MDDF 2020 Spec Updates
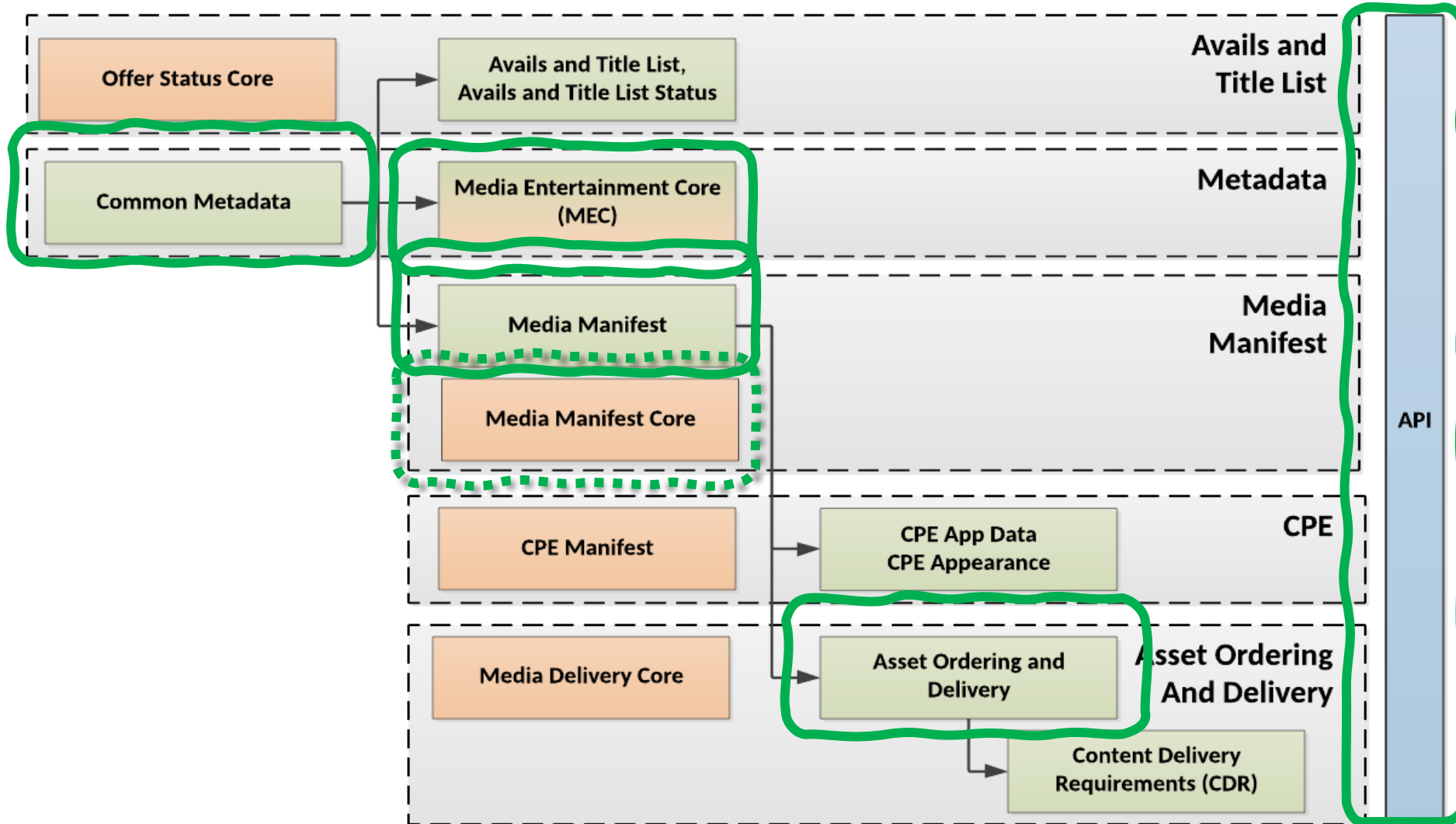
December 8, 2020

Topics

- Overview of changes

- API

- Basic Metadata
  - Common Metadata/Media Entertainment Core (MEC)

- Digital Asset Metadata
  - Common Metadata/Media Entertainment Core (MEC)
  - Media Manifest/Media Manifest Core (MMC)

- Asset Ordering, Delivery and Status/Media Delivery Core (MDC)

MDDF Updates

API

- Substantially revised API Spec

- Designed to cover all standard point-to-point, unmediated conversations
  - Thinks like RESTful interfaces
  - Not things like 3rd party message systems or service busses

- Adds
  - Full JSON support
    - This is for API constructs, MDDF schemas not included
  - Security
    - Improved clarity in OAuth2
    - API Keys and JSON Web Tokens (JWT)
  - Improved Pub/Sub (e.g., webhooks)

Basic Metadata

Common Metadata/Media Entertainment Core (MEC)

Common Metadata: Basic Metadata

- Cleaned up BasicMetadataParent-type/@relationshipType enumerations
- Added LocalizedInfo/ExcludedRegion
  - Allows a localization to be excluded from a specific region
- Related-to relationship types to include parent relationship types (e.g., isbasedon, isderivedfrom)
- Added @original to AspectRatio
  - Allows flagging that aspect ratio is unmodified from whatever is considered original— generally theatrical or original broadcast
  - Also in Video/Picture/AspectRatio
- Added @primary to Related-to relationships
  - Allows distinction between a relationship being primary or incidental. For example, Selma is primarily about MLK, but also about Coretta Scott King.

Digital Asset Metadata

Common Metadata/Media Entertainment Core (MEC)

Media Manifest/Media Manifest Core (MMC)

Updates to Digital Asset Metadata impact Media Manifest's Inventory

movielabs

Media Manifest/MMC

- ## Media Manifest
  - ### Reference Common Metadata 2.9
    - Many of the changes in CM were targeted towards Manifest
- ## MMC
  - ### No substantive change
  - ### Updated references
  - ### Fixed typo
  - ### Fixed examples (bug in dub card)

Common Metadata: Digital Asset Metadata

- ## Controlled Vocabulary

  - Audio codecs and containers: added BWF, ADM and various Dolby Atmos formats

  - Added 'LPR', 'PSD', 'OpenEXR' and 'DPX' file types

  - Added EBU Timed Text (EBU-TT-D)

  - Corrected MIME encoding (removed leading slash ('/')

Common Metadata: Digital Asset Metadata

- Added CardsetLists to Inventory/Image

  - Media Manifest allows cards (e.g., rating, anti-piracy, etc.) to be images. CardSetLists provides metadata to describe an image card

- Added SMPTE multichannel audio (MCA) labeling

  - Supports MXF audio labeling per SMPTE 377-4 and 377-41. MXF is used in IMF.

- Added @original to Video/Picture/AspectRatio

  - Allows flagging that aspect ratio is unmodified from whatever is considered original—generally theatrical or original broadcast

- Added Asset Intent type.

  - Added AssetIntent to each media asset type and to ContainerMetadata

  - Describes why asset was created and where it came from. For example, video is a ratings edit, and its original version is xyz.

  - More formally, a combination of

    - Derivation – Why and how it was created (e.g., ratings edit), and from what original asset (e.g., theatrical version)

    - Provenance – Who (organization) created it

Media Manifest

- Added timecodes in form hh:mm:ss:ff.

- Corrected @dropframe encoding to reflect field being a xs:boolean

- Added Container and Asset intent (from Common Metadata)

Delivery/MDC

Asset Ordering and Delivery/MDC

- Asset Ordering, Delivery and Status
  - Added EventTerms to ProductLogEvent-type
    - This allows arbitray extensions to logging data
  - Added ProgressDetail
    - Provides means to provide detail beyond progress code
  - Added MDDFTrack (includes metadata) to AssetStatus/AssetReference
    - Provides means to include metadata along with identification. This supports workflows where intermediate stages of processing don't have knowledge of what the IDs mean.
  - Corrected MDDFID label (spec only)
  - Added Severity to ErrorDescription to report severity of issues, including whether it has been resolved.
  - Added capability to capture validator errors
- Media Delivery Core (MDC)
  - No update

Best Practices

DRAFT Best Practices

- Image Delivery – Deliver metadata, card or other images
  - MEC without MMC
  - MMC without MEC
  - MMC scaled down
- Cards Encoding
  - Getting everything in the right place in MMC
  - Correct playback
  - Various ways to deliver cards
  - Cards embedded in main video