



# Release Notes for Cisco TV VDS 3.6.1

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**OL-31736-01**

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These release notes describe the features and caveats for all releases in the Cisco TV VDS Release 3.6 train.

These release notes are updated with each release in the train. This update adds information for Cisco TV VDS Release 3.6.1. For a list of the caveats that apply to this release, see the [“Caveats” section on page 4](#).

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# Introduction

Cisco TV VDS 3.6.1 is a next-generation cloud DVR appliance that interoperates with Cisco Cloud Object Store (COS) as well as third-party cloud storage products. TV VDS 3.6.1 embodies the program recording functions of Cisco Video Distribution Suite for Television (VDS-TV), but provides new features and enhancements in response to customer requests.

TV VDS 3.6.1 includes:

- Support for archival storage via the Cisco Cloud Object Store (COS)
- Feature enhancements relative to previous Cisco TV recorder offerings
- Multiple bit rate (MBR) VOD ingest integration with the COS
- Optional archiving to cloud storage using the OpenStack Swift API
- Use of Yellow Dog Updater Modified (YUM) for installation and upgrade
- SNMP MIBs for enhanced monitoring of TV Recorder statistics

## Feature Enhancements

Compared to previous Cisco cloud DVR offerings, TV VDS 3.6.1 provides the following enhancements:

- Improved system management
- Redundancy and recovery capabilities
- Comcast R8 updates for I03 and I04
- Comcast C2 video indexing I04 (Version 2)

## Hardware Enhancements

TV VDS 3.6.1 adds support for the Cisco Content Delivery Engine (CDE) equipped with 4 TB hard drive (CDE 460-4R3), and continues to support CDE models 110, 250, 460-4R1, and 470-4R2. Support for CDE470-4R2 and CDE460-4R3 hardware allows Digital Video Recording storage in a high capacity cloud. See the [Cisco Content Delivery Engine 205/220/250/420/460/470 Hardware Installation Guide](#).

## Software Enhancements

Enhancements to software features present in earlier VDS-TV releases include new functionality to support:

- Enhanced statistics monitoring
- AVS database (AVSDB) data protection
- Swift API support for Cloud Object Store (COS) archiving
- Comcast R8 I03 and I04 support
- MBR Profiles alignment
- Cross-recording prevention
- HTTP ingest
- Orphaned Global Object ID (GOID) cleanup
- Support for Comcast C2 Indexing V2 specification, including:

- Reduction of index file size
- Reordering of index records
- Update to Audio Header Records
- Limiting Audio Index Records
- HE-AAC Support
- Removal of AVC B and P Frame Records
- Update to AVC I Frame Record
- Update to EBP Index Record
- Update to AVC Normal Rate Random Access Picture Record
- Variable Bit Rate (VBR) Record Flag
- Implementation of AVC PPS, AVC SEI, and AVC Slide Header records
- Additional Program Map Table (PMT) Descriptor support, including
  - Audio Descriptor - High Efficiency Advanced Audio Coding (HE-AAC)
  - Maximum Bit Rate Descriptor - Provides hints to TV Recorder for resource allocation
  - Closed Caption (CC) Descriptor - Eliminates the need to parse AVC SEI for CC information
- CableLabs Encoder Boundary Point (EBP) Support
- Configuration changes to support new features and enhancements

## Unsupported Features

The following features are not implemented in TV VDS 3.6.1, but are under consideration for a future release.

- Support for PMT Change
- Support for CableLabs AAC Audio Descriptor

## Supported Environments

TV VDS 3.6.1 supports RTSP environments. Some RTSP environment features are only applicable to certain RTSP Deployment Types.

## System Requirements

TV VDS 3.6.1 runs on the CDE110, CDE250, CDE460, and CDE470. See the [Cisco Content Delivery Engine 110 Hardware Installation Guide](#), and the [Cisco Content Delivery Engine 205/220/250/420/460/470 Hardware Installation Guide](#). TV VDS 3.6.1 does not run on the CDE100, CDE200, CDE300, and CDE400 hardware models.

TV VDS 3.6.1 supports Recorder Manager version usrm-3.2.3-27.e15.

**Note**

If you are using Internet Explorer 8 to access the CDSM GUI, for the online help to display correctly, you need to turn on Compatibility View. To turn on Compatibility View in Internet Explorer 8, choose **Tools > Compatibility View**.

## Caveats

Caveats describe unexpected behavior in Cisco VDS software releases. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious. Severity 3 caveats are moderate caveats, and only selected severity 3 caveats are included in the caveats document.

Caveat numbers and brief descriptions for Cisco VDS TV Release 3.6-based releases are listed in this section.

## Open Caveats

### Open Caveats for Cisco TV VDS Release 3.6.1

[Table 1](#) lists the open issues in the TV VDS 3.6.1 release.

Bug details are displayed in the [Bug Search](#).

**Table 1** *Open Caveats in TV VDS 3.6.1 Release*

Bug ID	Description
CSCup60608	3.6 Issue of writing the streamID scte35 records into the index file.
CSCup62623	Recording numbers dropped 2/3 when using shared interfaces.
CSCup52183	3.6 Rec: Yum install from 3.4.2ES2 is stuck at avbdb shutdown.
CSCup33343	Monitor will not start avbdb automatically after I shutdown db manually.
CSCup50879	3.6 Yukon AVSDB protection: backup server stuck when client stop avbdb.
CSCun02763	[CISCO-159] DB trigger problem causes recordings to fail.

## Resolved Caveats

### Resolved Caveats Cisco TV VDS Release 3.6.1

[Table 2](#) lists the fixed issues in the TV VDS 3.6.1 release.

Bug details are displayed in the [Bug Search](#).

**Table 2** *Resolved Caveats in TV VDS 3.6.1 Release*

Bug ID	Description
CSCup59885	361B3: cserver failed to start after cdsinstall cdstv iso & normal setup.
CSCup49088	3.6.0 b183 cserver cannot startup and disk up/down frequently.
CSCui37462	Live ingest would delay after system run a long time.

**Table 2**      **Resolved Caveats in TV VDS 3.6.1 Release**

<b>Bug ID</b>	<b>Description</b>
CSCuj31938	Vaults not seeing the correct primary server.
CSCuj44621	RSTP thread monitoring can't be enabled.
CSCuj82750	IP Nickname page slow.
CSCuj84010	DB crash on memory allocation for transaction detail.
CSCul55720	Ingest FTP pull should use relative path.
CSCul96087	One way connection between vault and primary streamer.
CSCum17582	ISA services restart should be avoided during startup GOID validation.
CSCum26100	Importer doesn't delete .fin file.
CSCum50991	db gets hung when trying to sync.
CSCum68181	[CISCO-159] Rec returns 503 on /rec/record/RecordingStatus queries.
CSCum74618	Limit the rate of evaluator queries.
CSCum74692	Server overall capacity should include network CPU.
CSCum74726	Do not send out ack on every single network interrupt.
CSCum96674	Index file for Live ingests should only be mirrored from ingesting Vault.
CSCun07983	Issue with the Locate Virtual IP - Netmask is not getting updated.
CSCun07992	Original mpeg name should not be altered.
CSCuj02516	Smoothing algorithm needs to be fixed to run less often.
CSCuj19102	CDSM - Trick Mode Capture enable/disable has to be more granular.
CSCuj31912	Add statistics to track individual control message bw.
CSCuj38030	MD5checksum are same.
CSCul24306	TCP connection exist always after power off STB.
CSCul29203	TrickMode API calls to CDSM: Connections are not being closed properly.
CSCul93441	Full resync is triggering every time we restart Database.
CSCum04796	NGOD A3 GetContentInfo response enhancement.
CSCum18718	Liveness Inactivity Timer only updated on Pause.
CSCum21030	Wrapper Script on AVSDBUtil for getting the GOIDs for the PAID inputted.
CSCum34791	MasterContentstore failed when any slave down and back until slave is up.
CSCum60267	FSI using Streamer Load information from Database.
CSCum63857	Excessive blkog messages on VVIM's.
CSCum74673	Smoothing evaluators are running too often.
CSCum74680	Remote Smoother should not prefer one server.
CSCum82644	ifcfg-ethx file for Loacte port have a "NETMASK=(blank)".
CSCum95976	42: Inaccurate calculation of the bitrate for AAC audio.
CSCum97178	3.2.5 : repdb_bkup file not available under /arroyo/db.
CSCun15815	Recorder Transfer Request Failure.
CSCun18714	CServer detects "pic_order_cnt_type" incorrect.

**Table 2**      **Resolved Caveats in TV VDS 3.6.1 Release**

Bug ID	Description
CSCun22327	Backup utility failed for STREAM_OBJECT_15.db table.
CSCun23927	Content Store Master Crashes if the hostname is more than 16 Characters.
CSCun25181	Locate/General Port Subnet Mask not exporting into the XML.
CSCun26510	Recorder sends misleading response code for content not found from DDN.
CSCun35927	Enable Panic when CPU Soft lock up detected
CSCun38334	network flap lead to cache no capacity.
CSCun40155	AIM shouldn't fail a pkg-provisioning because "box cover" assets.
CSCun40319	Not able to Stream, when a package is deleted and republished manually.
CSCun46231	Invalid reference happens when a Stream has to play next play command.
CSCun51057	All live ingested contents are deleted after one vault is on line again.
CSCun60063	TcpConnectionprobe timer callback references invalid redirector.
CSCun71748	TEARDOWN reply contains 2 bytes too much (CR-LF CR-LF).
CSCun81902	GET_PARAMETER reply for heartbeat contains 2 bytes less(CR-LF CR-LF).

## Accessing Bug Search Tool

This section explains how to use the Bug Search tool to search for a specific bug or to search for all bugs in a release.

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- Step 1** Go to <https://tools.cisco.com/bugsearch/>.
- Step 2** At the Log In screen, enter your registered Cisco.com username and password; then, click **Log In**. The Bug Search page opens.




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**Note** If you do not have a Cisco.com username and password, you can register for them at <http://tools.cisco.com/RPF/register/register.do>.

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- Step 3** To search for a specific bug, enter the bug ID in the Search For field, and press **Enter**.
- Step 4** To search for bugs in the current release, specify the following criteria:
- Select the **Model/SW Family** Product Category drop-down list box, then enter **Cisco Videoscape Distribution Suite for Television** or select the name from the **Select from list** option.
  - Select **Cisco Videoscape Distribution Suite for Television** from the list that displays.
  - The **VDS Television Software** type displays in the Software Type drop-down list box.
  - Releases: 3.6.1.
  - Advanced Filter Options—Define custom criteria for an advanced search by selecting an appropriate value from the drop-down lists by choosing either one Filter or multiple filters from the available categories. After each selection, the results page will automatically load below the filters pane. If you select multiple filters, it behaves like an AND condition.
    - Modified Date—Select one of these options to filter bugs: **Last Week**, **Last 30 days**, **Last 6 months**, **Last year**, or **All**.

- Status—Select **Fixed**, **Open**, **Other**, or **Terminated**.  
 Select **Fixed** to view fixed bugs. To filter fixed bugs, uncheck the Fixed check box and select the appropriate suboption (Resolved or Verified) that appears below the Fixed check box.  
 Select **Open** to view all open bugs. To filter the open bugs, uncheck the Open check box and select the appropriate suboptions that appear below the Open check box.  
 Select **Other** to view any bugs that are duplicates of another bug.  
 Select **Terminated** to view terminated bugs. To filter terminated bugs, uncheck the Terminated check box and select the appropriate suboption (Closed, Junked, or Unreproducible) that appears below the Terminated check box. Select multiple options as required.
- Severity—Select the severity level:
  - 1: Catastrophic.
  - 2: Severe
  - 3: Moderate
  - 4: Minor
  - 5: Cosmetic
  - 6: Enhancement
- Rating—Select the bug’s quality rating: **5 Stars** (excellent), **4 or more Stars** (good), **3 or more Stars** (medium), **2 or more Stars** (moderate), **1 or more Stars** (poor), or **No Stars**.
- Support Cases—Select whether the bug **Has Support Cases** or **No Support Cases**.
- Bug Type—Select whether the bug is **Employee Visible & Customer Visible** or **Customer Visible Only**.

**Step 5** The Bug Toolkit displays the list of bugs based on the specified search criteria.

**Step 6** You can save or email the current search by clicking their respective option.

If you have any problems using the Bug Search tool, log into the Technical Support website at <http://www.cisco.com/cisco/web/support/index.html> or contact the Cisco Technical Assistance Center (TAC).

## Configuring New CDE460 and CDE470 Systems

Complete the following steps to set up a new CDE460 or CDE470 with VDS-TV 3.6.1.

**Step 1** Execute `/root/cdsinstall /CDS-TV.iso`.

- a. Select **RTSP** as the deployment type.



**Note** For a fresh install, reboot is not required to continue to the next step of executing `cdsconfig`.

**Step 2** Execute `cdsconfig`, and then:

- a. Configure the network.
- b. Select the appropriate platform.
- c. Select the **recorder** device role.
- d. Answer the remaining questions appropriately.

- Step 3** Prepare the VDS-TV-PROD.iso as follows:
- Execute `/vdstvprepinstall /VDS-TV-PROD.iso`.
  - Select **RECORDER** as the deployment type.
- Step 4** Use YUM to install the 3.6.1 RPMs as follows:
- Enter `yum groupupdate recorder`.
  - At the “Is this ok” prompt, select **y**.
- Step 5** Configure the Cserver setupfile/subnetTable either manually or using CDSM.
- If using CDSM:
- Start **avsd** and **statsd**.
  - Choose **Configure > Server Level > Interface Setup/Recorder Setup/Route Tables** from the CDSM GUI menus.
- If configuring manually:
- Manually edit `/arroyo/test/recorder/setupfile` and `/arroyo/test/SubnetTable`.
  - Manually create `/arroyo/test/afterrun` and give execution permission.
  - Add the new index mode tool `avs_indexingmode -c` to `/arroyo/test/afterrun`.
- Step 6** Reboot the CDE460 or CDE470.

## Upgrading to Cisco VDS-TV Release 3.6

For the upgrade sequence of the VDS devices in your system (CDSM and VDS Recorder), see the “Overview” chapter in the installation and upgrade manual for your release.

To upgrade a VDS device, do the following:

- 
- Step 1** Download the ISO image file (VDS-TV-PROD-3.6.1-b3.iso) and the `vdstvprepinstall` script from the Cisco Software Download website. For more information on downloading the software files, see the “Overview” chapter in the installation and upgrade manual for your release.
- Step 2** For the VDS Recorder, on Recorder Manager, offload the VDS Recorder to prevent new recording requests.
- From the Recorder Manager web GUI, choose **ResourceManager > Recorders**, and select the VideoRecorder to be upgraded.
  - Choose **VideoRecorder CDSRECORDER:XXXX:YYY > Configuration**, and change the value of AdminState from InService to **OutOfService**.
  - Change the value of ArchiveAdminState from InService to **OutOfService**.
- Step 3** For the VDS Recorder, offload the device before upgrading the software to prevent the processing of fill requests.
- From the CDSM GUI, choose **Maintain > Servers > Server Offload**. The Server Offload page appears.
  - From the **Server IP** drop-down list, select the IP address or nickname of the sever and click **Display**.
  - From the New Server Status drop-down list, select **Offline** for a Recorder or Streamer or Caching Node, then select **Offline (No Ingest & Fill)** for a Vault.
  - Click **Submit**.



e. Check the `protocoltiming` log to confirm that the VDS server has been offloaded.

**Step 4** Log into the VDS server via SSH as user `root`.

**Step 5** Copy the YUM ISO image file and YUM `vdstvpreinstall` script to the VDS Recorder.

```
# scp -p <user>@<remote_ip_address>:VDS-TV-3.6.1.iso /root/.
# scp -p <user>@<remote_ip_address>:vdstvpreinstall /root/.
```

**Step 6** Enter the following command to kill the `monit` process and prevent applications from being restarted automatically:

```
# ps -ef|grep monit
# kill -9 <PID>
```

Enter the following command to confirm that the `monit` process is killed.

```
# pgrep monit
```

**Step 7** For VDS Recorder, enter the following command to stop all applications, especially `avbdb`:

```
# su - isa
# arroyo stop
```

Enter the following command to confirm that all applications, especially `avbdb`, have stopped.

```
# arroyo status
# exit
```

For CDSM, enter the following command to shut down `avbdb`:

```
# db_shutdown
```

Wait for a moment, and then enter the following command to confirm that `avbdb` is stopped:

```
# ps -ef|grep avbdb
```

**Step 8** Enter the following command to back up the database:

```
# cd /arroyo/db
# cp -pr DATADIR DATADIR-342ES2
# chown isa:isa DATADIR-342ES2
```

**Step 9** Comment out the following lines that start the services in `/etc/rc.local`:

```
# su - isa -c "arroyo start avbdb" >& /dev/null
# /arroyo/test/run

# /home/stats/statsd.bin -i <Server IP> -s <subnet mask> -d eth0

# /home/stats/monit/monit -d 1 -c /home/stats/monit/monitrc >& /dev/null
# sleep 1
# /home/stats/monit/monit -c /home/stats/monit/monitrc reload >& /dev/null
# sleep 1
# /home/stats/monit/monit -c /home/stats/monit/monitrc monitor all >& /dev/null

# su - isa -c "arroyo start recsvr" >& /dev/null
# su - isa -c "arroyo start dnsresolver" >& /dev/null
```

**Step 10** Enter the following command to run the `vdstvpreinstall` script to prepare for YUM installation:

```
# cd /root
# ./vdstvpreinstall VDS-TV-3.6.1.iso
```

When prompted, choose *one* of the following:

- Choose **5** for RECORDER.

- Choose **1** for CDSM/VVIM.

**Note**

When installing YUM for the first time, execute the `vdstvpreinstall` locally on the Recorder. This will install YUM RPMs, create configuration files, and create a local repository.

For subsequent YUM upgrades, you can use the same method, or optionally, use an external YUM server. To use an external YUM server, configure the server in `/etc/yum.repos.d/vdstv.repo` as shown in the following example:

```
baseurl=http://10.74.15.187/Yukon/VDSTV_361_3
```

For detailed steps, see “Installing Cisco VDS TV Release 3.6 via a Remote YUM Server” in the *Cisco TV VDS 3.6 Software Configuration Guide*.

**Step 11** For the VDS Recorder, run the following YUM command to upgrade to Release 3.6.1:

```
# yum groupupdate recorder
# reboot
```

For the CDSM, run YUM command to upgrade to Release 3.6.1

```
# yum groupupdate vdstv-cdsm
# reboot
```

**Step 12** For the CDSM, log in to the GUI as a user with *Engineering* access level and configure the settings on the CDSM Setup page.

**Step 13** After the Recorder has come up, edit `/arroyo/test/afterrun` to use the new index mode tool.

Replace old tunable:

```
echo 0x80 > /proc/calypso/internal/trick_test0
```

...with new index mode tool:

```
avs_indexingmode -c
```

**Step 14** Check the execution permission of `/arroyo/test/afterrun`.

```
# ll /arroyo/test/afterrun
If afterrun doesn't have execution permission, add permission.
# chmod +x /arroyo/test/afterrun
```

**Step 15** After the Recorder has come up, start the services as per the sequence in `/etc/rc.local`,

**a.** Start `avbdb`:

```
# su - isa -c "arroyo start avbdb" >& /dev/null
```

**b.** Start `cserver`:

```
# /arroyo/test/run
```

**c.** Start `statsd`:

```
# /home/stats/statsd.bin -i <Server IP> -s <subnet mask> -d eth0
```

**Step 16** If R8 I04 is to be used, wait until `statsd` connects to `avbdb` and both are operational, then change the R8 version from the original I02 to I04 as follows:

**a.** From the CDSM GUI, choose **Configure > Server Level > Recorder Setup**.

**b.** From the **Server IP** drop-down list, select the IP address or nickname of the sever and click **Display**.

- c. From the **Protocol Version** drop-down list, select **I04**.
- d. Click **Submit**.
- e. Confirm that **ProtocolVer=4** has been written to `/home/isa/bss/etc/recsvr.conf`.

**Step 17** Continue to start the services left in the `/etc/rc.local` as follows.

- a. Start `monit`:

```
# /home/stats/monit/monit -d 1 -c /home/stats/monit/monitrc >& /dev/null
# sleep 1
# /home/stats/monit/monit -c /home/stats/monit/monitrc reload >& /dev/null
# sleep 1
# /home/stats/monit/monit -c /home/stats/monit/monitrc monitor all >& /dev/null
```

- b. Start Recorder applications:

```
# su - isa -c "arroyo start recsvr" >& /dev/null
# su - isa -c "arroyo start dnsresolver" >& /dev/null
```

**Step 18** Comment out the following lines that start the services in `/etc/rc.local`:

```
su - isa -c "arroyo start avbdb" >& /dev/null
/arroyo/test/run

/home/stats/statsd.bin -i <Server IP> -s <subnet mask> -d eth0

/home/stats/monit/monit -d 1 -c /home/stats/monit/monitrc >& /dev/null
sleep 1
/home/stats/monit/monit -c /home/stats/monit/monitrc reload >& /dev/null
sleep 1
/home/stats/monit/monit -c /home/stats/monit/monitrc monitor all >& /dev/null

su - isa -c "arroyo start recsvr" >& /dev/null
su - isa -c "arroyo start dnsresolver" >& /dev/null
```

**Step 19** For VDS Recorder, after the VDS Recorder is operational, return the server to online status as follows:

- a. Choose **Maintain > Servers > Server Offload**. The Server Offload page appears.
- b. From the **Server IP** dropdown list, select the IP address or nickname of the server and click **Display**.
- c. Choose **Online** and click **Submit**.
- d. Choose **Monitor > System Level > System Health** and, on this page, verify the online status of the VDS server.

**Step 20** For the VDS Recorder, on Recorder Manager, bring the VDS Recorder online as follows:

- a. From the Recorder Manager Web GUI, choose **ResourceManager > Recorders**, and select the VideoRecorder to be upgraded.
- b. Choose **VideoRecorder CDSRECORDER:XXXX:YYY > Configuration**, and change the value of `AdminState` from `OutOfService` to **InService**.
- c. Change the value of `ArchiveAdminState` from `OutOfService` to **InService**.

**Step 21** For the VDS Recorder, check the heartbeat messages in the Event Log of Recorder Manager to confirm that the VDS Recorder is operational, as follows:

```
# tail -f /opt/cisco/usrm/EventLog/DDMMYYYY_000000.txt |grep <Recorder_IP_ADDR>
```

For example:

```
# tail -f /opt/cisco/usrm/EventLog/25Jun2014_000000.txt |grep 172.22.99.189
```

## Downgrading from Release 3.6.1

For the downgrade sequence of the VDS devices in your system (CDSM/VVIM and VDS servers [Vault, Streamer, Caching Node, ISV]), see the “Overview” chapter in the *Cisco TV VDS 3.5 Installation Guide*.

To downgrade a VDS device, do the following:

- 
- Step 1** Download the ISO image file (for example, CDS-TV-3.4.2es2-b10.iso) and the cdsinstall script (for example, cdsinstall-3.4.2es2) for Release 3.6 from the Cisco software download website. For more information on downloading the software files, see the “Overview” chapter in the *Cisco TV VDS 3.5 Installation Guide*.
- Step 2** For the VDS Recorder, on Recorder Manager, offload the VDS Recorder to prevent new recording requests as follows:
- From the Recorder Manager Web GUI, choose **ResourceManager > Recorders**, and select the VideoRecorder to be upgraded.
  - Choose **VideoRecorder CDSRECORDER:XXXX:YYY > Configuration**, and change the value fo AdminState from InService to **OutOfService**.
  - Change the value of ArchiveAdminState from InService to **OutOfService**.
- Step 3** For the VDS Recorder, offload the device before upgrading the software to prevent fill requests as follows:
- From the CDSM GUI, choose **Maintain > Servers > Server Offload**. The Server Offload page appears.
  - From the **Server IP** drop-down list, select the IP address or nickname of the sever and click **Display**.
  - From the **New Server Status** drop-down list, select either:
    - Offline** for a Recorder, Streamer, or Caching Node.
    - Offline (No Ingest & Fill)** for a Vault.
  - Click **Submit**.
  - Check the protcoltiming log to confirm that the VDS server has been offloaded.
- Step 4** Log in to the VDS server via SSH as user *root*.
- Step 5** Copy the ISO image file and the cdsinstall script to the /root directory and run the cdsinstall script to download the software.
- For example, use the following commands for downgrading to Release 3.4.2es2:
- ```
# scp -p <user>@<remote_ip_address>:CDS-TV-3.4.2es2-b10.iso /root
# scp -p <user>@<remote_ip_address>:cdsinstall-3.4.2es2 /root
```
- Step 6** For the VDS Recorder, enter the following commands to remove 3.6.1 YUM packages:
- ```
# yum groupremove recorder
# yum clean all
# reboot
```

For the CDSM, enter the following commands to remove 3.6.1 YUM packages:

```
# yum groupremove vdstv-cdsm
# yum clean all
# reboot
```

**Step 7** After the server comes up, run the cdsinstall script to install 3.4.2 ISO image as follows:

```
# cd /root
# ./cdsinstall-3.4.2es2 CDS-TV-3.4.2es2-b10.iso
```

**Step 8** For the CDSM or VDS Recorder, enter the following command to change to use the database backed up before upgrade with the following command:

```
# cd /arroyo/db
# mv DATADIR DATADIR-361
# mv DATADIR-342ES2 DATADIR
```

**Step 9** For the VDS Recorder, edit /arroyo/test/afterrun to use old index tunable.

Replace new index mode tool

```
avs_indexingmode -c
```

With old index tunable

```
echo 0x80 > /proc/calypso/internal/trick_test0
```



**Note** With VDS-TV 3.4.2, it is acceptable to leave ProtocolVer=4 in /home/isa/bss/etc/recsvr.conf because this configuration does not take effect. As a result, recsvr always functions as R8 I02.

**Step 10** Reboot the CDSM or VDS Recorder.

```
# reboot
```

For VDS Recorder, after the VDS server has rebooted, the services avbdb, cserver, monit, recsvr, and dnsresolver should be started automatically as specified in /etc/rc.local.

**Step 11** For VDS Recorder, after the VDS server is operational, return the VDS Recorder to online status as follows:

- a. Choose **Maintain > Servers > Server Offload**. The Server Offload page appears.
- b. From the Server IP drop-down list, select the IP address or nickname of the server and click **Display**.
- c. From the **New Server Status** drop-down list, select **Online** and click **Submit**.
- d. Choose **Monitor > System Level > System Health**, and on this page, verify the online status of the VDS server.

**Step 12** For the VDS Recorder, on Recorder Manager, bring the VDS Recorder online as follows:

- a. From the Recorder Manager web GUI, choose **ResourceManager > Recorders**, and select the VideoRecorder to be upgraded.
- b. Choose **VideoRecorder CDSRECORDER:XXXX:YYY > Configuration**, and change the value of AdminState from OutOfService to **InService**.
- c. Change the value of ArchiveAdminState from OutOfService to **InService**.

**Step 13** To confirm that the VDS Recorder is operational, check the heartbeat messages in the EventLog of Recorder Manager as follows:

```
# tail -f /opt/cisco/usrm/EventLog/DDMMYYYY_000000.txt |grep <Recorder_IP_ADDR>
```

For example:

```
# tail -f /opt/cisco/usrm/EventLog/25Jun2014_000000.txt |grep 172.22.99.189
```

## Related Documentation

Refer to the following documents for additional information about TV Recorder 3.6.1:

- *Cisco TV VDS 3.6 Software Configuration Guide*
- *Cisco Content Delivery Engine 205/220/250/420/460/470 Hardware Installation Guide*
- *Regulatory Compliance and Safety Information for Cisco Content Delivery Engines*
- *Open Source Used in Cisco TV VDS 3.6.1*

[http://www.cisco.com/en/US/products/ps12653/products\\_licensing\\_information\\_listing.html](http://www.cisco.com/en/US/products/ps12653/products_licensing_information_listing.html)

The entire VDS-TV software documentation suite is available on Cisco.com at:

[http://www.cisco.com/en/US/products/ps12653/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps12653/tsd_products_support_series_home.html)

The entire VDS hardware documentation suite is available on Cisco.com at:

[http://www.cisco.com/en/US/products/ps7126/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps7126/tsd_products_support_series_home.html)

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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