



A Blueprint for DAM, MAM Cost Avoidance

As organizations gather and use ever-increasing digital materials, this framework for rigorously quantifying expenses saved by implementing a digital asset management system facilitates the justification and adoption of such solutions.

Executive Summary

Justifying investment in media asset management (MAM) and digital asset management (DAM) systems can be extremely difficult. The costs of these systems can be incredibly high, and IT departments must be able to justify the implementation and operating costs. Measuring return on investment (ROI) and cost avoidance is typically complicated as a result of implied soft costs and emerging technologies that are often viewed as reasonable alternatives to these systems.

Because of this complexity, traditional measurements of ROI are difficult to apply, regardless if it is a first-time implementation or an upgrade. A more accurate way to justify program expenses would be to measure cost avoidance - the estimated dollar amount that the system can save over a given period of time. Our cost avoidance methodology provides a framework for estimating this expense. Whether used by system vendors, IT business sponsors or systems implementers, our framework provides a robust model that can scale to any size business and be adapted to numerous business processes.

Justifying system investment is a necessity given the growing reliance across industries on digital content. Traditional media markets have for several years utilized DAM and MAM systems to store core static and video assets. It is important to note that companies from all industries now use DAM systems to store their marketing materials in centralized repositories. As these needs grow, and enterprises increasingly depend on their DAM systems to store and manage all their digital content, the costs for such solutions (software, infrastructure and support) can range anywhere from \$350,000 to \$1.5 million for enterprise solutions.

The market for DAM systems is exceedingly competitive, and solutions such as those delivered as a service are emerging to meet surging demand. As technology continuously improves, companies must stay out in front by evaluating existing systems and requirements to ensure they are meeting user functionalities. By applying a cost avoidance model on a consistent basis to each use case (or asset workflow),

a company can continuously analyze its current systems and apply changes as necessary to optimize business processes and, most important, spend. To stay ahead of the curve, an efficient, robust and accurate cost avoidance model needs to be utilized. This white paper provides a framework and model to quantify the potential avoided costs and therefore serve as a mechanism to help justify a DAM initiative.

Laying Out a Cost Avoidance Model

Today's "digital age" - ripe with rich transmedia content - is expanding exponentially. According to a study by Frost & Sullivan, in 2012 the market revenue for DAM and MAM systems was over \$536 million, with a compound growth rate projected at 20% to 30%.¹ Various formats, display options and file variants make DAM increasingly complex across organizations, particularly for their marketing departments. Traditional DAM and MAM systems within the media and entertainment industry have reached maturity for storing and managing digital assets. Other industries, such as consumer goods and retail, are playing catch-up by utilizing DAM with new marketing assets, e-commerce platforms or resale partners. Depending on the maturity of DAM systems within a market, the cost avoidance strategy can vary widely.

For example, a mature market offers companies numerous alternatives to the installed DAM system. This could range from another competing DAM system, or a custom-developed system

created to support unique market requirements and/or business processes. In a growing market, it can be assumed that the alternative to a DAM system can be multiple file systems and databases strung together to serve as a DAM, or agency partners storing and managing content on behalf of the customer. Yet, these models differ widely and could lead to very different costs. Thus, an intelligent model must be use-case extensible and flexible enough to evolve along with the market.

Figure 1 describes at a high level our methodology for defining cost avoidance. The model is divided into four primary attributes that will be detailed in subsequent sections of this white paper.

- **Cost areas:** Sources of value for a given system. For DAM systems, these are the categorizations of cost avoidance that the different functionalities of a DAM system provides.
- **Cost factors:** Actual dollar value within a cost area. A cost area can have multiple cost factors since there can be many different types of cost savings associated with a cost area.
- **Measures:** Metrics that contribute to the calculation of the cost factor. Measures are typically derived by system transactions.
- **Cost bases:** The defined alternative cost values of particular measures. The cost basis times the measure will provide the cost factor.

A DAM Cost Avoidance Quantifying Model

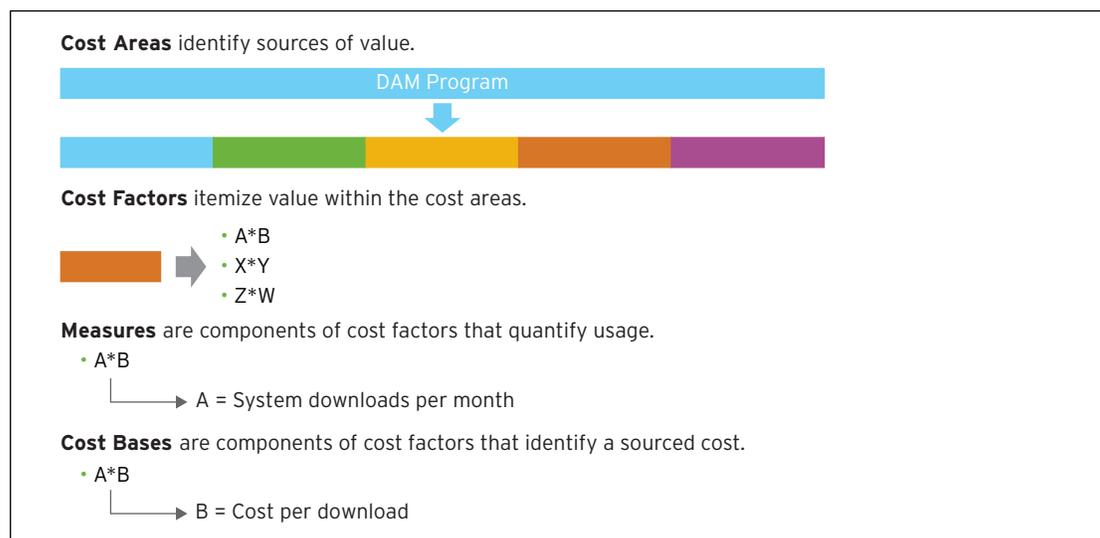


Figure 1

Cost Areas

The cost avoidance in DAM systems spans numerous cost types. Therefore, to accurately measure all the different types of cost savings, the possibilities should be categorized in five buckets (all described in detail in subsequent sections):

- Distribution.
- Reuse.
- Management.
- Storage.
- Infrastructure.

By breaking down the cost avoidance by key cost areas, organizations can accurately account for cost savings across different functional areas of the business. Also, they can directly associate processes and systems with these functional areas to focus on strategic investments. For example, if a business notices that it is avoiding storage costs, it can consider increasing its investment in this area.

The idea of the model is to perform a mental exercise to determine a viable alternative to the DAM solution for each cost area. The organization's business leadership and IT organization can use the model to determine various alternatives to create the assumptions for the model. Examples of the different types of alternatives

will be covered in subsequent sections for each cost area.

Figure 2 summarizes the different cost areas.

- **Distribution:** DAM systems allow users to transfer assets to customers. This can range from small assets such as image files for marketing, to large assets such as high-resolution broadcast-quality video files. Depending on the capability of the DAM system, there are many ways that distribution can be accomplished:
 - » **Direct downloads:** Users can search a DAM system and directly download an asset.
 - » **Automated push:** Users can subscribe to a service from which their assets will be pushed to them so that there is no need to log into the system and search.
 - » **E-mail export:** Users can share an asset with another user and the recipient can directly download from the appropriate link.

The various alternatives provide an extremely efficient and quick way to distribute content. To fully grasp the value of this functionality, organizations must determine realistic alternatives if the DAM system doesn't exist. The analyst performing the exercise should interview business stakeholders and understand the current business processes for which a DAM system is not used.

How DAM Programs Save Costs in Five Key Cost Areas

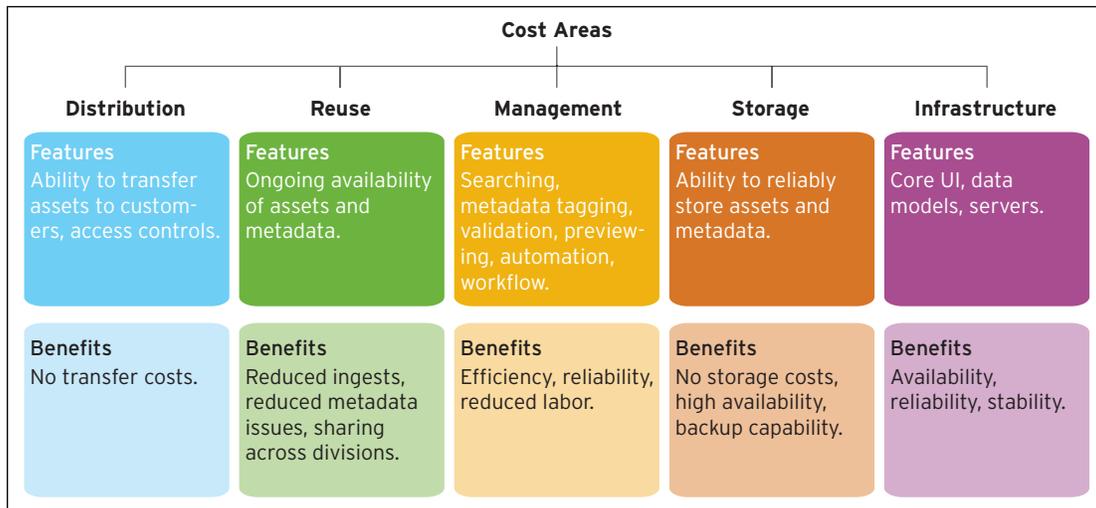


Figure 2

For example, when DAM systems were fairly new, the common alternative was shipping CDs and DVDs or, in the case of broadcast and film, shipping tapes and celluloid prints via courier or satellite transmissions. Thus, the alternative distribution expenses used to tabulate cost factors included duplication and shipping or transmission fees.

Yet, with Dropbox or Hightail (formerly YouSendIt), businesses have file distribution alternatives. Digital distribution services compared to physical tape/DVD and shipping costs can vary greatly, so it is critical that the correct alternative is agreed upon.

This exercise can be somewhat challenging because there are numerous use cases and asset types that make it difficult for a business to apply one distribution method. For example, if the business has image files, it might zip and send them via e-mail without incurring much cost. At the same time, though, some use cases involve entire high-resolution videos, which are usually too large to be sent via e-mail. Organizations could potentially create individual calculations for different asset types; this would be the most accurate approach. Yet, this can be a very difficult exercise for businesses with dozens of asset types and millions of assets.

One suggestion is to categorize the type of assets by small, medium or large, and then frame the question to the business. IT can define and estimate the size of small, medium or large files, and ask the business to determine the distribution method that should be used for these types of assets. Using the example above, the following assumptions usually hold true:

- » Files smaller than 5 MB (considered “small”) would be sent via e-mail.
- » Files over 5 MB but under 1 GB would be sent via a file-sharing system such as Hightail or Dropbox.
- » Files over 1 GB would be sent by an accelerated file distribution solution such as FTP, Signiant or Aspera.

This approach offers a balance between calculating every single asset type and trying to apply one methodology across all types of assets.

Commercial DAM systems offer security when distributing content to partners. Access controls are very flexible, and can allow a variety of security methods such as read-only (no download) access, watermarking of content and auditing an asset’s usage. These methods allow a company to efficiently manage how its partners may use its content, and monitor the usage to prevent unauthorized or undesired activity. Unfortunately however, the cost avoidance associated with improved security is difficult to quantify.

- **Reuse:** Among the biggest benefits that a business receives from a DAM system is the ability to reuse a particular asset. Large organizations often waste labor and fail to fully utilize their digital assets due to a lack of coordination and sharing across divisions. Many downstream divisions can benefit from using the same assets that upstream divisions create. A common example is that of marketing assets developed by motion picture studios to promote their latest films.

Effort is wasted when the marketing materials for various distribution windows (domestic theatrical, international theatrical, DVD, electronic sell-through, video-on-demand, free TV, etc.) are not shared, and must be recreated for each channel. For example, all feature movies typically have a style guide, which defines a template for marketing materials. This style guide is the same across all feature film distribution windows.

Once a style guide is used in the theatrical division, oftentimes without a DAM, the guide is not shared across the different divisions. With the introduction of a DAM system, this guide can be uploaded into the system as an asset, and can be leveraged across all divisions by granting the necessary permissions at the appropriate time in the release schedule.

The same is often true in consumer products and auto manufacturing companies. Some of their most important assets are product images. These photos are used across the business for both domestic and international marketing where the content is localized and repurposed.

- **Management:** This area is more difficult to measure than most, but it can potentially generate the greatest amount of cost avoidance. Management costs include the potential savings associated with labor - particularly the improved processes that are attributed to the DAM system. Depending on the type of DAM system used, there are many ways that labor can be saved:

» **Download:** Many DAM systems have mature search capabilities that make searching for assets simple and quick. Alternatively, if a DAM system did not exist, the user may spend additional time locating an asset by looking on hard drives or DVDs or by calling/e-mailing people (including agencies that charge for this service) who the user thinks have the asset. Depending on the maturity of the technology used, this can require a significant amount of time. The analysis should determine what current business processes would be used and apply a labor time associated with implementing that process. For example, a particular business may catalog all of its assets on a spreadsheet. Thus, a librarian would have to open the spreadsheet, search for a particular asset and location, then navigate to that location and pull down the asset. The time required is much greater than the effort needed to log into the DAM system, search and download.

» **Upload:** As part of the download process, users can effectively find their assets only when proper upload procedures are undertaken. In a DAM system, there is usually a user interface or method to associate metadata to an asset. The amount of metadata

per asset can range from a few fields to dozens of fields. The more robust the metadata, the easier and more accurate the search will be and, therefore, the greater the chance of reuse of the asset. Similarly, if the business does not have a DAM system to track these, the business may have to track this information in a separate document or

system. Thus, the cost savings with a DAM system is the additional time it takes for

a user to document this information in an alternative system versus a DAM system.

» **Preview:** DAM systems allow users to view content immediately. For example, in more complex DAM systems, video assets can be viewed while searching to allow the business to download the correct asset. Similarly, image files can be viewed in more detail without having to download the file or having the tool available on the desktop to view the asset type (e.g., Photoshop). Depending on the current business process, this can yield significant cost savings. For example, if the current process is for vendors to mail a DVD or printed proofs to the business to review the preview, this can be a very lengthy and inefficient process that involves much back and forth between vendors and the business. Thus, the cost savings for preview is the extra time spent on the methods that the business uses to verify that the desired asset is correct.

» **Workflow:** DAM systems can support business workflows such as content acquisition, creation, internal distribution/processing or approvals. This makes handoffs between departments more efficient, and allows more rapid content utilization. For example, many organizations use e-mail and phone calls to route content through the production workflows, which is very difficult to manage, especially when volumes are high and/or time is critical. DAM systems can provide queues or automated notifications to individuals or groups of individuals as appropriate, increasing efficiency, speed and the ability to track work in progress.

- **Storage:** DAM systems often provide users with high availability and backups for their assets and the respective metadata associated with each asset. If the DAM system didn't exist, the business would need to adopt alternative storage mechanisms. These methods can range from local data storage on PCs to an enterprise storage area network (SAN), network attached storage (NAS) or linear tape-open (LTO) solution. Key factors that should be considered beyond the actual storage costs include a consideration of the human labor needed to store the new assets. For example, if the business stores the assets on a physical DVD, there are costs associated with creating

The more robust the metadata, the easier and more accurate the search will be and, therefore, the greater the chance of reuse of the asset.

and cataloging the DVD as well as the cost of the DVD itself. Also, with the different types of storage available, organizations must consider reasonable alternatives such as a cloud-based approach or a more traditional on-premises solution. It is also important to note that in some industries (e.g., life sciences) compliance is a key requirement. As such, businesses may not be in compliance unless they store their content on write-once-read-many (WORM) storage devices or have a DAM system to track changes to the asset.

- Infrastructure:** Cost avoidance can be gained by a DAM system with tightly integrated features such as user interfaces, transcoders and workflow. Without these features, a business would need to consider a software as a service (SaaS) model or a hosted-model solution. Organizations embracing either of these alternatives would have to incur initial fixed costs or per-transaction costs. All additional hardware, software and administrative costs should be considered when assessing these alternatives.

Weighing the Cost Factors

Cost factors address the core value that a DAM system provides to the business. Each cost area should include multiple cost factors; it is essential that these factors are broken out separately to provide accurate results. The calculation to quantify a cost factor is the measure times the cost basis (see Figure 3).

In this example, the cost factor is “medium-sized asset distribution.” As noted above, cost factors should be broken down by savings that would be applicable to the business. In this example, it is necessary to break out medium-sized assets versus small-sized assets because small-sized assets are typically sent via e-mail, and incur no known cost to the business, while medium-sized assets are usually sent via a distribution service. Because these different cost factors yield different cost structures, different cost factors need to be defined.

You Can't Manage What You Can't Measure

Measures are the quantifiable transactions that can track the amount of times a particular cost area was used for a given period. In the example above, for medium-sized assets, this would be the number of gigabytes downloaded, because this is the unit of measure that an alternative distribution service company would provide. It is important to ensure that the logging in the DAM systems provides enough information to extract the type of transactions needed to produce these metrics.

Understanding Cost Basis

Cost basis is the component of a cost factor that identifies an alternative source cost. These alternatives are the main discussion points with the business when trying to quantify cost savings. Most discussions and assumptions during the interview process should pivot around different alternatives that a business would need;

Computing DAM Program Cost Avoidance: Cost Factors

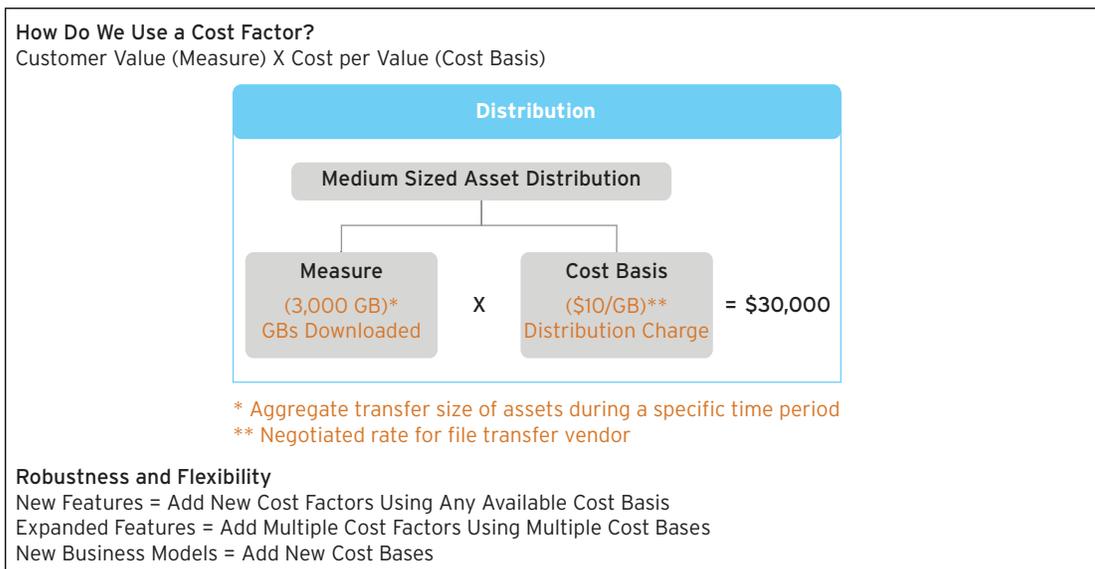


Figure 3

these will be tracked through a cost basis analysis. The analysis should identify real-world alternatives such as distribution services, alternative DAM solutions and vendor labor rates, to name a few. In the example above, the alternative distribution method is a per-GB negotiated rate that the business has with an existing agency vendor. This rate per GB, times the number of GBs within a given period, reveals the value for this specific cost factor.

Cost Factor Examples

There are multiple cost factors that can be applied to various cost areas within a particular division. Identifying the cost factors for each cost area is the most critical aspect for determining an accurate model. This will need to be tied into the asset metadata model to ensure accurate tracking. Figure 4 illustrates some examples of cost factors.

Although Figure 4 offers one example, the following concepts can be applied to any scenario:

- Segmenting small/medium/large assets:** The need to differentiate between smaller and larger assets is exemplified through distribution and storage cost areas. Note that in the distribution cost area, the factors change between a small asset and medium/large ones because the business stated that smaller assets are sent via e-mail. Similarly,

in the storage example, smaller assets are saved in e-mail storage, while medium-sized assets would be stored on DVDs. As assets become larger, LTO tape would be leveraged. The key item to note is that different pricing models (cost basis) will be used depending on the use cases. Instead of trying to adapt the model to fit all different types of uses cases or asset types, categorizing assets into these three sizes allows for accurate details without having an overly complex model.

- Varying cost factors:** The management cost areas illustrate how there are different types of cost factors within a given area. In the example above, the management costs can be linked to different types of functionalities offered by a DAM system. This includes streamlining processes associated with searching and downloading and ingesting content. Because these concepts are treated separately in the real world, separating these actions helps the business think through the savings. For example, more often than not, the resources that download the assets are not the same resources that ingested those assets. Therefore, an entirely different rate may be used. Typically, a creative agency vendor would ingest the content, while users or consumers of the system would download the content.

Detailing Cost Factors

The following is an example of how a particular vision can associate cost factors to the cost areas. The first bolded item is the measure, while the second bolded item is the cost basis.	
Distribution	Cost Factor 1: Small downloaded assets would be sent via e-mail and incur an e-mail distribution cost . Cost Factor 2: Medium/large downloaded assets would be sent via a vendor distribution service and incur a distribution service cost .
Reuse	Cost Factor 3: All reused assets would incur a re-ingest cost for the labor involved in ingestion and tagging.
Management	Cost Factor 4: All downloaded assets would incur a search and identify cost. Cost Factor 5: All ingested assets would incur a upload/tag cost. Cost Factor 6: All previewed assets would incur a cost for downloading the proxy .
Storage	Cost Factor 7: Small assets would be stored via e-mail and incur an e-mail storage cost . Cost Factor 8: Medium assets would be stored via DVD and incur a DVD storage cost . Cost Factor 9: Ingested medium assets would be copied to DVD and incur a DVD production cost . Cost Factor 10: Large assets would be stored via LTO tape and incur an LTO storage cost . Cost Factor 11: Ingested large assets would be copied to LTO and incur an LTO production cost .
Infrastructure	Cost Factor 13: The division would use a hosted DAM service for the reporting period and incur a monthly fee . Cost Factor 14: The division would use a hosted service for all assets and incur a service fee per GB .

Figure 4

- **Existing versus new cost factors:** A different type of cost factor can be applied to assets that are existing/legacy versus assets that are newly ingested or uploaded. The storage cost area provides a good example of this, where newly ingested assets would incur a DVD cost for the initial production. However, these types of assets would not incur an ongoing cost once the initial cost was factored, because there is no additional monthly cost to store a DVD in a physical location (or it is immaterial). Yet, for larger assets, this may not be the case. There is usually a cost for the initial ingestion, but also for the monthly storage space that these assets would be utilizing. Thus, these costs should be treated differently.

The aforementioned reasons for varying cost factors merely describe the type of creativity and analysis that should be performed when defining the overall cost savings.

Cost Avoidance Challenges

Although the above methodology describes a model that is flexible, scalable and accurate, there are other facets and shortcomings that should be addressed when defining cost avoidance calculations. These items can be addressed by making them explicit, and either accepting the assumptions or adjusting the model as appropriate. These challenges include soft costs, nonquantifiable costs and changes over time.

Soft Costs

Although most cost factors are easily quantifiable (because there is a direct measure that can be logged into the system), several assumption types are often less exact, or “soft.” Although they are less exact, they are actually a critical component for calculating cost avoidance. In fact, more often than not, these soft costs will actually make up the bulk of the cost avoidance estimates in most businesses.

The main difficulty of calculating soft costs is that these are *subjective* estimates and can vary not only across business and divisions, but even across individuals within a team. The most notable soft cost is the alternative labor that would be estimated if the DAM system did not exist. These are most prevalent in the management cost area described above. For example, potential cost savings calculations can vary widely within a division that changes how an asset is managed. A strong proponent of the DAM system can

document 30 minutes of cost savings when it comes to search time because of the DAM’s robust search and preview features. Yet, within the same division, a similarly savvy user who has the skills to easily search across different file systems might only save an additional six minutes with the DAM system. With a group that downloads thousands of assets within a quarter, this could be a significant amount. At a simple rate of \$50 an hour, per 500 assets in a quarter, this can be a change of \$10,000 in one quarter, just for this management cost ((30 minutes/60 minutes) X \$50 rate X 500 assets) – ((10 minutes/60 minutes) – \$50 rate X 500 assets).

As the number of assets rise, the simple assumption of six minutes versus thirty minutes has a significant effect on the final sum. Thus, because soft costs can have such a strong effect, each assumption should be carefully vetted and agreed upon with the business prior to executing the calculations.

Nonquantifiable costs

While qualitative (or nonquantifiable) cost savings and benefits are difficult to measure, they are definitely significant to the business. They must, however, be explicitly discussed if not added into cost avoidance estimates. Certain situations can arise where the business may have an existing model that attempts to quantify these costs. If that is the case, organizations must add these costs into the model.

Examples of nonquantifiable costs include:

- **Security:** The DAM system maintains control of the security implementation and controls for all assets. Without this control, the risk of a security breach and/or a sensitive material leak is unpredictable. By providing advanced access controls over all assets, the system provides a wider and more granular ability to control access to assets across multiple functions. Many companies across industries have attempted to quantify the risk factors and

As the number of assets rise, the simple assumption of six minutes versus thirty minutes has a significant effect on the final sum. Thus, because soft costs can have such a strong effect, each assumption should be carefully vetted and agreed upon with the business prior to executing the calculations.

potential losses associated with security. The challenge is that this analysis may require expert risk analysts who study various risk levels and associate costs across various scenarios. This exercise in itself can take a tremendous amount of time. Therefore, this need not be part of the DAM cost avoidance analysis unless there are existing studies or estimates that can be leveraged.

- **Availability:** The system maintains a high level of control over system availability functions. By providing backup features, fail-over features, control over scheduled maintenance and staff responsiveness, the system can provide users with a higher degree of risk management than most alternative solutions.

Due to its subjectivity, this peace of mind can be very difficult to measure. Some users may value the availability of the system, but others may easily find alternative methods when the system goes down. Trying to apply a dollar value and apply it across a division or business can be a very difficult assumption to justify.

- **Support:** The system provides user support, which allows users to solve technical issues and perform the system-related tasks immediately and regardless of location. This capability significantly reduces the risk of delays and issues in daily workflows. The DAM system can potentially be replaced by several independent systems, each of which may or may not have its own support process.

The difficulty of measuring these costs is devising a viable alternative and breaking down the costs to match the DAM's support value. Time is not the only factor that is saved as users also receive personal service as well as immediate attention to their issues.

- **Maintenance and enhancements:** A key function of the system is the ease and level of ongoing maintenance and enhancement of the system. By fixing defects and adding functionality, especially custom functionality, the system saves money by increasing user efficiency, capability and performance.

Similar to measuring security, this task would be a project on its own, as trying to quantify each capability can be laborious. Beyond the difficulty of these measurements, there

is a qualitative value that users get from system enhancements that may be difficult to measure.

- **Regeneration:** Regeneration, or recreating digital assets, is a significant cost driver. For instance, assets may need to be regenerated when they cannot be found, metadata is incorrect or they are corrupt or lost. The verification, validation and storage of both assets and metadata in the system all contribute significantly to assets that need to be regenerated at significant cost to the business.

It is very difficult to quantify with reliability since regeneration is not a part of planned operations. These costs can be significant when dealing with video and photographic assets. When performing initial research with various vendors, we found that there was no systematic way of tracking when an asset was recreated versus when it was created the first time because different divisions were not sharing this information. If the business has the ability to accurately track the regeneration of assets, this potentially can be an additional cost factor. Think of an example where an auto manufacturer takes photographic images of its cars in each territory since it lacks a DAM system to help users adequately share master images for each model and color variant.

Changes Over Time

When quantifying and documenting the assumptions for the model, make sure to consider that the metrics are pulled from the most current figures and processes. These assumptions may be accurate for the immediate alternative, but there are subtle factors that are not considered. Thus, any areas where there could be change should be explicit in the assumptions. Here are examples of some assumptions that vary over time:

- **Process improvements:** Estimates for management costs can vary as the process changes. The estimates can be based on an initial understanding of a process, but as businesses evolve, processes and technologies are constantly improving along with it. Thus, the initial assumption may not hold weight after several process changes.
- **User skill:** Similar to process changes, a user's skill also grows as he becomes more familiar with the system. Because of varying skill sets,

it is difficult to predict the rate of change, and thus the initial estimate in the management cost area may be overestimated in later years because the number is a constant.

- **Vendor negotiations:** If vendor rates are used as a cost alternative, these rates are within a point in time. Yet, the outcomes of negotiations are difficult to predict because the business may be savvy with their negotiation skills, which in turn would reduce the alternative costs. For example, the business may create arrangements for bulk work, lesser functionality or different cost structures. Attempting to try to predict this in the negotiated rate alternative may be incredibly complex.
- **Divisional cooperation:** In larger companies, enterprise-wide solutions may be considered to reduce costs. Thus, cost factors associated with specific solutions may be overstated because a larger, discounted cost can be utilized if multiple divisions adopt the same system. Yet, there are obvious limitations to trying to have one solution across divisions, so the exact value is difficult to quantify.

Lessons Learned

Performing the analysis to calculate a cost avoidance model is not a simple task. The numerous assumptions and complex calculations can be overwhelming and intimidating when trying to explain the concept to the business. It is critical that the business understands and supports the methodologies used. The tips below are meant to provide insight on how to approach this process:

- When trying to establish the cost basis, try breaking down the various alternatives by asset size (small, medium, large) to help flesh out alternatives.
 - » For example, small assets would be distributed via e-mail, but larger assets would be distributed via file transfer acceleration solutions such as Signiant and Aspera.
 - » While providing a more accurate model, trying to separate the alternatives or use cases by asset type may prove to be cumbersome; a general approach may be simpler to understand and manage.
- Document assumptions with as much detail as possible.

- » Estimation assumptions are always challenged, and so all constituents should be well informed about the estimating principles.

- » As time changes, key decisions and decision-makers may change, so documentation is key.

- Create a “how to” guide to generate the report.

- » The process to write a query and pull the correct metrics may be complex because it requires functional knowledge as well as knowledge of the database and system.

- » MAM and DAM systems typically do not have robust reporting engines. Thus, an inherent knowledge of the database schema, metadata model and logging mechanisms is needed.

- Revisit costs and validate assumptions on an annual basis.

- » Items such as inflation, new technologies and competition can drastically affect costs, so a continuous review is advised.

Case Illustrations

To demonstrate the possibilities of our recommended approach, we created two different scenarios to model the full range of potential cost savings.

Scenario 1: A Large Media and Entertainment Company

A division within a large media and entertainment company used a DAM system to manage its marketing assets, as well as full-length production assets, with thousands of users and millions of assets. Assets in the system ranged from small image files to large video files of over 100GB. The system is an enterprise-wide solution.

Figure 5 (next page) offers a high-level summary of the division’s avoided costs, broken down by various cost areas.

In the “distribution” element of this example, cost areas are segregated by small, medium and large, and the corresponding sizes of the files are noted. Note that for small assets, it is assumed that e-mail will be used, and therefore no cost is avoided. For medium and large assets, a file distribution service will be utilized.

Scenario 1: Summary of Division's Avoided Costs

Savings Area	Cost Factor Details	Cost Avoidance	Subtotal
Distribution			\$135,000
	Small assets (<5 MB) would be sent via e-mail.	\$-	
	Medium assets (5-100 MB) would be sent via a file distribution service.	\$100,000	
	Large assets (>100 MB) would be sent via a file distribution service.	\$35,000	
Reuse			\$350,000
	All downloads after the initial download of an asset save the costs of uploading and tagging assets.	\$300,000	
	All downloads after the initial download of an asset save the costs of distribution.	\$50,000	
Management			\$305,000
	Search capabilities save time and labor for users finding assets.	\$200,000	
	UI features allow for quicker tagging of assets.	\$80,000	
	Previews save the user the distribution costs of downloading the individual assets.	\$25,000	
Storage			\$81,750
	Existing small assets (<5 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	\$-	
	New small assets must be copied/stored on local drives, DVDs or external drives.	\$750	
	Existing medium assets (5-100 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	\$-	
	New medium assets must be copied/stored on local drives, DVDs or external drives.	\$75,000	
	Large assets (>100 MB) stored via LTO (negligible ongoing storage cost).	\$-	
	New large assets copied to LTO.	\$6,000	
Infrastructure			\$1,200
	Division would need to utilize an existing DAM system as a basis for all other DAM features.	\$1,200	
	Total Cost Avoidance		\$872,950

Figure 5

Model

Figure 6 (next page) provides additional details on the company's reported avoided costs.

The first two columns are the same as the summary columns. The measure column can be any source that can be tied to the transaction that is

being quantified as that measure. In this example, for the first line item, there were 400 small assets that were downloaded into the system for this reporting period. The unit and adjustment columns are used to ensure that the comparison of the measures to the cost basis are compatible. For example, if the unit of measure is one GB,

Scenario 1: Details of Division's Reported Costs

Savings Area	Cost Avoidance Description	Measure	Adjustment	Cost Basis	Total Cost Avoidance
Distribution	Small assets (<5 MB) would be sent via e-mail.	400 GB	1	\$-	\$-
	Medium assets (5-100 MB) would be sent via a file distribution service.	20,000 GB	1	\$5.00	\$100,000
	Large assets (>100 MB) would be sent via a file distribution service.	7,000 GB	1	\$5.00	\$35,000
Reuse	All downloads after the initial download of an asset save the costs of uploading and tagging assets.	20,000 Repeat DLs	1	\$15.00	\$300,000
	All downloads after the initial download of an asset save the costs of distribution.	10,000 GB	1	\$5.00	\$50,000
Management	Search capabilities save time and labor for users finding assets.	20,000 Downloads	1	\$10.00	\$200,000
	UI features allow for quicker tagging of assets.	10,000 New Ingests	1	\$8.00	\$80,000
	Previews save the user the distribution costs of downloading the individual assets.	5,000 GB	1	\$5.00	\$25,000
Storage	Existing small assets (<5 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	2,000 GB	1	\$-	\$-
	New small assets must be copied/stored on local drives, DVDs or external drives.	50 GB	1	\$15.00	\$750
	Existing medium assets (5-100 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	25,000 GB	1	\$-	\$-
	New medium assets must be copied/stored on local drives, DVDs or external drives.	5,000 GB	1	\$15.00	\$75,000
	Large assets (>100 MB) stored via LTO (negligible ongoing storage cost).	10,000 GB	1	\$-	\$-
	New large assets copied to LTO.	2,000 GB	1	\$3.00	\$6,000
	Infrastructure	Division would need to utilize an existing DAM system as a basis for all other DAM features.	3 Months	1	\$400.00
					\$872,950

Figure 6

then the cost basis should be per GB. If the unit of measure was one MB, then an adjustment to convert the measure would be needed. The cost basis is the acceptable alternative amount for that measure. Multiplying these metrics will produce the total cost avoidance for that area.

Assumptions

Not shown in Figure 6 are the assumptions that explain the different cost basis used. It is criti-

cal that the reasoning and assumptions for the cost basis are explicitly documented to ensure customer buy-in and to clarify any discrepancies. An example of how assumptions can be displayed is shown in Figure 7 (next page).

The IDs in the first column are used as references for each line item in the summary and/or model section. For example, D1 is the documented assumption discussed in the previous

Scenario 1: Cost Basis Assumptions

	Generic Cost Avoidance Factors	Description	Assumptions
	Distribution		
D1	E-mail Distribution	Distributing assets via e-mail.	Additional costs will be immaterial as company e-mail costs are marginal for asset distribution.
D2	Shared Server Distribution	Distributing assets via file sharing systems.	There are open sourced methods but they are insecure and limited; therefore, they are not a viable option.
D3	Distribution Service	Distributing assets via accelerated file transfer systems.	Rate determined by file transfer vendors.
D4	Physical Distribution	Distributing assets via DVD or hard drives.	Manual labor time to copy files, create labels, organize and ship physical mediums.

Figure 7

section regarding e-mail distribution costs. These assumptions provide the narrative for each asset and provide the business with more detail on how certain calculations were arrived at.

Scenario 2: A Large Consumer Goods Company

A large consumer goods company uses an enterprise-wide DAM system to manage thousands of its marketing assets, including photography, video and audio digital assets, for hundreds of users. Thus, the majority of the files are smaller relative to the media and entertainment company, whose assets are primarily photographs.

Figure 8 offers a high-level summary of the avoided costs for one brand, segmented by various cost areas.

Just as in the previous hypothetical case, Figure 8's details describe the cost factors utilized for each savings area. In this example, for "distribution," the cost areas are broken down by small, medium and large, and the corresponding sizes of the files are noted. The difference from the previous example is the size differential. The medium size is much smaller (60 MB versus 100 MB) because the majority of these assets are not filmed content, and thus are smaller in size. Yet, similar to the aforementioned media and entertainment company, a file distribution service is used. Summing up cost factor details within a savings area provides the total savings for that specific area.

Scenario 2: Summary of Avoided Costs for Brand

Savings Area	Cost Factor Details	Variable Cost	Fixed Cost	Cost Avoidance	Subtotal
Distribution					\$98,000
	Small assets (<5 MB) would be sent via e-mail.	\$-	\$-	\$-	
	Medium assets (5-60 MB) would be sent via a file distribution service.	\$56,000	\$-	\$56,000	
	Large assets (>60 MB) would be sent via a file distribution service.	\$42,000	\$-	\$42,000	
Reuse					\$24,500
	All downloads after the initial download of an asset save the costs of uploading and tagging assets.	\$10,500	\$-	\$10,500	
	All downloads after the initial download of an asset save the costs of distribution.	\$10,400	\$-	\$14,000	

Continued on next page.

Continued from previous page.

Savings Area	Cost Factor Details	Variable Cost	Fixed Cost	Cost Avoidance	Subtotal
Management					\$205,000
	Search capabilities save time and labor for users finding assets.	\$100,000	\$-	\$100,000	
	UI features allow for quicker tagging of assets.	\$80,000	\$-	\$80,000	
	Previews save the user the distribution costs of downloading the individual assets.	\$25,000	\$-	\$25,000	
Storage					\$14,250
	Existing small assets (<5 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	\$-	\$-	\$-	
	New small assets must be copied/stored on local drives, DVDs or external drives.	\$750	\$-	\$750	
	Existing medium assets (5-60 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	\$-	\$-	\$-	
	New medium assets must be copied/stored on local drives, DVDs or external drives.	\$7,500	\$-	\$7,500	
	Large assets (>60 MB) stored via LTO (negligible ongoing storage cost).	\$-	\$-	\$-	
	New large assets copied to LTO.	\$6,000	\$-	\$6,000	
Infrastructure					\$1,200
	Division would need to utilize an existing DAM system as a basis for all other DAM features.	\$1,200	\$-	\$1,200	
		Total Cost Avoidance			\$342,950

Figure 8

Model

Figure 9 (next page) provides additional details on the company’s reported avoided costs.

The structure for this case is similar to the previous case. In this example, for the first line item, there are 500 small assets that were downloaded into the system for this reporting period. This was 100 more than the previous example because of the number of photography items. But notice that the number of medium and large assets decreases dramatically for this case because of the type of files used in the previous case example.

The unit and adjustment columns are the same as the previous case since the measurement is still in GBs. Notice, though, that the cost basis for each GB

is higher than the previous case study (\$7 versus \$5). The reasoning is that in the first case there is a larger volume of GBs transferred, and therefore the company was able to negotiate a better rate from a third-party file transferring service. In this case, the volume of transfers is lower, and therefore the rate per GB was higher.

Moving Forward

Any DAM program or initiative that needs cost justification or funding should utilize the above methodology to start tracking these metrics - even if a formal ROI analysis is not required. At the very least, gathering the metrics allows for future analysis and reporting. The following are suggested next steps:

Scenario 2: Details of Brand's Reported Costs

Savings Area	Cost Avoidance Description	Measure	Adjustment	Cost Basis	Total Cost Avoidance
Distribution	Small assets (<5 MB) would be sent via e-mail.	500 GB	1	\$-	\$-
	Medium assets (5-60 MB) would be sent via a file distribution service.	8,000 GB	1	\$7.00	\$56,000
	Large assets (>60 MB) would be sent via a file distribution service.	6,000 GB	1	\$7.00	\$42,000
Reuse	All downloads after the initial download of an asset save the costs of uploading and tagging assets.	700 Repeat DLS	1	\$15.00	\$10,500
	All downloads after the initial download of an asset save the costs of distribution.	2,800 GB	1	\$5.00	\$14,000
Management	Search capabilities save time and labor for users finding assets.	10,000 Downloads	1	\$10.00	\$100,000
	UI features allow for quicker tagging of assets.	10,000 New Ingests	1	\$8.00	\$80,000
	Previews save the user the distribution costs of downloading the individual assets.	5,000 GB	1	\$5.00	\$25,000
Storage	Existing small assets (<5 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	100 GB	1	\$-	\$-
	New small assets must be copied/stored on local drives, DVDs or external drives.	50 GB	1	\$15.00	\$750
	Existing medium assets (5-60 MB) stored via local drives, DVDs or external drives (negligible ongoing storage cost).	1,000 GB	1	\$-	\$-
	New medium assets must be copied/stored on local drives, DVDs or external drives.	500 GB	1	\$15.00	\$7,500
	Large assets (>60 MB) stored via LTO (negligible ongoing storage cost).	2,500 GB	1	\$-	\$-
	New large assets copied to LTO.	2,000 GB	1	\$3.00	\$6,000
	Infrastructure	Division would need to utilize an existing DAM system as a basis for all other DAM features.	3 Months	1	\$400.00
					\$342,950

Figure 9

- Identify a team or resource who can drive the cost avoidance analysis.
- Develop a process for consistently reporting the results of the model, as well as updating the assumptions on a periodic basis.
- Champion the project by illustrating the benefits of publicizing the DAM program's accomplishments.

Although your organization may not need to produce these details in the immediate future, publicizing your hard work, intelligent solutions and timely projects should always be the top priority.

Footnote

¹ www.slideshare.net/mukulkrishna/digital-asset-management-dam-latest-trends.

About the Author

Sonny Sandel is a Director within Cognizant's Digital Media Services Practice. With 10-plus years of experience in systems development and integration, Sonny specializes in consulting across the media and entertainment industry and focuses primarily on digital media engagements. He graduated from the University of California, Berkeley, with a bachelor's degree in economics and business. Sonny can be reached at Sonny.Sandel@cognizant.com.

About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 75 development and delivery centers worldwide and approximately 187,400 employees as of June 30, 2014, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world.

Visit us online at www.cognizant.com or follow us on Twitter: Cognizant.



Cognizant

World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277
Email: inquiry@cognizant.com

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD
Phone: +44 (0) 207 297 7600
Fax: +44 (0) 207 121 0102
Email: infouk@cognizant.com

India Operations Headquarters

#5/535, Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060
Email: inquiryindia@cognizant.com