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Managing Media Player Operation in Cisco Vision Director

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This module provides information about maintaining normal operation of your media players. It includes the following topics:

- Information About the System Health Report, page 205
- Best Practices for Using the System Health Report, page 207
- How to Obtain the System Health Report, page 208
- Viewing Media Player Device Status, page 210
- Replacing a Failed Media Player While an Event Script is Running, page 218
- Troubleshooting the SV-4K Media Player, page 219

Information About the System Health Report

As a best practice, you should review the daily Vision health report to monitor and maintain the media players and overall health of the Cisco Vision Director system. This report runs automatically at 08:00 daily, and you can configure the system to send it to one or more email addresses.

Figure 1 on page 206 shows a typical email notification for the Cisco Vision health report. In the email body, a summary of the report is provided, with the full report details provided in an attached .txt file.

Cisco Systems, Inc. www.cisco.com

Information About the System Health Report

igure 1	Sample Cisco Vision Health Report Email Notification
	Fri 10/6/2017 7:30 AM
	SV-email-notifier <sv-email-notifier@stadiumvision.cisco.com></sv-email-notifier@stadiumvision.cisco.com>
- E	:Cisco Vision Dynamic Signage Director Health Report as of 2017-10-06 07:30:06 AM
То	
HealthR 12 KB	eport-2017-10-06-07-30-00.txt
See attached	for details
Dynamic Sig	nage Director Health Report generated at: 2017-10-06 07:30:06 AM
	r of DMPs: 44
Total numbe	r in Normal State: 4
Total numbe	r in Critical State: 40
Total numbe	r in Unknown State: 0
Total numbe	r rebooted: 0
Total numbe	r non-compliant: 40
Total numbe	r in not-ready state: 40
Total numbe	r not reachable: 40
	r with SD card problems: 0
CPU Utilizati	20/
Memory Util	
Disk Utilizati	
DISK Utilizati	J11: Z / 70

To see the details for the devices by category, open the text file attachment in the email. Figure 2 on page 207 shows an excerpt of the device details report provided for the different status categories.

Best Practices for Using the System Health Report

Devices in critical state, count = 40

Figure 2 Cisco Vision Health Report Details (Excerpt)

Dynamic Signage Director Health Report generated at: 2017-10-06 07:30:00 AM

Total number of DMPs: 44
Total number in Normal State: 4
Total number in Critical State: 40
Total number in Unknown State: 0
Total number rebooted: 0
Total number non-compliant: 40
Total number in not-ready state: 40
Total number not reachable: 40
Total number with SD card problems: 0
Total number with Flash Application problems: 0

CRT1-R1-C1	CV-HD	10.194.171.130	2017-10-06 07:12:00 AM
CRT1-R1-C2	CV-HD	10.194.171.133	2017-10-06 07:12:00 AM
CRT1-R1-C3	CV-HD	10.194.171.141	2017-10-06 07:12:00 AM
CRT1-R2-C1	CV-HD	10.194.171.138	2017-10-06 07:12:00 AM
CRT2-R1-C1	CV-UHD	10.194.171.146	2017-10-06 07:12:00 AM
CRT2-R1-C2	CV-UHD	10.194.171.147	2017-10-06 07:12:00 AM
CRT2-R1-C3	CV-UHD	10.194.171.148	2017-10-06 07:12:00 AM
CRT2-R2-C1	CV-UHD	10.194.171.149	2017-10-06 07:12:00 AM
CRT2-R2-C2	CV-UHD	10.194.171.150	2017-10-06 07:12:00 AM
CRT2-R2-C3	CV-UHD	10.194.171.151	2017-10-06 07:12:00 AM
CRT2-R3-C1	CV-UHD	10.194.171.152	2017-10-06 07:12:00 AM
CRT2-R3-C2	CV-UHD	10.194.171.153	2017-10-06 07:12:00 AM
CRT2-R3-C3	CV-UHD	10.194.171.154	2017-10-06 07:12:00 AM
CRT2-R4-C1	CV-UHD	10.194.171.155	2017-10-06 07:12:00 AM

Best Practices for Using the System Health Report

- Verify your system regularly to be sure that the Cisco Vision health report is being sent as expected:
 - Confirm your health report email configuration.
 - Check often with venue IT personnel that the SMTP server that is configured for the Cisco Vision health report is running normally.
- Review the Cisco Vision health report daily to monitor the media players and overall health of the Cisco Vision Director system.
- Investigate all of the devices reported in the "Devices in critical state" and the "Devices not reachable" sections.

Note: The device counts in these two sections are typically equal, but not necessarily.

- Inform the Event Manager about these devices.
- Investigate the affected devices and bring to Normal state. Replace if necessary.
- Do not ignore the devices reported in these sections. The media players almost always will be showing black screens on the TV displays.
- If you see that an unusual number of devices have recently rebooted, investigate further. This could be due to a power fluctuation issue in the edge switch, the edge switch itself was rebooted, or another issue caused a break in power supply to the affected devices.
- Non-compliant devices:
 - If you know that you normally have a certain number of devices in non-compliant state, then ignore this entry.

How to Obtain the System Health Report

- If the number of non-compliant devices is not what you expect, investigate and correct the issue(s).

How to Obtain the System Health Report

This section includes the following topics:

- Configuring the System Health Report for Email Notification, page 208
- Modifying the Time of the System Health Report Task, page 209
- Running the System Health Report Task Manually, page 209

Configuring the System Health Report for Email Notification

User Role: Administrator

By default, Cisco Vision Director automatically runs a system health report at 08:00. However, email notification is disabled.

To configure the system health report for email notification:

- 1. From the Management Dashboard, go to Dynamic Signage Director Configuration > System Configuration > Notification Settings > Email Settings.
- 2. In the Configuration Property box, set the required properties shown in Figure 3 on page 208.

Figure 3 System Health Report Configuration Properties

Monitor and Status	Dynamic Signage Director Configuration		숥
DMP and TV Controls	Configuration Property	Value	
Sevent Viewer	Enable Email notification ?	yes	
-	SMTP Host	outbound.cisco.com	
Dynamic Signage Director Configuration	Recipient list (comma separated)	jasyip@cisco.com,jasonmmyy@yahoo.com, kcrehore@cisco.com	
V Configuration (12)	From address to use	SV-email-notifier	
Dynamic Signage Director Settings (1)	Default subject text	DMP status notification	-
Global DMP Settings (6)	Email id prefix:		
Auto Registration Settings (2)			
Management Dashboard (10)			
User Preferences			
Event Viewer			
🔻 🚞 Notification Settings (1)			
Email Settings			
▶ 🛅 Logging level (8)			
▶ 🛅 System Tasks (1)			
Data Integration (2)			
Explain 🔝 M-dbin/=30890n:Ronfiguration http:// 🞦 😼 // 2x407832000jgcy/Jeion/Dashboard.html#as	p=18002c519 - Selectedindex=3352d0-selectedind	ex=02:5889-calactedindex=0230:45-calactedindex=02:420c-calactedindex=0	

Table 1 on page 209 describes the properties and possible values.

How to Obtain the System Health Report

Property	Values
Enable email notification?	Yes-Enables email notification.
	No–(Default) Disables email notification.
SMTP host	IP address or hostname of the SMTP email server for the venue. (If hostname is used, it must be resolvable by your network DNS server.)
Recipient list (comma separated)	Comma-separated list of email recipients tol receive the report. (For example: email1@domain.com, email2@domain.com)
From address to use	(Optional) Email sender name. The default is "SV-email-notifier."
Default subject text	(Optional) Text to appear in the email subject field. The default is " Cisco Vision Health Report as of year-month-day hh:mm:ss am/pm."
Email id prefix:	(Optional) Prefix to use in the beginning of the email subject field. This can be used to organize email alerts from multiple customers or sites.

Modifying the Time of the System Health Report Task

User Role: Administrator

By default, Cisco Vision Director runs a system health report daily at 08:00.

To modify the time of the system health report task:

1. From the Management Dashboard, go to Tools > Advanced tab > Scheduled Tasks

- 2. In the Scheduled Task Data box, find the task named HPMReportTask.
- 3. Click in the Task Time column and specify the time (in 24:00 format) when you want the report to run.
- 4. Click Apply.

Figure 4 Changing the Health Report Time

Task ID	Task Type	Task Time	Servers	
10	MulticastStateChange	periodic-5-seconds	control	4
13	HPMMonitorTask	periodic-180-seconds	config	1
14	HPMReportTask	07:30	config	
15	HPMDMPCommandTa	07:30	config	
16	CleanupScriptInstanc	05:30	config	
			7447	1

Running the System Health Report Task Manually

User Role: Administrator

To run the system health report task manually:

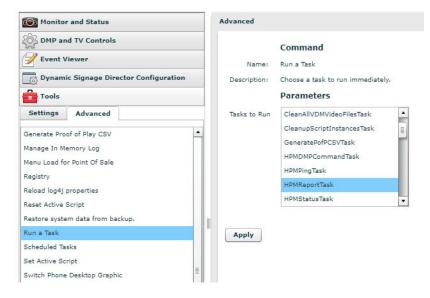
1. From the Management Dashboard, go to Tools > Advanced tab > Run a Task.

Viewing Media Player Device Status

In the Tasks to Run box, select the HPMReportTask (see Figure 5 on page 210).

2. Click Apply.





Viewing Media Player Device Status

User Role: Administrator / Help Desk / Support / Venue Administrator / Venue Operator

The Management Dashboard provides a number of levels and ways to obtain information about the status of your media player devices. This topic describes how to obtain detailed device status as shown in Figure 6 on page 210

IMPORTANT: Not all commands or display areas are supported for the SV-4K and DMP-2K media player. Therefore, some areas of the display might not report any information for an SV-4K and DMP-2K. Also, under the Utilization tab, the CPU Usage reports an average load for the SV-4K and DMP-2K that is normally always between values of 0 and 1.

Figure 6 M	lanagement	Dashboard Me	dia Plaver	Device Status
------------	------------	--------------	------------	----------------------

Cisco StadiumVision Managemen	t Dashboard						Channe wer
Monitor and Status	Select Devices					4	P
S DHP and TV Controls	1.0		-	-	-	-	
C Montoring	-	10 - 10 Harris		-			
Oel Datus		2 · · · · · · · · · · · · · · · · · · ·		Sec. Sec. and			
D Proj			the second				
Carabia Monitoring		2 1 B 100,0					
Change Manifolding Thresholds							
C Disable Manifaring							
Global Settings		10 - 1 - 10 - 10					
EMP Commands		1 - B					
[http://www.initialiana.com			time and the	-			
TV Commanda			and the second				
Add Registration		4 - B	And the second second				
Satch Commands							
Bradie Churchweite			And and an other data				
mmand: Get Status	1.0		-				
a Cet Blates command retrieves datailed statue							
formation for selected device(a)-			C2842 10.194.171.1	45 90-an-31-03-04-3	5 Str-81 54	21/14 03-30-00 PM	
		0				Displayed: 19 Sela	and 13 🗸 🗶 -
				T Consults	System // Co		
	Qu Status () Setting	ORP Status	stration D fastime		Ty Status	reflatice	
	Blatus Details	Crew Stanus		-e (b - *	TT Status		40.10
		+ mails			it Health		
	Events	> funting			+ General		
	WEB Variables	& Runtima Staging			* 88-232		
	MEB Variables	+ Content Steping			communications		
A		+ Location		1	► All-232		
		* Saluet			conservey.		
Event Viewer		* faircar					
SV Director Configuration		* Mandaring		-			
		* Packet Court					
Tools		a Natalat					

To view media player device status:

- 1. To get the most recent device status, run the Get Status command from the Management Dashboard:
- 2. Go to DMP and TV Controls > Monitoring > Get Status

- 3. In the Select Devices panel, select the devices that you want an updated status for.
- 4. To execute the command, click the play (>) button located at bottom left of the panel.
- 5. In the Device List panel, select the device that you want to verify.
- 6. Go to the device details area at the bottom of the panel and click Status.

Use the buttons on the Status panel to obtain more details about the media player as described in Table 2 on page 211.

Button	Description
Status Details	Displays a combination of device details for both the media player and its associated TV displays.
Utilization	Displays media player-specific resource information such as CPU usage, memory, and disk storage.
Events	Displays system events that pertain to media players.
Uptime	Displays information about how long the device has been running.
MIB Variables	Displays internal settings for the media player.

Table 2 Management Dashboard Status Panel Buttons

Note: When using the **dmp.monitorPower** display parameter, you can run the **Get Status** command from the Management Dashboard to get the latest TV health status known to the DMP. This information can be up to two minutes old, or a few seconds depending on when the power query last ran. If the "dmp.monitorPower" parameter is set to false then you will not get the correct TV health status.

Managing SV-4K and DMP-2K Operation in Cisco Vision Director

This section provides information about maintaining normal operation of your SV-4K and DMP-2K media players.

It includes the following topics:

- Management Dashboard Commands for the SV-4K Media Player, page 211
- Performing a Regular Reboot of the SV-4K and DMP-2K Media Players, page 216
- Clearing the Storage on the SV-4K and DMP-2K Media Player, page 216
- Clearing Registries on the SV-4K and DMP-2K Media Player by Restoring Factory Defaults, page 217
- Recovering SV-4K Operation After Server Power Loss, page 218

Management Dashboard Commands for the SV-4K Media Player

This section provides a summary of the new and existing Management Dashboard commands that are supported by the SV-4K media player.

- Auto-Registration Commands for the SV-4K and DMP-2K Media Player, page 213
- DMP Commands for the SV-4K and DMP-2K Media Player, page 213

- DMP Install Commands for the SV-4K and DMP-2K Media Player, page 213
- Global Settings Commands for the SV-4K and DMP-2K Media Player, page 214
- Monitoring Commands for the SV-4K and DMP-2K Media Player, page 214
- Switch Commands for the SV-4K and DMP-2K Media Player, page 214
- TV Commands for the SV-4K and DMP-2K Media Player, page 216

Auto-Registration Commands for the SV-4K and DMP-2K Media Player

Table 3 Management Dashboard Auto-Registration Commands

Command Name	Supported on SV-4K and DMP-2K
Change DMP State	Yes
Provision DMP	No

DMP Commands for the SV-4K and DMP-2K Media Player

Table 4 Management Dashboard DMP Commands

Command Name	Supported on SV-4K and DMP-2K
Display IP	Yes
Restart Runtime	Yes
Disable DHCP	No
Enable DHCP	No
Disable HDMI Autodetection	No
Enable HDMI Autodetection	No
Disable Diagnostic Web Server	Yes (SV-4K and DMP-2K only)
Enable Diagnostic Web Server	Yes (SV-4K and DMP-2K only)
Reset Storage	Yes (SV-4K and DMP-2K only)
Update MIB	No
Send RS232	Yes
Reboot Device	Yes
Play SWF	No
Stop SWF	No
Play Media URL	No
Stop Media URL	No
Set Alpha Transparency	No

DMP Install Commands for the SV-4K and DMP-2K Media Player

Table 5 Management Dashboard DMP Install Commands

Command Name	Supported on SV-4K and DMP-2K
Firmware Upgrade	Yes (only for firmware upload; not to provision firmware)
Restore Default Settings	Yes
Initial Config	No
Stage Template	No
Initialize Touchscreen	No
Show Calibration	No
Setup NTP	No

Global Settings Commands for the SV-4K and DMP-2K Media Player

Table 6 Management Dashboard Global Settings Commands

Command Name	Supported on SV-4K and DMP-2K
Global DMP Settings	No

Monitoring Commands for the SV-4K and DMP-2K Media Player

Table 7 Management Dashboard Monitoring Commands

Command Name	Supported on SV-4K and DMP-2K
Get Status	Yes
Ping	Yes
Enable Monitoring	No
Change Monitoring Thresholds	No
Disable Monitoring	No

Switch Commands for the SV-4K and DMP-2K Media Player

Table 8 Management Dashboard Switch Commands

Command Name	Supported on SV-4K and DMP-2K
Power Cycle DMP	Yes
Power On DMP	Yes

Command Name	Supported on SV-4K and DMP-2K
Power Off DMP	Yes
Run Cabling Test using TDR	Yes
Show TDR Test Results	Yes
Ping Test	Yes
Clear ARP Cache	Yes

TV Commands for the SV-4K and DMP-2K Media Player

Table 9 Management Dashboard TV Commands

Command Name	Supported on SV-4K and DMP-2K
TV On	Yes
TV Off	Yes
Set Display Input	Yes
Set Display Banner	Yes
Set Closed Caption	Yes
Set Volume	Yes
Set Video Channel	Yes
Show Diagnostics	Yes
Hide Diagnostics	Yes
Show Diagnostics with Message	Yes
Show Custom Swf	No
Hide Custom Swf	No
Display PIN	Yes
Hide Channel Guide	Yes
Disable User Control	No
Enable User Control	No

Performing a Regular Reboot of the SV-4K and DMP-2K Media Players

The best practice for maintaining normal operation of the SV-4K and DMP-2K media players is to perform a **daily** reboot of the devices.

Note: The Cisco Vision Director reboot task applies globally to all media player devices.

For information about how to configure the Reboot DMP system task, see the How to Configure the Reboot DMP System Task task note.

Clearing the Storage on the SV-4K and DMP-2K Media Player

The SV-4K and DMP-2K devices have different sizes of solid-state storage:

- The SV-4K provides a minimum of 120 GB of solid-state storage, with 100 GB available for content.
- The DMP-2K provides 64 GB of solid-state storage.

If you begin to run out of storage or otherwise need to recover the SSD, you can clear the storage on the media player.

To find information about available storage, select an SV-4K and DMP-2K device in the Management Dashboard device list. Then, go to **Settings** > **Storage** in the device details area of the dashboard.

TIP: The HTML runtime must be running on the SV-4K and DMP-2K media player to use this task.

Beginning in Release 4.1, you also can find information about available storage if you view device details from thumbnail view in Device Management.

To clear the storage on the SV-4K and DMP-2K media player:

- 1. Go to the Management Dashboard.
- 2. Select the SV-4K and DMP-2K devices that you want to clear.
- 3. Go to DMP and TV Controls > DMP Install > Reset Storage (Figure 7 on page 217).

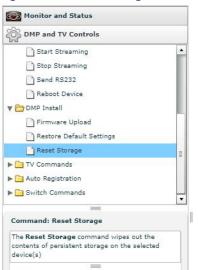


Figure 7 Reset Storage Command

- 6. Click Play.
- 7. The contents of the SSD storage is removed (including the Cisco Vision Director runtime software and script contents) on the SV-4K and DMP-2K devices. The devices will not automatically reboot after this command.
- 8. Select Reboot Device.
- 9. Click Play. The selected SV-4K and DMP-2K devices reboot and reprovision firmware and settings.

Clearing Registries on the SV-4K and DMP-2K Media Player by Restoring Factory Defaults

If you need to clear the registry settings on the SV-4K and DMP-2K and re-provision the device, use the **Restore Default Settings** command.

To clear the registries on the media players:

- **1.** Go to the Management Dashboard.
- 2. Select the SV-4K and DMP-2K devices that you want to clear.

Replacing a Failed Media Player While an Event Script is Running

3. Go to DMP and TV Controls > DMP Install > Restore Default Settings.

4. Click Play.

Any persistent device settings on the SV-4K and DMP-2Ks are erased and the box will be in factory default state. The SV-4K and DMP-2K automatically reboots and reprovisions its firmware and settings.

Recovering SV-4K Operation After Server Power Loss

User Role: Installer (Administrator)

If the Cisco Vision Director server should lose power while the SV-4K devices remain powered, you will need to recover the SV-4K devices after power is restored to the server.

To recover SV-4K operation after server power loss:

- 1. Restore power to the Cisco Vision Director server.
- 2. Reboot the SV-4K devices.

IMPORTANT: If for some reason you needed to restore the SV-4K operation to a new Cisco Vision Director server (not a failover operation), then change the DHCP server option 43, reconfigure the new server for auto-provisioning of the SV-4K, and reboot the SV-4K devices similar to a new deployment of the SV-4K devices. For more information, see the Cisco Vision SV-4K Media Player Deployment Guide.

Replacing a Failed Media Player While an Event Script is Running

This task describes the steps to replace a failed media player with a new device that continues to follow the same script.

After replacement, the new media player should:

- Belong to the same groups and zones.
- Respond to the zone/group state actions.
- Display the same content as the media player it replaces.

To replace a failed media player while an event script is running:

- 1. Unplug the failed device and replace it with a new device.
- 2. Wait until auto-registration and provisioning completes, and the new device appears in the Management Dashboard.
- From Control Panel > Setup > Zones & Groups, un-map the failed device from its Location, and map the new device to this Location.
- 4. From Control Panel > Control, manually stage content to the new device.
- 5. (For SV-4K only) From the Management Dashboard, go to:
 - a. DMP and TV Controls > DMP Commands
 - b. Run the Restart Runtime command for the new SV-4K device only.
- 6. Verify that the new device is showing the expected content.
- 7. Delete the failed device from Cisco Vision Director. This device will be named in the format "Unassigned-xx-xx-xx-xx-xx", where xx-xx-xx-xx-xx is the MAC address.

Troubleshooting the SV-4K Media Player

This section includes the following topics:

- Before You Begin Troubleshooting the SV-4K and DMP-2K, page 219
- Troubleshooting PTP Operation for the SV-4K and DMP-2K Media Player, page 219
- Troubleshooting SV-4K and DMP-2K Hardware Operation, page 221
- Troubleshooting SV-4K and DMP-2K TV and Video Display Problems, page 222

Before You Begin Troubleshooting the SV-4K and DMP-2K

Before you begin troubleshooting the SV-4K and DMP-2K, follow the information in these topics:

- RMA Process for the SV-4K and DMP-2K, page 219
- SV-4K and DMP-2K Diagnostic URL, page 219

RMA Process for the SV-4K and DMP-2K

The Return Materials Authorization (RMA) process is covered by the Cisco Solution Support Service for Cisco Vision.

Before you open a Cisco Solution Support case for the SV-4K and DMP-2K:

- 1. Locate your symptom in the SV-4K and DMP-2K troubleshooting topics and begin to isolate the problem by following the suggested troubleshooting steps.
- **2.** If you cannot resolve the problem with any of the recommended troubleshooting steps, open a Cisco Solution Support case to further troubleshoot and coordinate the return process with the vendor.

SV-4K and DMP-2K Diagnostic URL

Some of the troubleshooting steps for the SV-4K and DMP-2K recommend that you open a browser and navigate directly to the device using the following URL to further diagnose a problem:

http://dmp-ip-address

The diagnostic URL requires a password for use. The password is set in the "defaultDmpAdminPwd" registry key in the Management Dashboard. The default username is "admin."

Be sure to reset the password from the default value as a security best practice.

CAUTION: Do not manually power off the SV-4K and DMP-2K after changing the password. To change the SV-4K and DMP-2K password, you must use the Power Cycle DMP switch command from the Management Dashboard to restart the device properly. To use this command, be sure that you have imported the switch data first.

Note: This password is also used for the Diagnostic Web Server (DWS).

Troubleshooting PTP Operation for the SV-4K and DMP-2K Media Player

This section identifies some of the symptoms related to problems with PTP operation:

- Symptom: Local PNGs are not synchronized across SV-4K and DMP-2K devices, page 220
- Symptom: Playlists do not advance to the next content item on the SV-4K or DMP-2K, page 220

Symptom: Local PNGs are not synchronized across SV-4K and DMP-2K devices

Troubleshooting steps:

1. Verify the PTP configuration on your SV-4K and DMP-2K devices: Go to Management Dashboard > Dynamic Signage Director Configuration > Global DMP Settings > SV-DMP Common Settings.

Verify that the PTP domain and PTP master candidates property configuration is correct for your network.

2. Open your browser and navigate to one of the devices:

http://sv4k-ip-address/ptp.html

- 3. Enter the username and password.
- 4. Look for the message "PTP is not enabled."

This message might mean that the device was not rebooted after changes to the Management Dashboard settings.

5. If the message appears, reboot the SV-4K or DMP-2K device.

Symptom: Playlists do not advance to the next content item on the SV-4K or DMP-2K

If the current PTP master becomes unreachable (shuts down, or becomes unreachable on the network), the PTP members will be unable to update their clocks and this condition will occur.

Troubleshooting steps:

- 1. Verify the PTP configuration on your SV-4K or DMP-2K devices: Go to Management Dashboard > Dynamic Signage Director Configuration > Global DMP Settings > SV-DMP Common Settings
- 2. Verify that the PTP domain and PTP master candidates property configuration is correct for your network.
- 3. Open your browser and navigate to one of the devices:

http://sv4k-ip-address/ptp.html

- 4. Enter the username and password.
- 5. Identify the PTP master by finding the unit that has an "offsetFromMaster" value of 0.0.

Figure 8 Identify the PTP Master

PTP clock status

```
Status from local PTP:
sending: GET CURPENT_DATA_SET
90ac3f.fffe.03864a-0 seq 0 RESPONSE MANAGMENT CURPENT_DATA_SET
stepsRemoved 0
offsetFromMaster 0.0
meanPathDelay 0.0
Status from remote PTP devices:
sending: GET CURPENT_DATA_SET
90ac3f.fffe.038637-1 seq 0 RESPONSE MANAGMENT CURPENT_DATA_SET
stepsRemoved 1
offsetFromMaster 2997.0
meanPathDelay 15377.0
```

6. Ping the master PTP device.

7. If the master is not reachable and you have configured alternate masters but they are not reported as master after waiting for a minute, reboot one of the reachable PTP master candidates.

Note: Identifying the alternate master for this step can more easily be done if you are explicitly identifying the IP address of alternate masters, and not using the "*" wildcard to specify possible election of any SV-4K device on the network.

8. If a device shows that it has not synchronized, reboot the device to force synchronization.

Troubleshooting SV-4K and DMP-2K Hardware Operation

This section identifies some of the symptoms related to problems with the SV-4K and DMP-2K media player hardware:

- Symptom: "Please Insert Card" message on SV-4K or DMP-2K startup screen, page 221
- Symptom: Pwr and Eth LEDs are not lit and no signs of activity on the SV-4K or DMP-2K, page 221
- Symptom: SV-4K or DMP-2K Err or Err/Upd LEDs blinking, page 222
- Symptom: SV-4K and DMP-2K rebooting automatically after startup, page 222

Symptom: "Please Insert Card" message on SV-4K or DMP-2K startup screen

Troubleshooting steps:

- 1. Verify that an IP address is assigned to the device.
- 2. Verify proper DHCP Option 43 configuration.
- 3. Verify that the Cisco Vision Director server is running and reachable.
- 4. Contact Cisco Technical Support to do further troubleshooting and proceed with RMA process.

Symptom: Pwr and Eth LEDs are not lit and no signs of activity on the SV-4K or DMP-2K

Troubleshooting steps:

- 1. Verify any visible damage to the Ethernet port on the SV-4K or DMP-2K device.
- 2. If there is not any visible port damage on the SV-4K or DMP-2K:
 - a. Connect a 12V 5A power supply to the media player to confirm startup and normal operation.
 - b. Replace the Ethernet cable.
 - c. Connect the media player to a known-working switch port for another SV-4K or DMP-2K device.
 - d. Verify the POE+ settings on the switch.

TIP: If you have imported the switch settings to Cisco Vision Director, you can view the POE+ settings.

From the Management Dashboard, go to Tools > Settings > Switch Management > View Switch Details.

Power normally displays "29.5" for the SV-4K and DMP-2K after LLDP negotiation with the switch.

e. If none of these steps locate the problem, contact Cisco Technical Support to proceed with the RMA process.

Symptom: SV-4K or DMP-2K Err or Err/Upd LEDs blinking

Troubleshooting steps:

- 1. Refer to the LED documentation.
- 2. Troubleshoot according to the description of the problem.

Symptom: SV-4K and DMP-2K rebooting automatically after startup

Troubleshooting steps:

- 1. Verify whether multiple devices are doing an auto-reboot.
- 2. If multiple devices are automatically rebooting at startup:
 - a. Verify that the devices are obtaining an IP address. If the devices are not getting an IP address ("Unable to get IP address" message on the TV display), verify communication to the DHCP server.
 - b. Verify proper DHCP Option 43 configuration.
- 3. If the SV-4K or DMP-2K stays at the loading screen with the progress bar, verify communication with the Cisco Vision Director server.
- **4.** (Advanced) Verify that an HTTP request comes in to the /var/log/httpd/access_log (use the System State Report [SSR]).

Look for a message like the following:

```
10.194.169.242 - - [13/Oct/2014:13:10:05 -0700] "GET /CiscoVision/dmp_v4/scripts/boot.brs HTTP/1.1" 200 89403 "-" "-"
```

Troubleshooting SV-4K and DMP-2K TV and Video Display Problems

This section identifies some of the symptoms related to problems with the SV-4K and DMP-2K displays:

- Symptom: Black screen on the SV-4K and DMP-2K TV display/no multicast video stream, page 222
- Symptom: No local control when external volume strategy configured, page 223

Symptom: Black screen on the SV-4K and DMP-2K TV display/no multicast video stream

Troubleshooting steps:

- 1. Verify if multiple TV displays are showing a black screen for the same multicast video stream.
- 2. If multiple TV displays are showing a black screen for the same multicast stream:
 - a. Verify the media player LEDs.
 - b. If the LEDs are in normal state, verify that the Cisco Vision Director server has power and is reachable.
 - c. If all TV displays are the same and/or new model, test with a different, known-working TV display model.
 - **d.** (Advanced) Test with laptop connected to the same switch port/interface as the device with a problem, and see if the problematic video stream can be displayed using the open source VLC player.
 - e. Test a different multicast video stream.
 - f. Test with local video content. If local video works, troubleshoot video headend and/or other network problems.

- g. Confirm video output setting on the SV-4K or DMP-2K using a browser to go to: http://sv4k-ip-address.
- 3. If the problem can be isolated to an SV-4K or DMP-2K device:
 - a. Verify that the Pwr/Eth LEDs are on.
 - **b.** Try a different HDMI cable.
 - c. Test a different TV display.
 - **d.** (Advanced) Test with laptop connected to the same switch port/interface as the SV-4K or DMP-2K with a problem, and see if the problematic video stream can be displayed using the open source VLC player.

Symptom: No local control when external volume strategy configured

Troubleshooting steps:

- 1. Is the RS-232 cable connected? Verify the cable connections.
- 2. Verify the serial cable type being used against the RS-232 requirements for the TV display (null modem [crossover] or straight through).
- 3. Verify that the external output strategy works on other TV displays.
- 4. Verify the RS-232 codes from the manufacturer against the TV display specifications in Cisco Vision Director.