown	SIP	AES128	768 kbps	16		TANDBERG EX90	972
4/2012 9:10:57 AM	Steve	171.69.87.3	h323:wayne@cisco.com	00:00:36	Incoming	Video	H.323	AES128	768 kbps	-1		TANDBERG EX90	971
4/2012 9:09:03 AM	Steve	171.69.87.3	h323:wayne@cisco.com	00:00:03	Incoming	Video	H.323	AES128	768 kbps	-1		TANDBERG EX90	971
/4/2012 9:05:08 AM	Steve	171.69.87.3	h323:wayne@cisco.com	00:00:06	Incoming	Video	H.323	AES128	768 kbps	-1		TANDBERG EX90	970
Previous Next													
Export Excel													

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CTS Devices: Touch Panel

System Status	Peripheral Status		Ж
Call Status	Camera:	~ ~ ~	
System Status	Display:		
Peripherals >	Microphone:	× · · ·	
Report Problem	VGA / DVI:	×	
	Document Camera:		
	Projector / LCD:	~	
	,,,,	Ť	

- System Status
  - Touch & CTS IP
  - Touch & CTS MAC
  - Software version
  - DNS details
- Peripheral Status



#### CTS Devices: Log Capture

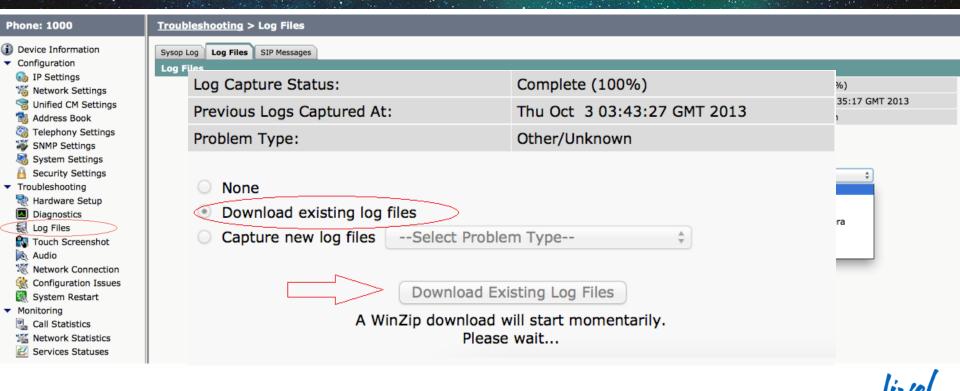
Phone: 1000	Troubleshooting > Log Files		
<ul> <li>Device Information</li> <li>Configuration</li> <li>IP Settings</li> </ul>	Sysop Log Files SIP Messages		
1 Settings		Log Capture Status:	Complete (100%)
Settings		Previous Logs Captured At:	Mon Sep 9 06:35:17 GMT 2013
🗟 Address Book		Problem Type:	Other/Unknown
Carlephony Settings		0.11	
SNMP Settings		O None	
System Settings		Download existing log files	Turn A
<ul> <li>Troubleshooting</li> </ul>		Capture new log files    Select Proble    Select Proble	
Hardware Setup Diagnostics Log Files		Capture New Log Files Audio (Speaker Video (Displays Projector, LCD, Phone	rs, Microphones)
💦 Touch Screenshot 減 Audio		Recording Other/Unknowr	
<ul> <li>Ketwork Connection</li> <li>Configuration Issues</li> <li>System Restart</li> <li>Monitoring</li> </ul>			
Call Statistics			



#### CTS Devices: Log Capture

#### Phone: 1000 Troubleshooting > Log Files Device Information Sysop Log Log Files SIP Messages Configuration Log Files 😘 IP Settinas Complete (100%) Log Capture Status: %) 1 Network Settings 35:17 GMT 2013 Settings Previous Logs Captured At: Thu Oct 3 03:43:27 GMT 2013 Address Book Telephony Settings Problem Type: Other/Unknown 👹 SNMP Settings 🔜 System Settings Security Settings $( \bullet )$ None Troubleshooting Rendware Setup Download existing log files Diagnostics era Log Files Capture new log files --Select Problem Type--Touch Screenshot 3 Audio Network Connection **Configuration Issues** Capture New Log Files System Restart Monitoring Log capture is complete. Call Statistics Please use 'Download existing log files' to retrieve logs. Ketwork Statistics Services Statuses

#### CTS Devices: Log Capture



#### CTS Devices: Log Capture

#### Phone: 1000 Troubleshooting > Log Files Device Information Sysop Log Log Files SIP Messages Configuration Log File 😘 IP Settinas Log Capture Status: Complete (100%) %) 1 Network Settings 35:17 GMT 2013 Unified CM Settings Previous Logs Captured At: Thu Oct 3 03:43:27 GMT 2013 Address Book **Telephony Settings** Prot Opening logFiles\_SEP1CDF0F76FCF0\_2013.10.3.0343.tar.gz SNMP Settings System Settings Security Settings Troubleshooting You have chosen to open: 🐭 Hardware Setup Diagnostics ra logFiles\_SEP1CDF0F76FCF0\_2013.10.3.0343.tar.gz Log Files Touch Screenshot Audio which is: gzip compressed archive (6.8 MB) Network Connection Configuration Issues from: https://10.104.134.204 📓 System Restart Monitoring Would you like to save this file? Call Statistics 🐝 Network Statistics Services Statuses Save File Cancel

#### VCS & Conductor: System Snapshot Capture

Statu	S	System	VCS configuration	Applications	Maintenance	? Help @ Logout
Sys	tem	snapsho	ot			You are here: Maintenance > Diagnostics > System snapsho
Sys	stem i	nformation				
Sof	tware	version				X7.2.2
Hai	rdware	serial numbe	er			03B1DB47
Svs	stem s	napshot				
	RNIN					The system snapshot process may take several minutes to complete. You may experience a drop in system performance during this time.
Crea	ate sta	tus snapshot	Create logs snapshot	Create full snap	oshot	
Snap	shot	status				
No s	napsh	ot currently av	vailable for download.			
						Cisco Cive 112

#### VCS & Conductor: System Snapshot Capture

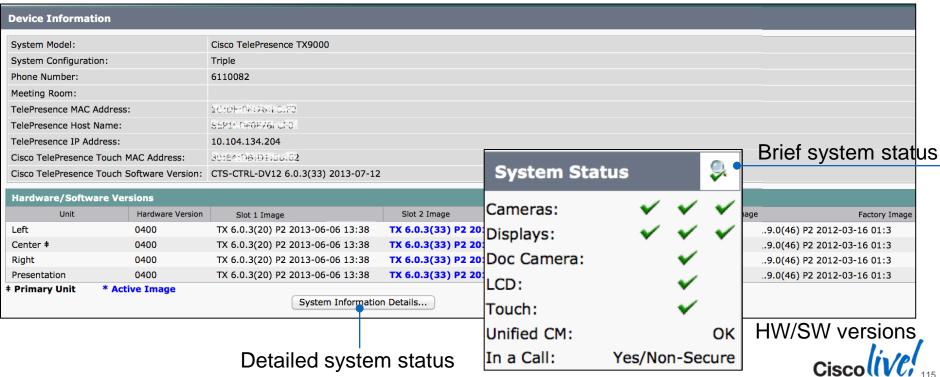
Status	System	VCS configuration	Applications	Maintenance	Help Cogout
System	snapsho	ot			You are here: Maintenance   Diagnostics  System snapsho
System	information				
Software	e version				X7.2.2
Hardwa	e serial numb	ər			03B1DB47
System	snapshot				
WARNI					The system snapshot process may take several minutes to complete. You may experience a drop in system performance during this time.
Create st	atus snapshot	Create logs snapshot	Create full snap	oshot	
Snapsho	t status				
Cre	ating snapsho	t, please wait			
					Cisco Cisco

#### VCS & Conductor: System Snapshot Capture

Sta	atus	System	VCS configuration	Applications Maintenanc	e	● ○ ○ Opening 03B1DB47_2013_11_2208_28_38_logs_sysd	? Help 🖂 Logout
-		snapsh	ot			You have chosen to open:	ics ► System snapsho
S	System	information			_	03B1DB47_2013_11_2208_28_38_logs_sysdump.tar.gz	
S	Software	version			X7.2.2	which is: gzip compressed archive (12.0 MB)	
F	lardwar	e serial numb	per		03B1DB47	from: https://10.106.93.69	
					-	What should Firefox do with this file?	
S	System	snapshot			_		
v	VARNIN	IG			The system sna		ance during this time.
					_	• Save File	
Cr	reate sta	atus snapsho	Create logs snapshot	Create full snapshot		Do this automatically for files like this from now on.	
Sr	apshot	status	_				
		d snapshot	$\rightarrow$			Cancel	
							1. 1
						Ciso	
			DDI/EV/T 2004	@ 0011.0		as All rights recorned	114

#### CTS Devices: Web UI System Status

**Device** information



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#### CTS Devices: Status Details

System Information Details Status	Details			
	Left	Center	Right	Presentation
Peripheral Status				
Cameras				
Video Cable Connection	OK	ОК	OK	
USB Cable Connection		ОК		
Telnet Connection		ОК		
Displays				
Status	OK	ОК	OK	
Microphones				
Status		ОК		
Document Camera				
Video Cable Connection				unplugged
Power Status				Unknown
Unified CM Configuration		Not Enabled		
Ethernet Connection				Cannot access Document Camera over Ethernet
LCD				
Video Cable Connection				ОК
Serial Cable Connection			Unknown	
Power Status				Unknown
Unified CM Configuration		Enabled		
Cisco TelePresence Touch				
Status	ОК			
System Status				
Unified CM		ок		
In a Call		Yes/Non-Secure		
Audio/Video Expansion Box		ок		
Light Control Unit		ок		

#### Peripheral status

#### Monitoring > Services Statuses

Service	State	Restart
System_Log	Running	
Cisco_Log	Running	
DHCP_Srvr	Running	Restart
NTP	Running	
SNMP_Srvr	Stopped	Restart
Discovery_Protocol	Running	
TouchCtrl_Srvr	Running	
MSI_Services	Stopped	
8021x	Running	
Calling_Services	Running	Restart
HTTP_Srvr	Running	
Security_Srvr	Running	
Telephone_Srvr	Running	Restart

#### System status

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BRKEVT-3661

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