Video Transcoder Tutorial

Convert live channels to different formats and resolutions

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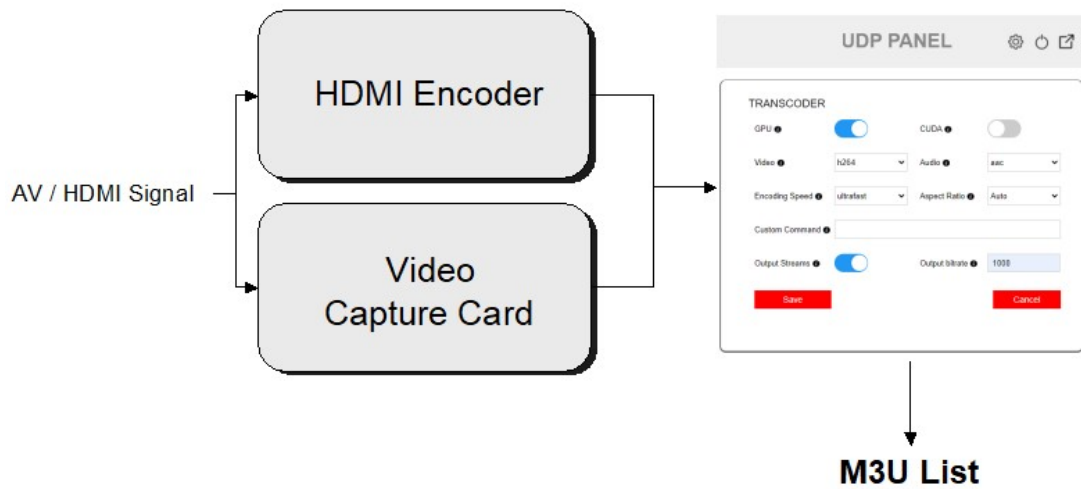
Content

1 Overview

Video Transcoder gets HTTP m3u URL, multicast / unicast UDP streams from HDMI Encoder or Video Capture Card, then reduces video bitrate and provides m3u URLs for IPTV servers or players. The output video container is MPEG TS with h264 or h265 and audio container is ADTS with aac or mp3. It can support one channel input and output at most 3 different codec or bitrate streams.

1.1 Related Information

Video

https://youtu.be/O8hza_U_WAI

2 Start / Restart / Shutdown

Linux: ezserver at /home/udp_panel folder

- Start:
  - ✧ cd /home/ udp_panel
  - ✧ ./start.sh
- Restart:
  - ✧ cd /home/ udp_panel
  - ✧ ./restart.sh
- Shutdown:
  - ✧ cd /home/ udp_panel
  - ✧ ./shutdown.sh

3 Panel

Login menu:

UDP Panel
Admin Only

Username

Enter your username

Password

••••

LOGIN

Dashboard:

UDP PANEL

SYSTEM V1.1(12/01/21)

Uptiime	0 Day 0:01:55
Network interface	eno1 (0CC47A141AAC)
Download bandwidth	0.00 Mbps
Upload bandwidth	12.36 Mbps
Total RAM size	31.33 GB
Available RAM size	28.15 GB
Disk Use	40%
Load average	0.56

CHANNELS

Active channels

2

Total channels   2

CONNECTIONS

Current connections

0

Stream URL #1	http://38.17.49.160:8010/getlink?username=UDP&passw(
Stream URL #2	http://38.17.49.160:8010/getlink?username=UDP&passw(
Stream ABR URL	http://38.17.49.160:8010/getlink?username=UDP&passw(

Hardware Reqirement:

- **Min. Requirement:** Dual-Core, 8GB RAM, 1GB Network card.
- **Nvidia GPU card**

Software Reqirement:

- **Linux:** Ubuntu 20.04(Recommeded), Debian, Centos

4 Input Setting

Panel Setting

- **Panel port:** Login menu port number
- **Output port:** m3u list output stream port for IPTV servers or players
- **Total channel:** Input total channel number
- **Max clients:** The max output connection number
- **Input Adapter:** The IP of Multicast UDP input network card
- **Output Stream:** Transcoding no. for each channel
- **Input Buffer size:** Unit is KByte for each input channel
- **Input URL:** Import channels by a m3u link or multicast udp starting IP here, it supports HTTP, UDP Multicast and Unicast Input
    - ✧ HTTP URL:
        - ☐ http://192.178.1.2/get.php?username=test&password=1234&type=m3u
        - ☐ or upload **channel.m3u** into udp_panel folder
    - ✧ Mutlicast SPTS URL: udp://224.1.1.1:9001
    - ✧ Mutlicast MPTS URL: udp://224.1.1.1:9001/1001
    - ✧ Unicast UDP URL: udp://9001

5 Example1: Input Setting

Panel Setting

6 Transcoding Setting

Transcoding menu

- **GPU:** GPU or CPU for transcoding
  - ✧ For GPU option, please install GPU driver and ffmpeg from
    http://www.ezhometech.com/html/udp_panel_user_guide.html
- **CUDA:** Nividia card for input stream use
- **Encoding Speed: slow option for GPU enabled**, others for CPU enabled
- **Output bitrate:** reduced output stream bitrate
- **Custom Command:** add more ffmpeg options
  - ✧ Ex. -analyzeduration 5000000 -probesize 500000 **-i** -vf fps=fps=50
  - ✧ Use "**-i**" to separate input and output options

7 Add Channel Logo

Transcoding menu

- **Custom Command:** add the below option
  - ✧ **-i logo.png -filter_complex 'overlay=10:10'**

8 Ouput URL

Dashborad Connection menu

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- Stream URL #. depends on **Panel Setting: Output Stream** (value 1~3).