Cisco StadiumVision Director Operations Playbook

Release 4.0 and Later Releases

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Contents

About This Guide

The purpose of this playbook is to enable partners and customers with the ability to maintain the day-to-day operation of Cisco StadiumVision Director.

This playbook assumes that the Operator has been trained in the Cisco StadiumVision Director (Control Panel / Dashboard) and has the knowledge to build and alter event scripts.

Revision History

Table 1 provides information about when this document was changed.

Table 1. Revision History Table

Date	Description
November, 2016	• Links updated to apply to Release 4.1 and later releases. • Added Manage Scripts, Page 9 and Best Practices for Event Scripts, Page 9. • Revised Best Practices for Managing Backups, Page 29. • Updated Periodic Maintenance Tasks, Page 47 to emphasize clearing of outdated scripts.
December, 2015	Initial version for Cisco StadiumVision Director Release 4.0.

Event Content Preparation

This playbook module provides an overview of the tasks that you should complete as you prepare for an event.

It includes the following topics:

Coordinate Event Preparation Tasks and Responsibilities

Table 2 describes the high-level responsibilities to be completed in preparation for any Cisco StadiumVision event. These tasks can be coordinated to streamline them with the Event Support team.

Before you build or update your event script you must work with the customer to determine how all of these items will shape the event.

For a partner-driven event, be sure there is an understanding between the partner and customer about how each responsibility will be handled.

Table 2. Event Preparation Responsibilites Checklist

Responsibility	Understood
Cisco StadiumVision Director Content (static ads, L-wraps, video playlist files)	
Video Coordination (truck feeds, video loops)	
Group and Zone Verification	
Dynamic Content (menu boards, suite welcome messages, widgets)	
Channel Guide	
Data Integration for RSS Feeds, Game clock, and so on.	

Event Preparation Process Flow

"Event Preparation Process Flow" on the facing page shows the task flow and recommended timeframes involved in the event preparation process.

Figure 1. Event Preparation Process Flow
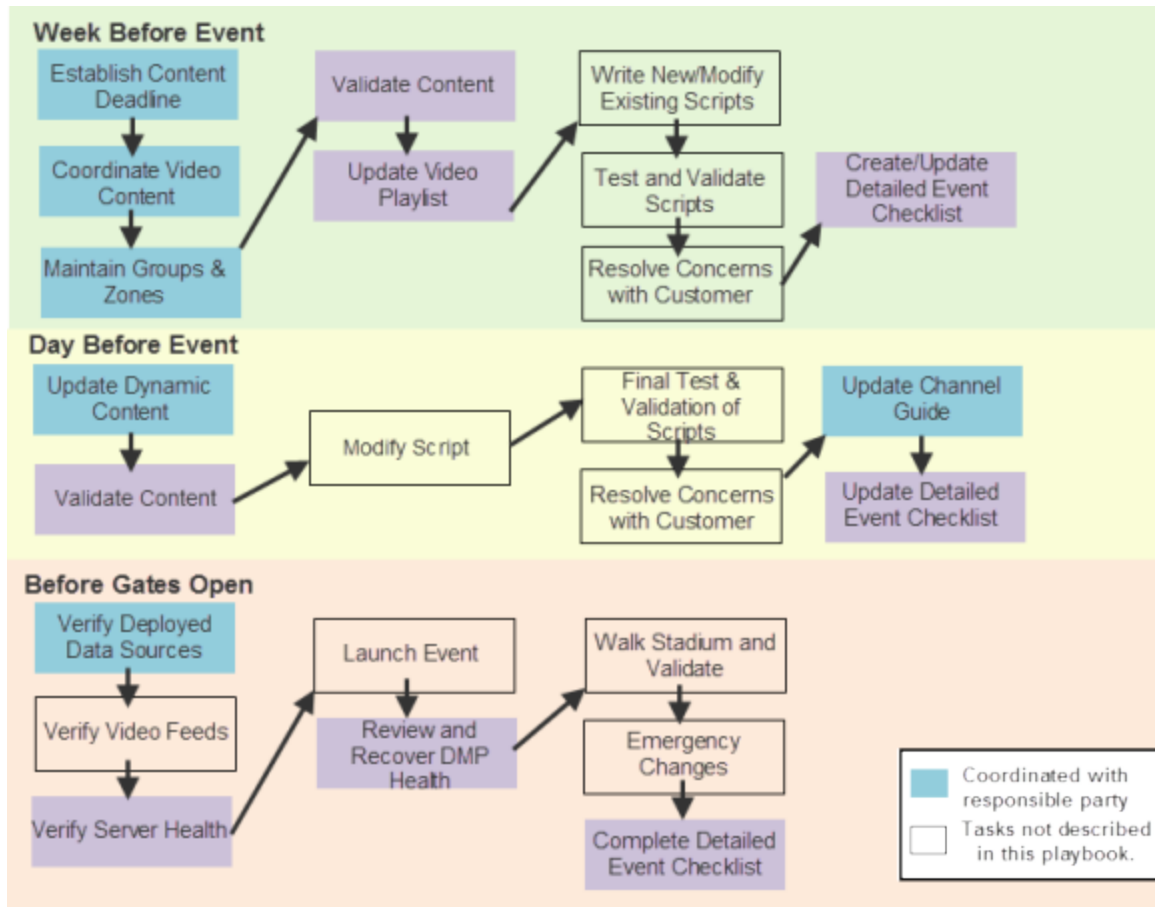
Coordinate Video Content

As you prepare video content, be sure to follow these best practices:

- Have one decision-maker from the customer.

  Example: Identify someone as Head of Game/Event Presentation at the venue; Video Director of the replay room.

- Discuss which truck feeds are to be played, in what areas of the venue, and at what specific times.

  Example: Scoreboard-Feed-2 during inning breaks; Truck-Feed-1 during play.

  ○ Choose the channels where you will be showing the feeds.

  ○ Know who is responsible for making sure that the feed is delivered to Cisco StadiumVision Director.

- Discuss what Video Loops are to be played, in which areas of the venue, and at what specific times.

  Example: Highlight reel from a previous series being looped in a club.

  - Choose the channels where you will be showing the video loops.

  - Know who is responsible for making sure that the loops are delivered to Cisco StadiumVision Director.

- Discuss if there are any broadcasts to be played during the event, and at what specific times.

  Example: Pregame show from off air channel 13, played in all of the clubs, starts half an hour before the event.

  - Know which channels will have these broadcasts.

- Make all necessary adjustments to the script.

- Build in back-up plan states when possible (for example, a rain delay might affect a post-game broadcast. Build in extra states that can show in-house content).

- Establish a timeline spreadsheet for all of the different channel assignments. Table 3 shows an example of a channel lineup timeline.

  - Determine how each area of the venue should be affected at that time of the event. Be mindful of areas that will have the ability to change channels themselves.

  - Share this timeline with the customer and be sure that they also accept it.

Table 3. Channel Line Up Example

	Concourse	Suites	Clubs	Admin	Concessions
Gates Open	Baseball Channel	Baseball Channel	Baseball Channel		Scoreboard Feed
1 Hour Before Game	Scoreboard Feed				Scoreboard Feed
30 Minutes Before Game	Network Pregame				Network Pregame
15 Minutes Before Game	Game Feed 1	Game Feed 1	Game Feed 1	Game Feed 1	Game Feed 1

	Concourse	Suites	Clubs	Admin	Concessions
In-Game	Game Feed 1	Game Feed 1	Game Feed 1		Game Feed 1
Breaks	Scoreboard Feed	Scoreboard Feed	Scoreboard Feed		Scoreboard Feed
Immediate Post Game	Sports Network	Network Postgame	Sports Network		Sports Network
30 Minutes After Game	Baseball Channel		Baseball Channel		Baseball Channel
1.5 Hours Post Game	Truck-Feed 1-OFF		Truck-Feed 1-OFF		Truck-Feed 1-OFF

Establish Content Deadlines

It is important that you establish content deadlines in advance of the event to avoid the following risks:

- Stopping and restarting a script for content changes can take a long time to re-stage the content.

> 🚩 **IMPORTANT:** This could cause the server to have memory problems leaving some TV displays with blank screens that could happen during an event.

- Hastily made script changes can have mistakes.

- New content has not been tested.

- Proof of play accuracy can be impacted.

Best Practices for Content Deadlines

- Assign one person from the venue to be in charge of delivering the content to you. If not possible, try to narrow it down to as few people as possible.

- Set a deadline that gives you enough time to respond to bad content (3 working days prior to event is recommended). If content arrives in the wrong size, respond

to the advertiser in enough time to deliver content with the proper specifications.

- If content arrives after the deadline, be aware of the risks of trying to insert that content and consider not doing it.

Maintain Groups and Zones

> 📌 **NOTE:** Update groups and zones only as required.

This section includes the following topics:

Best Practices for Zones and Groups

- The more groups and zones you have, the more complicated the deployment becomes.
- Do some careful planning to make your organization both simple and useful.
- Create groups of media players of the same model type. For example, the group contains all Cisco DMP 4310Gs or all SV-4Ks.
- Create zones of like-model groups for best results. Applying the same state across multiple groups of different media player types can be problematic due to the differences in content support among different media player models.

> 📌 **NOTE:** If you find you must mix model groups in a zone, then be sure that the content reflects the lowest common denominator of support for the devices that you are mixing. Be sure to test your content for expected behavior. Many things have to be taken into account such as dual video, SWF support, and video walls.

Figure 2 shows an example of how a DMP (indicated by the solid red circle) can fit into three different groups within one zone.

> **IMPORTANT:** Use careful judgment when creating single-DMP groups to reduce any extra processing for Cisco StadiumVision Director. Some good cases for single-DMP groups are for video walls or suites where you might need to control the content on individual TV displays.

Figure 2. Group and Zone Diagram Example
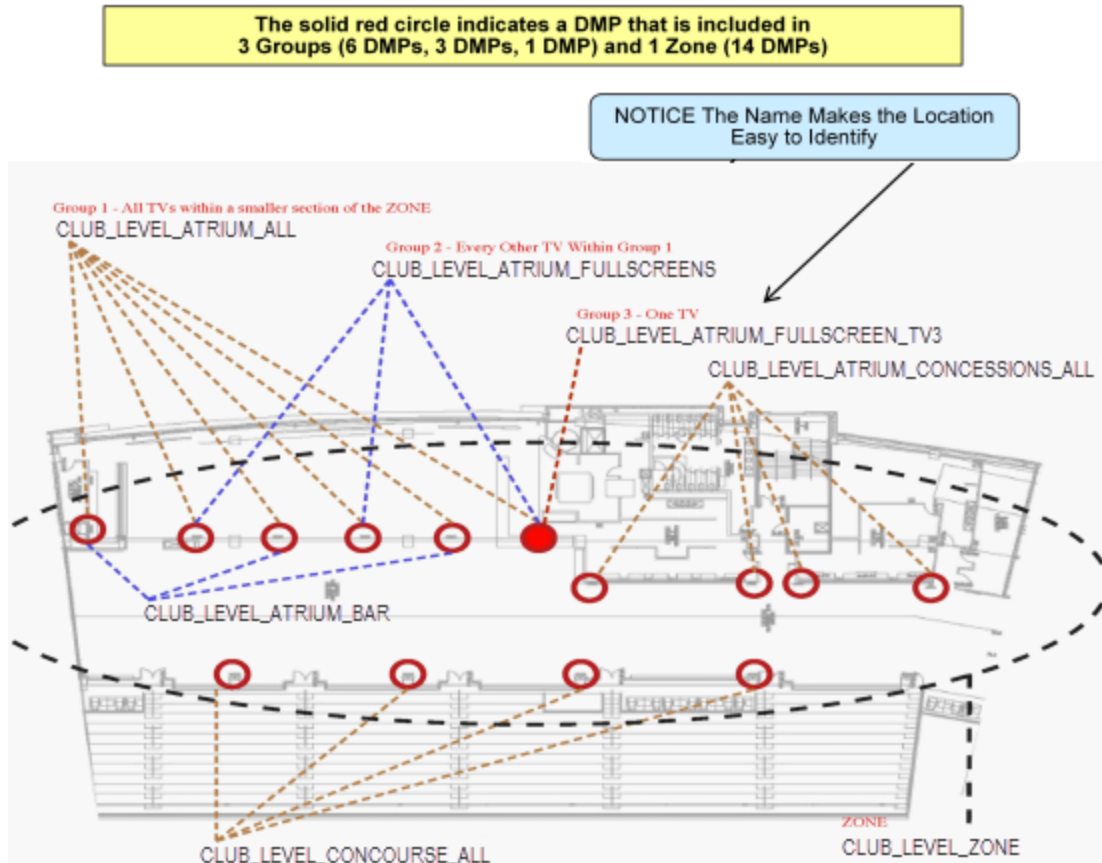
- Maintain easy-to-read naming conventions for groups using a logical and systematic naming convention.

  Example: CLUB_LEVEL_ATRIUM_ALL = Group containing all of the DMPs in the Pucket Atrium of the Club Level

  For more details, see "Guidelines for Naming Zones and Groups" in Cisco StadiumVision Director Operations Guide (or the guide that corresponds to your release on Cisco.com).

- Improve your DMP names whenever you come across one that is not clear.

- Keep the number of unique advertising areas, exit directions, and welcome screens to a minimum.

- Limit the number of screen templates for a given zone.

  While it is possible for a zone to have different screen templates throughout the course of an event, the more screen templates you use, the more complex the deployment and administration becomes.

Moving and Adding DMPs in Groups and Zones

> **NOTE:** Perform this workflow for group and zone maintenance only as required.

Figure 3 shows the process flow for moving and adding DMPs.

Figure 3. Process Flow for DMP Group and Zone Maintenance
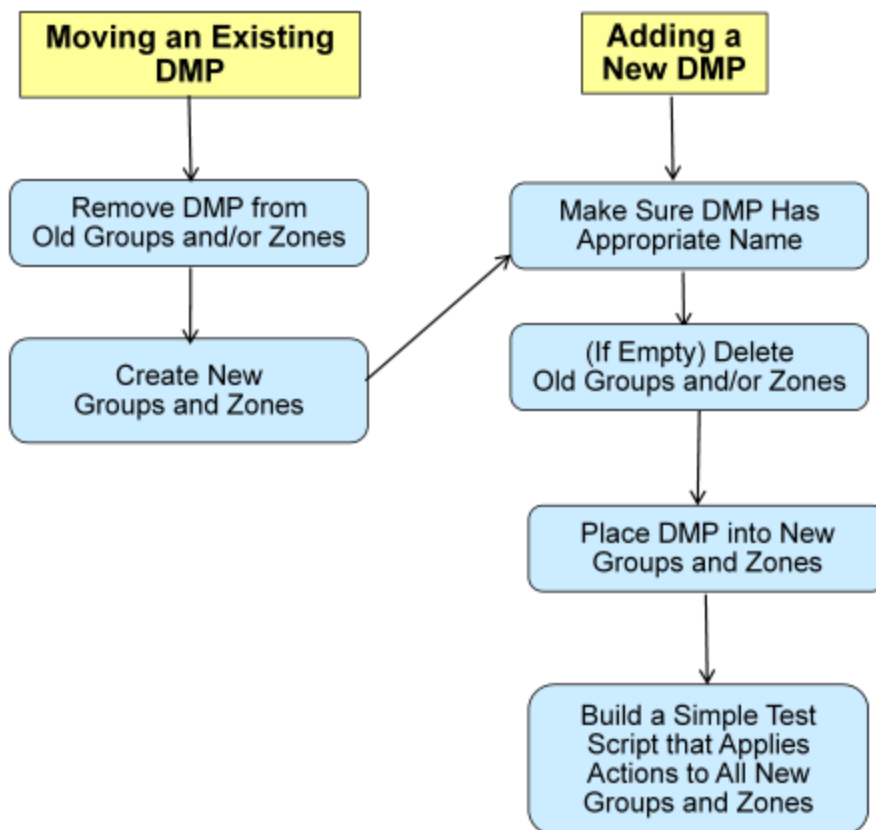
Manage Scripts

As you plan scripts for your events, be sure to follow the best practices including managing the number of scripts that you maintain in the system.

Best Practices for Event Scripts

When working with event scripts, consider the following best practices:

- Be sure to regularly manage your script list by removing any test scripts and other outdated scripts from the system. Keep the overall script count to as limited a number as possible and as needed for your venue.

- Consider developing a content matrix that lists all of the zones / groups throughout the venue and all of the states needed for an event. You can use a spreadsheet to help keep track of the content and playlists needed for each state.

- When working in an environment that has mixed DMP types, carefully consider the device differences and design and plan event scripts accordingly.

  > **NOTE:** The best practice is to create groups of media players of the same model type, and to create zones of like-model groups. For more information, see the "Best Practices for Zones and Groups" on page 6.

- If using RS-232 for TV control, send the TV On/Off commands a couple of times to allow for some TVs that might not respond the first time.

- Use an ad-hoc state to display a moment of exclusivity such as a touchdown, goal, stoppage in play or a sponsor venue domination.

- If you want to display different content using the same template in different zones / groups, you can save time by copying assigned actions from one zone / group to another. You can then select different content to display in the template in the copied zone / group.

- It is important that you allow media players to load the runtime and get into a ready state to receive and process new script actions. Therefore, be sure to define an empty script state (without any actions or commands) as the first state in all event

scripts, and configure it to run for a duration of at least two minutes (120 seconds) before changing to a different state.

> **TIP:** The actual duration for the empty state depends on the number of media players in the system and the amount of time it takes to stage any content. Manually staging content before you run a script can help reduce this time.

- Do not change an event state more frequently than the following:
  - SV-4K and DMP-2K media players: 15 seconds minimum
  - DMP 4310G: 60 seconds minimum
- If you are supporting an environment with mixed DMPs that use the same script, it is important to allow for 60 seconds for an event state change.
- Play the event scripts to visually verify each state and ad hoc states within a venue.

Validate Content

> **TIP:** For complete content creation guidelines on the Cisco DMP 4310G and SV-4K, see *Cisco StadiumVision Content Creation Design and Specifications Guide for the Cisco DMP 4310G and SV-4K*.

This section includes the following topics:

- Best Practices for Image Validation, Page 10
- Best Practices for Playlist Validation , Page 13

Best Practices for Image Validation

- Be sure that any static images are either non-progressive JPGS or PNG files.
- Images must use RGB Colors, not CMYK.

> **NOTE:** Some CMYK images may look normal on your computer but will not work with Cisco StadiumVision Director.

- From the Content screen in the Control Panel:

- Go to List view.

- Verify the dimensions of your content and be sure that they match the size of the template region where you plan to place that content.

- View the dimensions of the content in Control Panel.

- During the walk-through, go to a DMP that is playing your new content and verify that it displays correctly.

Table 4. Sample Playlist Spreadsheet

	Concourse	Concessions	Deck	Lounges Pubs	Clubs Suites
FSN	X	X	X	X	X
Heinz	X	X		X	X
Stanley	X	X	X	X	X
Bestbuy	X	X	X	X	X
Jacks	X	X	X	X	X
Cub Foods	X	X	X	X	X
Killebrew Rootbeer	X	X	X	X	X
Delta	X	X	X	X	X
Star Tribune	X	X	X	X	X
Intratran	X	X		X	
Metrotransit	X	X		X	
Graves					X
J&J Snack		X			
Total Lux Limo	X	X	X		X
Carrier			X		
Aherns	X	X			
93X	X	X			
KQRS	X	X			
KSTP	X	X			
MARS	X	X	X		X
Melting Pot	X	X			
Majestic	X	X	X	X	X
Pentair	X	X	X	X	
Huberts	X	X	x	x	

Best Practices for Playlist Validation

- Once you have validated that the content works, validate that it is included in the correct playlists.

- Create a spreadsheet of playlists as you validate the content. Double-check the Cisco StadiumVision Director playlists against the spreadsheet.

- In the spreadsheet, include which ads are in what playlists (See Table 5).

Table 5. Sample Playlist Spreadsheet

	Concourse	Concessions	Deck	Lounges Pubs	Clubs Suites
FSN	X	X	X	X	X
Heinz	X	X		X	X
Stanley	X	X	X	X	X
Bestbuy	X	X	X	X	X
Jacks	X	X	X	X	X
Cub Foods	X	X	X	X	X
Killebrew Rootbeer	X	X	X	X	X
Delta	X	X	X	X	X
Star Tribune	X	X	X	X	X
Intratran	X	X		X	
Metrotransit	X	X		X	
Graves					X
J&J Snack		X			
Total Lux Limo	X	X	X		X
Carrier			X		
Aherns	X	X			
93X	X	X			
KQRS	X	X			
KSTP	X	X			
MARS	X	X	X		X
Melting Pot	X	X			
Majestic	X	X	X	X	X
Pentair	X	X	X	X	
Huberts	X	X	X	X	

Create Event Checklist

This section includes the following topics:

Best Practices for Event Checklists

- Create a new checklist for every event.
- Name the checklist according to the Event and Date.
- Archive checklists for possible future questions about a previous event.
- Identify all actions before, during, and after an event.

> **TIP:** Some operators prefer to keep separate checklists for each section of the event.

- No necessary actions are too insignificant. It can be very easy to miss a step when your routine is interrupted.

Event Checklist Examples

Table 6 shows a sample event checklist identifying the task and space for owner, date, and status.

Table 6. Detailed Event Checklist Example

Items	Owner	Date	Status
Content			
Menus (confirm and build)			
Ad insert (confirm and build)			
L-wraps (confirm and build)			
Game scripting			
Locker room schedule			
Production meeting (with team)			

Items	Owner	Date	Status
Create event matrix			
Validate all L-wraps in playlist			
RSS feed, scoreboard graphic			
Suites			
Welcome–static (upper right screen)			
Reuters–UL (upper left screen)			
In-suite ordering			
Attendant check			
100% process spot test/check			
Specialty Areas—Content and Feed Check			
Coaches club			
Team store			
Owners suites			
General suites			
Press suites			
Concessions			
Test/walk			
Headend			
Channel map/assignments			
Build ad insertion schedule			
Production meeting (with team)			
Confidence monitor tuning			
Cisco StadiumVision General			
Channel guide description			
Block any special channels from default channel guide			
DMP/TV remediation list			
Pre-Game			
Back up game script			
Remove all zombie sessions			
Ensure system has enough memory			
Maintenance reboot of all DMPs			

Items	Owner	Date	Status
SWF files (DMP 4310G only)			
Ensure system performance			
Back up Cisco StadiumVision Director			
Post-Game			
Verify loops behind podium in Coaches club			
Verify Red Zone in Coaches club			
Retrieve DVD burners			
Remember			
Locker room script goes dark after Q1			
No suite actions in script			
No script changes in Capt club			
No actions on Admin spaces in scripts			
No event changes in Press area at all			
Change default multicast channel			
Be sure to run All TVs On command after push			
Turn off all TVs 2 hours after stadium emptied			
To Do			
Configure Hertz tent DMPs			
Take DVD burners into locker room			
Verify desired NFL show on channels			
Run TV Shutdown command 3x before leaving			
Problem Tracking & Resolution			

[Figure 4](#) shows a sample event checklist that covers the lifecycle of the event's tasks from pre-event to post-event.

Figure 4. Detailed Event Checklist Example

My Venue				
Team1 v Team2 - StadiumVision Log Report - November 15, 2010			STATUS	COMMENTS
	700	Issue TVs On state - 3x's	Completed	
	1200	Content Lock Down	Completed	
		Menu Boards	Completed	
		In House Promos		
		Right Rail Sponsors		
		Digital Ad Displays		
	1230	Update Channel Guide for NHL Center Ice Games		
		Update RSS Feed		
		Update Menu Board Changes		
	1400	Push Game Script		
	1430	Dry Run / Walkthrough		
		Validate Displays ON		
		Validate Changes		
		Update and Repush Script if necessary		
	1730	"Doors Open" State		
	1830	"Pregame" State		
		1st MoE		
		2nd MoE		
	1900	"1st Period" State		
		3rd MoE		
		4th MoE		
		5th MoE		
		6th MoE		
		"1st Intermission" State		
		7th MoE		
		"2nd Period" State		
		8th MoE		
		9th MoE		
		10th MoE		
		11th MoE		
		"2nd Intermission" State		
		12th MoE		
		"3rd Period" State		
		13th MoE		
		14th MoE		
		15th MoE		
		"Post Game" State		
	2330	TVs OFF action state - 3x's		
	2400	Game Script OFF action state		

Pre-Event Actions

Event Actions

Post-Event Actions

Figure 5 shows a sample checklist of tasks that should be completed before an event begins.

Figure 5. Pre-Event Checklist Example

Pre-Event Checklist		
	Completed	
Meet With Game Presentation	☐	
Ad New Content	☐	
Remove Dated Content	☐	
Push Script	☐	
Walk Stadium	☐	
Make Sure New Content Looks Good	☐	
Check RSS Feeds	☐	
Check/Tune MLB Channels	☐	
Check Server Memory	☐	
Check Truck Feed Video/Audio	☐	

Figure 6 shows a sample checklist for script states that get triggered at specific moments during the event.

Figure 6. Script State Checklist Example

PREGAME			
Inning 1 Top	In_Game_1		☐
Inning 1 MidBreak	Inning_Break_7	M&M Delta	☐
Inning 1 Bottom	In_Game_1		☐
Inning 1 EndBreak	Inning_Break_4	Rootbeer	☐
Inning 2 Top	In_Game_1		☐
Inning 2 MidBreak	Inning_Break_6	Cub Foods	☐
Inning 2 Bottom	In_Game_1		☐
Inning 2 EndBreak	Inning_Break_2	Jacks	☐
Inning 3 Top	In_Game_1		☐
Inning 3 MidBreak	Inning_Break_1	Rootbeer_Delta	☐
Inning 3 Bottom	In_Game_1		☐
Inning 3 EndBreak	Inning_Break_9	Sports Authority	☐
Inning 4 Top	In_Game_1		☐
Inning 4 MidBreak		M&M	☐
Inning 4 Bottom	In_Game_1		☐
Inning 4 EndBreak	Inning_Break_4	Rootbeer	☐
Inning 5 Top	In_Game_1		☐
Inning 5 MidBreak	Inning Break_3	Cub/Delta	☐
Inning 5 Bottom	In_Game_1		☐
Inning 5 EndBreak	Inning_Break_2	Jacks	☐
Inning 6 Top	In_Game_1		☐
Inning 6 MidBreak	Inning_Break_4	Rootbeer	☐
Inning 6 Bottom	In_Game_1		☐
Inning 6 EndBreak	Inning Break_8	M&M Delta	☐
Inning 7 Top	In_Game_1		☐
Inning 7 MidBreak	Inning_Break_5	Jacks/Delta	☐
Inning 7 Bottom	In_Game_1		☐
Inning 7 EndBreak	Inning_Break_6	Cub Foods	☐
Inning 8 Top	In_Game_1		☐
Inning 8 MidBreak	Inning Break_8	M&M	☐
Inning 8 Bottom	In_Game_1		☐
Inning 8 EndBreak	Inning_Break_2	Jacks	☐
Inning 9 Top	In_Game_1		☐
Inning 9 MidBreak	Inning_Break_3	Cub/Delta	☐
Inning 9 Bottom	In_Game_1		☐
POSTGAME			

Update Dynamic Content

This section includes the following topics:

Best Practices for Custom Suite Welcome Messages

- Request an additional fee from suite holders for custom welcome messages. This will narrow the scope of work and minimize the margin of error.

- Use the External Content Integration Table Lookup feature to implement custom suite welcome messages.

  For an example, see the ["Custom Welcome Messages Configuration Example"](#) in the *Cisco StadiumVision Director External Content Integration Guide*.

- Set a firm deadline for getting all of the Suite Owner's names. Give yourself enough time to populate the names into the application and have them verified.

- As possible, involve the customer in the validation process and train the customer to update the application.

Risks for Custom Suite Welcome Messages

> 🚩 **IMPORTANT:** Suite owners get very upset when there are wrong messages or misspellings.

Best Practices for Menu Boards

- Create menu boards using the the External Content Integration feature and Widgets tool for all media players.

  > **NOTE:** All media players support Widget-based dynamic menu board creation (combining support for Dynamic Menu Board Application themes as a POS data source, data integration, and the Widgets tool). Only the Cisco DMP 4310G supports Flash-based dynamic menu board creation (using the Dynamic Menu Board Application exclusively).

  For information about POS data sources and differences between the DMB application and the Widgets tool, see the "Overview of External Content Integration in Cisco StadiumVision Director" module of the *Cisco StadiumVision Director External Content Integration Guide*.

  For an example of how to combine DMB menu themes with menu board creation in the Widgets tool, see the "Menu Board Widget Using DMB Themes Configuration Example".

- Set a firm deadline for getting all of the menu changes. Give yourself enough time to populate the changes into the application and have them verified.

- Organize weekly meetings with the Concessionaires.

- Make updates to the Menus and have Concessionaires validate immediately.

- When possible, train the Concessionaires to update the application.

Risks for Menu Boards

> **IMPORTANT:** A wrong price will anger customers and fans.

Update RSS Feed

Use either the legacy Ticker feature, or External Content Integration feature to update your RSS feeds, and perform the necessary approvals.

> **NOTE:** For the Ticker interface, story approvals are done within the interface.When using External Content Integration to configure your RSS feeds, approvals must be done outside of the Cisco StadiumVision Director software and prior to its ingestion by Cisco StadiumVision Director.

Figure 7 shows an example of the legacy RSS ticker configuration, and support for content approvals within the interface.

Figure 7. Legacy RSS Ticker Configuration

Figure 8 shows an example of RSS configuration as a Data Source in the External Content Integration feature.

Figure 8. RSS Configuration as an External Content Integration Data Source
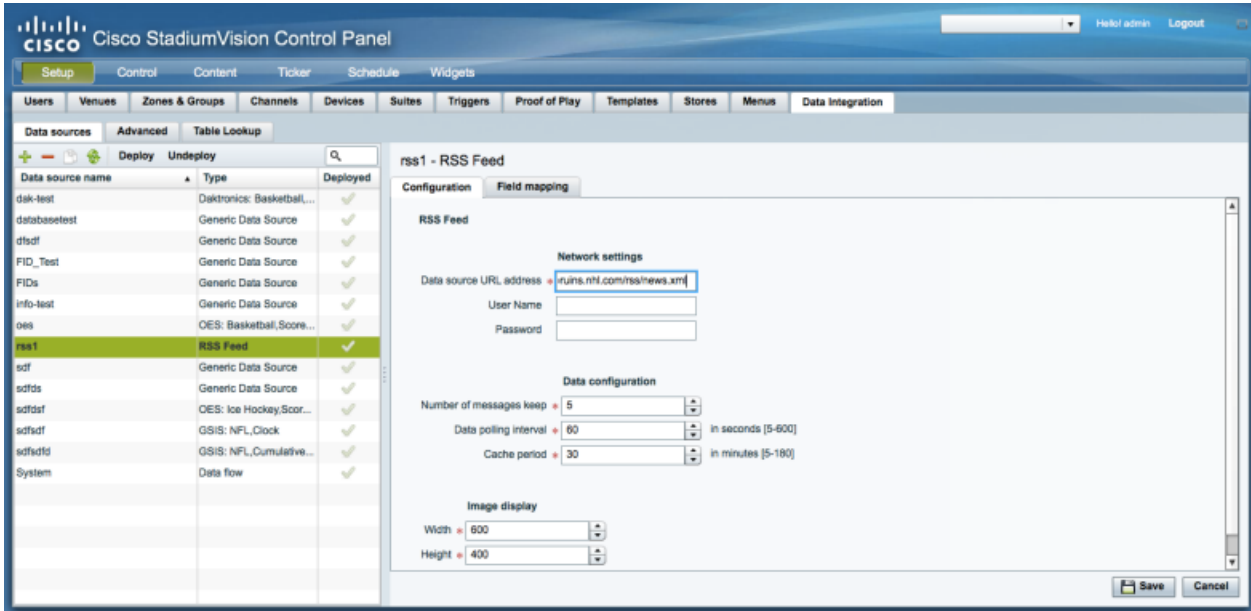
Table 7 provides a comparison of the differences between the legacy Ticker feature available from the Control Panel, and the new RSS feed support available from the External Content Integration feature in the **Control Panel** > **Setup** screen.

Table 7. Comparison of Ticker Feature with External Content Integration RSS Support

Feature	Customized Layout	UI Support for Content Approvals
Ticker (Control Panel)	No	Yes
External Content Integration RSS (Control Panel / Setup)	Yes	No

For more information about using the External Content Integration feature for RSS support, see the *Cisco StadiumVision Director External Content Integration Guide*.

Update Data Integration Data Sources

Use the Control Panel Data Integration interface to configure network connections for external content integration for data sources such as scoreboard controllers, game clocks, POS data sources (including menu themes), and any generic data sources.

Design Content Layout in the Widgets Tool

Design the layout of statistics to add graphics and bind data using the Widget tool (Figure 9).

Figure 9. Widgets Tool
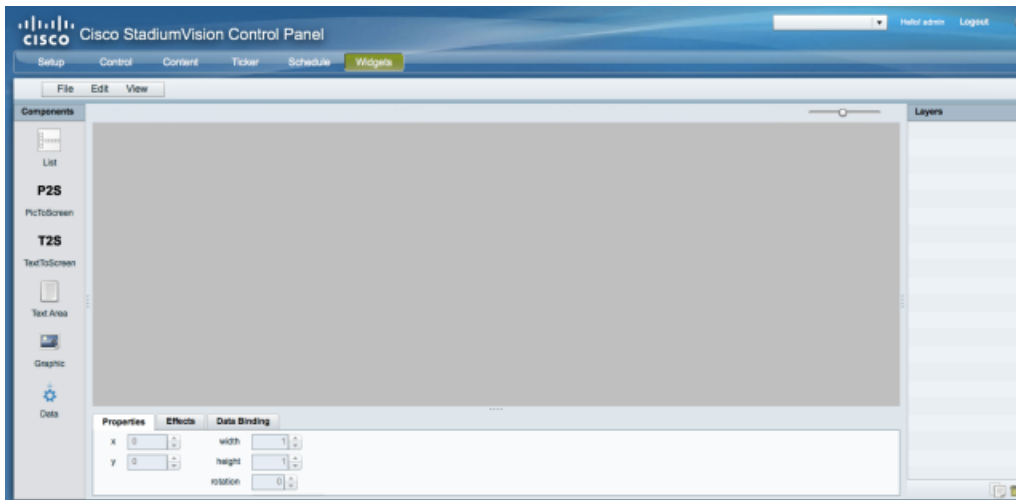
Figure 10

Figure 10. OES Ice Hockey Widget Example
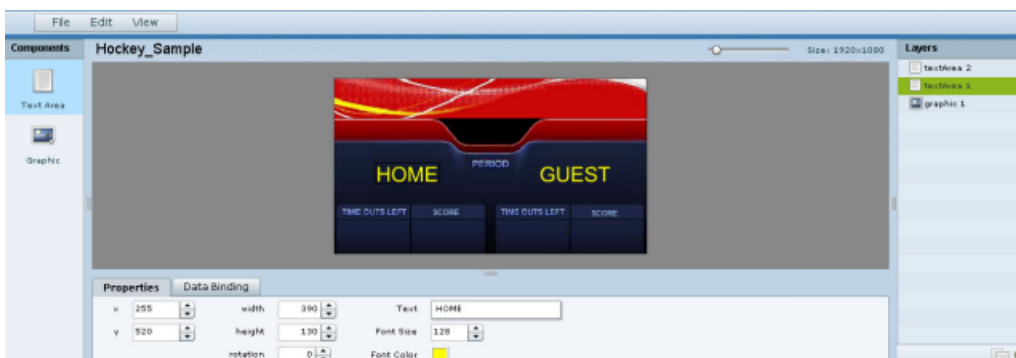
For more information about using the External Content Integration feature and detailed widget configuration examples, see the *Cisco StadiumVision Director External Content Integration Guide*.

Update the Channel Guide

This section includes the following topics:

- Why are the Channels Always Changing? , Page 26
- Best Practices for Tuning External Satellite Feeds, Page 26

Why are the Channels Always Changing?

- There are multiple games on special DirectTV channels occurring during an event. For example, MLB Extra Innings, NFL Sunday Ticket, and NHL Center Ice.
- There are a limited number of DirectTV cards available at the venue to tune to these channels, so all of them cannot be on all of the time.
- The venue needs to decide which other games to make available on Cisco StadiumVision Director. The Channel Guide needs to be updated accordingly.

Best Practices for Tuning External Satellite Feeds

- Have someone from the venue in charge of tuning satellite cards (such as DirecTV) to the correct channels.
- During the event, have that person verify that the channels are working, and that they are named appropriately in the Channel Guide (Figure 11).

Figure 11. Master Channel List
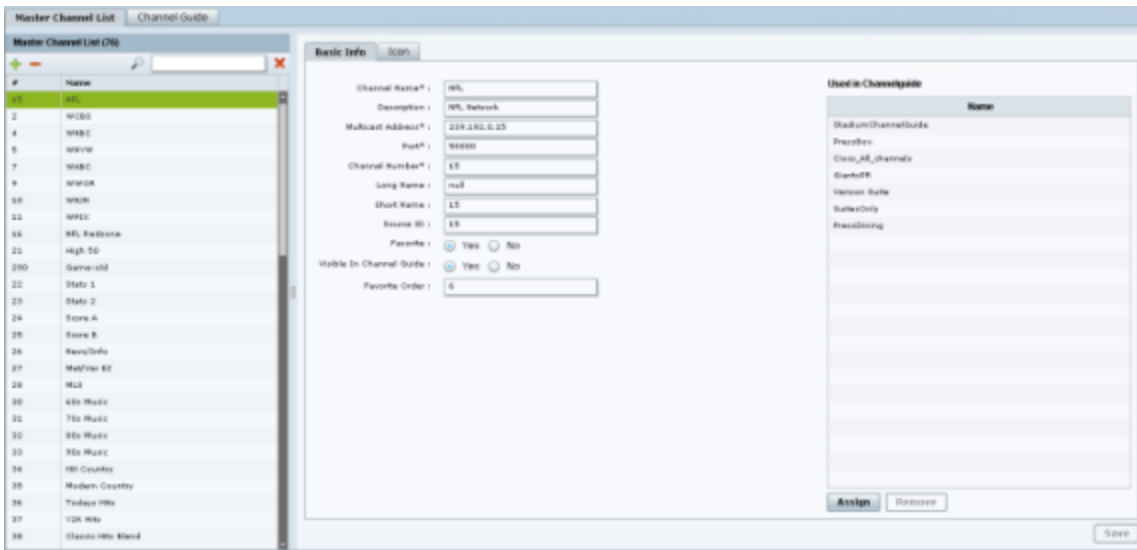
System Maintenance

This playbook module provides an overview of the tasks that you should perform to maintain the Cisco StadiumVision Director system.

It includes the following topics:

Manage Backups

The backup process can be scheduled and also run manually.

The primary and secondary servers need to be configured for backup operation as part of the initial server setup.

For more information about configuring the servers for backup and restore using the TUI, see "Backing Up and Restoring Cisco StadiumVision Director Servers" module in *Cisco StadiumVision Director Server Administration Guide*, or *Cisco StadiumVision Director Operations Guide* that corresponds to your release on Cisco.com.

Best Practices for Managing Backups

- To maximize disk space and help ensure that backups can successfully complete, retain one backup file in the system (the default).

- Perform a manual system backup prior to starting the game script.

- Back up all components (highly recommended).

- Stop the active game/event script from the Management Dashboard before starting the manual backup.

- In Release 4.0 and earlier releases, do not start an event script while a backup is running.

- In Cisco StadiumVision Director Release 4.1 and later releases, the backup task can run even while an event script is running. As part of this change, the database is no longer optimized or repaired during the backup process—a new TUI option is added to run database maintenance manually if needed.

- Do not operate the Cisco StadiumVision Director Control Panel or Management Dashboard until the backup is complete.

What System Data is Backed Up

There are several areas of Cisco StadiumVision Director that need to be backed up. The backup process backs up the following areas of the Cisco StadiumVision Director server:

- Uploaded fonts

- Cisco StadiumVision Director Content Management System (CMS)

- Cisco StadiumVision Director database

- Cisco StadiumVision Director system configuration files

- Content Integration data

- Dynamic Menu Board data (including GAR files)

- Proof of play report data in the /var/sv/pofp/data directory

> **CAUTION:** The proof of play raw data in the /var/sv/pofp/raw directory is *not* backed up.

When to Run a Backup

You should run a manual backup whenever you perform any of the following tasks:

- Add / modify the Channel Guide

- Content update (menu board , L-Wrapper) JPG, SWF, and so on.

- Add / modify zones and groups

- Add / modify DMP and phone

- Add / modify Luxury Suite

- Update Management Dashboard registry

- Update Control Panel

> ⚠️ **CAUTION:**
>
> Stop any running script before starting a manual backup, and do not start a game/event script during a backup.
>
> Do not operate the Cisco Stadium Vision Control Panel / Management Dashboard until the backup is complete.

Restore From Backup

The Cisco StadiumVision Director software automatically copies backup files between the primary and secondary servers and when the restore process starts, verifies the MD5 checksum.

For more information, see "Backing Up and Restoring Cisco StadiumVision Director Servers" in *Cisco StadiumVision Director Server Administration Guide* or "How to Manage Backups" in *Cisco StadiumVision Director Operations Guide*.

If you need to fail over to the secondary server and do a restore, follow the procedures in "Configuring Failover Between Redundant Cisco StadiumVision Director Servers" in *Cisco StadiumVision Director Server Administration Guide* or "How to Restore From a Backup" in *Cisco StadiumVision Director Operations Guide*.

See Cisco.com for the documents that correspond to your release.

Best Practices for Running a Restore

> ⚠️ **CAUTION:** Make sure that both the primary/secondary servers are in the same time zone and that their times are in close synchronization. If possible always try to use the 4 a.m. backup copy from that day for a restore, instead of a new one that was just generated a few minutes ago to avoid running into the "backup from future" issue.
>
> If you try to restore a backup file that was generated ahead of the time of the server into which you are restoring, the restore process will fail and you might see "files is from the future message" in the logs. The only way to recover from this is to restore the entire server with fresh ISO installation.

- Do not restore backup files during an event or game.

- Stop all active scripts before restore.

- Check the disk space available on secondary server.

- Remove any unneeded backup files from RESTORE directory. If your site maintains a large volume of video content, you might want to modify the number of days that backup files are retained to reduce the amount of disk storage required in your system. The default retention period is 10 days.

- Use the Management Dashboard on secondary server to restore the system data ([Figure 12](#)).

- In the restore panel select the appropriate system backup files based on the RESTORE file time stamp.

- Press **Apply** and wait for success message.

- Go to the TUI and restart the Cisco StadiumVision Director software.

Figure 12. Running a Restore Task Manually
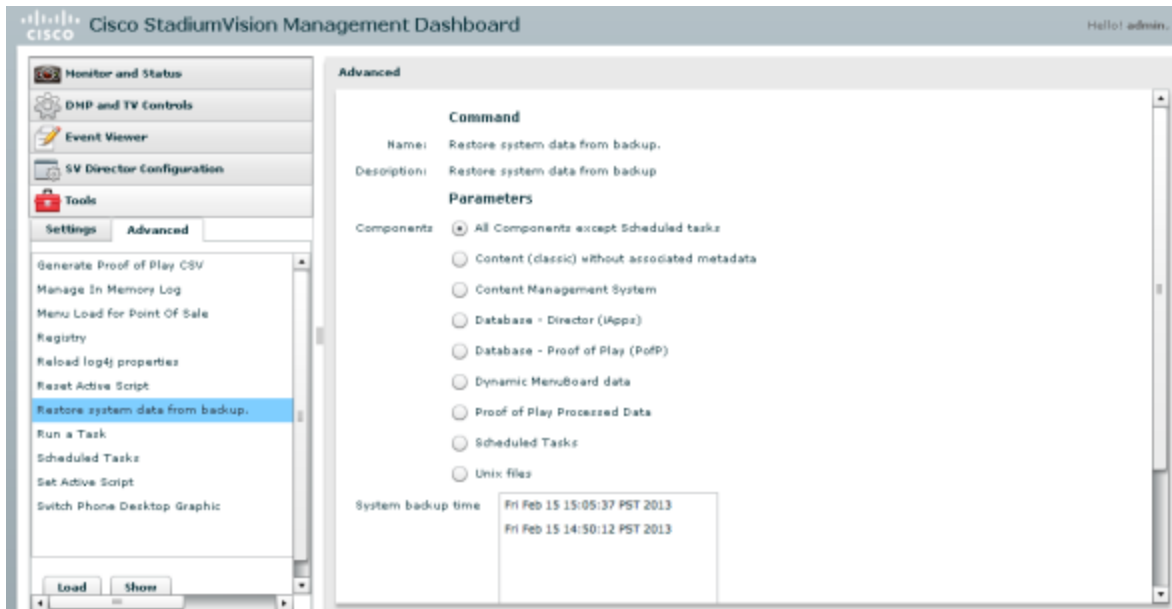
Validate System Readiness

Before an event, validate system readiness for CPU, memory, and disk utilization to be sure that you have enough resources.

For more information about server utilization and alerts, as well as details about validation of other system resources, see "Managing Server Resources in Cisco StadiumVision Director" in *Cisco StadiumVision Director Operations Guide* (or the document that corresponds to your release on Cisco.com).

Monitor Services

Figure 13 shows an example of the monitored services in Cisco StadiumVision Director that you should verify for proper operation of the system. Beginning in Release 3.0, the Content Management CMS Server and Integration Broker services are added.

> **TIP:**
>
> - The Management Dashboard caches the last services status. Click the arrows to refresh and update the services status.
>
> - Hover the mouse over the service name to show the service performance details.

Figure 13. Management Dashboard Service Alerts
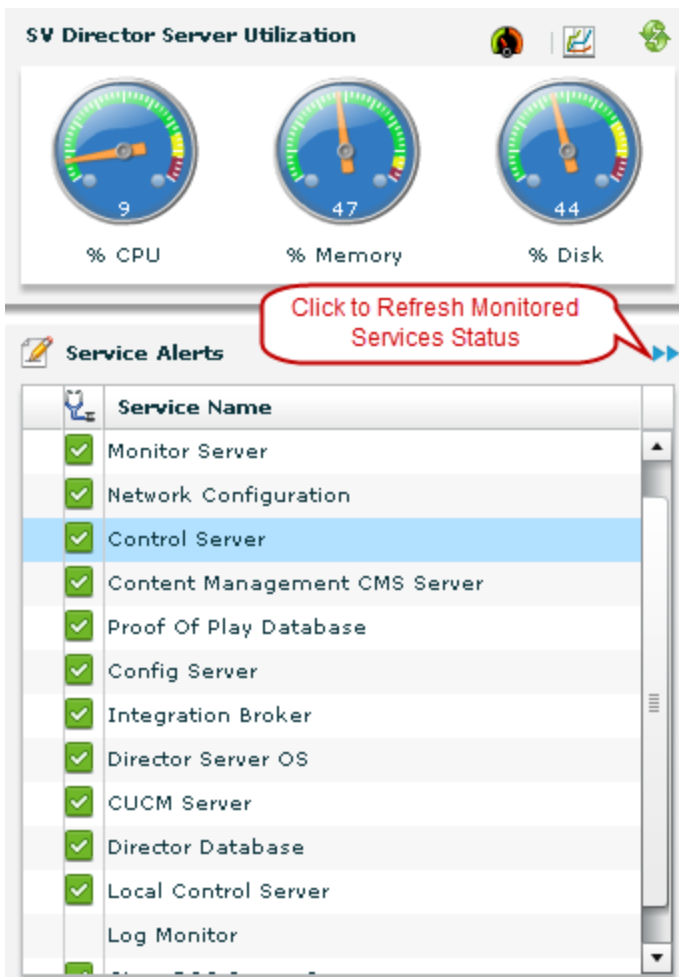
Information About Monitored Services

Service alerts are reported based on the monitored services enabled in the Management Dashboard under **Monitor and Status** > **Services**.

[Figure 14](#) shows the Cisco StadiumVision Director services available for monitoring and their status.

Figure 14. Monitored Services in the Management Dashboard

Table 8. Monitored Services Descriptions

Service Name	Description
{Cisco | Micros | Quest} POS Server *n*	Monitors connectivity between Cisco StadiumVision Director and the POS vendor configured as a store in Cisco StadiumVision Director. The POS store can be "Cisco," "Micros," or "Quest." A numbered service "n" is used to distinguish multiple integration instances.
Config Server	Monitors the status of the Cisco StadiumVision Director sub-component that supports auto-registration, system configuration, and Management Dashboard functions.
Content Management CMS Server	Monitors the status of the content management database.
Control Server	Monitors the status of the Cisco StadiumVision Director sub-component that supports IP phone and script functions.
CUCM Server	Monitors the connectivity and availability of the Cisco Unified Communications Manager (CUCM) server that supports the proper operation of in-suite phone speed-dial operation in the Cisco StadiumVision Director phone service.
Director Database	Monitors that the Cisco StadiumVision Director database (which stores internal system configuration information) is running properly and accessible by other Cisco StadiumVision Director services.
Director Server OS	Monitors the overall health of the Cisco StadiumVision Director server, including the CPU, memory, and disk utilization.
High Availability Hardware	Monitors that a configured secondary Cisco StadiumVision Director server is running and available.
Integration Broker	Monitors the sub-component that supports the External Content Integration functionality.
Local Control Server	Monitors the status of the Cisco StadiumVision Director sub-component that supports the Local Control API.
Log Monitor	Monitors system log files for error messages with severity levels of "Error" or "Fatal" that have occurred in the past 8 hours.
Monitor Server	Monitors the overall status of the sub-component that supports monitoring functions in the Management Dashboard.
Network Configuration	Monitors the configuration and operation of DNS services, that are required for legacy RSS ticker support and certain external data

Service Name	Description
	sources configured in the External Content Integration feature.
Proof of Play Database	Monitors the status of the Proof of Play database.

Monitor DMPs

The Management Dashboard provides an overall summary of DMP health in the DMP Summary panel (Figure 15). The detailed summary of DMP status is shown on the left with overall health indicated by the traffic light.

Figure 15. DMP Summary

Table 9 shows the default thresholds set for the traffic light status that summarizes the overall health of DMPs in the system. These thresholds are configurable.

Table 9. Overall DMP (Traffic Light) Status

Icon	Color	Description
🔴	Red	>10% of DMPs are unhealthy.
🟡	Yellow	5 - 10% of DMPs are unhealthy.
🟢	Green	<5% DMPs on the network are running with errors.

Aggregate Status and Alert Types

The Management Dashboard Status Details panel for the selected Device List shows details for DMPs and TVs.

Three types of alerts are displayed:

- Minor

- Major

- Critical

Table 10 shows the total CPU and memory resource on the DMPs and the thresholds that trigger the different alerts.

Table 10. DMP Resource Alert Thresholds

DMP Resource	Total	Minor Alert	Major Alert
CPU	100%	More than 75% used	More than 90% used.
System Memory	250 MB	Less than 10% free	Less than 5% free
SWF Memory	100 MB	Less than 40% free	Less than 20% free
HDD	300 GB	Less than 25% free	Less than 10% free

The Dashboard takes a summary of the alert statuses to calculate the aggregate status displayed as normal, warning, and critical alert icons in the Main panel.

Aggregate DMP/TV Status	Triggered by These Alerts
	One or more critical alerts.
	One or more minor or major alerts.
	No alerts of any kind.

For more information, see the *Cisco StadiumVision Getting Started with the Management Dashboard* guide.

Maintain DMPs

This section includes the following topics:

- Best Practices for Maintaining DMPs, Page 39
- DMP Health Report, Page 39
- Get DMP Status, Page 44

For specific management tasks by media player model, see also "Managing Media Player Operation" in *Cisco StadiumVision Director Operations Guide* (or the document that corresponds to your release on Cisco.com).

Best Practices for Maintaining DMPs

- Configure the daily DMP health report.

  For configuration information, see the *Cisco StadiumVision Director Operations Guide* (or the document that corresponds to your release on Cisco.com).

- Use the Management Dashboard to soft reboot all DMPs once per week. This helps DMPs to stay away from frozen state, avoids black screen, and other unexpected behaviors.

  > **NOTE:** Stop active scripts before rebooting DMPs.

  For more information, see the *How To Configure the Reboot DMP System Task From the Management Dashboard* document.

- After reboot, get DMP status from the Management Dashboard to review DMP health.

DMP Health Report

As a best practice, you should configure an email alias and schedule a daily DMP health report to monitor and maintain the DMPs in your system.

> **IMPORTANT:** If the daily DMP Health check stops arriving by email, it can prevent you from quickly knowing which DMPs have problems before an important stadium event.

This section includes the following topics:

Information About the System Health Report

As a best practice, you should review the daily StadiumVision health report to monitor and maintain the media players and overall health of the Cisco StadiumVision 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 16 shows a typical email notification for the StadiumVision health report. In the email body, a summary of the report is provided, with the full report details provided in an attached .txt file.

Figure 16. Sample StadiumVision Health Report Email Notification

From: SV-email-notifier [mailto:SV-email-notifier@stadiumvision.cisco.com]
Sent: Thursday, January 29, 2015 2:51 PM
To: ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
Subject: :StadiumVision Health Report as of 2015-01-29 02:51:06 PM

See attached for details

StadiumVision Health Report generated at: 2015-01-29 02:51:06 PM

Total number of DMPs: 43
Total number in Normal State: 2
Total number in Critical State: 41
Total number in Unknown State: 0

Total number rebooted: 1
Total number non-compliant: 28
Total number in not-ready state: 1
Total number not reachable: 41
Total number with SD card problems: 1
Total number with Flash Application problems: 41

CPU Utilization: 2%
Memory Utilization: 25%
Disk Utilization: 11%

To see the details for the devices by category, open the text file attachment in the email.
Figure 17 shows an excerpt of the device details report provided for the different status categories.

Figure 17. StadiumVision Health Report Details (Excerpt)

```
--------------------------------------------------------------------------
StadiumVision Health Report generated at: 2015-01-29 02:51:00 PM
--------------------------------------------------------------------------



--------------------------------------------------------------------------
Total number of DMPs: 43
Total number in Normal State: 2
Total number in Critical State: 41
Total number in Unknown State: 0
Total number rebooted: 1
Total number non-compliant: 28
Total number in not-ready state: 1
Total number not reachable: 41
Total number with SD card problems: 1
Total number with Flash Application problems: 41
--------------------------------------------------------------------------



--------------------------------------------------------------------------
Devices in critical state, count = 41
--------------------------------------------------------------------------
CRT1-R1-C1        DMP-4310      10.194.171.130       2015-01-29 02:00:00 PM
CRT1-R1-C2        DMP-4310      10.194.171.133       2015-01-29 02:00:00 PM
CRT1-R1-C3        DMP-4310      10.194.171.141       2015-01-29 02:00:00 PM
CRT1-R2-C1        DMP-4310      10.194.171.138       2015-01-29 02:00:00 PM
CRT1-R2-C2        DMP-4310      10.194.171.140       2015-01-29 02:00:00 PM
CRT1-R2-C3        DMP-4310      10.194.171.134       2015-01-29 02:00:00 PM
Lab 272 Si  65    DMP-4310      10.194.169.201       2015-01-29 02:51:00 PM
```
```
CRT3-R1-C3        SV-4K     10.194.171.167       2015-01-29 02:51:00 PM
CRT3-R2-C1        SV-4K     10.194.171.166       2015-01-29 02:51:00 PM
CRT3-R2-C2        SV-4K     10.194.171.170       2015-01-29 02:51:00 PM
CRT3-R2-C3        SV-4K     10.194.171.165       2015-01-29 02:51:00 PM
CRT3-R3-C1        SV-4K     10.194.171.163       2015-01-29 02:51:00 PM
CRT3-R3-C2        SV-4K     10.194.171.174       2015-01-29 02:51:00 PM
CRT3-R3-C3        SV-4K     10.194.171.173       2015-01-29 02:51:00 PM
CRT3-R4-C1        SV-4K     10.194.171.164       2015-01-29 02:51:00 PM
CRT3-R4-C2        SV-4K     10.194.171.168       2015-01-29 02:51:00 PM
CRT3-R4-C3        SV-4K     10.194.171.169       2015-01-29 02:51:00 PM
AUTO-90-ac-3f-03-86-56  SV-4K   10.194.169.245    2015-01-29 02:00:05 PM
AUTO-   SV-4K   10.194.171.169        2015-01-29 02:51:00 PM
CRT4-R1-C1        SV-4K     10.194.171.179       2015-01-29 02:51:00 PM
CRT4-R1-C2        SV-4K     10.194.171.180       2015-01-29 02:51:00 PM
CRT4-R1-C3        SV-4K     10.194.171.181       2015-01-29 02:51:00 PM
CRT4-R2-C1        SV-4K     10.194.171.182       2015-01-29 02:51:00 PM
CRT4-R2-C2        SV-4K     10.194.171.183       2015-01-29 02:51:00 PM
CRT4-R2-C3        SV-4K     10.194.171.184       2015-01-29 02:51:00 PM
CRT4-R3-C1        SV-4K     10.194.171.185       2015-01-29 02:51:00 PM
CRT4-R3-C2        SV-4K     10.194.171.186       2015-01-29 02:51:00 PM
CRT4-R3-C3        SV-4K     10.194.171.187       2015-01-29 02:51:00 PM
CRT4-R4-C1        SV-4K     10.194.171.188       2015-01-29 02:51:00 PM
CRT4-R4-C2        SV-4K     10.194.171.189       2015-01-29 02:51:00 PM
CRT4-R4-C3        SV-4K     10.194.171.190       2015-01-29 02:51:00 PM
--------------------------------------------------------------------------


--------------------------------------------------------------------------
Devices not Ready, count = 1
--------------------------------------------------------------------------
tg_desk           DMP-4310      10.194.169.185       2015-01-29 02:00:10 PM
--------------------------------------------------------------------------


--------------------------------------------------------------------------
Devices not reachable, count = 41
--------------------------------------------------------------------------
CRT1-R1-C1        DMP-4310      10.194.171.130       2015-01-29 02:00:00 PM
CRT1-R1-C2        DMP-4310      10.194.171.133       2015-01-29 02:00:00 PM
CRT1-R1-C3        DMP-4310      10.194.171.141       2015-01-29 02:00:00 PM
CRT1-R2-C1        DMP-4310      10.194.171.138       2015-01-29 02:00:00 PM
CRT1-R2-C2        DMP-4310      10.194.171.140       2015-01-29 02:00:00 PM
```

Best Practices for Using the System Health Report

- Verify your system regularly to be sure that the StadiumVision health report is being sent as expected:

  - Confirm your health report email configuration.

  - Check often with venue IT personnel that the SMTP server that that is configured for the StadiumVision health report is running normally.

- Review the StadiumVision health report daily to monitor the media players and overall health of the Cisco StadiumVision 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. For example, for the Cisco DMP 4310G, a Flash Template corruption or missing Flash Template will show up as "critical" but not "unreachable."

  - 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.

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

Get DMP Status

The Management Dashboard provides an overall summary of DMP health.

Log into the Management Dashboard and run the DMP Get Status command by going to **DMP and TV Controls** > **Monitoring** > **Get Status** (Figure 18).

Figure 18. DMP Get Status Command
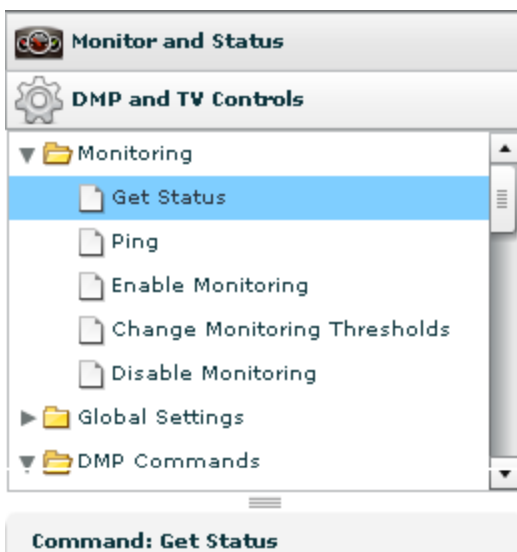
Figure 19 shows an example of output from the DMP Get Status command.

Figure 19. Sample DMP Get Status

> 💡 **TIP:** By default all DMPs are selected, so be sure to select only the DMPs on which you want to take action (Figure 20).

Figure 20. Select DMPs

Figure 21. Search DMPs by DMP Health
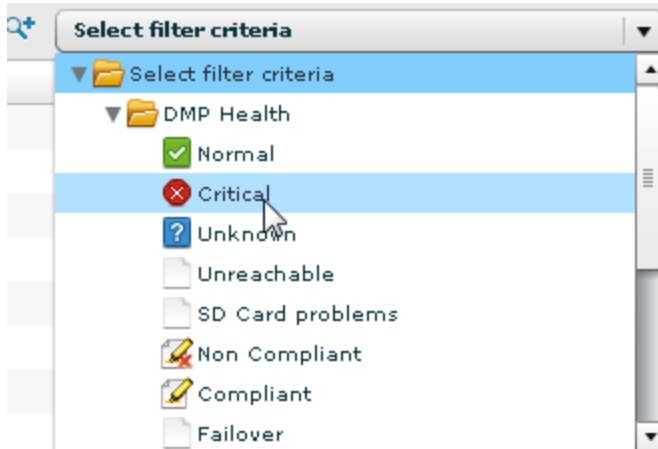
For more information, see the *Cisco StadiumVision Getting Started with the Management Dashboard* and *Cisco StadiumVision Viewing Device Details Status* guides.

Recover DMP Health

This section assumes that the Operator has been trained on how to use the Management Dashboard. The following recommendations are designed to remedy the most common DMP health issues. They are not necessarily the best solution for each scenario—they are simply the fastest. In the event that you attempt these steps and cannot recover a DMP, further investigation will be necessary.

To recover DMP health, take the following actions:

- If a critical DMP can be pinged and shows as compliant, reboot the device.

- If a critical DMP can be pinged and shows as non-compliant, re-push the Flash template and Global MIBs to the DMP from the Cisco StadiumVision Director Management Dashboard.

> **NOTE:** This is the most common non-compliance for DMPs that have been up and running for a while. If the device remains non-compliant you will need to investigate further from the Compliance tab. You may need to run additional DMP Install commands from the dashboard.

- If a critical DMP is unreachable, perform a Power over Ethernet (PoE) reboot. If PoE reboot is not functioning at your stadium, contact Cisco Technical Support.

- If the DMP is unrecoverable after these steps, go to the DMP and manually power off/on and continue to troubleshoot further.

Periodic Maintenance Tasks

This section includes the following topics:

Check the NTP Server

Network Time Protocol (NTP) provides the most reliable clocking for your Cisco StadiumVision network. NTP helps ensure synchronicity between redundant servers and the Cisco StadiumVision Director remote servers, and beginning in Release 3.2, also optimizes playlist synchronization on the DMPs.

NTP service is required in Cisco StadiumVision Director on the following devices:

- Cisco StadiumVision Director servers

- Cisco StadiumVision Director Remote servers

- DMPs

For more information about configuring NTP, see ["Configuring the Cisco StadiumVision Director Server System Settings"](#) in *Cisco StadiumVision Director Server Administration Guide* (or the document that corresponds to your release on [Cisco.com](#)).

Consequences of NTP Server Failure

- Failure to maintain time synchronization between the primary and secondary server can cause the restore process to fail.

- Playlist synchronization can be affected and DMPs might not play states correctly. DMP's might still continue to play multicast video instead of playing script state or show a black screen.

- Tasks might execute at a timestamp different from other networked equipment, which normally is synchronized to a time source.

- Low-level system logs contains invalid timeframe.

- To verify NTP, from command line as root: ntpq –p . The output should reflect that time synchronization is in effect.

Check PTP Operation

The SV-4K and DMP-2K media players use Precision Time Protocol (PTP) to achieve optimal synchronization. However, an NTP source also must be used to provide initial clocking to the devices that are elected PTP masters in the network.

For optimized synchronization on the SV-4K and DMP-2K media players, PTP is used. Only the PTP masters derive a clock using NTP.

To verify PTP operation, see ["Verifying PTP Operation for the SV-4K and DMP-2K Media Player"](#) in *Cisco StadiumVision Director Server Administration Guide* (or the document that corresponds to your release on [Cisco.com](#)).

Check the DNS Server

The Domain Name System (DNS) is a hierarchical naming system built on a distributed database for computers, services, or any resource connected to the Internet or a private network.

Consequences of DNS Server Failure

- Email notification of the daily DMP Health Report stops.

- Cisco StadiumVision Director fails to pull the updated RSS feed from the Internet (legacy RSS feed).

- Event scripts fail due to an unreachable DNS server from Cisco StadiumVision Director.

- Slow response times are seen in the Cisco StadiumVision Director Control Panel & Management Dashboard.

Check the SMTP Server

- Simple Mail Transfer Protocol (SMTP) hosts are used to deliver email across the Internet.

- Use the Management Dashboard to configure the SMTP Server.

Consequences of SMTP Server Failure

In the event of SMTP failure, the Cisco StadiumVision Director server stops sending the email notification to the subscribed email address for the daily DMP Health Report.

Restart All Cisco StadiumVision Director Services

Restart all Cisco StadiumVision Director services, including the CMS and broker services, every month or if you notice any degradation in system performance.

Purge Content in Off Season

As a best practice, scrub your content and purge any outdated items. This includes clearing out any outdated and unused scripts.

Keeping the system clean of unused content helps ensure that the backup process has enough storage to run successfully.

Cisco StadiumVision Upgrades

This module includes the following topics:

Lab Preparation Checklist

Table 11. Lab Preparation Checklist

Checkbox	Task Description
	Attend training and read available product documentation for required knowledge to perform upgrade. See the .
	Reserve lab or customer lab for upgrade practice and verify installation procedures.
	Obtain software/keys from customer.
	Read all other relevant documentation (patch readmes, release notes, feature docs, and so on.) For product documentation on Cisco.com go to the Cisco StadiumVision Product Series Home Page.
	Obtain correct software version from Cisco.com.
	Perform lab upgrade and develop a new or modify an existing Method of Procedure (MOP).
	Restore lab to applicable baseline for upcoming testing/training.

Pre-Upgrade Preparation Checklist

Table 12. Pre-Upgrade Preparation Checklist

Checkbox	Task Description
	Generate Proof of Play reports.
	Ensure no event is scheduled for at least 5 days after Cisco StadiumVision Director upgrade.
	Notify Cisco Systems at least 2 weeks prior to upgrade.
	Notify Event Manager (EM) 2 weeks prior to the upgrade.
	Confirm the following information with customer: Building Access, DC Access, Hours able to work on site (i.e. any security issues after hours, any power issues *Bldg lights out at 8 PM*, etc), Internet access (wireless or LAN) credentials.
	Confirm key card badge access around venue.
	Confirm VPN access for off-site support.
	Verify receipt of all media; verify media and keys are correct.
	Review list of all open tickets and note those expected to close.
	Review list of known product/process issues and review for impact on venue.
	Consult with other team members experienced with the upgrade and/or customer account.
	Perform and document a pre-upgrade system SW audit and HW assessment.
	Use the guide, identify all SW product dependencies (HW, installation sequence, pre-requisites) plan the upgrade accordingly.
	Review venue customizations and discuss the impact/fixes required during or after the upgrade to prevent over-writing.
	If using custom applications, confirm that the application will continue to work with an upgraded system.
	Develop and gain customer acceptance of the MOP that includes: • Upgrade process/plan overview, schedule and roles and responsibilities. • Pre-upgrade system prep, performance benchmark testing, depot name/locations. • Relevant known defects, all system impacts (upgrade process, performance, new functionality, etc.). • Overall system downtime (unavailability) estimate. • Step by Step procedures with estimated times (for SBC include 'safe stop' points). • All product and patch documentation (readmes, release notes, etc.). • Software audit and customer network/footprint information. • Post Upgrade tests for new features/functionality, ticket closure, system operability (including customer-specific testing).

Checkbox	Task Description
	• Points of Contact, escalation, and Tier 2 contacts. • Recovery/Rollback procedures.
	With customer authorization to use service contract, notify Cisco Technical Support of upgrade date and provide them with a copy of the MOP. Open a proactive case with the System Information for the upgrade.
	Deliver/review final MOP with customer for acceptance.
	Review latest patch/protocols available and latest issues with Cisco Technical Support just prior to the upgrade.
	Perform a final pre-upgrade system assessment and review results with the customer.

Upgrade Checklist

Table 13. Upgrade Checklist

Checkbox	Task Description
	Conduct upgrade in accordance with the upgrade process documented in the guide. All deviations or changes to the plan were discussed, documented and initialed by the customer/approvers in the MOP.
	Provide notification of upgrade progress, issues, actions to stakeholders – specifically the EM.
	Contact Cisco Technical Support immediately concerning all issues, error messages, problems encountered during the upgrade.
	Document all issues, error messages, problems encountered during the upgrade.
	Document actual times spent in the Step-by-Step procedures for metric purposes.
	Complete all testing/verification as listed in the MOP.
	Complete all testing/verification.
	Demonstrate all new features to the customer as described in the release notes.
	Test all open tickets with the customer to determine impacts from upgrade.
	Test all pertinent open tickets to determine impacts from upgrade.
	Perform and document the post-upgrade HW assessment and SW audit.
	Perform the post-upgrade HW assessment and SW audit.

Post-Upgrade Checklist

Table 14. Post-Upgrade Checklist

Checkbox	Task Description
	Follow the steps to verify the successful upgrade by re-deploying data sources, running a complex script, making sure proof of play reports work, checking suite phone/iPad control, checking L-Wrappers on displays, monitoring Cisco StadiumVision Director health/processor/memory/disk/load, testing failover and failback, testing backups, etc. See also the *post-upgrade checklist* documented in the *Cisco StadiumVision Director Software Installation and Upgrade Guide, Release 4.1* guide or the install guide that corresponds to your release on Cisco.com.
	Request customer sign-off for Services and Product.
	Deliver post-upgrade software audit to customer and EM.
	Notify Cisco Technical Support that the upgrade was completed and whether tickets can be closed.
	Open tickets on new issues with Cisco Technical Support.
	Notify EM of successful upgrade.
	Remove old software/depots from system (after acceptance) and ensure only one, clean-install depot exists.
	Update the mlog.
	Send a copy of the completed MOP, trip report if not documented in the MOP, and upgrade checklist to Cisco StadiumVision Operations manager within one week of the upgrade.

Roles and Responsibilities

Use the sample chart to identify the roles and assign responsibilities at the venue according to the following descriptions:

Primary Tasks	Role A	Role B	Role C	Role D	Role E	Role F
Entire Cisco StadiumVision Director server(s) upgrade	S	A	C	C	R	C

- Responsible (R)—Those who do the work to achieve the task.

- Accountable (A)—The person who is ultimately accountable for the thorough completion of the deliverable or task. Also the person to whom "R" is Accountable and who approves the work that Responsible provides. There must be only one Accountable for each process step.

- Supportive (S)—Resources that are allocated to help the Responsible person do the work.

- Consulted (C)—Those whose opinions are sought; may have information necessary to complete the work.

- Informed (I)—Those who must be notified of results, but need not be consulted.

- Blank—If none of the above apply for a specific role.

Risks and Mitigation Plan

Risk	Mitigation Plan
Cisco StadiumVision Director upgrade will not be complete by an event.	• Identify freeze date and communicate with customers to set expectations and understanding of the implications. • Ensure a sufficient amount of time is set aside (as many days as possible) for the Cisco StadiumVision Director upgrade to take place, and well before any event(s) that might be negatively impacted.
One or more major obstacles have been encountered in the Cisco StadiumVision Director upgrade process.	Always inform Cisco Technical Support prior to any upgrade procedures taking place, with authorization from customer to use their service contract.

Troubleshooting and Escalation

This module describes the low-level troubleshooting procedures for Cisco StadiumVision Director, Digital Media Players (DMPs), the IP Phone and Crestron.

The module assumes that the Operator has been trained on Cisco StadiumVision and has the knowledge to build and alter event scripts and is familiar with the basic operations of the DMP, Control Panel/Dashboard, IP Phones and Crestron.

It includes the following topics:

Troubleshooting Backup Task

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Daily Cisco StadiumVision Director backup stopped working.

Symptom

The daily Cisco StadiumVision Director backup stopped working.

Troubleshooting/Solution

1. Confirm that the Backup scheduled task is configured in the Management Dashboard under **Tools** > **Advanced** > **Scheduled Tasks**.

2. Verify that there is enough disk space.

3. Use the System State Reports tool and save all log reports.

4. Restart the Config service using the TUI.

Escalation

If the restart of the Config service does not correct the problem, contact Cisco Technical Support and provide the logs.

Troubleshooting Cisco StadiumVision Director by Service

Use the Management Dashboard to assess the status of monitored services in Cisco StadiumVision Director.

Table 8 in the "Information About Monitored Services" on page 34 provides a description of all of the monitored services in Cisco StadiumVision Director and the functions that they control.

You can use the Services Control menu in the Text Utility Interface (TUI) to stop and start problematic services. For more information about the TUI, see "Cisco StadiumVision Director Server Text Utility Interface" in *Cisco StadiumVision Director*

Troubleshooting Crestron

Owner	Issue Experienced in the Field
StadiumVision Administrator	No channel changes from Crestron

Troubleshooting/Solution

1. Run the Get Status command from the Management Dashboard to see the Flash template status on the failed DMPs.

2. Verify the Luxury Suite configuration in Control Panel to confirm that the DMP is mapped with right controller.

3. Verify that the DMP device type is set to "3rd Party" in Control Panel.

4. Check the Logical ID order in the Control Panel to confirm that there is no gap between the logical order.

5. Use sv_dev_debug log to grep traffic from Crestron controller.

Escalation

- Contact Cisco Technical Support with the following information:
  - System State Report
  - Cisco StadiumVision Director version
  - DMP firmware version

Troubleshooting Critical DMPs on Dashboard

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	DMPs in Critical state appearing on the Management Dashboard.

Troubleshooting/Solution

1. Verify that the DMP is reachable (using Ping) by Cisco StadiumVision Director.

2. Run the Get Status command for the critical DMPs from the Management Dashboard (**DMP and TV Controls** > **Monitoring** > **Get Status**).

3. Cisco DMP 4310G only) Verify Flash Template has been pushed. If not, push the Flash template from Control Panel. If staging fails, go to Step 3.

4. Cisco DMP 4310G only) Verify DMPs for Global MIB compliance. Push the Global MIB for non-compliant DMPs and do post-staging of the DMP from Step 2 to Step 1.

5. Cisco DMP 4310G only) Verify for initial MIB compliance. Push the initial MIB for non-compliance DMP and do post staging of the DMP from Step 3 through Step 1.

6. Verify the latest supported Firmware has been installed. Upgrade the firmware from Management Dashboard and do post staging of the DMP from Step 4 through Step 1.

7. Reset the DMP from Management Dashboard and do post-staging of the DMP from Step 5 through Step 1.

> **NOTE:** Do not repeatedly rerun the command. Wait for the Management Dashboard to complete the job and run Get Status between each command.

Escalation

Capture the System State Report and send to escalation along with Cisco StadiumVision Director and DMP firmware version.

Troubleshooting Daily DMP Health Report

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Email notification failed after redirecting to alternate SMTP server due to the existing SMTP server down, under maintenance, or otherwise unavailable.

Troubleshooting/Solution

1. Verify that you can ping the SMTP server using the TUI.

2. If an IP address is not being used for the SMTP server, verify the DNS configuration.

3. After renaming the SMTP host name from the Management Dashboard, you must restart the Config service so that Cisco StadiumVision Director picks up the new SMTP host name.

Escalation

Capture a System State Report and send to Cisco Technical Support along with the Cisco StadiumVision Director version.

> **NOTE:** Refer to the Troubleshooting section of the *Cisco StadiumVision Video Endpoint (DMP) Design and Implementation Guide*.

Troubleshooting DMPs

- For information about managing and troubleshooting the operation of DMPs, see the *Cisco StadiumVision Director Operations Guide* (or the document that corresponds to your release on Cisco.com).

- For device-specific deployment and troubleshooting information:

  ○ Cisco DMP 4310G—Refer to *Cisco StadiumVision Director Video Endpoint (DMP) Design and Implementation Guide*.

  ○ SV-4K—Refer to *Cisco StadiumVision SV-4K and DMP-2K Media Player Deployment Guide* (or the document that corresponds to your release on Cisco.com).

Troubleshooting DNS Server for RSS Feed Issues

Owner	Issue Experienced in the Field
StadiumVision Administrator	RSS feed stopped working.

Troubleshooting/Solution

1. Be sure that the DNS server is configured in Cisco StadiumVision Director.

2. Use ping to verify that Cisco StadiumVision Director can reach the DNS server.

3. Use wget to verify that Cisco StadiumVision Director can reach the RSS server (might require SNE TAC account).

4. Verify that the RSS URL feed contains XML data.

5. Use the right ticker version that comes with Cisco StadiumVision Director releases.

6. Try to get a TCPDump snapshot to see Cisco StadiumVision Director sent the RSS feed.

Escalation

Contact Cisco Technical Support with the following information:

- Proof of Play reports

- System State Report

- Event script name

- Cisco StadiumVision Director software version

- DMP firmware version

Troubleshooting Missing StadiumVision Services on the Phone

Owner	Issue Experienced in the Field
StadiumVision Administrator	Phone lost "StadiumVision Services"

Troubleshooting/Solution

1. This could be an issue with the CUCM server being unavailable on the network. Verify the availability of the CUCM server using the Management Dashboard. You can also run ping to verify the server health (requires SNE TAC account.)

2. Verify that you have the correct CUCM credentials and firmware version number in the Cisco StadiumVision Director registry.

> **IMPORTANT:** There is a CUCM version and also a CUCM *firmware* version—these versions are not the same thing.

3. Verify that the phone is subscribed to StadiumVision Services.

4. Restart the phone to pick up the Stadium Vision Services.

Escalation

Requires low-level investigation in CUCM to verify that the phone has been properly configured. For additional information, see the *Cisco StadiumVision Local Control Areas Design and Implementation Guide*.

Troubleshooting NTP for Backup and Restore

Owner	Issue Experienced in the Field
StadiumVision Administrator	Manual restore failed in the backup server.

Troubleshooting/Solution

1. Verify the time zone configuration on both the primary and secondary servers. Different time zones might cause the Restore task to fail.

2. Configure the NTP server in the TUI to sync the time zone on the primary and secondary Cisco StadiumVision Director server to resolve this issue.

Escalation

Collect and send the following information to Cisco Technical Support:

- Proof of Play
- System State Report
- Event script name
- DMP firmware version

Troubleshooting PTP Operation

Owner	Issue Experienced in the Field
Event Day Operator (EDO) StadiumVision Administrator	Local PNGs are not synchronized across SV-4K devices.

See "Symptom: Local PNGs are not synchronized across SV-4K devices" in Cisco StadiumVision Director Operations Guide (or the document that corresponds to your release on Cisco.com) for the troubleshooting steps.

Owner	Issue Experienced in the Field
Event Day Operator (EDO) StadiumVision Administrator	Playlist items do not advance to the next content item.

See "Symptom: Playlists do not advance to the next content item on the SV-4K" in Cisco StadiumVision Director Operations Guide (or the document that corresponds to your release on Cisco.com) for the troubleshooting steps.

Troubleshooting Scripts

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Script is stuck in Staging.

Troubleshooting/Solution

1. Be sure that the script started in Control Panel.

2. Refresh the Control Panel to confirm that the Control Panel has not lost the browser session and verify the actual progress of the staging.

3. Do not repeatedly re-run the game script.

4. If the Cisco StadiumVision Director server is configured with a DNS server, then verify that the DNS server is working.

5. If none of the above options work, use the System State Reports tool and save all log reports. Then, restart the Control service from the Text Utility Interface (TUI).

Escalation

If the restart of the Control service does not correct the problem, contact Cisco Technical Support and provide the System State Report.

Troubleshooting System Resource

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Delay in accessing the Cisco StadiumVision Director Control Panel / Management Dashboard .

Troubleshooting/Solution

1. Check the CPU usage with the total of all CPU resources available on the PC or MAC laptop where the browser used to access Cisco StadiumVision Director is running.

2. If the CPU is running out of resource, then close any other applications that might be heavy consumers on the laptop.

3. Close the browser and reopen it again to see if performance improvements are seen in the Control Panel and Management Dashboard.

Escalation

If the issue still exists:

- Obtain a Java Heap Dump report using the System State Report tool on the server.

- Restart the Cisco StadiumVision Director services.

- Contact Cisco Technical Support and provide the report.

Troubleshooting Unexpected Content/Action on the DMP

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Specific DMPs/group of DMPs move out of Normal state without intervention.

Troubleshooting/Solution

1. Confirm if the backup Cisco StadiumVision Director server still has its services running, which could result in some DMPs responding to that server's commands.

2. Stop the Cisco StadiumVision Director services on the backup (secondary) Cisco StadiumVision Director server.

Escalation

Collect the following information and send to Cisco Technical Support:

- Proof of Play

- System State Report

- Event script name

- Cisco StadiumVision Director version

- DMP firmware version

Troubleshooting Video Latency on the Cisco DMP 4310G

Owner	Issue Experienced in the Field
Event Day Operator (EDO)	Video asynchronization / Cisco StadiumVision Director video delay configuration issues.

Troubleshooting/Solution

1. The problem has to do with video latency, along with sigma.ptsTimer; by default we have set video latency to be quite low, with sigma.ptsRange setting set to '3000200' and sigma.ptsTimer to 90. These Jitter Buffer values should be configured in the Management Dashboard.

2. Push the Global MIB for all the DMPs after jitter buffer value configured in Management Dashboard.

3. Start the game script.

> **NOTE:** The Jitter Buffer size might differ for later Cisco StadiumVision Director releases.

Escalation

Collect the following information and send to Cisco Technical Support:

- DMP MIB variable
- Cisco StadiumVision Director version
- DMP firmware version

Some Log Files and Directories for Troubleshooting

Log files can be accessed from the Troubleshooting menu of the Text Utility Interface (TUI) (Figure 22).

Figure 22. TUI Log Files Menu

```
Main Menu > Troubleshooting > Logs

                  Please choose one of the following menu options:

                        a) System logs
                        b) Web Server (httpd)
                        c) Content Management System (cms)
                        d) Message Queue (hornetq)
                        e) External Content Integration (integration)
                        f) Dynamic Menu Board / Portal (liferay)
                        g) SVD Config
                        h) SVD Control
                        i) SVD Local Control
                        j) SVD Monitor
              R or < or ,) Return to prior menu
```

Table 15 provides a description of the information that can be found in some of the log files that you might use in troubleshooting. Many of these log files can be found under the SVD Config, SVD Control, SVD Local Control, and SVD Monitor sub-menus.

Table 15. Information in Some Log Files

File Name	Information Captured in this Log File
catalina.out	Servlet container console output.
sv_msg_ trace.log	Cisco StadiumVision Director control messages to DMP.
sv_debug.log	Less detailed core Cisco StadiumVision Director processing.
sv_dev_ debug.log	More detailed core Cisco StadiumVision Director processing.
sv_external.log	Cisco StadiumVision Director outbound messages to DMP, Phone, and so on.
localhost_ access_log	HTTP server access log.
sv_rest_audit.log	Audit trace of user who invoked a REST call.
sv_rest_xml.log	Request/response XML message payload.
sv_msg_mcast_ trace.log	Multicast control messages to DMP.
sv_system.log	General Cisco StadiumVision Director logging (start / stop, system messages, and so on.)
sv_ui.log	User Interface logging

Other Log Files of Interest

- Web Server Logs
- Proof of Play

  Data files can be found in /var/sv/pofp/data/

  Files of interest:

  - rawData.csv (raw syslog data received from DMP)
- DMP Logs

  - Syslog—You can query the DMP syslog from the Management Dashboard.

  - MIBs—Found in the DMP Admin Panel; query string.

Escalation Process

- Customers and Partner should have list of current Smart Net contract numbers for their customers.
- For Severity 1 & 2 issues contact Cisco Technical Support using telephone.

  U.S./Canada: 800-553-2447

  Numbers for other theaters:

  [Cisco Worldwide Support Contacts](#)
- For Severity 3 & 4 issues/questions contact Cisco Technical Support using online service request tool:

  [Service Request Tool](#)
- When using online tool or calling Technical Support you will need the following information:

  - Contact Number

  - Serial Number of item in question
- Ensure your Smart Net contract covers both hardware and software updates.
- Make sure you and your customer are paying attention to renewal dates – don't let your contract lapse.

Severity Levels:

- S1: Network or environment down, critical impact to business – Cisco and the customer will commit the necessary resources around the clock to resolve the situation.
- S2: Network or environment severely degraded – Cisco and the customer will commit full-time resources during normal business hours, or during Event, to resolve the situation.

> **NOTE:** When possible open all S1 & S2 cases through Smart net contract owner.

Smart Net Requirements

- Smart Net contract owner must establish profile on Cisco.com Where appropriate EM may wish to help customer establish profile.
- Smart Net contracts list the items supported by serial number.
- Every Cisco product has a unique serial number (Hardware and Software).

Profile

- Contract #
- Product Serial Number #
- Product Serial Number #
- Contract #

> **IMPORTANT:** Your profile must have your contract number associated, to enable support services.
>
> Contracts are added via Cisco Profile Manager.