



MediaKind Stream Processing

Software Stream Processing

MediaKind Stream Processing provides transport stream processing capabilities to the MediaKind end to end software solution.

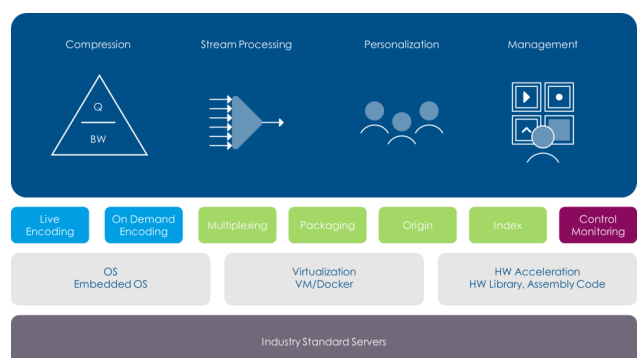
- IP (UDP or RTP) input and output of MPEG Transport Streams
- RTP re-ordering
- IGMP V3 redundancy
- Input bit-rate monitoring and CC error detection
- Full re-multiplexing support including real-time PSI regeneration, and dynamic rules-based pass-through of descriptors
- PID re-mapping
- SI/PSI generation/re-generation and insertion from external source.
- Statistical multiplexing bit-rate allocation for MediaKind Encoding Live
- SMPTE 2022-1 FEC on input and output
- DVB-CSA V1, V2 scrambling
- DVB-CSA V3 and AES-128 scrambling*

*Contact MediaKind for availability

End-to-End Software Solution with Centralized Configuration

MediaKind provides an end to end system designed to address key industry challenges. It enables operators to get the best from their IT infrastructure by providing a highly scalable and future-proof solution.

- Faster time to market by leveraging **one solution to address all networks** and the software microservices based architecture.
- **Reduce operational complexity** using the Management Controller as a single point of entry for all processing types.
- **Optimize OPEX and CAPEX** when migrating to full IP, and leverage the latest IT technologies (Containers & Orchestration) to reduce infrastructure costs.



MediaKind Stream Processing

Input

Transport Stream Input	UDP or RTP encapsulated MPEG transport stream Unicast or multicast (IGMP V2,V3) Source redundancy (active/active) SMPTE 2022-1 FEC Input bit-rate monitoring and CC error detection
-------------------------------	---

Stream Processing

Multiplexing	Full re-multiplexing support including real-time PSI regeneration, and dynamic rules-based pass-through of descriptors PID re-mapping Data component insertion SI/PSI generation, re-generation and insertion from external source
Statistical Multiplex Controller	Statistical multiplexing bit-rate allocation for MediaKind Encoding Live
Scrambling	DVB-CSA V1, V2 scrambling DVB-CSA V3 and AES-128 scrambling (contact MediaKind for availability) BISS Mode 0, 1, E, 2 (fixed key) scrambling

Output

Transport Stream Output	UDP or RTP encapsulated MPEG transport stream Unicast or multicast (IGMP V2, V3) Dual source redundancy (active/active) SMPTE 2022-1 FEC
--------------------------------	---

Scaling

22 x 40 Mbps MPTS outputs	880 Mbps data throughput equivalent to 22 x 40 Mbps transponders uses: 40% CPU on X1 type platform (Processor – 1 * Intel® Xeon® E3-1246 v3)
44 x 40 Mbps MPTS outputs	1760 Mbps data throughput equivalent to 44 x 40 Mbps transponders uses: 20% CPU on G6 type platform (Processor – 2*Intel® Xeon® E5-2680 v3)

Licensing

Licensed per 1 Mbit/s of output	FAZ 101 0408/278 - MFSms Video Processing (1 per 1 Mbit/s of output data rate)
Licensed per scrambled service	FAZ 101 0408/354 - CA Per Service (Note: DVB-CSA V3 and AES-128 will require additional licenses)