

JOINT TASK FORCE ON FILE FORMATS AND MEDIA INTEROPERABILITY

User Requirements Survey Report



As of July 10, 2014

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EXECUTIVE SUMMARY:

There were one hundred and thirty-two (132) respondents to the Joint Task Force on File Formats and Media Interoperability survey. More than fifty (50) percent of the respondents were from the user space. More than seventy (70) percent of the respondents were from the broadcast space. The user stories (function) are related to metadata while the business values are related to cost and transcoding. Also of concern were the issues of Formats, Content Delivery, Standards, Cost, Transcoding, Workflow, Specification, Packaging and Quality.

The user stories were not edited or interpreted in any way to preserve the accuracy of the data for future groups who may wish to analyze it for their specific purpose.

A Pivot Table summarizing the data gathered is included in this report. The data will also be available in Microsoft Excel format on our Basecamp site.

Some user stories were concise; some were not. Twenty categories were created to enable categorization of the user stories. Eighteen user stories did not fit any category.

The results of this survey compare very favorably and affirm the data gathered by the North American Broadcasters Association (NABA) survey of June 2013.

HISTORY AND BACKGROUND:

The Joint Task Force on File Formats and Media Interoperability (JTFFFMI) was recently launched by its sponsors: NABA, Advanced Media Workflow Association (AMWA), Society of Motion Picture and Television Engineers (SMPTE), International Association of Broadcast Manufacturers (IABM), American Association of Advertising Agencies (4A's), and Association of National Advertisers (ANA). The European Broadcasting Union (EBU) is participating as an observer.

The JTFFFMI has an ultimate goal to create greater efficiencies and cost savings for exchange of file-based content. The group's initial focus will be to gather and analyze requirements for a machine-generated and readable file interchange and delivery specification — including standardized and common structured metadata — for the professional media industry. To achieve this, one of its initial actions is the publication of a survey to collect data on user requirements.

The NABA Technical Committee File Transfer and Watermarking Sub-Committee urges you to participate in the survey.

“We believe that, by improving the specification and exchange of professional media between organizations, we can enable new and more efficient file-based workflows,” said Clyde Smith, Senior VP of New Technology, Fox Networks and a member of the NABA Technical Committee that initiated the creation of the group.

METHODOLOGY:

A webpage on Google Docs was created to collect the data from the survey. NABA, Advanced Media Workflow Association (AMWA), Society of Motion Picture and Television Engineers (SMPTE), International Association of Broadcast Manufacturers (IABM), American Association of Advertising Agencies (4A's), and Association of National Advertisers (ANA) all invited their business contacts, colleagues, members and customers to participate in the survey.

At NAB 2014, cards were distributed to the attendees with the URL of the survey site. On May 30, 2014 the survey was closed.

Each respondent was required to supply their role or function such as user, design engineer, product designer, or facility owner. The survey also required a function, what the respondent wanted to do and a business value. User stories were not accepted without a business value. Notes were optional.

Users were not required to provide their last name, first name, company and email addresses. Even when this information is provided it will be deleted from the report.

In an effort to reduce human misinterpretation, the survey data was copied into a Microsoft Excel spreadsheet where the original data was categorized based on response keywords. The actual data was grouped by keyword and presented in "buckets" for human review. The "buckets" are Cost, Persistent Metadata, Metadata, Standard, Interoperability, Quality, Codec, 4K (*UHDTV*), Automation, Packaging, Transcoding, Timecode, Wrapper, Frame Rate, Workflow, Specification, Deliver, VOD, Archive, and Format. The data was not changed to reflect technical correctness therefore, the "4K" category was not changed to "UHDTV" to reflect technical correctness.

The data was sorted by the groupings of engineering, management, sales support and user. "Buckets" were created by grouping the respondents by company class. The classes were Ad agencies, broadcasters, content consumers, content creators, educational content creators, standard bodies, telephone companies, the U.S. Government, and vendors.

The data could then be sorted and analyzed horizontally and vertically. It is possible to easily see the number of users from a given space

and compare them to other spaces and still see the total numbers vertically and horizontally.

The data presented in this report, at the request of respondents, does not contain names, email addresses, and business affiliation of the responders to the survey.

DATA:

Who responded to the JTFFFMI survey?

There were one hundred and thirty-two (132) responses to the survey from Ad agencies, broadcasters, content consumers, content creators, standards bodies, telephone companies, the U.S. Government and vendors.

The data was sorted by groupings of engineering, management, sales support and user and as mentioned above, Ad agencies, broadcasters, content consumers, content creators, standards bodies, telephone companies, the U.S. Government and vendors. Figures 1 through 3 show who responded to the user survey.

The totals are summarized as follows:

- Two (2) responded from Ad agencies.
- Ninety-four (94) broadcasters responded.
- Three (3) content consumers responded.
- Six (6) content creators responded.
- Two (2) education content creators responded.
- Five (5) respondents were associated with standards bodies.
- Four (4) respondents work for telephone companies.
- One (1) responded from the U.S. Government.
- Fifteen (15) responded from vendors.
- Twenty-one (21) respondents work in the engineering field.
- Thirty-eight (38) respondents were from management.
- Six (6) respondents worked in sales support.
- Sixty-seven (67) respondents were users.

Figure 3 shows that approximately seventy-two (72) percent of the respondents were from the broadcast space. Figure 4 shows that fifty (50) percent of all respondents were users. Figure 4 shows that twenty-nine (29) percent of respondents were from management and sixteen (16) percent of respondents were from engineering.

What did the Respondents to the JTFFFMI survey say?

The respondents to the survey were most concerned about metadata. See Pivot Table 1. Forty-four (44) user stories were related to “Metadata.” Thirty-six (36) stories address issues of “Formats.” Thirty-one (31) user stories addressed issues of “Content Delivery.” Twenty-seven (27) user stories addressed issues of “Standards.” Twenty-two (22) user stories addressed issues of “Cost” and “Transcoding.” Seventeen (17) user stories were related to “Workflow.” Thirteen (13) user stories addressed “Specification.” Ten (10) user stories were related to “Packaging” and “Quality.” Nine (9) user stories were related to “Automation” and “Interoperability.” Eight (8) user stories were related to “Archive.” Seven (7) user stories were related to “Wrapper(s)” and “Codec.” Six (6) user stories were related to “VOD” and “Frame Rate.” Five (5) user stories were related to “Timecode.” Two (2) user stories were related to “Persistent Metadata.” One (1) user story was related to “4K.”

The sum total of these numbers will equal more than 132 or 100 percent due to cross-mapping of data based on the role and industry segment of the respondents.

Who responded to the User survey Chart 1?

	Engineering	Management	Sales Support	User	Grand Total
Ad Agency	0	1	0	1	2
Broadcaster	17	25	0	52	94
Content Consumer	0	0	0	3	3
Content Creator	1	4	0	1	6
Content Creator - Education	1	0	0	1	2
Standards Body	1	1	0	3	5
Telco	1	2	0	1	4
US Government	0	0	0	1	1
Vendor	0	5	6	4	15
Grand Total	21	38	6	67	132

Figure 1 – Table of who responded?

Who responded to the User survey Chart 2?

User Survey Results

Group	Percentage
Ad Agencies =	1.52%
Broadcasters =	71.21%
Content Consumers =	2.27%
Content Creators =	4.55%
Content Creator - Education =	1.52%
Standards Body groups =	3.79%
Telco companies =	3.03%
US Government - Library owner =	0.76%
Vendors =	11.36%

Figure 2 – Industry segment percentages

Who responded to the User survey Chart 3?

User Survey Results	
Summary:	* Percentages
Total User stories =	50.76%
Broadcast users =	39.39%
Total Management =	28.79%
Broadcast Management =	18.94%
Total Engineering =	15.91%
Broadcast Engineers =	12.88%
Content Creators =	3.79%
Content Consumers =	2.27%
Standard bodies user =	2.27%
Telephone Company User =	0.76%
U.S. Government user =	0.76%
* Groups percentages overlap	

Figure 3 - User type percentages

Pivot Table of Survey Results:

Company Type	Role Type	Sum of 4K	Sum of Persistent Metadata	Sum of Timecode	Sum of Frame Rate	Sum of VOD	Sum of Codec	Sum of Wrapper	Sum of Archive	Sum of Interoperability	Sum of Automation	Sum of Quality	Sum of Packaging	Sum of Specification	Sum of Workflow	Sum of Cost	Sum of Transcoding	Sum of Standard	Sum of Deliver	Sum of Format	Sum of Metadata	Sum of Sum Total	
Ad Agency	Management	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	User	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	3
Ad Agency Total		0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1	4
Broadcaster	Engineering	0	0	2	0	0	2	2	0	3	0	1	0	3	2	3	3	2	7	4	4	38	
	Management	0	0	1	1	5	1	2	0	1	7	1	7	5	3	4	5	5	7	7	3	65	
	User	0	0	2	4	0	4	2	4	3	0	2	1	2	9	7	7	10	5	12	22	96	
Broadcaster Total		0	0	5	5	5	7	6	4	7	7	4	8	10	14	14	15	17	19	23	29	199	
Content Consumer	User	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	1	5	
Content Consumer Total		0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	1	5	
Content Creator	Engineering	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	4	
	Management	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	2	2	1	2	11	
	User	1	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	1	7	
Content Creator Total		1	0	0	1	0	0	0	2	1	0	2	0	1	0	1	1	2	3	3	4	22	
Content Creator - Education	Engineering	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
	User	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	
Content Creator - Education Total		0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	3	
Standards Body	Engineering	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1	5	
	Management	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	
	User	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	
Standards Body Total		0	1	0	0	1	0	0	0	0	1	1	1	0	0	1	0	0	1	1	2	10	
Telco	Engineering	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	5	
	Management	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	2	0	6	
	User	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	
Telco Total		0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	4	1	1	3	1	14	
US Government - Library owner	User	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
US Government - Library owner Total		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
Vendor	Management	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	2	0	2	0	0	8	
	Sales Support	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	4	3	2	2	14	
	User	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	2	3	12	
Vendor Total		0	0	0	0	0	0	0	0	1	0	0	0	2	2	5	2	7	6	4	5	34	
Grand Total		1	2	5	6	6	7	7	8	9	9	10	10	13	17	22	22	27	31	36	44	292	

Pivot Table 1

RAW DATA:

Company Type	As a [ROLE]	Role Type	I want to [FUNCTION]	So that [BUSINESS VALUE]
Standards Body	Traffic Manager	User	be able to assign an ID that then appears in metadata when a program is delivered	so that I can ensure that the program I ordered is the one that was delivered
Ad Agency	Creative Director	Management	Be sure that the commercials I produce are seen by the correct consumer, in the best quality possible, on the correct channel, and inside of appropriate programming,	So the clients will make more money, sell more product, and spend more on advertising.
Content Creator - Education	moving image archivist	User	easily share high quality digital files made from historical media (film and video) with scholars, researchers and producers who have a wide range of capabilities for previewing and receiving such files; as well, I wish to preserve and store these files through time so that future generations may also have access to the highest quality files possible (files need to be robust, searchable, easy to access, and capable of carrying metadata)	current and future generations will have access to our shared cultural and historical past.
Content Creator	Cinematographer	User	Create, store, transmit, edit, color grade and archive images at the maximum quality and resolution that my camera system will allow (e.g., typically at least full 4K, not just UHD-1, and wide color gamut), at whatever frame rates are used (typically at least 60 fps but without practical limit) -- with lossless compression only (not ProRes or DnXHD subsampled, not H.264 or H.265), with all lens and camera metadata maintained along with color grading choices	The captured image (digital negative) is preserved in its original form (but not necessarily its original/RAW format) without loss of fidelity, with maximum flexibility for use in post production, including integration with CG, while allowing both on-set and post production choices (e.g., in color grading, shot selection, edit lists, and other metadata) to accompany the original digital negative, so that maximum usage options and potential target delivery/display formats are maintained over time.
Broadcaster	MANAGER	Management	Automate VOD content creation	We don't use so many resources creating VOD assets
Telco	Managementoperational processes	Management	When transcoding files, I want to easily "re-wrap" a file instead of transcoding it when the video and audio essence is similar in both the source and destination format.	So that when a file can be "re-wrapped" instead of fully transcoded, there is no loss of quality and the process much quicker.
Telco	Managementoperational processes	Management	When transcoding a source file with closed captioning, I want to be able to save the closed-captioning as separate files in multiple formats along the transcoded video file.	So that we can automate processes and do in a single pass using one software, what needs to be done in multiple steps using multiple softwares,
Broadcaster	broadcaster and content distributor	Management	operate with a standard codec that allows my station and other broadcasters to create, test, distribute and accept television programs as files, that will be delivered to broadcasters exact specifications without requiring expensive proprietary hardware or software	even small market broadcasters that cannot easily afford a proprietary transcoder can utilize or modify existing equipment to create files that will be accepted error-free by other broadcasters.

Broadcaster	Technical Production Leadership	Management	As a Post Exec I receive files from Post vendors. I need to QC and add fixes in an Avid, ProTools, or Adobe environment and then write out a J2K mezzanine file, add audio, closed captioning, and M&E before delivering to broadband and broadcast.	Maintaining a JK2 mezzanine essence inside an AS02 or OP1a file throughout my post workflow will maximize quality for distribution.
Broadcaster	As a Media Production and Distribution Business	Management	I want to describe the contents of a media data package unambiguously.	So that systems can, in a reliable and consistent fashion, make the right media, verify that media data is correct and store media data in a structured repository.
Broadcaster	Engineering manager	Engineering	automatically format a file for the delivery target	so that the files are ready for air or for the specific edit platform etc.
Broadcaster	Engineering Director	Engineering	insure that timecode matches - i.e. - container, ANC etc	that the file play out is controlled properly and so that timecode based CC insertion methods provide correct results.
Broadcaster	Engineering	Engineering	Automate work flow processes	improve speed to market and reduce redundant processes
Broadcaster	video on-demand file delivery operator	User	deliver one file readable by all cable head ends with the ability to have all ads dynamically inserted	save money by not having to re-encode and re-transcode the same assets multiple times
Broadcaster	Engineering Manager	Engineering	have more MXF diagnostic tools to investigate file-based issues	We do not have to depend on the Vendor to investigate file or metadata problems
Broadcaster	Asst. Director Production Workflow Applications	User	Control media and devices over layer 3, routable, networks in a plug and play fashion, using interoperable and extensible APIs.	Reduced development time, automatic route around network fail points, extensible interoperability, and make media a first class citizen, changing the paradigm from controlling devices to controlling media.
Broadcaster	Asst. Director Production Workflow Applications	User	Centralize media workflow services and components, with fault tolerance and load balancing. At no time should work on the network core prevent access to the centralized media workflow services.	Reduced development time, maintain operation during network failure.
Broadcaster	Asst. Director Production Workflow Applications	User	Identify media essence streams at the point of ingest and maintain that identity to the viewer.	Allows for the development of a new class of applications that can identify and assemble media stream at the consumer end.
Broadcaster	Asst. Director Production Workflow Applications	User	Store, represent, and transmit media as a bundle of separate, but related, streams. The individual essence and metadata streams and portions thereof can be selected at the time of presentation by the viewer. Support for Composition Lists.	Allows media to be stored in composite bundles. The viewing application can determine which essence and metadata streams to receive, including the quality/format of the essence. Reduces bandwidth, as unneeded data is not transmitted, allows for a complete work to be stored as a logical whole.

Broadcaster	Asst. Director Production Workflow Applications	Management	Define best practices for IP based network design and architecture. Defining methods for the segregation of essence from control traffic. Defining QoS strategy recommendations, including the specification of IP traffic demarcation via the DSCP IP header field for traffic identification.	Reduce congestion related issues and help guide proper network architecture and transfer protocol design.
Broadcaster	Engineeringing	User	Standardized TimeCode Based PFR for both archived and non-archived media assets	reduces the need for third party development and system
Broadcaster	Engineeringing	User	Full Interoperability of file/media between NLE systems and OS platforms	Reduces the requirement for transcoding, rewrapping, and duplication of assets.
Broadcaster	Engineeringing	User	adaptable bitrate of file assets from acquisition, edit, broadcast play-out, digital distribution, etc	reduces the requirement for transcoding, rewrapping, and duplication of assets.
Broadcaster	Engineeringing	Engineering	Codec Portability	Many Players will not play media without the necessary codec. The codec should be portable with the media file.
Content Creator	Management of Operation	Management	I would like to see standard file formats and metadata that are interoperable with all equipment. I want to have the ability to easily send, receive, playback and edit content, without needing multiple pieces of different equipment to get these tasks accomplished. I would like to be able to use one general file in which I can include captions, various audio tracks and configurations (e.g. IMF format) for sending content around the world, without having to create multiple transcodes of one source file for distribution.	This will allow cost and time savings in production and equipment, and it will allow for easier management of media, and distribution of content
Broadcaster	Director of Post Production	User	I want to see standardized file formats so that editors, artists, and technicians can spend more time creating and sharing content and less time trouble shooting file extensions and format compatibility.	This would increase productivity and cut costs for technical support.
Broadcaster	Operations	User	Adaptive bit rate cradel to grave	Reduce costs
Broadcaster	SVP Post Production & Business Operations	User	I want to have the ability to receive multiple file formats for video and audio and standardized metadata through the cloud so my department at Fox can reduce costs for transcoding.	The business value will be created if we can bring programming related content (dailies, raw footage, masters, etc) quicker and in larger quantities to be ingested in our MAM for browsing and Partial Restoring to then be edited in any editing systems for distribution to the broadcast channels or for digital media platforms.
Broadcaster	Media Engineering	Management	As a user I would like a standard xml profile that is used for File delivery QC, as well as a standard XML for the results of the QC.	This standard profile would be applied to any QC tool/product and the expected results would not differ from on product to another
Broadcaster	Media Engineeringing	Management	As a user I would like to be able to move file to/from different systems and these systems to have standard offset counting - algorithm to insure timecode accuracy and consistency. This is particularly important for PFR and MAM interoperability.	The business value is to save time, money and risk of errors.

Broadcaster	producer / user / Management of file-based content	User	Acquire media at the maximum frame rate and bitrate practical in camera, but which can be 'unpacked' and transported / edited / played back at any standard (or non-standard) frame rate / bit rate combination of my choosing. Think of Adaptive Bitrate streaming, this would be media that contains both proxy and high res and any intermediate.	I can save time and money by being able to shoot once, and re-purpose many times at frame rates and bit rates applicable to my circumstances / geography / end product.
Broadcaster	producer / user / Management of file-based content	User	Acquire media at the maximum frame rate and bitrate practical in camera, but which can be 'unpacked' and transported / edited / played back at any standard (or non-standard) frame rate / bit rate combination of my choosing. Think of Adaptive Bitrate streaming, this would be media that contains both proxy and high res and any intermediate.	I can save time and money by being able to shoot once, and re-purpose many times at frame rates and bit rates applicable to my circumstances / geography / end product.
Broadcaster	producer / user / Management of file-based content	User	Acquire media at the maximum frame rate and bitrate practical in camera, but which can be 'unpacked' and transported / edited / played back at any standard (or non-standard) frame rate / bit rate combination of my choosing. Think of Adaptive Bitrate streaming, this would be media that contains both proxy and high res and any intermediate.	I can save time and money by being able to shoot once, and re-purpose many times at frame rates and bit rates applicable to my circumstances / geography / end product.
Broadcaster	producer / user / Management of file-based content	User	Be able to use standardized common language and terms when referring to media formats, metadata fields and workflow processes.	There is greater clarity, efficiency, confidence and gain when communicating with my team, with my colleagues, with producers and director, with camera folks in the field, with vendors of asset management systems , with in-house Engineerings, with manufacturers of cameras or editing systems, with codec designers, etc.
Broadcaster	producer / user / Management of file-based content	User	Be able to use standardized common language and terms when referring to media formats, metadata fields and workflow processes.	There is greater clarity, efficiency, confidence and gain when communicating with my team, with my colleagues, with producers and director, with camera folks in the field, with vendors of asset management systems , with in-house Engineerings, with manufacturers of cameras or editing systems, with codec designers, etc.
Broadcaster	producer / user / Management of file-based content	User	Be able to use standardized common language and terms when referring to media formats, metadata fields and workflow processes.	There is greater clarity, efficiency, confidence and gain when communicating with my team, with my colleagues, with producers and director, with camera folks in the field, with vendors of asset management systems , with in-house Engineerings, with manufacturers of cameras or editing systems, with codec designers, etc.
Broadcaster	producer / user / Management of file-based content	User	Use file based media which houses its own database. This database would carry the files genealogy, list of locations stored, list of processes within the workflow and where it currently is in it's anticipated life cycle. I need the ability to manipulate (add or correct or change) clip metadata, whilst keeping a history of metadata changes with the asset.	I can avoid time wastage and / or losing valuable assets when clips have been tagged incorrectly

Broadcaster	producer / user / Management of file-based content	User	be able to specify links or dependencies directly between different pieces of media. For example, a relationship between a talent shot and their separate lower third graphic file, or a relationship between all footage from all cameras at a particular event.	I don't lose clips which belong with other clips, or so that I can tackle more complex organizing, searching and editorial tasks without using specialized software such as an NLE or DAM.
Broadcaster	producer / user / Management of file-based content	User	be able to specify links or dependencies directly between different pieces of media. For example, a relationship between a talent shot and their separate lower third graphic file, or a relationship between all footage from all cameras at a particular event.	I don't lose clips which belong with other clips, or so that I can tackle more complex organizing, searching and editorial tasks without using specialized software such as an NLE or DAM.
Broadcaster	producer / user / Management of file-based content	User	be able to specify links or dependencies directly between different pieces of media. For example, a relationship between a talent shot and their separate lower third graphic file, or a relationship between all footage from all cameras at a particular event.	I don't lose clips which belong with other clips, or so that I can tackle more complex organizing, searching and editorial tasks without using specialized software such as an NLE or DAM.
Broadcaster	producer / user / Management of file-based content	User	be able to log /auto-log material using a relational database (perhaps in conjunction with a clips "popularity" i.e. how many times was it logged, viewed, or retrieved from archive)	I can reduce the burden of data entry over time and build a growing intelligence into my metadata library (for example; when I search for a specific player – not only does the search return the clips which literally match in terms of name or metadata – but also clips of the players home town, the players film appearances, the players endorsements, etc.)
Broadcaster	producer / user / Management of file-based content	User	utilize media objects that are able to dynamically detect and communicate their location and status in the workflow. This "full-duplex metadata" would be live and (possibly using its own communication channel), providing real time status and feedback; "I am here now", "I am ready for process 'X'", "here are my possibilities", etc.	Processes and assets can be much more tightly monitored and aggressively automated, thus yielding cost savings in labor currently required to manually receive and send files.
Broadcaster	producer / user / Management of file-based content	User	Have robust metadata that I can apply (and thus keep with) any media files at any point in their life cycle	I can work more quickly and efficiently by never losing important logging data or other valuable camera metadata when I (i) transcode (ii) conform from high res media (iii) move from one manufacturer's system to another (iv) restore or partially restore from archive.
Broadcaster	producer / user / Management of file-based content	User	be able to extract, homogenize, exchange and aggregate metadata between various MAM and DAM systems from different manufacturers	I can save time and money by being able to more easily move my facility from vendor platform to vendor platform, and so that I can more accurately aggregate data about various parts of my operation into a single powerful data set – that I can use to drive future business direction / decisions

Broadcaster	producer / user / Management of file-based content	User	Be able to acquire much greater sets of metadata with media (i.e. GPS, Color Temp, Focal Length, number of other cameras present, relative positions of other cameras present, speed of objects in the frame, information from external biometric sensors, etc.).	: I can innovate in terms of real time data display and analysis, plus save time and money by being able to re-purpose shoot material via stitching, color match footage by actual color temp, composit using actual on-set distances.
Broadcaster	producer / user / Management of file-based content	User	Create media, which when shared via social media sites / mechanisms, can report back into a central database showing where and when that media was shared and by whom.	I can save time and money (and beat my competitors) by being able to create and distribute media more accurately at my target communities.
Broadcaster	producer / user / Management of file-based content	User	Create media, which when shared via social media sites / mechanisms, can report back into a central database showing where and when that media was shared and by whom.	I can save time and money (and beat my competitors) by being able to create and distribute media more accurately at my target communities.
Broadcaster	producer / user / Management of file-based content	User	Have access to tools that allow me to extract any portion of a video file and save the extracted portion thereof as a new piece of media (that carries forward the pertinent metadata from the original file). For example, instead of having to download an entire 3 hour sports game, I want to clip off and download just a short 2 minute portion where a goal was scored.	I can save time and money by not being forced to transcode, transfer, import or store more content than is needed.
Broadcaster	producer / user / Management of file-based content	User	Be able to rely on Standardized timecode accurate PFR (partial file restore) from Archive. Ideally, this mechanism would also have awareness in terms of what partial fragments of a file are requested / exist within a certain time frame, so that efficiencies could be introduced in terms of amount of data transferred and stored in non-archive systems.	: I can save on infrastructure costs and labor time to accommodate extra data that did not need to be restored and managed.
Broadcaster	producer / user / Management of file-based content	User	See full media and metadata Interoperability between all edit systems (NLEs) and OS platforms (Apple, Windows, Linux, Unix)	I can save on infrastructure (storage & network) costs and labor time to accommodate extra work and extra media generated when files have to be constantly transcoded to and from an increasing number of formats.
Broadcaster	producer / user / Management of file-based content	User	be able to send someone a file I originated with a codec that I paid for, and have the recipient be able to leverage my investment for playback purposes; i.e. the media clips I create contain their own player code or so e other mechanism to facilitate guaranteed playback at chosen point of delivery.	I always know that once my team have done their job, I can relax safe in the knowledge that the client will be able to view the end product without delay or frustration

Broadcaster	producer / user / Management of file-based content	User	Use computer systems or services which run on a media aware OS. An intelligent file system that can interoperate dynamically with the media / metadata.	I can save on expensive investments in bespoke DAMs and MAMs and let my workforce use intuitive tools that are already part of the operating system on that machine / terminal.
Broadcaster	producer / user / Management of file-based content	User	Use computer systems or services which run on a media aware OS. An intelligent file system that can interoperate dynamically with the media / metadata.	I can save on expensive investments in bespoke DAMs and MAMs and let my workforce use intuitive tools that are already part of the operating system on that machine / terminal.
Ad Agency	Traffic Manager	User	I want the metadata that I put into the Ad-ID system available for everyone in the supply chain	Nobody has to rekey that information, and workflow is simplified
Broadcaster	Person	User	fill this in	look at the result
Broadcaster	Engineering	Engineering	avoid timecode incoherence that can be found in certain media files containing conflicting information (SOM, TC jumps, switch between drop and non-drop,...)	the confusion between conflicting timecodes can be eliminated and the correct closed caption insertion can be fully automated without any need for QC.
Broadcaster	Engineering	Engineering	limit as much as possible unnecessary wrapping/unwrapping of media files	different systems/vendors can interoperate directly in a speedy and cost effective way
Broadcaster	Engineering	Engineering	receive a file that contains closed caption (CC) and allow this CC data to travel with the media itself	the closed caption process from input of the broadcast plant to the on-air stage can be automated and simplified.
Broadcaster	broadcast technician	Engineering	limit as much as possible the amount of testing required in a broadcast chain when a new output profile or system version becomes available	the full interoperability between broadcast systems can be easily achieved and become more cost effective.
Broadcaster	Engineering	Engineering	receive a file with rich descriptive metadata and allow this metadata to travel within the media itself	each broadcast system involved in the chain is data aware and can act accordingly, and in a near to mid future, the leader (visual slate) could be removed from the file itself
Broadcaster	Engineering	Engineering	reduce the number of wrappers and codecs used in acquiring media	the delivery specifications can become simplified (less available options) and more universal in order to increase interoperability between systems/manufacturers.
Broadcaster	User	User	Generate a machine readable specification for file based media deliverables	to eliminate ambiguity in the specification and improve the efficiency of our workflows by reducing the number of rejections and reorders of the

Broadcaster	Sr. Director, Interconnection Engineeringing	Engineering	Distribute Media Content & Metadata – B2B and B2C both for Broadcast as well as OTT applications without creating unique files and metadata for each vendor, member station, and software application. Be able to uniquely identify, locate, and play or otherwise use each piece and sub-piece of media content thru standardized search process (think of internet search mechanisms and http://xxxx format. Internet searches find what you're looking for, and with http:// information, lets you use that information without knowledge of it's location, format, owner etc. . .)	For the B2B model the above function would allow PBS and our member stations to find and have access to all available media, and allow every PTV station to utilize the media. The efficiencies of this model would prevent the duplicated expense of searching, storing and transcoding media across the diverse PTV ecosystem. It would allow greater efficiencies for the PTV community to deliver OTT media without additional processing and manipulation that is needed today.
Vendor	Management	Management	make a product that creates files to a testable file specification for market bigger than one broadcaster/company	so that I can spend my Engineeringing doing things that add value to my customers business
Vendor	Management	Management	receive an electronic delivery specification	I can automatically validate the specification, the capabilities of my encoder, transcoder and QC system to save money
Vendor	manufacturer	Management	Have a clear statement of customer requirements and expectations	I can produce equipment that hits those needs with the minimum number of iterations
Broadcaster	Chief Technology Officer	Management	We presently provide files to numerous VOD (Comcast, FiOS & COVE used by PBS) YouTube, etc.- one standard would be appreciated.	Large amounts of time are spend creating multiple formats. One would save equipment and personnel costs
Content Consumer	As a user to simply click on tv remote to request information	User	To transfer requested information in the embedded video stream file from the smart tv or hybrid set top box to a smart output device	http://youtu.be/ZLNmeS-VPI0
Broadcaster	Technology Officer	Management	peer to peer exchange of files with out transwrapping/transcoding	makes operations cost efficient and provides for more complete operations
Broadcaster	Sr. Director, Interconnection Engineeringing	Engineering	Distribute Media Content & Metadata – B2B and B2C both for Broadcast as well as OTT applications without creating unique files and metadata for each vendor, member station, and software application. Be able to uniquely identify, locate, and play or otherwise use each piece and sub-piece of media content thru standardized search process (think of internet search mechanisms and http://xxxx format. Internet searches find what you're looking for, and with http:// information, lets you use that information without knowledge of it's location, format, owner etc. . .)	For the B2B model the above function would allow PBS and our member stations to find and have access to all available media, and allow every PTV station to utilize the media. The efficiencies of this model would prevent the duplicated expense of searching, storing and transcoding media across the diverse PTV ecosystem. It would allow greater efficiencies for the PTV community to deliver OTT media without additional processing and manipulation that is needed today.

Broadcaster	Asst. Director Production Workflow Applications	Management	Define practices and/or implementation requirements to minimize the impact of network routing failures on media production workflows. Practical experience has shown that some network devices (switches) perform route renegotiation poorly during failure conditions and the device and devices attached to it require rebooting in a proper sequence. Each network device (switch) reboot can take 8 minutes or more. In live production these issues can be catastrophic, and if the authentication scheme used is centralized, such as Active Directory, these network failures can even prevent support staff from logging into the affected network client systems. As the industry moves to switched packet networks for SDI replacement, physical and design issues such as these can have a severe impact on the production.	Reduce downtime and ensure that support staff can log into all systems at all times.
Broadcaster	Producer of Video Content	Management	Easily package and transmit video productions to distributors of online content and ensure multiple audio tracks and captions in various languages are preserved intact.	Viewers consuming the video production can listen or view captions in native languages which encourages viewership and accessibility
Broadcaster	Business Developer at Content Distributor	Management	Prepare content package for a VOD streaming vendor (iTunes, Amazon Prime, Netflix) and watermark the package to uniquely identify it	Leaked or Pirated video content can be identified and attributed to the VOD streaming vendor
Broadcaster	Digital Content Editor/Manager	Management	Extract data from current video productions into a searchable format (CMS or otherwise)	I have the ability to sort, search, and organize how online systems are programmed to display and present video content. This also enables the online systems to quickly retrieve and display data to end users without needed to access the media package.
Broadcaster	Digital Content Editor/Manager	Management	Replace or update meta-data in a media package	I can have up-to-date titles, captions, or other relevant meta-data in a media package. It will be important to update the media package in case this package gets forwarded on to subsequent endpoints like VOD streamers, or transcoding farms
Broadcaster	Digital Content Editor/Manager	Management	Identify and track derivations of a media package	In the course of doing business, some derivations of a media package could be created (clips, promos, etc) and as those derivations proliferate, it will be extremely important to identify the source (or sources) from whence the content was taken.
Broadcaster	Still testing	User	Find out which link is broken	Restore personal sanity
Vendor	Broadcaster in Japan	Sales Support	discuss as to whether the content creator should handle the bitrate conversion process or the streaming platform provider should. Currently in Japan, the content creator, in other words Fuji Television is converting to the bitrate that the streaming platform provider requests.	Requests to match a wide variety of bitrates will continue to increase and as to whether the demander should cover costs or the supplier should is an issue that must be resolved. I feel that once an effective solution is reached, there is a business advantage there.
Vendor	product designer	Management	good interoperability/easy integration of our auto QC software with other systems e.g. transcode, MAM, file transfer	users can quickly implement reliable workflows including QC, saving manual QC time and manual workflow intervention

Broadcaster	Executive Producer	Management	be able to export a finished media file directly from the edit system that would be an acceptable delivery format for any/multiple broadcast networks and could even be delivered electronically over the web	the time and costs of re-encoding or encountering format errors are no longer an issue.
Content Consumer	embuoti	User		
Broadcaster	Media Manager	Management	Inport content file from various sources and output and consistent file type (AS03)	there is seamless integration of content processing and distribution.
Broadcaster	content provider	Management	generate a single compilation (XML) of metadata that can easily be conformed to serve the needs of all online distributors. Not Cablelabs specifications for VOD or AS-02 specifications for MXF deliverables.	business systems can be better integrated, better automated and require less IT involvement when new distributors are on-boarded.
Broadcaster	content provider	Management	create a common mezzanine deliverable (file type as well as formatting) that will serve the needs of all online distributors. This would include ancillary metadata such captioning or subtitling and not be restricted by any frame rate.	I can streamline my workflows and created fewer renditions of the same source. Reduce storage requirements and thus reduce costs for production.
Content Creator	content provider	Management		
Broadcaster	content provider	Management	have a standardized naming and packaging convention for all digitally distributed media (i.e. iTunes, Amazon, Google, etc).	I can reduce the number of renditions required, simplify business systems used to generate file names and reduce administrative time needed to prepare asset for delivery.
Broadcaster	Media Manager	Management	Combine a group of content files to create one contiguous file.	there is a single file for distribution.
Telco	Design Engineering	Engineering	I want to accurately aggregate, television programs as files (metadata, Artwork and video) from multiple content providers for re - distribution to our various video platforms (Mobile, Web, Television and connected devices).	Normalization of the input data points (Metadata, Artwork, Video) will allow for rapid ingestion of source content for delivery via transcode data aumentation via recommendation engines etc... for down stream platforms in a cost effective way that does not require custome integration on a provider by provider basis.
Content Creator	Facility Owner	Management	Receive fully vetted content from my providers; where the content is prepped, preieved and accepted by runnign my facilities app, and my facility metadata is shimmed in thef ile and it includes an audit trail.	So that I can review good content and use statistically relevant checks to vet my file delivery process from a provider, rather than checking every file that comes into my plant, thereby saving caosts and streamign lineing a uniform process. Essentially, make every provider go through a standardized portal before cotent can leave their plant and go to mine.
Vendor	Product Designer and as a Facility Owner	Sales Support	A single asset to be a single file delivred with vetted conent and metadata, where the file is unchanged by any process since it was vetted. All transport mechanisms will use reliable, guaranteed protocols and all storage will be inthe form of the original file, guaranteed byte-by-byte as an exact copy, with a checksum shim (or equivalent) medadata addition at QC if necessary	the file is guaranteed to be an exact replica of the file that was validated when leaving production.

US Government - Library owner	Legal Copyright registry & depository; cultural archive; 'last man standing' content archive	User	Preserve media content for a minimum of the 150 year Copyright registration period. Longer if the content is deemed culturally worth longer preservation.	Copyright registry & validation; '3rd copy' or 'last copy' archive functions for media content industries.
Broadcaster	Process Manager	User	develop an optimized and efficient workflow for the ordering and acquisition of completed product, that will be delivered as a robust digital intermediate format. This digital intermediate must be high quality, high resolution, and native frame rate. The workflow will enable the creation of enhancement workfiles (CC, subtitle, SAP) and edit proxies. The workflow will allow for the enhancement of the DI and process all downstream derivative assets for linear and non-linear distribution. The workflow, leveraging associated asset metadata, will be used to populate databases, status dashboards, and reporting metrics.	there will be greater accuracy and linkage of assets, less margin of manually induced error, and quicker turn around to market.
Content Consumer	human rights archivist	User	be able to exchange content in a way that preserves its original streams and metadata, is secure in transit, and allows the package to be validated and authenticated upon delivery	it can be used as authentic evidence of human rights violations and does not endanger those who may be identified in the video or its metadata.
Content Creator	audio Engineering doing quality control on archival audio,	Engineering	I want to automate audio and metadata quality checks on files to whatever degree possible. This would include checking that peak level is within a given range in dBFS, looking for bursts of broadband noise (there is a past history of noise bursts being introduced in the export process), invalid metadata (format), missing metadata, and perhaps checking embedded MD5.	This will give us greater confidence in exported files in our archives, because we are simply unable to audition every file exported from our archivist's workstations software.
Content Creator - Education	audio Engineering working in an archive,	Engineering	I hope for a way of regularly checking that every file we expect to have in our archive (as determined by our Oracle database) is found on our servers and that each of them passes an MD5 check on the entire file contents.	So we are always assured that files are not lost or corrupted and can recycle backup tapes without worry that such problems will happen and we will have overwritten the necessary backup(s).
Broadcaster	Product Manager	Management	Ensure media files created today are playable in the future	consumers, journalists and researchers can use the the rich sources of information, history and analysis in the content.
Broadcaster	User / Workflow designer / Media Manager	User	Be able to easily move media into and out of the Avid Interplay enviroment.	To save steps and manual hours (both of which can result in errors)

Standards Body	operations Engineering	Engineering	I want to unambiguously identify what piece of content is flowing through which video supply chain. EIDR as a robust common identifier would be involved in an MVPD VOD distribution supply chain as part of a package of asset metadata; it would play a similar role in OTT or online distribution portals. A common identifier could also play a role in targeted ad insertion use cases where content metadata needs to be matched with ad targeting demographic or psychographic needs.	Business value for for VOD or online distribution: lower costs due to automation of manual processes, checks, and faster time-to-market with new content releases. Business value for targeted ad insertion is much greater CPMs for various types of ad inventory, and efficiency benefits of programmatic buying/selling of ads in fully automated ad stewardship flows.
Standards Body	Cable Operator	Management	We would like to receive a very high quality video and audio ingest (e.g., high bit rates, minimal compression) format from the producers for both linear and file-based content, so we may distribute the content to varying consumer devices while maintaining content quality and reducing the number of contribution formats.	The intention is to maintain a high quality experience for the consumer as intended by the original content producer no matter the device it is being viewed on.
Content Creator	As a user of file based content and potentially a product designer	Management	I want to be able to create and distribute a machine readable specification for inter-facility and intra-facility content deliverables that is in no way tied to a particular software/hardware manufacture with more automation capabilities and open for future development by users	so that I can save time, reduce errors and ambiguity in the exchange of file based media that could support global production nodes with multiple contributing creative sound agents.
Broadcaster	Program Manager	Management	Use of CableLabs 1.1 compliant XML to distribute key metadata values associated with content for use on multiple platforms such as STB and IP enabled devices. Values to include, but not limited to: - Title - Summary - Ratings - Rights on specific platforms (STB vs. IP streaming) - License start & end - Video & audio profile - Category	Ability to submit essential title related data in an industry-wide recognized format that can be ingested through systems across multiple platforms.
Vendor	A Manufacturer	Management	Have a clearly defined set of parameters that delivered media must conform to, along with "Golden Files" (and their original source files) which are guaranteed to adhere to every facet of the spec	I can easily and repeatably test my software and validate its operation against the Golden Files
Broadcaster	EST content provider	User	see a unified video and metadata spec similar to cablelabs for broadcast (but flexible)	to eliminate the need to create various file formats and metadata formats for fulfillment.
Broadcaster	Project Manager	User	I want to securely send, distribute, and test files that will be sent to non-linear B2B applications both internally and to broadcasters	so that I can reduce time, cost, and risk, and the assets will be viewed securely, accepted easily into affiliate systems, and internally to B2B applications and portals
Broadcaster	librarian	User	add, update, or delete embedded metadata to an audio file within the digital repository	the metadata attached to the file is up to date and relevant.

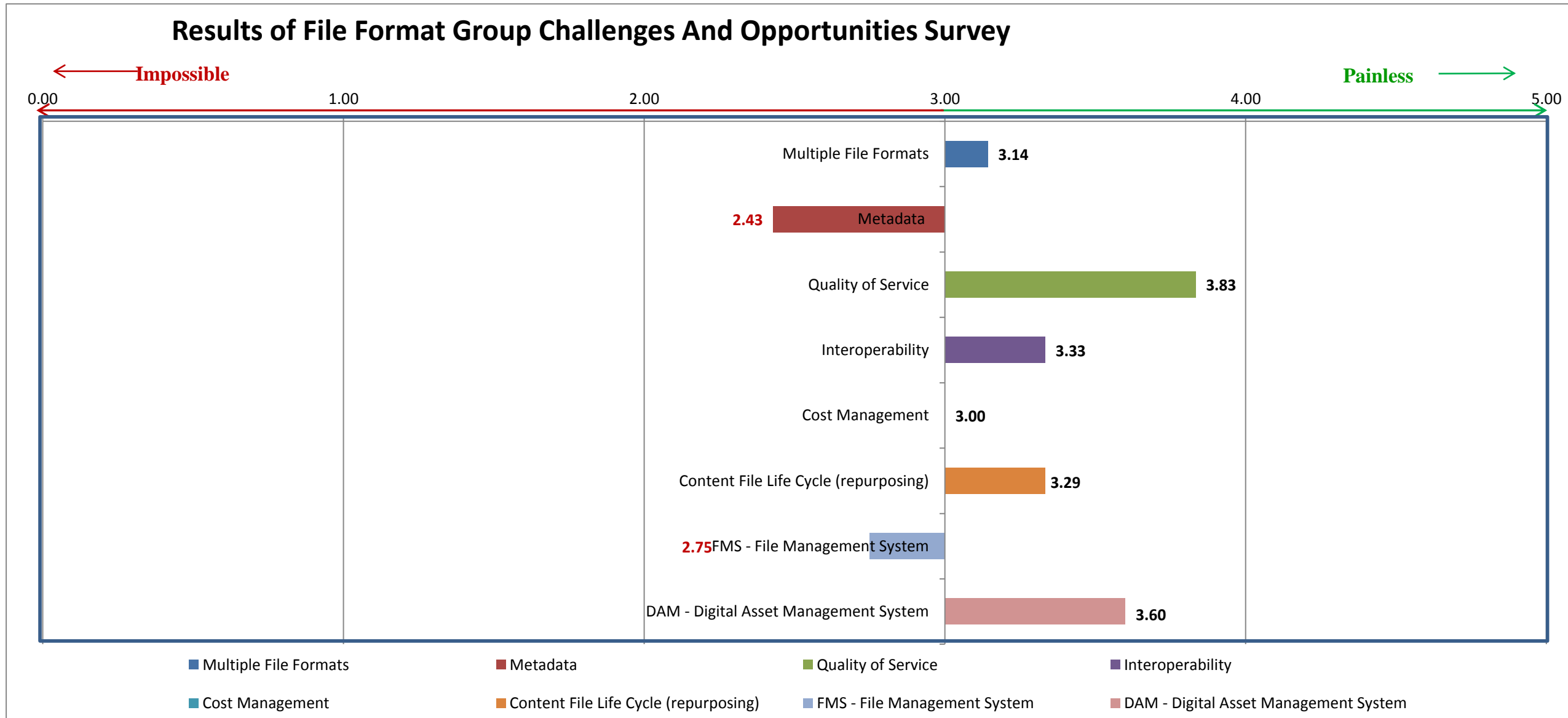
Broadcaster	librarian	User	ensure that any changes to embedded metadata will be applied to both the production and preservation copy of an audio file within the digital repository	if the preservation copy needs to be referenced for a new production copy we have a similar asset to reference
Broadcaster	librarian	User	store audio/video media files in various formats within the digital repository	we can access the different files within our collection
Broadcaster	librarian	User	be able to ingest audio/video media files from multiple sources via manual or automated ingestion to the digital repository	files outside of our normal workflow can be added to the collection
Broadcaster	librarian	User	be able to update the file name for an audio file	the file name is up to date and relevant
Broadcaster	librarian	User	be able to restore a corrupted production copy audio file from the digital repository	we have a working asset to be reused
Broadcaster	librarian	User	be able to search across all audio files both on file names and embedded metadata within the digital repository	we can reference files in different access points
Broadcaster	librarian	User	be able to convert existing audio files to a different audio format via a manual process within the digital repository	the files can continue to be reused in current production system
Broadcaster	Content Manager at a Broadcast Facility	Management	I want to be able to receive, process and distribute content to various platforms and MSOs in a timely and accurate fashion without enduring bottlenecks and technical obstacles.	The goal is to eliminate encoding and transfer related errors, tape usage and redundant "ingest" points associated with transcoding media to meet a specific file type and/or wrapper.
Broadcaster	Manager, Media Services	Management	We want to be able to receive 1-3 file formats that arrive with embedded closed captioning and all the audio channels required for Stereo, 5.1 and Described Audio. We find that a XDCAM 422 .mxf with embedded closed captioning works best in our system but still requires transcoding. We have issues with closed captioning on many .mov files which should playback in our system without transcoding.	This would allow us to free up resources on testing/troubleshooting and file maintenance (applying closed captioning, mapping audio channels & inserting (DV) audio). It would also allow us to turn around content more quickly, with less issues.
Telco	News Operations	User	News Operations require the ability to easily access and use files from various sources. These include pro sources, prosumer sources and consumer sources. The News Group is relying more and more on files being submitted from stringers, freelancers and viewers. These files come in all formats. The challenge is to quickly convert these files so they work efficiently with edit and production equipment. Currently we convert to our standard XDCam 50mbs file format to work with.	The immediate nature of News requires very quick turn around of all content, including submitted content. The conversion and transcoding needs to be quick and efficient to meet deadlines. Currently it can be very time consuming to transcode some submitted files.
Vendor	ratings provider	User	help minimize the level of effort duplication of our broadcast partners. This includes using a common XML metadata schema and common essence material formats for exchange among MVPDs, BDUs, CDNs, etc. This would include current and future provisions for ratings tags and watermarking requirements.	broadcasters and partners can reduce duplication of effort in creating XML files and exchange formats.

Broadcaster	user	User	be able to deliver television/film content as files across international borders, securely and with intelligent asset tracking and descriptive metadata	we can build a robust global supply chain thats efficient and transparent
Broadcaster	Content Distributor	User	receive masters with metadata imbedded with the media	so that metadata entry is eliminated and the metadata can be passed to broadcasters either within the spot, separate XML file or created slate
Broadcaster	Production Engineer	Engineering	I would like to design efficient and versatile network infrastructure and specifications of user edit systems to better server media delivery through network and also media creation handling (editing, transcoding, graphics, rendering, storage, etc) on editing systems so that it is a more versatile experience for the content creator and a more logical troubleshooting and or accessible infrastructure and system to tie in, upgrade, and manage for an engineer or technology team.	This would save hours of cost of down time for freelances, and help us become more efficient in redistributing resources when and where needed, as well as allow for faster time in maintenance/troubleshooting and repair.
Vendor	Content Distributor	User	The ability to have an industry standard to reliably auto-detect the slate start and end points within an asset. Alternatively a mandate that all assets use the electronic slate designed by Ad-ID would also have the same value.	This would allow for the automation of re-slating assets using available metadata thereby minimizing the cost of re-slating for us and our customers.
Vendor	Content Distributor	User	The ability to have an industry standard to reliably auto-detect the slate start and end points within an asset. Alternatively a mandate that all assets use the electronic slate designed by Ad-ID would also have the same value.	This would allow for the automation of re-slating assets using available metadata thereby minimizing the cost of re-slating for us and our customers.
Vendor	Content Distributor	User	The elimination of the need to distribute Standard Definition (SD) assets. There is a high administrative cost in tracking which media outlets can handle which formats, a high operational cost in producing the various formats, and this is all due to a very small number of media outlets not making basic investments in engineering infrastructure.	Delivering High Definition (HD) formatted assets to all delivery points would streamline the process improving both timing and cost. The savings in overhead would allow content distributors to achieve desired pricing levels for distribution while still covering the costs associated with the process.
Vendor	Secondary Post Services Provider	Sales Support	Standardization of Secondary Post services and the metadata associated with ordering them	The standardization (envisioned to be in XML) would allow for secondary post service providers to accept electronic order transactions for these services. This would allow for tighter integration into advertiser and/or agency workflows, as well as cut down on the process overhead at the secondary post provider. All of this would speed delivery times and potentially reduce cost.
Vendor	Content Distributor	Sales Support	The establishment of an industry wide standard for broadcast file format delivery.	This would allow for greatly increased efficiency in delivery and handling of files saving time and reducing errors industry wide.
Vendor	Content Distributor	Sales Support	The establishment of an industry wide two-way API standard for all play to air, and broadcast management systems.	A standard API allowing for two way communications between broadcaster and distributor systems would increase efficiency as well as provide significant advances in data and reporting information back to advertisers on status and run at a moments notice.

Vendor	Content Distributor	Sales Support	The definition and implementation of a standard for ad delivery to home internet active devices (TV's, Blu-ray Players, Home Audio Receivers)	Definition and establishment of a standard that could evolve with the current market of varied platforms would allow all parties involved in the broadcast/advertising market more confidently take advantage of the new technologies to reach consumers in a more effective way. This, in addition to the benefit to the entire industry of opening up a new market segment that is already beginning to materialize.
Broadcaster	Product Development Engineer	Engineering	Run an automated and high yield content workflow that can take a quality mezzanine source of HD or UltraHD and produce a variety of files for QAM and IP distribution.	Customers will be able to view content on any screen and seamlessly move between them while watching a given asset. Advertisers will be able to reach their intended audiences with a high degree of certainty. Customers will have the highest quality video/audio experience possible on their chosen device.
Broadcaster	Product Development Engineer	Engineering	Deliver content as close as possible to the capabilities of the camera capture and computer generated image detail. This also applies to the sound stage capture.	More immersive and closer to artistic intent experience may generate new revenue and customer value.
Broadcaster	Product Development Engineer	Engineering	Deliver a continuous reference in an asset that can retrieve deep metadata	Metadata is accurate and evergreen and grows in value as an asset ages

APPENDIX:

File Format Group Survey results:

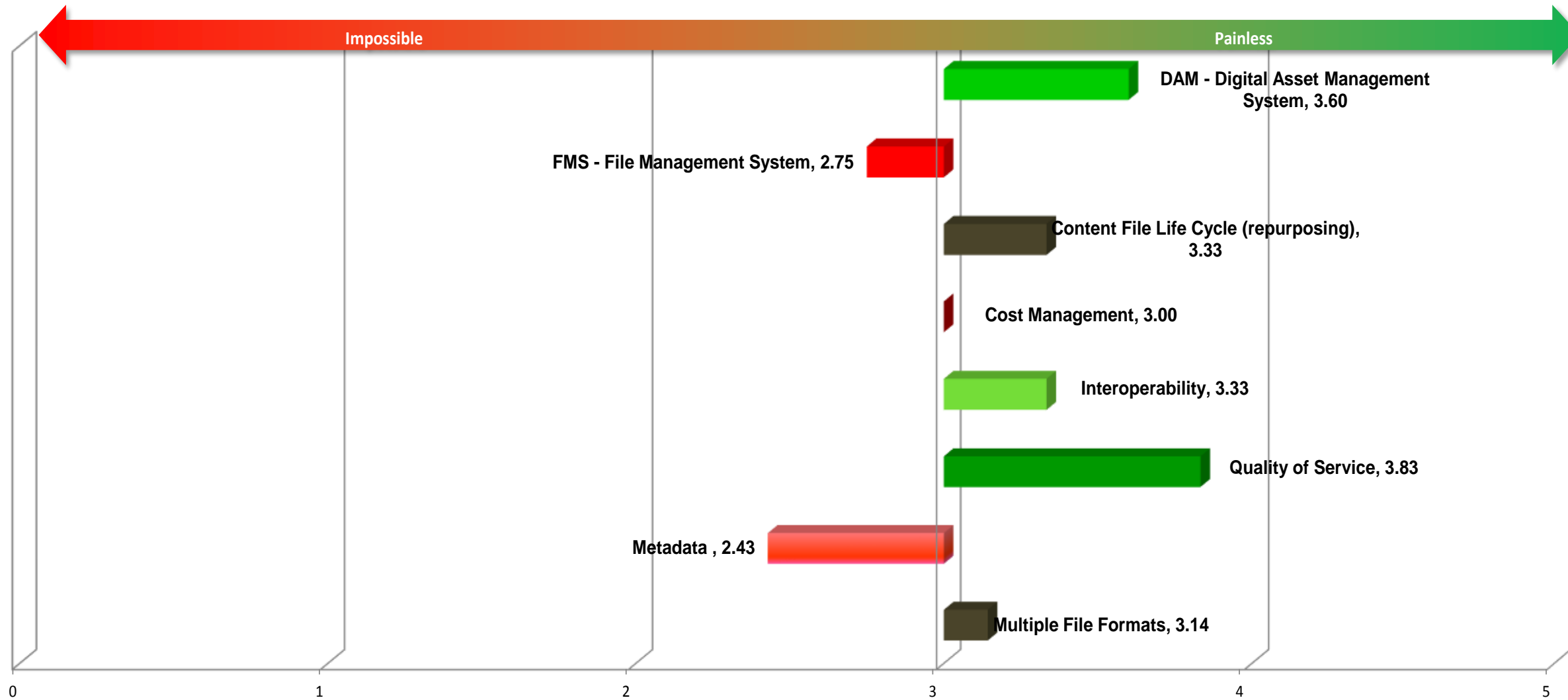


FILE FORMAT GROUP CHALLENGES AND OPPORTUNITIES SURVEY DATA:

File Format Group Challenges And Opportunities								
	Multiple File Formats	Metadata	Quality of Service	Interoperability	Cost Management	Content File Life Cycle (repurposing)	FMS - File Management System	DAM - Digital Asset Management System
ABC	4 -- All Disney Groups have been standardized to delivery 1080P HQ, we transcode as required. Production Houses have adapted.	2--Needs lots of work	4--Programs are delivered to our standards	4--Not an Issue	2--Infrastructure (e.g., A/C, Electricity, Real Estate, etc.) and data networking architecture may have significant cost implications.	3--We will eventually run into space issues. Too Soon To tell.	2--Storage will eventually be an issue. We currently have no MAM system	N/A. Seeking supplier
CBS	4	2	4	3	4	5	3	4
CBC	4	4 (we have a lot of manual process of data entry and repurposing)	4	3	3	We have a content life cycle project in the works presently (2)	3	RFP Process in the works. Implementation End of 2013
Fox	4	3	4	4	3	3	3	3
HBO	2) Receiving and distributing multiple and growing list of file formats. Moving towards J2K as mezzanine standard.	2) Fragmentation, multiple databases and spreadsheets, fuzzy nomenclature, but active initiative to map to internal core standard and build infrastructure that allows "capture once and reuse/sharing". "EIDR Preparedness" underway.				MAM system intended to support repurposing of assets (with other infrastructure)		3) MAM system being implemented that will function as library of re-purposeable program assets, (Production) PAM system in place. Preservation repository under consideration. Integration between systems/repositories in process.
NBCU	2 (receiving and distributing lots of different file formats)	2 (Very fragmented, many different databases. Excel sheets. Intregation with EIDR underway. We are being to build a central title management system)	4 (We have good workflows in place with a focus on quality. Some deficiencies though on online portals.	3	2 (multitude of file formats to deliver but pain on operational costs)	3 (we have good repurposing workflows in place but had some clitches in the past due to a lack of coverage of automation system. Some manual work.		4 (Multiple application specific DAM systems are in place. No corporate wide integration of all systems. Building Title Management system
Rogers Media	2 (receive many file formats, distribute few)	2 (well managed internally with MAM but manual entry for external sourced files)	3 Currently we have no automated file QC. Manual QC	3 (most files need transcoding)	4 (primary cost is transcoding hardware)	4 (our mezzanine format in MAM supports repurposing)		4 (MAM only @ sportsnet supports all video media except commercials)
Results	3.14	2.43	3.83	3.33	3.00	3.33	2.75	3.60
Please fill in table:								
Legend:								
Impossible	0							
Very Hard	1							
Hard	2							
Possible	3							
Relatively Easy	4							
Painless	5							

FILE FORMAT GROUP CHALLENGES AND OPPORTUNITIES SURVEY DATA:

Results of File Format Group Challenges And Opportunities Survey



NABA-TC Survey Results