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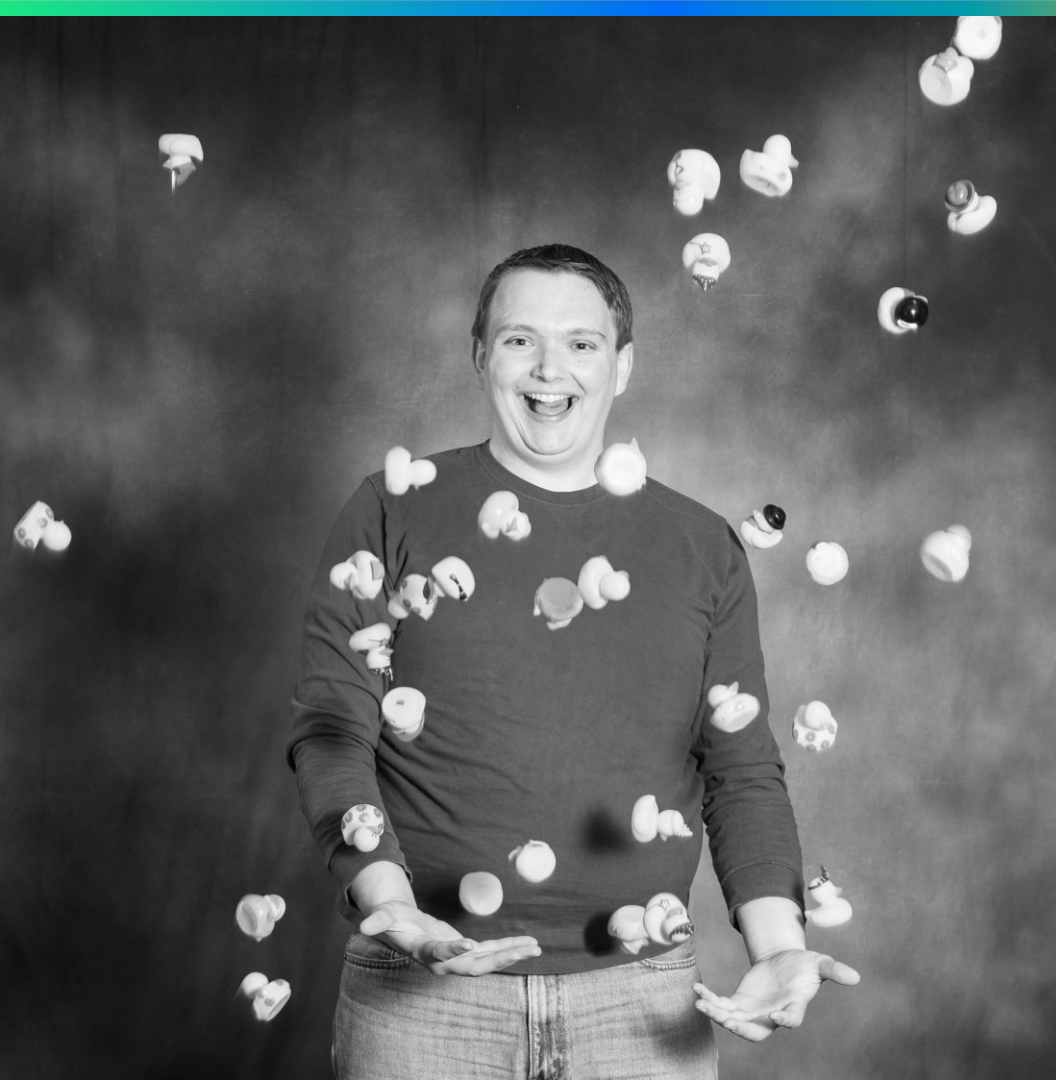
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The DASH/HLS Interoperability Spec

2021 Edition





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Sr. Principal Software Engineer, Architect

Chair/Editor – CTA WAVE DASH/HLS Interop Group

Co-Chair – SVA Advertising WG

Agenda

- CMAF and Interoperability
- The Specification Details
- Interoperability in Practice
- Wrapping Up

CMAF and Interoperability

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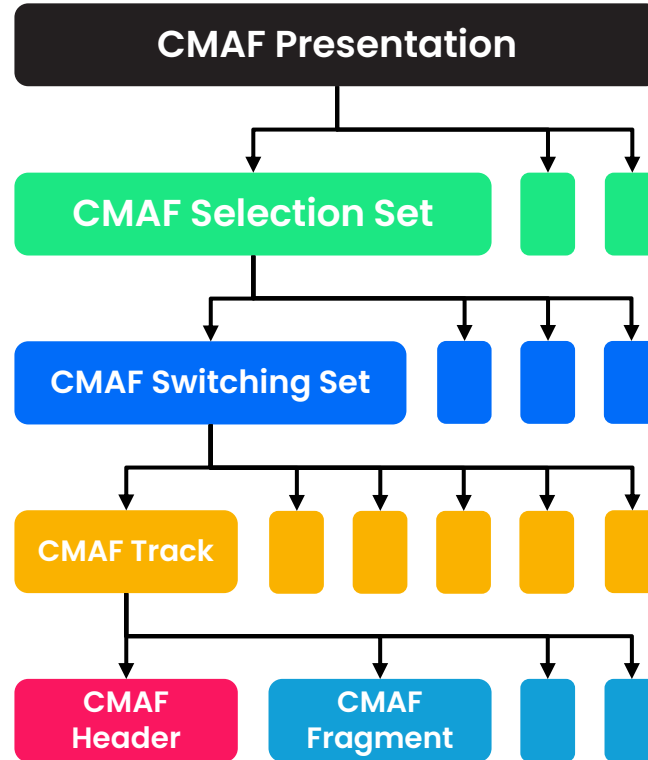
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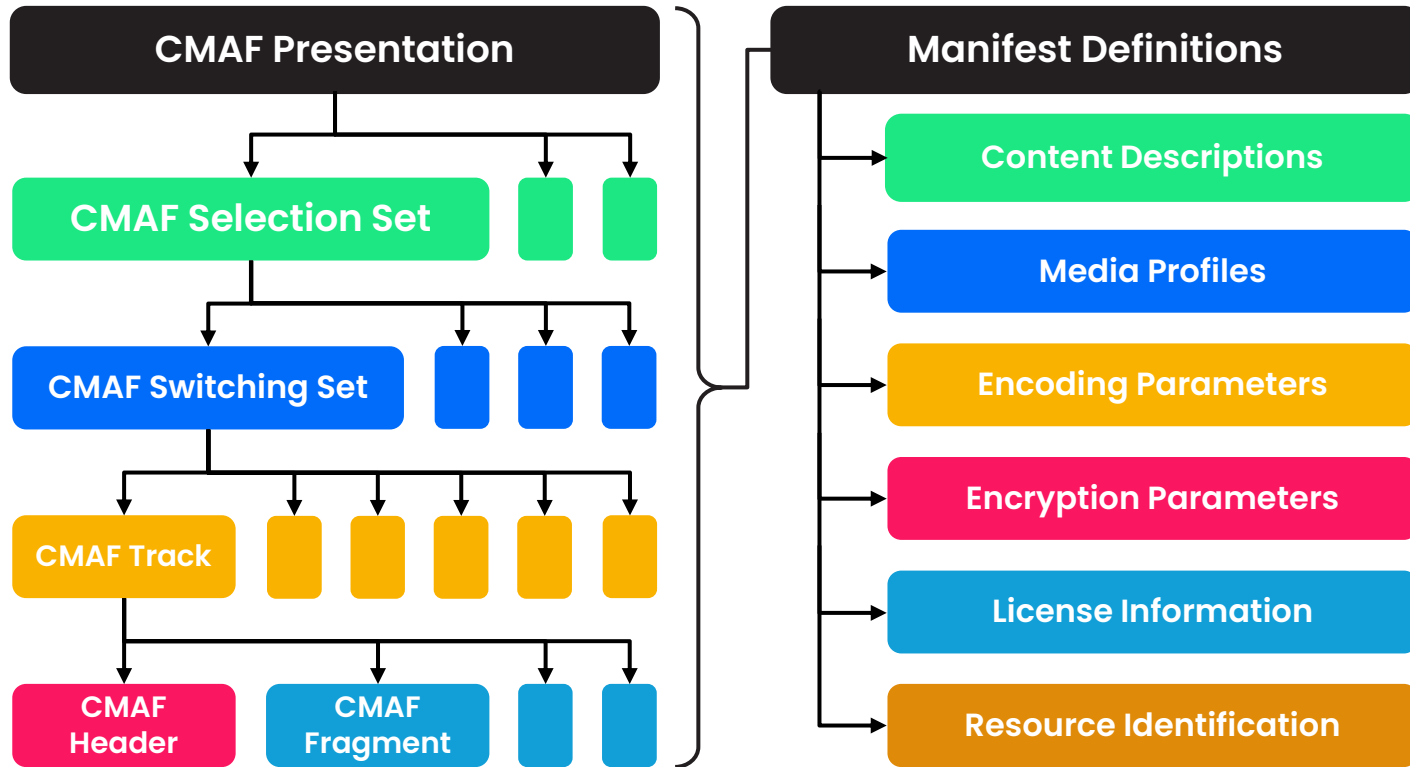
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CMAF Defined Objects and Constraints



Constraints from Unspecified Objects



CMAF Content Authoring Quiz

Text Components

What profiles of IMSC should be used for authoring text components?

CBCS Encryption

What pattern and IV size allows for maximum device compatibility?

Low-Latency Live

Should low-latency chunks be authored as standalone objects or byte-range objects of single segment?

The Specification Details

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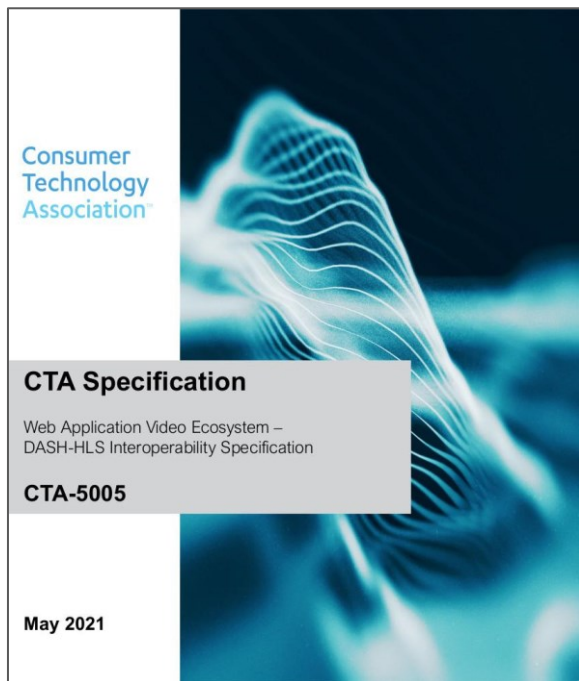
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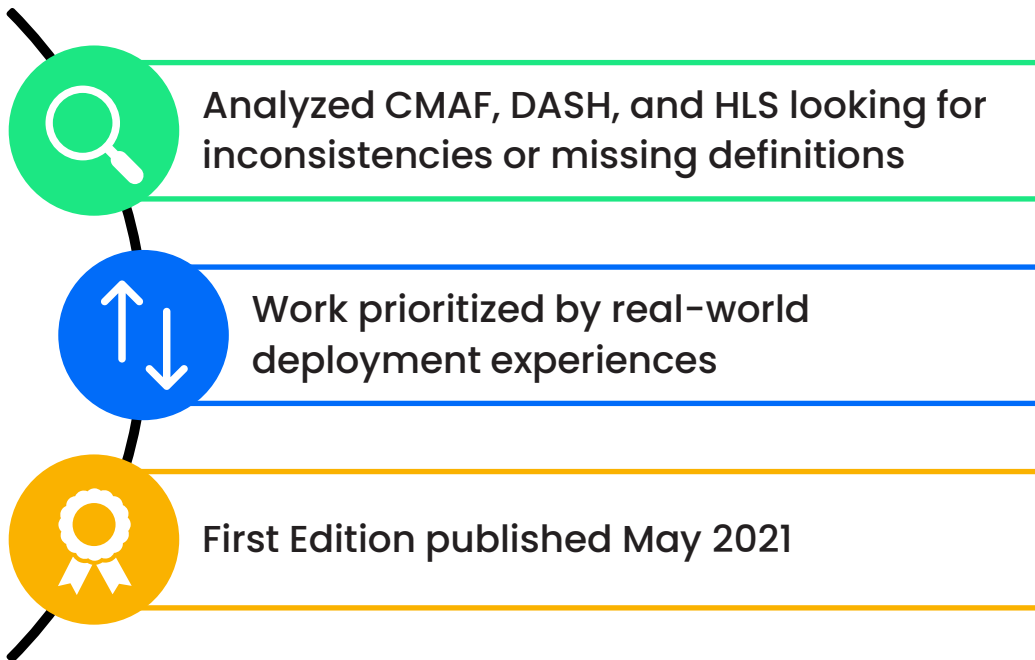
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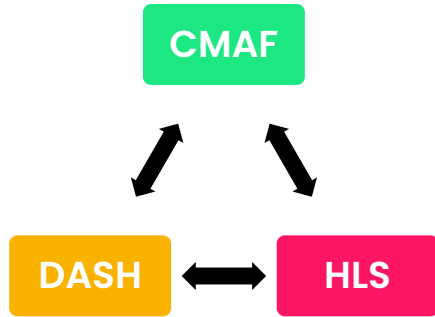
The DASH/HLS Interoperability Specification



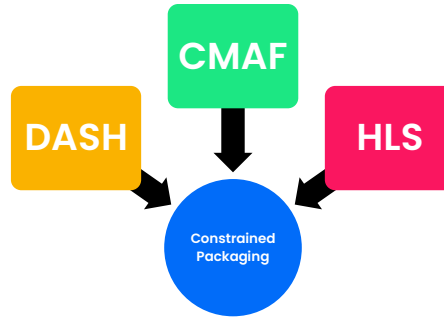
tinyurl.com/ctawave-5005



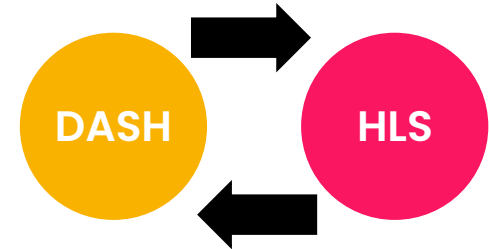
Specification Structure



Cross-Specification Terminology and Concept Alignment

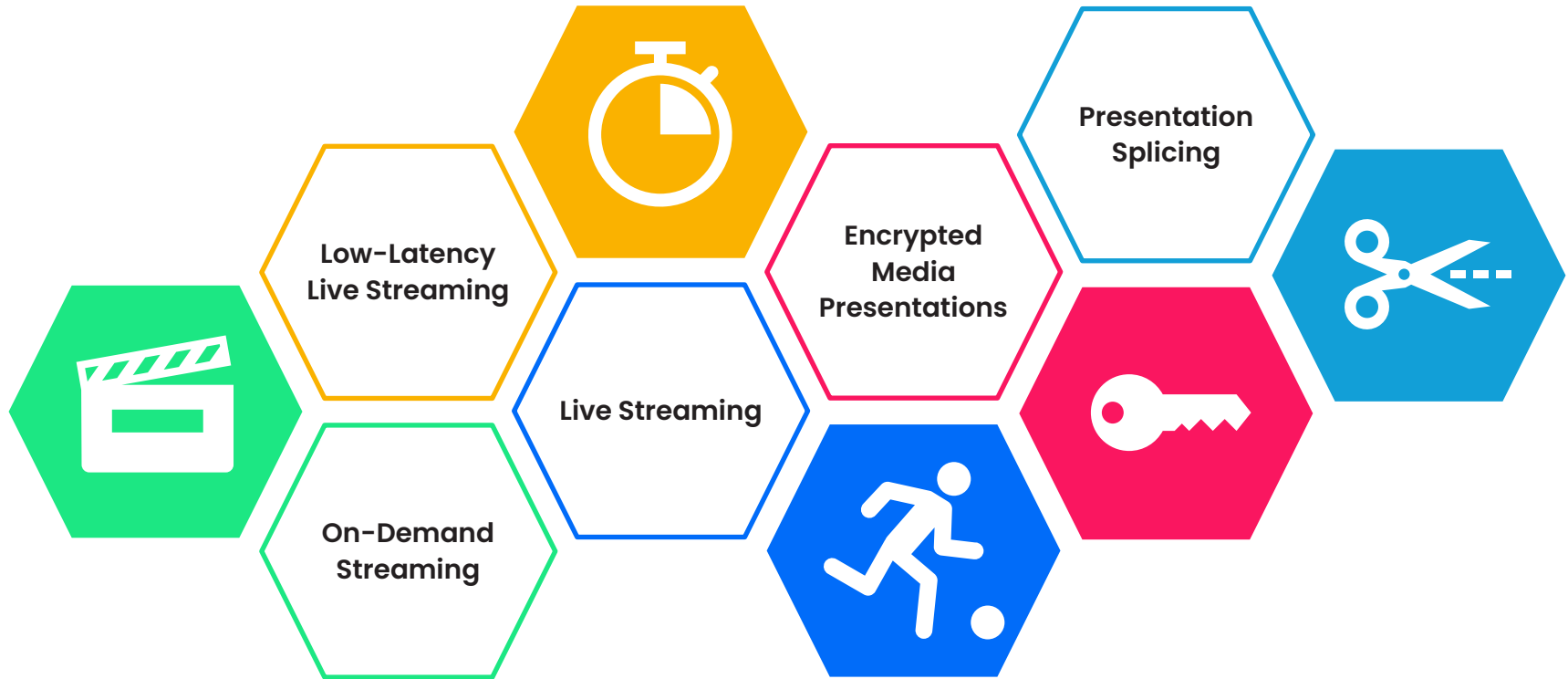


Packaging Constraints for Manifest Interoperability



Manifest Constraints for Cross-Conversion Enablement

Use-Case Based Definitions



Let's Revisit The Quiz

Text Components

What profiles of IMSC should be used for authoring text components?

Aa

Text Profiles Only



IMSC 1.0 Preferred

Let's Revisit The Quiz

CBCS Encryption

What pattern and IV size allows for maximum device compatibility?



Video 1:9 Pattern



Audio 10:0 Pattern



16-Byte IVs

Let's Revisit The Quiz

Low-Latency Live

Should low-latency chunks be authored as standalone objects or byte-range objects of single segment?



Byte-Range Based



Packaging Interop



Not Convertible

Interoperability in Practice

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The Change of the Industry



The Services of Disney Streaming



The Quest for a Common Platform



Use-Cases

On-Demand, Live Linear/Event, DRM, Ad Insertion



A/V Features

UHD, HDR, 60fps, Surround / Positional Sound



Packaging

CMAF



Delivery

HLS

DASH / HLS



Wrapping Up

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Give the Specification a Read



Check out the details today!
<https://tinyurl.com/ctawave-5005>

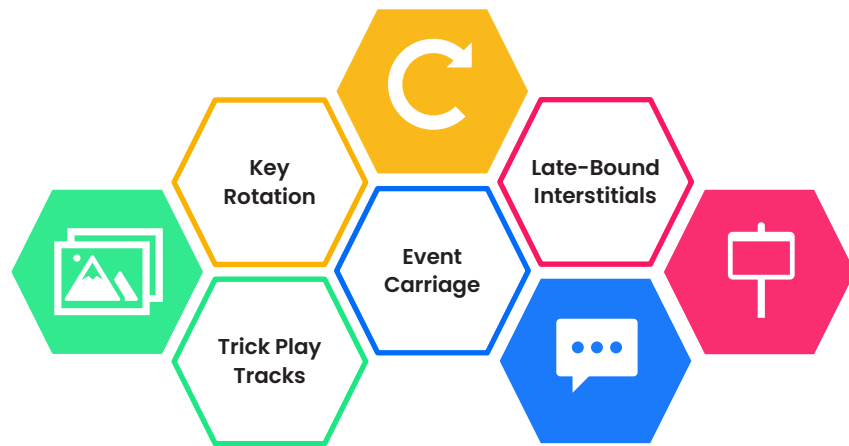


Comments/Questions/Issues?
zachary.cava@disneystreaming.com

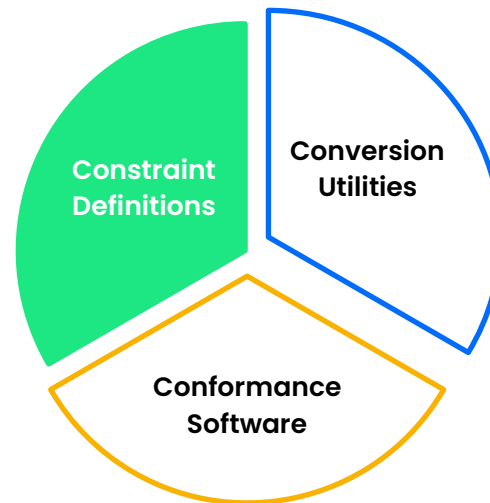


Get Involved in CTA WAVE
<https://cta.tech/wave>

Work Underway on 2nd Edition



Additional Industry Defined Use Cases

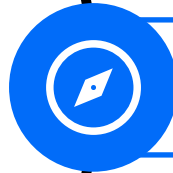


Support Tooling Buildout

Just One of Many CMAF Efforts



Join the CMAF-IF Today!
<https://cmafif.org>



State of the industry survey now available
<https://tinyurl.com/cmaf-adopt-2021>



Test Suites and Content
<https://cta-wave.github.io/dpc-test-suite>

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