



**A real time AI based automated digital ad substitution system that detects the presence of advertising in the live TV stream that has no ad triggering mechanism. It is designed to find ads and automatically substitute designated ads in these live streams. Designed for local ad insertion by re-broadcasters, re-streamers. Relies on a 30 seconds to six minute live buffer to apply DVEO®'s deep inspection algorithms that yield excellent results. Online testing available on request.**



Live Show with Old Ads  
without SCTE 35, Cue Tone



Same Show  
with New Ads



## Overview

Advertising is the oxygen of the broadcast and content delivery world. It is the source of the funds that make content available at a reasonable price. Advertising dollars provide the oxygen to keep the broadcast model humming well. Interestingly most content in the world is not created with ad insertion in mind.

DVEO®'s Ad Substituter™ IP/25 is a real time automated ad substitution system that detects the presence of advertising in digital broadcast media and replaces the ads it finds with designated ads of identical length. This technology is useful since in many countries media contains no SCTE 35, analog cue tones, or other ad triggers or mark points. In these countries ad insertion happens at the content preparation stage and is efficient but expensive to create.

The Ad Substituter IP/25 looks for these ads in an intelligent manner and has proven to be very effective. We have customers who need to change the content and/or language of the incoming ads so they are able to maximize ad revenues, i.e. stations in one country do not want to carry a neighboring country's ads.

Since deep intelligence has to be applied, our system relies on a fixed 30 seconds to six minute buffer. This time delay provides us the time to apply our multiple criteria to the content. Your replacement ads can be video clips, static ads, or live web sites with changing information.

Our system is generally used downstream from the IRD's that deliver the content.

Once trained this system is extremely reliable.

## Features

- Analyzes ads in live streams and in prerecorded files
- May need delay up to six minutes to analyze complex ad types
- Inserts SCTE 35 command in SPTS for subsequent SSAI Ad Servers to replace ads
- Once trained, delay will be the same
- Supports 1080p, 1080i, 720p, and 480i, and all standard broadcast resolutions
- Selects transport streams by program numbers or PIDs
- 1 RU /3 RU (Rack Unit) mountable frame
- Supports 25 IP streams per unit
- Deployed across most continents
- System will pay for itself in less than one year

## Applications

- Replace national ads with regional ads
- Replace outdated ads with new ads
- Replace ads on cruise ships
- Remove offensive ads
- Ad substitution in compliance with national laws
- Can be modified for ad detection apps



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## Sample of GUIs

Input Parameters

11.1.1.125

224 . 1 . 1 . 1

Port 1242

Program Number 26

Ad is Running...

Stop Marking

Input Configuration

## Underlying Technologies Used

- AI Rules
- Image Processing
- Audio Processing
- Non Disclosed Algorithms

## Specifications

### IP Input/Output

Input/Output:	1 GigE Ethernet, RJ45 Optional 10 GigE
IP Protocols:	UDP
Type:	Multicast

### Output Bitrates

H.264 Output	.5 to 15 Mbps
MPEG-2 Output	1.0 to 18 Mbps

### Video Codecs

Standard:	MPEG-2, H.264
Optional:	HEVC

### Network and IPMI

Data Port	1 Gbe Port
Management Port	1 Gbe Port
IPMI	IPMI 2.0 Dedicated LAN Port

### CPU and Operating System

CPU:	Depending on Configuration Single or Dual Intel® Multi 16 Core Xeon®
OS:	Windows® 7 Professional 64 bit
Memory:	32 GB or 64 GB
Media:	1 TB X 2 or 2 TB X 2 as required

### Physical & Power

Size – 3 RU:	19 x 5.25 x 25.2 inches (W x H x D) 48.26 x 13.34 x 64 cm (W x H x D)
Power Supply:	3U 500~600W – Redundant 2U Mini Redundant 300~650W
Temperature Range:	Operating: 0°C ~ +50°C on Full Load Storage & Shipping: -20°C ~ +70°C
Non-operating Humidity:	5% to 95% non-condensing
Weight:	39 lbs. (17.69 kg)
Conformities:	UL, BSMI, CSA, FCC, CE, RoHs 

Note: Pictures shown are typical configurations. Exact product configuration will depend on number of channels and other requirements.

## Ordering Information

Ad Substituter – IPXX  
XX = Number of Channels