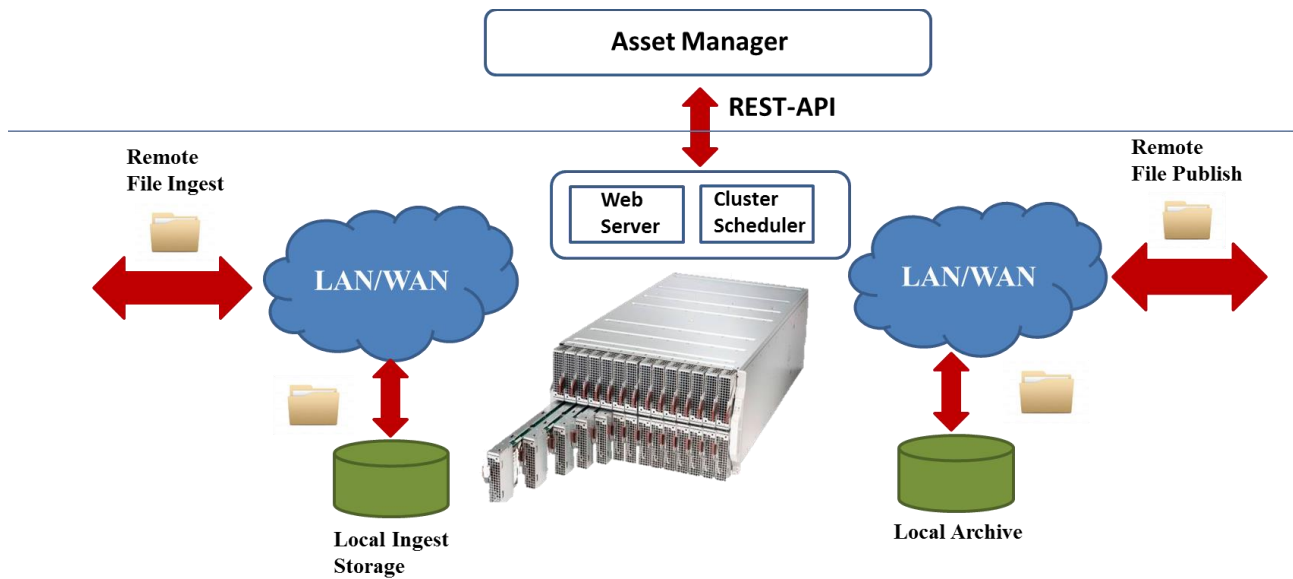


## StreamEngine – Scalable File Transcoder



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

StreamEngine™ provides an efficient and scalable solution that can ingest a variety of formats from a local storage source or a remote location and create linear or adaptive streams for publishing to local archive or to a remote location using standard Intel-based server clusters.

StreamEngine's powerful and flexible redundant scheduler and redundant Webserver distribute all asset conversions to worker nodes which use robust failsafe mechanisms to ensure timely job completion. There is no downtime with the Streamengine platform!

Convenient Web and REST-ful interfaces, workflow integration with leading Asset-flow managers, along with in-built diagnostic and management tools, make the StreamEngine™ platform easy to set up and manage.

### KEY Features

- Input File Formats: MPEG2 TS, MP4
- Multiple File Format support
- Outputs: MPEG2 TS, MP4, HLS\*, HDS\* or Smooth Streaming transport packaging
- SD and HD Formats on inputs and adaptive multi-stream outputs
- MPEG2/H.264/HEVC full two-pass encoding
- DASH format support
- Apple HTTP Dynamic Streaming\* format support
- Microsoft Smooth Streaming format support
- Compatible with Concurrent eFactor, Wowza Media Server, MSFT IIS, and Adobe FMS
- *Simultaneous* VOD file creation in all modes
- Multi-Resolution, multi-frame rate support
- Multi-channel Audio support
- MCTF de-interlacing for highest video quality with interlaced inputs

## 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/H.265 - 4:2:0, 8 bit, up to 4K  
4:2:2 10-bit\*, HDR10\*

#### Audio

Multiple programs per channel

MPEG-1 layer 2

MPEG-2 layer 3 (mp3)

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

AC-3 stereo, 5.1 encoding and pass through

Sampling Frequency: 32, 44.1, 48 KHz

### Resolutions and Frame rates

Flexible – QCIF to HD 1080p60 for

MPEG2/H.264, 4K for HEVC

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 in 3Q2017

### 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, Capped VBR

Single and Multi-pass modes

### Multi-Stream Transport Packaging

DASH\*

Apple H.264 – HTTP Multirate with TS  
segmenting

Microsoft Silverlight Multirate

Synchronized native MPEG2-TS Multirate

### I/O

Inputs: MPEG2-TS, MP4, FLV\*, 3GP (\*.3g2,  
\*.3gp), Flash (\*.flv, \*.f4v), QuickTime

(\* .mov), MPEG-PS (\*.vob, \*.mpg), AVI  
(\*.avi), MXF, LXF, GXF

Outputs: MPEG2-TS, MP4

Simultaneous streaming and file creating for  
archival modes

### 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

E3-26xx, E3-12xx

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

Up to 9.1 Gpixels/sec processing on 6U  
platform

