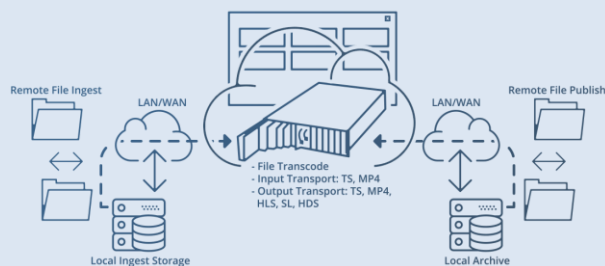


## STREAMENGINE™ TRANSCODE at-a-glance

- One-stop shop for VOD/File transcoding: supports a wide-range of inputs and outputs
- 4K, HD, SD Inputs and Outputs
- MPEG2, H.264 and HEVC Video
- AAC / AC-3 Audio
- MPEG2-TS, MP4, Apple HLS, Microsoft smooth streaming and MPEG-DASH support
- 100% Software-based
- Deployed on expandable, high-density chassis
- Allows trading-off video quality with CPU resources
- Multi-resolution, multiple frame-rate support
- Multi-channel audio support
- Integrated with SeaChange AssetFlow CMS
- HTTP, NFS and CIFS support
- Appliance or software solutions



For rapid file-based video ingest, processing and publishing, there is no solution that compares to Zipreel's StreamEngine™.

StreamEngine™ provides an efficient and scalable solution that can ingest a variety of formats from a local storage source or a remote location (NFS, CIFS, HTTP) and create single bit-rate or adaptive bit-rate files for publishing to local archive or to a remote location.

Zipreel's software technologies to reliably distribute transcoding workflows in a commodity cluster and to generate broadcast-grade quality are key differentiators.

A convenient Web GUI, REST-ful APIs, along with in-built diagnostic and management tools, make the StreamEngine™ platform easy to set up and manage.

### SOFTWARE-BASED TRANSCODING

100% software based to take the advantage of the latest advancements in CPU processing technology. Supporting new functionality – such as HEVC, 4K, and 8K – for File transcoding is easily enabled on your existing hardware platform using our software with broadcast-grade encoding and packaging.





# STREAMENGINE™ TRANSCODE Product Brief

High Density, Unmatched Video Quality For All Devices and All Formats

## STREAMENGINE™ SPECIFICATIONS:

### Compression Standards

#### Video

##### MPEG-2

Simple, Main, and 422P Profile  
up to High Level

##### MPEG-4 AVC/H.264

Baseline, Main, and High Profile  
Up to Level 4.2 HD

##### HEVC\*\*

#### Audio

Multiple programs per channel

MPEG-1 layer 2

MPEG-2 layer 3 (mp3)

MPEG2/MPEG-4, AAC-LC, AAC-HE

Dolby Digital E, AC-3 and pass through

Sampling Frequency: 32, 44.1, 48 KHz

### Resolutions and Frame rates

Flexible – QCIF to HD 1080p60

Mix and match resolutions, frame rates and bit rates – very flexible output configurations

#### Common Resolutions :

576i and 480i x 720, 544 and 352 pixels @ 23.976, 25, 29.97 and 30 Hz

1080i x 1920, 1440, 1280 and 960 pixels @ 23.976, 25, 29.97 and 30 Hz

240p, 288p, 480p, 576p @ 10, 12.5, 15, 20, 23.976, 30, 50 and 59.94 and 60 Hz

720p x 1280, 960 and 640 pixels @ 10, 12.5, 15, 24, 30, 50 and 60 Hz

1080p x 1920, 1440, 1280, and 960 pixels @ 10, 12.5, 15, 23.976, 50, 59.94, and 60 Hz (1080p60 is upgrade option)

Programmable to arbitrary output resolutions and frame rates

### Optional Processing

#### Format Conversion\*

PAL/NTSC to NTSC/PAL

50i/25p to/from 60i/30p

50p to/from 60p

Cropping/Scaling (manual or AFD)

Single in – multi-out(e.g. PIP)

Noise Filtering\*

Audio Level Control

\*Features available upon request

### Transcoding

Full decode/full re-encode mode

Scene Change Detection and I frame insertion

Fixed and Dynamic GOP Structures

Automatic quality adaptation based on in-stream activity

### Rate Control

CBR, VBR

Single and Multi-pass modes

### Multi-Stream Transport Packaging

Apple HLS – HTTP Multirate with TS segmenting

Microsoft Silverlight Multirate

MPEG DASH\*\*

Synchronized native MPEG2-TS Multirate

### I/O

Inputs: MPEG2-TS, MP4, MPEG2-PS, MOV, MXF

Outputs: MPEG2-TS, MP4, Apple HLS, Microsoft Smooth Streaming, MPEG DASH\*

### Input-Output Interfaces

IP – Dual/Quad Gigabit Ethernet ports

### Configuration and Management

Embedded web-server interface

SNMP Control

REST API for scripted operation

### Xeon Platforms

Xeon 55XX, Xeon 56XX, E3-26xx, E3-12xx

Blades, 1U, 2U, 3U, 6U with redundant power options

Up to 4 Gpixels/sec processing on 3U platform

Δ Some features may change depending on market demand

\*\*Available in 1Q2018

