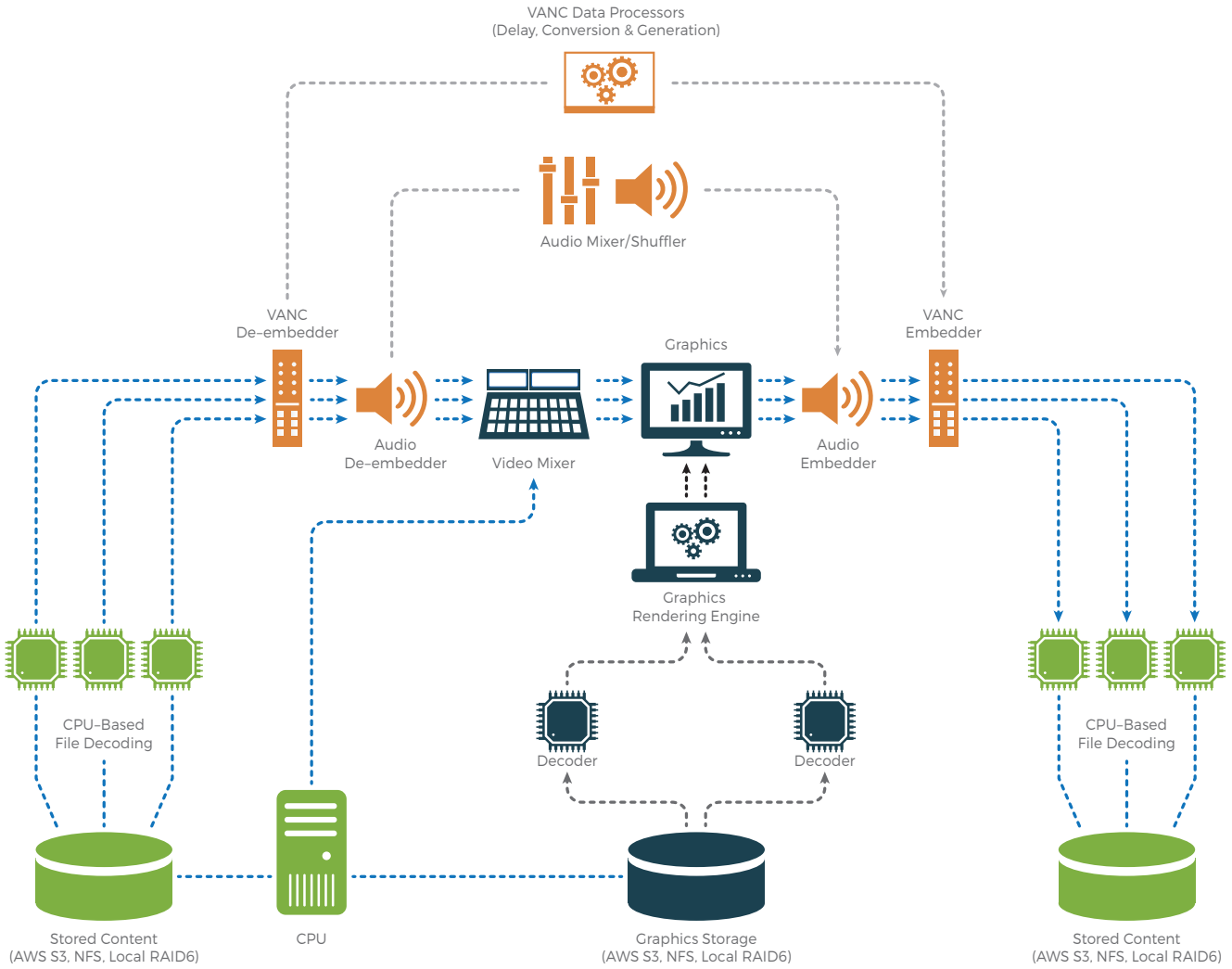
# OVRT–RENDER–X–B

## *Multi–Frame Rate Transcode Engine*

The OVRT–RENDER–X–B is a multi–format transcode engine with support for an extensive list of video and audio formats. Content can be delivered in a variety of wrapper and codec formats for transcoding to another file format while preserving all the integrity of the video, audio and ancillary data in the source file.

The OVRT–RENDER–X–B additionally offers a variety of video, audio and VANC processing capabilities optimized to provide superior transcode performance. Capabilities include up/down conversion, rate conversion, graphics rendering, upmix/downmix, Dolby D/D+/E decode/encode, IntelliGain audio loudness control, caption embedding/de–embedding, Civolution and Nielsen watermarking to name a few. Additional capabilities include concurrent rendering of multiple output files, file stitching, support for UHD, 3G, HD or SD, and faster than realtime transcode speeds approaching 6x or more. Furthermore, a shared code base with the OVRT–LIVE–2U–B ensures maximum interoperability for content destined for playout on the OVRT–LIVE–2U–B.

The OVRT–RENDER–X–B is available on a dedicated 2RU server hardware outfitted with up to 6TB of RAID6 local content storage (with the option to use network attached storage and S3 buckets) as well as 10G Ethernet ports for rapid movement of content. The OVRT–RENDER–X additionally offers deployment option in a cloud environment thus offering a flexible, future proof, cloud–ready transcode engine for any file conversion, conformance, VOD or Non-linear distribution application.




When coupled with Evertz Mediator–X conform and transcode management tool, transcode workflows can be automated and streamlined to save time. In addition, with deployment of Mediator–X and OVRT–RENDER–X–B in the public cloud, further efficiencies can be leveraged to maintain an optimal balance between cost and throughput. OVRT–RENDER–X–B nodes can be dynamically spun up and down to meet the workload demands during peak and off–peak periods.

### Features & Benefits

- Multiple Frame Rate Support
  2160p/59.94, 2160p/50, 2160p/29.97, 2160p/25, 1080p/59.94, 1080p/50, 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, 625i, 525i
- Advanced Ancillary Data Processing: 608/708 Captions, DVB Subtitles, OP42/OP47 Subtitles, AFD (SMPTE 2016), Timecode, V–Chip/XDS
- Advanced Video Processing: Up/Down/Cross Conversion
- Advanced Audio Processing: Dolby E/D/DD+ Encode/Decode, Upmixing, Downmixing, IntelliGain, Audio Shuffling, Neilsen Watermarking

**Graphic Features**

- Native full screen graphic playout
- Support for MOV, JPG, PNG, BMP and more
- Full DVE support
- Lower third graphics support
- 3D graphic support
- Countdown/Deadline timer support

*The Complete Solution Provider*

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### Specifications

*Based on multi–core Linux 2RU server architecture*
*Includes 4x 10GbE ports, 4x GbE ports, 1x IPMI port, and dual–redundant, hot–swappable power supplies*

**Video:**
Supported Raster Formats: 525i, 625i, 720p/50, 720p/59.94 1080i/50, 1080i/59.94, 1080p/50, 1080p/59.94, 2160p/50, 2160p/59.94
Video Sample Format: 4:2:2 Y/C 8–bit/10–bit, 4:2:0 Y/C 8–bit
Multiplexes: MXF OP–1A (Single item, single package), GXF, TS
Supported Video Codec: XDCAM50, IMX50, IMX30, PRORES, DNxHD, H.264, H.265
Video Processing:
- 4:4:4 YCbCr 16–bit processing
- Up/down conversion
- Cropping
- Timecode burn–in
- Optional Civolution watermarking
- Support for multiple UHD/3G/HD/SD standards
- Frame rate conversion

**Audio:**
Number of channels: Up to 8x AES pairs at 48kHz sampling
Sample Format: 16–bit, 20–bit and 24–bit samples
Supported Audio Codec: PCM, AC3, Dolby–E
Audio Processing:
- 16–, 20– and 24–bit audio samples (44.1kHz/48kHz)
- Upmix, Downmix
- Audio Shuffling
- Dolby D/D+/E Encode/Decode
- IntelliGain audio loudness control
- Nielsen RTVOD watermarking
- Embedding external audio files
- De–embedding to external audio files

**ANC:**
Supported VANC Codec: SMPTE 436M, SMPTE ST 2038
ANC Processing:
- Pass–through of all VBI lines
- Subtitle/Closed Caption insertion/extraction/burn–in
- CEA–608 to CEA–708 conversion
- OP–42 to OP–47 conversion
- ATC/VITC timecode generation
- AFD stamping
- V–CHIP insertion

**Graphics:**
- Support for multi–layer advanced graphics including animations and static logos
- Support for crawls with repeat capability
- Support for dynamic text
- Support for shadows, outlines, transitions and rotations
- Support for TrueType and Unicode character sets
- Optional support for multi–channel DVE effects

Supported Graphics Files: TGA, TIFF, PNG, JPG, MOV

**Wrappers and Codecs:**

| | |
|---|---|
| Wrapper: | MXF OP–1A |
| Video: | MPEG–2, H.264, IMX30, IMX50, XAVC, AVCI, DNxHD |
| Audio: | PCM, Dolby–E, AC3 |
| Wrapper: | GXF |
| Video: | MPEG–2, H.264, AVCI |
| Audio: | PCM, Dolby–E, AC3 |
| Wrapper: | TS |
| Video: | MPEG–2, H.264 |
| Audio: | PCM, Dolby–E, AC3 |
| Wrapper: | MPEG–4, MOV |
| Video: | MPEG–2, H.264, DNxHD |
| Audio: | PCM, AAC |

**File Delivery:** Local storage (6.6TB), NFS, S3

**System Cooling:** 6x 60x38mm heavy duty PWM fans

**Power Requirements:**
Power Supply: 100–240VAC (11–6A), 50–60Hz (auto–sensing)
Rating: 500W (4.34 A), 1708 BTU/h

**Operating Environment:**
Temperature: 10–35°C (50–95°F)
Non–operating temperature: -40–70°C (-40–158°F)
Relative Humidity: 50–90% (non–condensing)
RoHS Compliant

**Physical:**
Dimensions: 16.93" W x 3.44" H x 27.95" D (439mm x 89mm x 712mm)
Gross Weight: Approx. 54 lbs (24.5 kg)
Rack Space: 2RU

### Ordering Information

**OVRT–RENDER–X–B** OvertureRT Multi–Frame Rate Transcode Engine

**Video Options:**
**OV–UDC** Internal Up/Down/Cross Conversion

**Ancillary Data Options:**
**OV–CC** 608/708 Caption Insertion/Extraction
**OV–OP4247** OP–42/OP–47 Subtitle Insertion
**OV–DVBMUX** DVB Muxed Subtitles
**OV–DVBSTL** DVB Subtitle Generation
**OV–DVBSTL–ADDLNG** Additional DVB Languages

**Graphics Options:**
**OV–DVE** Full DVE Support
**OV–TEMPLATE** OvertureRT Template Creation Tool

**Infrastructure Data Options:**
**OV–NE** Nielsen Encoding/Watermarking

**Audio Options:**
**OV–AUD–IG** IntelliGain Loudness Control
**OV–AUD–AAC** AAC Encoding
**OV–AUD–AC3E** AC3 Encoding
**OV–AUD–DD** Dolby D/DD+ Encode/Decode
**OV–AUD–DEE** Dolby–E Encode/Decode
**OV–AUD–DMX** Audio Downmix
**OV–AUD–UMX** Audio Upmix