

## MediaScaleX // Transcode™ ATA-GLANCE

- Any input, any output, file and live
- Support for a wide range of formats/codecs
- 100% software-defined transcoding for appliance, software only, and virtual machine solutions
- Configuration and management via GUI, API and SNMP
- Optimized integration with the MediaScaleX // Origin™ / Packager
- Supports file and live workflows
- VOX enables flexible video quality setting to manage CPU resources and bandwidth
- 4K, HD, SD inputs and outputs
- MPEG-2, H.264, and HEVC video
- AAC and AC3 Audio
- Advanced video pre/post processing
- High-density-chassis expands easily with additional blades
- CALM Act and EBU R128 compliant



## SOLUTION OVERVIEW

MediaScaleX // Transcode™ is a 100% software-based solution that takes advantage of the latest advancements in encoding technology to provide unsurpassed video quality on COTS hardware. Simple to configure and scale, MediaScaleX // Transcode™ enables service providers, broadcasters, and content owners to deliver video over any network and to any device at resolutions from QCIF to 4K. Coupled with the CDN solution, MediaScaleX // Transcode™ provides an end to end video distribution solution including video processing, storage, and delivery.

## SOFTWARE DEFINED TRANSCODING

The MediaScaleX // Transcode™ software-based transcoding solution is hardware agnostic, can run on a virtual machine or in a container, and enables the flexibility of on premise, cloud (public or private), or hybrid-cloud deployments.

## FILE AND LIVE WORKFLOWS

Both file and live video formats allow converged deployment for QAM, IP, and OTT applications. Deploying with the MediaScaleX // Origin™ enables highly scalable packaging, seamlessly supporting multiple output formats (HLS, DASH, fragmented MP4, etc.).

## MULTIPLE SIMULTANEOUS OUTPUTS

Simultaneously output a mix of streams at multiple resolutions and frame rates. Efficiently address multiple target devices, simplify workflows, and maximize processing throughput.

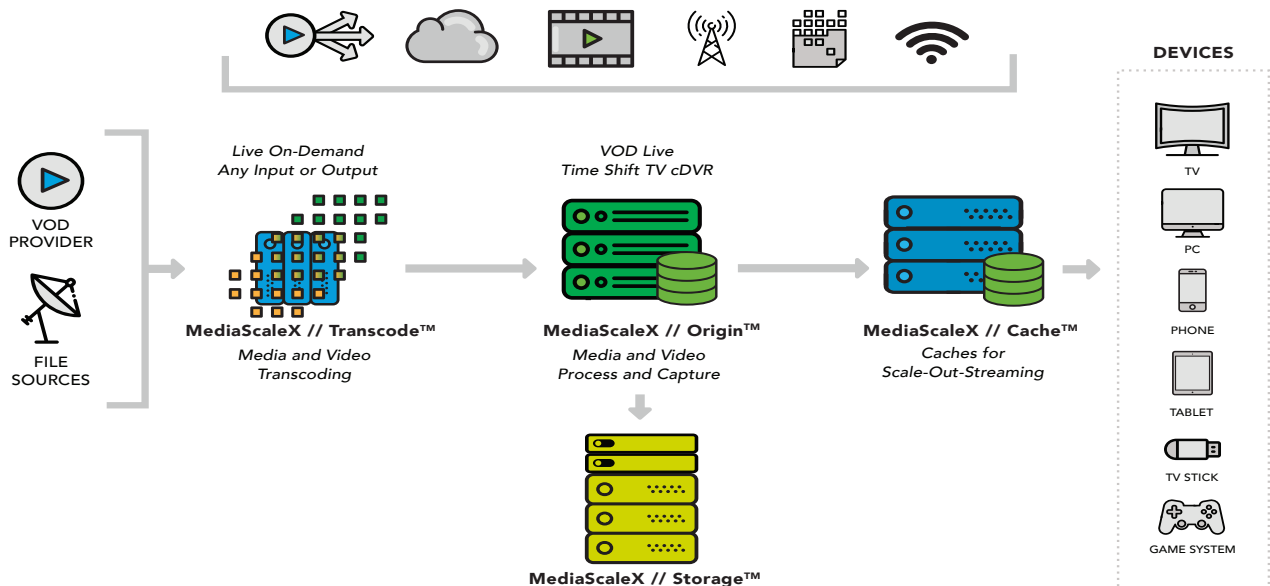
## ADVANCED VIDEO PROCESSING

VQX (Video Quality Experience) allows operators to select and adjust the level of video processing on a per channel basis, enabling maximum video quality as a function of CPU utilization and network bandwidth.

## HIGH DENSITY AND SCALABILITY

A pre-integrated blade server appliance provides scalable capacity to match user needs and growth. Expected transcode throughput using an HD ABR profile of 3-4 bitrates:

- 1000 Hours of HD ABR VOD content per month per blade (best quality)
- 4 HD ABR live channels per blade (very good quality)
- 6 HD ABR live channels per blade (good quality)
- 8 HD ABR live channels per blade (normal quality)
- Between 104 and 208 HD ABR live channels per 6U chassis with recommended levels of redundancy



## TECHNICAL SPECIFICATIONS

### FILE INPUT / OUTPUTS

#### File Formats

- .ts, .mpg, .avi, .mp4, .mov, .mxf, fragmented MP4

#### Video Formats

- MPEG-1, MPEG-2, H.264, HEVC, XDCAM50, ProRes

#### Video Resolutions

- QCIF (176x144) up to 4K (3840x2160)

#### Frame Rates

- Progressive 59.94, 50, 29.97, 25, 23.97
- Interlaced 29.97, 25, 23.97)

#### Video Bit Rates

- Up to 50 Mb/s in VBR, CBR, or capped VBR

#### Video Processing

- Configurable GOP, 3:2 pulldown/inverse telecine, frame rate conversion, logo insertion, watermarking, file concatenation

#### Audio Formats and Processing

- MPEG-1 Layer II, AAC, AC3

#### Subtitle and Teletex

- EIA 608 and 708 closed captioning pass-through and embedding from file, convert to DMXF, burn-in from TTML

#### Digital Program Insertion

- SCTE 35 pass-through, SCTE 35 insertion via SCTE 104 triggers

#### Management

- GUI, API, SNMP

### LIVE PROCESSING

#### IP Input Formats

- UDP/RTP (multicast and unicast), MPEG-2 TS

#### Video Codecs

- MPEG-2, H.264 4:2:0 (8-bit), H.264 4:2:2 (10/12-bit), HEVC HD 4:2:0 (8-bit), HEVC 4K

#### Video Resolutions

- QCIF (176x144) up to 4K (3840x2160)

#### Frame Rates

- Progressive 59.94, 50, 29.97, 25, 23.97
- Interlaced 29.97, 25, 23.97)

#### Video Bit Rates

- Up to 50 Mb/s in VBR, CBR, or capped VBR

#### Video Processing

- Configurable GOP, 3:2 pulldown/inverse telecine, frame rate conversion, logo insertion, watermarking

#### Audio Formats and Processing

- MPEG-1 Layer II, AAC, AC3, CALM (ATSC A/85), EBU R128

#### Subtitle and Teletex

- SCTE 27, closed caption

#### Digital Program Insertion

- SCTE 35 pass-through, SCTE 35 insertion via SCTE 104 triggers

#### Management

- GUI, SNMP