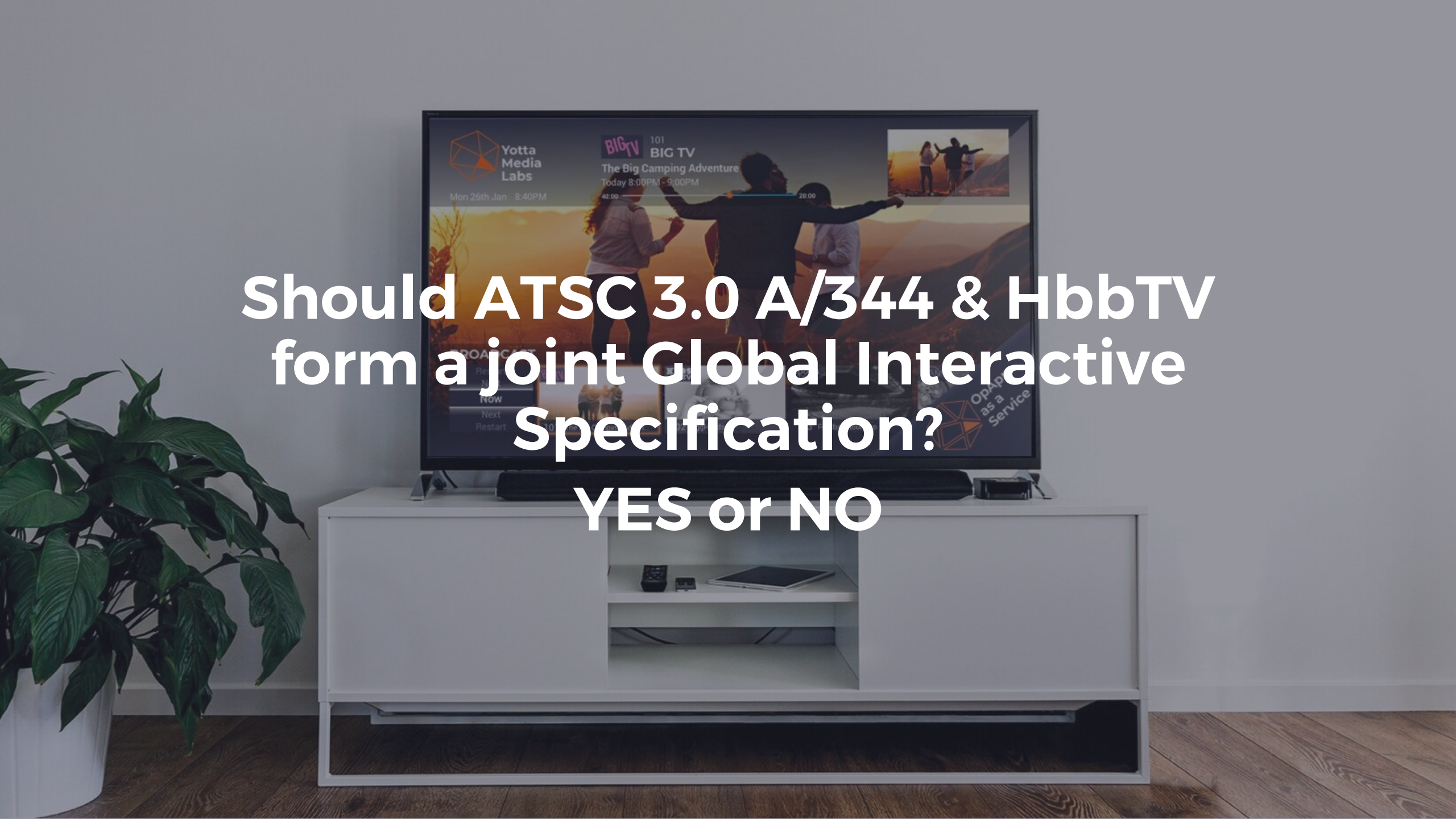




# **YOTTA MEDIA LABS**

## **HbbTV & Other Interactive Standards**

HbbTV Symposium November 2019  
Raj Patel CEO



**Should ATSC 3.0 A/344 & HbbTV  
form a joint Global Interactive  
Specification?  
YES or NO**

# Compare A/344 & HbbTV – not ATSC 3.0 as a whole

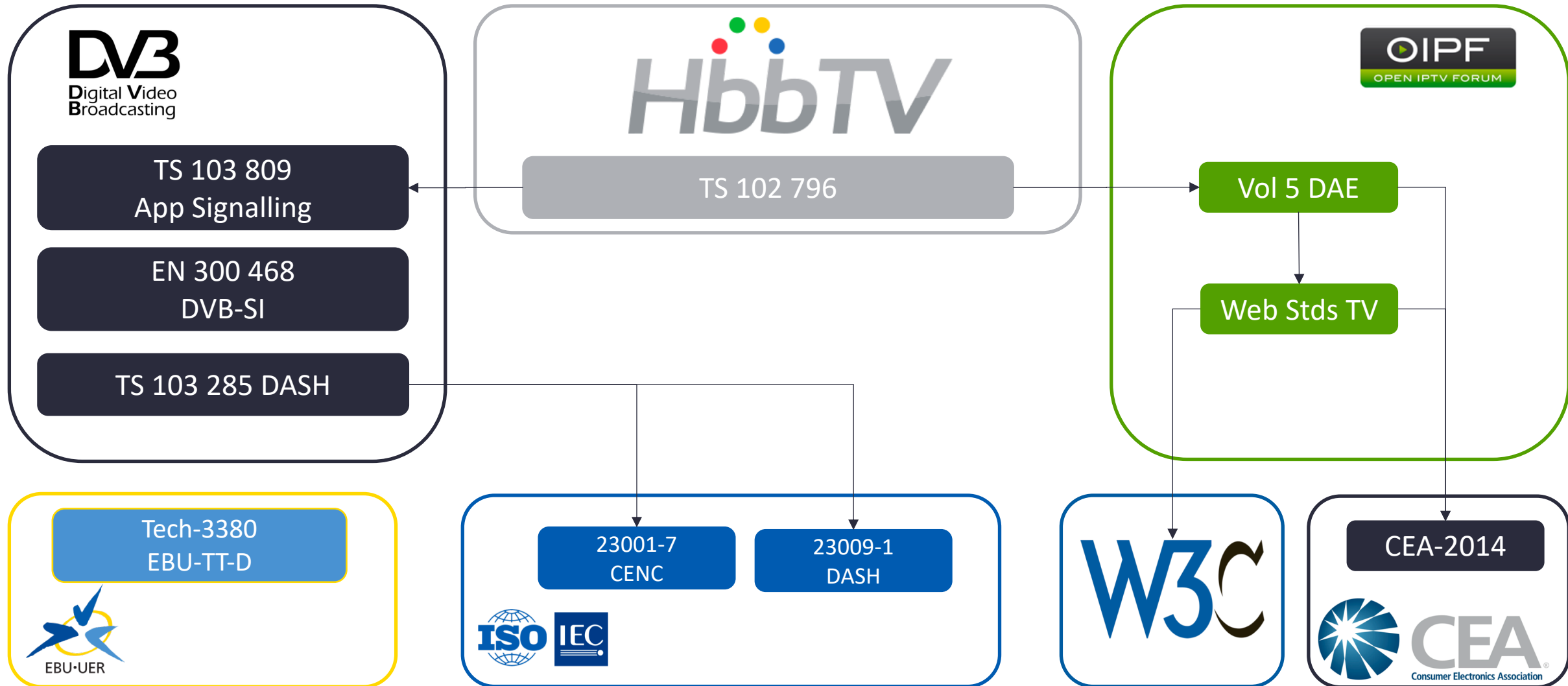
HbbTV



**DVB**  
Digital Video  
Broadcasting

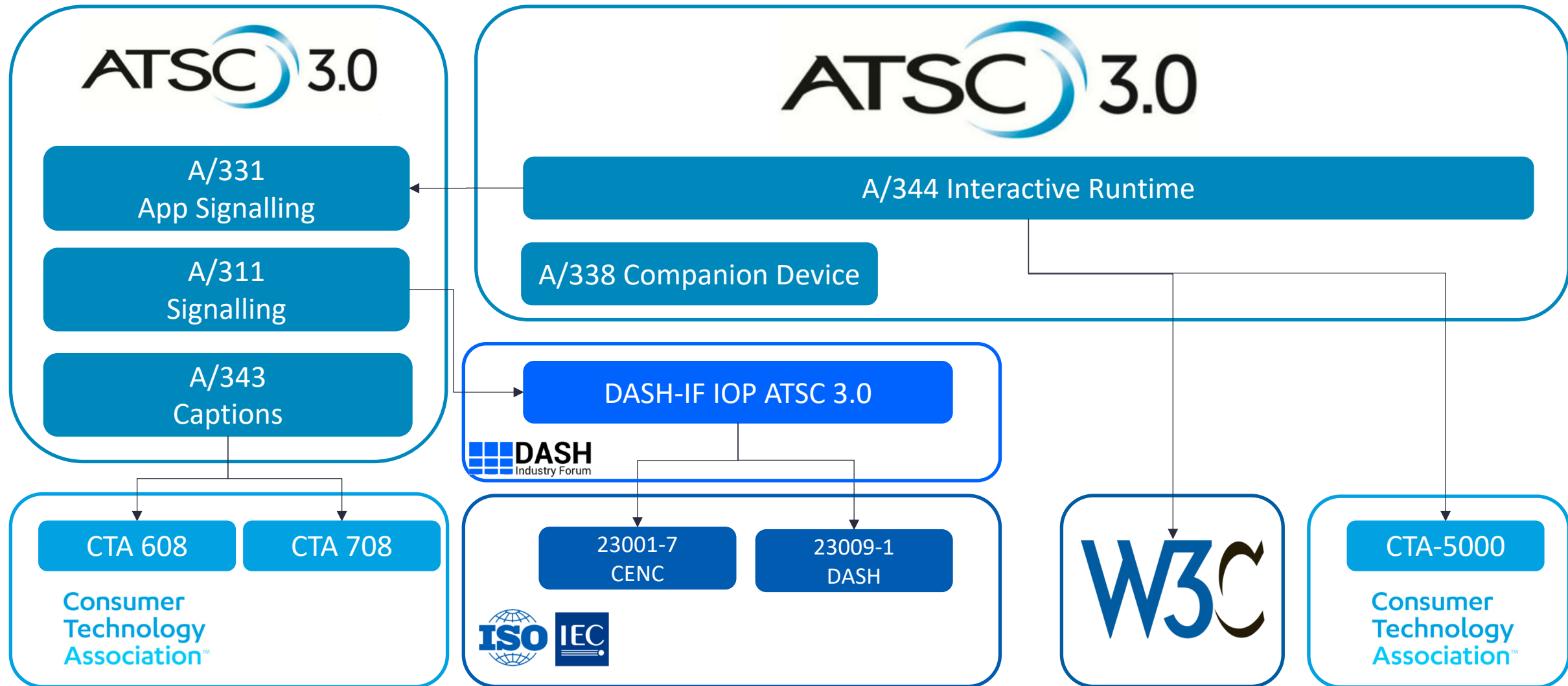
ATSC 3.0

# HbbTV and ATSC 3.0 A/344





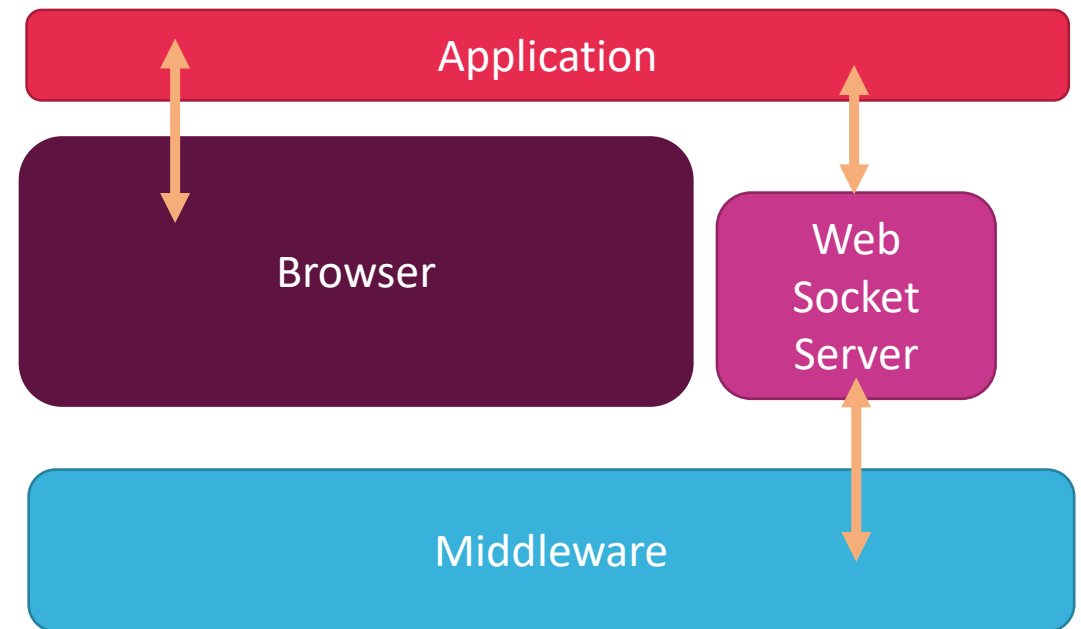
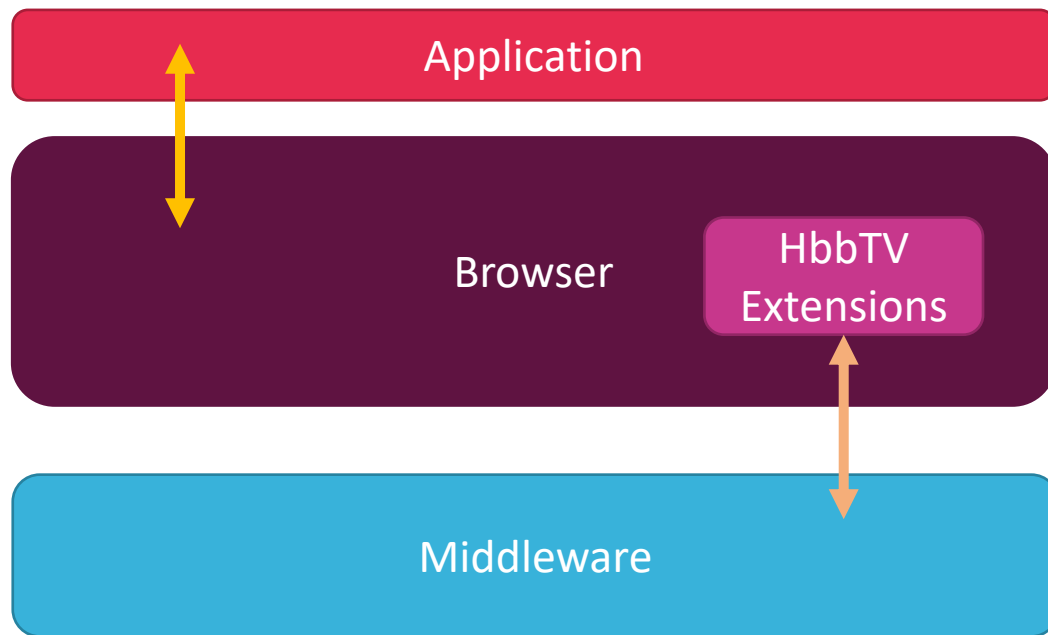
# HbbTV and ATSC 3.0 A/344



# Technical Comparison JS Objects / Web Sockets

- Custom JS Objects
- Properties, Methods, Events
- Extension of Browser

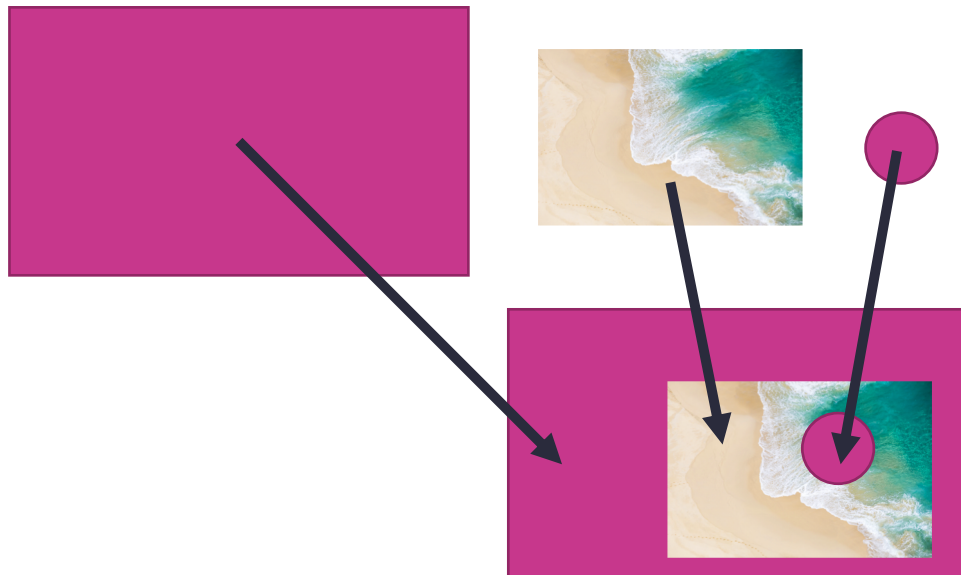
- JSON-RPC 2.0 Web Socket
- Receiver controls, properties, events via Web Socket
- Standard Browser



# Technical Comparison VBO/RMP

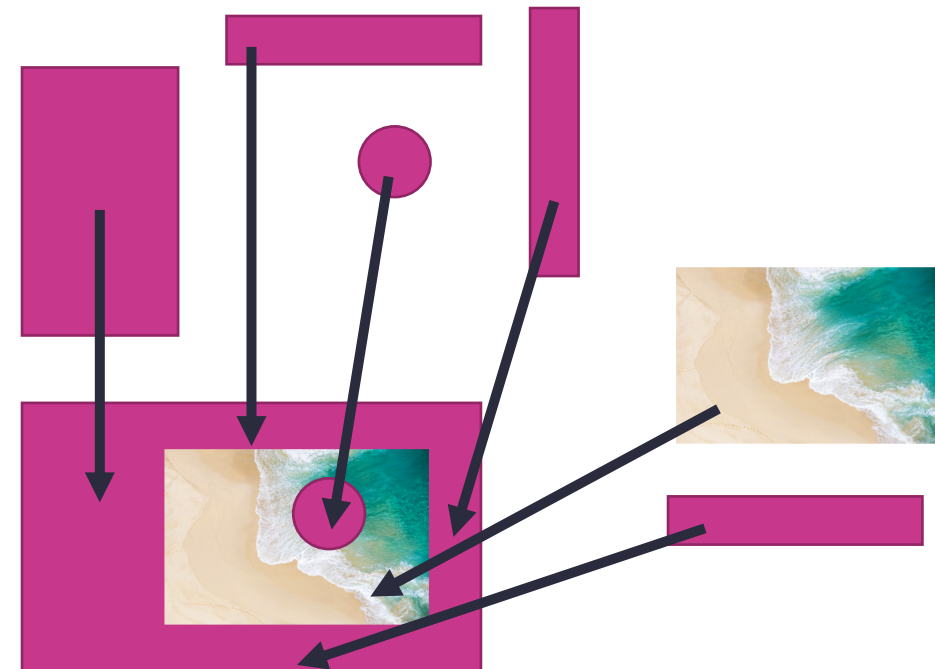
- Video Broadcast Object (VBO)

- Managed in the DOM, controlled via JS Objects + Methods
- Layered within the Application
- DOM Events
- Matured Object



- Receiver Media Player (RMP)

- Controlled via Websocket Interface
- Video cutout required to present
- Limited Events feedback via websockets
- Evolving Object





An aerial photograph of a city, likely Hong Kong, taken during sunset. The sky is a deep orange with scattered clouds. The city is densely packed with skyscrapers and buildings, with a river and a bridge visible in the lower right. The overall tone is warm and monochromatic, dominated by shades of orange and brown.

**ANSWER:**

**Should ATSC 3.0 A/344 &  
HbbTV form a joint Global  
Interactive Specification?**

# Thank you