



EIDR

Entertainment Identifier Registry

Overview

September 2012

Executive Summary

- Global B2B registry for unique identification of movie and TV content
- International collaboration among content owners, distributors and operators, retailers, other key stakeholders
- Tracks all commercial content down to the product and SKU level, including edits, clips, composites, encodings
- Built on International Digital Object Identifier (DOI) standard (ISO approved); Interoperable with existing ID's
- Run as industry non-profit on a cost-recovery basis
- Industry-driven ID solution for the digital supply chain

Endorsed by studios and distributors. Automated & deployed in a growing number of media work flows.

EIDR Members & Supporters

Promoters



Contributors & Supporters



EIDR is supported by a cross-industry coalition of leaders in the digital entertainment supply chain

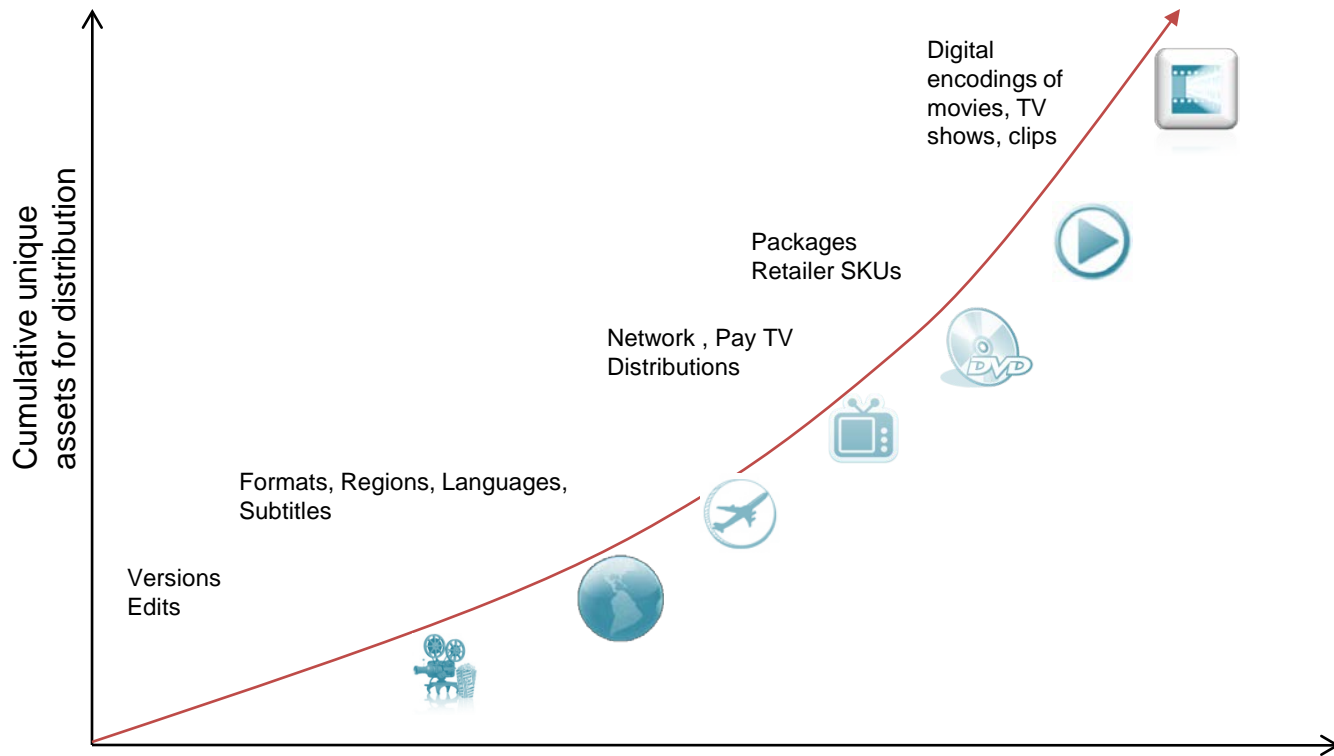
Volume of Records – Steady Expansion

Record type	Sep-11	Mar-12	12-Sep
Movies	50967	53,626	57,201
Series	7617	9,021	9,424
Seasons	7844	9,879	11,762
Episodes	105961	134,815	153,419
One-Time TV	11059	15,857	17,695
Shorts/Web	776	1,145	1,333
<i>Edits, Encodings & Clips</i>	1403	5,870	18,678
Totals	185627	230,213	269,512

Edits & encodings are created in commercially deployed supply chain & distribution workflows.

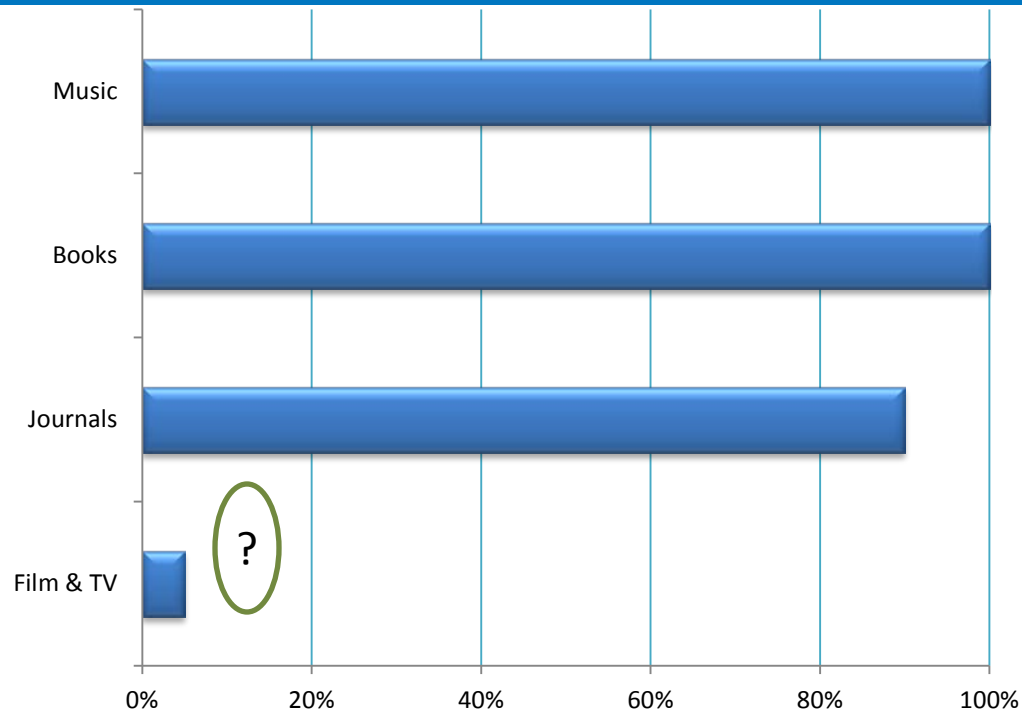
The Need for a Global Unique Identifier Registry

Millions of film and TV products created each year



Digital technology, new formats and player devices have caused the number of unique products for a movie or TV production to explode

Only a fraction are globally uniquely identified



Movie/TV industry has very low adoption of digital product ID

An Ideal ID Registry for the Supply Chain



Coverage: Ability to generate unique identifiers for all types of digital AV content



Scalability: Ability to handle very large volumes of registrations and lookups at production level SLAs



Flexibility: Support wide variety of objects, hierarchies & relationships between objects



Extensibility: Can be readily extended to accommodate new types of assets in future



Cost-effectiveness: Must make economic sense for large volumes



Value-added Services: Must support the ability of vendors to offer value-added services & applications



Interoperability: Must be able to interoperate with other registries & ID's



Accessibility: Open search and query access without restrictions. All applications have equal access. Network accessible.

Real-World Benefits of the Entertainment ID Registry (EIDR)

Benefits - what EIDR helps you do



Cut matching & other manual processing costs

- Matches content & metadata quickly and efficiently
- Allows automated B2B delivery of avails, metadata, & content
- Reduces manual processing of ingested content
- Eliminates costly translation between proprietary ID systems
- Improves back office billing & fulfillment in online retail & VOD



Increase revenue opportunities

- Speeds time to digital sales
- Avoids missed window starts
- Reduces sales tracking error rate
- Enables automated micro-transactions



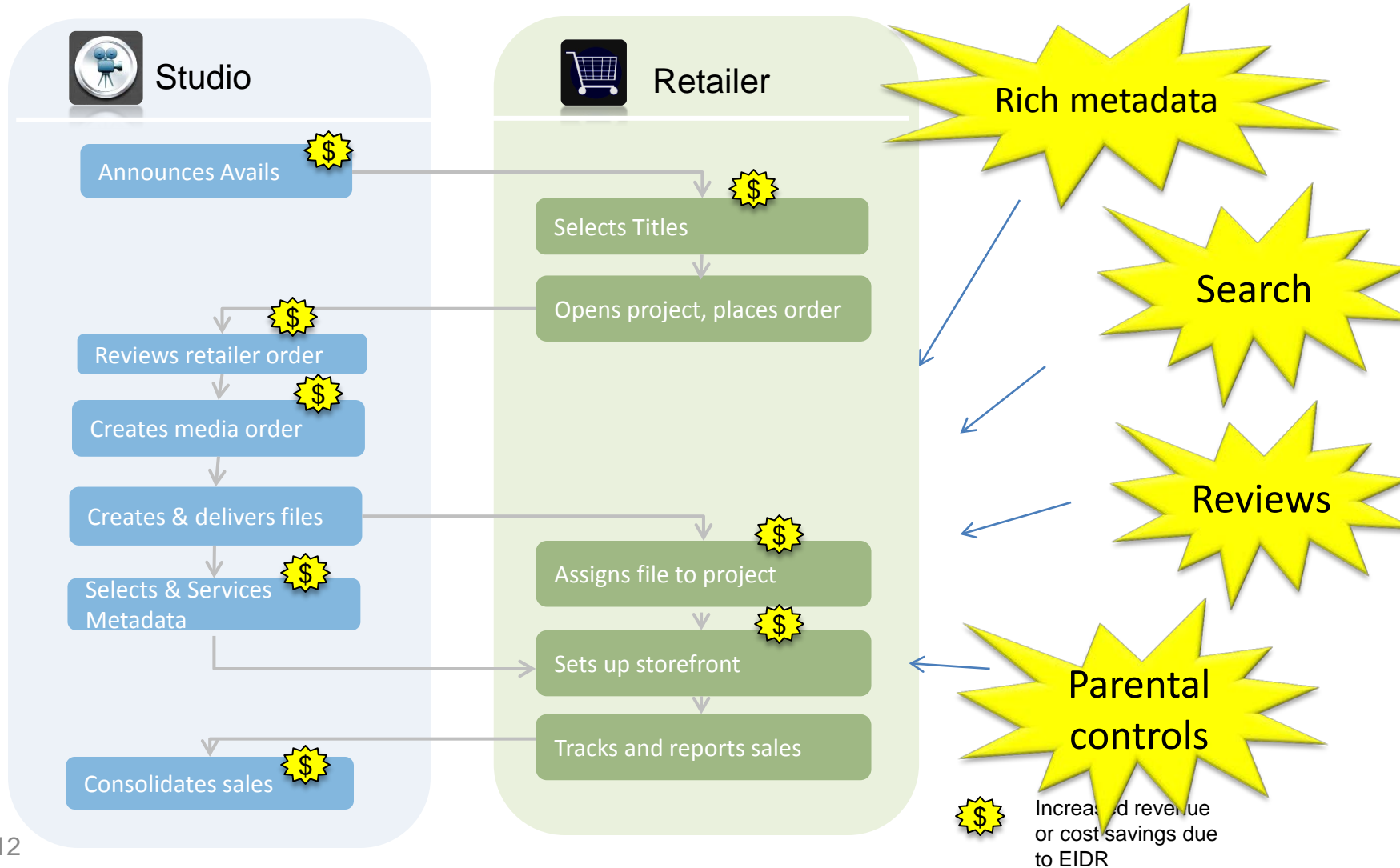
Deliver services – multi-platform coordination

- Connects consumer services to product ID's
- Allows multiple vendors to coordinate product-triggered services
- Simplifies multi-platform interoperability & services
- Facilitates new consumption metrics & tracking

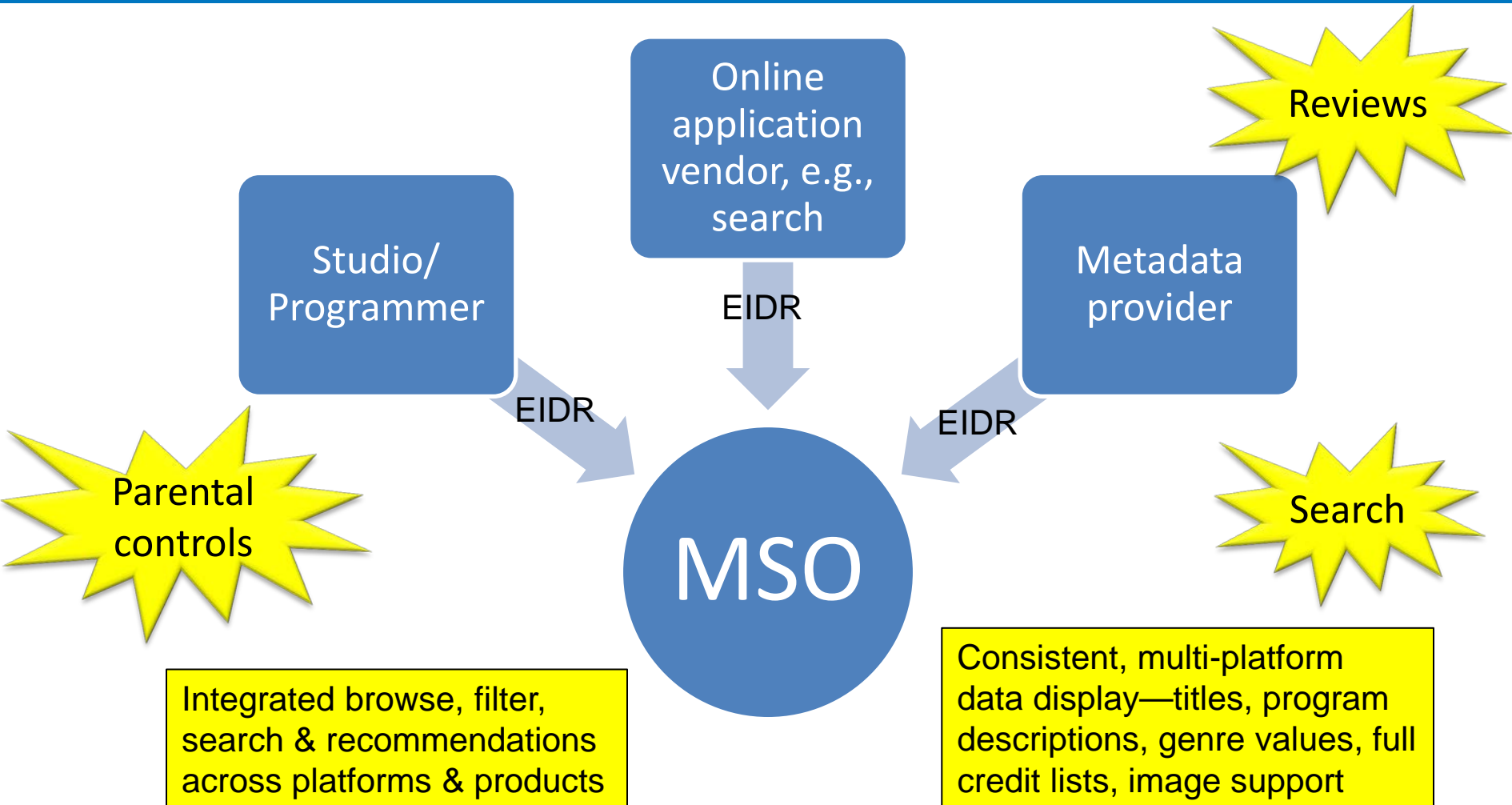
Completed Pilot & Deployment Projects

Description	Participants	Status
API integration	Disney, Warner Bros, NBCU, HBO, Baseline	Done
UltraViolet registrations – titles & edits	Sony, NBCU, WB, Fox, Neustar	Done
Monthly seeding process for new movies/TV	Rovi	Done
Test of VOD asset tracking end-to-end	Comcast, NBCU, iNDEMAND	Done
Workflow integration – online retail	WB/MSFT	Done
EIDR in metadata feeds to customers	Rovi, Baseline	
Addition of alternate ID's to existing records	Disney, WB, Sony, Baseline Research, Internet Video Archive	Done
Ad & program tracking pilot	ABC	Done
National TV archive pilot	BUFVC	Done

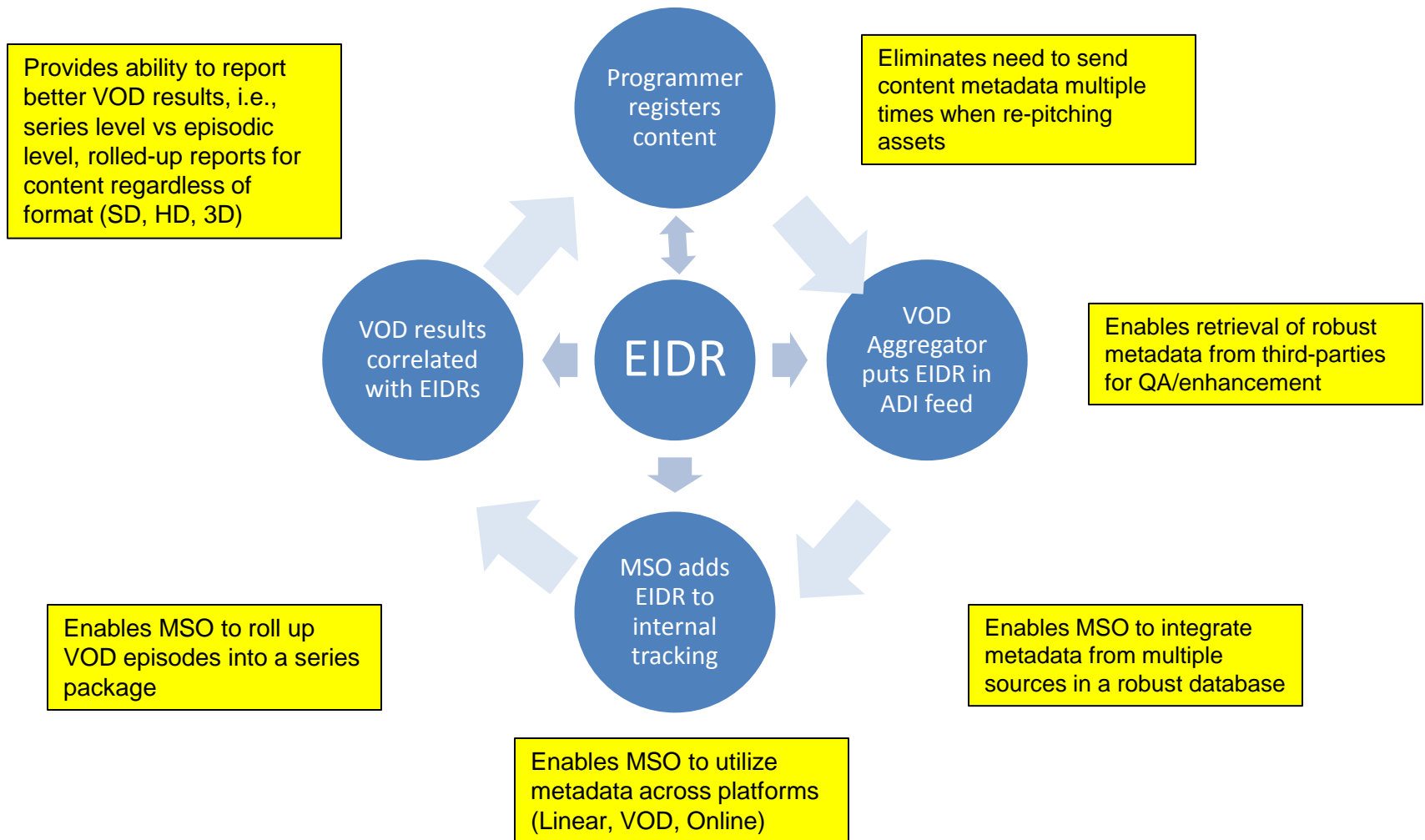
Online Retail Distribution – Deployment Project



Linear/VOD/Online Metadata Linkage – Deployment Project



VOD Distribution & Tracking – Deployment Project



In-Progress Deployment Projects

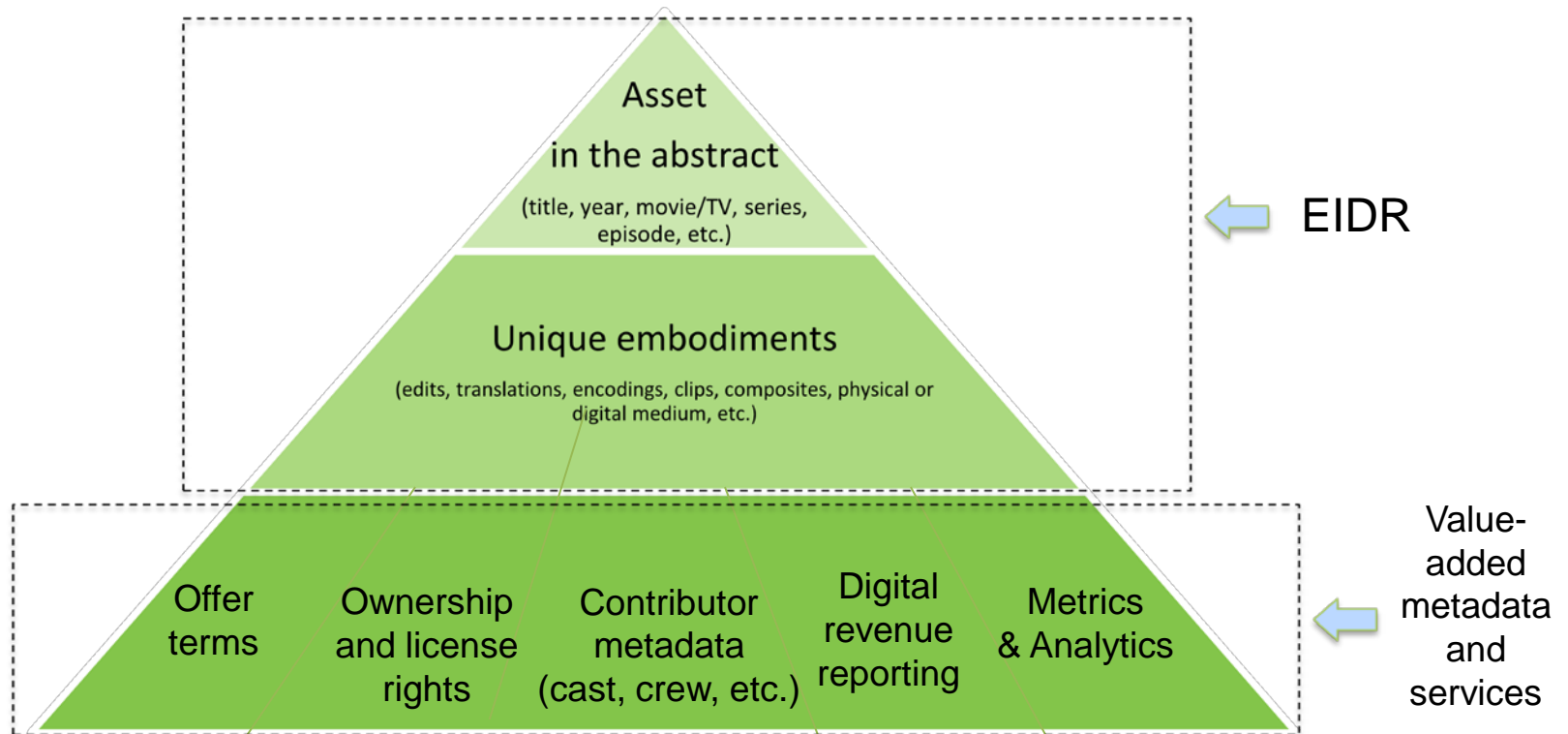
Description	Participants	Status
API integration	Shaw, Sony, Fox, BUFVC,	Ongoing
Workflow integration - UltraViolet	Sony, NBCU, WB, Fox, Paramount, Neustar, +	Ongoing
Workflow integration – full VOD	Comcast, NBCU, iNDEMAND, Rentrak	Ongoing
VOD link to linear metadata	Comcast, Rovi	Ongoing
Matching of internal records to EIDR IDs	Disney, WB, NBCU, Sony, Fox, Rovi, HBO, Shaw, Baseline Research, Rentrak, IVA, BUFVC	Ongoing
Supplemental seeding of movie records	WB/Flixster, Baseline Research	Ongoing
Ratings requests & title tracking	MPAA	Ongoing
Theatrical reporting	Rentrak, NBCU	Ongoing
Registration of news & dailies	BUFVC	Ongoing

Technical Structure

Basic Technical Approach

- Centralized registry to guarantee uniqueness
- Opaque ID's
- Strong focus on metadata required for unique identification
- Metadata fields granular enough to distinguish products down to clips, composites, & encodings
- Robust hierarchies and relationships flexible enough to cover known and unknown variations
- Extensible to meet new industry requirements
- Scalable, automated operations for efficient supply chain
- SDK & other tools available
- Interoperable with standards & specs from EBU, CEN, Ad-ID, ISRC, ISAN, DDEX, Ultraviolet, EMA, CL, ML, etc.

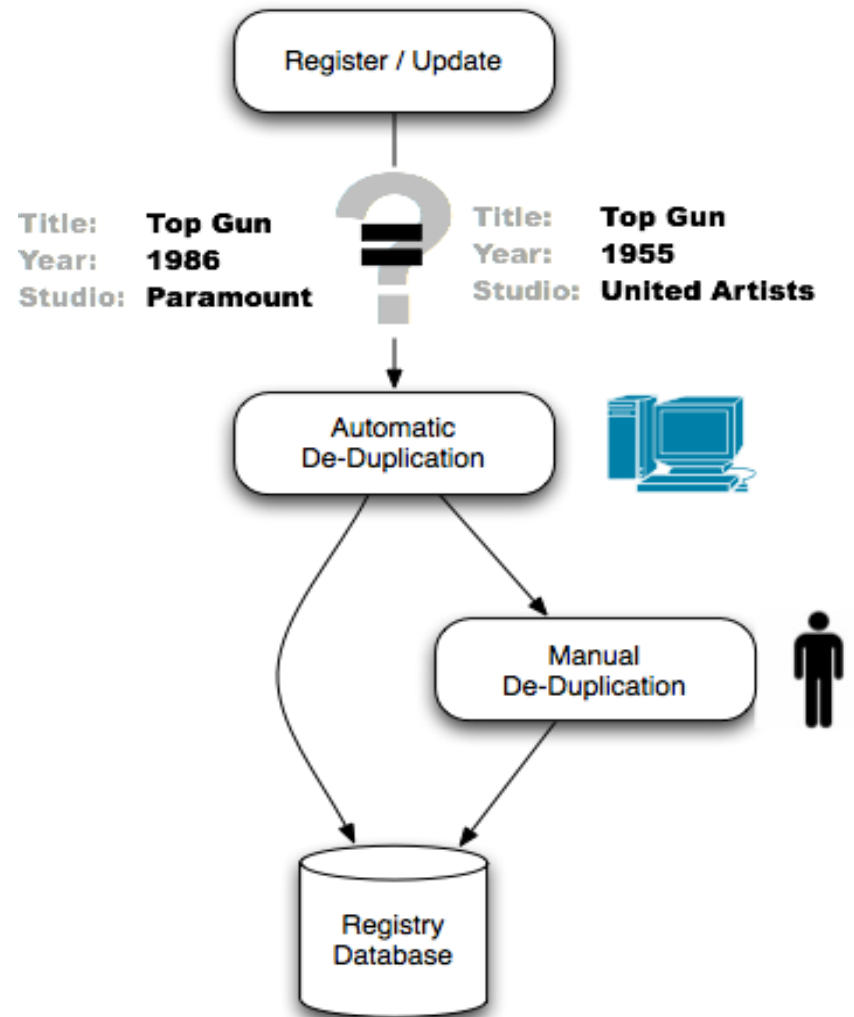
EIDR – Enabling Scalable Content Services



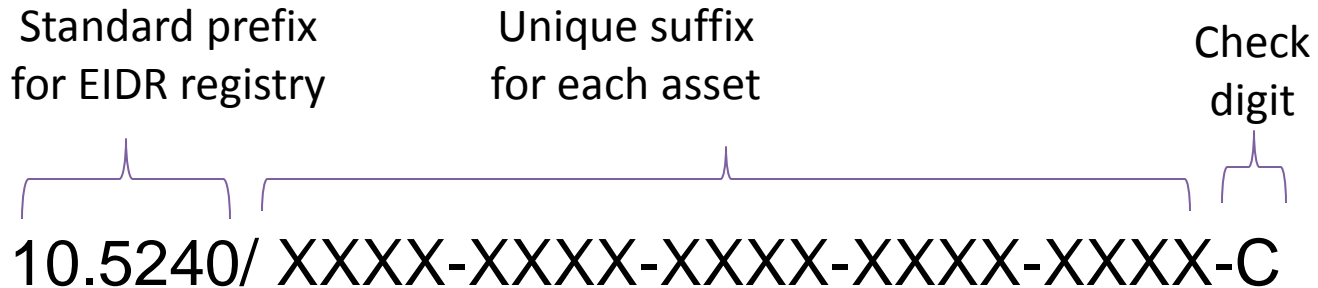
EIDR provides a common link for an unlimited number of value-added services.

Uniqueness & De-Duplication

- Goal: Ensure that each work has exactly one ID
- Match records: Confidence level generated based on available metadata
- Low confidence matches require manual de-duplication
- Registrants can request immediate pass/fail
- EIDR matching tool available for pre-processing



Opaque Unique Identifier

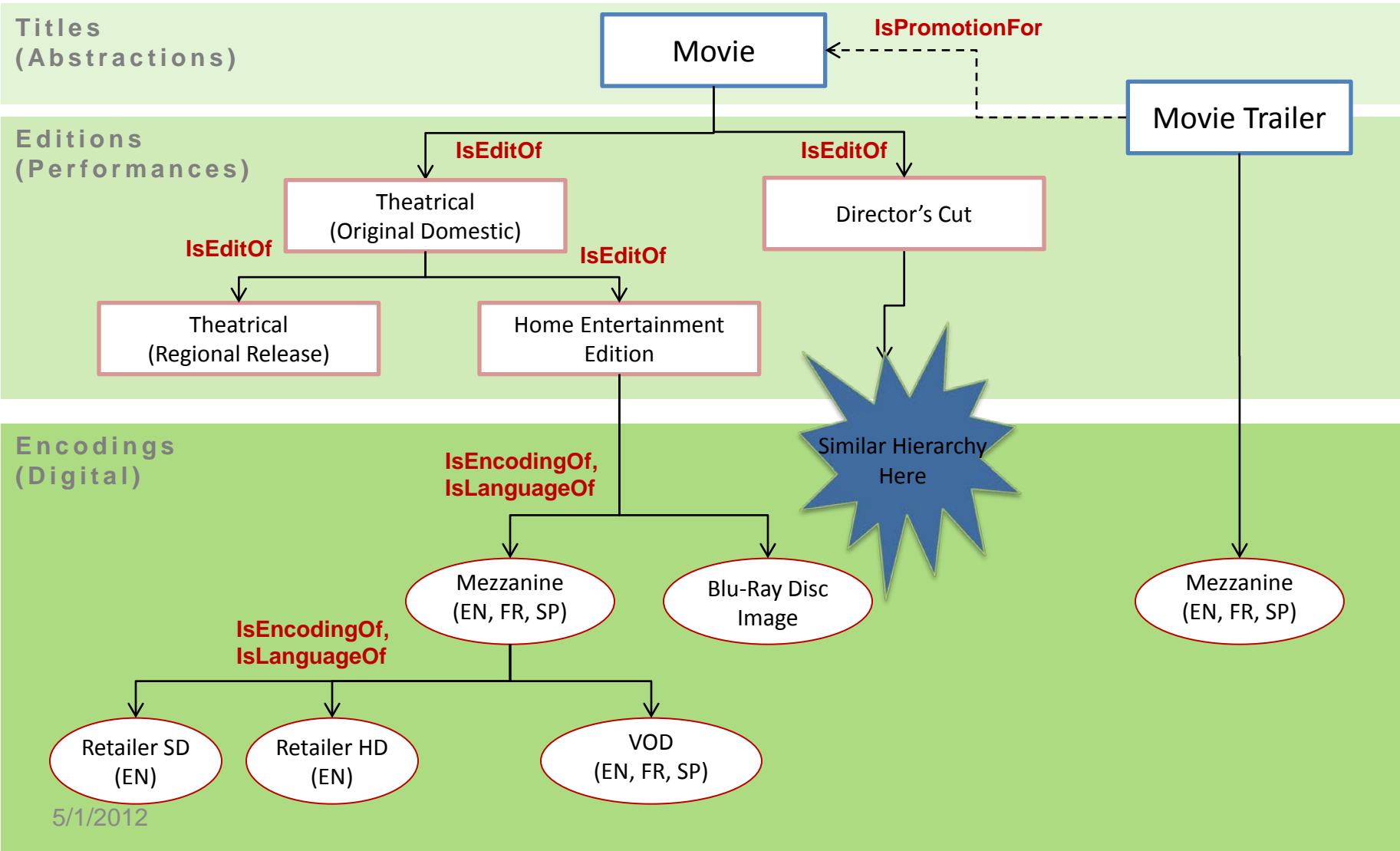


- Format
 - Prefix identifies the EIDR registry within the DOI and handle systems
 - Suffix is 20 hexadecimal digits and a Base 36 check digit
- Opaque numbers are assigned directly by the registry
 - Purely functional without any implication of ownership
 - Remain the same regardless of asset or registrant ownership
 - Focus on functional metadata for uniqueness
 - Central database contains all required data
 - No need to predict key data to reference in number structure
 - Supports persistent nature of the ID

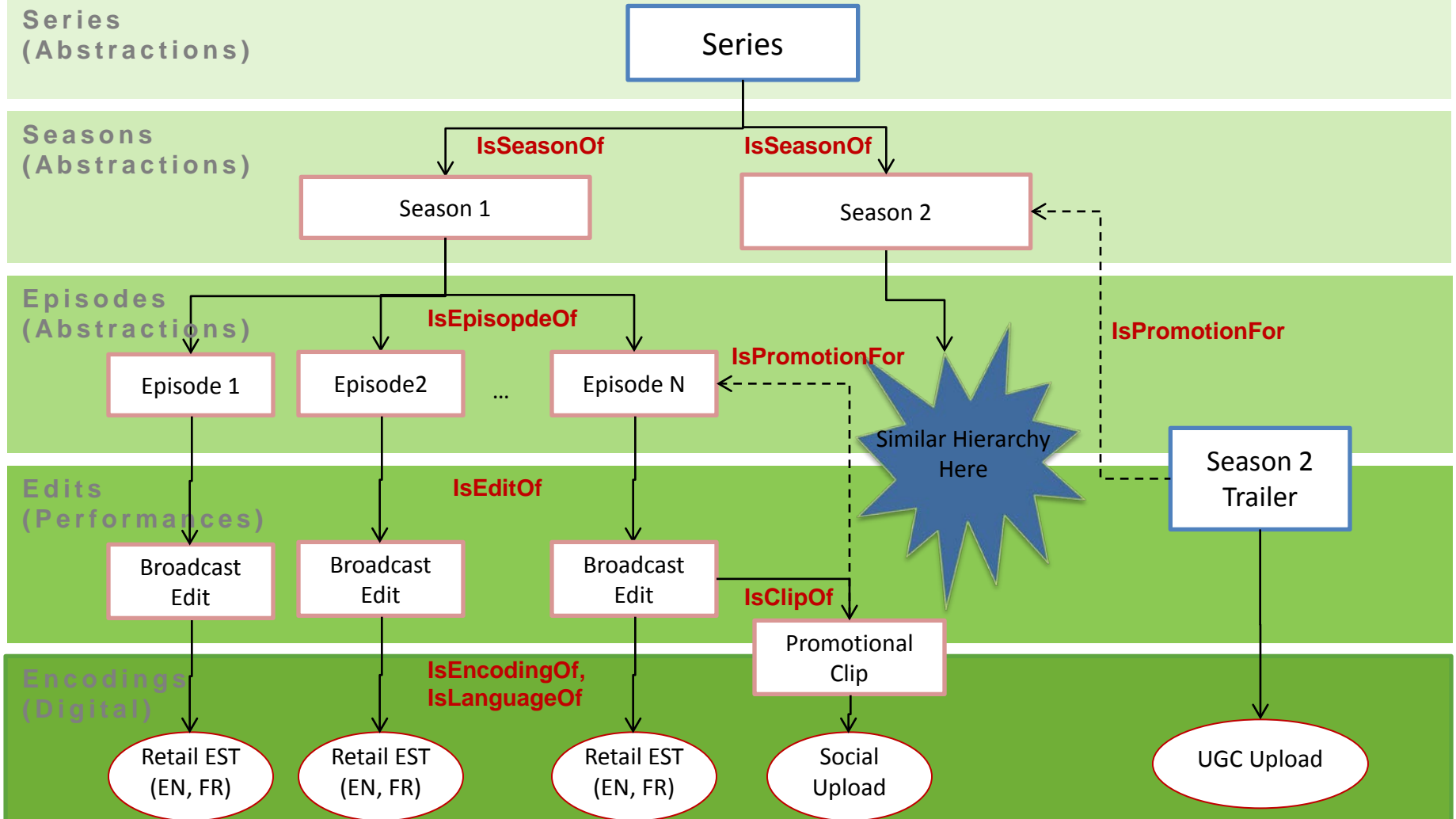
SLA & Mirroring

- The EIDR Registry designed for 99.9% uptime for registrations
 - Better uptime for resolutions through the DOI and Handle System infrastructure
- More robust SLA would increase costs and fees
- Members free to maintain full copies as needed
 - Higher uptime for business-critical needs
 - Regular EIDR updates
 - Mirroring using registry codebase tbd
- Only EIDR will register new records
 - Unified database
 - One trusted source of DOI's
 - No duplicates

Example EIDR Movie Hierarchy



Example EIDR Episodic Hierarchy



Business Model

Basic Business Approach

- Built on open DOI standard and developed by CNRI from existing open-source components to keep costs down
- Run as an industry non-profit to provide a permanent and persistent B2B service
- Cost-effective for large-scale use with clips and other micro products
- Designed for ubiquitous adoption with no restrictions on use or database mirroring
- Not competitive with existing metadata services
- IP-neutral with minimal descriptive metadata
- Continuous seeding with title-level movie/TV records from Rovi, Baseline Research, studios, and other members

Independent Non-Profit Registration Agency

- Built and run by the industry
- Supported by annual member dues
 - Tiered dues based on size
 - Membership open to large and small ecosystem players
- Board of directors chosen from among promoter members
 - 9-member board with ability to expand as needed
 - CableLabs, Comcast, Deluxe, Disney, MovieLabs, Neustar, Rovi, Sony Pictures, Warner Bros
- Commitments in by-laws to cost-recovery model, open terms of use, and IP non-assert
- Participants control new features and technical development through Technical Working Group



The WALT DISNEY Studios



CableLabs®



neustar



Straightforward Annual Fee Structure

Annual Revenue	Basic User Fee	Promoter Fee (includes Basic User Fee)
< \$100M	\$ 5,000	\$ 35,000
\$100M - \$500M	\$ 10,000	
\$500M - \$1B	\$ 20,000	
>\$1B	\$ 25,000	

Fees will be set annually by the EIDR Board of Directors on a cost-recovery basis.

Outsourced Development and Operations

- EIDR outsources all functions to keep costs down
- Corporation for National Research Initiatives (CNRI) creates registry software
 - Partners with IDF & ITU on the handle system that links all DOI registries
 - Experience building other registries such as CrossRef
 - Off-the-shelf code available under open source
- On-going server operations contracted to Rovi under service agreement
 - Runs other high-availability metadata services
 - Employs de-duplication tools to ensure uniqueness of registrations
 - Handles ongoing support and network maintenance
- Registrants may mirror the registry as needed for operations

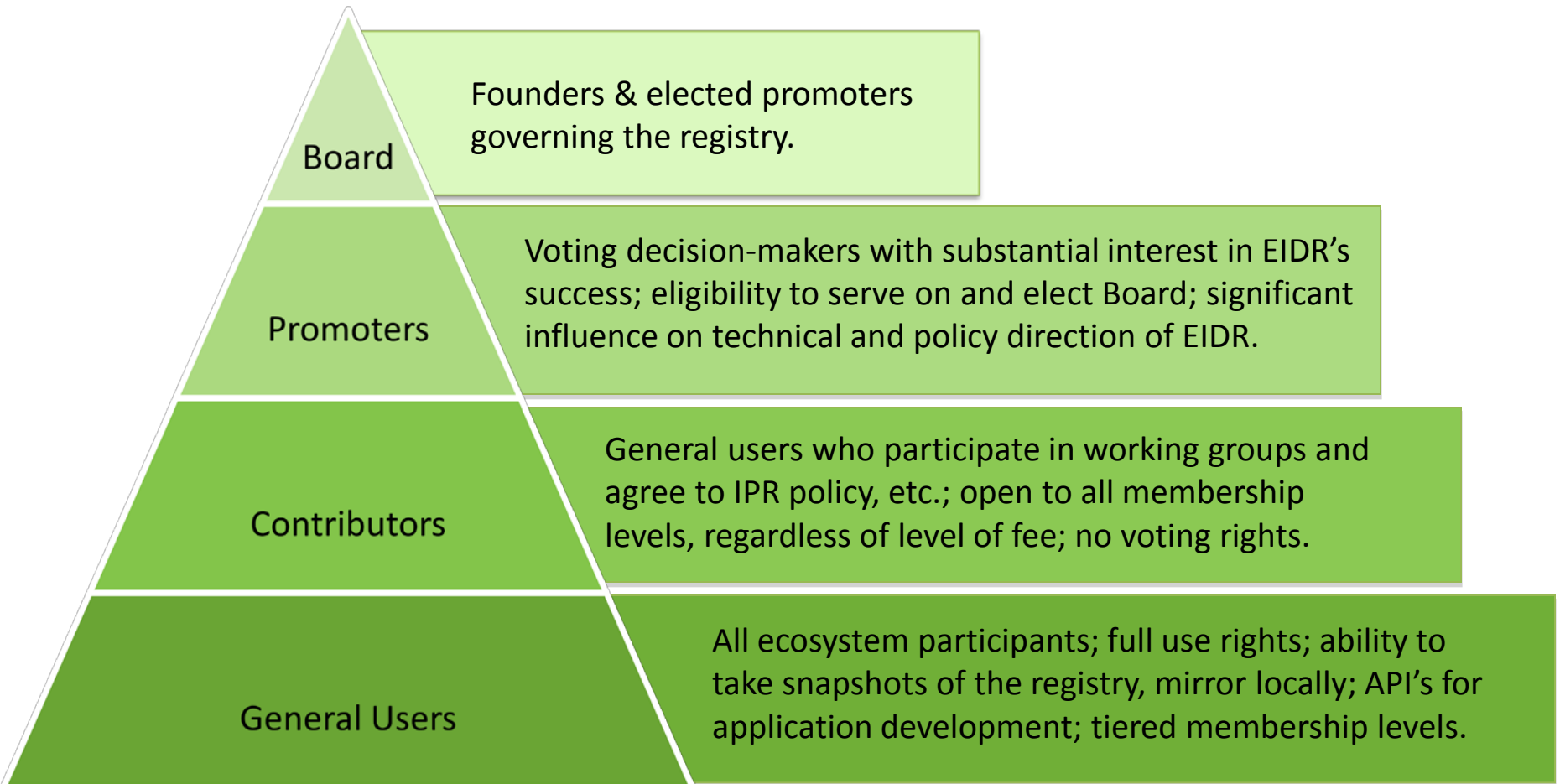
EIDR pre-seeding with title-level movie/TV records

IP and Data Ownership

- Functional, opaque ID has no implication of ownership
- IP rights remain with data and asset owners
 - Registry has non-exclusive license to data
- Low IP risk due to narrow EIDR focus
 - Commodity namespace data with low IP value
 - Minimal descriptive metadata
 - No intent to compete with metadata owners or suppliers
 - Built on open-source IP from mid-1990s
- EIDR specification is published freely
- Members provide reciprocal patent non-assert
 - Protects use and operation of the EIDR Registry
 - Applies to the actual as-built Registry run by EIDR
 - Standard defensive suspension clause

How You Can Participate

Registry Participation Opportunities



What industry leaders can do today

- Be an innovator and lead the industry
- Connect your database & deliver EIDR-capable services today
- Help EIDR optimize for your use cases
- Take a seat at the table to define data hierarchies and best practices
- Prepare for customer requirements and ensure your supply chain is ready

EIDR is deployed and ready.

Back Up

Required Fields for EIDR Registration - Movie

- Referent Type
 - Movie, TV, Series, Season, Short, Web, Composite, Interactive, Supplemental
- Title
- Title Language
 - 2 Character Language Code
- Primary Language
 - 2 Character Language Code
- Language Manifestation
 - Audio, Subtitle
- Structural Type
 - Abstraction, Performance, Digital, Physical
- Publication Status
 - Valid, In development
- Release Date
 - YYYY (/MM/DD)
- Mode
 - Visual, Audiovisual, Audio, Other
- Approximate Length
 - HH [:MM(:SS)]
- Country of Origin
 - 2 Character Country Code
- Principal Agent
 - Type name, select
- Principal Agent Role
 - Producer, Distributor

Optional Fields for EIDR Registration - Movie

Important Optional Fields for EIDR De-duplication

- Director
 - Text Field
- Actor
 - Text Field
- Actor (secondary)
 - Text Field
- Alternate Title
 - Text Field
- Alternate ID
 - Ex. IMDb, ISAN, Proprietary IDs

Simple membership categories

- Users - includes all members
- Contributors – users who want to join working groups and agree to the IPR policy, AT policy, etc.
- Promoters – users who want to be decision-makers and pay a higher fee plus agree to the IPR policy, AT policy, etc.

General Users

- Target
 - All ecosystem participants who need to look up or register records
 - No representatives to work groups
- Requirements
 - Pay the Basic User Fee based on size of company
 - Agree to a click-to-accept Terms of Use agreement only
 - For registration credentials, meet criteria set by EIDR for trusted data sources
 - No additional fees unless registrations exceed limits for each fee tier:
 - \$5K membership = 50K registrations
 - \$10K membership = 250K registrations
 - \$20K membership = 500K registrations
 - \$25K membership = 1M registrations
- Benefits
 - Unrestricted search, query, and traversals through UI or API's
 - Ability to take snapshots of the registry, mirror locally, etc.
 - Access to API's for application development

Contributors

- Target
 - General users who want to participate in working groups and have their voices heard
 - Open to all membership levels, regardless of level of fee
- Requirements
 - Sign a full Participation Agreement and agree to the IPR Policy, AT Policy, etc.
- Additional benefits
 - Membership in Technical Working Group
 - Opportunity to participate in other EIDR working groups
 - Technical input into feature roadmap, use case priorities, technical development, and registry
 - Policy input on data quality, registrant criteria, SLA's, access control, confidentiality, terms and conditions, and other matters

Promoters

- Target
 - Leading companies with significant interest in EIDR's success and the ability and resources to promote adoption
- Requirements
 - Pay the Promoter Fee (includes the Basic User Fee)
 - Sign a full Participation Agreement and agree to the IPR Policy, AT Policy, etc.
 - Approval by the Board
- Additional benefits
 - Voting decision-maker on Technical Working Group
 - Eligibility to serve on the EIDR Board of Directors
 - Ability to vote in board elections for Industry Promoter Directors
 - Significant influence on technical and policy direction of EIDR