

PRODUCT BRIEF



GENOVA STATION

READY, SET, LIVE STREAM!

You want to stream live content to any device, without having to install and set up a sophisticated OTT TV workflow. Your set up is small – may be ten, or five, or even just one live service. You need a top-notch encoding and packaging solution that is simple to install and use.

Meet Genova Station: a self-contained encoding and packaging appliance that makes live OTT and IPTV video streaming simple – while still offering the same high-quality, low-latency encoding functionality of the traditional Genova encoders used by tier-one operators. It compresses live video and audio feeds to H.264 (AVC) and HEVC for IPTV and multi-bitrate OTT, and encodes content in SD and HD. Genova Station includes an OTT packager to push your content to third-party CDNs.

Genova Station integrates Anevia's proven technology and expertise, and can be upgraded to match the latest OTT standards.

anevia [®]
YOUR NEXT GENERATION TV, NOW



APPLICATIONS

- Turn-key appliance for OTT TV and IPTV
- Live encoding and packaging
- Ultra-low latency live encoding



FEATURES AND BENEFITS

Make life simple:

- Get everything you need in just one box
- Easily plug into a third-party CDN
- All-in-one licensing

Reduce costs:

- Reduced power consumption
- Small form factor

Ensure the best viewing experience:

- **Ultra-low latency:**
 - Ultra-low latency original design
 - Special packager settings: CMAF-LLC reduces latency to under the size of the GOP structure, without impacting encoding quality
- **Video pre-processing features:**
 - Multiple de-interlacing modes
 - Frame rate doubling for smooth result (especially important for live sports content)

Reduce risks:

- Extensively bench- and field-tested
- Based on a reliable standard hardware server
- Future-proof, upgradeable appliance
- Based on Anevia's proven technology and expertise
- Reliable: Anevia encoders and packagers are deployed globally, running 24/7 to serve broadcast-quality content



SYSTEM ARCHITECTURE

Compression & Packaging



➔
Packaged output PUSH



➔



TECHNICAL SPECIFICATIONS

Service

- Live encoding and transcoding
- Live OTT packaging
- Up to 8 Dolby audio decodes and 8 encodes simultaneously

Input Format

Video:

- MPEG-2, up to 1080p60
- H.264, up to 1080p60
- HEVC, up to 1080p60, 8 bits
- Hardware option: 8 3G-SDI inputs with stereo or 5.1 audio, PCM or Dolby E or Dolby Digital (AC-3)

Audio:

- MPEG-1 Layer II
- AAC-LC, HE-AAC v1/v2
- Dolby Digital (AC-3)
- Dolby Digital Plus (E-AC-3)

Transport:

- MPEG-TS/IP in UDP
- MPEG-TS/IP in RTP/UDP (FEC)

Output Format

Video Encoding:

- MPEG-2, up to 1080p60
- H.264, up to 1080p60
- HEVC, up to 1080p60, 8 bits
- Multi-bitrate video encoding for Adaptive Streaming
- Up to 16 video profiles per service

Audio Encoding:

- Pass-through
- MPEG-1 Layer II
- AAC-LC
- HE-AAC v1/v2
- Dolby Digital (AC-3)
- Dolby Digital Plus (E-AC-3)

MBTS Output:

- Multi-bitrate TS with ATS/EBP markers over UDP or RTP with FEC protection

Embedded Push Packager:

- MPEG-DASH/CMAF
- Apple HLS/TS and HLS/CMAF
- DVB-DASH for HbbTV
- Microsoft Live Smooth Streaming
- Adobe RTMP/RTMPS
- TS archive

ORDER CODES

GENSTA-IP-01: Self-contained Genova Station appliance including transcoding and OTT packaging. IP inputs only; no SDI inputs.

GENSTA-4SDI-01: Self-contained Genova Station appliance including encoding, transcoding, and OTT packaging. IP inputs and 4 SDI inputs.

GENSTA-8SDI-01: Self-contained Genova Station appliance including encoding, transcoding, and OTT packaging. IP inputs and 8 SDI inputs.



TECHNICAL SPECIFICATIONS

Processing

Video Preprocessing:

- Adaptive de-interlacing
- Video cropping and resize
- Aspect-ratio conversion or pass-through
- Frame rate down- and up-conversion
- Frame interpolation: i50 to p50, i60 to p60
- Colour enhancement
- Logo and slate insertion
- Video preview

Audio Preprocessing:

- Automatic Gain Control
- Audio level
- Configurable audio delay
- 5.1 and stereo downmix
- Audio resampling

Subtitling:

- DVB-Teletext
- DVB-Subtitle
- Closed Caption (CEA-608/708)
- Pass-through
- Burn-in
- Conversion to AMFo, SMPTE-TT, TTML/EBU-TT-D (IMSC1 text and image profiles), WebVTT, YouTube Live

Ad Signalling:

- SCTE-35 pass-through or conversion to LSS, HLS, YouTube Live

Delivery

- Push mode only
- FTP, HTTP, WebDAV, RTMP, RTMPS
- Integrates seamlessly into Anevia's end-to-end video-delivery solution: NEA-LIVE®, NEA-DVR®, NEA-CDN®
- Compatible with third-party packagers: AWS MediaPackage, Broadpeak, Edgeware, Huawei, USP

Administration

- Web GUI
- HTTP RESTful API
- SNMP monitoring
- DataMiner supervision
- Easily upgradeable

DRM

- PlayReady (Scalable licences)
- Verimatrix VCAS
- Irdeto
- BuyDRM
- SecureMedia
- FairPlay Streaming
- castLabs
- Widevine
- INSIDE Secure
- CryptoGuard
- DASH-CENC (Multi-DRM)
- Open Key (KMS)

CDN

- Akamai certified
- Facebook Live
- Fastly
- Highwinds
- Level3
- Limelight
- StreamZilla
- Tulix
- Verizon EdgeCast
- YouTube Live

Performance

Typically 7 encodings to 1920x1080i, single-bitrate. Or 4 encodings to 1920x1080p30 + 1280x720p30 + 960x540p30. Other configurations available.

Scalability and High Availability

- N+1 active/hot-standby redundancy

Platforms

19" x 1 RU x 435 mm, 7 kg

100V-240V AC / 50-60 Hz, 400W hot-swappable redundant power supplies