(comprimato)

Live transcoder

The leading software transcoder for live broadcast distribution

Live events will never go out of style. But, today's consumers expect instant access to live content - wherever they are, and on whatever device they choose. Broadcasters and content providers must react quickly to new devices, screen sizes, resolutions, subtitles, ad insertions and more. Quality cannot be compromised. Complexity and cost of delivery must be reduced. Comprimato's Live transcoder is the answer for high-performance, professional video distribution. This software-only solution provides unlimited options for stream scalability and video processing customization to meet the increasing requirements of modern media delivery.

JPEG2000 TRANSCODING

The worlds fastest JPEG2000 engine is directly compatible with high-quality contribution streams and allows for direct contribution to H.264 distribution transcoding. Replaces legacy HW and obsoletes contribution receivers.
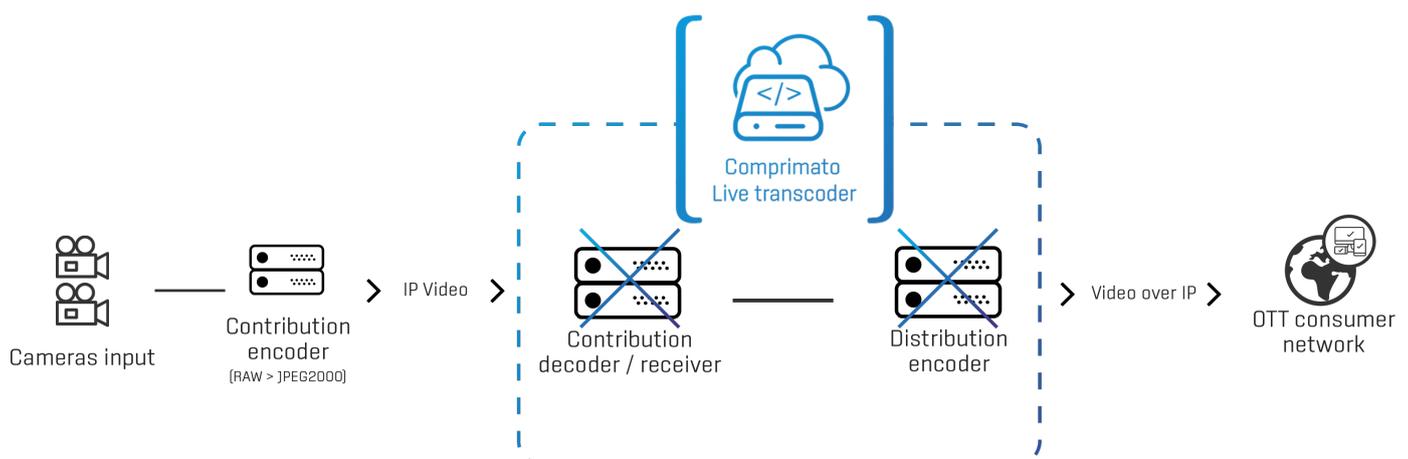
PAY AS YOU GO

On-premises software fully leverages existing infrastructure. Subscription pricing resets broadcast distribution economics. The pay as you go model offers instant scaling of transcoding capacity based on live event needs.

SUPERIOR DENSITY

70+ 1080p/60 streams per COTS single RU server lowers cost and maximizes distribution flexibility. Carefully optimized high-performance transcoding engine supports UHD 4K and the evolution to 8K video.

Live Transcoder Eliminates Equipment, Reduces Latency, and Simplifies Workflow

Comprimato Live transcoder

Cameras input — Contribution encoder [RAW > JPEG2000] — IP Video — Contribution decoder / receiver — Distribution encoder — Video over IP — OTT consumer network

Additional benefits

High Value Transcoding

ABR transcoding

Instantly adapt live video content to the resolution, quality and codec needs of current and future devices.

Customization

On-demand transcoding, image re-sizing, new audio or video codecs and subtitle layers.

High bitrate formats

Native support for high bitrate broadcasting contribution formats including JPEG2000.

Low latency

End-to-end live video delivery with guaranteed latency cap of 700 ms.

Lowest CapEx and OpEx

Easy deployment

Software only solution simplifies deployment; no need for specialized support; maximum flexibility and portability.

Investment protection

Fully leverages existing IT and IP infrastructure.

Simple scalability

Extend the number of streams, resolution or frame rate simply by adding additional CPUs or GPUs.

Easy integration and management

3rd party integration

Easy insertion into existing workflows via REST API.

Centralized control

Set up, manage and control hundreds of streams from a single console via SNMP or web interface.

For more information contact sales@comprimato.com

| Feature on product roadmap

Video input

Supported codecs:
JPEG 2000
H.264 (MPEG-4, AVC)
H.265 (HEVC)
MPEG-2
3G-SDI

Resolutions:
Fully configurable
4K UHD support

Color component sampling:
4:2:2 10bit/8bit
4:2:0 10bit/8bit

Audio input

Codec:
Uncompressed PCM - multichannel
(SMPTE 302M-2007)
AAC
MPEG2 Audio
AC-3
SDI audio (AES 3, Embeded AC3 - SMPTE 337)
| E-AC-3

Metadata

SCTE-35, SCTE-104 + conversion
Metadata pass through
Subtitles embeding into H.264 SEI messages
Closed Captions (EIA-608/708)
Line 21 captions

Video processing

- Resizing
- Automatic color component subsampling
  (both configured automatically based on input and output settings)
- De-Interlacing
- Cropping / Padding
- Color adjustments
- Frame-rate adjustment (to 1/2)
| • Logo insertion

Containers

MPEG-2 TS
VSF TR-01 compatibility
| Transport stream File
| MXF over IP
| J2K@RTP

Synchronization

Input PCR:
Configurable: global
(in separate transport stream) or local
(contained in each input transport stream)

Output PTS:
Configurable: pass-through or adding offset
to input PTS

Audio processing

- Shufling
- Volume gain
- Sampling rate conversion

Video output

Multiple output streams per each input stream, different configuration per each output stream.

Video codec:
H.264 (MPEG-4, AVC)
JPEG2000
| H.265 (HEVC)
| MPEG-2
| Google VP9, VP8

Color component sampling:
4:2:2 10bit/8bit
4:2:0 10bit/8bit

Audio output

Audio codec:
AAC - multichannel
AC-3
| Uncompressed PCM (SMPTE 302M-2007)
| MPEG2 Audio
| E-AC-3

System

Input stream count:
Depends on HW configuration

Output stream count:
Depends on HW configuration

Latency (input to output):
Configurable, 700 down to 400 ms

System type:
CentOS/RHEL OS custom image.

Stream startup time:
Max. 5 seconds after configuration is applied

Configuration options:
Web UI, SNMP write, REST API

System Monitoring options:
System webconsole, SNMP + custom OIDs

Configuration examples

GPU	CPU	Input streams	Output streams
2x NVIDIA P100	**2x** 22 core Intel® Xeon® Processor E5-2699A v4 2.40GHz	**16x** JPEG2000 1080p, 60fps, 200 Mbit	**128x** H.264 ABR variants (8 for each input)
1x NVIDIA P4000	Intel Core i7-7700	**8x** JPEG2000 1080p, 60fps, 200 Mbit	**8x** H.264 1080p, 60 fps