



VERANCE



Aspect



# New Technologies for Targeted Advertising

*November 2019*

# Topics

## ▶ Targeted Advertising in ATSC 3.0

- Broadcaster application control of Application Media Player (AMP)
- Broadcaster application control of Receiver Media Player (RMP)

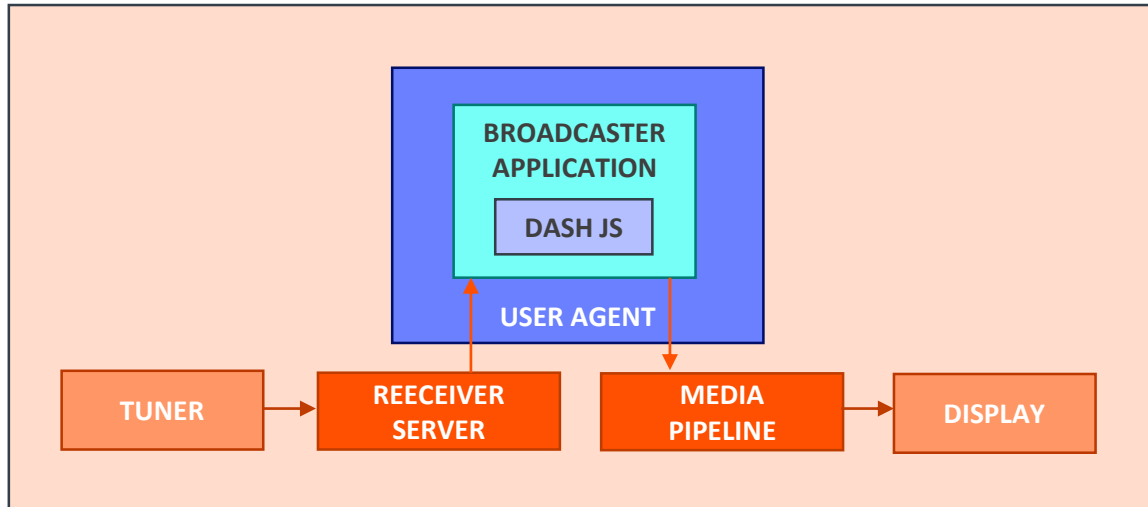
## ▶ Targeted Advertising in Project OAR

- Native ad insertion client with watermark signaling.

# TA using the ATSC 3.0 Application Media Player

*Broadcaster Application can provide a DASH playback engine.*

## Application Media Player (AMP)



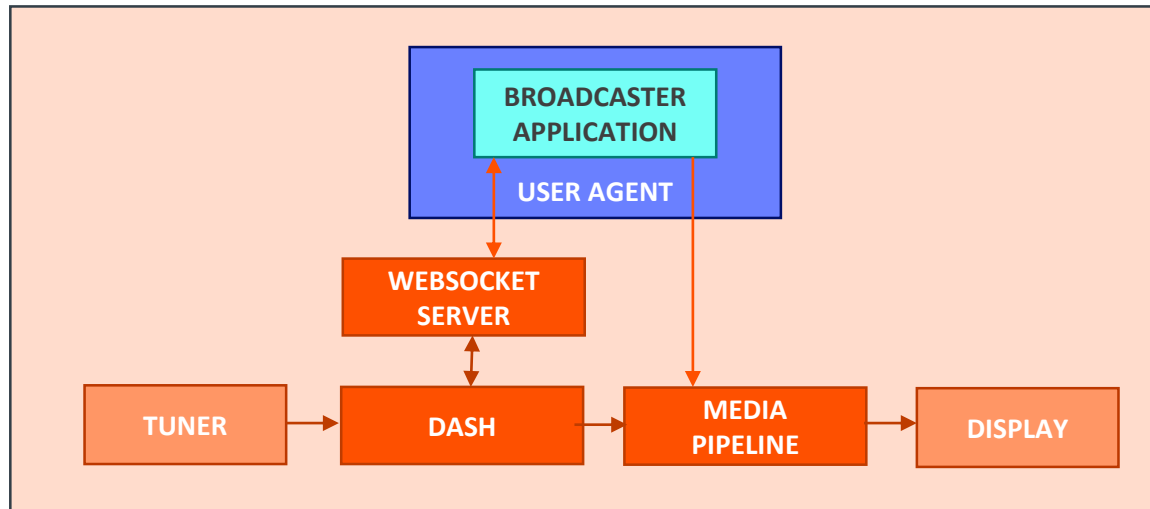
- ▶ Broadcaster application receives broadcast DASH resources via internal HTTP or websocket server.
- ▶ DASH resources are presented under broadcaster application control using W3C HTML5 APIs.

- ▶ Targeted ad insertion is performed in the **same way as OTT DASH**.
  - Content is packaged with period boundaries at switching locations.
  - Replaceable periods are identified in the MPD with XLinks.
  - XLinks can be resolved either locally or via broadband.
  - Replacement content can be delivered either OTA or via broadband.

# TA using the ATSC 3.0 Receiver Media Player

*Broadcaster Application interfaces with a native playback engine.*

## Receiver Media Player (RMP)

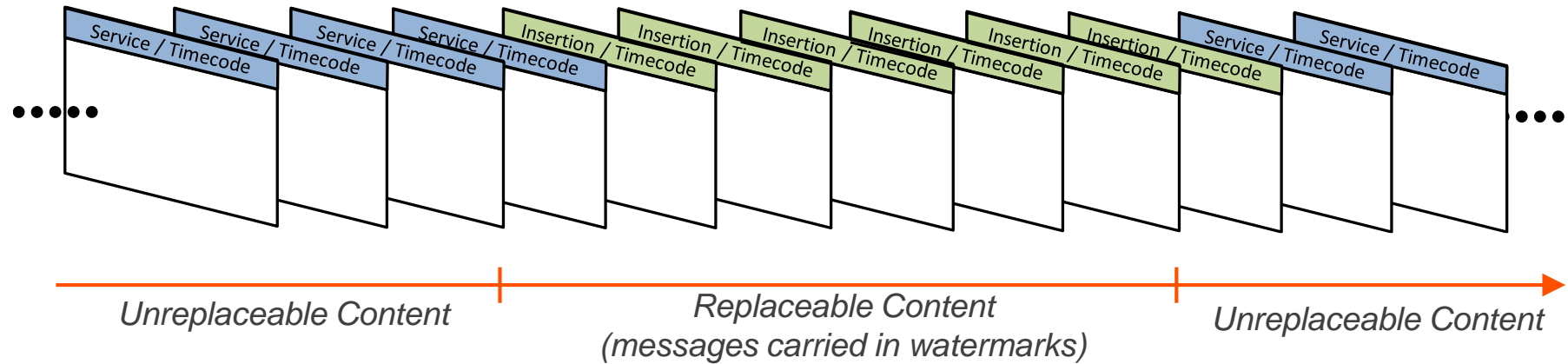


- ▶ Broadcast DASH rendered natively by a Receiver Media Player.
- ▶ Websocket APIs provide broadcast application interface to RMP.
- ▶ Also applicable to application discovery and management using watermarking (e.g. HDMI input).

- ▶ Targeted ad insertion can be performed using **XLink resolution**.
  - Replaceable periods in broadcast MPD include XLinks.
  - A specified tag URI indicates that XLink resolution is to be performed by the Broadcaster Application.
  - Broadband XLink resolution also supported.
- ▶ Targeted ad insertion can also be performed by **synchronized MPD switching**.
  - Broadcaster Application requests that the RMP switch to/from a different MPD at specified media presentation times via Websocket API (not required to align with DASH period or segment boundaries).
  - Switching points are not required to align with DASH period boundaries.
  - Applicable to the watermarking use case.

# TA using Project OAR Ad Insertion

## Native ad insertion client under watermark control.



- ▶ **Service / Timecode** used to identify and access **decisioning**, **ad serving**, and **measurement** services. Watermarking or fingerprinting.
- ▶ **Insertion / Timecode** watermarks enable client to identify insertion location and manage insertion lifecycle.
  - Insertion can be triggered **in-place** or **pre-announced**.
  - Insertion messages can be **embedded in default ads prior to air**, reducing synchronization challenges in the broadcast plant.
- ▶ Broadcaster can **authorize other parties to perform TA** for specific ad avails.
  - Specific ad slots can be delegated to syndicator, network, affiliate, operator, etc.



***Thank You***

Joe Winograd, CTO  
[jwinograd@verance.com](mailto:jwinograd@verance.com)