

- Zxora is a customizable, fully secure, cloud enabled, middleware for STB's, Android, IOS, ROKU and smart TV platforms that enable cable, OTT, and IPTV operators to bring up a full featured Subscription or Ad Supported TV Service in 60+days utilizing DVEO's infrastructure platform.
- Proven and ready to deploy on ROKU, IOS, Android, Windows based devices.
- We support AES-128, Verimatrix and Widevine DRM. Our Control Panel system server is part of most implementations.























Overview

- Middleware is the heart of any IPTV or OTT video platform. Often it is the first item to be selected in a search for IPTV and OTT solution. There are not many choices and most vendors are narrowly focused on middleware only.
- DVEO created this middleware so we can have an end to end solution. Additionally, most of the middleware companies are not interested in low volume project. At the end of the day, we created both the player and the content manager. The player looks like the other well-known players. We however added support for client and server-side ad insertion and VOD functionality. As part of the middleware development we had to develop a "controller". This controller manages the activities of the authorized users and provides enablement's for ads and authentication. This control panel is crucial for modern middleware workflows. Today much of the ad serving

and DRM comes from somewhere in the cloud. This controller then ends up as the gateway to both content and data to and from the player. Our controller is stand alone and available for use with our and third-party middleware.

- The MIDDLEWARE CONTROLLER Server goes hand in hand with Zxora. It is the manager for everything that happens on the ZXORA platform. It manages the functions of the player, establishes security authentication, and manages ad insertion functionality. For extra measure it collects permitted information about each user's watching times and habits. This data provides great value as a means of targeted advertising.
- It also includes subscription management with payment gateway to authorize.net



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♠ Features

- Works on Android Mobile, Android Set top box, Android TV, iPhone, Apple TV, ROKU, Firestick
- Real Time EPG Guide
- Support Ad Insertion and in-stream Ad playback
- Multiple Services in one application
- Works on desktop in your browser or as Application
- Seamless play using HLS
- Client and server side Ad Insertion using VAST
- Supports DRM
- VAST Pixel Tracking
- Ad Analytics
- Targeted Ad Insertion
- Geo-Fencing
- Multi-Bitrate support
- Closed Captions

- Customizable UI and Theme Experience
- End-to-end Encrypted Data Delivery (AES)
- VOD (Video-on-Demand)
- DVR/PVR (Digital/Personal Video Recording)
- Record and play back with one touch on EPG
- Multi language support
- Peer to Peer Group Chat while watching program (For 2020 End launch)
- Usage statistics To limit use by children!
- Scaleable from 50 5,000,000 users
- Integrated payment gateway
- Subscription management services
- MAC ID based authentication for set top boxes.
- Compatible with DVEO Playserver

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Customizing Options

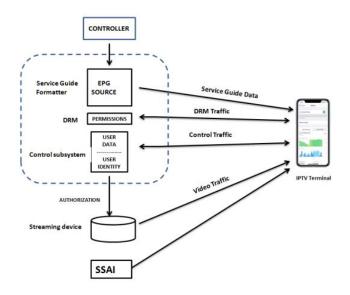
- 1. Plug Ins
- 2. Languages
- 3. Colors
- 4. EPG
- 5. Your Logo

- 6. DRM
- 7. Server or client- side ad insertion
- 8. Layout
- 9. Simple Authentications
- 10. Good price even at low volume



Matching Control Panel (hardware based)

- On Premises or Cloud Based IPTV OTT CONTROL oriented video player management workstation.
- Designed to feed video and ads to third party video players like THE-Oplayer[™], X Player [™], or JW Player[™] and others on demand.
- This workstation is designed to both manage your player parameters such as Access Control EPG, Network, Video Quality Notifications, Device Types, DRM, and feed your player with the appropriate URL's for content and ads.
- Support VAST and SPOTX.





Compact System



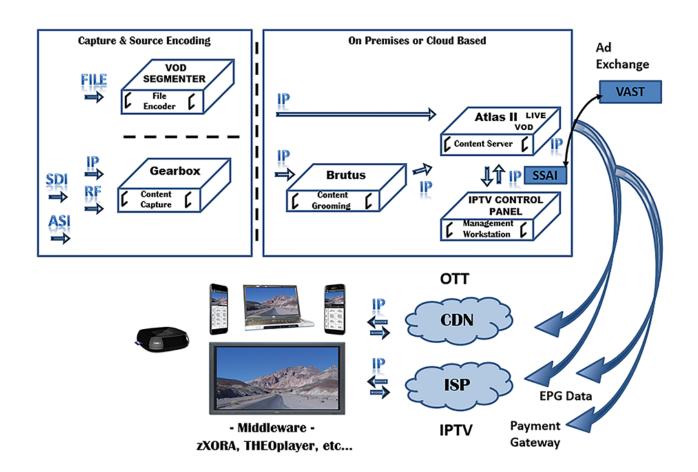
Standard System



Control Panel Features (not all present)

- Event listener
- Player configuration
- Configure advertising
- Configure DRM such as Widevine, Verimatrix
- Authorization Management System for accounts
- Configure video quality
- Configure notifications
- Prepaid Card Management
- Manage VAST scripts
- Configure VOD and Catchup and Live
- Configure EPG and manage all changes

- Configure ad insertion modes and modalities
- Powerful Logging, Statistics, and Connector Logs
- Interact with Ad Exchanges SPOTX.
- CDN and ISP support
- Thumbnails
- Access control
- Geofencing: Restrict playout to geographic area
- Manage ads, Inserts and Overlays
- Supports VAST and SPOTX
- Manage Ads, Inserts and Overlays (SSAI)



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Sample of Control Panel GUIs

<u>Channel</u> <u>Name</u>	<u>ls Free</u>	# Days	<u>Price</u>	<u>Active</u>	<u>Action</u>
Movies	No	60	\$ 19.99	Yes	Edit
Sports	No	30	\$ 19.99	Yes	Edit
Travel	Yes	0	\$ 0	Yes	Edit
Cooks	No	30	\$ 4.99	Yes	Edit
Zumba	Yes	0	\$ 0	Yes	Edit
Preview	Yes	0	\$ 0	Yes	Edit

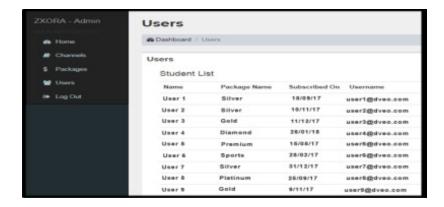
Channel Management

- Add new channels or modify old ones
- · Edit channel specifications
- Edit rights for users and make them active or inactive

Package Management

- Create new packages or modify the details of old ones and make them active or inactive
- tAdd/delete channels for particular packages

Sports	30	\$ 9.99	Yes	Edit	Add Channels	Channels (2)
Silver	30	\$ 9.99	Yes	Edit	Add Channels	Channels (0)
Premium Channel	30	\$ 14.99	Yes	Edit	Add Channels	Channels (0)
Diamond	30	\$ 29.99	Yes	Edit	Add Channels	Channels (0)
Christmas Special	30	\$ 19.99	Yes	Edit	Add Channels	Channels (0)
Platinum	30	\$ 29.99	Yes	Edit	Add Channels	Channels (0)
Gold	30	\$ 24.99	Yes	Edit	Add Channels	Channels (0)



User Management

View details about how many users have subscribed for channels under which package

Protocol, Formats, CPU's and Platforms

Streaming Protocols:	 HTTP Live Streaming RTSP Streaming Smooth Streaming Progressive Download MS-HTTP MPEG-DASH
Subtitles/CC Formats:	 CEA 608,708 WEBVTT DVB ISMT W3C, DFXP, TTML SMPTE TT SRT, SMI
Video Formats	HEVC (H.265H.264MPEG2MPEG4
Audio Formats:	AACAAC+,eAAC+MP3
File Formats:	 AAC,AC3,ASF, AVI, FLV, ISMV,MKV,MPEG, MP3, MP4/3GP, OGG, PIFF,TS



Supported Resolutions – Input and Output

1920 x 1080	704 x 480	320 x 240
1280 x 720	640 x 480	qHD
720 x 576	480 x 480	H.264up
720 x 480	480 x 320	

Also supports any custom resolution not listed here. Note: Supports closed captions. H.265 output resolutions supported are 1080, 720, 576, 480. H.265 576/480 resolutions only have 4:3 aspect ratio.

IP Input

IP Input protocols, "wrappers" UDP, RTP, RTSP, HTTP, HTTP Live (HLS), RTMP (pushed from Flash server)

Control Panel Hardware Specifications- Compact Unit

Physical & Power

Size (W \times D \times H) and Weight:

Power:

Power Consumption:

Operating Temperature:

Processor Cooling:

Relative Humidity:

Conformities:

7.5 x 6.5 x 1.7 inches (190 x 165 x 43 mm); 3 lbs. (1.36 kg)

External 90W fanless power adapter

Input: 100~240V AC, 50/60 Hz; Output: 19V DC, 4.74A

Maximum 90 watts

0°C to 50°C

Heat pipe processor cooling with 2 60 mm fans on upper side of chassis

10% to 90% non-condensing

UL, BSMI, CSA, FCC, CE, RoHS



CPU & Operating System

CPU:

OS:

Hard Drive:

Memory:

Intel® Core i3

DVEO embedded Linux® on SSD

8 GB RAM

120 GB SSD Intel

Specifications-1RU

Physical & Power

Size -1 RU high (W x D x H):

Voltage:

Operating Temperature:

Non-Operating Humidity:

Weight:

Conformities:

19 x 14.96 x 1.7 inches (483 x 380 x 43.4 mm)

100-240V, 4-2A, 60-50 Hz, 220 watts

10°C to 35°C

20% to 90% non-condensing

15 lbs. (6.8 kg)

UL, BSMI, CSA, FCC, CE, RoHS











CPU & Operating System

CPU:

OS:

Hard Drive:

Intel® Xeon® processor

DVEO embedded Linux® on SSD

1 TB (Option)

A. CONSULTANCY:

- · DVEO can help you with
 - * workflow integration
 - * develop new features
 - * full-service management of content + advertising scheduling

B. TECHNICAL SUPPORT:

- DVEO can help you with
 - * Premium support plans
 - Online ticketing
 - * 24/7 Premium Support

C. TRAINING:

- DVEO can help you with
 - * On Site training
 - * Localized Language
 - * Training at DVEO San Diego

Ordering Information

- Available as
- 1) Standalone License: zXORA Middleware + Player
- 2) Part of VIDEO PLATFORM II™: OTT
- 3) Part of VIDEO PLATFORM II™: IPTV

www.zXORA.com



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