Ad-iD™

Smooth Asset Workflows, Bigfoot, and UFOs

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We all have a nagging feeling all three could exist. Many would like to believe they could be real. All we need is some proof. Hard evidence. Something that could tangibly demonstrate that their existence is at least possible.

We're not sure about the latter two, but for smooth asset workflows, we think the evidence is piling up.

To begin, let's talk about what is meant by "smooth asset workflows". In order to be smooth, the implication is the removal of manual steps. Reduced duplication of effort, with its two main characteristics – extra cost, and increased errors – is a must. In order to have a real claim of the entire asset workflow being smooth, these improvements must be found at all steps along the way. This begins at the beginning of asset creation, whether it be for commercial advertising or program content. It then follows the media asset (and its metadata) all the way through its lifecycle, right to its distribution to consumers.

Notice the use of the word "distribution" in the previous paragraph. This was not an accident. While traditional broadcasting is the core area where many are trying to ensure smooth asset workflows, distribution to other platforms must not be ignored. This includes distribution via internet, over the top, mobile, digital out of home, and other non-traditional methods. And, lest you think these apply only to program material, we must consider Advanced Advertising, whereby advertising may be inserted (and targeted) on places such as the headend, set top box, receiving device, or other points close to the viewer. Often implied in conjunction with this is a level of interactivity and addressability, which of course, requires improved workflows to operate efficiently enough to be cost-effective.

So, it's clear that the world is changing. Smooth asset workflows are not only nice to have, they're absolutely necessary when working in today's evolving media market. The good news is that a toolkit already exists, with new tools on the horizon, to help out in making these workflows as efficient (both in terms of man-hours as well as pure dollars) as possible.

Asset Identification

In many ways, this has been considered the linchpin of the entire smooth asset workflow area for years. The problem is that there have been many solutions proposed and offered, but most of those didn't really deliver what was promised. The other problem that has existed has been that engineering communities have been the only ones who have recognized the need for unique asset identification and description, for operational efficiencies, this is changing.

CIMM/TAXI

In May 2011, as part of its Cross-Platform Measurement Initiative, The Coalition for Innovative Media Measurement (CIMM), whose members include Television content providers, Media Agencies and Advertisers with a goal to promote innovation in audience measurement for Television and cross-platform media in partnership with the Interactive Advertising Bureau (IAB), the American Association of Advertising Agencies (4A's) and the Association of National Advertisers (ANA), released the results of a Feasibility Study called "Track-Able Asset Cross-platform Identification" (TAXI). Ernst & Young was hired to interview different constituencies in the Media and Entertainment industry to determine if it's feasible to adopt standardized guaranteed unique digital asset coding that links to descriptive information, which would allow systems to track assets throughout the media ecosystem.

Findings from the study show that it is both feasible and desirable, and that the industry is ready for a common open standard approach to asset identification. This Study articulated six key attributes that constituents stated must be considered: Simple, Interoperable, Inextricably Bound, Extensible, Open and Global, and cost effective.

These findings are good for the entire ecosystem, and continues what is a growing trend (the entire study report is available at http://cimm-us.org/cimm_taxi.htm).

Two Asset Identification Standards

Recently, a two-pronged approach seems to have emerged as the right way to solve this. Advertising assets are identified by Advertising Digital Identification (Ad-ID), a joint venture of the American Association of Advertising Agencies and Association of National Advertisers , and programming assets are identified by Entertainment Identifier Registry (EIDR), an industry ID registry sponsored by the movie industry, the cable industry, metadata providers, and a coalition of other content service providers.

Ad-ID

If you can't identify it, you can't operationalize or measure it; if you can't measure it you can't monetize it. Identity is a key enabler for operational orchestration and measurement as well as management.

Currently, from the time an advertiser gives approval to create an ad, to the time that the ad actually airs and is invoiced to the agency, that information is rekeyed up to 20 times. As we all know, that is a huge duplication of effort—and the result is human error and increased costs. Last year, our supply chain spent over $80 million on rekeying data alone.

Ad-ID is a Web-based system that generates a unique identifying code for each advertising asset. At its core is basic descriptive" Slate' information—Advertiser Name, Product Name, Commercial Title, that are being shared today, just in a non standardized manne., Cconsider how many different ways Procter & Gamble might be identified in your systems.

Ad-ID has worked closely with SMPTE to be properly included in documents, registries, and standards document., Iin fact, Ad-ID is defined by Registered Disclosure Document (RDD-17), and in addition has an entry the RP-210 registry as of version 12.
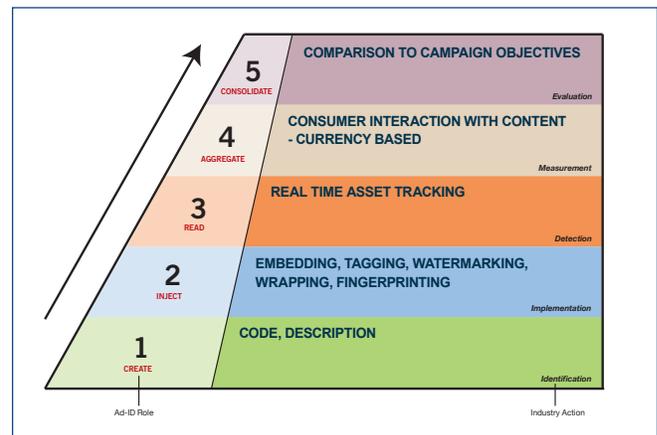
The Association of National Advertisers has a 10 point Marketers' Constitution: Item 5 on that constitution is: "The marketing supply chain must become more efficient and productive".

The constitution (http://www.ana.net/constitution/show) goes on to detail this objective as follows:

Efficiency is different than effectiveness - but just as important. Marketing efficiency enables us to shorten the

supply chain, reduce waste and improve productivity. a fundamental key to supply chain efficiency is to make everything digital. Ad-ID is the foundation of digital work-flow throughout the marketing process. Fully embraced by the marketing industry, it will improve the accuracy of reporting and evaluation of advertising assets, affording process improvements and cost savings for everyone.

What the Marketer's constitution is saying is that Supply Chain Excellence is when you do what you do best, without duplicating what I've done, and everyone has participated in industry best practices, and made way for the other members of the supply chain to focus on what they do best.

As broadcasters and vendors, there is always a fear that by identifying faults in your customer's processes, your share of the budget will be reduced. By advocating the use of Ad-ID for ads throughout the supply chain, we are suggesting that a little work early in the process could make everybody's life a whole lot easier, embracing standardization without inhibiting creativity can improve marketing accountability, generate operational efficiencies, reduce human error, and to bring value to the Advertiser.

More than 700 of the over 1,800 national advertisers, including 30 of the top 50 now use Ad-ID.

Ad-ID possesses all of the six key attributes that CIMM articulated in its TAXI study, and has worked closely with engineering communities to be properly defined.

Entertainment ID Registry (EIDR)

Smooth automated workflows require standardized identifiers for content and ads. The industry finally has an identifier designed with just such an automated workflow in mind. The Entertainment ID Registry is a B2B identifier for professional audio-visual content that has been designed out of the gate to meet the requirements of automated workflows and supply chains.

As an industry-run, non-profit ID registry, it was built as collaboration among content creators, distributors, and processors. It has an existing service and data model created to facilitate digital distribution, and it is governed by industry representatives with the ability to keep the service up to date and responsive to evolving industry requirements. It is already being integrated into IT infra-structures at leading studios, cable distributors, metadata vendors, post-production houses, and digital retailers.

Targeted & simple – EIDR does not attempt to aggregate all categories of metadata, but instead focuses on the threshold metadata required for unique identification of commercial content. The goal is to identify content once in a simple way that can be repurposed in many different content workflows.

Content coverage – The registry allows identification of all types of audio-visual content entering commercial distribution. Coverage includes title-level content, differ-ent versions of those titles, and products and encodings that embody the content. It extends from full-length feature films to episodic television to shorts and clips.

Flexible & extensible – EIDR is governed by industry representatives with the ability to update its technical capabilities to keep up with commercial needs. The data model can be extended to cover new categories of con-tent entering digital distribution.

Automated & scalable – The system is designed to be automated to the maximum extent, with APIs for automated registration and look-up and software-based tools for avoiding duplicate registrations. The data model and reg-istry are scalable, with a similar DOI-based system (Cross-Ref) already holding more than 40M scholarly articles.

Open and unrestricted – EIDR is a part of the Digital Object Identifier (DOI) family of registries, an ISO-ap-proved standard. EIDR is supported by member dues and is open to all industry participants, including globally. Broad use of the ID's is encouraged, without commercial use restrictions.

Interoperable – All DOI-based registries are designed with interoperability in mind, and EIDR has built in alternate ID functionality to serve as a cross-referencing mechanism for any number of existing ID's.

Inexpensive – EIDR is a non-profit supported by annual member dues, with the costs of operating the registry divided among the industry participants. The board also consists of industry participants with an interest in keep-ing costs down. Dues are based on size of participant, and there are no per-number registration or usage fees.
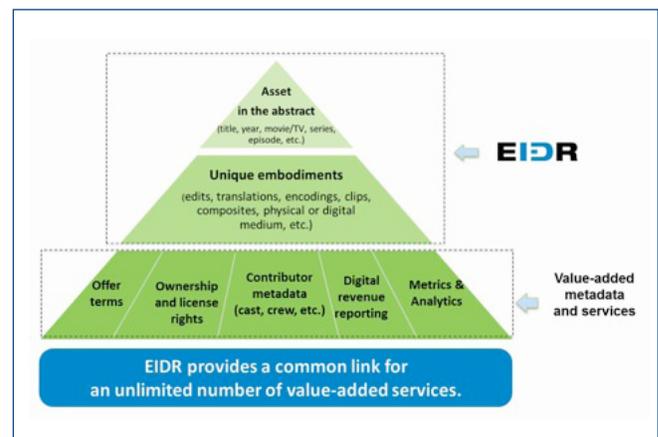
A system with these capabilities designed and man-aged by the industry, can deliver the cost savings and efficiencies long anticipated for a standardized identifier.

It can provide a crucial linkage between incompatible data sources and systems, improve internal and external content tracking, cut error rates, and allow content licensors and licensees to avoid missed window starts caused by manual processing. It can streamline VOD ingestion, enable new research and consumption metrics, and enable multi-platform collaboration among content providers, distributors developing interactive and delivery applications for smart phones, tablets, PC's connected TV's and other media consumption devices.

With the support of a broad coalition of companies and industry organizations in the movie industry, cable industry, distribution, post-production and processing, metadata industry, and other content-related service industries, EIDR brings the industry something it has needed for a long time—the first truly viable content ID solution for enabling smooth asset workflows.

What about Workflows?

Identifying the content is key, as outlined above, but there's more to it. Assets need to be managed in such a way that efficiency is maintained right down the line. This is where a few more tools exist to help out. The whole topic of "file based workflows" has been covered in great detail in other papers, so we won't delve into that on its own in detail. Suffice it to say that old nonlinear workflows do not translate well (or efficiently) to today's file-based world.

Broadcast eXchange Format (BXF)BXF, or SMPTE 2021 as it's formally known, provides a few key tools that aid in workflow automation which is key to everything we're talking about here. It can streamline the exchange of playlists, as run information, content metadata, and content movement instructions. None of this functions at optimal levels without unique asset identification. BXF includes a very flexible Content ID structure that allows content to be identified using Ad-ID, EIDR, or any number of other schemes. With BXF and such identification methods in place, workflows can be automated to a high degree, and made to run smoothly, at maximum efficiency.

What about MXF? AMWA's AS12

Advertisers, Agencies, Production / Post Production Vendors and broadcasters, all see the need to Increase Speed and Efficiency in the production process, Enable multi platform campaigns, and reduce cost. Last year's Devoncroft Big Broadcast Survey asked a sample of more than 5,600 broadcast professionals about the most important trends in the broadcast industry. The study concluded that the one of the top trends most crucial to commercial success in the broadcast industry is the shift to file-based workflows, second only to Multi Platform content delivery.

As a reminder, File-based workflows can be defined as the process of moving digital files through stages from production to airplay with integration to business systems without tape or significant human intervention. The files contain all of the components required; the audio / video content, and data which can include format (HD, SD, 3D), aspect ratio, closed captions, or other descriptive information (in the case of advertising, the Ad-ID slate data).

Today, about 70-85% cable network commercials are digitally delivered. However most of the internal workflows are only partially automated. Most still require conversion and significant amounts of human intervention. A lower percentage of the national network commercials are digitally delivered.

Ad-ID, and the Advanced Media workflow Association, have efforts underway that enable, accelerate, and support File based advertising workflows, which not only will streamline operations, but reduce overall cost.

One key pain point in current advertising workflows that AS-12 is targeted to address is the mismatch that occurs between transactional business workflow, the purchase and scheduling of slots, and the media workflow that produces the playable content of the ad.

AS-12 aims to reduce the risk of mismatch at reconciliation between the two workflows by embedding identification information with the content. Both workflows should use a consistent identification scheme, such as Ad-ID, throughout. The same identifier should travel down through both workflows, ideally with a common system of record acting as the authoritative source for all associated metadata. As such, the specification should include a description of a process of validation of metadata within a file against the global system of record.

Finally, it should be pointed out that AS-12 is simply a variant of AS-03, optimized for commercials. You may recall that AS-03 was created, and is in use today as an application specification of MXF specifically targeted at the delivery of finished programming from program producers and program distributors to broadcast stations.

Framework for Interoperable Media Services (FIMS)

When workflow is discussed today, FIMS often is mentioned. This is a joint initiative of the EBU (European Broadcasting Union) and the AMWA (Advanced Media Workflow Association). What FIMS provides is a framework around which Service Oriented Architecture (SOA) may be used to interconnect media systems. It helps to abstract common media functions up to a higher level, making service-level interoperability simpler. For example, the concept of media ingest could be defined as a service, with the

"ugly" details of how an ingest is done being left up to the vendors and systems providing that service. Other systems requesting the ingest of a piece of material don't have to worry about that. They simply request that ingest be performed on a particular piece of content.
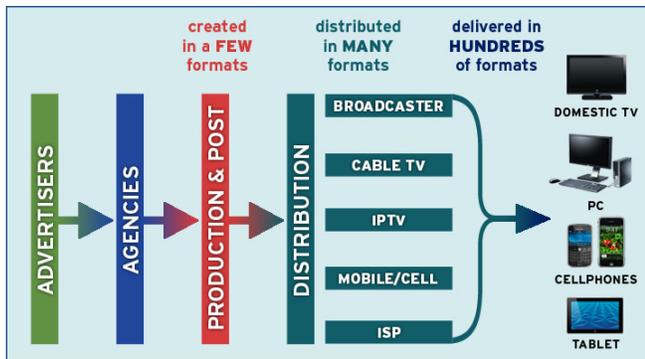
This takes today's highly complex and tightly coupled interfaces, which can be difficult to maintain (and even tougher to update or replace), and replaces them with services which loosely couple related media systems.

FIMS is key to enabling the "Smooth" part of Smooth Asset Workflows.

How do different methods of distribution affect this?

On the surface, distributing content to consumers on different platforms wouldn't seem to affect workflows in the professional space. However, when you dig a little deeper, significant differences emerge. Dealing with different resolutions, target screen sizes, frame rates, and metadata requirements all come into play.

Targeted content

Sending the same piece of content out to millions of people is tough enough. When you try to target advertising or programming content to subsets of your viewership, things get even tougher. If you haven't done the right work earlier in the workflow to enable this, it can be impossible. With these extra requirements, it's paramount that your upstream workflows be as smooth and efficient as you can make them.

Emerging targeted or dynamic advertising platforms enable operators to deliver individual targeted ads to unique customer in real time.

SCTE 130 Framework:
The SCTE-130 standards define interfaces between logical components necessary to support targeted or dynamic

advertising. These interfaces felicitate and automate the workflow between Campaign Management, Rights Management, Content Management, Subscriber Management and Ad Insertion system. The performance of these interfaces and systems are critical in order to make real time targeted ad placement decisions for individual customer's request. Dependent on each implementation the systems need to support hundreds or thousands simultaneous request.

Conclusion

In proving the existence of Bigfoot and UFOs, we're not quite there yet. However, it's no longer the case that Smooth Asset Workflows should be considered a mythical entity. Why haven't they emerged as a reality until now? There is a whole host of reasons, but most likely, the main one is that we existed just fine without them until now. With the media industry undergoing a metamorphosis from traditional distribution to a hybrid of traditional and non-traditional methods of getting content to consumers, inefficiencies of old methods are exposed, and there really isn't a choice left – the workflows must be improved. There's no single "magic bullet" to enabling Smooth Asset Workflows. It's only through the use of a toolset which addresses the weaknesses in traditional workflows that a solution can be found. Fortunately for us, such tools have emerged, and continue to be developed, making it realistic to believe that Smooth Asset Workflows are real, and here today to help you adapt to the new world of media distribution.

Now about those strange footprints in the mud, and those lights in the sky…

About the Authors

Harold S. Geller brings more than 25 experience to his roles as Senior Vice President, Cross Industry Workflow, American Association of Advertising Agencies (4A's) and Managing Director, Ad-ID LLC, a joint venture of the 4A's and the Association of National Advertisers (ANA). A member of the Boards of the Advanced Media Workflow Association (AMWA), and the Picture Licensing Universal System Coalition (PLUS), Harold is frequently called upon to speak and write about asset identification, digital workflow and metadata in advertising and media.

Chris Lennon has worked in the broadcasting industry for over 30 years, and currently serves as Engineering Director for SMPTE. He was awarded the SMPTE Citation in 2008 and achieved the rank of Fellow within SMPTE in 2009. He is employed by Harris Corporation, where he leads the CTO Council for the Broadcast Communications Division. In his spare time, he races Porsches, and is a high performance driving instructor.