EMAM Overview

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EMAM, Inc.
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Contents

What is eMAM?

eMAM™ is a powerful media asset management platform that provides an online proxy library of digital content with powerful tools accessible from any web browser, Android tablet, or iPad. It manages the native resolution content in storage and archive in one or more on-premises or cloud locations. With a series of best-in-breed integrations, eMAM can provide complete, integrated media workflows. Systems can scale from a few users up to tens of thousands.

Online Library

eMAM provides an online proxy library for all content accessible from any web browser or connected device. Managed content includes all current and historical digitized content (assets): video, audio, images, and documents, in one or more locations, whether in local storage tiers, in the archive, on the shelf, or in the cloud. Proxy copies can be quickly shared and browsed worldwide from any internet connection – office, studio, home, internet café, library.

Collaboration Tools

eMAM provides a variety of tools for online collaboration for tagging, editing, commenting, sharing, review and approval, distributing, and publishing. eMAM has granular permission settings, so users are given access to only their allowed content and appropriate tools. Content can be shared within the system or externally through email, social media, or digital delivery.

Storage Management

eMAM directly manages the original/native content in any location, directly from the web interface. Users can deliver the content in any needed format or codec as needed, with automated delivery from the most appropriate onsite or cloud location. Using email notifications, even content sitting on the shelf can be effectively managed. Content can be stored in different storage and archive tiers to balance usage needs with pricing and accessibility.

Archive Management

eMAM directly moves content into or out of the archive from the web interface, including LTO archive management systems from XenData, SGL, Atempo (ASG), Archiware, 1Beyond, Front Porch Digital (Oracle), Quantum, Spectra Logic, and QStar running ODA or LTO drives or robotic libraries from Spectra Logic, HP, IBM, Quantum, Overland, Qualstar, and others. Such archive management systems make possible hugely scalable systems at attractive price points, long-term storage stability, and centralization of storage. LTO has become the archive standard, certified for 30 years of storage. With the LTFS (linear tape file system) specification, LTO tapes are readily interchangeable between systems and are self-describing, so there is no vendor lock-in dependency on proprietary tape drives, formats, or software. eMAM retains proxy copies to power search, browse, and collaboration for all the archive content.

Workflow Integration

eMAM connects internal systems together to provide a complete seamless internal workflow. It ties together multiple disparate systems together with a series of best-of-breed systems and technologies as detailed at empressmam.com/partners and later in this document under Why eMAM/Extensible.

MAM vs. PAM vs. DAM

All three of these system types help organizations manage and use digitized assets.

Production Asset Management (PAM) systems are focused on the creation of digital assets for production and editing staffs. These PAM systems tend to be localized in these departments, with little access to other members or departments of an organization or to outside stakeholders. They are marked by tight integration with editing and production systems and (traditionally) localized deployment.

Digital Asset Management (DAM) systems tend to be focused on tools for processing and handling text and graphs. They can provide universal access and enterprise-level scaling. They generally have rich tool sets for handling these assets, such as print publishing and layout. They have limited functionality for videos and may or may not make proxies of video content.

Media Asset Management (MAM) systems provide universal and enterprise-wide access to content with full tool sets for all types of content, especially video. They generate proxy copies to allow for easy collaboration and the use of large native resolution video files.

eMAM has both PAM and MAM features.

Why do organizations need MAM?

Inefficiency

Redundant and manual processes take too much time and effort for understaffed modern organizations, especially those facing the budgetary constraints and tight deadlines of modern broadcast and publishing organizations. IT support and staff training for multiple disparate systems is an additional cost and challenge.

Informational Silos

Content for an organization may be stored in many disconnected locations, so staff and customers may not be able to easily access important content, if they even know it exists. The organization may miss opportunities to repurpose and monetize its content, sometimes even spending precious resources to recreate lost media.

Storage Issues

Many organizations store content on hard drives, which link to only one computer, can crash, or can get misplaced at any time. Centralized storage provides a better solution for collaboration, but high-speed shared (tier one) editing storage is expensive and quickly fills. Organizations need systems to move content to less expensive storage tiers and to long-term archive to better protect content and save money.

Poor Control

Management may have limited ability to monitor and oversee multiple independent systems, resulting in poor oversight with limited or complicated reporting systems. An organization may lack one single point of truth, so branding information may be difficult to share and control. With multiple different systems, effective control over the use and distribution of content may also be problematic.

Delivery Issues

Shipment of content on physical media results in high costs for duplication and shipping, with delivery delays and potential loss of content. Digital delivery may be slow, expensive, and difficult, manually connecting multiple disconnected systems and processes.

Why eMAM?

The benefit of the eMAM system makes it a powerful tool for meeting a wide range of customer needs.

Collaborative

Content has become the key asset of many organizations. Organizations that can empower their staff to maximize the value of these digital assets have a key competitive advantage. With eMAM, users don't have to be video editors or engineers to access and utilize the content. Non-technical staff can easily and efficiently interact with the production staff daily.

eMAM organizes content into categories, subcategories, projects, and bins (subprojects). An asset may belong to any number of (sub) categories and (sub) projects, but eMAM will minimize storage use by not making multiple copies.

Categories and subcategories are linked with permissions and assigned to user groups, so only select user groups can access assets in restricted (sub) categories.

eMAM can also have any number of projects and bins (subprojects), which can be assigned to users. Using a browser or tablet, authorized users can find media, mark, annotate, sub clip, post comments, rate, add tags (public and private), build storyboards (timelines/sequences), and organize assets into projects. eMAM projects, markers, tags, and sequences can be transferred to craft editors, and edited projects and sequences can be sent back to eMAM.

eMAM makes review and approval workflows simple. Authorized users can select a clip and send it as an internal or external approval by email. The recipient has a time-restricted link to only the selected asset, and to nothing else in the system. After opening the email, the embedded HTML5 video player allows the user to comment and approve the asset. Once an asset has been (dis)approved, then the link is deactivated. Approval can launch automated processes in the system. Users can look at comments or search for approved assets. Whether for clips or edited sequences, eMAM makes the approval process simple.

For collaboration or promotion, eMAM can share links using the following methods:

- Branded email eBINs for mixed media (edited clips, promotional images, scripts, and licensing info) with optional download. Recipients need only open the email to launch the video player, or use different tabs to see images, listen to audio, or review documents.
- eSHARE as an authenticated mixed media email or social media link (Google +, LinkedIn, Twitter, or Facebook) with options for likes, ratings, and download.
- EMBED for a shareable URL or for sending a video with a player to play for a website or social media portal.
- YOU TUBE automated deliveries.

Workflow notifications can utilize RSS and email to facilitate communication as needed between users.

Easy to Use

One of the key benefits of eMAM is the simple interfaces, which cut time and money spent on training and support while maximizing acceptance in the organization. A system that is only usable by technical staff would not benefit the organization as a whole: it would create a dependency for common users to rely on elite/power users. eMAM levels the playing field by making the system easy to use across the board.

eMAM has intuitive graphical user interfaces (GUI) accessible from any standard web browser - IE, Firefox, Chrome, and Safari. A stripped-down Director interface or the Client Interface is as simple as online shopping. Users can browse and preview assets, and then check them out in a bin for use. Users with permission can share the content via email or social media, send approvals, download the asset locally, or order copies for digital or physical delivery.

The full Director Interface has an HTML5 widget-based GUI. Most system functions are represented by widgets, which can be moved to different areas in the workspace as needed. Loaded with features (widgets), this interface could become very crowded if not for three factors. Unused widgets can be hidden from view in the widget drawer. Second, users see only the widgets they have permission to use, so a basic user will have only a few widgets. Finally, the workspace designer can set up predefined workspaces for different groups of users (e.g., ingest group), with the widgets preset in a logical layout that best meets the needs of that group. The Director Interface also features language localization, so the language of the interface tabs will match the language used for the internet browser: Chinese, Russian, Spanish, etc.

The iOS iPAD app is available in the AppStore, while the Android tablet/smartphone app can be found in the PlayStore. The Android and iPAD tablet interfaces feature most of the functions of the Director Interface. This makes worldwide collaboration fun and easy.

The eMAM system uses API level integrations to power many integrated workflows. Users can perform many combined technology workflow steps directly from eMAM. These include transcoding, archive, media management, and QC. For example, Telestream Vantage has a workflow designer that can design a complicated multistep automated workflow, but this entire process can be triggered by eMAM users using drag, drop, and one-button select. Integrations are discussed in the next section and Appendix A - Technology Partners.

Finally, simple email-based interfaces for approval and multimedia eBIN and eSHARE with included video players make it easy for external stakeholders to access and use the content. No FTP or complicated systems are needed: the recipient just opens an email.

Extensible and Interoperable

eMAM is built on standard Microsoft .NET and SQL Server technologies, which ensures the long-term stability of the system, shortens development times, and opens standard tools for use with the system. RESTful and SOAP web services for interfaces ensure easy integration with other systems or custom interfaces. eMAM supports SOAP 1.1, SOAP 1.2, as well as HTTP GET and HTTP POST methods as web service methods and RESTful. The eMAM digital library and eMAM functions can be used to power a customized web portal, whether designed by the Empress team, a third party/system integrator, or a client team. Beyond included reporting tools and live dashboards, reports can be generated using SQL Server Reporting Services (SSRS). The workflow engine can trigger a variety of workflows automatically based on defined event conditions in the system, or Empress, third party, or customer staff can write scripts to connect other systems.

EMAM has partnered with leading technology solution providers to develop seamless integrations with their products to offer integrated end-to-end workflow solutions. Highlighted below are many of the best-of-breed technology partners that are already integrated with eMAM. **https://www.emamsolutions.com/tech-partners/**

Any number of drop (watch) folders can be used to automatically ingest content into the system to allow “out of the box” one-step links to any non-integrated systems. eMAM can accept XML side cars to receive metadata from other systems. It also has extensive options for passing

information and links through delivery, sending configurable XML, any number of variables, and JSON.

Ingest and Transfer: eMAM has integrated with many encoding and ingest technologies, including Cinedeck, Mog Speed Rail, Harmonic Pro Media Carbon and WFS, and Telestream Vantage. Command line interfaces can be easily set up for eMAM to work with third party ingest and encoding systems. To speed ingest and delivery of large files, eMAM can work with standard UDP technologies from Unlimi-Tech (File Catalyst), Aspera, and Signiant.

Edit: eMAM features a built-in extension panel in Adobe Premiere Pro with support for team projects and an eMAM GUI widget for Adobe Anywhere. For Apple Final Cut 7, eMAM can use XML exchange for metadata and projects. For Avid Media Composer, eMAM can work with project and assets exported from the system, or can use AAF in connection with Telestream Vantage, Marquis Medway/Project Parking/Sequence Parking, and MXF Server.

Storage and SAN management: Based on Windows Server technology, eMAM is storage agnostic. eMAM has been tested with many systems including Scale Logic Genesis, EMC Isilon, Overland Snap Scale, Facilis Terra Block, DDN, and Spectra Logic nTier Verde. eMAM is integrated with SAN management technology including Atto Celerity, Command Soft FibreJet, Facilis TerraBlock, Quantum StorNext, Scale Logic HyperFS, and Tiger Technology MetaSAN.

Cloud: eMAM can run on cloud servers and storage buckets including Amazon S3, EC2, Glacier, and CloudFront, Microsoft Windows Azure and Blob, Google Cloud, IBM Cloud Object Storage, British Telecom, NetAPP Storage Grid, and providers in the ComputeNext ecosystem.

Archive: eMAM has seamless integrations with most of the leading archive management systems. eMAM users have full access to all of the archived content from any interface, opening up a true active archive functionality. Integrated archive technologies are: 1Beyond EzStor, Archiware P5, ASG Atempo ADA, Front Porch (Oracle) Diva Archive, QStar Archive Manager, Quantum Storage Manager, SGL FlashNet, Spectra Logic Black Pearl, and XenData SX10, SX250, and SX550.

Delivery: eMAM can transcode on demand using ffmpeg, Telestream Vantage and Harmonic ProMedia Carbon/WFS. In addition to standard FTP, UDP, and cloud delivery systems, eMAM can send over Content Delivery Networks (CDN).

Sharing and publishing: eMAM can send links to common social media sites including LinkedIn, Google

Twitter, You Tube, and Facebook. eMAM can publish to online publishing platforms, including Bright Cove and other VOD platforms. Users can also generate embed code for an asset from within eMAM to publish directly in another system, such as a web server, blog, or social media post.

Scalable

The entire eMAM product line uses the same basic Microsoft technology. Organizations can expand an eMAM system easily as needed by adding more business units, more features/modules, and more user licenses without changing the system or the user interface. Of course, more servers and storage are needed to support the processing and streaming needs of a larger system. Microsoft Server technology can deploy the system over a cluster of servers to meet needs for processing and/or disaster recovery. A clustered SQL Server database can hold immensely huge numbers of entries (the maximum **database** size-for entries- is 524,272 terabytes, which could reference a truly immense amount of stored assets). The eMAM system was built for enterprise class demands, currently supporting user bases up to tens of thousands.

Organizations can be assured that they can avoid obsolescence. They can buy a system appropriate for their current needs, assured that the system can grow with their needs.

Flexible

The eMAM system consists of the database, web services, UI applications and backend services. Message and Queuing functionalities allow these application components to be deployed in different locations to manage distributed workflows. An organization with offices in New York, London, and India can have each location managing local storage and archive, which can be accessed locally for high performance access and low latency. Through eMAM, proxy copies can be accessed worldwide through the web and tablet interfaces, with native resolution content moved or downloaded from the appropriate location when required. Organization administrators can determine the best storage and archive infrastructure to optimize the requirements for workflow, security, and access time.

Cloud systems provide rapid scalability and flexibility. Cloud offerings continue to improve in price and performance over time, so many organizations are seeking long term solutions that are either cloud based or cloud compatible. The same eMAM system can

use any combination of cloud and on-premises systems for storage and processing to best suit the current and future needs of an organization.

To sort and characterize assets, eMAM has both embedded metadata, technical information about an asset (frame rate, format, etc.), and user-defined custom metadata. eMAM supports virtually any metadata and tagging schema. A well-planned metadata taxonomy will pay handsome dividends in streamlining search and workflows. Major organizations may have internal teams or outside consultants to define these parameters. Custom metadata fields have numerous options including required/optional, default value, and field type (predefined lists, free text, time code, date code, floating point, or integer). Authorized administrators and staff can add or change custom metadata fields as needed. eMAM defines metadata groups as several metadata fields that are associated with one or more user groups: only members of authorized user group(s) would see or edit those metadata fields. A production group may need a metadata group including camera and location metadata fields, while a shipping department may need a metadata group including weight and box count fields. eMAM also defines metadata sets of metadata groups associated with one or more projects for use with selected assets or projects.

All installed eMAM systems feature the Super Admin Console, which allows organizations to configure their own profiles for ingest, storage, archive, and delivery. As an organization changes hardware, networking, and systems over time, customer or eMAM staff can quickly and easily add or change settings.

Cost Effective

eMAM's core use of proxy copies for collaboration, markup, review, and other uses minimizes costs associated with duplication and shipping of physical media, with the processing and transmission of native resolution videos, and with unneeded storage of multiple copies. This is especially critical as demand for content grows and as file sizes grow as video resolutions increase from SD to HD to 4K and beyond. Working with proxy copies saves time and money.

eMAM works on any Windows Server environment and supports almost any hardware. This minimizes the use of expensive proprietary processing and storage systems.

With eMAM, organizations can store and process content wherever they need to meet their budget, security, and access concerns. Native resolution content stored and managed at the source location can save money and time for transmission and storage, unless needed at another location for edit or broadcast. Organizations can minimize the

use of proprietary high-speed storage for shared editing and other near line storage, moving content to secondary storage and archive, while keeping proxy copies to power search and management through eMAM. Archived content is cheaper and more easily scaled than other storage options. eMAM can support cloud storage and processing as an affordable and flexible option that limits the need for internal infrastructure and supporting IT staff. eMAM can manage native resolution and proxy copies wherever needed.

eMAM has a product line of installed and cloud products to meet the budgets and needs of different customers. The eMAM system is inherently scalable and flexible, so it can change and grow as needs change over time, without the danger of obsolescence. With a well-defined product line, eMAM can be quickly installed and implemented without customization for standard requirements. With the Super Admin Console, eMAM or customer technical staff can easily change system settings and configurations as hardware and workflows change over time.

Using onshore/offshore staffing in the United States and India, Empress can work closely with customers and provide excellent value for both the price of the system as well as support, additional services, and any required customizations.

Secure

eMAM has many security features to protect content and manage rights. Whether users access a customized website or portal, the web browser-based GUI, or the tablet-based Android or iPAD apps, eMAM controls access and permission for all the assets.

eMAM can define how users or organizations can use their LDAP/Active Directory systems to easily and efficiently assign users into groups. User groups are assigned categories of assets and only particular permissions for system features.

A simplified Director Interface (or the Client Interface) can be a simplified browse and share interface appropriate for some users or external stakeholders. Users cannot deliver native resolution assets or perform other media management tasks. With permission, users can share links by email or social media, send review/approval links, and download content. Users can only browse content in assigned categories and for those with limited permissions, order requested clips for fulfillment by authorized personnel. This system could be used for branded customer microsites, stock footage libraries, or ecommerce.

The full Director Interface will display only authorized widgets (allowed functions) and categories of assets for which a user has permission: users will not see unassigned

functions or assets. The HTML5 interface can be configured individually to optimize the productivity and preferences of users or groups based on their permissions and functions. An additional option is watermarking the preview, so unauthorized copies made with a camera or other technique can be tracked.

eBINs and other links shared outside the system give access to only the selected items but does not require recipient authentication. eSHARE can be sent instead, which can require recipient authentication. Both processes have security features, including expiry dates, forwarding restrictions, open limits, and download restrictions. Approval links automatically expire after (dis)approval of the assets or expiry date, whichever comes first.

Rights usage restrictions can be specified by color coding, naming convention, or metadata tags. Usage can also be restricted by placement in (sub) categories with restricted access, only accessible to assigned user groups. Future versions of eMAM may have integrations to allow user to query outside content rights management/avails systems, which would help ensure users are not sending content to unauthorized parties.

eMAM keeps a complete history of usage by asset inside the system, and usage of external links for reporting and control purposes.

Focused and ready

Stability: Innovative and Scalable Products: EMAM's flagship product, eMAM™, is a robust media asset management (MAM) platform that has been continually innovated since its inception in 2006. The platform supports local, cloud, and hybrid environments, making it versatile and scalable to meet the needs of various organizations, from small businesses to large enterprises. This adaptability ensures that eMAM remains relevant in a rapidly changing technological landscape.

Strong Partnerships and Integrations: EMAM has established partnerships with over 90 technology companies, including major players like Adobe, Amazon, and IBM. These partnerships allow EMAM to offer integrated solutions that enhance its MAM platform, providing users with seamless workflows and access to advanced technologies like AI-driven video tagging and speech-to-text capabilities. Such collaborations not only strengthen EMAM's product offerings but also expand its market

Diverse and Prominent Clientele: EMAM's client base includes notable organizations such as HBO, Colgate Palmolive, and the Christian Broadcast Network. Serving a wide range of industries, including media, broadcasting, and corporate sectors, demonstrates the

reliability and effectiveness of EMAM's solutions. A diverse client base also helps mitigate risks associated with market fluctuations in any single industry

Financial Stability and Growth: Since its inception, EMAM has been self-financing, which underscores its financial discipline and sustainable business model. The company's ability to grow and expand its product lines without relying on external financing is a testament to its financial health and operational efficiency.

These factors collectively contribute to the stability and ongoing success of EMAM, Inc., positioning it as a reliable and innovative company in the media asset management space.

Support: EMAM is built on a tradition of customer service. When clients buy eMAM, they also get a long-term business partner and a software development partner. Empress has developed a worldwide system integrator partner to address the requirements of its customers with locally focused organizations. The current list is available at **https://www.emamsolutions.com/channel-partners/**. It also partners with leading technology partners who have teams for local or regional support worldwide as listed at **https://www.emamsolutions.com/channel-partners/**

Workflows

eMAM supports a wide variety of workflows. Most organizations use only one or a few of the workflows that eMAM powers. Because of the extensive configuration settings in eMAM, adding an additional workflow can be as simple as putting the configuration settings in the system. Some processes may not be licensed with eMAM Vault or eMAM Publish, but these systems can be expanded to eMAM Workgroup or eMAM Enterprise by adding additional licenses: for an overview see https://www.emamsolutions.com/channel-partners/#

Acquisition

eMAM can initiate proxy workflows with universal collaboration, so staff can begin work soon after ingest. This reduces the need to transmit native content digitally or to ship physical media. eMAM can support hybrid storage and processing, so users can work with native and proxy content in different places: on location, in the cloud, and in centralized storage.

H.264 MP4 proxies for sharing in eMAM can be generated from any camera, local or server based integrated transcoder, or a command line trigger. Content can be dragged and dropped into the eMAM Feeder from any Windows, Linux or Mac desktop. eMAM preserves the folder structure for a P2, S x S, or other complex camera card structures, prompting the user to name the camera card so it can have a unique ID in eMAM. At ingest, the user enters tags and metadata fields, some of

which can be required and organizes content into projects and categories. The ingest progress can be monitored from the Feeder and online dashboards. If the user loses an internet connection, then the system will continue the ingest process once a connection is reestablished.

An alternative to the Feeder is the Web Uploader. Users can browse and add content with no size restrictions directly into the web interface. This easy-to-use option means users no longer need a local application running on their desktop.

Adobe Premiere Pro can be used to tag and log content, then the integrated Adobe Media Encoder can make required proxies. Avid Media Composer and Apple Final Cut 7 can generate XML sidecars with required media. Additional tagging and logging can occur in the eMAM system after ingesting through the web interface. Cloud integration and the web interface ensure universal access to the content for all authorized users.

UDP file acceleration based on File Catalyst, Signiant, or Aspera can be used to speed the transfer of large files to cloud or on-premises locations.

Recording Room

Organizations often do not have the technical resources to manage equipment when they need to record training sessions, interviews, or interrogations. eMAM has developed a specialized application to control recording from an Axis camera. From the web-based interface, users can control the motion and focus of the camera, recoding controls (start, stop, pause), see relevant information, and enter additional notes or tags. The system will put together audio from a separate microphone and enter it directly into eMAM. Preset camera locations can be configured as buttons and the interface can be customized as needed.

Within the eMAM system, authorized users can use the web and tablet interfaces to use the media based on their permissions. The eMAM system or active directory/LDAP can be used to designate eMAM user groups. The original media and any edited (redacted) material will be preserved in the eMAM managed storage and archive on premise or in the cloud. MD5 checksums can validate the integrity of the recording.

Nexidia is an additional tool to power search for recordings. The eMAM connector allows users to have Nexidia Dialogue Search index some or all the ingested media. Users can provide a search word or phrase. The system will search all phonemes (individual elements

of speech) and display when somebody probably said that word of phrase in a video with the confidence (%) that the phrase was spoken. A quick click will bring the user to the appropriate part of the recording.

Storage and Archive Solutions

eMAM™ Enterprise can provide powerful and affordable solutions to power storage and archive needs.

Storage: eMAM is a full media asset management system, which can manage content in multiple locations and types: DAS, NAS, SAN, and offline or cloud storage. eMAM is agnostic about manufacturers, so Empress can provide the right solution to fit the needs and budget of its varied customers. This allows considerable flexibility and great savings over proprietary storage systems. eMAM can manage different storage tiers, allowing an organization to balance their budget and access requirements, while still preserving easy access to all content.

Offline: The eMAM database keeps a snapshot proxy copy and metadata for all the content. If native content is stored on the shelf, staff or customers can do an online search and preview to find content and generate an order as needed. eMAM can notify a tape librarian to install or mount the barcoded drive or tape.

Cloud: Users can unlock the scalability and speed of the cloud with connectors to Amazon, Microsoft, Google, IBM, NetApp, BT (British Telecom) cloud systems as well as providers in the ComputeNext cloud marketplace. Content can be copied to localized storage locations for quick initial download/delivery and cached speeds up to 40x faster than standard http.

Archive: eMAM can manually archive any number of assets, projects, or categories, and automatically do so for inactive files after a certain number of days, or once a certain condition is met. eMAM can archive editing projects, completed material, or original camera files. eMAM can also archive directly from the Adobe Premiere extension panel. eMAM retains all metadata and proxy copies for archived files. Users can manually restore content as needed, or partially restore clips managed by SGL, Front Porch Digital, and ASG/Atempo systems. eMAM also supports archives managed by 1Beyond, Quantum, Archiware, Spectra Logic, QStar, and XenData for complete restore.

eMAM can directly manage an archive to allow accessibility while providing cost savings and security of archived assets. Expensive near line storage can be minimized because eMAM can move content directly to the archive. The eMAM web-based interface will still allow complete access to archived assets for search, preview, and collaboration. As needed, eMAM can restore assets to any location, with transcoding on the fly. The online markers tab can be used to define a partial restore of only that part of a video which is currently needed, saving on time and near line storage space.

Editing

Editing is traditionally done only in the edit bay by editors. eMAM can open the process for worldwide collaboration. The online eMAM library provides access to the entire library of current and historical content so editors and non-editors alike can find the best material for the current project, whether it is onsite, in the archive, on the shelf, in the cloud, or in other locations.

eMAM users can sub clip, mark, annotate, and make sequences from the web interface. The system can move the native files, sub clips, and sequences to the editor with the metadata.

For Apple Final Cut Pro, watch our **Video** to see how XML can be used to share clips, sequences, and markers between FCP and eMAM.

For Adobe Premiere Pro CC, Link to **Adobe Exchange**.

.pdf) and our **video** to see how the built-in Premiere Pro panel allows full access to the eMAM library from within the editing desktop. Editors can check in, check out, localize, and lock projects to prevent editing conflicts. eMAM has extended support for Adobe Team Projects with the ability to convert between team and regular Premiere projects, and additional *Get Media* and *Share Media* buttons to streamline media management.

For Avid Media Composer powerful workflow using **NLT Technology**. See how we can build power archive workflows. eMAM has several other options for media sharing into the Avid editing workflow. Marquis Project Parking can both be used to manage and archive projects. Telestream Vantage can pass AAF between eMAM and Avid editors. eMAM can also link the Avid Interplay environment with other systems.

eMAM can power review and approval workflows from the editing system by email. Users can utilize comments, markers, and other collaboration tools to provide feedback to editors. Clips or final projects can be archived directly from the eMAM system. This provides future access to the content while providing the security and cost savings of archival storage.

Review and Approval

eMAM can power web-based review and approval workflows. Users can drag a clip into the approval widget or the button in the Adobe Premiere extension panel. The sender can specify recipients, a temporary password and how long before the link expires. Recipients will receive a branded email with a video player, options to approve/disapprove the media, and a submission button. After approval/disapproval, the link will deactivate, the asset status will change, and comments will be available in the web interface.

Another delivery option is to use an eBIN. These allow users to send a branded mixed-media email with a variety of templates and security options. Different tabs will display video, audio, and other content.

Marketing

eMAM has tools for sharing content and for sharing links to support a variety of marketing functions. Online Media Library

Defined or public users can have access to an online library with selective categories of content. The system can be setup so they can only order/request media, so they can share media, or whatever features are enabled for them. Common uses are:

1. Stock footage library. Videos and graphics can be available for public users. The system can be set to allow downloading of watermarked full-length videos or short teasers. After browsing, users can select media and order within the system, or send an order request for offline fulfillment.
2. Brand library. Internal staff and authorized partners can have a “single point of truth” where approved brand video, graphic, and text assets can be viewed and downloaded. As branding changes, staff can quickly replace older assets with newly approved versions.
3. Client microsites. Clients can have secure access to their completed videos and graphics or can collaborate on current campaigns. An agency could have different microsites with branding and functionality appropriate for each client.

Email Marketing

Users can send branded mixed-media emails to promote or sell content. These can be sent from several preset templates, or users can make their own. Security settings control access, forwarding, and downloading of the media. This gives users a secure and simple way to share media. The recipient need only open the email and hit play to watch the first video (autoplay is an option). There is a tab and carousel for videos and separate tabs for images and other media (i.e. documents).

The system is easier to use than FTP sites and gives better security than many public sharing portals and can power automated workflows. For even greater security, an eShare email link can be sent, which would require user authentication before activation. The system tracks users, plays, and comments so team members can track KPIs, view comments, etc.

Social Media Marketing

eMAM has a variety of tools for marketers to share video links to third party sites. Like other functionalities in eMAM, these features can be authorized for select user groups for select categories of assets.

Authorized users can search for assets, preview them, and drag/drop to the EBIN widget. Users can share links with a variety of social media sites: Google+, Facebook, Twitter, and LinkedIn. Destinations can be shared or personal: e.g. users can their own Facebook page or a corporate one. They also can send video links through emails or customized branded eBINs, with security settings.

Using the EMBED widget, users can get a shareable URL or an embeddable video player with a customized interface {skin) that will play the selected video on a third-party website from the eMAM system.

eMAM users can send videos to YouTube through Telestream Vantage and MOS Technologies.

Distribution and Digital Publishing

Delivery: Finished content can be delivered to any number of destinations with transcoding on demand through FTP or with UDP file acceleration. Playable links to proxy copies can be sent as mixed media eBIN or eSHARE messages, as shareable URL links or HTML player code for website insertion on blogs, social media sites and websites. With

approval, eBIN recipients and eMAM users can download in any of the preselected formats available. Collaboration and digital delivery directly from eMAM is simple and inexpensive because users can:

- Avoid shipping hard drives, tape, and DVDs globally. This reduces costs and provides quicker responses. eMAM transcodes on the fly and for delivery in multiple locations in multiple formats.
- Prepare demo reels or promotional campaigns with videos, audios, graphics, and documents together, and then send them to clients as emails for instant preview and optional download. Recipients can receive and use the content on any connected device.
- Save time by enabling users and clients to download content in their preferred format.

eMAM can also manage the publishing, sale, and promotion to the entire variety of third-party systems. eMAM or customer technical staff can preconfigure delivery profile destinations with an XML side car, required metadata, and other parameters so users need only change a metadata field or drag, drop, and select. eMAM allows an integrated experience for storage, processing, and publishing assets to minimize training, to minimize support, and maximize productivity. Depending on the destination platform, eMAM can bring back analytics and trend data from third party platforms to tie together different systems with metrics from direct eMAM sharing. Finally, eMAM brings a better value because organizations can selectively store and publish content in expensive cloud platforms or systems, while maintaining the bulk of content in cheaper localized storage or archive system. Supported destinations include:

1. CDNs. Content delivery networks power the mass distribution and download of content by storing and sending content in multiple cloud storage locations. These include Akamai and Limelight as well as broader cloud platforms including Amazon, Microsoft, and HP.
2. Custom web site. An eMAM user can quickly publish one or many assets with a video player to an existing website. A team from eMAM, the customer, or a third party can also develop a new interactive portal with rich media support.
3. Social media. eMAM users with permission can quickly generate embeddable links for publishing to popular platforms including Facebook, You Tube, Twitter, and LinkedIn. eMAM will extend support to other platforms in the future.
4. Distribution partners including market leaders Netflix, Hulu, Direct TV, iTunes, and more.
5. OVPs and cloud services including BrightCove and other VOD platforms. These platforms offer standard tools for channel publishing to web and multiple channels including Roku and FireTV; managing subscriptions and ad insertions; measuring and controlling distribution; adaptive bit rate streaming; and more.

6. Packaging and processing systems. Encoding.com and other online systems can be used to generate multi format delivery. Telestream Vantage with its Post Producer and other integrated offerings can coordinate the delivery of multiple delivery packets to multiple destinations, with correct bumpers, closed captioning, language tracks, and graphic bugs.

News and Broadcast

Delivery: Finished content can be delivered to any number of destinations with transcoding on demand through FTP or with UDP file acceleration. Playable links to proxy copies can be sent as mixed media eBIN or eSHARE messages, as shareable URL links or HTML player code for website insertion on blogs, social media sites and websites. With approval, eBIN recipients and eMAM users can download in any of the preselected formats available. Collaboration and digital delivery directly from eMAM are simple and inexpensive because users can

eMAM can integrate with newsroom and broadcast systems to streamline and automate workflows. eMAM can use an industry standard MOS gateway to send media to a newsroom story created by Octopus and other newsroom automation systems. The rich metadata capabilities of the eMAM system allows journalists the ability to quickly find the best media for an emerging story. Selected content can be pushed directly to the newsroom system and linked to a MOS tagged story. This brings the powerful eMAM tools for creating and storing media across media systems and location on premise and in the cloud directly to the fingertips of news staff.

eMAM is also developing links with broadcast automation systems, so eMAM managed media can be linked directly to a playlist. Again, this brings the media management tools directly to broadcasters, so they better find needed media and sequester it after use.

eMAM Interfaces

Director

This is the key user interface, included with all eMAM systems. It is web-accessible, so it can be used by any common internet browser, with language localization for the menus to

appear in many local languages, including Chinese, Russian, and Spanish. It has all the features needed by most users on a daily basis, as detailed in eMAM Features and Functions below. This flexible, widget-based interface supports the newest development and technology features, such as the HTML5 player. Most system functions are widgets that authorized users can move to different parts of their workspaces, so individual users or user groups can have predefined workspaces optimized for their needs and preferences.

Admin

Also known as the "Old Director" interface, this interface that has several features and settings, most of which are now included in the ADMIN widget in the Director interface.

Client

This is a simplified branded interface, which supports *search*, *browse*, preview, *download*, *embed, approval,* and *eBIN* functionalities only. With few features, it requires little or no training and support. For this reason, it is often used by non-technical staff or outside customers. Individuals who could not or would not be able to access content with complicated systems now have access to the complete library of digital content. All the features of this interface are in the Director interface, which can easily adjust tweaked to look like this interface, so this interface will be discontinued in future versions of the system.

Tablet

These iOS and Android native applications provide most of the functionalities of the eMAM system except for admin functionalities. These apps can be downloaded from the appropriate source, but then will need to be configured to work with the user's appropriate eMAM system:

https://play.google.com/store/apps/details?id=com.empress.emam&hl=en

https://itunes.apple.com/us/app/emam-for-ipad/id983971144?ls=1&mt=8

Feeder

This native Java application can be downloaded from the Director interface INGEST widget to work on any Mac, Windows or Linux desktop. Dragging and dropping content into the Feeder triggers multi-part ingest of the content. Users can apply tags, specify metadata, and assign the content to appropriate categories or projects. This application will work locally if the internet connection is lost during upload, renewing an upload from wherever it stopped once a connection is reestablished. It also has a built-in dashboard to monitor progress.

Download Manager

This interface tracks the progress of a current download and the history of previous downloads.

Super Admin

This administrative interface is used by system admin (IT staff) and unit administrators (departmental managers) to configure system settings, such as storage and ingest profiles. Super Admin users can take advantage of the large array of configuration settings to change the system parameters as needed without customization. The Workflow tab can set up automatic processes and/or notifications (trigger) if one or more conditions are met. *eMAM Online users do not have access to this interface*.

Premiere Pro extension panel

This is an extension panel inside an Adobe Premiere Pro CC user's desktop that features many of the functions of the eMAM system from within the editing desktop. It supports Adobe Project for Teams. A summary of its functions can be found at white paper.

It can be downloaded from the same network location that has the Director interface http://emam361/eMAMDirector/premiere/download.htm]

eMAM Features and Functions

eMAM has a wide range of features. A user may not have access to some of the features, depending on allowed permission for the user group(s) to which the user is a member of and which eMAM system is used or deployed.

The Director interface has a DASHBOARD widget that allows authorized users to check the status on various processes in the system.

General Asset Features

Search: Simple and advanced search capabilities can be performed on a variety of search criteria using wild cards and Boolean logic. eMAM keeps information (metadata) for all content in the database, so search can find assets in nearline storage, offline storage, storage in other locations, archive, or on physical media. Advanced searches allow users to search based on a series of parameters, which can be saved for future searches. Marker searches allow users to search for markers made somewhere on an asset. Conditional searches and filters allow users to further narrow searches, which can be saved for personal or public reuse later.

Browse: All the assets managed by the eMAM system are displayed in the Director BROWSE widget, or users can only view assets in a selected storage location/tier. Assets can be displayed as thumbnails, filmstrips, or a list with different settings. Clicking on an asset causes information in the PREVIEW and other widgets to be displayed according to the selected asset. Assets can be moved or downloaded directly to this widget.

Metadata: eMAM stores a range of information about each asset to power search. Embedded metadata is information about the asset that comes from the camera or information contained within the asset, e.g., video frame rate. Embedded metadata comes into the system at ingest and is non-editable. Custom metadata fields are defined for the use of the organization. eMAM can support any number of these fields, and more fields can be added by authorized users or from external sources. Values for custom metadata can be defined at ingest in the eMAM Feeder or they can be changed by authorized users in eMAM Director Interface. Users can also make any number of private (for personal use only) or public tags on assets.

By clustering custom metadata fields, eMAM can show only relevant metadata fields, and support migrations from Final Cut Server, and common standards like Dublin Core. eMAM defines metadata groups as belonging to user groups, so users will only see relevant fields. eMAM defines metadata sets as collections of groups by asset or by project.

History: eMAM stores the entire history of what is done to an asset within the system. The asset history can be downloaded or printed.

Ingest: eMAM can ingest assets through watch folders, eMAM Feeder, the HTML5 uploader, or Adobe Premiere Pro. The system can define any number of watch folders: anything dropped in the watch folder will be automatically ingested into eMAM. The INGEST widget has the Uploader for direct use and the Feeder application for download to any Mac, Windows, or Linux desktop. Any content scanned or dragged into the eMAM Feeder application will be automatically ingested after tagging. There is a built in extension panel within Adobe Premiere Pro: any content added to an eMAM project from Premiere Pro can be automatically ingested into eMAM.

Keyframe: Users can choose which keyframe (still) of an asset is shown in the browse window. Users can select any extracted frames or upload a new one, and designate it as private or public, shown to all users.

File Versioning: eMAM can store multiple versions of an asset. Users can designate one version as the face version, which is the default one shown to users. From the FILE VERSION widget, users can look

through the different versions, see in which storage/archive locations they exist, upload new versions, manage audio tracks, and manage subtitles.

Comment and Ratings: Users can make any number of general comments about an asset. Comments can be used to find assets. Ratings can be used to quickly share thoughts with others. The COMMENTS widget collects allows users to add or delete comments directly. It also can show comments made from eBINs and approval links.

Simple and Advanced Search: The Search Filter widget allows the user to perform what is referred to as a "*faceted search*". It can be used to search assets based on Projects, Categories, Asset types, Asset Size and more. Click on one or more filters to filter out the assets you are looking for in the *Browse* widget. This is another quick search method for finding assets by "drilling down" certain search criteria to repeatedly narrow the search.

The user can create a customized search filter to narrow down the search criteria in Advanced Search under the "Manage filters" tab. The user will specify the field in which system will search for the asset. The user can also specify custom and embedded metadata as a search field. To manage access, the filter can be made private or public. The filter is saved under "Saved Filters" in the *Search* widget. This is useful for frequent searches using the same criteria.

Thesaurus: Super Admins can manage thesaurus search function by creating expansion sets. An expansion set contains a group of words such as "smile", "blush", and "laugh" that are substituted for one another by a full-text query. Under Thesaurus tab, you can manually add these words to the expansion sets. Therefore, if a user enables *Thesaurus* search in the Basic and Advanced search, search result will list all the assets with the searched phrase and the synonym words in the expansion sets. In the Admin Tools widget, click on *the Thesaurus* tab will take you to the *Admin Tools* page.

Asset Proxy Features

Preview: Proxy preview limits the amount of time and money spent on transmission and download of digital media or shipping of physical media. Low resolution H.264 proxies for video are fast and easy to view from anywhere on any connected device. J-K-L keys can be used to step through content frame by frame. The preview player has options for video quality selection, audio track selection, and tools (described below) for annotation, markers, and sub clipping.

Annotate: Users can markup individual frames of a video with text, circles, and other shapes to share with other users.

Markers: Users can browse to any place on a video asset to set and name a marker. This marker appears on the browse window as a red mark. Marker labels can be searched using the marker search function. Markers made in eMAM will automatically appear on the editing timeline in Premiere Pro or Final Cut Pro 7 or delivered as wtt or srt files.

Sub clip (plus Partial Restore): This feature puts labels and start (mark in) and stop (mark out) points along the length of a video. This can be used to send information to an editor as an Edit Decision List (EDL) or can be used to generate a new version of the asset (subclip) with only the marked parts. For an asset that is archived using an SGL, Front Porch, or ASG/Atempo archive, this feature can be used to partially restore the selected parts of an archived asset and deliver them to the required destination.

Timeline plus preview: Users can add any number of assets and subclips together to make an editing timeline/storyboard/sequence. Users can preview this timeline and share with Premiere Pro or Final Cut Pro editors for craft editing.

Asset Sharing Features

Review and Approval: Users can review and share one or many assets via branded emails. The recipient receives an email proxy link to review material. This proxy link can be set to expire after a specified date, or when the approver accepts or rejects the asset(s), whichever comes first. This recipient needs no training and no plugins or other tools to review the asset. Comments can be seen in the Director COMMENT widget. After reviewing the asset status changes and the system can send a notification or trigger another process using the WORKFLOW tab of the Superadmin interface.

eBIN: Individual assets can be added to the eBIN, much like an online shopping cart. Items in the eBIN can be sent as a multimedia proxy email with customized branding and numerous security options.

Embed: Users can create a URL link to share a video with the video player that can shared by email or social media or users can get HTML code to embed the video with the player on any website. The player can be skinned for appearance and the player settings can be

modified.

eSHARE: Users can a shareable link that has options to require recipient authentication, allow ratings and likes, and and download ability. There are also buttons to send the link to Google+, Twitter, Facebook and LinkedIn. This is triggered from the eBIN widget.

YouTube: eMAM can send videos to YouTube in three ways: (1) a Zapier Zap automatic link, (2) through a delivery using the Telestream Vantage social media option, or (3) using the eMAM YouTube connector workflow, triggered by a metadata change, delivery, or WORKFLOW trigger.

Download: Authorized users can download one or more assets from the eMAM managed storage to a local desktop or other destination. Available formats for download are pre-specified and preloaded in the system (native, mezzanine, and proxy formats). This can occur with UDP file acceleration. Downloads will occur from the most appropriate (closest) storage location. The download manager tracks the progress of the current download and the history of previous downloads.

Delivery: Users can deliver the asset to appropriate locations or destinations with transcoding to the appropriate format/codec. Delivery profiles are usually preset for an organization by system administrators.

Project export: A user can export a project to an editor using XML export to Final Cut Pro or Adobe Premiere. However, Premiere users can easily use the built-in extension panel to directly access all eMAM projects, bins (subprojects), (sub)categories and sequences with markers.

Adobe Anywhere: Authorized eMAM and Adobe Anywhere users can access shared productions to which they have access. eMAM users can create new productions, view and add content to current productions, and convert productions to eMAM projects to share, review/approve, deliver, and archive. eMAM projects can also be converted to Anywhere productions. Adobe Anywhere integration is included with eMAM Enterprise and is optional for eMAM Workgroup.

Asset Group Features

Category: Assets can be organized into one or more eMAM categories and subcategories.

User groups have restricted access and permissions to categories for security. eMAM can manage all assets of a category together as needed, e.g. archive an entire category. Any number of categories and subcategories can be defined, but the system never duplicated the media.

Project: A collection of assets is grouped for a purpose, often editing, into a project. Projects can be shared with other users. They can be exported to editors. eMAM can generate any number of projects and subprojects (bins) without duplicating the media. eMAM has an advanced integration with Adobe Premiere including project check in, check out, and project locking. eMAM also has a PROJECT VERSION to track different project versions and changes that were made.

eOrder: One or a group of assets can be ordered for delivery or fulfillment. The orders will be sent as a detailed email for the appropriate person or department to complete. Orders are useful if the user does not have access to the native content or if the native content is not online. Asset orders can be generated from the eBIN system.

Archive/Restore: Selected assets or an entire project or category can be pushed to the archive from the Director interface. The database will retain metadata and proxy copies of all archived media, so these can still be found by search. Assets can be automatically archived if they are not used for a length of time. Archived assets can be restored manually, or users will be asked to restore an asset if it is required for delivery or download. The Premiere extension panel has buttons to Archive and Restore media: the system will warn a user if some of the media is used by other projects.

Product Line

eMAM has four installed product lines: *eMAM Vault, eMAM Publish, eMAM Workgroup and eMAM Enterprise*. *eMAM Cloud Service* is offered as a cloud-based option, saving clients the need to purchase and maintain their own hardware in cases where that is an appropriate solution.

eMAM Cloud Service

eMAM Cloud Service offers customers the power and flexibility of the complete eMAM

system without the cost of purchasing, installing, and maintaining an on-site installed system and the infrastructure to support it (for financial implications, see blog post: http://empressmam.blogspot.com/2014/01/capex- vs-opex.html. Customers will have both Client and Director Interfaces to use and share their content. eMAM Cloud Service Customers can also use some or all the Client features to support their own web portal.

This SaaS (Software as a Service) option stores the content in the Microsoft Azure system, which ensures security and 99+% guaranteed uptime for its infrastructure and state-of-the-art security features.

eMAM Cloud Service can use the Cloud Connector for worldwide content distribution. Cloud or CDN systems greatly speed worldwide content transmission. Downloads occur from the nearest cloud storage location to provide faster download times.

Customers control content, putting in categories and projects, assigning users and roles, control access to assets, and so forth, from any web browser.

There are two packages “Organize” and “Share”. Package details and pricing are detailed at emamcloud.com. Pricing is a function of the chosen package, number of users, storage, data transfer, media encoding, and support package provided. A calculator is provided on the site to determine pricing.

eMAM can also run a dedicated VAULT or WORKGROUP cloud system for a particular customer. This would not be SaaS, but deployment of the software with public cloud processing and storage. The customer can set up their own cloud infrastructure, it could be provided and managed by a system integrator or third party, or the EMAM team can provision and run it.

eMAM Comparison Chart - also available online at
https://www.empressmam.com/eMAM_comparison_chart.aspx#

Component / License	eMAM ENTERPRISE	eMAM WORKGROUP	eMAM VAULT	eMAM Online
Use Case	Large enterprise customers	Complete collaboration workflows	Archive and storage management	Wherever hardware or accessibility is an issue
Typical Hardware (Not Included)	5+ Servers	2 Servers	1 or 2 Servers	n/a. Login from browser or tablet
Storage support	On premise and cloud	On premise and cloud	On premise and cloud	Cloud storage included
LTO Robotic library support *	Yes	Yes	Yes	N/A. Support public cloud archive
User Licenses included	50	25	10	5-50+
Storage and File Licenses	Unlimited	Unlimited	Unlimited	100GB - 1TB+
License options	Purchase, Subscribe	Purchase, Subscribe	Purchase	Monthly billing

eMAM Vault

This installed eMAM system provides complete storage and archive management with most of the features of the eMAM system. Some of the eMAM system integrator partners may offer this system as a turnkey package.

eMAM Vault runs on one or two Windows servers. It includes licensing for 10 active defined users. It offers complete LTO archive library management for any supported system managed by 1Beyond, Archiware, Atempo, Front Porch Digital, QStar, Quantum, SGL, SpectraLogic, or XenData. It can also completely manage server based ingest and transcoding.

eMAM Publish

This system expands the tools of eMAM Vault with sharing and publishing tools: EBIN, ESHARE, etc. It includes licensing for 25 active defined users.

eMAM Workgroup

This system has all of the tools of the Vault and Publish systems but adds support for collaborative editing (PAM/work in progress) workflows. It can add multiple business units, essentially separate systems with different branding and content organization that organizations use for different divisions or different external customers. It includes licensing for 25 active defined users and is usually run on two servers, one for ingest/transcoding (video processing) and the other for web services (collaboration). It has optional support for Adobe Anywhere and Nexidia Dialogue Search. This system can be purchased or ordered as a one-year subscription.

eMAM Enterprise

The flagship product, eMAM Enterprise has software installed on multiple servers to provide for redundancy and scale to meet user demands. It can be configured with Microsoft standard systems to provide a full failover for security. It includes unlimited business units and all of the system features, including Adobe Anywhere and Nexidia Dialogue Search.

Industries Served

Media and Entertainment Companies

These organizations work with very large video files that need to be quickly processed,

shared, edited, and delivered. Integration with a series of technology systems is needed to ensure a best-of- breed integrated and streamlined workflow, especially as file sizes and volumes continue to increase.

Acquisition: A drag and drop into eMAM Feeder ingest content from any Windows, Mac, or Linux desktop. The system preserves the folder structure of P2, S x S, or other complex camera card structure. In eMAM Feeder, the user enters tags and metadata fields, some of which can be required, and organizes content into categories and projects. The ingest process can be tracked from the Feeder dashboard, or the eMAM dashboard. If the user loses an internet connection, then the system will continue the process once a connection is reestablished. Users can also use local editing and transcoding systems to generate proxies, tag content, etc. Additional tagging and logging can occur in the eMAM system through the web interface. Users can also use the web uploader for greater flexibility.

Post Production: eMAM users can generate projects, mark, tag, sub clip, and generate sequences to share with editors, so now non-editors can be involved in the editing process from any connected device. XML exchange will share information with Final Cut editors. A built-in extension panel for Adobe Premiere Pro allows full access to all current and historical eMAM managed content within the editing desktop. eMAM also allows non-editors access to the Adobe Anywhere workflow, so they can create and view shared productions, add content to productions, archive productions, and more. Avid editors can use eMAM to store and share clips, sequences, or projects. eMAM can use various third-party systems for a tight integration into Avid editing environments including Telestream Vantage (for AAF) and MXF Server as well as Marquis Medway, Project Parking, and Sequence Parking. Editors can access the eMAM online library to find historical or remote content for the current edits.

Review/Approval: Editors can send a rendered clip for email approval or an entire project with stills, scripts, notes, and more as an eBIN or eSHARE of mixed media branded email. eMAM Client and Director Interfaces can be used to build client digital libraries and microsites for all current and historical content.

Delivery: Finished content can be delivered to any number of destinations with

transcoding on demand through FTP or by UDP file acceleration. Playable links to proxy copies can be sent as eBIN messages, as shareable URL links, sent to social media and publishing sites, or HTML player code for website insertion can also be generated. With approval, eBIN and eSHARE recipients and eMAM users can download in any of the preselected formats available.

Archive: eMAM users can easily manually archive any number of assets, projects, or categories, or automatically do so for inactive files, (i.e. after a number of days unused). Archived assets could be editing projects, completed material, or original camera files. eMAM can also archive directly from the Adobe Premiere panel. eMAM retains all metadata and proxy copies for archived files. Users can partially restore content using SGL, Front Porch Digital, Quantum, or Atempo/ASG systems. eMAM also supports 1Beyond, Archiware, QStar, and XenData for complete restore.

Marketing and Public Relations

Engaging customers and staff with video is the key to modern campaigns, but processing, managing, and publishing the content can be an issue.

eMAM has complete support for the production and post-production processes as described above, while allowing other stakeholders input into the process.

The eMAM Client interface offers an intuitive branded microsite for clients and non-technical staff to access content from any connected device for email and social media sharing. eMAM is built on web services APIs, so it can be easily power video workflows behind any web portal.

With an online library for all current and historical content, users can easily find the best materials for current requirements regardless of location. Using the Director Interface, users can collaborate, share, and deliver content. eMAM manages the storage on premise, in the cloud, and in the archive to power workflow processes and then deliver to social media, video platforms, CDNs-to any device and any system required.

eMAM can provide one point of truth for global branding. Users can have restricted

access to non- approved assets. Outdated branding can be quickly removed from circulation though the unified brand portal in a few clicks.

eMAM has a set of included reports and live dashboards to measure responses. Using standard Microsoft SQL database technology, custom reporting can be easily generated from the eMAM system or third-party reporting tools.

Government

In the face of growing demand for video for the military, security and training purposes, government agencies need powerful and secure video solutions to meet their missions.

eMAM can provide great flexibility to meet the current and future needs of government agencies. eMAM can run on any Windows Server and supports almost any storage system. The same interface can provide access to content from any number of locations.

Beyond the standard Microsoft security features, eMAM has granular permission settings to restrict access, and virtually every system feature for each asset category and user group. There are over two dozen permission settings possible for each category. eMAM can define user groups, or they can be defined by LDAP/Active Directory settings. Users will see only those features and assets that they are allowed to use.

With Microsoft Server and SQL Server clustering, the system can scale enormously. Agencies can deploy a system to meet the current needs and can expand it later as needed to meet future needs without any migration or obsolescence.

eMAM is integrated with many best-of-breed technologies to provide integrated systems. With RESTful and SOAP APIs, it can easily integrate with other current or future systems.

Education

The chalkboard has given way to the modern interactive media experience, so the

modern educator needs powerful tools to share information with students and colleagues. Using proxy copies in eMAM minimizes network traffic, redundant storage, and processing requirements. Active archive management allows access to the complete wealth of historical digital information for current requirements while minimizing current storage requirements. The open eMAM system can easily integrate with other systems to make a best-of-breed integrated combined solution.

No longer does somebody raise their hand (unless they want to do it virtually over a web presentation). Digital collaboration and social media allow content to be quickly shared and consumed.

For high school and college sports teams, the sports fan base extends well beyond the stadium. Sports fans can access current and historical game footage, additional media, and stats about the athletes. The eMAM system can be used to power a branded portal to provide an interactive fan experience.

Alums can be engaged with video content distributed by email or through branded portals.

Select Customer Solutions

Introduction

At EMAM, Inc., we are committed to integrating social value into our operations, particularly in tackling economic inequality and enhancing supply chain resilience. Below, we provide three examples of previous contracts where we have successfully incorporated social value across multiple dimensions.

Example 1: Centralizing Media Asset Management for Charter/Spectrum

Context and Objective: In 2019, Charter/Spectrum, a leading telecommunications company, faced challenges with decentralized advertisement production scattered across over 100 offices in the United States. Each office operated locally with disparate storage solutions, including local operations, archives, and portable hard drives, leading to scattered and uncoordinated content management. The objective was to centralize media asset management and streamline production operations to improve efficiency, scalability, and security.

Innovation and Disruptive Technologies: We deployed eMAM in the AWS cloud to address these challenges, centralizing the media asset management system. This deployment leveraged serverless technologies such as AWS Elemental MediaConvert for transcoding incoming materials from different locations. These were cutting-edge cloud technologies that disrupted traditional on-premises approaches at the time. The solution provided a highly scalable infrastructure, allowing Charter/Spectrum to efficiently manage their growing content production needs.

Scalability and Future-Proofing: The implementation of eMAM in AWS ensured Charter/Spectrum's media asset management system was both scalable and future-proof. The AWS cloud infrastructure allowed for seamless expansion, and using serverless technologies ensured that the system could scale automatically in response to increasing demands. Charter/Spectrum continues to use and expand the eMAM system, benefiting from its flexibility and scalability.

Cyber Security Management: We addressed cyber security concerns by integrating robust security measures into the AWS deployment. This included using AWS Web Application Firewall, Application Load Balancer, Security Hub, IAM, and other purpose-built tools to tackle security issues. Regular yearly audits were conducted to ensure compliance with various security requirements. These measures significantly enhanced the overall security

posture of Charter/Spectrum's media asset management system, protecting sensitive client content from potential threats.

Community and Supply Chain Resilience: To ensure successful implementation and ongoing operations, we trained our staff extensively, emphasizing the importance of customer content security. Our team obtained certifications in relevant areas to enhance their expertise. Additionally, we carefully selected technologies from a vast ecosystem of nearly a hundred technology partners, ensuring the most suitable solutions were integrated. This collaborative approach not only strengthened our internal capabilities but also supported the resilience and capacity of our supply chain.

Tackling Economic Inequality: We made significant strides in addressing economic inequality through this project:

1. **Local Employment and Skill Development:**
    - **Training Programs:** We implemented comprehensive training programs for local IT staff and other employees, providing them with new skills in cloud technologies and media asset management. This initiative enhanced their job performance, increased their employability, and increased their potential for career advancement.
    - **Certification Opportunities:** We facilitated opportunities for staff to gain certifications in relevant technologies, promoting professional growth and development.
2. **Supporting Local Suppliers and Technology Partners:**
    - **Collaboration with Local Firms:** We prioritized working with local suppliers and technology partners wherever possible, fostering economic growth within the community. This approach helped create jobs and supported local businesses.

- **Capacity Building:** By collaborating with smaller, local technology firms, we helped them scale and improve their capabilities, contributing to a more resilient and diverse supply chain.

3. **Economic Impact:**
    - **Job Creation:** The centralized system reduced the need for redundant local operations, allowing for the reallocation of resources to more strategic roles, thereby creating higher-value job opportunities.
    - **Community Engagement:** Through community outreach and educational workshops, we raised awareness about the importance of digital transformation and cyber security, empowering local communities to engage with new technologies and opportunities.

Outcome:

- **Centralization and Efficiency:** Successfully centralized media asset management operations, resulting in streamlined workflows and improved coordination across 100+ offices.
- **Scalability:** Enabled rapid expansion of the system to accommodate growing production needs.
- **Security:** Enhanced security posture with zero reported breaches, thanks to robust AWS security measures and regular compliance audits.
- **Staff Development:** Improved staff expertise and awareness through targeted training and certifications.
- **Community Engagement:** Strengthened partnerships with technology providers, enhancing the ecosystem's resilience.
- **Economic Inequality:** Created job opportunities, supported local businesses, and facilitated skill development, reducing economic inequality.

Conclusion

Through these initiatives, we demonstrated our ability to leverage innovative technologies, ensure scalability, manage cyber security effectively, and enhance community and supply chain resilience. This project with Charter/Spectrum highlights our commitment to integrating social value and tackling economic inequality, ultimately delivering a robust, secure solution that meets the client's evolving needs.

This approach ensures that each point is addressed comprehensively, focusing on how the project has contributed to reducing economic inequality and supporting social value.

Example 2: Efficient Media Management for EROS Entertainment

Context and Objective: EROS Entertainment, a major player in the film industry, manages thousands of movies that require complex combinations of video, audio, and subtitle tracks to meet diverse censorship and language requirements across different countries. Traditional methods of storing each combination separately were not feasible due to enormous storage needs and logistical challenges. The objective was to provide a scalable and efficient solution to manage these assets while reducing storage costs and ensuring high security.

Innovation and Disruptive Technologies: To address these challenges, we deployed eMAM, a media asset management system, for EROS Entertainment. eMAM allows video, audio, and subtitle files to be stored separately and dynamically combined as needed based on delivery requirements. This innovative approach significantly reduces storage costs and streamlines managing diverse media assets. For example, suppose a customer requests a movie with English audio and French subtitles. In that case, eMAM can create and deliver this combination on the fly, eliminating the need for pre-stored combinations.

Scalability and Future-Proofing: eMAM's architecture ensures scalability and future-proofing. The system can easily accommodate new media formats and additional languages or censorship requirements without extensive reconfiguring. This flexibility allows EROS Entertainment to adapt to changing market demands and expand its service offerings globally.

Cyber Security Management: Given the media assets' high value and copyright-sensitive nature, the system was deployed in a highly secure environment. We implemented robust security measures, including:

- **Data Encryption:** All media files are encrypted in transit and at rest to protect against unauthorized access.
- **Access Control:** Role-based access control ensures only authorized personnel can access or modify the media files.
- **Monitoring and Auditing:** Continuous monitoring and detailed audit logs track all access and modifications, helping detect and prevent piracy attempts.

Community and Supply Chain Resilience: By centralizing media management and leveraging eMAM's capabilities, EROS Entertainment can now more efficiently service global language and censorship requirements. Centralizing media also allowed their staff to work on global projects, fostering a more inclusive and diverse workplace. Employees were trained to handle international media requests, which enhanced their skills and reduced barriers to global collaboration.

Tackling Economic Inequality: We contributed to addressing economic inequality through this project in several ways:

1. **Job Creation and Skill Development:**
   - **Training Programs:** We conducted comprehensive training programs for EROS Entertainment staff, equipping them with skills in advanced media management and digital technologies. The training improved their job prospects and professional growth.
   - **Global Collaboration:** By enabling staff to work on international projects, we helped broaden their experience and reduce global employment barriers.
2. **Supporting Local Technology Ecosystem:**
   - **Partnerships:** We engaged with local technology partners for implementation and support, contributing to the local economy and creating job opportunities within the tech community.

- **Capacity Building:** Our collaboration with local firms helped them build capacity and improve their technical expertise, fostering a more resilient local technology ecosystem.

3. **Economic Impact:**
   - **Cost Savings:** The significant reduction in storage costs allowed EROS Entertainment to reinvest savings into other areas, such as content creation and market expansion, leading to overall business growth.
   - **Increased Efficiency:** Improved operational efficiency enabled the company to better compete in the global market, contributing to economic stability and growth.

Outcome:

- **Storage Efficiency:** Achieved substantial storage cost savings by eliminating the need for redundant media file copies.
- **Global Service Capability:** Enabled efficient servicing of diverse language and censorship requirements worldwide.
- **Security:** Maintained high-security standards, protecting copyrighted content from piracy.
- **Staff Development:** Enhanced staff skills and promote global collaboration.
- **Economic Inequality:** Supported job creation, skill development, and local technology partnerships.

Conclusion

Through these initiatives, we demonstrated our ability to leverage innovative technologies, ensure scalability, manage cyber security effectively, and enhance community and supply chain resilience. This project with EROS Entertainment highlights our commitment to

integrating social value and tackling economic inequality, ultimately delivering a robust and secure solution that meets the client's evolving needs.

Example 3: Digital Transformation for Colgate-Palmolive

Context and Objective: Colgate-Palmolive, founded in 1806, is a multinational consumer products company specializing in household, health care, personal care, and veterinary products. In 2010, Colgate-Palmolive deployed eMAM to manage their studio, learning center, editing, and digitization workflows. The goal was to streamline media management and enhance operational efficiency across various departments.

Innovation and Disruptive Technologies: eMAM collaborated with technology partners and systems integrators to develop a comprehensive media management system for Colgate-Palmolive. This included:

- **Robotic LTO Library from Spectra Logic**
- **Archive Middleware from Xendata**
- **SAN/NAS Storage from Rorke Data (now ScaleLogic)**
- **Apple Xraid-based Capture Systems**
- **IBM Servers**

The core eMAM database and Gateway were deployed at the corporate datacenter in Piscataway, NJ, while the application servers, SAN storage, and archive storage were located at the headquarters on Park Avenue, New York City. Digitization of tapes and films was handled by Iron Mountain, and the digitized content was ingested into eMAM through eFeeder with associated metadata.

Scalability and Future-Proofing: In 2022, Colgate-Palmolive migrated the entire system to the AWS cloud to facilitate global workflows and eliminate the complexities of maintaining on-premises servers, storage, and LTO libraries. The new system is integrated with AI technologies to detect and recognize faces, objects, and keywords, and includes AI-based automatic transcription in multiple languages. This accelerates the availability of content to worldwide employees in different languages and regions. Additionally, generative AI solutions are being implemented to index videos and extract additional insights from the archive.

Cyber Security Management: Throughout the process, eMAM underwent multiple audits, security reviews, and CyberGRX certification to meet corporate compliance requirements. These efforts also helped eMAM achieve SOC2 and ISO 27001 certifications, ensuring the highest standards of data security and compliance.

Community and Supply Chain Resilience: eMAM's deployment at Colgate-Palmolive significantly impacted the global workforce by providing easy access to rich media, which expanded to support Corporate Communications, Marketing, and External Producers. The centralized system improved collaboration and efficiency across various departments, fostering a more connected and resilient organization.

Tackling Economic Inequality: eMAM's deployment contributed to addressing economic inequality through several key initiatives:

1. **Job Creation and Skill Development:**
    - **Training Programs:** Comprehensive training programs were conducted for Colgate-Palmolive staff, enhancing their skills in media management and digital technologies. This improved their job performance and career advancement opportunities.

- **Global Collaboration:** By enabling staff to work on international projects, eMAM helped broaden their experience and reduce global employment barriers.

2. **Supporting Local Technology Ecosystem:**
   - **Partnerships:** eMAM collaborated with local technology partners and integrators, contributing to the local economy and creating job opportunities within the tech community.
   - **Capacity Building:** By working with smaller, local technology firms, eMAM helped them scale and improve their technical expertise, fostering a more resilient local technology ecosystem.
3. **Economic Impact:**
   - **Cost Savings:** The migration to the cloud and the implementation of AI technologies resulted in significant cost savings, allowing Colgate-Palmolive to reinvest in other strategic areas, such as innovation and market expansion.
   - **Increased Efficiency:** Improved operational efficiency enabled the company to better compete in the global market, contributing to economic stability and growth.

Outcome:

- **Global Connectivity:** Facilitated seamless global workflows by migrating to AWS cloud.
- **Enhanced Efficiency:** Implemented AI technologies for faster content processing and improved access.
- **Security:** Achieved SOC2 and ISO 27001 certifications, ensuring robust data security and compliance.
- **Staff Development:** Enhanced staff skills and promoted global collaboration.
- **Economic Inequality:** Supported job creation, skill development, and local technology partnerships.

Conclusion

Through these initiatives, we demonstrated our ability to leverage innovative technologies, ensure scalability, manage cyber security effectively, and enhance community and supply chain resilience. This project with Colgate-Palmolive highlights our commitment to integrating social value and tackling economic inequality, ultimately delivering a robust and secure solution that meets the client's evolving needs.

About EMAM, Inc.

Since 2006, leading organizations have been using the eMAM platform to collaboratively create, share, and distribute media. The eMAM product line (eMAM Vault, eMAM Publish, eMAM Workgroup, eMAM Enterprise, eMAM Cloud Service, and eMAM Cloud Platform) meets the media asset management and workflow management needs of broadcast, media, government, and corporate organizations in local, hybrid, and cloud environments.
With dozens of system integrators and over 90 technology partners, users can have automated, integrated workflows to work faster and wiser. EMAM, Inc. is a closely held Delaware C corporation.

New Integrations (eMAM 5.5)

- Deepgram
  - Transcript
  - Summary
  - Topics
  - Entities

- 2. Twelve Labs
  - Federated Search
  - Generative AI
  - eMAM AI in Premiere Panel

- MOG (mCODER & mPORT)

- mCODER
- mPORT

- DALL-E 3 (OpenAI)
  - Text-to-image generation

- Whisper (Open AI)
  - Speech-to-text transcription

- Apache Airflow and Google Sheets
  - Workflow automation
  - Metadata management

- Advanced Security Features (eMAM 5.5)

  - Addressed Web Application Security Vulnerabilities
  - Regular expression injection
  - Path Traversal issue
  - Server-Side Request Forgery (SSRF)
  - XML External Entity (XXE) Injection
  - XML Injection
  - Open Redirect JQuery
  - Replaced the Hardcoded Secret values

  - Text & Logo Watermarks for eShare Links

- Enhanced Features (eMAM 5.5)

  - Attach Original Media
  - Stitch & Deliver using Vantage
  - Sub clip Delivery using Elemental MediaConvert
  - New eShare Theme "EmbedSite"
  - New Widget "Links" for Displaying External Links

- Search Enhancements (eMAM 5.5)

  - Added Insights and Transcript in the Manage Filters Search Field
  - Added "Not Equals" and "Not Contains" as Condition Parameters in Advanced Search Filter

- Workflow Enhancements (eMAM 5.5)

    - Import Premiere Sequence into DaVinci Resolve (as FCP7 XML)

    - eMAM Panel Enhancements (eMAM 5.5)

    - Premiere Panel
    - Multiple selection of assets
    - Option to search category names in the Metadata popup window
    - Manage elements stuck in uploading status
    - XML file export as part of the project version

    - After Effects Panel
    - Option to choose composition for export
    - Option to search category names in the Metadata popup window

    - DaVinci Resolve Panel
    - Option to download Resolve panel
    - Option to import the eMAM Project
    - Show project Collections in Resolve panel

- UI Enhancements (eMAM 5.5)

    - Sub clips Widget Checkboxes Set as Unchecked by Default
    - Included PATCH Method for Workflow REST Notify Action

    - Improved AI Indexing (eMAM 5.5)

    - Content Moderation with Amazon Rekognition

    - Improved Queue Management (eMAM 5.5)

    - eFeeder Enhancements
    - Status Options
    - Reset Status Icon
    - Auto delete uploading items
    - Parts size and Queue size calculation

- Other General Changes (eMAM 5.5)

- Supports Stitch and deliver using EGL (Telestream EDL) file
- Workflow changes for SQS entry for cloud delivery
- Proxy recreation using Elemental MediaConvert ingest profiles
- Preview player changes to load the original file if the proxy does not exist
- Improved loading performance of the project widget
- Super Admin changes to improve embedded metadata loading in Delivery profile & workflow modules
- Attachment option in the sidecar XML and ingest manager
- Lambda transcoder changes to replace Wand library with Pillow library for image processing
- Rebuilt lambda transcoder in lambda python 3.11 runtime
- Cross-site Scripting (XSS) resolution in eMAM Director
- Delivery service changes to support / and \ with _ for S3 duplicate delivery
- Adobe Premiere & After Effects panel compatibility with Adobe 2024 updates
- Super Admin changes to remove unwanted configurations
- Implemented high level S3 SDK in eFeeder
- Download manager changes to support S3 transfer acceleration
- Included variable for eFileProxyPath, eFileUUID in Delivery profile command line arguments

Appendices

Technology Partners

Even though our competency is in building Media Asset Management products, Empress is always open for partnering with various technology solution providers to develop seamless integration with their products to offer end-to-end workflow solution to our customers. These technology partnerships are the core foundation for building connected and automated workflows.

Cloud:

Amazon S3, EC2, CloudFront - http://aws.amazon.com/

ComputeNext- https://www.computenext.com/

Microsoft-Windows Azure - http://www.windowsazure.com/en-us/ IBM- https://www.ibm.com/cloud-computing/products/storage/object-storage/cloud/ NetApp - http://www.netapp.com/us/solutions/cloud/index.aspx

Archive:

1 Beyond-EZStore - http://1beyond.com/product-categories/information/ezstor-lto-library-system-ltfs-library-solution

Archiware-P5 - http://www.archiware.com/p5-backup.302.1.html

ASG-Atempo ADA - http://www.asg.com/

Panasonic Optical Disc-http://panasonic.net/avc/archiver/

QStar-Archive Manager - http://www.qstar.com/products/qstar-software-products/archive-manager/

Qualstar-XLS - http://www.qualstar.com/data-storage/xls-enterprise/ Quantum StorNex, Storage Manager- http://www.quantum.com/ SGL-FlashNet - http://www.sglbroadcast.com/products-flashnet.html

SpectraLogic-libraries, nTierVerde, Black Pearl - http://www.spectralogic.com/

XenData-SX500 - http://www.xendata.com

Storage:

DDN-MediaScaler - DDN.COM

EMC-Isilon - http://www.emc.com/domains/isilon/index.htm

Facilis-TerraBlock - http://facilis.com/product/terrablock/

Quantum StorNex, Storage Manager- http://www.quantum.com/

Scale Logic-Genesis- http://scalelogicinc.com/index.php

Spectra Logic-nTier Verde- https://www.spectralogic.com/

Non-Linear Editing (NLE):

Adobe-Premiere Pro, Anywhere - http://www.adobe.com/products/catalog.html
Apple-Final Cut Pro - http://www.apple.com/final-cut-pro/
Avid-Media Composer - http://www.avid.com/US/products/media-composer

File transfer:

Aspera-Enterprise Server - http://asperasoft.com/software/transfer-servers/enterprise-server

Signiant- Media Shuttle- http://www.signiant.com/products/media-shuttle/
Unlimi-Tech Software-FileCatalyst - http://www.filecatalyst.com/partners/partner-list

Streaming:

Adobe - Flash Media Server - http://www.adobe.com/products/adobe-media-server-family.html
Microsoft IIS - http://www.microsoft.com/silverlight/smoothstreaming
Wowza Media Systems - http://www.wowza.com/

SAN Management:

Atto – Celierity - http://www.attotech.com/
Command Soft – FibreJet - http://www.rorke.com/solutions/san/simple
Facilis TerraBlock -http://facilis.com/products.html
Tiger Technologies – MetaSAN - http://www.tiger-technology.com/metasan

Encoding/transcoding:

Axis Communications- http://www.axis.com/us/en/

Cinedeck-RX- http://www.cinedeck.com/
Harmonic WFS and ProMedia Carbon - http://www.harmonicinc.com/product/promedia-carbon Mog Technologies - Speed Rail - http://www.mog-solutions.com/produtos.php?ID=128 Telestream - Pipeline, Episode, Vantage - http://www.telestream.net/company/partners/asset.htm

Broadcast/Newsroom:

Octopus – Newsroom 8 - http://www.octopus-news.com/en/
ToolsOnAir- http://www.toolsonair.com/2013/stories.php?showindex

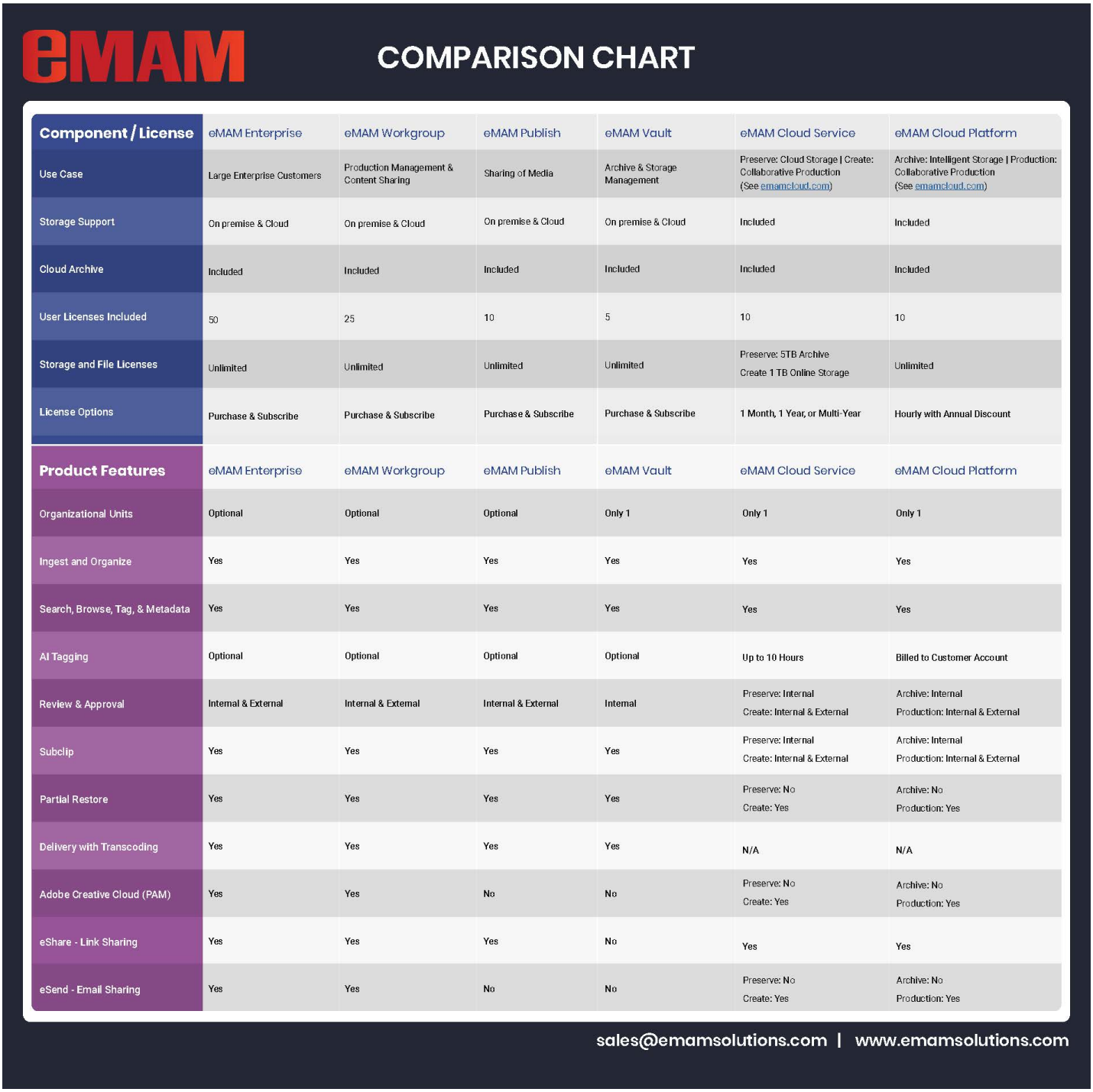
Search:

Nexidia (Avid)-Dialogue Search- http://www.nexidia.com/solutions/media-entertainment/nexidia-dialogue-search/

OTT/VOD/Multiplatform:

Brightcove-Gallery - https://www.brightcove.com/en/gallery Katapy - http://www.katapy.com/

eMAM Sharing Functionalities



eMAM

COMPARISON CHART

Component / License	eMAM Enterprise	eMAM Workgroup	eMAM Publish	eMAM Vault	eMAM Cloud Service	eMAM Cloud Platform
Use Case	Large Enterprise Customers	Production Management & Content Sharing	Sharing of Media	Archive & Storage Management	Preserve: Cloud Storage | Create: Collaborative Production (See emamcloud.com)	Archive: Intelligent Storage | Production: Collaborative Production (See emamcloud.com)
Storage Support	On premise & Cloud	On premise & Cloud	On premise & Cloud	On premise & Cloud	Included	Included
Cloud Archive	Included	Included	Included	Included	Included	Included
User Licenses Included	50	25	10	5	10	10
Storage and File Licenses	Unlimited	Unlimited	Unlimited	Unlimited	Preserve: 5TB Archive Create 1 TB Online Storage	Unlimited
License Options	Purchase & Subscribe	Purchase & Subscribe	Purchase & Subscribe	Purchase & Subscribe	1 Month, 1 Year, or Multi-Year	Hourly with Annual Discount
Product Features	eMAM Enterprise	eMAM Workgroup	eMAM Publish	eMAM Vault	eMAM Cloud Service	eMAM Cloud Platform
Organizational Units	Optional	Optional	Optional	Only 1	Only 1	Only 1
Ingest and Organize	Yes	Yes	Yes	Yes	Yes	Yes
Search, Browse, Tag, & Metadata	Yes	Yes	Yes	Yes	Yes	Yes
AI Tagging	Optional	Optional	Optional	Optional	Up to 10 Hours	Billed to Customer Account
Review & Approval	Internal & External	Internal & External	Internal & External	Internal	Preserve: Internal Create: Internal & External	Archive: Internal Production: Internal & External
Subclip	Yes	Yes	Yes	Yes	Preserve: Internal Create: Internal & External	Archive: Internal Production: Internal & External
Partial Restore	Yes	Yes	Yes	Yes	Preserve: No Create: Yes	Archive: No Production: Yes
Delivery with Transcoding	Yes	Yes	Yes	Yes	N/A	N/A
Adobe Creative Cloud (PAM)	Yes	Yes	No	No	Preserve: No Create: Yes	Archive: No Production: Yes
eShare - Link Sharing	Yes	Yes	Yes	No	Yes	Yes
eSend - Email Sharing	Yes	Yes	No	No	Preserve: No Create: Yes	Archive: No Production: Yes

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