**CISCO**™

# Troubleshooting the Digital Media Player

**Series 2 DMPs: DMP-2K and SV-4K**

**Series 3 DMPs: CV-HD and CV-UHD**

**Series 4 DMPs: CV-HD2 and CV-UHD2**

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.

This module includes the following topics:

## Before You Begin Troubleshooting the DMPs

Before you begin troubleshooting the DMPs, follow the information in these topics:

## RMA Process for the DMPs

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 DMPs:**

1. Locate your symptom in the DMP troubleshooting topics and try 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.

## DMP Diagnostic URL

Some of the troubleshooting steps for the DMPs 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

**Cisco Systems, Inc.**      www.cisco.com

The diagnostic URL requires a password. The password is set in the **"defaultDmpAdminPwd"** registry key in the **System Configuration** interface. The default username is **"admin."**

Reset the password from the default value as a security best practice.

**IMPORTANT:** If a request to reboot the DMP fails, there is a new fallback password registry available: **defaultDmpAdminPwdBackup**.

**To change the DMP password:**

1. Click **Configuration > System Configuration > Advanced Registry Settings**.

2. Copy the registry value in **defaultDmpAdminPwd** to **defaultDmpAdminPwdBackup** registry value.

3. Change the value of **defaultDmpAdminPwd** to the new DMP password you want.

4. Click **Save**.

5. Reboot the DMPs.

You can choose to keep or clear the value in **defaultDmpAdminPwdBackup** after the DMPs reboot and update their password.

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

# Troubleshooting PTP Operation for the Digital Media Player

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

## Symptom: Local PNGs are not synchronized across DMP devices

**Troubleshooting steps:**

1. Verify the PTP configuration on your DMP devices:

   Click **Configuration > System Configuration > Global DMP Settings > Time Source**

2. Verify that the PTP domain and PTP leader 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 settings.

   If the message appears, reboot the DMP device.

## Symptom: Playlists do not advance to the next content item on the DMP

If the current PTP leader 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 DMP devices:

   Click **Configuration > System Configuration > Global DMP Settings > Time Source**

2. Verify that the PTP domain and PTP leader 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 leader by finding the unit that has an "offsetFromMaster" value of 0.0 (Figure 1 on page 75).

**Figure 1     Identify the PTP Leader**



6. Ping the leader PTP device.

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

**Note:** Identifying the alternate leader for this step is easier if you are explicitly identifying the IP address of alternate leaders and not using the "*" wildcard to specify possible election of any DMP device on the network.

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

# Troubleshooting DMP Hardware Operation

This section identifies some of the symptoms related to problems with the digital media player hardware:

- Symptom: "Please Insert Card" message on SV-4K or DMP-2K startup screen, page 76

- Symptom: Pwr and Eth LEDs are not lit and no signs of activity on the DMP, page 76

- Symptom: DMP Err or Err/Upd LEDs blinking, page 76

- Symptom: DMP rebooting automatically after startup, page 76

- Symptom: DMP lose storage after startup power loss, page 77

# 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 proper DHCP Option 60 configuration.

4. Verify that the Cisco Vision Dynamic Signage Director server is running and reachable.

5. 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 DMP

**Troubleshooting steps:**

1. Check for any visible damage to the Ethernet port on the DMP device.

   If there is not any visible port damage on the DMP:

2. Connect a 12V 5A power supply to the media player to confirm startup and normal operation.

3. Replace the Ethernet cable.

4. Connect the media player to a known-working switch port for another DMP device.

5. 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. Click **Configuration > System Configuration > Management Dashboard > Power over Ethernet > Default Switch parameters**

   Power normally displays "29.5" for the DMP after LLDP negotiation with the switch.

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

# Symptom: DMP Err or Err/Upd LEDs blinking

**Troubleshooting steps:**

1. Refer to the LED documentation.

   See LEDs on the Series 2 Media Players, page 34, LEDs on the Series 3 Media Players, page 36, and LEDs on the Series 4 Media Players, page 36.

2. Troubleshoot according to the description of the problem.

# Symptom: DMP 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.

    **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.

    **d.** Verify proper DHCP Option 60 configuration.

**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 "-" "-"
```

## Symptom: DMP lose storage after startup power loss

**Note**: If there is power loss or failure, a tripped circuit, or interrupted AC power source between the wall and the AC power brick, the DMP may lose storage. There may be residual charge from the capacitors in the AC power brick that cause the SSD to temporarily fail while circuitry switches over to PoE.

**Troubleshooting steps:**

**1.** Disconnect the LAN cable.

**2.** Disconnect the molex connector from back of DMP.

**3.** Plug the molex connector back in.

**4.** Plug the LAN cable back in.

The SSD is OK upon being rebooted. No storage command is necessary.

Also, storage loss does not happen when you configure "power inline never" on the DMP ports or plug the DMP into a switch that does not offer PoE.

**Note**: Do not supply power to the network port when using AC power.

# Troubleshooting DMP TV and Video Display Problems

This section identifies some of the symptoms related to problems with the DMP displays:

■ Symptom: Black screen on the TV display/no multicast video stream, page 77

■ Symptom: No local control when external volume strategy configured, page 78

## Symptom: Black screen on the 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 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 DMP using a browser to go to: http://sv4k-ip-address.

**3.** If the problem can be isolated to a DMP 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 DMP 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.** Verify the RS-232 cable is connected.

**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.

**5.** Verify the default baud rate for the TV.