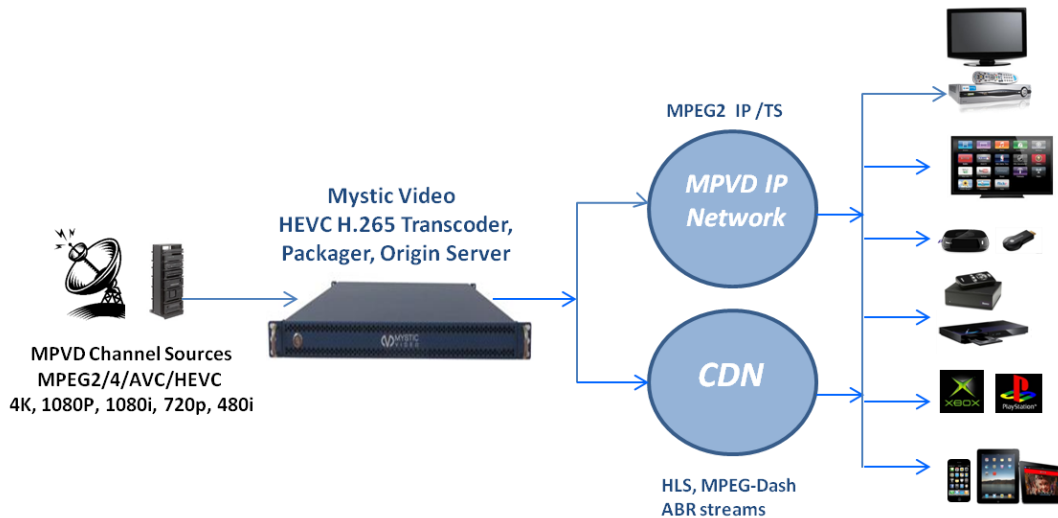


Transcoding for Evolving IPTV, Streaming and OTT Video subscription services

Mystic Video's Transcoding platform provide the highest video quality compression at market-leading pricing. It provides all features needed by video processors for distribution such as transcoding, packaging, encrypting, linear and streaming capabilities.



The platform supports transcoding of programmer video feeds into HD, SD and 4K resolutions compressed with HEVC/H.265. Customers can rate shape and further compress video feeds as well as create additional output resolution sizes and prepare video into various packages of **Adaptive Bit Rate (ABR)** streams for delivery to its subscribers.

Mystic's Video's HEVC H.265 Transcoders provide support for visual quality enhancements like High Dynamic Range (**HDR**) and Wide Color Gamut (**WCG**). Furthermore, it support High Frame Rate (**HFR**) which has benefits especially in high motion content, like sports

HEVC H.265 Transcoding

The Mystic Video HEVC H.265 Transcoding Modules are capable of transcoding any input of MPEG2, MPEG4 or HEVC H.265 video format into single and multiple HEVC H.265 compressed output resolutions. The 1 rack unit transcoder server supports:

- Four full 4K 3840x2160P60 video inputs transrated or transcoded into one or more HEVC H.265 further compressed output resolutions of 4K, HD or SD.
- Transrate 4K 3840x2160P60 as low as 6 mbps.
- Support for High Dynamic Range (HDR), 10 bit encoding and SEI user data handling features.
- From AVC video feeds transcode 16 HD with up to 64 ABR transcoded profiles of 1080P60/30, 720P60/30.
- From MPEG2 video feeds Transcode 12 HD with up to 48 ABR transcoded profiles of 1080P60/30, 720P60/30.



Mystic Video HEVC/H.265 4K & HD Distribution Transcoder

The Mystic Video Operation System (MVOS) provides video Mux and DeMux features to ingest SPTS/MPTS video, separate audio and video program IDs for further individual transcoding processing. Supports Dolby Digital decode and encoding as well as High Efficiency AAC audio codecs, which are both widely deployed by programmers and in OTT applications.

Optional MVOS Origin Server software provides all features needed to prepare HLS and MPEG-DASH packaging, encrypting video on the fly, caching and serving video to CDNs and individual user applications.

MVOS provides all the features needed in an easy accessible graphical user interface (GUI) to ingest and process video transport stream input of HEVC, MPEG2 and AVC and compressed further in HEVC/H.265 multiple output resolutions of ABR streams for delivery to subscribers

Channels Input Source ABR Mode ABR Client

Add, Remove or Edit Channels

Add and/or Remove Channels via [Channel Map](#) ▾

List of Participating Channels

On/Off	Chip	Channel State	Edit Channel	Pri-Bak-Out-Multicast	In-Video Out	Bitrate
5	0:4	UP 0D 20:11:35 CCE 0	Channel_0_4	✗ 237.124.0.4:8433	AVC HEVC	2500000 yes
6	0:5	UP 0D 20:11:35 N/A	Channel_0_5	✗ 237.124.0.5:8433	AVC HEVC	1462007 yes
7	0:6	UP 0D 20:11:35 N/A	Channel_0_6	✗ 237.124.0.6:8433	AVC HEVC	854987 yes
8	0:7	UP 0D 20:11:35 N/A	Channel_0_7	✗ 237.124.0.7:8433	AVC HEVC	500000 yes

Mystic Transcoder Cards:

- One to Four HEVC/H.265 Transcoder Accelerator Cards per server
- Four HD Inputs (AVC) and Transcoded Outputs each with up to 4 ABR profiles per card
- Three HD Inputs (MPEG2) and Transcoded Outputs each with up to 5 ABR profiles per card
- One 4K 3840x2160P60 transrated or transcoded per card

Transcode/Transrate Densities per server:

- Four 4K 3840x2160P60 transrated or transcoded
- 16 HD with 64 ABR transcoded profiles for AVC video input.
- 12 HD with up 48 ABR transcoded profiles for MPEG2 video input

Video Transcoding:

- MPEG2 ► Single or MultiRes/ABR HEVC/H.265
- AVC/H.264 ► Single or MultiRes/ABR HEVC/H.265
- HEVC/H.265 8 bit and 10 bit ► Single or MultiRes/ABR HEVC/H.265
- Down scaling 4K, HD ► HD, SD, PIP, Multiple Adaptive Bit Rate resolutions
- Input Bit rate per Video: 100 Mbps ► 64 Kbps; CBR, VBR, Capped VBR
- Motion Adaptive HW Deinterlacing
- HDR, 10 bit encoding and SEI user data handling
- MPTS to SPTS

Audio Transcoding:

- AAC, AC3, AC3-E ► LC-AAC, HE-AAC, AC3-E, and pass-through audio

Optional Origin Server license:

- Packaging HLS, MPEG-DASH, HDS, SS
- Encrypting on-the-fly with supported DRMs
- CDN Cache

Input:

- IP Multicast MPEG2-TS

Output:

- MPEG-2 TS UDP unicast and multicast,
- HTTP Streaming (HLS, SS, HDS, MPEG-DASH) (with Origin software option)

Network Interfaces:

- 4x GbE
- 2x 10 GbE & 2x 10Gb SFP+ (Optional)

Power:

- 10W per HD transcode, 40W Per 4K UHD
- 160W Total per Server

About Mystic Video

The Mystic Video team is comprised of veteran broadcast industry leaders whose products power many major Broadcast Operators' systems. Their experience in digital video encoding and real-time system design produces solutions with the highest video quality, transcoding performance, and 24/7 operation.