



# Backing Up and Restoring Cisco StadiumVision Director Servers

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This module describes how to setup and schedule backups between a primary and secondary server, and restore data between them.

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## Prerequisites for Backing Up and Restoring Cisco StadiumVision Director Servers

Before you backup or restore Cisco StadiumVision Director servers, be sure that the following requirements are met:

- You are familiar with using the Text Utility Interface (TUI) in Cisco StadiumVision Director.  
For more information, see the [“Cisco StadiumVision Director Server Text Utility Interface”](#) module of this *Cisco StadiumVision Director Server Administration Guide*.
- You have a directly-connected console or an SSH client to access the primary active and secondary servers.
- You have the IP addresses of the active and secondary servers.
- You know the installer account credentials on the Cisco StadiumVision Director active and secondary servers.

- The IP address of the secondary server must be reachable on the network from the active server or the TUI backup configuration will fail.
- You have determined an appropriate time on the network to schedule automatic backups and restores.

## Restrictions for Backing Up and Restoring Cisco StadiumVision Director Servers

Consider the following restrictions when backing up and restoring Cisco StadiumVision Director servers:



### Caution

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The tasks described in this document apply only to a redundant server environment where *both* Cisco StadiumVision Director servers are running version 3.2 or later software.

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- If you have to fail over to your secondary Cisco StadiumVision Director server due to a problem on the primary, then your original backup configuration will be invalid.  
Be aware that your scheduled backup process cannot fully operate by automatically transferring a copy of the backup to the secondary server until you use the TUI automatic backup configuration again to reset the backup configuration between the primary and secondary servers. However, a backup will continue to be saved on the primary server.
- When you fail back to the original primary server and are now using the original IP addressing configuration, you still will need to use the TUI automatic backup configuration again so that the backup directory can be re-established on the secondary server.
- A restore cannot run while an event script is running.

## Information About Backing Up and Restoring Cisco StadiumVision Director Servers

This section includes the following topics:

- [Backup Environment, page 90](#)
- [What Cisco StadiumVision Director Data is Backed Up, page 91](#)
- [Disk Storage and Maintenance, page 91](#)
- [Restore Environment, page 91](#)

## Backup Environment

While you can run a backup for a network environment where there is only a single Cisco StadiumVision Director server, the recommended environment that is described in this document is a redundant environment for either Platform 2 or Platform 3 servers or a virtualized environment. In a redundant environment, you are running Cisco StadiumVision Director on a primary server, with a secondary server connected to the same subnet where the backup data from the primary server is saved.

The backup process can be scheduled and also run manually. When a backup is completed, the CMS is automatically restarted.

## What Cisco StadiumVision Director 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

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

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## Disk Storage and Maintenance



### Note

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To be sure that your system has enough disk space, Cisco StadiumVision Director Release 4.0 only retains one backup file by default.

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For more information, see the “Managing Server Resources in Cisco StadiumVision Director” module of the [Cisco StadiumVision Director Operations Guide](#).

## Restore Environment

As with backups, you can schedule the restore process or run it manually. When the manual restore screen is displayed, it lists backups from both the backup and restore directories, concatenated together. This allows you to run a manual restore on either the primary or the secondary server. An automated restore always uses the most recent backup file in the restore directory.

Also, the schedule of tasks to run in the primary database and the secondary database will be different, due to the existence of the backup and restore tasks. Therefore, the schedule itself is not automatically restored.



**Step 3** Select **Enable backup user account**.

**Tip**

To navigate through the TUI menus you must type the character that corresponds to the menu area where you want to go (a, b, c, and so on) and press **Enter**.

To return to other menus, you must back out of the hierarchy of menus using one of the indicated keys to return you to prior menus.

When successfully created, the following messages are displayed:

```
Backup user has been enabled.
```

```
You must set up the backup user key from the primary system to use it.
```

**Step 4** Press any key to return to the Enable/Disable Backup user menu.

**Step 5** Continue to return to the Main Menu and exit the TUI.

## Setting Up the Primary Server for Automatic Backup and Restore

The configuration of the backup accounts and directories between the primary and backup server is automated using a TUI menu option. You need to use the TUI to setup the Cisco StadiumVision Server environment to be able to run the backup and restore processes.

**Note**

The TUI is only used to configure the backup environment. You need to use the Management Dashboard to schedule or run any manual backups. For more information, see the [“Scheduling a Regular Backup” section on page 95](#) and [“Starting a Backup Manually for Immediate Execution” section on page 96](#).

**To set up the primary server for automatic backup and restore, complete the following steps:**

**Step 1** On the primary server, log into the TUI by doing the following:

- a. Use a directly connected console, or use an SSH client from a laptop computer that is connected to the Cisco StadiumVision Server network to run a secure login to the primary Cisco StadiumVision Director server using the IP address for your server.
- b. When the login prompt appears, enter the **installer** userid followed by the installer password at the password prompt.

**Step 2** From the Main Menu, go to **StadiumVision Server Administration > Setup automatic backup and restore**.



- Step 4** At the prompt, type the password for the installer account on the secondary backup server.
- Step 5** When accepted, the system generates the RSA keys and the public key is copied to the secondary server. Confirm that the keys are created without errors as shown in (Figure 4):

**Figure 4** Generation of RSA Keys

```

Please enter the IP address of the currently inactive SVD server
Enter hostname (or press <ENTER> to cancel): 10.194.171.62
Please enter the password for installer @ 10.194.171.62:
Generating public/private rsa key pair.
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
31:79:b0:1f:e4:c3:34:67:9a:38:3a:69:2e:65:98:0b root@gatemp34
The key's randomart image is:
+--[ RSA 2048 ]-----+
  . +.
  O.o
  .o#
  o o o
  o o .S .
  E o B
  . * .
  o .
  +
-----+
Press any key to return to the menu.

```

- Step 6** Wait until the “Press any key” message appears (there can be a short delay before it is displayed).
- Step 7** Then, press any key to return to the StadiumVision Server Administration menu.
- Step 8** Continue to return to the Main Menu and exit the TUI.

## Scheduling a Regular Backup

After you have configured the servers to support the backup process, you need to schedule backups using the Management Dashboard in the Cisco StadiumVision Director software.



### Note

It is recommended that you schedule backups to occur while the Cisco StadiumVision Director servers are not actively running scripts or performing other event processing.

**To configure a backup to run on a regular schedule, complete the following steps:**

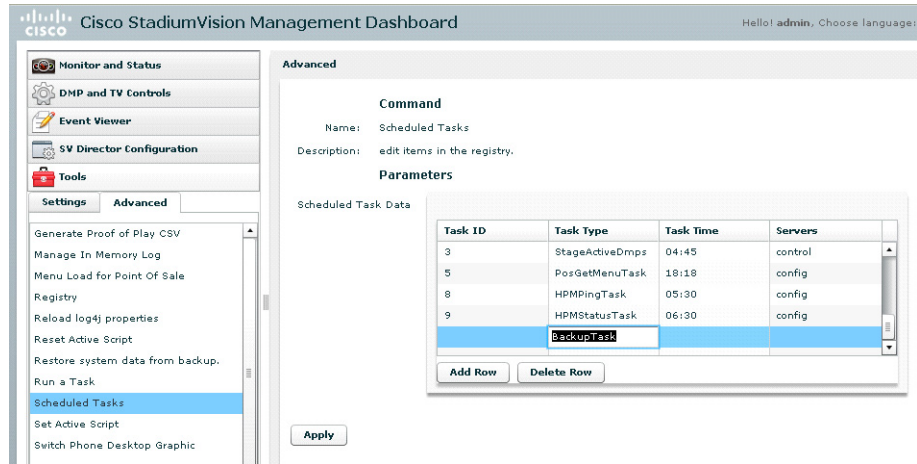
- Step 1** Log into the primary Cisco StadiumVision Director server as an administrator.
- Step 2** From the Cisco StadiumVision Director main menu, click **Management Dashboard**.  
The Cisco StadiumVision Management Dashboard opens in a new window.
- Step 3** Select **Tools > Advanced > Scheduled Tasks**.
- Step 4** Click **Add Row** and scroll to the new blank line.
- Step 5** Click in the Task Type column and type **BackupTask** (Figure 5).



### Note

Be sure to type the name of the task exactly as shown with upper and lowercase characters.

**Figure 5** Adding a Backup Task to Run on a Regular Schedule



- Step 6** Click in the Task Time column and specify the time (in 24:00 format) when you want the backup to run.
- Step 7** Click in the Servers column and type **config**.
- Step 8** Click **Apply**.

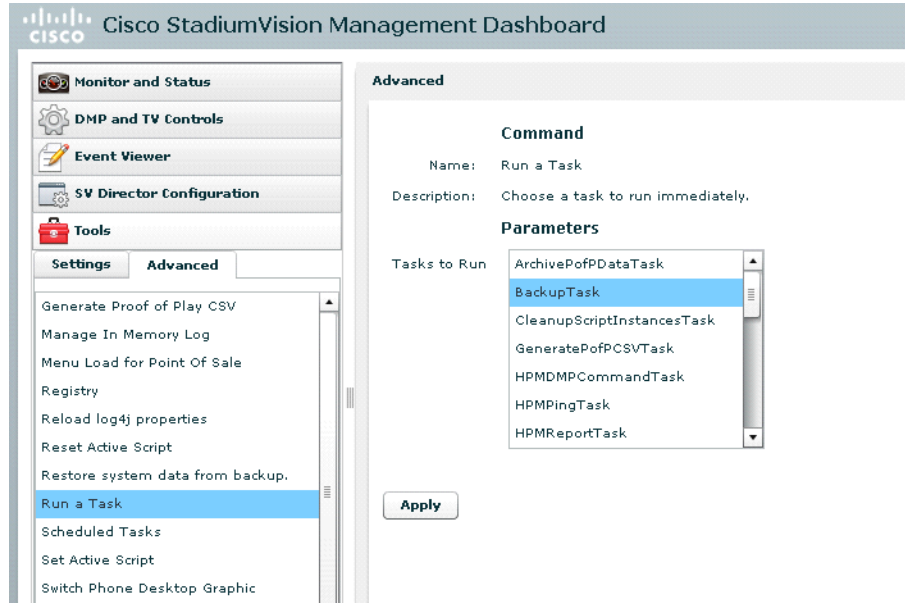
## Starting a Backup Manually for Immediate Execution

If you want to start a backup other than at the regularly scheduled time, you can run a backup manually.

**To start a backup manually for immediate execution, complete the following steps:**

- Step 1** Log into Cisco StadiumVision Director as an administrator.
- Step 2** From the Cisco StadiumVision Director main menu, click **Management Dashboard**.  
The Cisco StadiumVision Management Dashboard is opened in a new window.
- Step 3** Select **Tools > Advanced > Run a Task**.
- Step 4** In the Tasks to Run box, select the **BackupTask** (Figure 6).



**Figure 6** Running a Scheduled Backup Task Manually

**Step 5** Click **Apply**.

The backup begins immediately. When completed, the CMS is automatically restarted.



**Note**

The “success” message that appears means that the backup task has started. It does not mean that the backup has completed.

## Verifying Backup Completion

To verify backup completion, you should confirm that a backup file exists and also that no errors appear in the log file.

### Verifying That a Backup File Exists



**Note**

Verifying the existence of a backup file only tells you that a backup was attempted, but not necessarily if there were any errors.

**To verify that a backup file exists, complete the following tasks:**

- Step 1** Log into Cisco StadiumVision Director as an administrator.
- Step 2** From the Cisco StadiumVision Director main menu, click **Management Dashboard**.  
The Cisco StadiumVision Management Dashboard is opened in a new window.
- Step 3** Select **Tools > Advanced > Restore system data from backup**.

**Step 4** Verify that backup files with dates and times appear.

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## Finding Backup Errors in the Log File



**Note** Be aware that the messages “Starting backup” and “Backup completed” will always appear in the log regardless of success.

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**To find backup errors in the log file, complete the following steps:**

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**Step 1** Open the `/opt/sv/servers/config/logs/sv_dev_debug.log` file.



**Tip** You can access log files from the TUI, or by running a System State Report from the Cisco StadiumVision Director main menu.

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**Step 2** In the `sv_dev_debug.log` file, find messages that include the string “com.cisco.sv.backup.” These are the backup process messages.

**Step 3** Find the “Starting backup” message.

**Step 4** After the “Starting backup” message (but before the “Backup completed” message), look for a “com.cisco.sv.backup” message that also includes “ERROR” in the string.

If you find this error, the backup did not complete successfully.

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## Modifying the Number of Backup Files to Retain

To reduce the amount of disk storage required in your system, the default backup retention policy is to keep one backup file. This retention policy can be modified to retain 2, 5, 7, or 10 backup files.



**Caution** Be aware of your overall disk utilization and the size of your backup content to be sure that the number of backup files that you want to keep can be supported by your system resources.

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**Note** This task must be run on both the primary server and secondary backup server.

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**To modify the number of backup files to retain, complete the following steps:**

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**Step 1** Log into the TUI by doing the following:

- a. Use a directly connected console, or use an SSH client from a laptop computer that is connected to the Cisco StadiumVision Server network to run a secure login to the primary Cisco StadiumVision Director server using the IP address for your server.

- b. When the login prompt appears, enter the **installer** userid followed by the installer password at the password prompt.

**Step 2** From the Main Menu, go to **StadiumVision Server Administration > Retention Policy > Backup/restore Files**.

A menu of policy options is displayed (Figure 7), where you can choose to retain 1 (the default), 2, 5, 7, or 10 backup files.

**Figure 7 Backup/restore Retention Policy Menu**

```
Main Menu > StadiumVision Server Administration > Retention Policy > Backup/restore Files

Please choose one of the following menu options:

a) Retain 1 backup
b) Retain 2 backups
c) Retain 5 backups
d) Retain 7 backups
e) Retain 10 backups
R or < or ,) Return to prior menu
```

**Step 3** Type the letter that corresponds to the number of days that you want to retain files and press **Enter**.

**Step 4** When the change of policy confirmation message displays, press any key to return to the StadiumVision Server Administration menu.

**Figure 8 Confirmation of Policy Change**

```
Configured Backup/Restore Retention Policy.
Press any key to return to the menu.
```

**Step 5** Continue to return to the Main Menu and exit the TUI.

## How to Restore a Cisco StadiumVision Director Server

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.

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 on page 103.



### Note

If for some reason you need to manually copy files between the servers, be sure that you copy both the .tar and .chksum files because the restore process automatically uses both files to verify the MD5 signature.

This section includes the following tasks:

- [Starting a Restore Manually for Immediate Execution, page 100](#) (optional)
- [Restarting the Cisco StadiumVision Director Software, page 101](#) (required after restore run)

## Starting a Restore Manually for Immediate Execution

If you want to start a restore other than at the regularly scheduled time, the Cisco StadiumVision Director software also allows you to run a restore from backup to begin immediately.



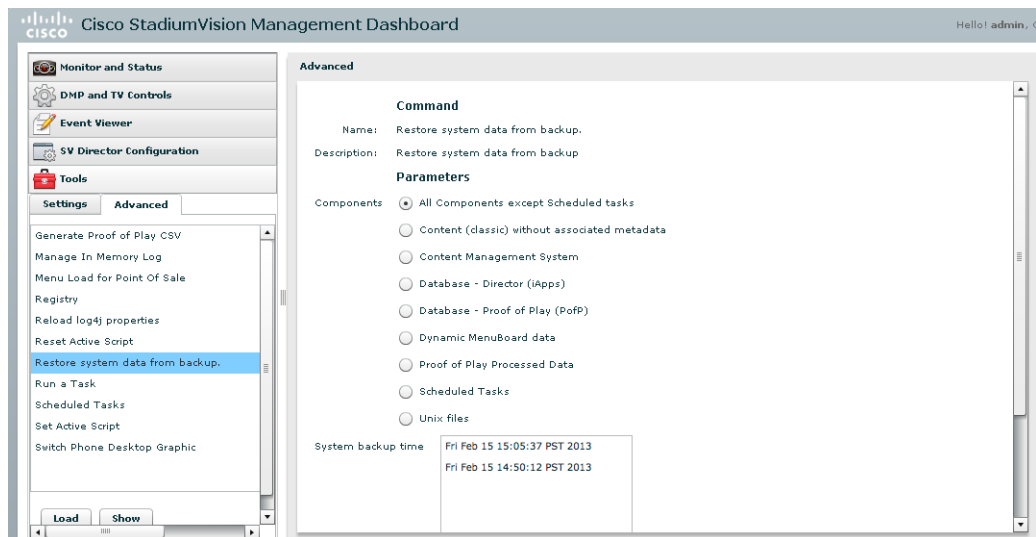
### Caution

You cannot successfully run the restore process while an event script is running. In addition, if your venue was running any script when the backup took place, then those scripts will begin running after the restore.

To start a restore manually for immediate execution, complete the following steps:

- Step 1** Log into Cisco StadiumVision Director as an administrator.
- Step 2** From the Cisco StadiumVision Director main menu, click **Management Dashboard**.  
The Cisco StadiumVision Management Dashboard is opened in a new window.
- Step 3** Select **Tools > Advanced > Restore system data from backup**.
- Step 4** For Components, select **All components except Scheduled tasks** (Figure 9).

**Figure 9** Running a Restore Task Manually



- Step 5** (Optional) If you do not want to restore the latest backup (the default), then in the System backup time box, select the date and time of the backup file that you want to restore (Figure 9).
- Step 6** Click **Apply**.  
The restore begins immediately.



### Note

If you need to also restore the scheduled tasks, you can rerun the Restore system data from backup and for Components, select **Scheduled Tasks**.

## Restarting the Cisco StadiumVision Director Software

After you perform any restore on a Cisco StadiumVision Director server, you must restart the Cisco StadiumVision Director software to resume normal operation of the services.

**To restart the Cisco StadiumVision Director software, complete the following steps:**

- 
- Step 1** On the primary server, log into the TUI by doing the following:
- a. Use a directly connected console, or use an SSH client from a laptop computer that is connected to the Cisco StadiumVision Server network to run a secure login to the primary Cisco StadiumVision Director server using the IP address for your server.
  - b. When the login prompt appears, enter the **installer** userid followed by the installer password at the password prompt.
- Step 2** From the Main Menu, go to **StadiumVision Server Administration > Restart Stadium Vision Director Software**.
- Step 3** Return to the Main Menu and exit the TUI.
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