

## **ETSI CLUSTER ON CONTENT DELIVERY**

Main achievements and current activities

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# **Topics standardized in this ETSI cluster**



## (JTC Broadcast)

Media Content Distribution (TC MCD)

Hybrid Broadcast Broadband (JTC Broadcast) Content Delivery
Network
(TC MCD & TC TISPAN)

Content Protection

(JTC Broadcast)

# **Content Delivery**

IPTV (TC TISPAN & JTC Broadcast)

> Digital Radio (TC SES-SDR & JTC Broadcast)

Mobile TV (3GPP & JTC Broadcast & TC SES-MSS)

Broadcast TV (TC SES-BSM & JTC Broadcast & TC ATTM-AT3)

Broadcast Equipment (TC ERM-TG17)

# Main achievements since last presentation



- Content Delivery Network (CDN)
  - Internal architecture of CDN
  - Global study on the various CDN solutions
- Survey of current activities in audience measurement
- Study on 3D gaming graphics delivery
  - Streaming model for 3D games on consumer electronic devices
  - Conclusion was to define protocol specification

#### Also ....



- Analysis of current situation and perspectives
  - With subtitling distribution
  - With Programme guide information distribution
  - Results sent to other SDOs/Fora to see if any need for further standardization

#### And ...



- ETSI has delivered standards on DVB technologies
  - Such as DVB-T2 mixed mode including "T2-Lite profile" (mobile TV)
- Connected TV standardization
  - DVB Globally Executable MHP (GEM) revised for hybrid
    - Adding Over The Top (OTT) and Hybrid Broadband Broadcast targets
  - MHEG-5 broadcast profile revised
    - Including support for encrypted content delivery by back channel
  - Hybrid Broadcast Broadband TV

### **Current main activities**



- Study for a possible interoperable CA/DRM solution
  - Would help the user
- Definition of a platform independent protocol and framework for streaming of 3D games output to a client
- CDN
  - CDN interconnection
    - Use cases and requirements being identified
  - TISPAN work on protocol definition is progressing

## What next



- Standardization of CDN interconnection protocols
- Possible new Work Item on multi-screen convergence
- Possible new Work Item on TV-Applications



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# Thank you!