

Client Side Expertise



- **Client side Application and SDK development**
- **Client application integration with backend Applications like Ad Server, DRM, Streaming engine**
- Development of Chromecast & Airplay interface and integrate with the Sender (Web/Device)
- Development of Player and SDK for OTT devices (HTML5) and retail devices like TV, STB, and Gaming Console
- Multiview player application for Web, Android, iOS and tvOS
- Development of player SDK which will integrate with Adobe Primetime service
- Development of player SDK which will support video thumbnail for LIVE/VOD assets
- Client SDK for protected video playback on Android, Android TV, iOS and tvOS
- Download protected content and its license for offline playback
- Client-side Ad Insertion SDK using Google IMA SDK
- Development Player SDK to support server-side ad based on the client-side data
- Dynamic Ad Insertion playback support at client side



Client:
Mediakind

Industry:
OTT

Technology Service:
Media Technology and
Service provider

Scope:

Development of Chromecast Receiver Interface and Integrate with the Sender (Web/Device)

Challenge:

1. Integration challenges with heterogeneous sender devices like browsers, mobiles and STB.
2. Integration with various media servers (HLS/DASH/Smooth Streaming), backend subscriber (Adobe Primetime).
3. Implemented private communication layer between sender & receiver.

Solution:

1. Developed the receiver module for all type of cast enabled receiver platforms. Each platform having specific playback support.
2. Retail device interface created for Smart TV.
3. Seamless session management between connected devices.

Outcome:

Successfully developed a Receiver SDK which integrates seamlessly with HTML5 supported platforms.



Client:
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Industry:
OTT

Technology Service:
Media Technology and
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Scope:

Development of Player for Retail devices like TV, STB and Gaming Console

Challenge:

1. Integration challenges with heterogeneous platform like LG WebOs, Samsung Tizen, Windows XBOX and Sony PlayStation.
2. Integration with various media servers (HLS/DASH/Smooth Streaming), backend subscriber (Adobe Primetime) & dynamic AD modules.
3. Implemented private communication layer between sender & receiver

Solution:

1. Developed the receiver module for all type of cast enable receiver platform. Each platform having specific playback support.
2. Developed a Reference Application (RefApp) interface with playback metric and other various options through which playback stream can be tested manually and via automation.
3. Retail device interface created for Smart TV.

Outcome:

Successfully developed a SDK which integrates seamlessly with HTML5 supported platforms. Allowing multi-instance player in a single screen.



Client:
i4Vu

Industry:
Digital Media Streaming

Technology Service:
OTT Client SDK

Scope:

- **Player application for Multiview playback**
- **Java Script Client SDK for Web, Android, iOS and tvOS**

Challenge:

Support Sports and Gaming use cases where multiple video streams are playing in sync.

Solution:

1. Support HLS playback with fast channel start (< 2 seconds)
2. Support playback of up to 4 videos simultaneously
3. Support LIVE and VOD playback with support for Playback Analytics
4. Integrated players like, ExoPlayer, AVPlayer, HTML5 and TheoPlayer

Outcome:

Multiview application supporting multiple video playback in a single screen.



Client:
Mediakind

Industry:
OTT

Technology Service:
Media Technology and
Service provider

Scope:

Development of Player SDK for OTT based devices (HTML5)

Challenge:

1. Integration challenges with heterogeneous devices like browsers, retail devices, gaming consoles, STB and Chromecast.
2. Integration with various media servers (HLS/DASH/Smooth Streaming), server-side dynamic Ad modules and backend subscriber (adobe primetime).
3. Implement data & playback security using crypto encryption.

Solution:

1. Develop the player module for all OTT base HTML5 platform. Each platform having specific playback support.
2. Developed a Reference Application (RefApp) interface with playback metrics and other various options through which playback stream can be tested manually and via automation.
3. Retail device interface created for Smart TV.

Outcome:

Successfully developed a SDK which integrates seamlessly with HTML5 supported platforms. Allowing multi-instance player in a single screen.



Client:
Mediakind

Industry:
OTT

Technology Service:
Media Technology and
Service provider

Scope:

Development of Player SDK which will integrate with Adobe Primetime service

Challenge:

1. Integration challenges with Adobe primetime services and link with subscriber.
2. Implement concurrency monitor which will check playback validation.

Solution:

1. Developed a Adobe primetime module which will communicate with the Adobe server and get the necessary user and playback information.
2. Integrate the same with the backend and subscriber module
3. Developed a concurrency monitor module which will validate the playback as per the business logic.

Outcome:

Successfully developed a SDK which integrates seamlessly with Adobe Primetime platform.



Client:
Mediakind

Industry:
OTT

Technology Service:
Media Technology and
Service provider

Scope:

Development of Player SDK which will support video thumbnail for LIVE/VOD assets

Challenge:

1. Integration challenges with single and sprite images in the same playback.
2. Implement logic for caching and fetching the images.

Solution:

1. Developed a thumbnail module which will communicate with the packager and generate images for playback.
2. Improve the logic for caching and dynamically fetching the images from server.

Outcome:

Successfully developed a SDK which integrates seamlessly with playback thumbnail.



Client:
MediaKind

Industry:
Digital Media Streaming

Technology Service:
OTT Client SDK

Scope:

Add Airplay and Chromecast support

Challenge:

1. Support protected content playback via Airplay and Chromecast and enforce proprietary playback rules
2. Support VOD, LIVE and CATCHUP playback
3. Seamless session management between Airplay & Chromecast device and Mobile Device.

Solution:

1. Implemented Airplay and Chromecast support using the standard platform SDK.
2. Developed a custom player for Android Chromecast receiver.
3. Enforce playback rights on remote player

Outcome:

Successfully integrated Airplay and Chromecast feature on the OTT Client SDK.



Scope:

Client SDK for protected video playback on Android, Android TV, iOS and tvOS

Challenge:

1. Common API supporting protected playback on all supported platforms.
2. Support proprietary & standard DRM and proprietary playback rules.

Solution:

1. Support DASH and HLS playback with local manifest manipulation.
2. Unified DRM key handling of Proprietary, Widevine, Playready, Apple Native and FPS DRM
3. Support VOD, Catchup, Recording, Offline and Live playback
4. Integration of various players like, Exoplayer, AVPlayer, Bitmovin, VisualOn, and Teatro

Outcome:

Client SDK supporting playback of protected assets streamed from MediaKind backend.

Client:

Mediakind

Industry:

Digital Media Streaming

Technology Service:

OTT Client SDK