MediaKind PRISMA

For Targeted TV Advertising

Video Services Monetization

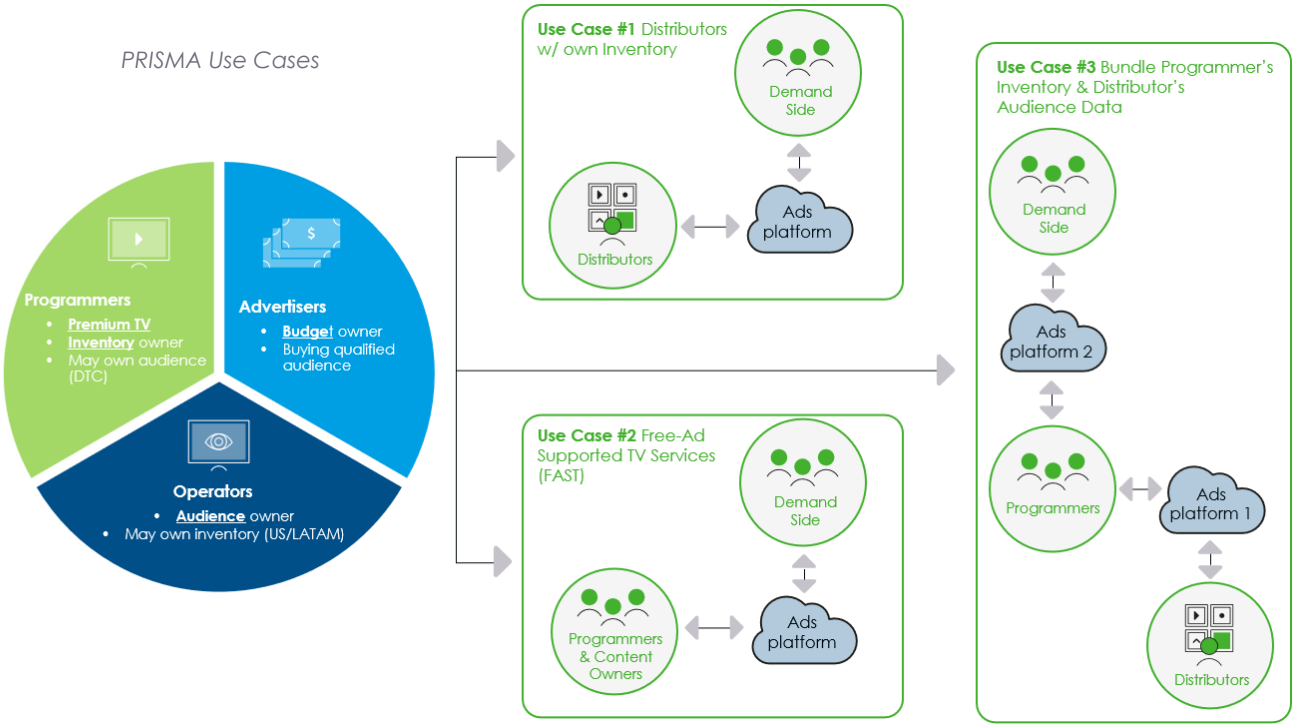
As consumers continue to embrace over-the-top (OTT) video services, Content Providers and Video Service Providers are eager to provide engaging viewing experiences and significantly enhance the monetization of their ad inventory with user-centric, dynamic ad insertion (DAI).

Combined with the intimate knowledge of OTT subscribers and the addressability down to the user enabled by unicast delivery, PRISMA provides a comprehensive solution to personalize the viewing experience in an holistic fashion.

PRISMA has been designed to connect a content owner's ad inventory to advertisers via an Ad Decision Server, or Server-Side Platform integration. Its server-side architecture allows content owners and distributors to monetize multiscreen video ad inventory regardless of the delivery protocol, and TV service (live, non-linear) via user-based manifest manipulation.

Benefits

- **Enabling new advertising revenues** with user-based targeted ads and TV-like experience (removes buffering).
- **Optimizing time-to-market:** standard-based solution and pre-integrated with leading ADS (Ad Decision Servers) and SSP (Supply-side Platform) vendors.
- **Delivering at scale:** Horizontal scaling to adapt to the audience distribution.
- **Enabling viewability:** Impression, quartiles tracking events carriage, customize-able to adapt to player constraints.
- **Protecting audience value:** prevent data leakage by securing and shielding audience data.



Server-Side Ad Insertion

PRISMA personalizes advertising delivering on a per-user/audience basis for various workflows and formats:

- **Live/near-live**
  Dynamic ad replacement of the entire identified ad break opportunity, spot-by-spot, or a subset of spots from a given ad break.
- **Non-live**
  For VOD, NPVR and catch-up TV services.
- **Streaming Protocols**
  PRISMA supports main streaming protocols with Apple HLS (TS and CMAF), DASH and Microsoft Smooth Streaming.

Upon placement opportunity detection (using **in-manifest SCTE-35 information**, or at **session start** for live pre-roll and non-linear ad replacement/insertion), PRISMA connects the audience with the ad decisioning entity such as ADS or SSP, and customizes the manifest delivered.

Managing your Inventory

Content partners may grant operators/distributors with business rules regarding how the ad inventory should be monetized - GRP-based versus impression-based, grant a portion of the inventory, manage exclusions.

PRISMA ingests such business rules and can manage SCTE-35 signaling (confirm, delete, rewrite) with the encoder, as well as manifest conditioning (with packager) to reflect those business agreements to be used by PRISMA.

Enabling Viewability

Reconciling campaigns with actual ad viewing is a critical aspect of the Targeted TV Advertising ecosystem.

PRISMA conveys ad tracking URLs down to the player to enable ad viewing reporting either directly to the ADS, or via PRISMA's *Stream Personalization* capability.

PRISMA carries such information (impression, quartiles etc.) using standard practices, and can customize in-manifest tracking information to facilitate player interoperability and integration.

Connecting your Audience to Buyers

PRISMA implements ad policy routing capabilities to route your audience to the right decision entity. Upon ad placement detection in the conditioned manifest (or at session start), PRISMA checks routing policies and sends the request, decorated with audience parameters and ad break information to the Ad decisioning entity.

Multiple ADS/SSP can be configured for a given channel or VOD library catalog.

Protecting the Audience Value

PRISMA protects the audience value, and behaves as a shield against data leakage.

Its server-side architecture provides content distributors and inventory owners full control over the type of data being distributed to inventory buyers - ad impression tracking URL proxy, control over targeting criteria passed to the Ad Decision entity.

Modular Architecture

PRISMA has been designed as a collection of independent software components, and provides you with the ability to deploy key functions while managing scaling.

- **Placement management**
  PRIMA implements SCTE-35 management to control the information that will flow through an A/V pipe. This may result in rewriting, modifying incoming SCTE-35 based on business rules agreed upon between programmers and distributors, as well as manifest conditioning to propagate placement opportunity information further down the chain.
- **Server-side ad replacement**
  PRISMA's stream personalization functionality performs user-based playlist manipulation for Dynamic Ad Insertion. Its architecture allows for scaling horizontally to adapt to your connected audience.

Thanks to its modular architecture, PRISMA can scale in relation to channels, or number of users/audiences connected by specializing instances deployed in your infrastructure.

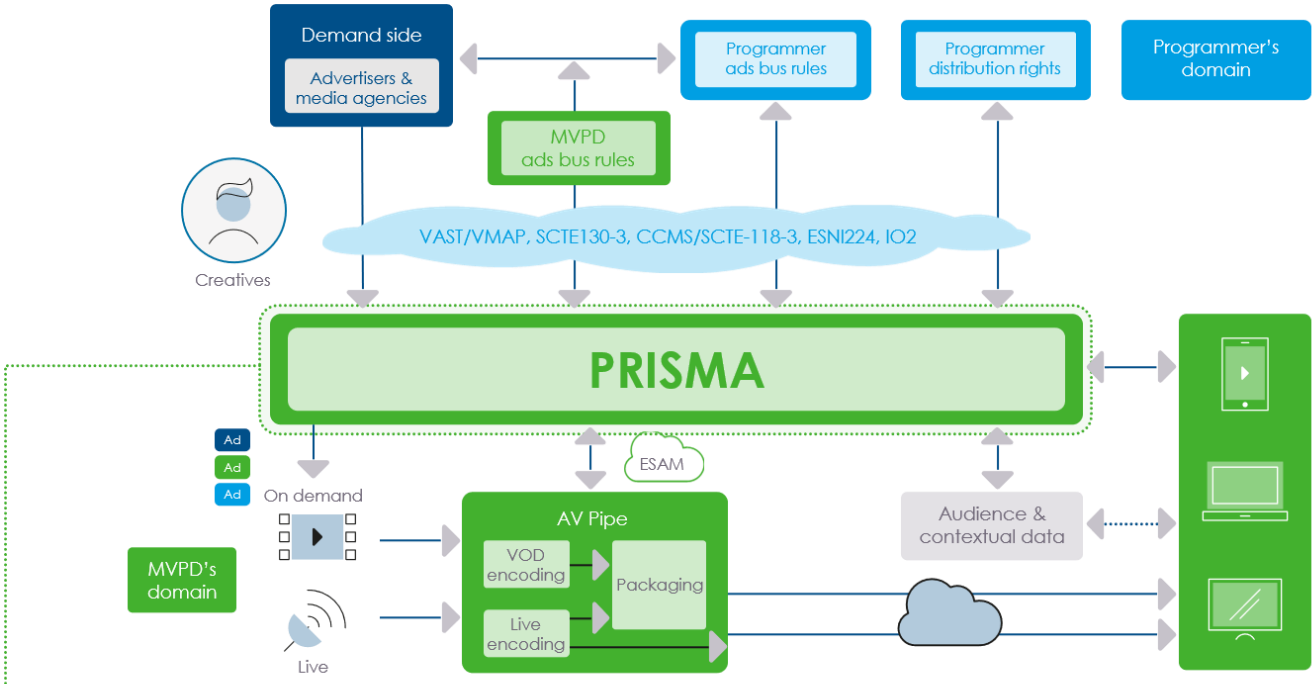
Virtualized and Standard Server Deployments

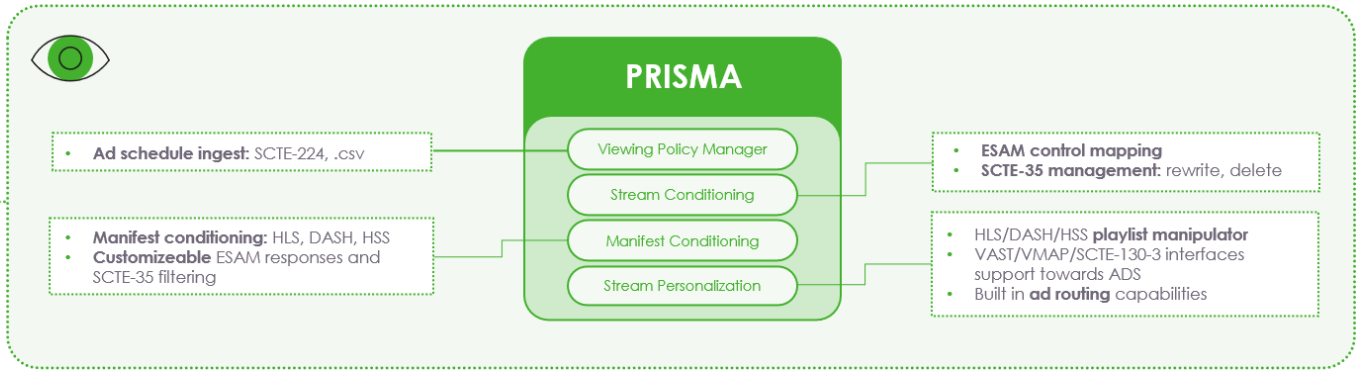
PRISMA can adapt to multiple deployment contexts, such as:

- Software on **COTS or blade servers.**
- Virtual instances in the **cloud.**

This versatility delivers more flexibility to manage operations and deployment.

PRISMA Workflow





PRISMA Functions (expanded from diagram above)

Playlist Manipulation for Targeted TV Advertising

Streaming Protocols	**Server-side** manifest manipulation for: • **HLS** (TS and CMAF) • **DASH** (CMAF) • **HSS** Microsoft Smooth Streaming (patented)
Workflows & insertion modes	**Live**, near-live (**time-shifting, restart-TV**), non-live (**VOD, catch-up, NPVR**) **Pre/Mid/Post roll** ad insertion/replacement • Full Ad break or spot by spot replacement/insertion • Partial replacement: replace a subset of spots from the underlying ad break Compose insertion/replacement with **commercial broadcast bumper**
ADS integration	Integration with leading **Ad Decision Servers** (ADS) • Configure-able ADS placement request using placement **URL template** • **VAST**, **VMAP**, **SCTE-130** interfaces support
Routing policy management	Configure-able placement request **ad routing policies** to manage integration with multiple ADS and/or Alternate content Decision system.
Pre-fetching	**Alleviate load on the ADS** and optimize ad inventory yield by pre-fetching ad
Viewing reporting	**In-manifest VAST tracking events** carriage • Quartiles, impression, videoClick etc. • Customize-able in-manifest syntax
Commercial ADS supported	Cadent/BlackArrow, FreeWheel, Google Ad Manager, Invidi, SpotX, Smart+

SCTE-35 Control

SCTE-35 Management	Placement management of **SCTE-35 signals** submitted by transcoders • **SCTE-35 confirmation**, **rewrite**, **delete** (in-band) • **SCTE-35 insertion** (out-of-band) • Interface: **ESAM** (ESAM-SCC)
Manifest Conditioning	Convey **in-manifest SCTE-35 information** for Alternate content & blackout, as well as DAI application, using ESAM-MCC manifest conditioning interface • **HLS**, **DASH** and **HSS** compatible • **SCTE-35 filtering**, with differentiated conditioning • **Fully customize-able** conditioning, leveraging any SCTE-35 data field

Creative Management

Creatives transcoding	H.264, HEVC transcoding using MediaKind on-demand workflow based on VOD transcoding and Content Management System (CMS)
Creative miss notification	Manage in real-time creatives missing using CMS: • CMS gets notified by PRISMA playlist manipulator about missing creatives • Creative transcoding orchestration **from creative ingest to provisioning**

Monitoring and Control

Control Interface	Control and monitoring via Web GUI. Fully configurable using REST-API
Service configuration	One-time configuration
Redundancy Management	N+M redundancy scheme

Compatible Deployment Models

Software Only	Supported on Linux CentOS 7.3 and 7.6
Deployment	PRISMA is integrated into MediaKind deployment framework as containers. Deployment per SW component/type of application.