

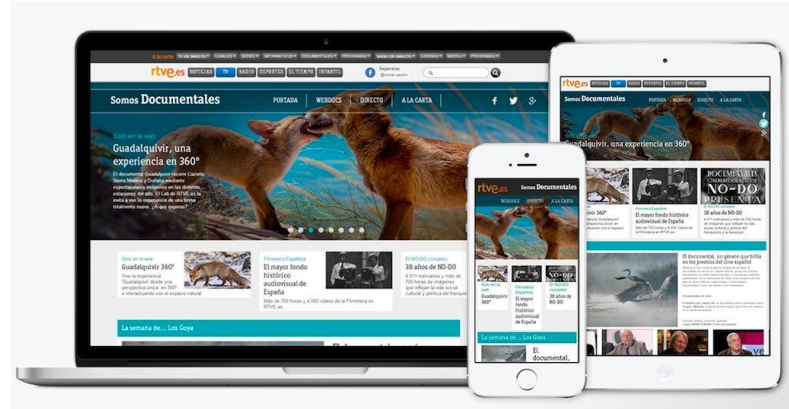
# DELIVERING A PERSONALIZED USER EXPERIENCE USING HBBTV

MICHAEL BARROCO

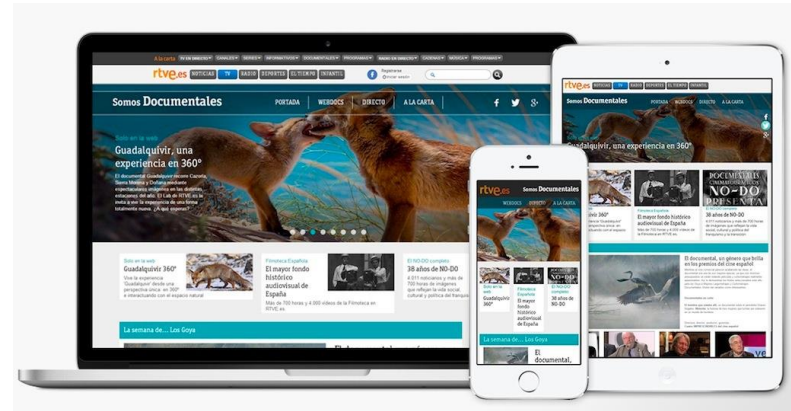
OCTOBER 19, 2016 - MADRID

JOINT WORK WITH MANY COLLEAGUES

# TRADITIONAL BROADCASTERS USER EXPERIENCE



# “A DEVICE SHOULD BE A WINDOW TO THE MEDIA EXPERIENCE”



# STANDARDIZATION IS KEY FOR BROADCASTERS DISTRIBUTION



**ACCESS TO BROADCAST CONTENT IS  
MORE AND MORE DIFFICULT**



# MORE PERSONAL, MORE DIGITAL BROADCASTERS



An aerial, high-angle photograph of a busy city street intersection, likely in London, showing a red double-decker bus and a crowd of pedestrians. The image is overlaid with a semi-transparent blue band across the middle. The text is centered within this band.

**THE RIGHT CONTENT, AT THE RIGHT TIME  
TO THE RIGHT PERSON, ON THE RIGHT DEVICE**

**[tech.ebu.ch/personalization](https://tech.ebu.ch/personalization)**

# DATA-DRIVEN DISTRIBUTION



## Authentication / Single Sign-On

Multi-platform authentication, Radio, TV & online



## Content Recommendation

automated, social, editorial



## Personalization

Experiences, notifications, communication



## Business Intelligence

Understand the audience experience in order to positively impact the business



# CPA CROSS-PLATFORM AUTHENTICATION

**Open Standard** to associate an online identity with media devices

[ETSI TS 103 407](#)



## International Collaboration

BBC, VRT, RTS, TVP, Global Radio (UK), Frontier Silicon (UK)

## Open Source Reference implementation and tutorials

Libraries available on Github

<http://tech.ebu.ch/cpa>



Tech 3366

# **The Cross-Platform Authentication Protocol**

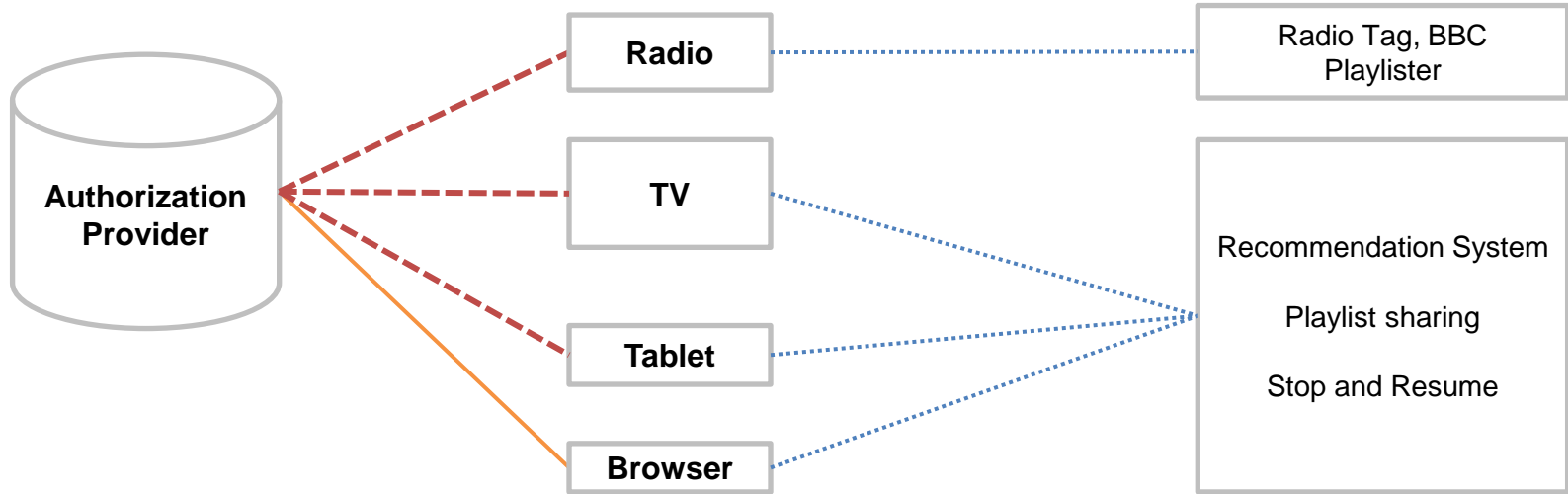
**EBU Technology & Innovation**

[tech.ebu.ch/cpa](http://tech.ebu.ch/cpa)

**HbbTV Demonstrator**

November 2014

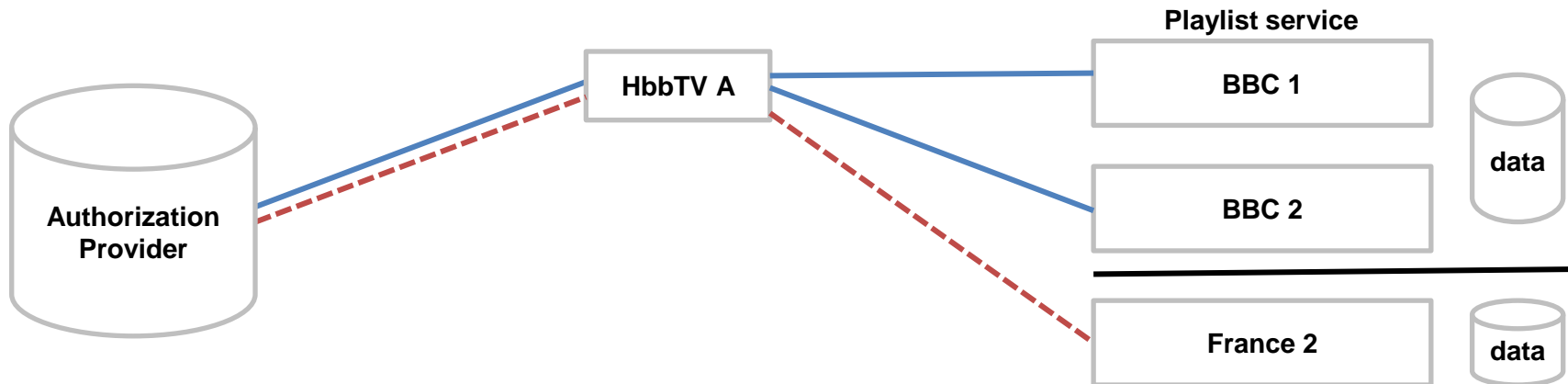
# TOKEN DELIVERY METHOD



--- ETSI 103 407: Cross Platform Authentication

— OAuth 2.0, OpenID Connect, Saml 2.0

# DATA ISOLATION AND ANONYMIZATION



A token represents the following associations:

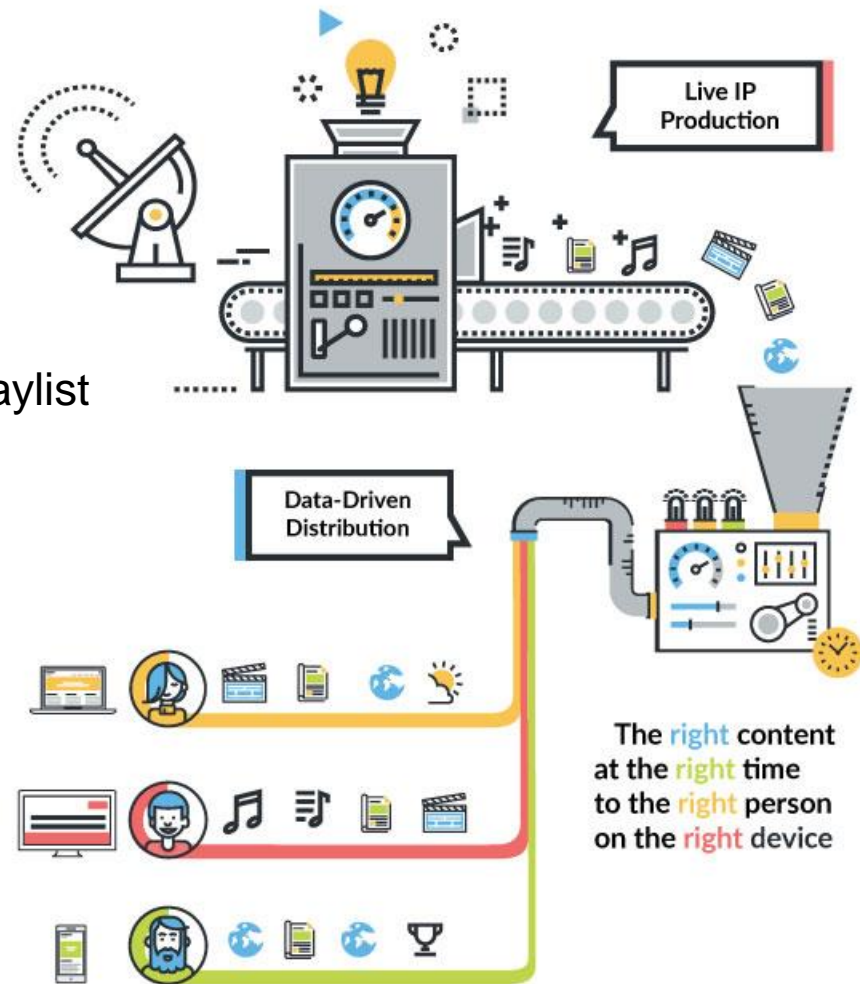
- BBC, User A, HbbTV A
- - France 2, User A, HbbTV A

# PROTOTYPES

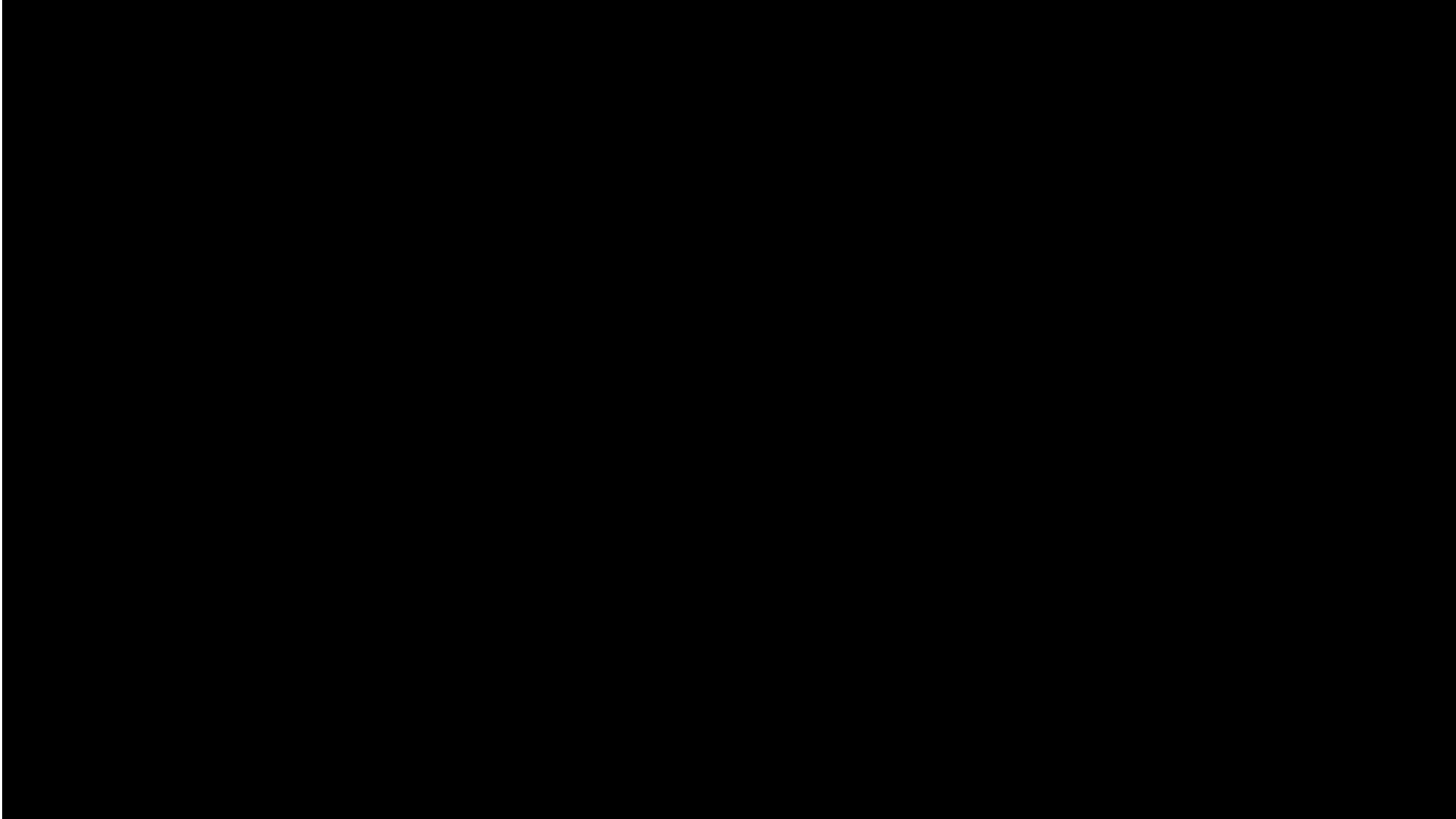
2014: Authentication and content sharing

2015: Content shifting and cross-device playlist

2016: Personalized channel  
and near-live notifications







# KEY MEMBERS AND PARTNERS



# KEY ASPECTS OF HBBTV 2.0.1 FOR PERSONALIZATION

## HTTPS

Secure Token Delivery

## Cross-Origin Resource Sharing (CORS)

Single sign-on between channels

## DIAL

Screens Synchronization and local media shifting

# THANK YOU!

## Contacts

**Personalization:** <https://tech.ebu.ch/personalization>  
chairman: Michael Delucia (RTS)

**Cross-Platform Authentication:** <https://tech.ebu.ch/cpa>  
chairman: Sean O'Halpin (BBC)

**Coordination:**  
Michael Barroco (EBU) - [barroco@ebu.ch](mailto:barroco@ebu.ch)