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Live Transcoder

Video encoding and transcoding on-premise and in the cloud

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Live Transcoder is an eco-friendly, **GPU-powered software for video encoding and transcoding**. With the world's fastest JPEG2000 codec, it seamlessly transcodes between **production formats like JPEG-XS TR-07, JPEG2000 TR-01, NDI, and distribution formats such as AVC and HEVC**. Additionally, it offers motion-compensated frame rate conversion.

Deploy Live Transcoder as a docker container on-premises or in the cloud. **Ideal for events like sports tournaments or festivals**, this pay-as-you-go solution leverages Nvidia GPUs and cloud technology for cost-efficient streaming, **superior performance, scalability, and reduced carbon footprint**.

JPEG-XS & JPEG2000 TRANSCODING

The world's fastest JPEG2000 TR-01 & JPEG-XS TR-07 engines are directly compatible with contribution streams and allows for **direct contribution to distribution transcoding**.
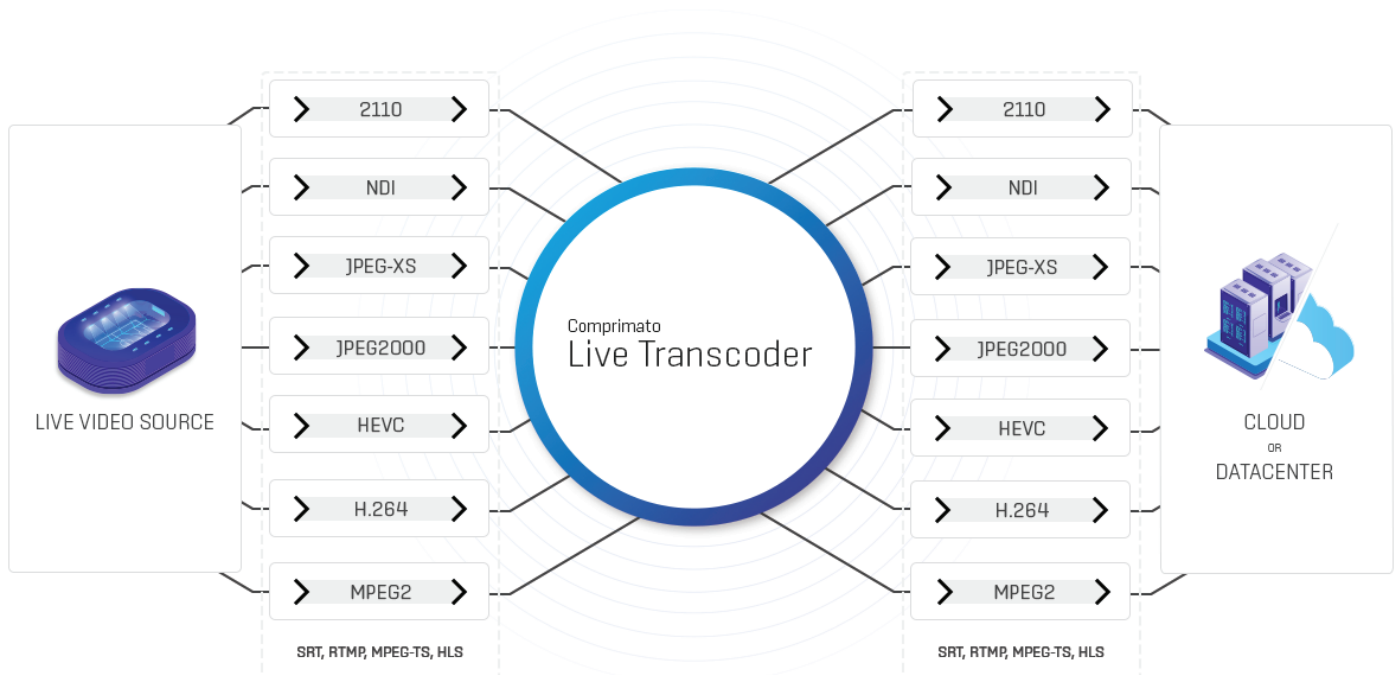
REAL-TIME FRAMERATE CONVERSION

Ingest compressed live IP video formats, such as H.264, JPEG2000 TR-01, JPEG-XS TR-07, or NDI, and **convert between 50 fps and 59.94 fps frame rate standards**.

VERSATILE DEPLOYMENT & PRICING

Deploy Live Transcoder **on-premises, in the cloud as a docker container, or mix**. Choose Pay as you go, monthly, or annual subscription models and meet your current streaming needs.

LIVE VIDEO SOURCE

| 2110 |
| NDI |
| JPEG-XS |
| JPEG2000 |
| HEVC |
| H.264 |
| MPEG2 |

SRT, RTMP, MPEG-TS, HLS

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Live Transcoder

| 2110 |
| NDI |
| JPEG-XS |
| JPEG2000 |
| HEVC |
| H.264 |
| MPEG2 |

SRT, RTMP, MPEG-TS, HLS

CLOUD OR DATACENTER

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Additional features

High Value Transcoding

Low latency

Experience end-to-end live video transport with **ultra-low latency**.

High bitrate formats

Native support for high bitrate production **contribution formats including JPEG2000, JPEG-XS and NDI**.

Multichannel synchronous streaming

Effortlessly transport multiple camera feeds from a venue **to a studio or the cloud in a synchronized manner** using Live Transcoder.

Motion Compensated Conversion

The state-of-the-art, motion compensated algorithm enables **spotless and seamless visual quality** for live sports streaming.

Advanced Image processing

Perform image resizing, **high-quality deinterlacing, cropping, padding, logo insertion**, and color adjustments.

Adaptive Bitrate Transcoding

Seamlessly adapt live video content to meet the resolution, quality, and codec **requirements of current and future devices**.

Green streaming

Reduce carbon footprint with energy-efficient streaming by leveraging GPU-powered processing and cloud technology.

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 REST API or web interface and monitor them via SNMP.

Flexible OpEx Deployment

Easy deployment

Software only **containerized solution simplifies deployment**; no need for specialized support; maximum flexibility.

Simple scalability

Extend your capacity simply by spinning new instances.

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Specifications

| Feature on product roadmap

Video input

Supported codecs:
JPEG 2000 TR-01 OPTIONAL
JPEG-XS TR-07 OPTIONAL
NDI (including NDI-HX)
H.264 (MPEG-4 AVC)
H.265 (HEVC)
MPEG-2
SMPTE 2110

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

Audio input

Codec:
Uncompressed PCM - multichannel
(SMPTE 302M-2007)
AAC (ADTS / LATM)
ACC-HE
MPEG2 Audio
Dolby-E pass through
AC-3
| E-AC-3

Metadata

SCTE-35
Metadata pass through
Subtitles embeding into H.264 SEI messages
Closed Captions (EIA-608/708)
SMPTE 2038
Timecode insertion into SEI messages for
H.264 and H.265 encodes (MISB 0604.6)
supported with SDI, NDI, and TS inputs

Video processing

Resizing
Automatic color component subsampling
(both configured automatically based on input
and output settings)
De-Interlacing
Cropping / Padding
Color adjustments
Frame rate conversion
(Motion compensated)
Logo insertion

Containers & Protocols

UDP, RTP
MPEG-2 TS, MPTS
VSF TR-01 OPTIONAL
VSF TR-07 OPTIONAL
RTMP / RTMPS
SRT with Path Redundancy
NDI (input & output)
HLS
Hittless Merge
Hittless Switch

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
Multipipeline synchronization using single
PCR stream in multiple pipelines

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)
NDI
JPEG2000 TR-01 OPTIONAL
JPEG2000 TR-07 OPTIONAL
H.265 (HEVC)
MPEG-2
SMPTE 2110

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

Audio output

Audio codec:
AAC (ADTS / LATM)
ACC-HE
AC-3
Uncompressed PCM (SMPTE 302M-2007)
MPEG2 Audio
Dolby-E pass through

Configuration options:
Web UI, SNMP, REST API

System Monitoring options:
System webconsole, SNMP + custom OIDs