ADFLOW

Ad insertion technology

Increase advertising revenues

ADFLOW is a state of the art solution for inserting program contents (e.g. ads) into an AV signal (Ad insertion).

Based on markers that signal an ad slot it can seamlessly splice content into an incoming stream (SDI, MPEG TS). The new content can be selected based on various criteria, e.g. geographical region or air time.

This allows broadcasters and service providers to increase their advertising revenues by offering additional ad slots to local businesses. These contract partners can then directly address viewers in specific regions with individual ads.

Standards-compliant insertion

ADFLOW analyzes an incoming stream and recognizes cue messages that include splicing information. These messages signal the parts of the program that should be replaced by local ads. The insertion is based on SCTE-104/-35 or SCTE-30.

The messages also contain specific information to identify the ad slot which is then evaluated by an adserver. Based on configured campaign data the appropriate contents (video files) are then automatically selected to replace the original contents.

All of these video files are already available in the correct format. When a video file is ingested it will automatically be transcoded based on pre-configured profiles.

Seamless viewing experience

The new content will then be spliced into the input stream without additional encoding. This way the splicing mechanism preserves the video quality of the original content.

When ADFLOW recognizes the end of a signalled ad slot it will seamlessly switch back to the original content. The viewing experience is not affected in any way.

KEY FEATURES

- Insertion of ads into an incoming stream (SDI, MPEG-TS)

- SCTE-104/35 and SCTE-30 standards-compliant

- Suitable for TV broadcasters and service providers to increase advertising revenues

- Directly address viewers in specific regions with individual ads

- Ad selection by an adserver, based on campaign data (e.g. geographical region or air time)

- Automatic profile-based transcoding of replacement video files (ads)

- GOP-accurate switching between original and ad content for a seamless viewing experience

- Splicing mechanism preserves original video quality (re-encoding not needed)

- Output of multiple versions of an original input feed (feeds with different or without inserted local ads)
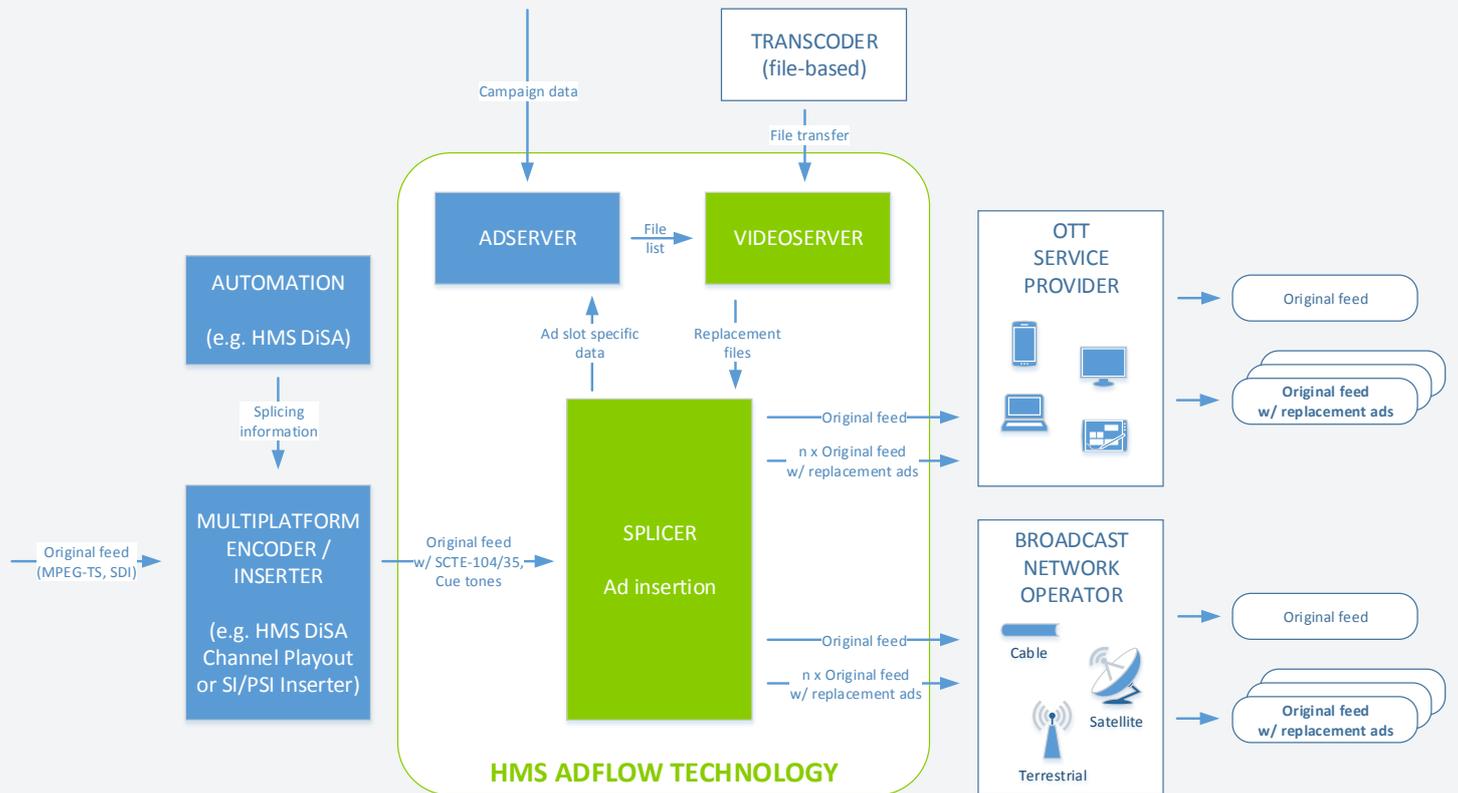
TECHNICAL SPECIFICATION | SPLICER UNIT

INPUT / OUTPUT	
Standards	
Video	MPEG-2 MP@ML, MPEG-2 MP@HL MPEG-4 AVC Main / High Profiles SDI (SMPTE-259M, -292M)
Audio	MPEG-1 layer 2 / 3, AC-3, E-AC-3, AAC LC, AAC HE SDI embedded (SMPTE-259M, -292M)
Streams	
Input	MPEG-TS: Up to 20 SD / HD, each Stream max. 15 Mbit/s (max. throughput 300 Mbit/s) SDI: Up to 4 SD / HD
Output	Up to 40 SD / HD (max. throughput 600 Mbit/s)
Local storage	
Total	Up to 4TB (equivalent to 50.000 files, each 10 Mbit/s with a duration of 1 minute)
Supported file formats	XDCAM HD 422, AVC-Intra, ISO MP4, MPEG-2, TS, Quicktime, DNxHD
GbE card	
IP ports	4 (independent in / out)
Connectors	2 x 1 GbE (MMF, SMF, Copper), 2 x 10 GbE (SFP+)
IP encapsulation	MPEG TS over UDP / RTP, up to 7 TS per IP, MPTS, SPTS
SDI card	
SDI Ports	4 in / 4 out
Connectors	8 x 3G-SDI BNC
ASI card (optional)	
Type	3 x ASI in / out (ETSI TR 101 891), 3 x 75 Ohm

GPIO card (optional)	
Input	Control interface with 16 input ports
Other	
Management	SNMP agent

COMPLIANCE	
Physical dimensions	
H x W x D	1.68 x 18.98 x 29.72 in, 1U 4.28 x 48.23 x 75.51 cm, 1U
Weight	min. 36.8 lb (16.7 kg)
Power	
Input	100 V to 240 V AC, 200 V to 240 V AC (50 Hz to 60Hz)
Wattage	495 W, 750 W or 1100 W
Consumption	573.3 W (max.), 239.3 (idle) (at 230 V / 50 Hz)
Heat dissipation	1908 BTU/hr (min.), 4100 BTU/hr (max.)
Environmental	
Operating / Storage Temperature	5°C to 40°C / -40°C to 65°C
Relative humidity	5% to 95% (noncondensing)
Conformity	
Quality mark / Safety compliance	CE / IEC 60950-1, EN 60950-1
EMC compliance	CISPR 22 / CISPR 24, EN 55022 / 55024
RoHS compliance	EU RoHS Directive 2011/65/EU