Digital Data Exchange (DDEX)
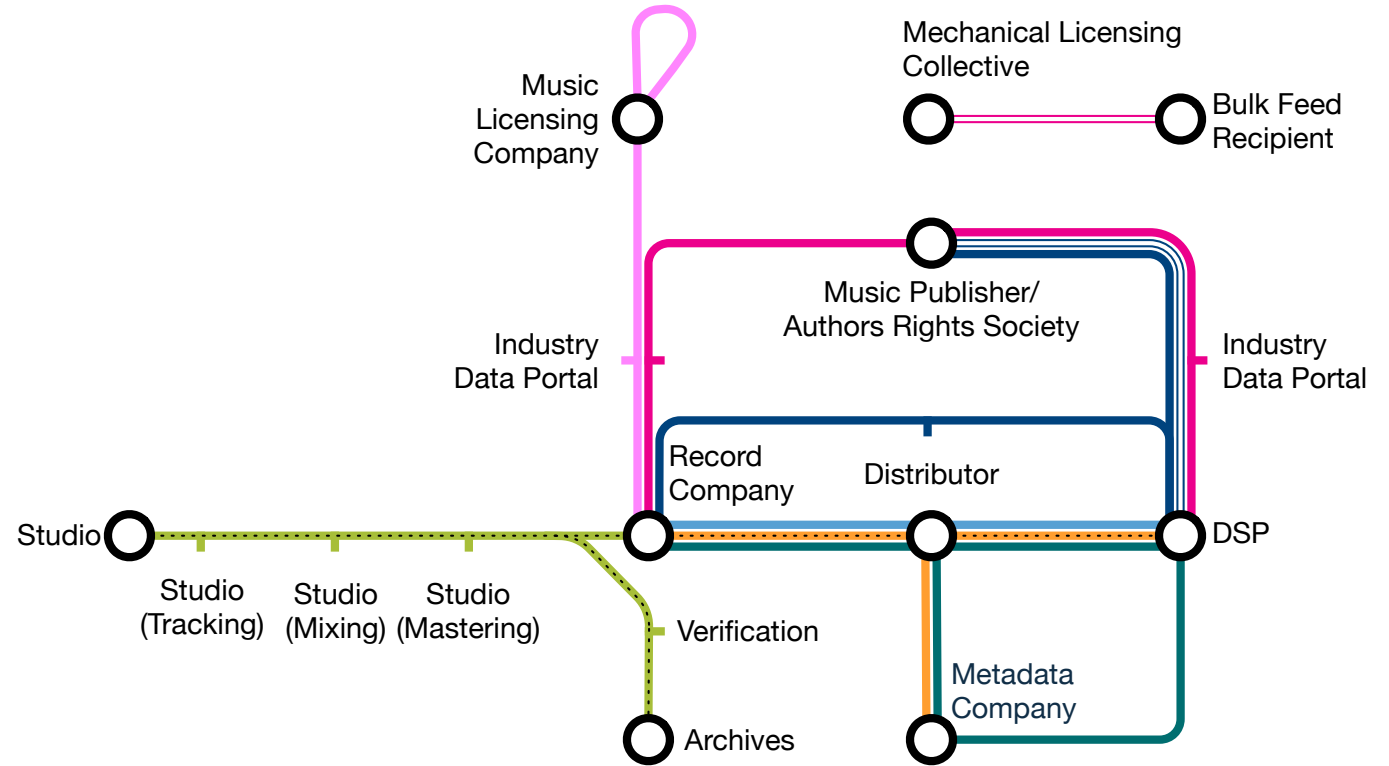
Media Enrichment And Description (MEAD)

May 2024

DDEX standards

Electronic Release Notification Message Suite (ERN)	▬	Musical Work Notification and Licensing (MWN/MWL/LoD)	▬
Media Enrichment and Description (MEAD)	▬	Bulk Communication of Work and Recording Data (BWARM)	▬
Party Identification and Enrichment (PIE)	▬	Recording Data and Rights (RDR-N, RDR-R and RDR-C)	▬
Catalogue Transfers (CT)	▬	Recording Information Notification (RIN)	▬
Digital Sales Reporting Message Suite (DSR)	▬		
Claim Detail Message Suite (CDM)	▬	Delivery of binaries (as part of another message)	⋯⋯

© DDEX

Media Enrichment And Description

Record Company

Distributor

DSP

Metadata Company
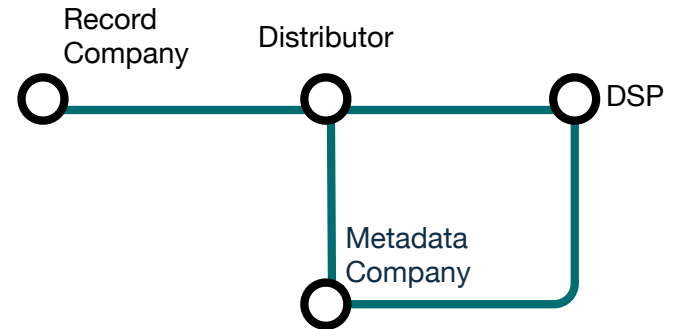
Media Enrichment and Description (MEAD) ▬

Why do we need MEAD?

User experiences change with device

Bigger screen size used to lead to a richer experience

User experiences change with device

Bigger screen size used to lead to a richer experience

Artificial intelligence allows screens to disappear

Enhancing user experiences

Google, play something from "Slowhand"

Cortana, play me something from the female singer on the live version of "Don't give up"

Alexa, play me the song Eminem sampled in "Stan"

Siri, play me Ed Sheeran's latest track

What data is needed for the AI?

- To provide meaningful results to "Play something from the female singer on the live version of 'Don't give up'" the AI needs:
  - A list of all popular tracks called "Don't give up"
  - To differentiate between live and studio versions
  - Records of all contributors on those tracks with their names and gender
  - To be able to identify from those contributors, a prominent female singer
  - Identify another track by that female singer

- To provide a meaningful result to "Play me Ed Sheeran's latest track" the AI needs:
  - The release dates of all Ed Sheeran tracks
  - A list of Ed Sheeran tracks currently being promoted in the territory of the user
  - To distinguish the latter from the former because the "latest track" is **not** necessarily the most recently released one

Benefits of such data being available

- Amazon Music and Universal Music Group (UMG), recently shared details about their implementation of MEAD

- They carried out "before" and "after" tests

- Showed addition of high-quality genre and mood data increased streams and decreased skip rates
  - 4.6% increase in streams
  - 11.9% increase in streams on algorithmic stations and playlists
  - 7.8% decrease in skip rate

- Press release here

Media Enrichment And Description (MEAD)

High level message overview

- Communicating information about
  - Musical works
  - Sound recordings or music videos
  - Releases
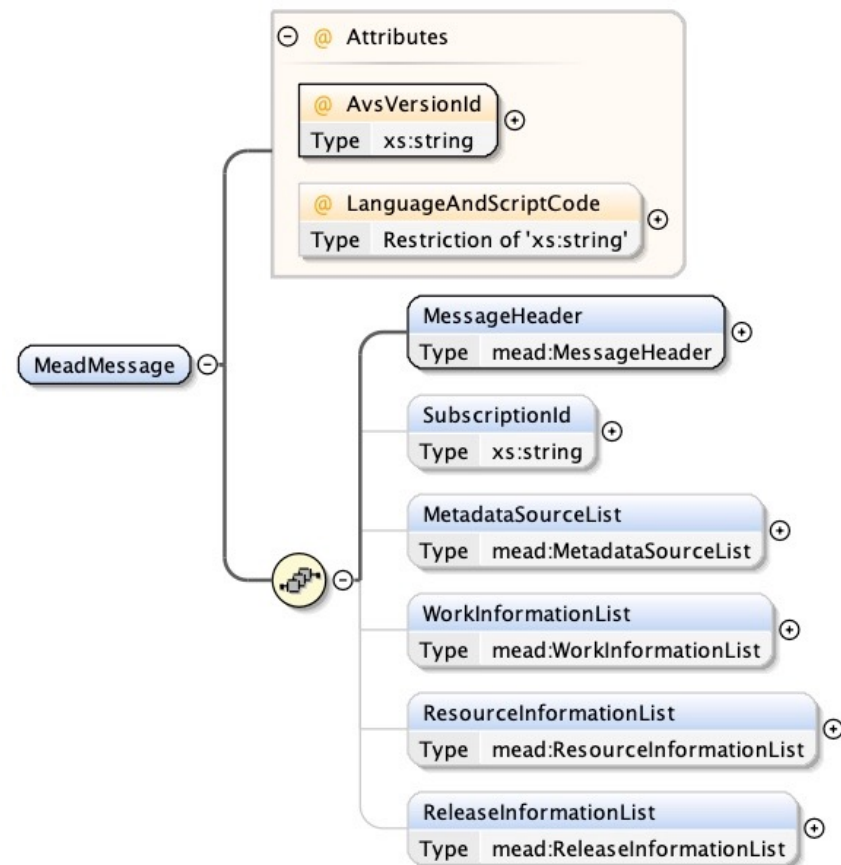
Few mandatory elements

- Virtually everything is optional
  - Allows niche metadata providers to add their expertise
  - Mandatory:
    - `MessageHeader`
    - Core data to identity the entity described

- MEAD message is a "Statement of Truth"
  - Only applies to elements that were sent in the past

What data does MEAD support?

	Party	Work	Resource	Release
Focus Track	X			
Influence and Similarly	X	X	X	X
Charting and Awards	X	X	X	X
Vocal Register	X	X	X	
Where used?	X	X	X	X
Biography	X			
Photos	X	X	X	X
Is recorded by / Has created	X	X	X	X
Time signature / Harmonic		X	X	
Mood, Styles, Genre, Theme		X	X	X
Lyrics		X	X	

What data does MEAD support?

	Party	Work	Resource	Release
Alternative titles		X	X	X
Nicknames	X			
Classical work hierarchies		X		
Links to (other) recordings		X	X	
Sampling information			X	
Information about recording session			X	

What data does MEAD support?

	Party	Work	Resource	Release
Alternative titles		X	X	X
Nicknames	X			
Classical work hierarchies		X		
Links to (other) recordings		X	X	
Sampling information			X	
Information about recording session			X	

All free-form information can be accompanied with pronunciation information (IPA preferred)

The future of the MEAD

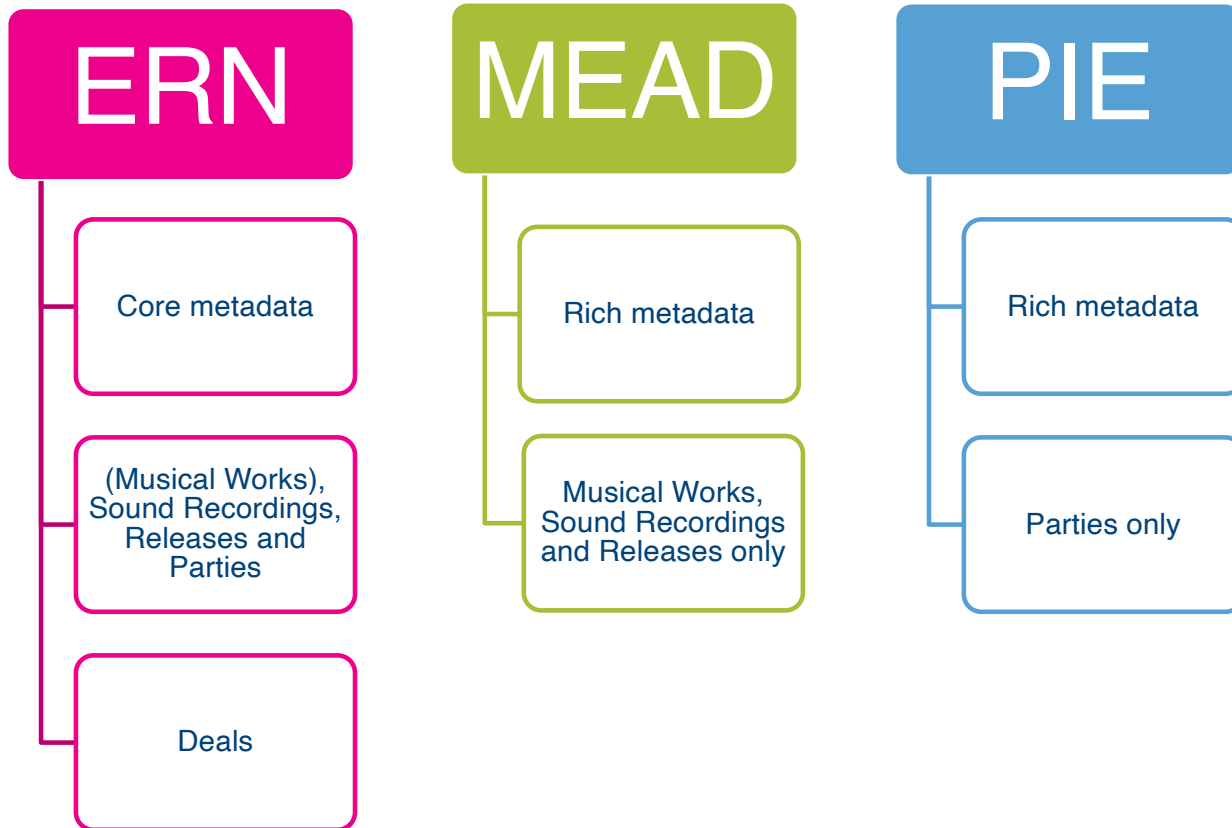## Proactive Mode

- Metadata provider sends MEAD file to DSP proactively

- Examples
  – Record company's MEAD file accompanies ERN message
  – Other data provider sends out regular MEAD updates

Database Mode

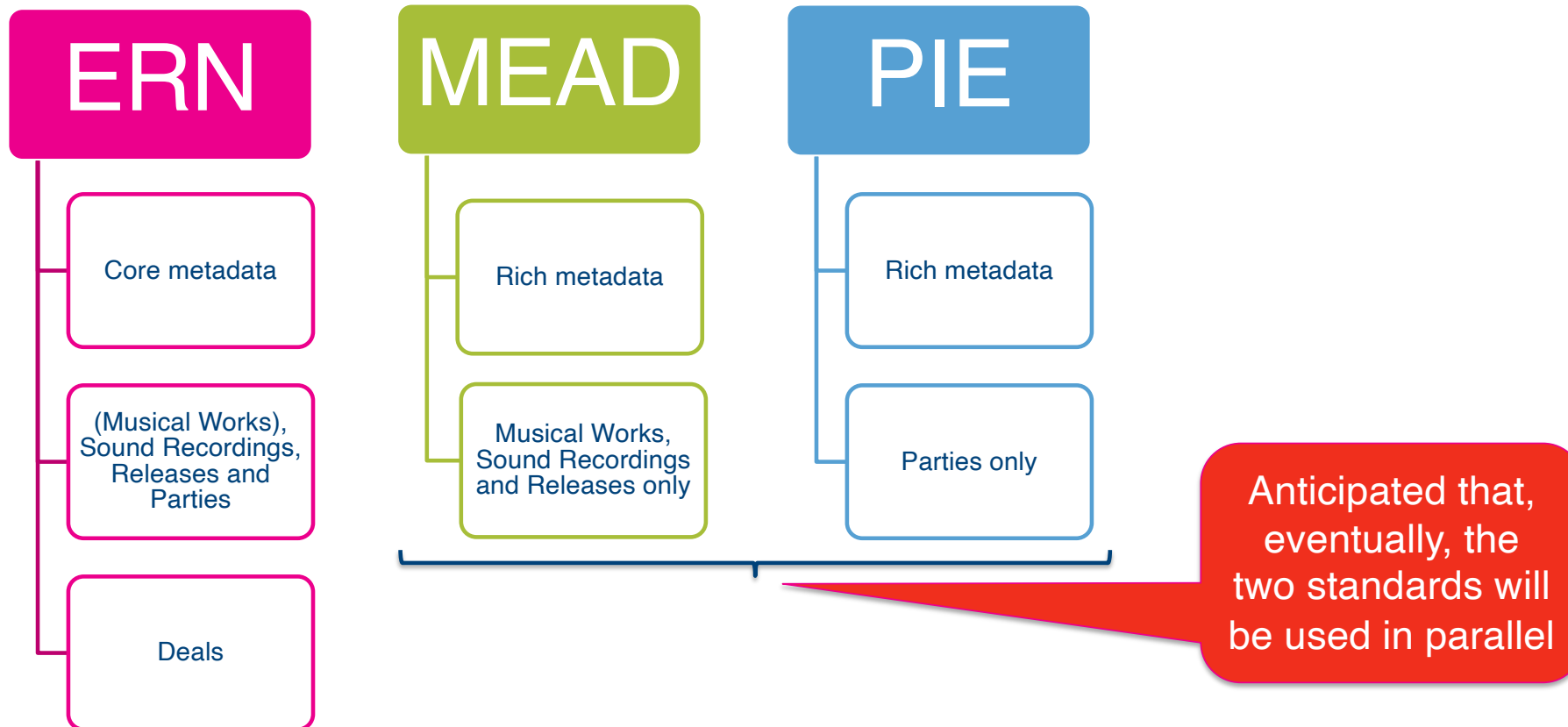- Metadata provider sends out MEAD file in response to a specific question from DSP, for example:

  – "Do you know when Eric Clapton was Number 1 in China?"

MEAD and PIE choreographies

Supply chain and marketing

ERN

- Core metadata
- (Musical Works), Sound Recordings, Releases and Parties
- Deals

MEAD

- Rich metadata
- Musical Works, Sound Recordings and Releases only

PIE

- Rich metadata
- Parties only

Supply chain and marketing

ERN
- Core metadata
- (Musical Works), Sound Recordings, Releases and Parties
- Deals

MEAD
- Rich metadata
- Musical Works, Sound Recordings and Releases only

PIE
- Rich metadata
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Anticipated that, eventually, the two standards will be used in parallel

Supply chain and marketing

Supply chain and marketing data delivery from a record company or distributor can operate in parallel

ERN
- Core metadata
- (Musical Works), Sound Recordings, Releases and Parties
- Deals

MEAD
- Rich metadata
- Musical Works, Sound Recordings and Releases only

PIE
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Supply chain and marketing

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- Core metadata
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MEAD
- Rich metadata
- Musical Works, Sound Recordings and Releases only

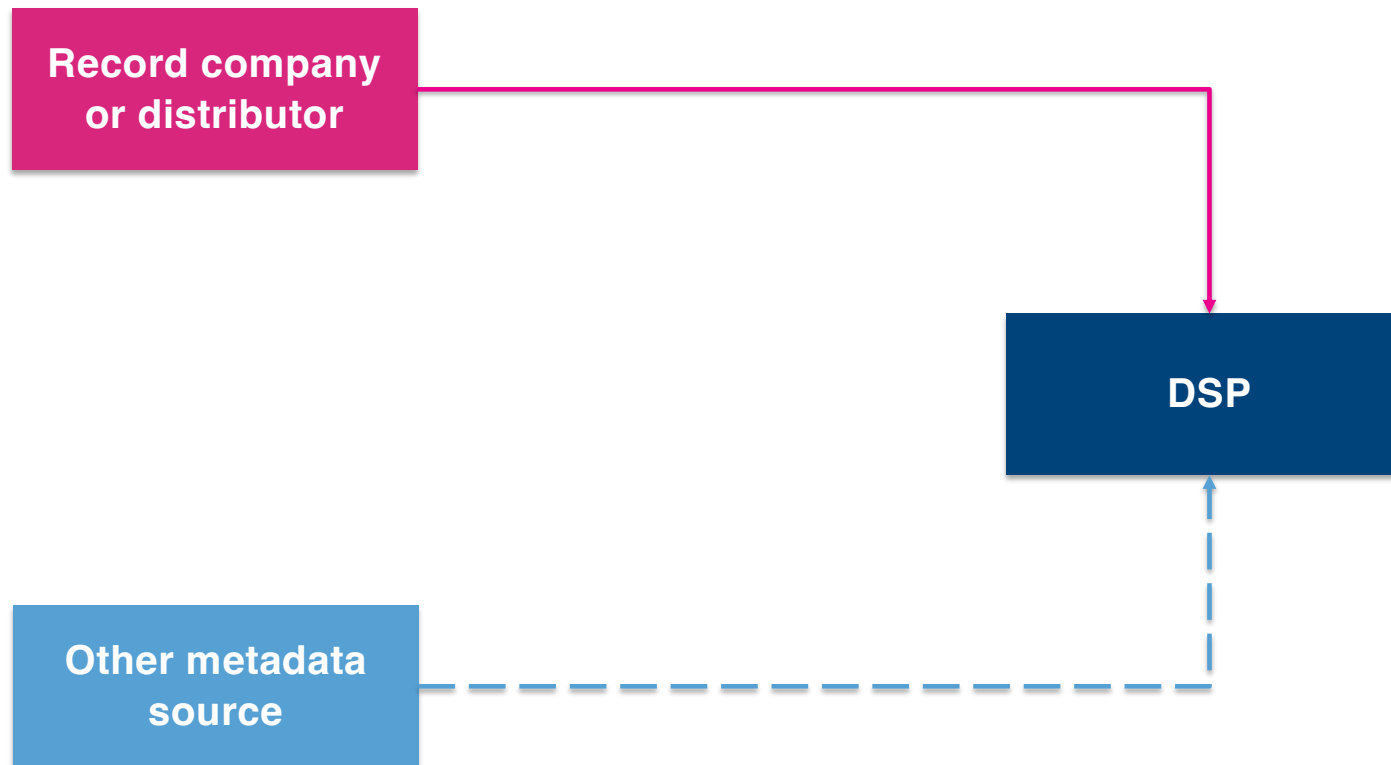**PIE**
- Rich metadata
- Parties only
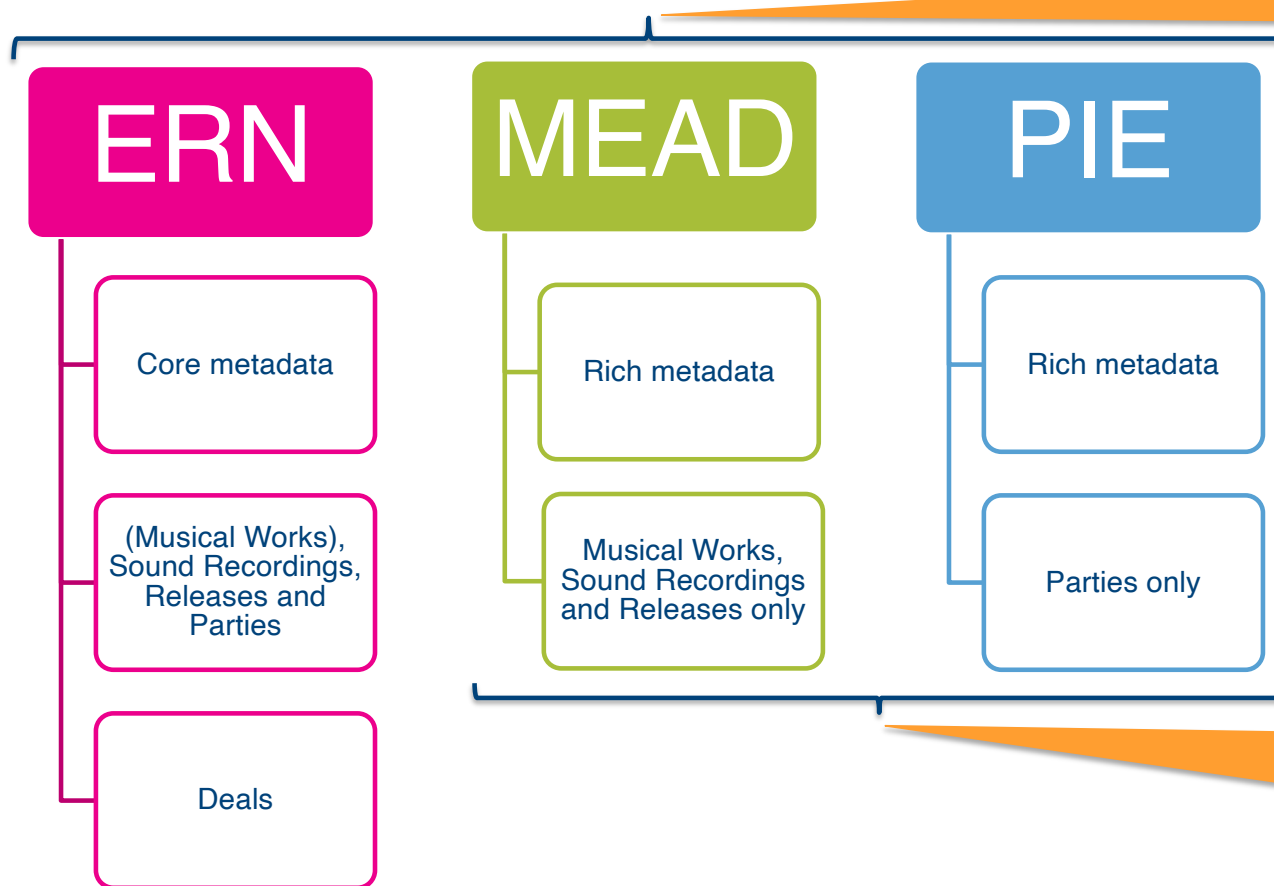
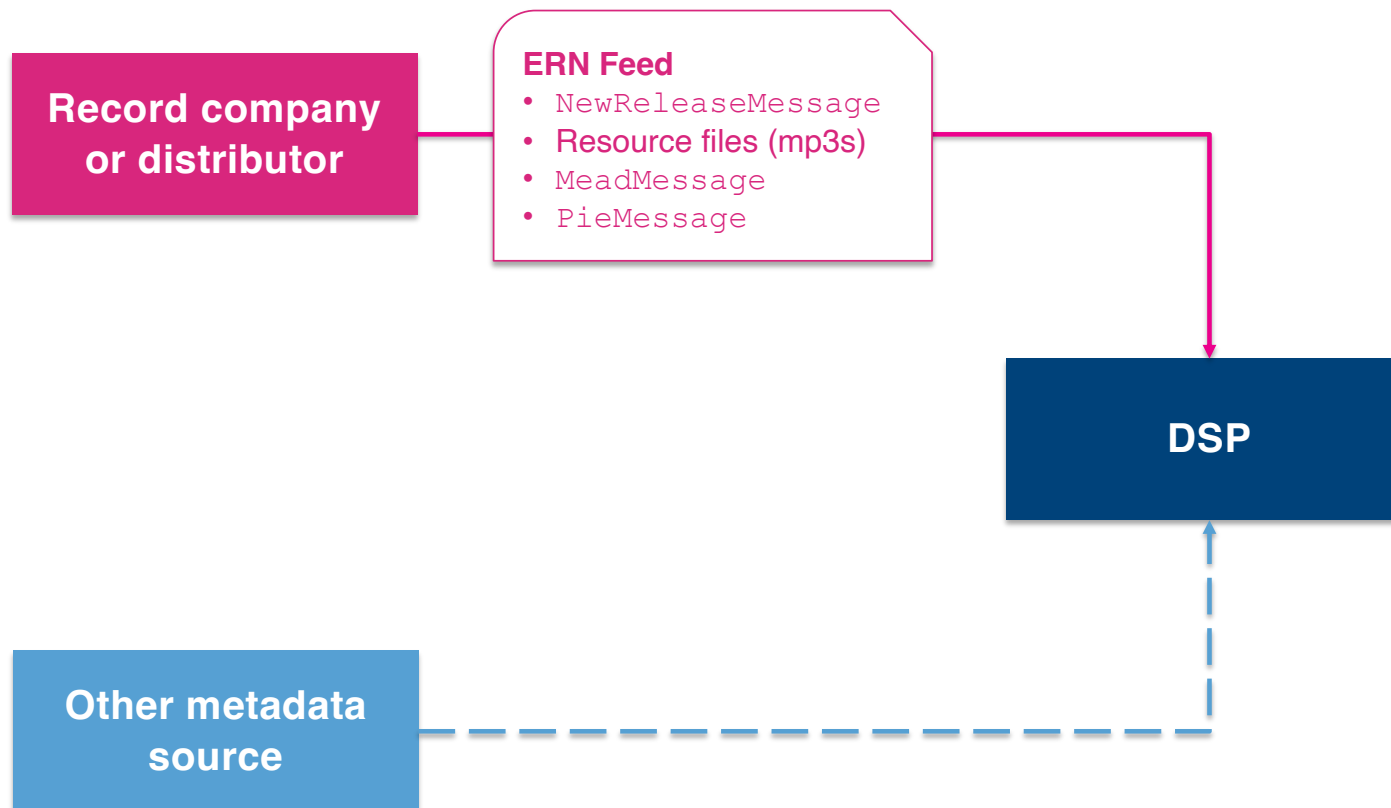Supply chain and marketing data delivery from a record company or distributor can operate in parallel

Other marketing data sources include:
- Metadata companies
- Music publishers
- Collective rights management organisations.....
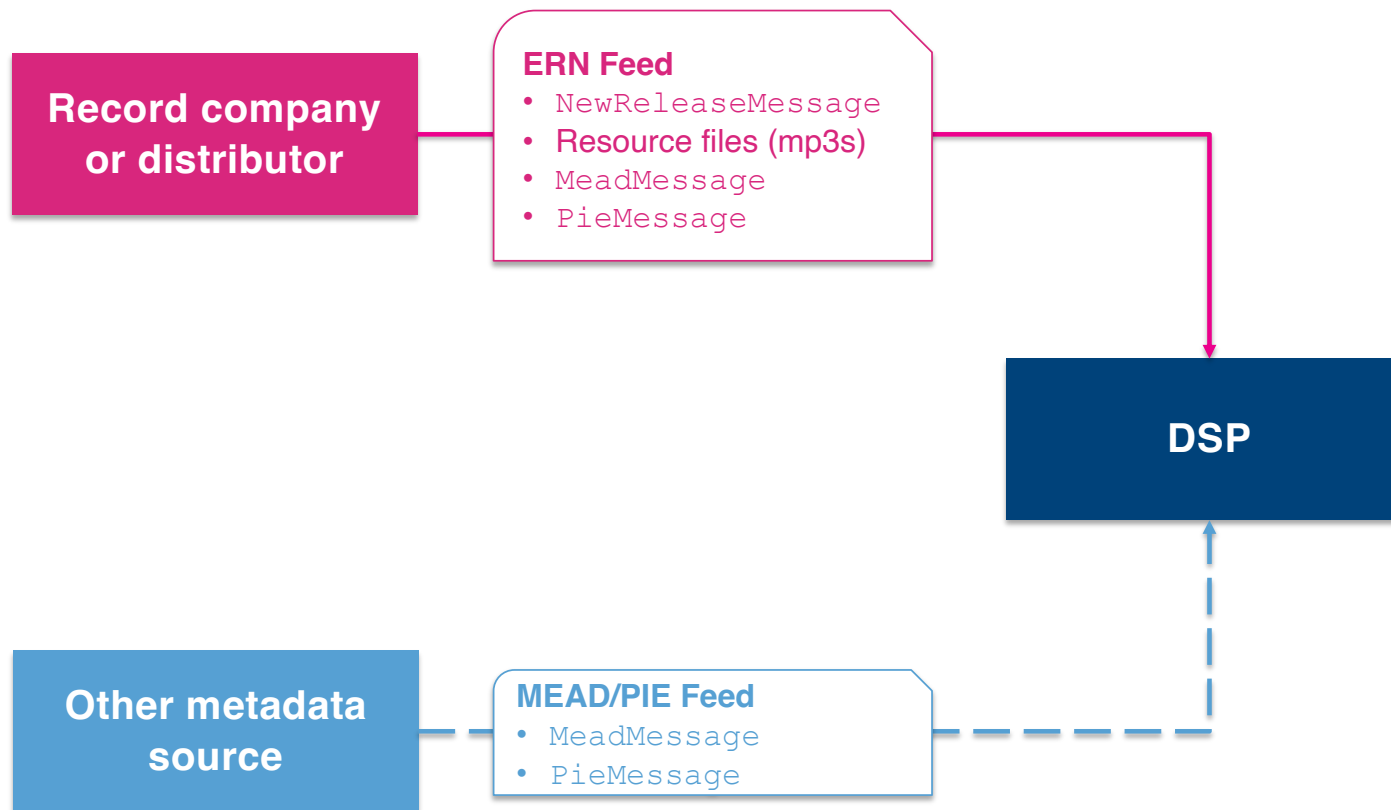
Choreography for MEAD and PIE

Choreography for MEAD and PIE

Record company or distributor

ERN Feed
- NewReleaseMessage
- Resource files (mp3s)
- MeadMessage
- PieMessage

DSP

Other metadata source

Choreography for MEAD and PIE

Record company or distributor

ERN Feed
- NewReleaseMessage
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DSP

Other metadata source

MEAD/PIE Feed
- MeadMessage
- PieMessage

Choreography for MEAD and PIE

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MEAD/PIE Feed
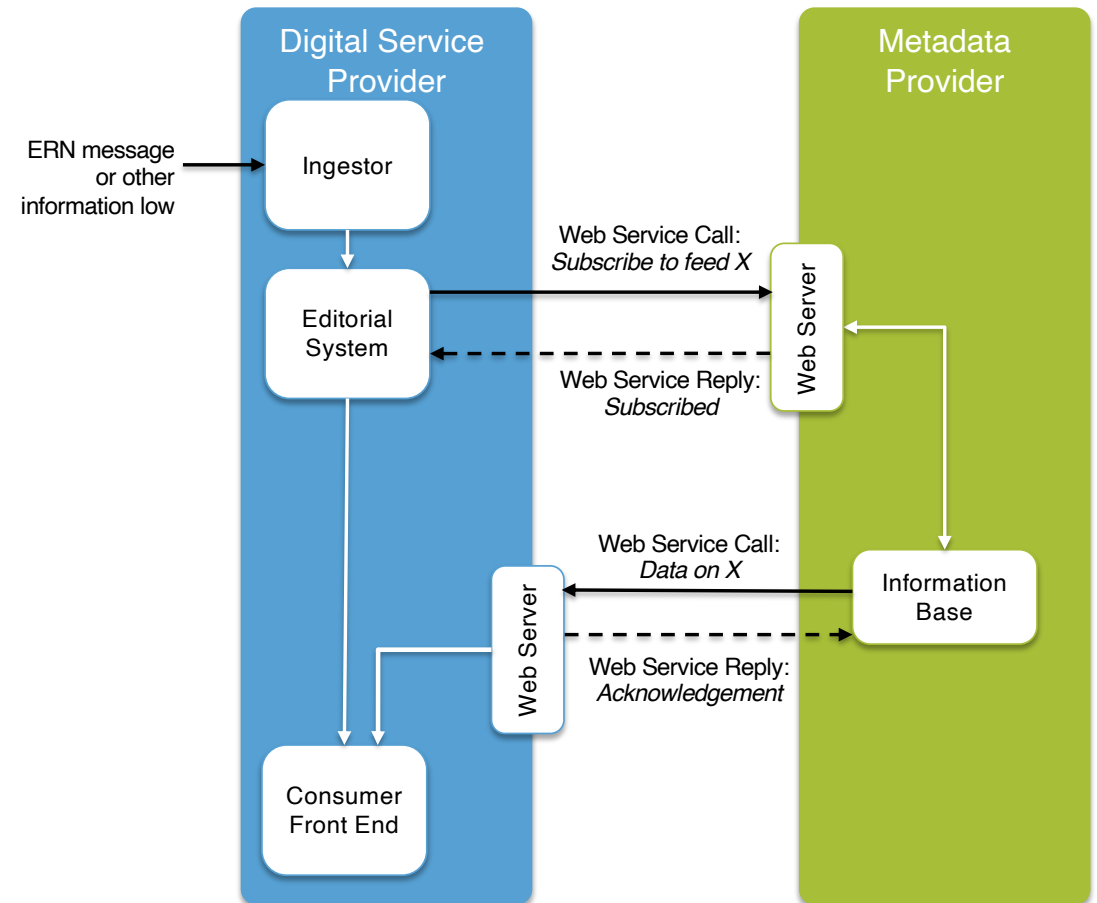- MeadMessage
- PieMessage

DSP

Choreography for MEAD and PIE

- MEAD/PIE when sent alongside ERN message

- Symmetric web service

- Atom-based web service

- Cloud storage

- MEAD/PIE file is treated as "just another resource file"

- In ERN-4, MEAD/PIE file signalled as a "supplemental document"

- In ERN-3, MEAD/PIE file signalled as a `Text` resource with a user-defined `TextType` of either `MeadMessage` or `PieMessage`
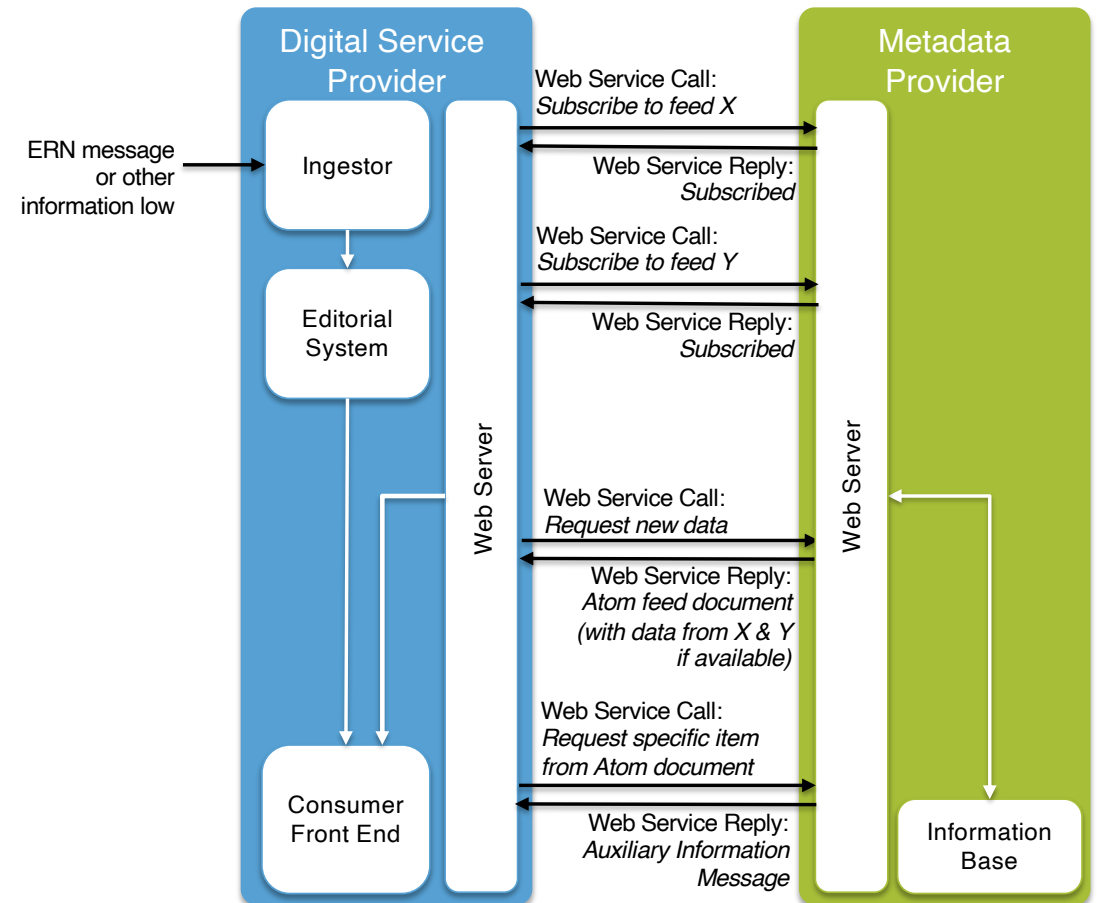
Choreography for MEAD and PIE

- MEAD/PIE sent alongside ERN message

- Symmetric web Service

- Asymmetric web service

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Choreography for MEAD and PIE

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Choreography for MEAD and PIE

- MEAD/PIE sent alongside ERN message

- Symmetric web Service

- Asymmetric web service

- Cloud storage

- Follows ERN choreography standard for cloud storage

- Two approaches
  - File-by-file
  - Batched

- File naming convention

Identifying the source: "who says?"

- Essential information for MEAD and PIE

- Source maybe different from message sender

- Not all data comes from one source

- Some data elements are "journalistic", for example, biographies, photographs, …

- Some data elements should better come from the authoritative source, for example, historic charting information

Identifying the source: example

```
<Biography>


    <Text>
        John Winston Ono Lennon MBE
        was an English singer,
        songwriter and peace
        activist who gained
        worldwide fame as the
        founder, co-lead vocalist,
        and rhythm guitarist of the
        Beatles. His songwriting
        partnership with [...]
    </Text>
    <Author>Wikipedia</Author>

</Biography>
```

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        and rhythm guitarist of the
        Beatles. His songwriting
        partnership with [...]
    </Text>
    <Author>Wikipedia</Author>


</Biography>
```

```
<MetadataSource>




    <PartyName>
        <FullName>
            <Name>Niels Rump</Name>
        </FullName>
    </PartyName>




</MetadataSource>
```

Identifying the source: example

```
<Biography>




    <Text>
        John Winston Ono Lennon MBE
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</Biography>
```

```
<MetadataSource>




    <PartyName>
        <FullName>
            <Name>UMG</Name>
        </FullName>
    </PartyName>

    <MetadataSourceType>
        RightsController
    </MetadataSourceType>

</MetadataSource>
```

Identifying the source: example

```
<Biography>
    <MetadataSourceReference>
        U1
    </MetadataSourceReference>
    <Text>
        John Winston Ono Lennon MBE
        was an English singer,
        songwriter and peace
        activist who gained
        worldwide fame as the
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        Beatles. His songwriting
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</Biography>
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<MetadataSource>
    <SourceReference>
        U1
    </SourceReference>

    <PartyName>
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