MPEG-2 / H.264 (MPEG-4 AVC) HD/SD Transcoder with IP interface

MPEG-2 to H.264

H.264 to MPEG-2

Bitrate reduction

TRANSCODING of up to 10 Video/Audio MPEG-TS

CodecCaster is a turn-key solution for real-time transcoding of IPTV streams up to full HD resolution. It offers high-performance and high-quality IP-based format conversion, and fully supports transcoding to multiple bitrates for adaptive streaming. Video transcoding from MPEG-2 Video to AVC/H.264 for MPEG Transport Streams is provided, as well as transcoding from AVC/H.264 to MPEG-2 Video, or any other combination. The world-class encoder of CodecCaster allows for greatly reducing bandwidth requirements of streams while keeping the original quality of experience, which makes CodecCaster the perfect solution for Internet transmission or when streaming in wireless networks.

Additional options for stream adaptation, such as deinterlacing, video scaling, frame rate conversion, and audio sample rate and format conversion allow for serving set-top boxes, tablets, mobile phones, and others.

The number of streams to be transcoded in parallel is not artificially limited: Up to 10 different streams in full SD resolution can be transcoded in real-time with only a single 1U appliance, ore 2 in full HD resolution, or up to 5 streams in 3 different profiles each (total 15 streams), or even more when using downscaled streams.

Being compatible with existing gateways, conditional access systems, streaming servers, and set-top boxes, CodecCaster can be seamlessly integrated into your existing infrastructure.

CodecCaster 1000 HD

Application areas

- Real-time transcoding of IPTV streams up to HD resolution
- Bandwidth reduction for Internet transmission
- Bandwidth reduction for streaming in wireless networks
- Stream adaptation for set-top boxes, tablets, mobile phones
- Multi-bitrate and multi-screen transcoding and transrating for adaptive streaming

KEY Features

- Real-time transcoding of MPEG Transport Streams
- Single Program Transport Stream (SPTS) to Single Program Transport Stream (SPTS)
- IP input to IP output
- Input: MPEG Transport Stream (MPEG-TS)
  - MPEG-2 Video
  - AVC / H.264 (also known as MPEG-4 Part 10)
  - MPEG Audio, AAC, AC-3 ..
- Output: MPEG Transport Stream (MPEG-TS)
  - MPEG-2 Video
  - AVC / H.264 (also known as MPEG-4 Part 10)
  - MPEG Audio, AAC, AC-3 ..
- Deinterlacing of video
- Video up- or downscaling
- Frame rate conversion

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Transcoding MPEG-2 SD to H.264 SD	▪ Input: Up to 10x MPEG-TS : MPEG-2 SD Video and Audio ▪ Output: Up to 10x MPEG-TS: H.264 SD Video and Audio
Transcoding H.264 HD to MPEG-2 SD	▪ Input: Up to 4x MPEG-TS: H.264 1080i Video and Audio ▪ Output: Up to 4x MPEG-TS: MPEG-2 SD Video and Audio
Transrating (bitrate reduction) H.264 HD to H.264 HD (720p)	▪ Input: Up to 2x MPEG-TS: H.264 720p Video and Audio ▪ Output: Up to 2x MPEG-TS: H.264 720p Video andAudio
Transrating (bitrate reduction) H.264 HD to H.264 HD (1080i)	▪ Input: Up to 2x MPEG-TS: H.264 1080i Video and Audio ▪ Output: Up to 2x MPEG-TS: H.264 1080i Video and Audio
Multi-bitrate Multi-screen MPEG-2 SD to H.264	▪ Input: Up to 5x MPEG-TS: MPEG-2 SD Video and Audio ▪ Output: Up to 5x3=15 MPEG-TS including AAC audio H.264 SD H.264 CIF (SIF) H.264 QCIF
▪ IP Streaming	▪ 2x 1000 BaseT Gigabit Ethernet ▪ 1x Mgmt (Management and Streaming) ▪ 1x GbE (Streaming only) ▪ Protocols: ▪ Unicast / Multicast / Broadcast ▪ UDP
▪ Administration	▪ Linux system ▪ Web interface (http/https), ssh
▪ Free Software Developer Kit (SDK)	▪ All control and monitoring options of the Web interface available as C++ API (Windows, Linux, Mac OS X), PHP, or XML-RPC (all platforms) ▪ Client-side sample application ▪ Based on award winning Network-Integrated Multimedia Middleware (NMM) by Motama
▪ Hardware	▪ 1 U, 19" rack mountable ▪ 1xSSD (Hot swap carriers) ▪ 8 GB main memory ▪ VGA port, keyboard port, mouse port for KVM ▪ Height x Width x Depth ▪ 43 mm (1.7") x 426 mm (16.8") x 495 mm (19.5") ▪ Voltage: 100V – 240V AC, 50-60 Hz ▪ Weight: 9 kg ▪ Power consumption: ▪ < 6 W (standby), 40 W (idle) to 120 W (loaded) ▪ High-quality server appliance assembled in Germany

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