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Troubleshooting the SV-4K and DMP-2K Media Player

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This module provides some troubleshooting steps by symptoms for DMP hardware, PTP operation, and video display problems. It includes information about the RMA process and the DMP diagnostic URL.

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- Before You Begin Troubleshooting the SV-4K and DMP-2K, page 53
- Troubleshooting PTP Operation for the SV-4K and DMP-2K Media Player, page 54
- Troubleshooting SV-4K and DMP-2K Hardware Operation, page 55
- Troubleshooting SV-4K and DMP-2K TV and Video Display Problems, page 57

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

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

- RMA Process for the SV-4K and DMP-2K, page 53
- SV-4K and DMP-2K Diagnostic URL, page 53

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 StadiumVision.

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

- Locate your symptom in the SV-4K and DMP-2K troubleshooting topics and begin to isolate the problem by following the suggested troubleshooting steps.
- 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 same password as for the Cisco DMP 4310G). The default username is "admin."

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

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), and is used by the Cisco DMP 4310G.

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 54
- Symptom: Playlists do not advance to the next content item on the SV-4K or DMP-2K, page 54

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

- 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://dmp-ip-address/ptp.html

- 4. Enter the username and password.
- 5. 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.

6. 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

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

- 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://dmp-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 1 on page 55).

Figure 1 Identify the PTP Master

PTP clock status

stepsRemoved offsetFromMaster	0 RESPONSE MANAGMENT CURRENT_DATA_SET
Status from remote PIP devices: sending: GET CURPENT_DATA_SET 90ac3f.fffe.039637-1 seq stepsRemoved offsetFromMaster meanPathDelay	

- 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 or DMP-2K 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 55
- Symptom: Pwr and Eth LEDs are not lit and no signs of activity on the SV-4K or DMP-2K, page 56
- Symptom: SV-4K or DMP-2K Err or Err/Upd LEDs blinking, page 56
- Symptom: SV-4K and DMP-2K rebooting automatically after startup, page 56

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

- 1. Verify that an IP address is assigned to the device.
- 2. Verify proper DHCP Option 43 configuration.

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

- **3.** Verify that the Cisco Vision Dynamic Signage 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:
- 3. Connect a 12V 5A power supply to the media player to confirm startup and normal operation.
- 4. Replace the Ethernet cable.
- 5. Connect the media player to a known-working switch port for another SV-4K or DMP-2K device.
- 6. Verify the PoE+ settings on the switch.

Note: If you have imported the switch settings to Cisco Vision Dynamic Signage 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.

7. 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.

See LEDs on the SV-4K and DMP-2K Media Player, page 20.

2. Troubleshoot according to the description of the problem.

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

- 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.
 - **b.** 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.
 - c. Verify proper DHCP Option 43 configuration.

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

- 3. If the SV-4K or DMP-2K stays at the loading screen with the progress bar, verify communication with the Cisco Vision Dynamic Signage 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 /StadiumVision/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 57
- Symptom: No local control when external volume strategy configured, page 58

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

- 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 Dynamic Signage 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:
 - h. Verify that the Pwr/Eth LEDs are on.
 - i. Try a different HDMI cable.
 - j. Test a different TV display.
 - **k.** (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.

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

Symptom: No local control when external volume strategy configured

- 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 Dynamic Signage Director.