# Release Notes for Cisco VDS-TV 3.4

**OL-30870-02**

**Last Updated: March 25, 2014**

These release notes describe the features and caveats for all releases in the Cisco VDS-TV Release 3.4 train.

These release notes are updated with each release in the train. This update adds information for Cisco VDS-TV Release 3.4.2. For a list of the caveats that apply to this release, see the "Caveats" section on page 5.

## Contents

The following information is in the release notes:



## New Features

These sections list the new features supported by the Cisco VDS-TV:



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# New Hardware Features in Cisco VDS TV Release 3.4.2

## ATIS C2 Server Support

The Cisco VDS-TV Release 3.4 expands on client (Streamer) side support for Alliance for Telecommunications Industry Solutions (ATIS) C2.

It introduces the ATIS C2 in the server (Vault) side. This support will enable the Cisco Vaults to serve content to third party streamers in addition to Cisco streamer's capability to stream contents from third party servers. These ATIS C2 enabled Vaults will be serving as National Vaults, which will be controlled by a VVIM unlike the Local VoD market's vault which is controlled by CDSM.

Cisco's Vault will act as ATIS C2 server where it can ingest contents (ATIS indexing) and serve contents to Cisco's streamer via ATIS C2. This ATIS enabled vault is at the national level. Local VoD market will remain the same. Once the content is provisioned and ingested in ATIS index format in the national vault, Local VoD market's vault will provision the same, there by triggering the code flow path supported for earlier releases.

A new index format is added to the **Configure > Server Level > Server Setup Page**. The user can view the index format as **ATIS** based on the ATIS C2 mode field configured in the CDSM Setup page.

A new Interface type is added to the Vault Server to configure the locate interface for ATIS C2 Server setup. This setting will be available to configure via the **Configure > Server Level > Interface Setup Page**.

A new provision is added for the user to configure the Location virtual IP and Subnet mask for that particular vault group. This setting will be available via the **Configure > Array Level > Vault Group Setup page**.

**ATIS Media Resource Requirements**

Each media resource in an ATIS environment has a MediaResourceSet consisting of the following:

- Base media file, also called the 1X file.
- Media Resource Metadata (MRM) file in XML format, which has information about the presence and location (URI) of trick-mode files and index files.
- Index file (ATIS standard index file), which has information about the 1X file, properties of the MPEG TS, Index data for Entry/Exit points in the 1X file, and associated trick-mode file.

## DNS Support

Currently VDS-TV supports host name resolution based on the **/etc/hosts** file. Starting from Release 3.4, as a more dynamic way to resolve host name, VDS-TV supports DNS lookup based host name resolution.

A new field is added to the **Maintain > Software > VVIM Setup Page**, to fill the Domain Name details, under the ATIS C2 Support division itself.

## Asset Ingest Manager Support

The Cisco VDS-TV Release 3.4 provisions the support to publish ATIS packages. These functionalities will be carried out by Asset Ingest Manager (AIM) with critical supports from Management Components like Virtual Video Infrastructure Manager (VVIM) and Database.

The AIM ensures ingestion by facilitating transfer of content and metadata or control information between the various components on the Recorder Vaults at a National Site.

A new button is added to the **Maintain > Software > CDSM/VVIM Setup page** to enable or disable the ATIS C2 setup. In order to differentiate ATIS Server and Client, select from a drop-down list that includes options as None, Client and Server.

The user can specify a list of VOD market sites under **Configure > System Level > VOD Market Sites**, to register the list of VOD Market site

A new option is added to the **Maintain > Software > System Configs** for the user to set default values for AIM. The user can then navigate to **Configure > System Level > Ingest Manager page** to set the remaining configuration details for AIM.

A new provision had been added for the publish mode. This setting will be available via the **Configure > System Level > Ingest Manager Page**. AIM will support **auto publish mode**. Enabling this mode from GUI will let AIM to automatically publish packages to the configured VOD Market Sites at the end of each successful package ingest.

The user can view the package publish status for a particular package via the **Monitor > System Level**.

## Package Status Support

The Cisco VDS-TV Release 3.4.2 introduces changes to GUI, The package status details can be viewed on the Package Status Monitor screen which can be access via **Under Monitor > System Level > Package Status**. Package status can be viewed in two modes:

- Package name—In the **Package field**, begin typing the package name, then select the package name from the list provided
- VOD Market Site—From the VOD Market Site drop-down list, choose a VOD market site.

To view the publish status click **Display**.

For more information, see the Package Status section in the *Cisco TV VDS 3.4 ISA* Software Configuration Guide

## Package Expiration Support

The Cisco VDS-TV Release 3.4.2 introduces changes to GUI, The package details can be viewed and deleted on the Package Expiration Monitor screen which can be access via **Under Monitor > System Level > Package Expiration page**. An auto completion list replaces what was previously a drop down list. The format for the **License Expiration Date** and the **Package Deletion Date** is [MM-DD-YYYY].

## PEG/Barker MPTS Program Drop

To maintain the PCR spacing interval, the VDSTV computes the PCR value and inserts the PCR packets during the content transition point at the interval of approximately 33msec.

**Note** The Source content should maintain the PCR spacing interval time to less than 100msec or equal to 100msec. Interval time is the time between two consecutive PCR Packets

# New Hardware Features in Cisco VDS TV Release 3.4.1

## CDE470 Hardware Support

The Cisco VDS-TV Release 3.4 introduces CDE470 Hardware support that 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.

## Video On Demand

The Cisco VDS-TV Release 3.4 is enhanced to further support Multi-Bitrate ATS and IP Delivery via the Videoscape Origin Server (VOS) and Content Delivery Network (CDN) to the IP Client.

## CDD Storage Management Utility

The CDD Storage Management utility (CDDM) for VDS-TV's Content Delivery Devices (CDD) is a new and robust interface for reporting device attributes and statistics, and to manage devices in events such as device failure, device identification, device suspension, device removal, device failure prediction and replacement. It is available from the Linux prompt as any other Linux utility. See its *man* page for details.

## SCTE35 Detection and Reporting

The Cisco VDS-TV 3.4 Release supports the correct detection, reporting and filtering of signal packets. In addition, corrects Splice Out/In points reporting to Recorder Manager. The Recorder will have to filter out any invalid or duplicated signal packets to make sure Recorder Manager & CNS receives the correct SCTE35 Splice In and Splice Out points. Recorder will also log and report drop statistics due to detection of invalid signal points. The detection will be done in recorder's ingest process and only consider SCTE-35 time signal messages without supporting SCTE-35 splice insert messages anymore. In the time signal message, NPT will be derived from the PTS in the time signal and signal id will be retrieved from the segmentation descriptor of the same message. If there are multiple SCTE-35 PIDs, recorder will only consider the first SCTE-35 PID. Recorder Manager can simply pass the correct Splice Out/In points received via R8 interface and report as part of RecordingInfo message to CNS via C3 interface without significant effort.

## White Space / Carriage Return Removal

A new tunable was introduced to control formatting of XML entity bodies for HTTP requests and responses. This new tunable is named /proc/calypso/tunables/xml_pretty_print, and by default is set to zero. To be compatible with some XML parsers, XML response bodies cannot have whitespace that could be used to format the XML in a way that is more human readable. With this tunable set to zero, human readable XML is not generated, and whitespace such as carriage returns, new lines and tabs are not inserted into the XML body.

The affected XML bodies are:

- C2 Locate Request
- C2 Locate Response
- C2 Describe Request
- C2 Describe Response

- C2 Delete Transfer ID Request
- Generic HTTP MPD Response

### Multi-Purpose port support

This feature allows the Cserver and Linux network stacks share the 10GbE hardware while using the same IP address/Subnet information. Packets intended for Linux and Cserver are filtered by hardware and directed to their respective queues without cross-contamination. This helps to leverage the wide bandwidth available with the 10GbE hardware without the need for additional hardware for specific purposes.

# Supported Environments

Release 3.4 of the Cisco VDS-TV supports both the ISA and RTSP environments. Some RTSP environment features are only applicable to certain RTSP Deployment Types.

# System Requirements

The Cisco VDS-TV Release 3.4 runs on the CDE110, CDE220, CDE250, CDE420, CDE460 and CDE470. See the Cisco Content Delivery Engine110 Hardware Installation Guide, and the Cisco Content Delivery Engine 205/220/250/420/460/470 Hardware Installation Guide.

The Cisco VDS-TV Release 3.4 does not run on the CDE100, CDE200, CDE300, and CDE400 hardware models.

**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 3.4.0-based releases are listed in this section.

## Open Caveats

### Open Caveats for Cisco VDS TV Release 3.4.2

Table 1 lists the open issues in the VDS-TV 3.4.2 release.

Click on the bug ID to view the bug details. This information is displayed in the Bug Search.

*Table 1 Open Caveats in VDS-TV 3.4.2 Release*

| Bug ID | Description |
|---|---|
| CSCtr62991 | IP nick names stuck in system after re IP |
| CSCtx23597 | DB_VERSION_MISMATCH when running "rpm -qa" |
| CSCuh85933 | RTSP is performing no path-mtu-discovery and sets "Do not fragment" bit |
| CSCui13191 | Handle low priority traffic more efficiently |
| CSCui32709 | Thin Pipe Configurations must maitain same name reference in setupfile |
| CSCui37462 | Live ingest would delay after system run a long time |
| CSCui69056 | FSI Core due to interaction with the syslog-ng framework |
| CSCuj02516 | Smoothing algorithm needs to be fixed to run less often |
| CSCuj19102 | CDSM - Trick Mode Capture enable/disable has to be more granular |
| CSCuj31892 | Vault targeted with too much work needs backoff capability |
| CSCuj31912 | Add statistics to track individual control message bw |
| CSCuj31915 | Control traffic for maintaining the system is using too much bandwidth |
| CSCuj31938 | Vaults not seeing the correct primary server |
| CSCuj38030 | MD5checksum are same |
| CSCuj42925 | Fix BW manager settings |
| CSCuj43061 | CCP Proxy Locate and on demand remote server connection issue |
| CSCuj44621 | RTSP thread monitoring can't be enabled |
| CSCuj82750 | IP Nickname page slow |
| CSCuj84010 | DB crash on memory allocation for transaction detail |
| CSCul00394 | populate_contents_remotely.py script does not operate as expected |
| CSCul24306 | TCP connection exist always after power off STB |
| CSCul29203 | TrickMode API calls to CDSM: Connections are not being closed properly |
| CSCul55720 | Ingest FTP pull should use relative path |
| CSCul87333 | RTA is blocking 900 Mbps of bandwidth |
| CSCul93441 | Full resync is triggering every time we restart Database |
| CSCul96087 | One way connection between vault and primary streamer |
| CSCum00446 | RTSP and CServer incorrectly Return out of bandwidth message |
| CSCum00564 | Troubleshooting CDS-TV-3.x.x LSCP 1x-read-failure tunable |
| CSCum04760 | NGOD remote syslog did not contain detailed message |
| CSCum04796 | NGOD A3 GetContentInfo response enchancement |
| CSCum17582 | ISA services restart should be avoided during startup GOID validation |
| CSCum18718 | Liveness Inactivity Timer only updated on Pause |
| CSCum21030 | Wrapper Script on AVSDBUtil for getting the GOIDs for the PAID inputted |
| CSCum26100 | Importer doesn't delete .fin file |
| CSCum26949 | Error 4400 - Unable to fill content fast enough |

*Table 1 Open Caveats in VDS-TV 3.4.2 Release (continued)*

| Bug ID | Description |
|---|---|
| CSCum26987 | CDSM - Show indicator for synchronization between CDSMs |
| CSCum27044 | RTSP messages to include StreamerID |
| CSCum34791 | MasterContentstore failed when any slave down and back until slave is up |
| CSCum50991 | db gets hung when trying to sync |
| CSCum54834 | Divide by zero bug in find_busiest_group |
| CSCum60267 | FSI using Streamer Load information from Database |
| CSCum63857 | Excessive blkog messges on VVIM's |
| CSCum68181 | [CISCO-159] Rec returns 503 on /rec/record/RecordingStatus queries |
| CSCum74618 | Limit the rate of evaluator queries |
| CSCum74646 | Low priority bandwidth calc. need to include receive buffer backlog |
| CSCum74661 | Data Recovery should further limit concurrent work rate |
| CSCum74673 | Smoothing evaluators are running too often |
| CSCum74680 | Remote Smoother should not prefer one server. |
| CSCum74692 | Server overall capacity should include network CPU. |
| CSCum74726 | Do not send out ack on every single network interrupt |
| CSCum74826 | Align BW manager numbers in log and add sum of desired values. |
| CSCum82644 | ifcfg-ethx file for Loacte port have a "NETMASK=(blank)". |
| CSCum95976 | 342: Inaccurate calculation of the bitrate for AAC audio |
| CSCum96674 | Index file for Live ingests should only be mirrored from ingesting Vault |
| CSCum97178 | 3.2.5 : repdb_bkup file not available under /arroyo/db |
| CSCun02763 | [CISCO-159] DB trigger problem causes recordings to fail |
| CSCun07983 | Issue with the Locate Virtual IP - Netmask is not getting updated |
| CSCun07992 | Original mpeg name should not be altered |
| CSCun08079 | [CISCO-159] CDE460 not reporting status on recordings (SR 628999379) |
| CSCun15656 | Top Flag Field is being forced to true for progressive contents |
| CSCun15815 | Recorder Transfer Request Failure |
| CSCun18714 | CServer detects "pic_order_cnt_type" incorrect |
| CSCun20686 | 250-2A4 vault hang ad requires power cycle to clear |
| 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 |

*Table 1 Open Caveats in VDS-TV 3.4.2 Release (continued)*

| Bug ID | Description |
|---|---|
| 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) |

## Open Caveats for Cisco VDS TV Release 3.4.1

Table 2 lists the open issues in the VDS-TV 3.4.1 release.

Click on the bug ID to view the bug details. This information is displayed in the Bug Search.

*Table 2 Open Caveats in VDS-TV 3.4.1 Release*

| Bug ID | Description |
|---|---|
| CSCul04489 | 3.4: log printed to screen about mgmt/control adapter is wrong |
| CSCuj85960 | 340B158:CDE460: Cant sustain 18.2Gbps recording/7.72Gbps static streams |
| CSCuj96495 | 3.4 After restoring ISR config, arrayid lost |
| CSCul01727 | 3.4 Couldn't import some fields on RTSP Setup page |
| CSCuj90390 | Cisco VDS-TV may be vulnerable to publish vulnerabilities |
| CSCui74645 | Primary role failed over on streamers with external CPU and IO pressure |
| CSCul06653 | 3.4ISR CDE470:All the 10K recordings are forced to stop with heavy load |
| CSCul09436 | 3.4Recorder R3:Should NOT return 400 for GetRecordingEventList request. |

# Resolved Caveats

## Resolved Caveats Cisco VDS TV Release 3.4.2

Table 3 lists the fixed issues in the VDS-TV 3.4.2 release.

Click on the bug ID to view the bug details. This information is displayed in the Bug Search.

*Table 3 Resolved Caveats in VDS-TV 3.4.2 Release*

| Bug ID | Description |
|---|---|
| CSCue78940 | VMcore is not generated on systems with 2.6.32 kernels. |
| CSCuh91439 | arroyo partition reaches 100% due to increase in statsd log |
| CSCug89595 | GETALL request to CONTENT_OBJECT table returns incorrect result. |
| CSCul39606 | Interface buffer was assigned with garbage values |
| CSCul32700 | CDSM GUI - Can't configure subnet mask with interface type General |
| CSCul19432 | CDE300 disk info not in GUI |
| CSCuh36078 | Everstream API < Stream > element skipping playlist segments |

*Table 3 Resolved Caveats in VDS-TV 3.4.2 Release*

| Bug ID | Description |
|---|---|
| CSCul16749 | kdb > is seen after start cserver with the downgraded image |
| CSCul16041 | MSA  Logger not running |
| CSCuj97118 | CRED: put_cred_rcu() sees invalid usage couter in struct cred |
| CSCuj88044 | 340:Recorder not able to send idx file to TV streamer |
| CSCuj87431 | RTI: Provision database tables in RTSP environment |
| CSCuh97077 | AVSDB tserver thread got stuck |
| CSCuj85453 | RTI: Quative RTSP: NPT not maintained correctly  in case of trickplay |
| CSCuj71307 | NS_LOG_MONTIOR_ERROR needs to be created in case ns.log is not updated |
| CSCuj44632 | IOR table is getting corrupt |
| CSCuj31672 | RTSP log failed to archive in 3.2.3 b90 |
| CSCum17284 | AVSDB resync induce more IO pressure |
| CSCuj71072 | cserver send rcTrickModeRestricion when some STB play FF near live |
| CSCul44400 | undeclared variable causes recorder KDB due to timing window |
| CSCul12748 | Delete package lead to AIM crash |
| CSCuj12057 | RTSP-Server doesn't handle cnError:INGRESS_BW_LIMIT in play listener |

## Resolved Caveats Cisco VDS TV Release 3.4.1

Table 4 lists the fixed issues in the VDS-TV 3.4.1 release.

Click on the bug ID to view the bug details. This information is displayed in the Bug Search.

*Table 4 Resolved Caveats in VDS-TV 3.4.1 Release*

| Bug ID | Description |
|---|---|
| CSCul01591 | 3.4Recorder R3:Should return PENDING state for PENDING recording |
| CSCui39657 | 3.4.0-b41 Can't open hyperlink of help on the head of CDSM page |
| CSCui90742 | 340:Import for recording settings page is not working as expected |

# 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.

**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.

**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.

**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: 3.4.
- 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).

# Upgrading to Cisco VDS-TV Release 3.4.2

For the upgrade 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 VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide*.

To upgrade a VDS device, do the following:

**Step 1** Download the ISO image file (VDS-TV-3.4.x-.iso) and the cdsinstall-3.4 script from the Cisco Software Download website. For more information on downloading the software files, see the "Overview" chapter in the *Cisco VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide*.

**Step 2** For the VDS servers, offload the device before upgrading the software.

a. From the CDSM GUI, choose **Maintain > Servers > Server Offload**. The Server Offload page is displayed.

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

c. From the **New Server Status** drop-down list, select **Offline** for a Recorder or Streamer or Caching Node, select **Offline (No Ingest & Fill)** for a Vault.

d. Click **Submit**.

e. Ensure the VDS server is offloaded by checking the protocol timing log.

**Step 3** Log in to the VDS server as user *root*.

**Step 4** For VDS servers, before installing the image file, stop the database with the following command:

```
# db_shutdown
```

Wait until the following command returns no output:

```
# netstat -an | grep 9999 and #pgrep avsdb
```

**Step 5** Copy the ISO image file and the cdsinstall-3.4 script to the VDS server.

```
# scp -p <user>@<remote_ip_address>:CDS-TV-3.4.iso /
# scp -p <user>@<remote_ip_address>:cdsinstall-3.4 /
```

**Step 6** Run the cdsinstall script to upgrade the ISO image to Release 3.4.

```
# cd /root
# ./cdsinstall-3.4 /CDS-TV-3.4.iso
```

**Step 7** For the CDSM or VVIM, when the script has completed, reboot the server.

**Step 8** For the CDSM or VVIM, log in to the GUI as a user with Engineering access level and configure the settings on the CDSM Setup page.

**Step 9** For VDS servers, start DB and statsd

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

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

Wait till statsd connects to avsdb and both are operational

Submit Server Interface Setup page for this VDS server from GUI

```
Configure -> Server Level -> Interface Setup
```

Make sure the **/arroyo/test/<server type>/setupfile** is updated with the e1000e driver for the 1 Gig cache fill interfaces

Shutdown DB

Reboot the server

```
# pgrep avsdb
```

Move the rc.local to the original location

```
# mv /etc/rc.d/rc.local /etc/rc.d/rc.local.bak
# reboot
```

**Step 10** After server has come up, start the services as per the sequence in the /etc/rc.local,

Start avsdb

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

Start avslauncher to start setup and control IP (incase if the VDS server is streamer)

```
# /usr/bin/avslauncher >& /arroyo/log/avslauncher.out&
```

Start cserver

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

Start FSI application (incase if the VDS server is vault)

```
# su - isa -c "arroyo start fsi ns nfs aim" >& /dev/null
```

Start statsd

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

Start Recorder application (if the VDS server is Recorder)

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

**Step 11** For VDS recorder, if the upgrade is from any version lower than 3.4.2 to version 3.4.2, DB conversion is required.

**a.** Shutdown avsdb

```
# db_shutdown
```

**b.** Backup DATADIR

```
# cd /arroyo/db/
# cp -rf DATADIR DATADIR-bk
```

**c.** Restart avsdb

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

**d.** Dump recording profiles data

```
# /arroyo/db/AVSDBUtil
```

Enter: 8, 10, 5 respectively by following the command prompts

**Note**

- 8: RECORDER DB
- 10: Dump All RecordingProf
- 5: Verbose (file)

- the dump file "RecordingProfDump.txt" is generated in /arroyo/db/ directory.

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**e.** Run check and convert data

```
# /arroyo/db/AVSDBUtil
```

Enter: 8, 12, 1, respectively by following the command prompts

**Notes:**

**Note**

- 8: RECORDER DB
- 12: Check Recording Index
- 1: Convert index
- Following files are generated in /arroyo/db/ for debug purpose
  - RecordingProfConv.txt

  Example of RecordingProfConv.txt:

  *"Delete operation successfully completed: 01497a2eae41e67819099da7fd8d0bf8_1306168*

  *Add operation successfully completed: 01497a2eae41e67819099da7fd8d0bf8_Profile5"*
  - RecordingProfIndex.txt

  Example of RecordingProfIndex.txt:

  *"Name: 01497a2eae41e67819099da7fd8d0bf8_1306168"*

**Step 12** For VDS servers, after the VDS server is verified as reachable, return the server to online.

**a.** Choose **Maintain > Servers > Server Offload**. The Server Offload page is displayed.

**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.** Verify the VDS server is online by viewing the status on the **Monitor > System Level > System Health** page.

# Downgrading from Release 3.4.2

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 VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide*.

To downgrade a VDS device, do the following:

---

**Step 1** Download the ISO image file (for example, VDS-TV-3.3.2.iso) and the cdsinstall script (for example, cdsinstall-3.3.2) for Release 3.4 from the Cisco software download website. For more information on downloading the software files, see the "Overview" chapter in the *Cisco VDS-TV 3.2 Installation, Upgrade, and Maintenance Guide*.

**Step 2** For VDS servers, offload the server (see Step 2 in "Upgrading to Cisco VDS-TV Release 3.4.2").

**Step 3** Log in to the VDS device as user root.

**Step 4** For VDS recorder, disable RAID on 3.4

```
# echo 0 > /proc/calypso/tunables/allowvaultraid
```

Make sure RAID is disabled by the "RS=0" parameter in the /arroyo/log/protocoltiming.log.

```
# tail -f /arroyo/log/protocoltiming.log | grep RS= RS=0 Active=0:0 read=0 write=0 (12:2)
```

**Step 5** For VDS recorder, downgrade the file system to support 3MB allocation unit for 3.3.2 code

Issue the following command to downgrade the file system

```
# echo 107 > /proc/calypso/tunables/cm_logserverinfo
```

Wait for the message "**Downgrade of file system complete"** on the console indicating that the file system downgrade is complete.

```
# Downgrade of file system complete
```

**Step 6** For VDS recorder, if the downgrade is from any version lower than 3.4.2 to any lower version (such as 3.4.1, 3.3.2), DB conversion is required.

**a.** Shutdown avsdb

```
# db_shutdown
```

**b.** Backup DATADIR

```
# cd /arroyo/db/
# cp -rf DATADIR DATADIR-bk
```

**c.** Restart avsdb

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

**d.** Run check and convert data

```
# /arroyo/db/AVSDBUtil
```

Enter: 8, 12, 2 respectively by following the command prompts

**Note**

- 8: RECORDER DB
- 12: Check Recording Index
- 2: Reverse conversion
- Following files are updated in /arroyo/db/ for debug purpose
  - RecordingProfConv.txt

  Example of RecordingProfConv.txt:

  *"Add operation successfully completed: 01497a2eae41e67819099da7fd8d0bf8_1306168*

  *Delete operation successfully completed: 2e958999bb43ee013d93cbab4468c2d8_Profile1"*
  - RecordingProfIndex.txt

Example of RecordingProfIndex.txt:

*"Name: 01497a2eae41e67819099da7fd8d0bf8_Profile1"*

**Step 7** For VDS recorder, before installing the image file, stop the database with the following command:

```
# db_shutdown
```

Wait until the following command returns no output:

```
# netstat -an | grep 9999 and #pgrep avsdb
```

**Step 8** Copy the ISO image file and the cdsinstall script to the /root directory and run the cdsinstall script to download the software. For example, the following commands are for downgrading to Release 3.3.2:

```
# scp -p <user>@<remote_ip_address>:CDS-TV-3.3.2.iso /
```

```
# scp -p <user>@<remote_ip_address>:cdsinstall-3.3.2 /
# cd /root
# ./cdsinstall-3.3.2 /CDS-TV-3.3.2.iso
```

**Step 9** For the CDSM or VVIM, when the script has completed, reboot the server.

**Step 10** For VDS servers, make sure that the database is not running and reboot the server.

```
# pgrep avsdb
# mv /etc/rc.d/rc.local /etc/rc.d/rc.local.bak
# reboot
```

**Step 11** For VDS servers, after the VDS server has come up from reboot, start DB, statsd, submit the interface setup page and start cserver

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

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

Wait till statsd connects to avsdb and both are operational

Submit Server Interface Setup page for this VDS server from GUI

```
Configure -> Server Level -> Interface Setup
```

Start avslauncher to start setup and control IP (incase if the VDS server is streamer)

```
# /usr/bin/avslauncher >& /arroyo/log/avslauncher.out&
```

Start cserver

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

Start FSI application (incase if the VDS server is vault)

```
# su - isa -c "arroyo start fsi ns nfs aim" >& /dev/null
```

Start Recorder application (incase if the VDS server is Recorder)

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

Move the rc.local to the original location

```
# mv /etc/rc.d/rc.local.bak /etc/rc.d/rc.local
```

**Step 12** For VDS servers, after the VDS server is verified as reachable, return the server to online.

a. Choose **Maintain > Servers > Server Offload**. The Server Offload page is displayed.

b. From the **Server IP** dropdown 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. Verify the VDS server is online by viewing the status on the **Monitor > System Level > System Health** page.

# Downgrading from Fresh-installed Release 3.4.2

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 VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide*.

**Note** If the VDS recorder is a brand-new device and has not registered to CDSM yet, skip the following steps 1, 2, 3, and 4.

To downgrade a VDS device, do the following:

**Step 1** Download the ISO image file (for example, VDS-TV-3.3.2.iso) and the cdsinstall script (for example, cdsinstall-3.3.2) for Release 3.4 from the Cisco software download website. For more information on downloading the software files, see the "Overview" chapter in the *Cisco VDS-TV 3.2 Installation, Upgrade, and Maintenance Guide*.

**Step 2** For VDS servers, offload the server (see Step 2 in "Upgrading to Cisco VDS-TV Release 3.4.2").

**Step 3** Log in to the VDS device as user root.

**Step 4** For VDS recorder, before installing the image file, stop the database with the following command:

```
# db_shutdown
```

Wait until the following command returns no output:

```
# netstat -an | grep 9999 and #pgrep avsdb
```

**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, the following commands are for downgrading to Release 3.3.2:

```
# scp -p <user>@<remote_ip_address>:CDS-TV-3.3.2.iso /
# scp -p <user>@<remote_ip_address>:cdsinstall-3.3.2 /
# cd /root
# ./cdsinstall-3.3.2 /CDS-TV-3.3.2.iso
```

**Step 6** For the CDSM or VVIM, when the script has completed, reboot the server.

**Step 7** For VDS servers, make sure that the database is not running and reboot the server.

```
# pgrep avsdb
# mv /etc/rc.d/rc.local /etc/rc.d/rc.local.bak
# reboot
```

**Step 8** For VDS recorder, after the VDS server has come up from reboot, start DB, statsd, submit the interface setup page and start cserver

**Note** For a brand-new VDS recorder, see the "Overview" chapter in the Cisco VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide for additional configuration if needed.

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

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

Wait till statsd connects to avsdb and both are operational

Submit Server Interface Setup page for this VDS server from GUI

```
Configure -> Server Level -> Interface Setup
```

Start avslauncher to start setup and control IP (incase if the VDS server is streamer)

```
# /usr/bin/avslauncher >& /arroyo/log/avslauncher.out&
```

Start cserver

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

Start Recorder application (incase if the VDS server is Recorder)

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

Move the rc.local to the original location

```
# mv /etc/rc.d/rc.local.bak /etc/rc.d/rc.local
```

**Step 9** For VDS servers, after the VDS server is verified as reachable, return the server to online.

a. Choose **Maintain > Servers > Server Offload**. The Server Offload page is displayed.

b. From the **Server IP** dropdown 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. Verify the VDS server is online by viewing the status on the **Monitor > System Level > System Health** page.

# Related Documentation

Refer to the following documents for additional information about the Cisco VDS-TV 3.4:

- *Cisco VDS-TV 3.4 ISA Software Configuration Guide*
- *Cisco VDS-TV 3.4 RTSP Software Configuration Guide*
- *Cisco VDS-TV 3.4 API Guide*
- *Cisco VDS-TV 3.4 Installation, Upgrade, and Maintenance Guide*
- *Cisco VDS-TV 3.4 Release Note*
- *Cisco Content Delivery Engine 205/220/250/420/460/470 Hardware Installation Guide*
- *Cisco Content Delivery Engine 110 Hardware Installation Guide*
- *Regulatory Compliance and Safety Information for Cisco Content Delivery Engines*
- *Open Source Used in VDS-TV 3.4*

  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

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

# Obtaining Documentation and Submitting a Service Request

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

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