

StadiumVision



Cisco StadiumVision Director Operations Playbook

Release 3.2

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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
June, 2014	Enhancements and technical corrections made.
April, 2014	Initial version for Cisco StadiumVision Director
	Release 3.2.





Event Content Preparation

Event Preparation Responsibilities

See "Event Preparation Responsibilites Checklist" on page 1 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.

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)	
Channel Guide	
RSS Feeds	

Event Preparation Process Flow

See "Event Preparation Process Flow" on page 2 shows the task flow and recommended timeframes involved in the event preparation process.







Coordinate Video Content

Best Practices for Video Content

• 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. <u>Table 3</u> 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.

	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
In-Game	Game Feed 1	Game Feed 1	Game Feed 1		Game Feed 1
Breaks	Scoreboard Feed	Scoreboard Feed	Scoreboard Feed		Scoreboard Feed

Table 3. Channel Line Up Example

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

Establish Content Deadline

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.

The Risks of Late Content

• 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.

Maintain Groups and Zones



Best Practices for Groups and Zones

Figure 2 shows an example of a stadium diagram that uses the best practices for groups and zones described in this section.

Figure 2. Group and Zone Diagram Example



 Maintain easy to read naming conventions for groups like FLOOR_ AREA_SPECIFICS **Example:** CLUB_LEVEL_ATRIUM_ALL = Group containing all of the DMPs in the Pucket Atrium of the Club Level

- Each DMP should belong to at least 3 Groups:
 - a. General area
 - b. More specific location
 - c. Single DMP

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

This allows for future scripts to be very simple or very complex.

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

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

Validate Content



TIP: For complete content creation guidelines on the Cisco DMP 4310G, see the <u>Cisco StadiumVision Content Creation Design and</u> Specification Guide for the Cisco DMP 4310G.

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.



• 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.

	Concourse	Concessions	Deck	Lounges Pubs	Suites
FSN	×	×	×	×	×
Heinz	×	×		×	×
Stanley	×	×	×	×	×
Bestbuy	×	×	×	×	×
Jacks	×	×	×	×	×
Cub Foods	×	×	×	×	×
Killehrew					
Rootbeer	×	×	×	×	×
Delta	×	×	×	×	×
Star Tribune	×	×	×	×	×
Intratran	U U	v.		,	
Indiadian		0			
Metrotransit	×	×		×	
Graves					×
J&J Snack		×			
Total Lux Limo	×	×	×		×
Carrier			×		
Aherns	×	×			
93X	×	×			
KQRS	×	×			
KSTP	×	×			
MARS	×	×	×		×
Meiting Pot	×	X			
Majestic	×	X	X	X	X
Pentair	×	X	X	×	
Huberts	×	X	×	×	

Table 4. Sample Playlist Spreadsheet

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. Doublecheck the Cisco StadiumVision Director playlists against the spreadsheet.
- In the spreadsheet, include which ads are in what playlists (See <u>Table 5</u>).

	Concourse	Concessions	Deck	Lounges Pubs	Clubs Suites
FSN	×	×	X	×	×
Heinz	×	×		×	×
Stanley	×	×	×	×	×
Bestbuy	×	×	×	×	×
Jacks	×	×	×	×	×
Cub Foods	×	×	×	×	×
Killobrow					
Rootbeer	×	×	×	×	×
Delta	×	×	×	×	×
Star Tribune	×	×	×	×	×
Intratran	×	×		×	
Metrotransit	×	×		×	
Graves					×
J&J Snack		×			
Total Lux	0	0	0		
Corrier	<u>^</u>	^	- 0		^
Aborns		U	<u>^</u>		
03V	<u> </u>	0			
KORS	Ŷ	Ŷ			
KSTP	Ŷ	Ŷ			
MARS	×	×	X		×
Melting Pot	×	×			
Majestic	×	×	×	×	×
Pentair	×	×	×	×	
Huberts	×	×	×	×	

Table 5. Sample Playlist Spreadsheet

Update Video Playlists

Preparing for Video Playlist Updates



NOTE: Be aware that staging time for video content is a lot longer than for static content, so be sure to allow for this in your scheduling workflow so that you receive new video files in enough time.

Answer the following questions when preparing playlist updates for video content:

. How long will any breaks in game action or a show be?

This could change within the same sport, and depending on different broadcasters (weeknight vs. weekend game, regular season vs. post-season game).

- In what zones does the playlist occur?
- Does the playlist keep repeating throughout the entire duration, or cut to something else?

Video Playlist Update Tasks

- 1. Identify the areas of the venue where video will be played.
- Be sure that the video content meets the DMP video specifications in <u>"Supported Video and Audio Formats on the Cisco DMP 4310G"</u> <u>below</u>.
- 3. Obtain the final video files.
- 4. Import the video content from the Content screen in the Cisco StadiumVision Director Control Panel.
- 5. Create a new playlist, then add the video content item to the playlist.
- 6. Schedule the playlist to the specific DMPs that should be playing the video playlist.

Supported Video and Audio Formats on the Cisco DMP 4310G

<u>Table 6</u> defines the supported video and audio formats for full-screen video stored locally on the Cisco DMP 4310G and played through a video

playlist.

Format	Specification
Format	MPEG2 TS (Transport Stream)
Video Resolution (Cisco DMP	1920 x 1080
4310G)	
Aspect Ratio	Widescreen 16 x 9 (1.0 Square
	Pixels)
Field Order	Progressive
Video Bit rate	20 Mbps
Video Bit rate Encoding	CBR (Constant Bit Rate) GOP
	Settings:
	M Frames 3
	N Frames 15
Audio Format	MPEG
Audio Layer	MPEG-1, Layer II
Audio Mode	Stereo
Audio Sample Size	16 bit
Audio Frequency	48 kHz
Audio Bit Rate	128

Table 6. Supported Video/Audio Formats for Localized Video Files on the Cisco DMP 4310G

Create Event Checklist

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

<u>Table 7</u> shows a sample event checklist identifying the task and space for owner, date, and status.

Table 7. 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)			
Create event matrix			
Validate all L-wraps in playlist			
Turn on RSS feed			
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			

Items	Owner	Date	Status
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			
SWF files			
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			
Το Do			
Configure Hertz tent DMPs			
Take DVD burners into locker room			
Verify desired NFL show on channels			
Run TV Shutdown command 3x before leaving			
Probelm Tracking & Resolution			

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

nAv.	TeamB - StadiumVision Log Report	- November 15, 2010	STATUS	00	AMENTS
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	1			Pre-Event Actions
1400	Push Game Script	-			FIE-Event Actions
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				Event Astinue
	5th MoE				Event Actions
	6th MoE				
	6th MoE "1st Intermission" State				
	6th MoE "1st Intermission" State 7th MoE				
	6th MoE "1st Intermission" State 7th MoE "2nd Pariod" State				
	6th MoE "1st Internission" State 7th MoE "2nd Period" State 8th MoE				
	6th MoE "1st Internission" State 7th MoE "2nd Period" State 8th MoE 0th MoE 0th MoE				
	6th MoE "1st Internission" State "2th MoE "2th Period" State 8th MoE 9th MoE 10th MoE				
	6th MoE "1st Internistion" State "7th MoE "2nd Period" State 8th MoE 9th MoE 10th MoE 11th MoE				
	6th MoE "1st Internistion" State 7th MoE "2nd Period" State 8th MoE 9th MoE 10th MoE 10th MoE 10th MoE "2nd Internistion" State				
	6th MoE "1st Intermission" State "2th MoE "2nd Period" State 8th MoE 9th MoE 10th MoE 11th MoE 11th MoE 11th MoE 12th Mo				
	6th MoE "1st Internission" State "2th MoE "2nd Period" State 8th MoE 9th MoE 10th MoE 11th MoE 11th MoE 12nd Internission" State 12th MoE 12nd Period" State 12th MoE				
	6th MoE "1st Internission" State "2th MoE "2th MoE "2th MoE gan MoE 10th MoE 11th MoE "2th Internission" State 12th MoE "3th Period" State 13th MoE				
	6th MoE "1st Internission" State "7th MoE "2nd Period" State 8th MoE 9th MoE 9th MoE 10th MoE "2nd Internission" State 12th MoE "3rd Period" State 13th MoE State MoE				
	6th MoE *1st Intermission" State *2th MoE *2nd Period" State 8th MoE 9th MoE 10th MoE 10th MoE 11th MoE *2nd Intermission" State 12th MoE 'State MoE 13th MoE				
	6th MoE **st Internission* State *2th MoE *2th MoE *2th MoE *2th MoE 10th MoE 10th MoE 11th MoE *2nd Internission* State 12th MoE *3rd Period* State 13th MoE 14th MoE 14th MoE 15th MoE *2th MoE				
3944	6th MoE 11st Internission' State 2th MoE 2th MoE 2th MoE 2th MoE 2th MoE 10th MoE 10th MoE 12th M				
233	6m MoE **st Intermission* State **st MoE *2nd Period* State 8m MoE 9m MoE 10m MoE 10m MoE 11th MoE *2nd Intermission* State 12th MoE *Stat Period* State 12th MoE *Stat Period* State 13th MoE 14th MoE 15th MoE *Post Game* State 7bat Game* State 7bat Game* State 7bat Game* State				Post Event Actions

Figure 4. Detailed Event Checklist Example

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		
	a	

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

Figure 6.	Script S	State	Checklist	Example
-----------	----------	-------	-----------	---------

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

Update Dynamic Content

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.
- 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.

Risks for Custom Suite Welcome Messages



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

Best Practices for Menu Boards

- 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 the Channel Guide

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 7).

Figure 7. Master Channel List

Haster	Channel Guide									
Master C	kennel List (76)	A CONTRACT OF A								
+ -	<i>P</i> X	Basic Info (0.07)								
,	Name	Channel Report	105				Used in Channelquid			
15	87. B	Development	107. Endersch	-					-	
ł	W085			-			Reduction			
	WRDC	Multicart Habiens* i	219.182.0.25	_			Develop			
	WEYW .	Put* i	81010				free all channels			
	WARC	Channel Humber ⁴⁴	15				Contract Contract			
	WMOR.	Long Rame (nul				Variant Balls			
	1/1.11	ibot same i	13				Bulley Date			
	169EX	Response 100 v	1.0	-			Presidentes			
	SFL Fadoota	Ferenter	0.000	_						
	High 50		0 mm () mm							
	Game-ald	Visible In Channel Guide I	Yes O No							
	Stats 1	Favorite Order :	6							
	Diate 2									
	Store A									
	Tore b									
	Response									
	Mat/Ver 82									
	9.3									
	48e Made									
	78x Maric									
2	Ble Made									
•	98x Maric									
	Hit Country									
•	Modern Country							_		
•	Tudaya Hita						Assign Ren	010		
	12K mbs									
	Classic Hes Bland									

Update RSS Feed

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



Figure 8 shows an example of the legacy RSS ticker configuration, and support for content approvals within the interface.

Figure 8. Legacy RSS Ticker Configuration



<u>Table 8</u> 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 8. Comparison of Ticker Feature with External Content IntegrationRSS 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 <u>Cisco StadiumVision Director External Content</u> Integration Guide, Release 3.2.





System Maintenance

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

Manage Backups

The backup process can be scheduled and also run manually.

For more information, see the <u>"Backup Up and Restoring Cisco StadiumVision</u> <u>Director Servers</u>" module in the <u>Cisco StadiumVision Director Server</u> <u>Administration Guide, Release 3.2</u>.

Best Practices for Managing Backups

- Retain a minimum of a week of backup files for recovery purposes.
- 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.
- Perform a manual system backup prior to starting the game script (Figure 9).
- Backup system data by using the Management Dashboard to per component / all component except Unix & Schedule tasks
- Back up all components (high recommended).
- Stop the active game/event script from the Management Dashboard before starting the manual backup.
- Do not start an event script while a backup is running.
- Do not operate the Cisco StadiumVision Director Control Panel or Management Dashboard until the backup is complete.



Figure 9. Running a Scheduled Backup Task Manually

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 the "Backup Up and Restoring Cisco StadiumVision Director Servers" module in the <u>Cisco StadiumVision Director Server</u> <u>Administration Guide, Release 3.2</u>.

If you need to failover to the secondary server and do a restore, follow the procedures in the "Configuring Failover Between Redundant Cisco StadiumVision Director Servers" module in the <u>Cisco StadiumVision Director</u> <u>Server Administration Guide, Release 3.2.</u>

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 10).
- 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.

Honitor and Status	Advanced		
DHP and TV Controls V Event Viewer SV Director Configuration	Namei Desciptioni	ommand estore system data from backup. estore system data from backup	
Tools Settings Advanced	Components) All Componentz except Scheduled tasks	
enerate Proof of Play CSV ; anage In Memory Log env Load for Point Of Sale egistry eload log4j properties eset Active Script estore system date from backup.	1) Content (classic) without associated metadata) Content Management System) Database - Director (Hops)) Database - Proof of Play (PoPP)) Dynamic Menu8oard data) Proof of Play Processed Data	
un a Task cheduled Tasks et Active Script cher Deser Dashter Grankis	Sustem backung) Scheduled Tasks) Unix files me. Bri Reb 15 15:05:37 BST 2013	
ится мнопе месктор Graphic	System backup	Fri Feb 15 14:50:12 FST 2013	

Figure 10. Running a Restore Task Manually

Validate System Readiness

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

The Cisco StadiumVision Director Server monitoring service gathers information from the underlying Cisco StadiumVision Director operating system. It looks at three parameters: CPU Utilization, Memory Utilization, and Disk Utilization (Figure 11).







IMPORTANT: The Management Dashboard will show an alarm if any of these go above 90%.

CPU Utilization

If CPU utilization is above the 90% alarm threshold for a short period of time, it is probably acceptable. However, if CPU utilization remains elevated, there is a problem with a runaway process or task that is consuming all of the available CPU, which can result in reduced responsiveness in the system.

Look at the system to determine how to resolve. The Management Dashboard caches the last executed report. Always make a new request /refresh to get the most up-to-date information (Figure 12).

If necessary, open a case with Cisco Technical Support and provide a thread dump taken from the System State Report tool.



Figure 12. Management Dashboard Server Utilization and Monitored Services

RAM Utilization

If RAM utilization is above the 90% alarm threshold for over a long period of time, there could be something running in the system which is using more memory than it should. Identify which processes are using the most memory. <u>Table 9</u> shows the total RAM on a Cisco StadiumVision Director server and the usage that crosses the alarm threshold.



IMPORTANT: If RAM utilization is above 90%, open a case with Cisco Technical Support.

Table 9. RAM Utilization and Threshold Values

RAM	Size
Total Memory	• 32 GB (Platform 3)
	• 16 GB (Platform 2)
Cisco StadiumVision Director Cached Memory	10 GB
Memory Usage that Crosses the Alarm	14.5 GB
Threshold	

Disk Utilization

If disk utilization is above the threshold, the disk space is filling up. The disk might fill up from having a lot of backup files, proof-of-play files, or log files of the system game script.

<u>Table 10</u> shows the total hard disk size and recommended minimum free space.

Table 10. Hard Disk Values

Disk Size	Size
Total Disk Size	320 GB
Minimum Free Space	15 GB

Figure 13 shows an example of disk utilization breakdown where backup files are consuming most of the space, and 3% space is free which is less than the recommended minimum of 15 GB.





IMPORTANT: The Daily backup task might consume the hard disk space limit, which can cause the system to fail in unexpected ways.

Monitor Services

Figure 14 shows an example of the monitored services in Cisco StadiumVision Director. 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 14. Management Dashboard Service Alerts

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



<u>Table 11</u> 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 11. Overall DMP (Traffic Light) Status

lcon	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:



<u>Table 12</u> shows the total CPU and memory resource on the DMPs and the thresholds that trigger the different alerts.

DMP Resource	Total	Minor Alert	Major Alert
CPU	100%	More than 75%	More than 90%
		used	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.
M	One or more minor or major alerts.
 	No alerts of any kind.

For more information, see the <u>Cisco StadiumVision Getting Started with</u> <u>the Management Dashboard</u> guide.

Maintain DMPs

The Management Dashboard provides an overall summary of DMP health.

For more information, see the <u>Cisco StadiumVision Getting Started with</u> <u>the Management Dashboard</u> and <u>Cisco StadiumVision Viewing Device</u> <u>Details Status</u> guides.

Best Practices for Maintaining DMPs

- Configure the daily DMP health report.
- 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 <u>How To Configure the Reboot DMP</u> <u>System Task From the Management Dashboard</u> 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.

For more information about DMP health status details and the DMP health report, see the <u>Cisco StadiumVision Viewing Device Details Status</u> guide.

Figure 16 shows a typical daily DMP report email notification.

fotal number of	DMPs:20		
Tetal number in	Critical State: 10		
Tatal number in	Unknown State: (2	
Total number rei	bosted:0	-	
Tetal number ne	n-compliant: 1		
Tetal number in	not-ready state: 1	1	
Total number ne	t reachable; 2 th SD card proble		
Total number wi	th Flash Applicati	on problems: 2	
Davicas in critic	alatata count nº		
oprices in crist	an active, covaria - a		
uni 172 Insignia	65DMP-4310	10.104.171.139	2012-10-06 07:12:00 AM
Lab 1/2 migria	000101-4010	10.134.109.201	2012/10/00 01:12:00 PM
Devices not Rea	idy, count = 1		
CRT1-R3-C1	DMP-4310	10.194.171.139	2012-10-88 07:12:00 AM
Devices natirea	hable, count=2		
CRT1-R3-C1	DMP-4310	10.194.171.139	2012-10-08 07:12:00 AM
Lab 172 Insignia	65DMP-4310	10.194.169.201	2012-10-08 07:12:00 AM
Device that has			
Devices that hav	re rebeated, cour	4=0	
Devices that hav	e rebeeted, cour	ξ=0	
Devices that hav	re rebeated, cour	2=0	
Devices that hav	evices, count = 1	£=0	
Devices that hav Non compilant d CRT1-R2-C1 DN	evices, count = 1 4P-4310	10.194.171.129	2012-10-00 07:12:00 AM
Devices that hav Nen compliant d CRT1-R2-C1 D6	evices, count = 1 RP-4210	10.194.171.139	2012-10-06 07:12:00 AM
Devices that hav Nen compilant d CRT1-R2-C1 DM Devices with SD	evices, count = 1 8P-4310 card failures, cou	10.194.171.128	2012-10-06 07:12:00 AM
Devices that hav Nan compliant d CRT1-R3-C1 DM Devices with SD	e rebected, cour evices, count = 1 (P-4310 card failures, cou	10.134.171.129	2012-18-00 07:12:90 AM
Devices that hav Nan compilant d CRT1-R3-C1 DM Devices with SD	evices, count = 1 evices, count = 1 eP-4310 card failures, cou	10.194.171.128	2012-18-05 07:12:50 AM
Devices that hav Non compilant d CRT1-R3-C1 Db Devices with SD Devices with Fla	e rebeated, court evices, court = 1 IP-4310 card failures, cou sh App failures, co	10.194.171.129 ant = 0 ount = 2	2012-19-09 07-12-80 AM
Devices that hav Non compilant 4 CRT1-R2-C1 Db Devices with SD Devices with Fla CRT1-R2-C1	evices, court = 1 evices, court = 1 dP-4310 card failures, cou sh App failures, cou	10.134.171.129 10.134.171.129 ant = 0 sourt = 2 90.134.171.139	2012-19-08 07-12-50 AM 2012-19-09 07-12-50 AM
Devices that hav Nan campilant d CRT1-R3-C1 Db Devices with SD Devices with Fla Devices with Fla CRT1-R3-C1 Lab 172 Insignia	evices, count = 1 evices, count = 1 EP-4310 card failures, cou sh App failures, c DMP-4310 65DMP-4310	4 = 0 10.194.171.139 ext = 0 0.194.171.139 10.194.171.139 10.194.198.201	2012-19-09 07-12-56 AM 2012-19-09 07-12-58 AM 2012-19-09 07-12-59 AM

Figure 16. Sample DMP Health Report

Configuring an Email Alias for the DMP Health Report

Figure 17 shows the registry keys to be set to configure an email alias for the DMP health report.



Figure 17. Registry Configuration for DMP Health Report Email Alias

To configure an email alias for the DMP health report:

- 1. Log into Cisco StadiumVision Director as an administrator.
- 2. Go to the Management Dashboard.
- 3. Go to the Tools tab and click **Advanced**.

- 4. Select Registry.
- 5. Find the key named 'hpm.email.from' in the Registry Data Parameters. The value should be "SV-email-notifier."
- 6. Find the key named "hpm.email.Recipients" in the Registry Data Parameters. The value should be a comma-separated list of email recipients (i.e. email1@domain.com, email2@domain.com).
- 7. Find the key named "hpm.email.sendEmail" in the Registry Data Parameters. The value should be set to **yes**.
- 8. Find the key named "hpm.email.SMTPHost" in the Registry Data Parameters. The value should be set to the IP address or hostname of your associated SMTP server (if a hostname is used, of course the hostname should be resolvable by your network DNS server).
- 9. Find the key named "hpm.email.subject" in the Registry Data Parameters. The value should be set to **DMP status notification**.

Scheduling the DMP Health Report Task

Figure 18 shows the configuration of the HPMReportTask to schedule the DMP health report.



Name: Description:	Schedule edit item	n d d Tasks s in the registry.				
	Parame	ters				
Scheduled Tas	k Data					
		Task ID	Task Type	Task Time	Servers	
		10	MulticastStateChan	periodic-5-seconds	control	
		13	HPMMonitorTask	periodic	config	
MReportTask		14	HPMReportTask	08:00	config	
		15	HPMDMPCommand	07:30	config	
		16	CleanupScriptInsta	05:30	config	
		17	PopLogRotatorTask	00:00	monitor	
		Add Row	Delete Row			

To schedule the DMP health report task:

- 1. Log into Cisco StadiumVision Director as an administrator.
- 2. Go to the Management Dashboard.
- 3. Go to the Tools tab and click **Advanced**.
- 4. Select Scheduled Tasks.
- 5. Find the task named "HPMReportTask."
 - a. If the task name is found, set the time according to when you want the report to run.
 - b. If the task name is not present, click Add Row. Under the column Task Type, type 'HPMReportTask' and specify the desired task time in 24-hour format (Ex. 08:00).
 - c. Press Enter and then click the Apply. You should see a floating message box, indicating that your scheduled task was applied.

Reviewing the Daily DMP Health Report

- Non-compliant DMPs:
 - If you know that you normally have a certain number of DMPs in non-compliant state, then ignore this entry.
 - If the number of non-compliant DMPs is not what you expect, investigate and correct the issue(s).
- If you see that an unusual number of DMPs 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 DMPs.
- What really counts is the 'Devices in critical state' and 'Devices not reachable' entries!
 - These reported numbers are typically equal, but not necessarily so.
 For example, Flash Template corruption or missing Flash Template will show up as "critical" but not "unreachable".
 - Investigate the affected DMPs and replace if necessary!
 - Do not simply ignore these DMPs as 99.99% of the time their TV screens will be all black!
- It is recommended that you inform your Event Manager (EM) about these DMPs and resolve all DMPs to green state, replacing any DMPs as necessary.

Risks and Mitigation Plans

Risk	Mitigation
Daily DMP Health Check emails stop arriving in your Inbox, preventing you from readily knowing which DMPs are incapacitated before an important stadium event.	 Check your Cisco StadiumVision Director server's DMP Health Check email configurations frequently to ensure proper operation. Check often with your venue's IT personnel that the SMTP server that they have provided you is healthy and operational.

Get DMP Status

Log into the Management Dashboard and run the DMP Get Status command by going to **DMP and TV Controls** > **Monitoring** > **Get Status** (Figure 19).

Figure 19. DMP Get Status Command



Figure 20 shows an example of output from the DMP Get Status command.

Figure 20. Sample DMP Get Status

Houtor and Status	Select Devices				Q*		1
DNP and TV Controls	- • •			Location	IP Address	NAC Address	Checked At
Man Baring	End Corres and Groups	1	🖬 🙂 o#	121234433	172.08.00.70	00-38.00.00.00.00	12/21/11 10-38-39
	In Currary Builters	1	🖬 💿 off	L24603803	172.08.08.07	00-31 88 83 58 88	12/21/11 10:38:42
unes company	Auto Registered(333)	1	C 0 0#	1210833605	172.08.00.00	44-00 AM (01 No. 74	12/21/11 10:30:52
Deer Contra and	All Devices(1191)	1	🖬 🔕 o#	121633993	172.00.00.00	*******	32/25/33 10-20-41
Date Distan		1	C 0 0#	L4(044905	172.08.03.07	00-01-00-00-00	12/21/11 10-43-03
TV Commands		1	C 0 0#	L+(mex902	172.08.00.75	00.00.00.00.00.00	12/21/11 10:43:03
Auto Registration		1	2 0 off	L40845305	172.00.00.00		12/21/11 10-29-02
Switch Commands		10	0 OF	L+(H+5305	\$72.00.00.00	00.01.00.00.00.00	12/21/11 10-39-03
		1	0 of	L+(045304	172.00.00.000	00-01-00-00-00	12/21/11 10:39:04
		1	2 2 of	L+(m+0505	172.00.00.000	00.00.00.00.00.00	12/21/11 10-39-03
		1	0 O OF	14(040400	172.00.00.00		12/21/11 10-39-04
		1	C 0 0#	L+(0+0505	172.00.00.00	00-01-00-00-00	12/21/11 10-39-04
		1	2 0 of	L4(840802	172.00.00.00	00-101-002-002-002	12/21/11 10-39-03
nmand: None Selected	1	1	E 0 of	14(040402	172.00.00.07	00.00.00.00.00.00	12/21/11 10:43:03
			10 0 of	LACHARDER	172.00.00.00		12/21/11 10:39:04
				1.0.000.000.000	171.00.87.77	00.06.00.00.00.00	13/31/11 10-39-03
-	🕨 🔳 🗰 🎨 🔯	play Actions	2 Admini	intration 👳 A	Displayed:	ale 🔆 System	201 🖌 🗙
	Status op second at the	pray Actions	1 Addition	4E 18	TV Status	ne X steam	2 Ca

TIP: By default all DMPs are selected, so be sure to select only the DMPs on which you want to take action (Figure 21).

Figure 21. Select DMPs

a		Location	TD Address	MAC Address	Checked At
-		Location	The According	HAC Address	checked At
E Zones and Group	🛃 🔕 off	L25W34492	172.28.65.72	00:07-00-13-10	12/21/11 10:44:12
Luxury Suites	🔽 🔕 Off	L38833893	172.28.68.47	00:07-00-02-24-34	12/21/11 10:44:06
Auto Registered(333)	🛃 🔕 OH	L256833608	172.28.68.49	00.05.44.02.54.76	12/21/11 10:44:03
All Devices(1101)	🗹 🔕 off	L28833805	172.28.60.24	00:07-00-24-20	12/21/11 10:44:15
	Mo 😒 🔽	L4CReepos	172.28.62.97	00105-00-02-14-00	12/21/11 10:43:03
	🗹 🔕 off	L4Cmeete2	172.28.62.75	00:07.00.02.14.41	12/21/11 10:43:00
	🗹 😣 off	L4C845305	172.28.62.78	00:07.00.02.15.56	12/21/11 10:44:33
	💌 🙁 ा।	L4CH45305	172.28.62.80	00105-66-02-16-09	12/21/11 10:44:33
	🗹 🔕 Off	L4C845304	172.28.62.101	00:07-66-02-16-04	12/21/11 10:44:00
	🗹 🗹 Off	L4C800505	172.28.55.108	00.05-66-02-33-9a	12/21/11 10:44:36
	🗹 🔕 off	L4CR00003	172.28.55.60	00.05-64-02-32-45	12/21/11 10:44:33
	1 A 04				10/01/11 10:44-04



TIP: You can search DMPs by their health status using the Search filter. Figure 22 shows an example of searching DMPs that are in Critical state.

Figure 22. Search DMPs by DMP Health

Q+	Select filter criteria	•
	🔻 🚘 Select filter criteria	4
	🔻 💳 DMP Health	
	🔽 Normal	_
	🚫 Critical	=
	2 Unknown	
	Unreachable	H
	SD Card problems	E.
	🙀 Non Compliant	I.
	📝 Compliant	I.
	Failover	•
	IMPORTANT: If you have dozens	of

IMPORTANT: If you have dozens of DMPs in Critical state, there is probably a much larger server issue.

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

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 the <u>"Configuring the</u> <u>Cisco StadiumVision Director Server System Settings"</u> module of the <u>Cisco StadiumVision Director Server Administration Guide, Release 3.2</u>.

Consequences of NTP Server Failure

- Failure to maintain time synchronization between the primary and secondary server can cause the restore process to fail.
- In Cisco StadiumVision Director Release 3.2, 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 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.

Cisco StadiumVision Upgrades

Lab Preparation Checklist

Table 13. Lab Preparation Checklist

Checkbox	Task Description
	Attend training and read available product documentation for required
	knowledge to perform upgrade. See the Cisco StadiumVision Director
	Software Installation and Upgrade Guide, Release 3.2 guide.
	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.

Pre-Upgrade Preparation Checklist

Checkbox	Task Description
	Ensure no event is scheduled for at least 5 days after Cisco StadiumVision
	Director upgrade.
	Notify Event Manager (EM) 2 weeks prior to the upgrade.
	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 for impact on venue.
	Perform and document a pre-upgrade system SW audit and HW
	assessment.
	Use the Cisco StadiumVision Director Software Installation and Upgrade
	Guide, Release 3.2 guide, identify all SW product dependencies (HW,
	installation sequence, pre-requisites) plan the upgrade accordingly.
	Open a proactive case with Cisco Technical Support with the System
	Information for the upgrade (requires a service contract).
	Review latest patch/protocols available and latest issues with Cisco
	Technical Support just prior to the upgrade.

Upgrade Checklist

Table 15. Upgrade Checklist

Checkbox	Task Description
	Conduct upgrade in accordance with the upgrade process documented in
	the <u>Cisco StadiumVision Director Software Installation and Upgrade Guide,</u>
	<u>Release 3.2</u> guide.
	Contact Cisco Technical Support immediately concerning all issues, error
	messages, problems encountered during the upgrade.
	Complete all testing/verification.
	Test all pertinent open tickets to determine impacts from upgrade.
	Perform the post-upgrade HW assessment and SW audit.

Post-Upgrade Checklist

 Table 16.
 Post-Upgrade Checklist

Checkbox	Task Description
	Follow the steps to verify the successful upgrade by 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 <u>Cisco StadiumVision Director Software Installation and Upgrade Guide,</u> <u>Release 3.2</u> guide.
	Notify Cisco Technical Support that the upgrade was completed and whether tickets can be closed.
	Notify EM of successful upgrade.

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.

Troubleshooting System Resource

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

- Use the System State Reports tool to obtain a Java Heap Dump report on the server.
- Restart the Cisco StadiumVision Director services.
- Contact Cisco Technical Support and provide the report.

Troubleshooting System Resource

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 logs.

Troubleshooting Backup Task

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

Troubleshooting/Solution

- 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

<u>Table 17</u> shows the Cisco StadiumVision Director components that each service manages.

Table 17. Cisco StadiumVision Service Information	
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Config	Control	Monitor	Localctl	Hornetq	Liferay	CMS	Integration Broker
Auto- registration	IP Phone	Proof of Play	Local Control API	Message Bus	Custom Apps	SSC	External Content Integration
System Configuration	Script Control				Dynamic Menu Boards		
Management Dashboard					All TVs Off		

Troubleshooting Video Latency

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

Troubleshooting/Solution

- 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

Troubleshooting Unexpected Content/Action on the DMP

Owner	Issue Experienced in the Field
Event Day Operator	Specific DMPs/group of DMPs move out of Normal state
(EDO)	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
- sv_dev_debug log
- sv_msg_trace.log
- sv_dmp_syslog
- Event script name
- Cisco StadiumVision Director version
- DMP firmware version

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
- sv_dev_debug log
- sv_msg_trace.log
- sv_dmp_syslog
- Event script name
- DMP firmware version.

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. Verify that the RSS URL feed contains XML data.
- 4. Use the right ticker version that comes with Cisco StadiumVision Director releases.
- 5. 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
- sv_dev_debug log
- sv_msg_trace.log
- sv_dmp_syslog (saved from System State Reports tool)
- Event script name
- Cisco StadiumVision Director software version
- DMP firmware version

Troubleshooting Critical DMPs on Dashboard

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

Troubleshooting/Solution

- 1. Verify that the DMP is reachable (using Ping) by Cisco StadiumVision Director.
- Run the Get Status command for the critical DMPs from the Management Dashboard (DMP and TV Controls > Monitoring > Get Status).
- 3. Verify Flash Template has been pushed. If not, push the Flash template from Control Panel. If staging fails, go to Step 3.
- 4. 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. Verify for initial MIB compliance. Push the initial MIB for noncompliance 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	Email notification failed after redirecting to alternate SMTP server due to
Operator	the existing SMTP server down, under maintenance, or otherwise
(EDO)	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 sv_dev_debug.log using the System State Reports tool and send to Cisco Technical Support along with the Cisco StadiumVision Director version.

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

Troubleshooting DMPs

Refer to the "Troubleshooting" section of <u>*Cisco StadiumVision Director</u> Video Endpoint (DMP) Design and Implementation Guide*.</u>

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.
- 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 <u>Cisco</u> <u>StadiumVision Local Control Areas Design and Implementation Guide</u>.

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:
 - sv_dev_debug log of the Crestron request (from System State Reports tool)
 - 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 23).

Figure 23. 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 18 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 18.	Information in Some Lo	og 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.

File Name	Information Captured in this Log File
sv_dev_	More detailed core Cisco StadiumVision Director
debug.log	processing.
sv_	Cisco StadiumVision Director outbound messages to
external.log	DMP, Phone, and so on.
localhost_	HTTP server access log.
access_log	
sv_rest_	Audit trace of user who invoked a REST call.
audit.log	
sv_rest_	Request/response XML message payload.
xml.log	
sv_msg_	Multicast control messages to DMP.
mcast_	
trace.log	
sv_	General Cisco StadiumVision Director logging (start / stop,
system.log	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.