DVB Targeted Advertising (DVB-TA) Specifications & System Scenarios

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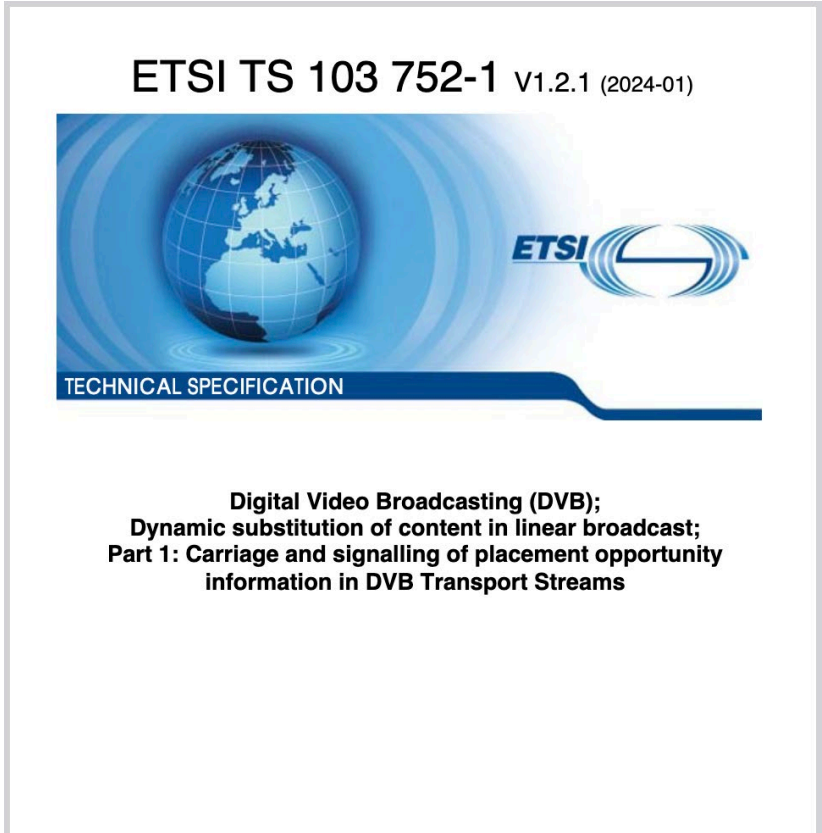
Targeted Advertising

- DVB's focus on ad replacement on linear services
  - Requires coordination between streams and receiving devices
  - VOD Dynamic Ad Insertion (DAI) already well established
- Terminology
  - "DAI" name used also for replacement/substitution
  - ALA, DAR, **DAS** …
  - Server-Side (SSAS) and Client-Side (CSAS)

DVB-TA Specifications: “Signalling”

- Profiling of SCTE 35
- Contribution signalling with SCTE 104
- 3 carriage methods for SCTE 35
  - Native Sections in MPEG-TS
  - DSM-CC Stream Events
    - PTS and TEMI timelines
  - A/V Watermarking

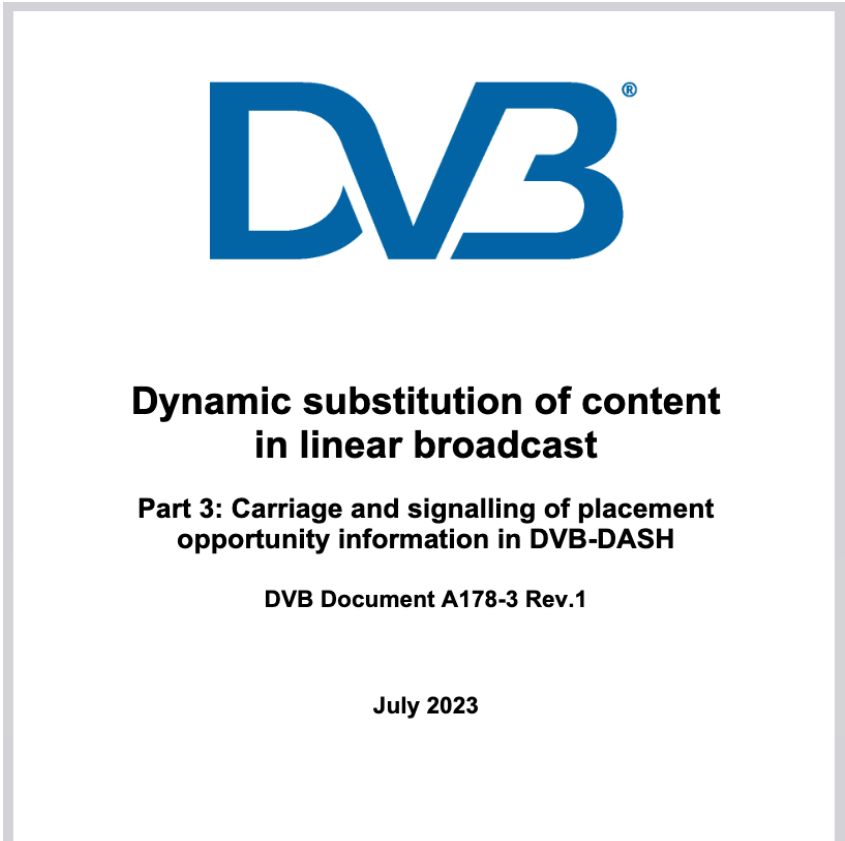


DVB-TA Specifications: “Guidelines”

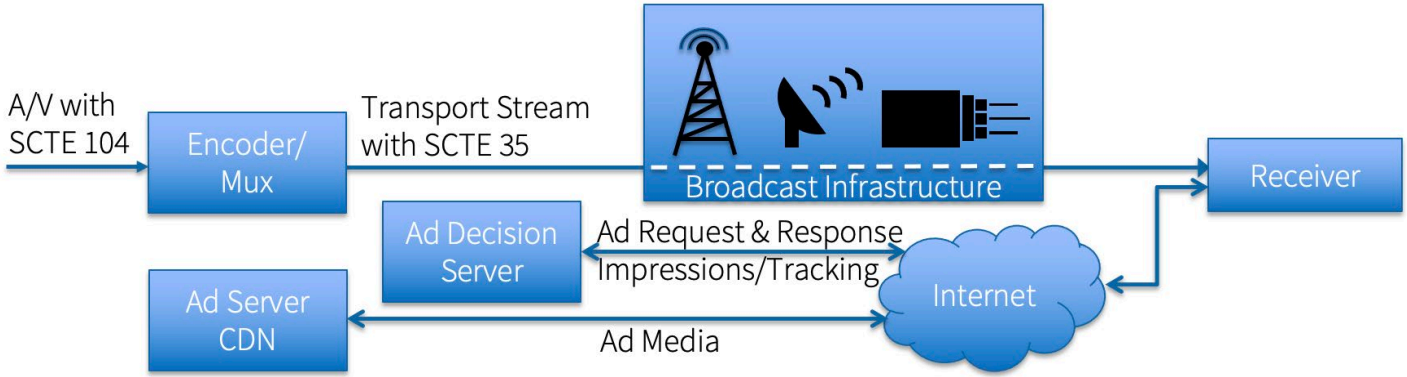
- Reference architecture
- IAB VAST for ad decisions
  - Tracking data
  - Redirect Wrapper
- Ad encoding & delivery
- Handling differing receiver types
  - Reach/quality trade-off
  - Splicing capabilities

DVB-TA Specifications: “DASH Signalling”

- Future ETSI TS 103 752-3
- Applicable to both Server-Side and Client-Side
- Profiling of SCTE 35
  - Similar to broadcast spec.
- Carriage in MPEG-DASH Events in Manifest
- Use of DASH presentation time & Multi-Period Manifests
  - Also see MPEG-DASH (ETSI TS 103 285)
- Client-Side impression reporting using MPEG-DASH callback events



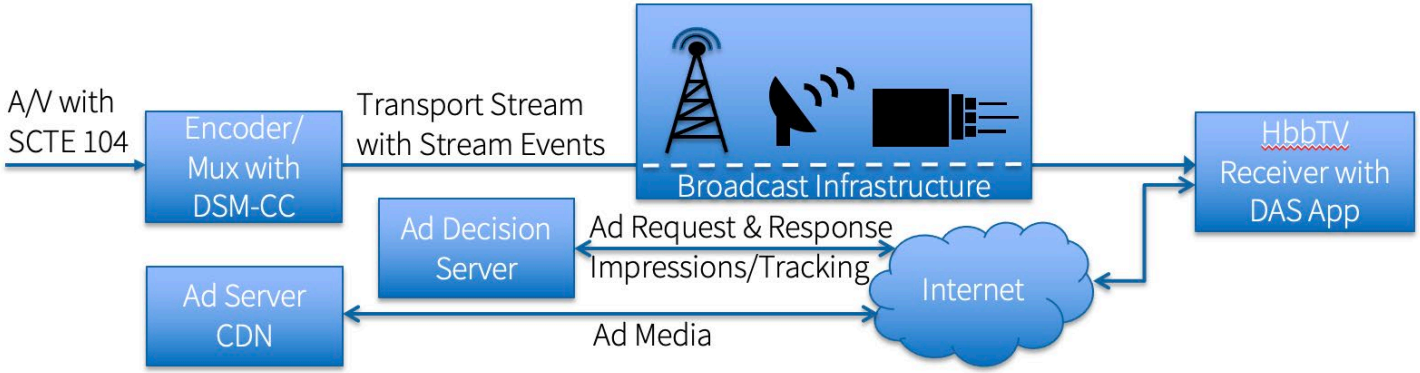
Scenario 1: Broadcast with Operator client devices



- Signalling spec: Native SCTE 35 Sections in TS
- Guidelines: Ad Decisions and Ad Media

Function	Server-Side or Client-Side
Decisions	Server
Splicing	Client
Reporting	Client

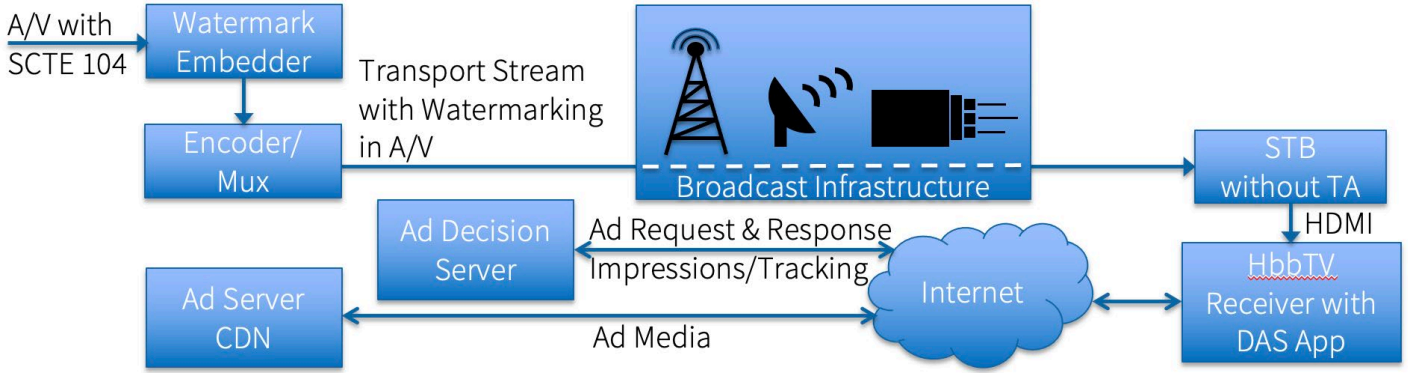
Scenario 2: Broadcast with HbbTV retail devices



- Signalling spec: SCTE 35 in DSM-CC Stream Events
- Guidelines: Ad Decisions and Ad Media
- HbbTV TA: Fast media switch API

Function	Server-Side or Client-Side
Decisions	Server
Splicing	Client
Reporting	Client

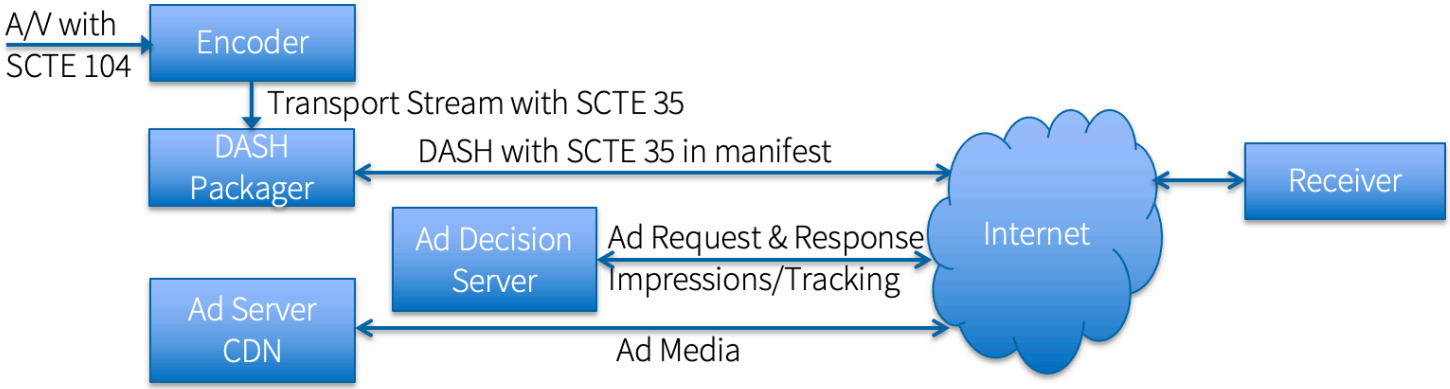
Scenario 3: Retail HbbTV client devices with HDMI input from STB



- Signalling spec: A/V watermarking containing condensed SCTE35
- Guidelines: Ad Decisions and Ad Media
- HbbTV TA: Fast media switch API
- HbbTV ADB2: Watermarking

Function	Server-Side or Client-Side
Decisions	Server
Splicing	Client (TV)
Reporting	Client (TV)

Scenario 4: DASH with Client-Side TA



- DASH Signalling spec: SCTE 35 in manifest
- Guidelines: Ad Decisions and Ad Media

Function	Server-Side or Client-Side
Decisions	Server
Splicing	Client
Reporting	Client

Scenario 5: DASH with Server-Side TA

- DASH Signalling spec: Tracking events for client-side reporting
- Guidelines: could be followed by DAS Server
- DASH Signalling & DVB-DASH for multi-period

Function	Server-Side or Client-Side
Decisions	Server
Splicing	Server (Client joins segments)
Reporting	Client (option)

Thank you!