Advanced TV

iab.
TECH LAB

Vision

A system of standardized technology, protocols, and operations that enable a seamless, robust, and measurable experience for providing video content and addressable advertising to consumers on any screen, in any format, and across all television environments.

The TV advertising delivery, distribution and measurement landscape is fragmented owing to complex ad break management, multiple TV environment and distribution services, and the variance in technologies used across these systems to achieve similar outcomes. Interoperability for addressable ad delivery in linear TV and digital video is possible if we standardize and develop existing technology.

Our roadmap for Advanced TV is informed by the following objectives:

- Interoperability for Frame Accurate Ad Delivery and Ad Break Management

- Universal Addressability and Reconciliation for Audience Measurement

- Full Auditability for Advertising Campaigns delivery

- Ad Measurement for delivery and Viewability verification

- Omni channel sales management for Programmatic buying and selling of Upfronts as well as spot buys

Modernizing Advanced TV Advertising

The TV advertising delivery, distribution and measurement landscape is fragmented owing to multiple channels through which TV advertising is delivered to consumers namely Linear TV, Linear Addressable, Ad supported Video on Demand (AVOD) and Free Ad Supported TV (FAST- this is linear TV over digital/ Internet protocols). We are recommending the following technologies and methods as the future of TV advertising technology:

Besides the delivery channel there is further fragmentation as consumers access TV through different devices- Connected TVs, set top boxes and mobile/ tablet screens. There is a need to standardize across these channels and devices to develop interoperability, improve efficiency and bring effectiveness to a converged TV advertising landscape.

We are recommending the following technologies and methods as the future of TV advertising technology:

Video Watermark Signal

Video Watermark Technology based on already developed ATSC standards as a sustainable long term glass-based client side technology. Video watermark can be used for multiple operations: viewability verification measurement as well as frame-accurate ad insertion or replacement. As part of the roadmap we will define the standard use cases and operational workflow guidance and how watermark signaling will work with OM SDK.

Asset Identification

Ad ID for tracking and auditing advertising campaign and creatives.

2+ Impression Currency

2+ impression as the currency and develop 2+ impressions reconciliation methodology and technology based on data from different delivery channels for audience reconciliation and measurement.

Programmatic Upgrades

Upgrade open RTB specification to enable programmatic efficiency for TV buying and selling—both upfront capabilities and spot buying.

Our Phased Approach

Modernizing the TV advertising stack requires a phased approach due to purchase and adoption cycles of OEMs as well as transitioning the infrastructure to new technology and methods. In the intermediate term we recommend use of the following technologies and combinations thereof.

We will provide the standardization and operational workflow guidance to help steer the industry towards eventual long term objectives:

- OMSDK + ACR for viewability verification measurement in cases of set top box connected to TV
- OMSDK for different TV operating systems
- SCTE standards for ad break management
- Reconciliation methodology for current systems
- SSAI guidance on using SCTE and other ad break methods in digital video
- Ad Id guidance for use in standard VAST and RTB protocols

The Transition Plan	Current	Intermediate	Future
Interoperability for Ad Break Management	• Fragmented SCTE/NextGen • SSAI • Proprietary digital insertion	• SCTE Guidance • Watermark Guidance	• **Open watermark** standard and governance
Universal Addressability	• Gross Rating Points (GRPs) • Proprietary/ Probabilistic panel data • ACR • No standard reconciliation • Impression counting	• Standardized reconciliation methodology for: impressions + panels + ACR	• 2+ impression Standardized : **open watermark** tokenization + reconciliation
Full Auditability	• Panel extrapolation • Fragmented: proprietary Asset ID, use of AdID, SCID, other	• Standardize panel extrapolation • Guidance on asset ID	• Tie **open watermark** to AdID and regional system IDs
Ad Viewability Verification	• Panels • OMSDK • ACR • Proprietary solutions	• OM SDK + ACR • Panels for Linear	• **Open watermark** standard + OM SDK
Omnichannel Sales	• Upfronts for linear only • Custom deals for CTV • Deals by ad pod	• Guidance on upfront deals + spot sales and addressable ad replacement	• Programmatic via Open RTB with **open watermark** signaling

High Level Roadmap

Objective	AVOD	FAST	Addressable Linear	Linear

Interoperability for Frame Accurate Ad Delivery and Ad Break Management	Develop Frame Accurate Ad management guidance
	    Open Watermark Standard based on ATSC 335
	        Define use cases- when and how
	        Define meta data for watermark communication
	        Develop Governance/ Watermark Registry
	    SSAI + Watermark guidance
	Standardize CATS and **new VAST** as ad request/ response delivery mechanism			

Universal Addressability and Reconciliation for **Audience Measurement**	2+ impression Reconciliation methodology accounting for different types of data sources- TV, set top boxes, panels, other devices Develop watermark based tokenization for privacy safe device/ audience counting OR probabilistic methods Develop methodology between Panel/GRP/ Household, Impression Counting, ACR data (mid term till we get to universal watermark adoption)			
Full Auditability for Advertising Campaigns	Promote use of Ad-ID and other regional Ad/ Campaign Id mechanisms in Open RTB and VAST Include communication in Watermark standard Best practice for use of Ids for ads and ad creative SIMID for interactive creative		Ad-ID + Regional ad ID systems Include communication in Watermark standard	
Ad Measurement for delivery and **Viewability** verification	OM SDK for CTV + other video devices Watermark for TV viewability + integration into OM SDK for IVT OMSDK + ACR for TV connected to set top boxes(intermediate term)		Ad-ID + Regional ad ID systems Include communication in Watermark standard	
Omnichannel sales management and **Programmatic** guidance	Ad Pod Management in Open RTB (exists-improvements may be needed) Extend Deal Id for Upfront management Set Top Box Guidance- how to consistently label STB inventory Best practices for publisher safety		Bridge to Programmatic	

High Level Roadmap

Objective	6 Months	1 Year	3 Years
Interoperability for Frame Accurate Ad Delivery and Ad Break Management	Kick off frame accurate guidance for ad break management Research and shortlist watermark standard and technology Decide on a new VAST? Decide on a watermark registry?	Finalize frame accurate guidance for SCTE/ SSAI and watermark Finalize watermark technology Guidance for live streaming SCTE Update CATS and develop new VAST protocol for frame-accurate ad replacement	Finalize watermark technology and guidance for ad break management use cases across digital and linear delivery chanel Establish watermark registry
Universal Addressability and Reconciliation for **Audience Measurement**	Define 2+ impression and identify current sources of data and methodologies Engage with potential probabilistic methods for reach and frequency	Define reconciliation mechanism between different sources of data Provide a verdict on feasibility of probabilistic methods for reach and frequency	Define watermark tokenization and signaling for audience measurement and reconciliation between TV and other devices
Full Auditability for Advertising Campaigns	Revisit Ad-ID in different standards Create a repository of other equivalent regional systems SIMID: Decide if ongoing investment is required?	Complete guidance for using Ad-ID and equivalent regional systems for ad auditability	Build Ad-ID auditability in watermark signaling
Ad Measurement for delivery and **Viewability** verification	Continue OM SDK development for different devices and TV sets Kick off ACR reconciliation and decide on ACR work scope	Continue OM SDK development: Samsung, Roku, LG and others Finalize ACR + OM SDK workflow to support glass-based reconciliation Kickoff/define scope for watermark standard and technology for viewability verification	Continue OM SDK development-Samsung, Roku, LG and others Develop watermark standard and technology
Omnichannel sales management and **Programmatic** guidance	Set top box guidance Upfront deal id improvements Live streaming ad break management guidance	Publisher safety guidance Frame accurate signaling in OpenRTB (workflow guidance and updates if needed)	Watermark to OpenRTB signaling