



VERANCE



# ADB2 & Watermarking Use Cases Coming to Market

*November 2022*

A decorative graphic consisting of two thin white lines intersecting at a central point. Overlaid on this intersection is a thin white circle. The background is a solid orange color.

# *Background*

# **Verance: Setting The Standard**

*25 years of delivering industry solutions*



***Aspect™ / ADB2***

Connected  
Broadcast TV



***Cinavia®***

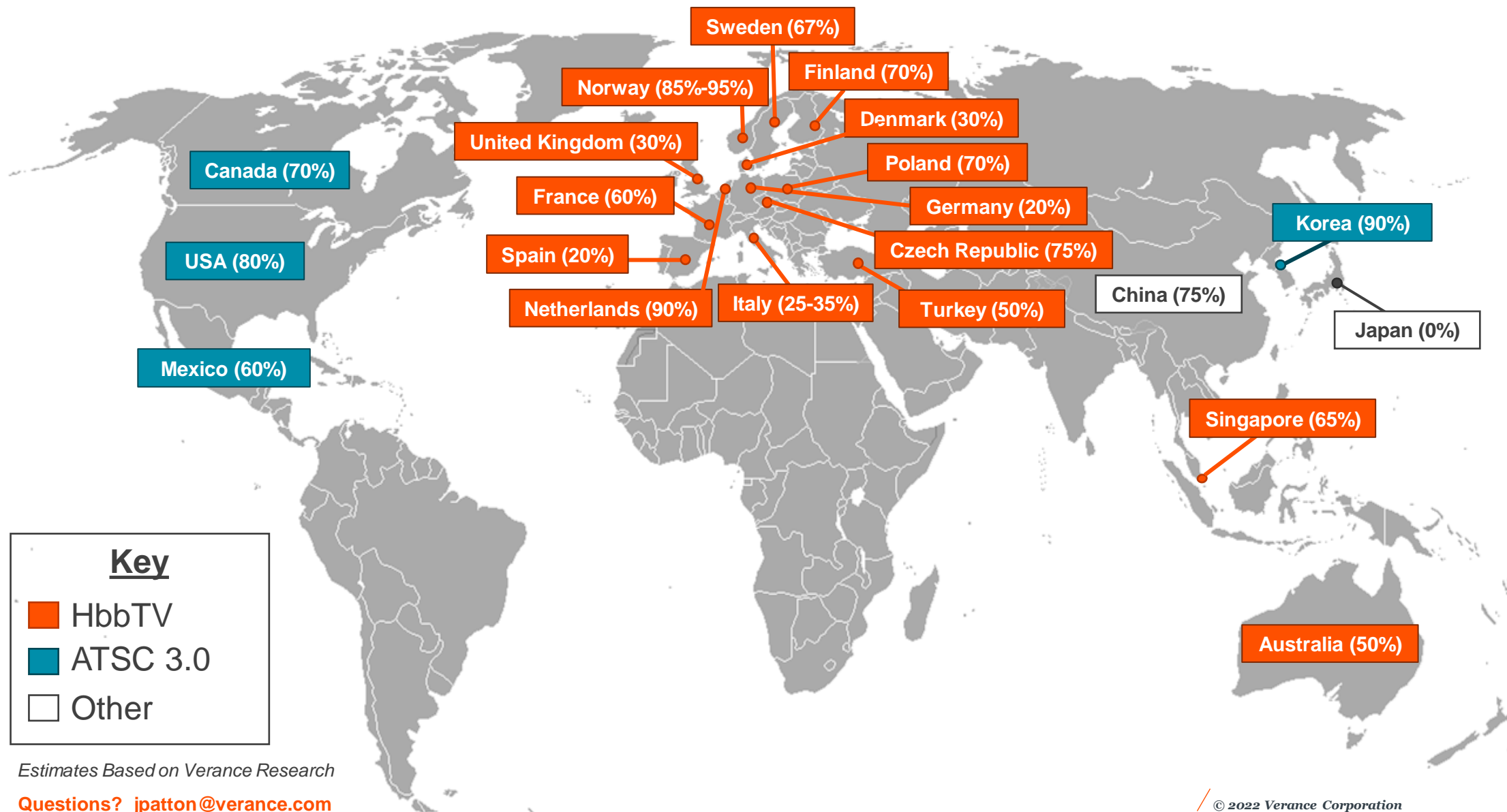
Anti-piracy Technology  
for Movies



***VCMS/A™***

Anti-piracy Technology  
for Music

# Percent of Households Needing Watermark (HDMI)



# ADB2 Makes HbbTV Available to All of Europe/World

Live TV



HTML Browser



ADB2 Standard: Application Discovery Over Broadband Phase 2

ADB2 Watermark Enables  
HbbTV to 100% of TVs

Full Hybrid Broadcast Broadband



HTML Browser layered on top of Live TV  
new digital experiences, interactivity  
and Targeted Advertising (TA)

# *HbbTV & DVB Specifications / Resources*

DVB Blue Book



Dynamic substitution  
of content in  
linear broadcast

DVB A178-1 Rev.1

February 2021



HbbTV Application  
Discovery over  
Broadband Spec v1.3.1

ADB2+TA July 2021

HbbTV Association

ETSI TS 103 736-1 V1.1.1  
(2020-06)



Hybrid  
Broadcast  
Broadband TV:  
Targeted Advertising

**EBU**

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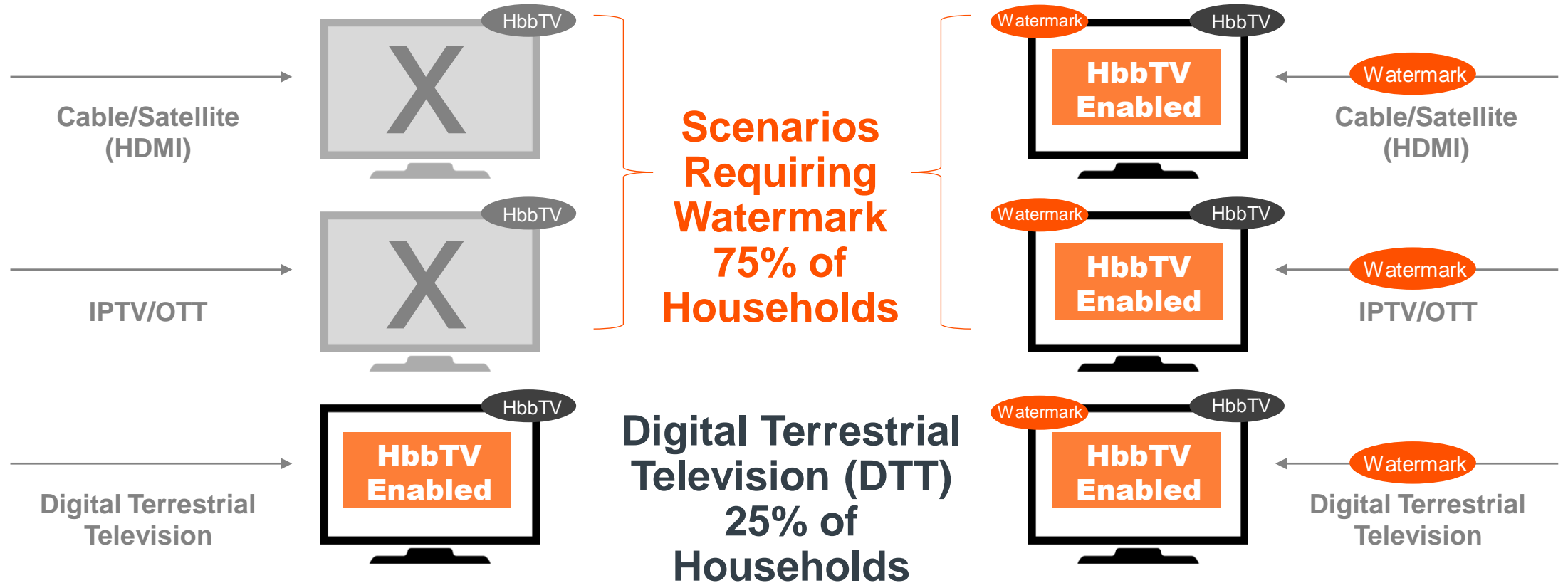
# *Watermarking Use Cases*

# *ADB2 Helps Deliver HbbTV Services to 100% of TVs*

*Enables delivery of HbbTV services across all distribution paths*

**25% Reach in Czech Republic**  
without the watermark

**75% Reach in Czech Republic**  
with the watermark



# ADB2 Solves HbbTV Delivery Problem

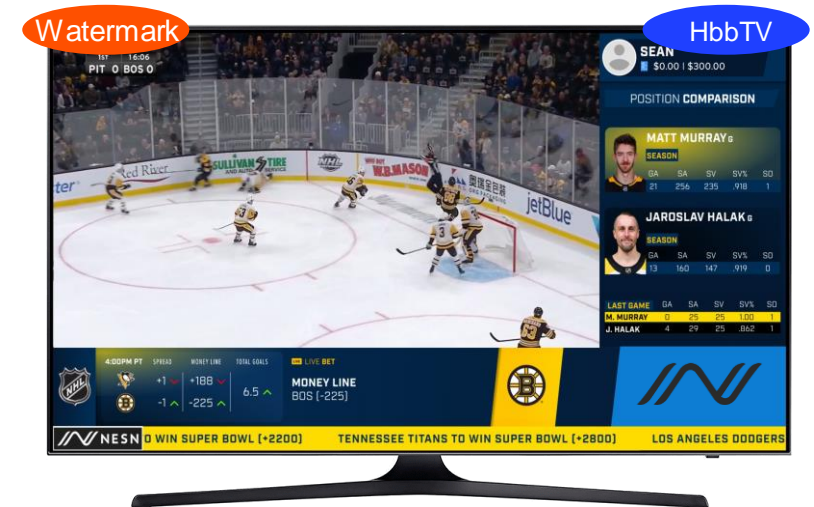
- ▶ ADB2 is a **digital audio/video watermark** applied to video assets and detected by TVs.
- ▶ Watermark is **inaudible / not viewable** and delivers a **URL + time code** to televisions.
  - Can also carry stream events including SCTE 35 ad insertion messages.

*IPTV/satellite/cable/OTT  
(HDMI Port)*

*Without the ADB2 watermark,  
metadata & triggers are blocked*

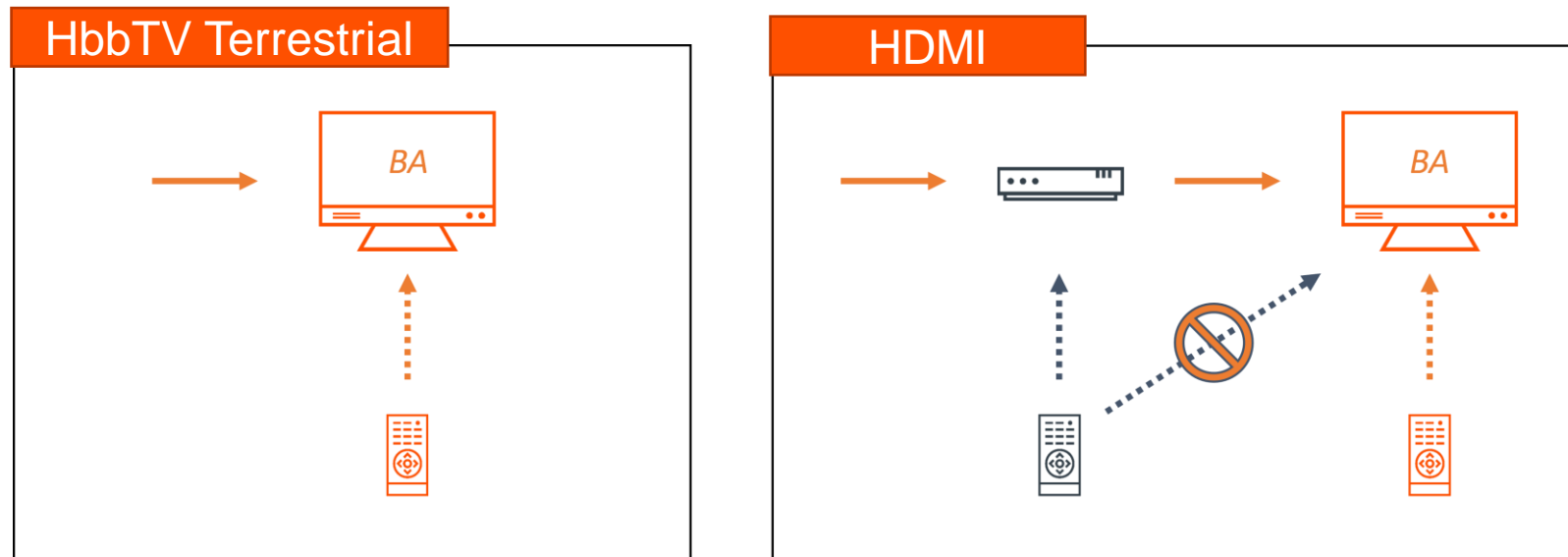


*With the ADB2 watermark,  
metadata & triggers reach  
the end consumer*

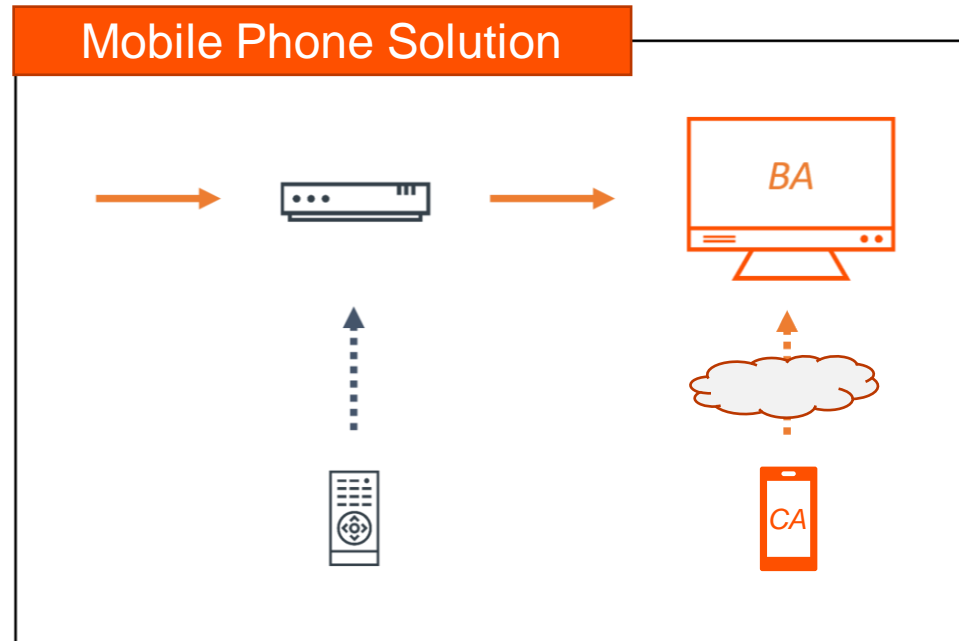


# Watermarking Solves the TV Remote Problem

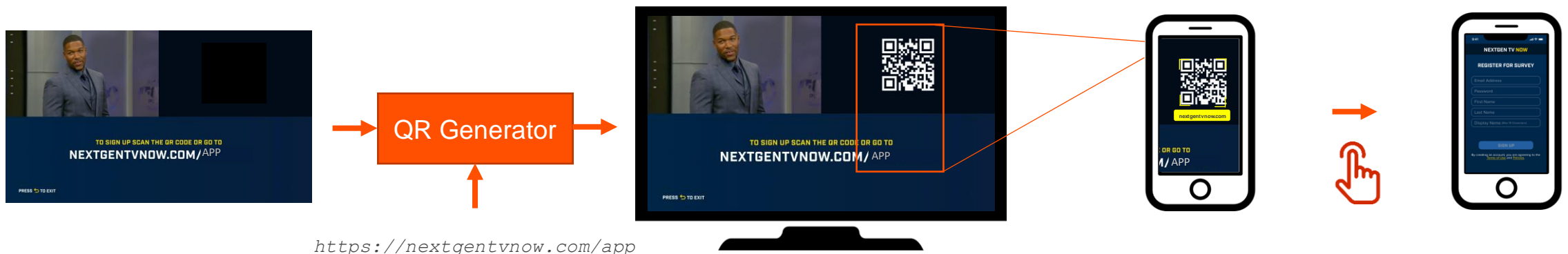
- ▶ Without watermarking, viewers must use a separate remote to control their Set Top Box and the Broadcast Applications
- ▶ Watermarking solves the TV Remote Problem and allows the user to use their Mobile Phone to control both the Set Top Box and Broadcast Applications
  - Mobile Phone as the remote allows for one device to control all applications
  - Mobile Phones make for a more enhanced remote control with more features and a keyboard



# Watermarking Solves the TV Remote Problem (cont.)



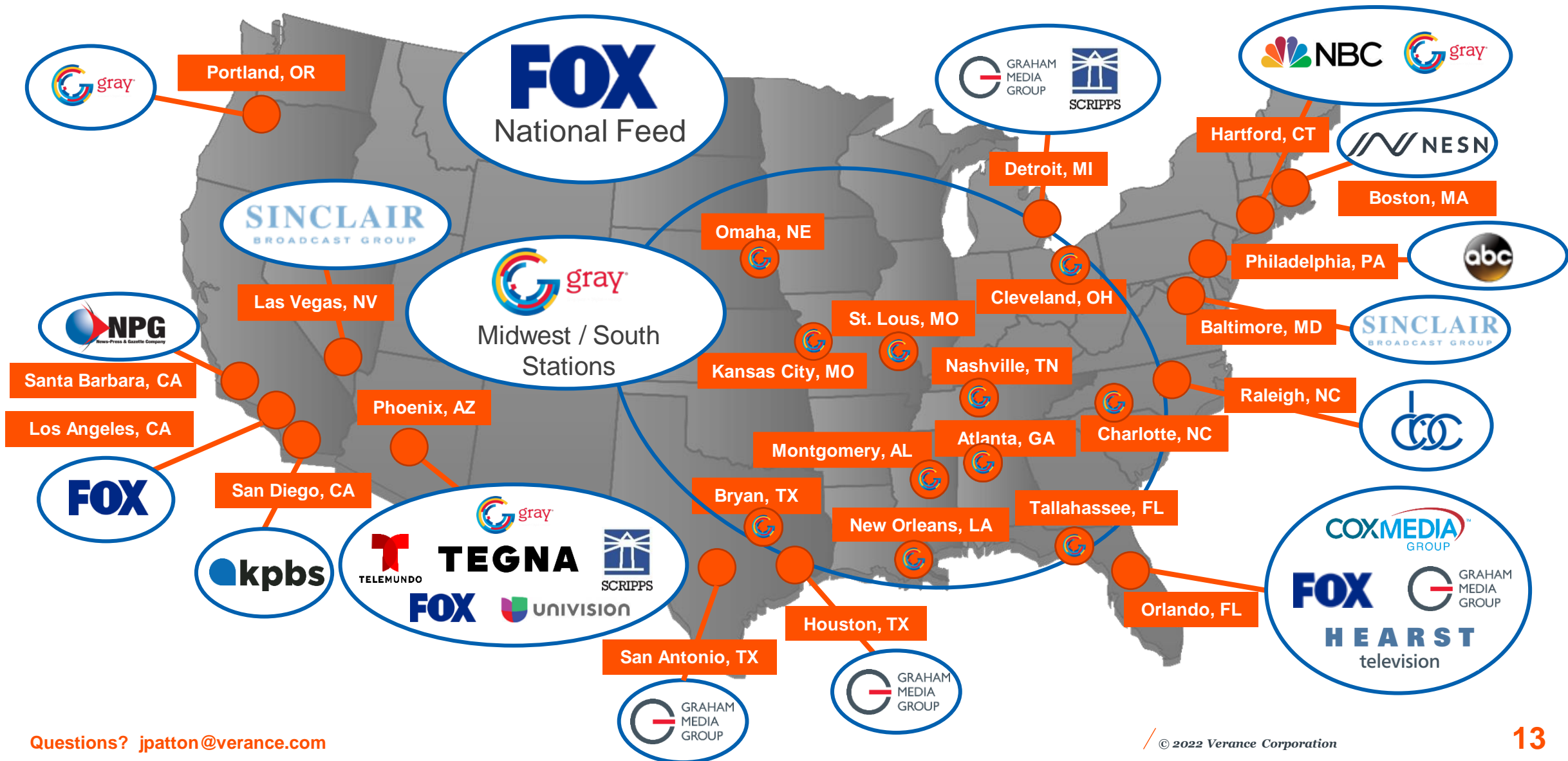
## Pairing Process:



A decorative graphic consisting of two thin white lines intersecting at a central point. Overlaid on this intersection is a circle with a thin white outline and a thin dark blue inner circle.

# *Progress Update*

# U.S. Audio Watermark Rollouts



# *Verance and LG Announce Partnership*



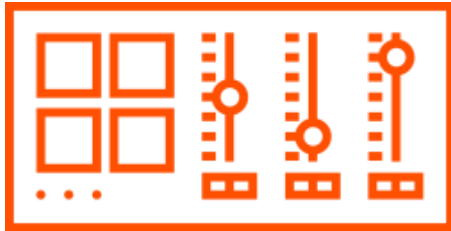
**Las Vegas, April 26, 2022** – Verance announced that LG Electronics is the first television manufacturer to implement ATSC 3.0 watermark detection on NEXTGEN TVs – expected to enable reception of new interactive experiences via cable, satellite or antenna reception.

This spring, dozens of 2022 and 2021 LG NEXTGEN TV models will receive a firmware update for the Verance Aspect watermark technology. They include premium 8K and 4K Ultra HD LG OLED models ranging from 55-to 97-inch class sizes (measured diagonally).

- ▶ <https://tvnewscheck.com/tech/article/atsc-3-0-watermark-detection-implemented-first-on-lg-nextgen-tvs-poised-to-expand-interactive-services/>

# *Next Steps for ADB2*

## TV BROADCASTERS



## TV MANUFACTURERS



**THANK YOU**  
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