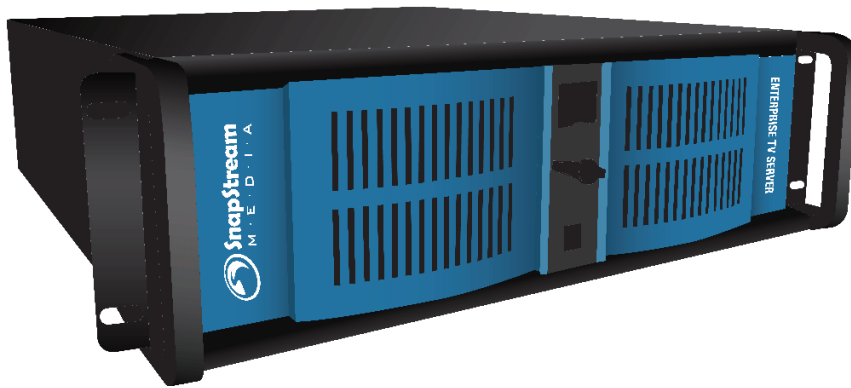




Enterprise TV Server



Administrator Guide

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Table of Contents

- I. Settings Overview 4
- II. Other information 6
 - How to Shut Down SnapStream Software 6
 - Conflict Management 6
 - About Lineups 7
 - About Video Profiles 8
 - ShowSqueeze and Clip Management 8
 - Guidelines for LDAP Integration 8
 - The Setup Wizard 9
 - Connecting Through Remote Desktop 9
 - Antivirus Information 9
- III. FAQ 10
- IV. Technical Specifications 12

SnapStream Enterprise TV Server Administrator's Manual

SnapStream Technical Support

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Settings Overview

The SnapStream Enterprise TV Server is designed as a preconfigured appliance that can be operated with minimal setup. However, changes to system settings can be useful in order for your organization to get the most out of your server. **Note:** Some features, such as **Security**, **Email Notifications** and **iTunes Integration**, are not preconfigured, and must be configured manually when you receive your server.

The majority of the Enterprise TV Server's settings are found in the Web Admin. To open the Web Admin, enter the server's IP address into a web browser.

A full description of all of the options available in the Web Admin can be found in the SnapStream Help File at <http://www.snapstream.com/enterprise/support/>.

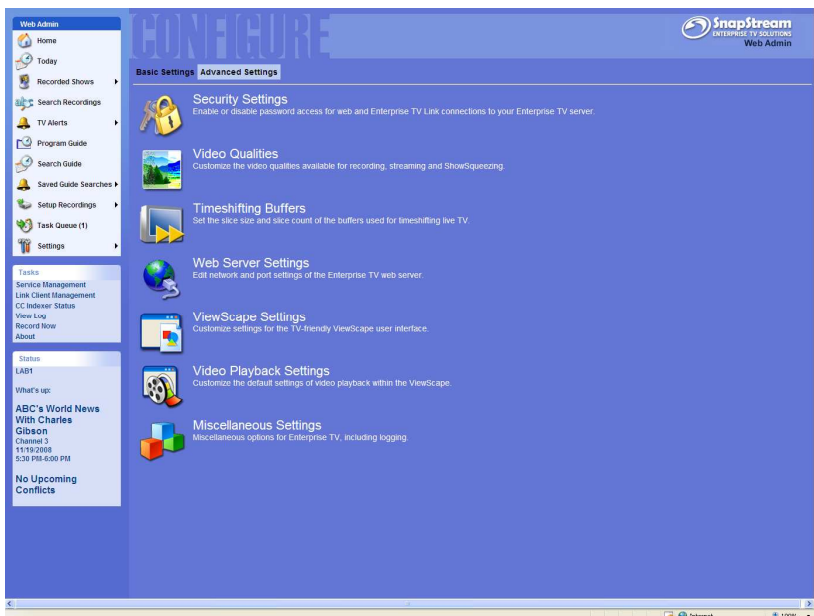
Basic Settings



- **Recording Preferences-** Sets default options for quality and location of recordings, as well as some other basic options.
- **Audio and Video Inputs-** Configure the Enterprise TV Server's tuners.
- **Video Folders-** Configure the Video Folders that are available to Enterprise TV. Video Folders must also be Windows folders, and new Windows folders can be created from this page, but the Enterprise TV Web Admin cannot be used to manipulate or rename Windows folders.

- **Expiration Manager**- Sets options for automatic deletion of shows when the server's storage drives fill up.
- **Channels**- Administer the channel lineups that are available to Enterprise TV.
- **SnapStream.Net Settings**- Options for downloading guide data and for scheduling recordings over the Internet through SnapStream.Net.
- **ShowSqueeze**- Options for transcoding, clipping and custom postprocessing.
- **Email Notification Settings**- Configuration for SnapStream TV Alerts and Administrator Warning Emails.
- **DVD Burning Settings**- Options here apply ONLY to burning on the Enterprise TV Server directly. Options for burning through Enterprise TV Link can be set in the Settings menu of Link.
- **iTunes integration**- This page is used to turn iTunes integration on and off for upcoming recordings. It is also used by individual users to add podcasts to their local copies of iTunes.

Advanced Settings



- **Security Settings**- Options for general security and LDAP integration.
- **User Configuration**- Administration of users and groups. This option will not appear unless Security is switched to Enabled in Security Settings.
- **Video Qualities**- Configuration of the video profiles that are available for recording and transcoding.
- **Timeshifting Buffers**- Settings for timeshifting. These settings will only affect Live TV.
- **Web Server Settings**- Configuration of the Enterprise TV Server's web interface, including port settings.
- **Viewscope Settings**- These settings affect the Enterprise TV playback interface on the server only. They have no effect on installations of Enterprise TV Link.
- **Video Playback Settings**- These settings affect video playback on the server only. They have no effect on installations of Enterprise TV Link.
- **Miscellaneous Settings**- See the SnapStream Help File for a list of the settings available in this menu.

Other information

How to shut down SnapStream software

SnapStream Mini software runs in two parts: the TV services, and the system tray agent. The services do the actual work of managing recordings and Link connections. The tray agent is used to control the services and appears as a TV icon in the system tray, next to the clock, on the Mini's desktop.

To shut down the services, right-click on the system tray agent and select **Stop Services**.



After a few seconds, you will see the following dialog box:

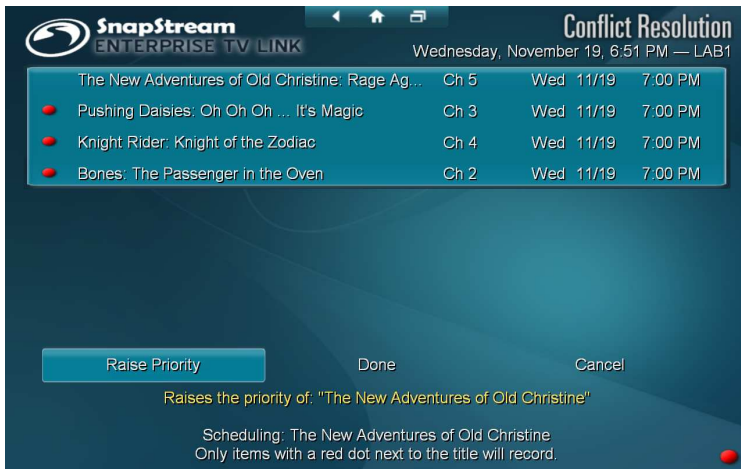


The services are now stopped. To shut down the agent, right-click on it again and select **Exit**.

Conflict management

Enterprise TV's methods for dispatching shows to tuners are very sophisticated, and it will automatically allocate tuners in the most efficient way possible. However, it is possible for the number of scheduled recordings to exceed the number of available tuners at any given time. When that happens, some shows will not be recorded.

Enterprise TV will display an alert indicating a recording conflict when a recording is scheduled that will cause a conflict, and you can choose to resolve the conflict manually.



In order to manage conflicts generally, you can change the priority of the scheduled recordings. This can be done in the Link client, through Setup Recordings=> Recording Settings and Priorities.



In addition, information about upcoming recordings and conflicts can be viewed in the Web Admin, through the Setup Recordings page.

If you are using multiple different TV sources, changing their priority can also affect conflict management. For more information on managing multiple sources, see the following knowledgebase article:

<http://kb.snapstream.com?id=1506>

About lineups

Lineups are lists of channels that are created either on SnapStream.net or in Enterprise TV. Only lineups created on SnapStream.Net (either through the Setup Wizard or the Custom Lineup Wizard) will have Program Guide data. Lineups created through the Channels menu of the Web Admin **will not** have program guide data. To create a custom lineup with guide data, use the custom lineup wizard on SnapStream.Net. Consult the following knowledgebase article for instructions: <http://kb.snapstream.com?id=1507>

(Note: If you have provided a custom lineup to SnapStream during the ordering process, that lineup

should be pre-loaded on the Enterprise TV Server.)

Every tuner on the Enterprise TV Server must have a lineup associated with it in order to know what channels it has available. To change the lineup that is associated with a tuner, use the Audio and Video Inputs page in the Settings menu of the Web Admin.

Only channels that are associated with a non-disabled tuner will be displayed in the Program Guide. The Program Guide will list all active lineups simultaneously by channel number (i.e. if two different lineups have a channel 2, the Program Guide will display two different entries for channel 2 before listing any higher channels).

Enterprise TV does not support recording directly from a tuner. In order to enable recording by tuner, you must create a single-channel lineup for each tuner. Consult the following knowledgebase article for instructions:

<http://kb.snapstream.com/?id=1505>

About video profiles

Enterprise TV provides a variety of preset video profiles in MPEG-2, WMV, and H.264. The major difference between video profiles within a format is usually bitrate, although some other factors, such as Windows Media encoder version or H.264 AVC profile, may differ as well. These factors can have different effects on the time required for transcoding or on the compatibility of the transcoded video with third-party software.

Due to the variety of profiles and options available for recording and transcoding, as well as the variations in quality of television signals, SnapStream does not benchmark ShowSqueeze times or provide quality samples of ShowSqueezed video. Many video profiles are named according to uses for which they are well-suited, but some experimentation may be necessary in order to find the profile that is right for your use case.

ShowSqueeze and Clip Management

Post-processes performed by Enterprise TV include ShowSqueeze, Clips, SmartChapters (commercial detection), and file tagging. File tagging is performed automatically on every video file and requires no management. ShowSqueeze and SmartChapter jobs can be generated automatically or submitted ad hoc through the Recorded Shows menu. Automatic ShowSqueeze and SmartChapter generation can be toggled on and off in the Web Admin, through Settings=> Basic Settings=> ShowSqueeze. When ShowSqueeze, SmartChapter and Clip jobs are submitted, they are placed in a queue. This queue can be viewed in the Web Admin, through the **Task Queue**.

When a post-processing job is running, some of the system's CPU power (up to 50%) will be utilized by the process. Post-processing is throttled to allow the server to perform other activities simultaneously without interruption. The number of simultaneous processes can be set through Settings=> Basic Settings=> ShowSqueeze. Your server can perform up to one process per CPU at a time. However, **SnapStream strongly recommends that the Number of Simultaneous ShowSqueeze option be kept at 1**. Performing multiple ShowSqueeze jobs at once can result in a performance slowdown due to excessive CPU utilization.

Guidelines for LDAP setup

We recommend the following guidelines for LDAP integration:

- The server should be added to your domain
- A username and password should be entered in the LDAP Integration section of the Security Settings menu. This is optional, but usually necessary.
- The username entered in LDAP Integration must have permission to make queries on the properties of all users who will be granted access to the Enterprise TV Server.
- Enterprise TV services should be configured to log in as the same user who is entered in LDAP Integration. See the following knowledgebase article for instructions:
<http://kb.snapstream.com?id=1512>
- When a user attempts to log in, the username can usually be entered without domain information. For very large domains, it may be helpful to enter the username as user@domain.com or domain\user.

The Setup Wizard

The Enterprise TV Setup Wizard is primarily used during pre-shipping configuration of Enterprise TV by SnapStream. It is also useful for testing tuners, as it allows direct viewing of each tuner.

The Setup Wizard is available through Start=> All Programs=> SnapStream. Running the Setup Wizard requires shutting down Enterprise TV, and therefore temporarily stopping any running recordings.

Connecting through Remote Desktop

Remote Desktop Protocol (RDP) can be useful for accessing the SnapStream Server's desktop. However, it should not be used to configure or test the server's tuners through the Setup Wizard, as the Wizard is currently not capable of displaying video through RDP. If it is necessary to run the Setup Wizard remotely, we recommend that RDP be avoided in favor of other remote utilities such as Logmein or RealVNC.

Accessing the server's desktop through RDP can also result in an "Error Code:34" message from SnapStream software. For a solution, see: <http://kb.snapstream.com?id=1528>

Antivirus Information

The Enterprise TV Server is compatible with most common corporate antivirus solutions. However, in order to prevent conflicts, **the following locations MUST be excluded from on-access virus scans**

- C:\Documents and Settings\All Users\Application Data\SnapStream\Beyond TV
- All internal storage drives (drive letters D-G)
- Any USB storage devices that are configured as video folders in Enterprise TV

FAQ

How can I change the configuration of the tuners?

Open the Web Admin and navigate to Settings=>Basic Settings=> Audio and Video Inputs. Tuner settings can be edited from this menu. **Note:** Tuner settings cannot be changed while recordings are in progress.

How can I set up the server to receive multiple different sources of video? How can I set up the server for direct video (non-television) inputs? How can I "lock" tuners to a particular channel?

You will need to configure the video sources appropriately in the web admin, under Settings=>Audio and Video Inputs. Specific instructions for some types of tuning configurations can be found in the SnapStream Enterprise TV knowledgebase, at <http://kb.snapstream.com>.

Do I need to install Enterprise TV Link on every single user PC? What options are available through the Web interface? Is there a Mac-compatible version of Enterprise TV Link?

Enterprise TV Link, also called "Link" or "the Link client," is the primary interface available to users for watching, searching, and clipping video. MPEG-2 and H.264 videos require the Link client for playback. Windows Media video can be played back through the Web Admin Library using Windows Media Player. Clipping can only be performed in Link.

Enterprise TV Link must be installed individually on each user PC. There is currently no built-in option for administrative deployment. However, Enterprise TV Link is distributed on a site-licensed basis (i.e. all of your Link installations will use the same license key), so it is suitable for incorporation into a silent-install package. We recommend using the webinstaller package for this purpose, rather than the installer on the Enterprise TV Link CD. The webinstaller for the most recent version of Enterprise TV Link is available at:

<http://www.snapstream.net/download/EnterpriseTVLink.aspx>

Currently, SnapStream does not offer a Mac-compatible version of Enterprise TV Link. Some support is available for virtual PCs running in a Mac environment. Best results have been achieved using Parallels. VMWare has been confirmed to be incompatible with Enterprise TV Link.

What video format does the server use? Can I change the video format?

The Enterprise TV Server records natively in the MPEG-2 format. Due to hardware limitations, this is the only format in which the server can record. SnapStream's ShowSqueeze utility allows videos to be transcoded into Windows Media or H.264/MPEG-4 (Quicktime) formats for portability and file compression.

What permissions should I give to my users?

Enterprise TV comes pre-loaded with five user groups: Administrators, Schedulers, Basic Schedulers, Live TV Viewers, and Pre-Recorded Viewers. The difference between the profiles of these groups is the degree to which users assigned to them can impact the activity of other users. For example, Pre-Recorded Viewers have "read-only" access to the server, whereas Basic Schedulers can create recordings, but not edit them or change settings. Administrators can change settings that affect the operation of the entire server.

Permissions can be edited by creating a new group or by editing an existing group. We recommend that you restrict access to Administration, Scheduling and Editing permissions to trusted users.

Can my users access the Enterprise TV Server over a Wide-Area Network (WAN)? Over the

Internet?

SnapStream does recommend Enterprise TV Link for use across a WAN, but does provide some support for it. Network latency can cause issues with use of the Link client. The Web Admin usually works well over a WAN, as does WMV playback through Windows Media Player.

SnapStream provides no support for using Enterprise TV Link or the Web Admin over the Internet (i.e. outside your internal network) and strongly recommends against doing so.

What is SnapStream.Net for?

SnapStream.Net is SnapStream's server for guide data. It also provides a user account that can be used to schedule recordings on your Enterprise TV Server remotely over the internet, or to create or edit a custom lineup.

To create a SnapStream.Net account, run the Setup Wizard and click Next until you are prompted to create an account. Only one SnapStream.Net account, with a single username and password, is available for each Enterprise TV Server.

Technical specifications

Power:

All servers use an iStar TC-500R8A 500-watt redundant power supply.

The server's power cables should always be connected to an uninterrupted power supply (UPS). We recommend a single UPS rated at 2200va or above, or (preferred) two different UPS units rated at 1200va or above each.

Network connection:

The Enterprise TV Server has two ethernet adapter ports, but these ports are not bridged. The server's maximum network connection speed is 1Gb/s, which is available from either ethernet adapter port alone.

Storage Drives:

Most servers with 1 TB or more of available storage are equipped with a fault-tolerant RAID 5 storage array, operated by a 3Ware PCI RAID controller. The administrative interface for the RAID controller can be reached through **Start=>All Programs=>AMCC=>Connect to 3dm2**. The default password for the username Administrator can be found on the document entitled **Getting Started With SnapStream Software**.

IMPORTANT: Failure of one of the RAID array's storage drives is the most common hardware issue experienced by users of the Enterprise TV Server. Because the array is fault-tolerant, you should not experience any loss of data or system instability due to a drive failure. However, this also means that **it is possible for drive failures to go undetected if the server is allowed to run unmonitored**. For this reason, the RAID controller's administrative interface provides an automatic e-mail alert system, which is configured in the **3DM2 Settings** menu. Please take a moment to configure these e-mail alerts so that any problems that arise can be detected and addressed in a timely manner.

In the event of a drive failure, please contact SnapStream Enterprise Support at 877-SNAPSTREAM or through our web form at <http://www.snapstream.com/enterprise/support/contact.asp>

SnapStream does not supply spare drives, but they can be obtained easily from consumer electronics retailers. If you wish to have a spare on hand, contact SnapStream Enterprise Support for the make and model of your drives.

Some servers with 1 TB or less of available storage are not equipped with fault-tolerant storage. A drive failure on your server will cause data loss. We recommend that you perform regular backups of your data to protect against hard drive failures.

Boot drives:

The SnapStream Enterprise TV Server's boot drive is configured in RAID 1 (mirroring) using the motherboard's onboard RAID controller. In the event of a drive failure, an error will appear on the server's desktop.

In the event of a drive failure, please contact SnapStream Enterprise Support at 877-SNAPSTREAM or through our web form at <http://www.snapstream.com/enterprise/support/contact.asp>

Maintenance:

To maintain system stability, we recommend that the Enterprise TV Server be rebooted every one to two weeks.