

doing nothing will make the problems go away, instead they typically continue to get worse and worse.

Doing nothing also leaves a business unable to take advantage of many of the revenue-generating opportunities that are likely to come along. For instance, monetizing substantial numbers of assets through new media typically requires an efficient, automated process. A flexible tool designed to accommodate changing requirements allows businesses to take full advantage when new income streams present themselves.

Solving this small set of problems usually requires a smaller system with fewer users, fewer adapters, and fewer workflows – all which result in a much lower cost of entry. As you get experience with the smaller solution, determine what comes next and make incremental additions as budgets permit. The great beauty of a system like MBC is there is no cost penalty to adding a piece at a time, and in fact\

there is much less risk in an approach like that. Remember, this is the infrastructure that you will be building the business on for years to come – and building it a piece at a time is a realistic approach, given today's budgets.

Comparing the Workflow Solutions

Enterprise Workflow Functionality	MBC	MAM	Point Solution	Hire IT Integrator	Do-it-yourself	Do Nothing
Intended for Enterprise Application?	✓✓✓	✓✓		✓✓	✓	✗
Based on SOA?	✓✓✓	✓✓		✓✓✓	✓✓	✗
End-to-end workflows?	✓✓✓			✓✓	✓	✗
Included MAM/CMS capability?	✓✓	✓✓✓				✗
Included workflow application?	✓✓✓	✓				✗
Simple easy-to-build workflows?	✓✓	✓	✓✓✓	✓	✓	✗
Complex workflows possible?	✓✓✓	✓		✓✓	✓	✗
Low cost of entry?	✓		✓✓		✓	✗
Low cost to modify?	✓✓✓		✓✓✓	✓	✓✓	✗
Low cost to maintain?	✓✓		✓		✓✓	✗
Dynamic resource allocation?	✓✓✓					✗
Job/workflow monitoring?	✓✓✓	✓✓	✓✓	✓	✓	✗
Flexibility with business rules?	✓✓✓	✓✓	✓	✓	✓	✗
Ability to make changes without vendor?	✓✓		✓✓✓		✓✓✓	✗
Comprehensive business analytics?	✓✓✓	✓				✗

Each of the approaches has its own pluses and minuses, summarized by the chart above. Clearly, doing nothing is a ticking time bomb – ignoring the problems does not mean they will just go away. And while some approaches may be less costly to start with, they are not sustainable. Due to the importance of file-based workflows in today's media facilities, it is critical that decisions be made with a view to the long-term and not just in solving the most pressing problems in isolation. With the possible exception of MAMs, IT integrators, and Do-It-Yourself, there are ways to minimize the cost of entry by limiting the initial scope. However, an important consideration has to be the ease in expanding scope as time and budget permit – and ultimately how well the solution will scale over time. The important thing to remember is that workflow is not only about solving problems today, but creating a foundation on which to

build the business for years to come.

MBC is a complete, enterprise-level solution focused on solving the issues of facility-wide file-based workflows. Coupled with the internal content management system Media Navigator, MBC is capable of searching throughout the organization for assets and then dropping the selected asset into any existing workflow. With complete visibility into any MBC workflow, plus Dynamic Resource Management to automatically handle high-priority jobs paired with the ability to manually override the system at any time for rush jobs. Sony's Media Backbone Conductor System is built to facilitate file-based workflows today and well into the future.

Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656
sony.com/mediabackbone

© 2012 Sony Electronics Inc. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Features and specifications are subject to change without notice. Sony, Media Backbone and the Sony make.believe logo are trademarks of Sony. All other trademarks are the property of their respective owners.



The Media Backbone™ Conductor

The ultimate user-friendly, comprehensive, flexible solution for workflow Orchestration



How to Build an Enterprise Content & Workflow Management System

Selecting a tool for the critical task of managing file-based workflows in a media facility is one of the most important technological decisions facing the industry today. While there is no doubt that building an enterprise content and workflow management system can require substantial investment, it is also a crucial part of a facility – the foundation on which one builds a media business. As such, it is absolutely imperative to select a platform that can help evolve and grow the business for many years to come. While ROI is an important consideration, the investment must be balanced against the risk of doing nothing – in which case the current issues are likely to only get worse. And the decision is often complicated because so many vendors offer workflow solutions: whether an add-on to a Media Asset Management system; a low-end “point solution” attached to file acceleration or transcoding; a custom system built by an IT integrator using their Enterprise Service Bus as a platform; or even a do-it-yourself system leveraged off an open-source ESB. This paper will discuss the various options, and compare how each approach stacks up against Sony’s enterprise content/workflow management system, Media Backbone Conductor System.

Media Backbone Conductor (MBC)

The Sony MBC System is different. It’s designed from the ground up to be a dedicated, comprehensive workflow system. It utilizes an enterprise-level SOA-based IT platform, and adds media applications designed to scale to meet the needs of the world’s largest facilities while still maintaining management simplicity. By its very nature, MBC is open, providing a long list of third-party application interfaces. And because no two facilities are identical, MBC is flexible—enabling you to tailor the solution to your exact needs with far less cost, development time, and risk. While MBC does include pre-built workflow elements, user interface screens, and templates, it is best to think of MBC as a comprehensive toolkit.

The Media Backbone Conductor System streamlines your workflow, thanks to five major components:

1. Powerful Service Oriented Architecture (SOA) middleware (ESB) for a robust integration platform - webMethods from a top IT vendor, Software AG.
2. A Media Workflow Engine that orchestrates and optimizes all the processes of the “content factory,” including the ability to automatically (Dynamic Resource Allocation) and manually reprioritize on the fly, plus complete visibility into every corner of the enterprise.
3. Adapters to the devices and applications that make up the “content factory.”
4. A specialized Media Bus to automate the movement and storage of large media files using any combination of new and existing storage and networks.
5. A powerful content management system that keeps track of all elements in the operation, provides browsing and simple editing, facilitates logging and approvals and provides federated search capability to any other MAMs, PAMs, or content management

systems inside or outside the facility – with the ability to select content located in the search and drop it directly into an existing MBC workflow.

MBC is truly an enterprise solution, designed to facilitate workflows from end to end – and to tie business systems to the media systems – creating an efficient, adaptable environment.

MAM

There is little doubt that the handful of enterprise-level MAMs support the fullest set of content management functionality, complete with many powerful functions including exotic capabilities used by only a few. But it is also true that these same MAMs utilize tightly integrated workflows to provide functionality for activities directly associated with the MAM while only using pre-selected tools, severely limiting user choice. MAM workflows traditionally could only be built and modified by the vendor, and even then functionality was limited to the task at hand rather than an end-to-end solution. Recently, some of the major MAM vendors have started upgrading the workflow component – but very little has made its way to the marketplace. A handful of the MAM vendors are gravitating toward SOA with an ESB platform, but most use more traditional approaches much less friendly to changing requirements.

Even with these updates, the focus is still on the MAM as the “center of the universe.” The reality in most facilities is that there is more than one content management system – sometimes multiple MAMs and title databases, but almost always editing PAMs and archive managers. This means there is no real center of the universe, but rather a collection of systems that all need to be searched and managed in a more holistic fashion. And typically, this is not a strength of MAM systems with their “center of the universe” mentality.

There is also the argument made by those already buying a MAM for specialized needs – that the workflow component doesn’t add that much cost, therefore it makes sense to just buy the MAM workflow offering. However, if the workflow tool doesn’t really meet all the needs of the business, then the low incremental cost may simply be masking much greater costs ahead. If you need a full-featured MAM, by all means consider one of the leaders. But also consider buying only the asset management portion of the MAM and turning to a dedicated workflow management tool like MBC for the workflow orchestration component. As a bonus, you will have the ability to search the MAM (and any other content management systems in the facility) and directly initiate any workflow on the system.

Point Solution (Low-end Orchestration Tool)

Another possibility is the “point solution,” designed to solve specific problems, typically revolving around file delivery and/or transcoding. There are several good workflow orchestration tools available that are reasonably priced and relatively easy to work with. The fundamental shortcoming is that they are designed to only solve part of the problem. In many cases, users find themselves having to manually link together these point solutions in order to create a workable, end-to-end solution. Once that happens, new problems are created: processes that get bogged down between point Another possibility

is the “point solution,” designed to solve specific problems, typically revolving around file delivery and/or transcoding. There are several good workflow orchestration tools available that are reasonably priced and relatively easy to work with. The fundamental shortcoming is that they are designed to only solve part of the problem. In many cases, users find themselves having to manually link together these point solutions in order to create a workable, end-to-end solution. Once that happens, new problems are created: processes that get bogged down between point solutions; unnecessary make-work and errors in metadata reentry; loss of management control and visibility; and ultimately a more costly approach than an end-to-end solution but with very few of the benefits.

Some customers have turned to MBC to tie together the point solutions, although this approach can result in reduced visibility as the point solutions are effectively “black boxes” that obscure internal process milestones. In those cases, it is sometimes possible to add more granular status calls to the point solution, and thereby regain some visibility within the “black box.” Using an existing point solution sub-workflow within a larger end-to-end workflow can also be an appropriate approach so long as the sub-workflow remains effective – but when it no longer makes operational or business sense, the option is always available to eliminate the sub-workflow and have the Media Backbone Conductor System take over complete responsibility.

Hire an IT Integrator (Build applications and workflows on ESB platform)

Another potential approach is to hire an IT integrator to build a custom solution based on SOA principles using their own commercially available Enterprise Service Bus (ESB) as the integration platform. On the surface this seems equivalent to MBC which is a SOA implementation based on an ESB from webMethods. However, three additional critical components of Media Backbone Conductor System are the media workflow application itself (light blue in graphic below), the Media Navigator content management application

(light blue), and the library of available services and adapters (dark blue). None of these components are included in an ESB platform and must be built from scratch. In the case of MBC, many millions of dollars were invested in the applications themselves, and they continue to be improved based on the experience and feedback of many users. Realistically, there is no way the cost of starting from scratch with only an ESB platform can be equal to or less expensive

than buying a complete solution such as MBC.

Most IT integrators are also focused on serving the needs of many different market verticals and, unlike Sony, generally lack the depth of media knowledge and experience. As a result, some customers have literally waited years for a solution and spent far more money than they ever anticipated, while ending up with a limited solution that is very expensive to maintain and has no realistic path for future enhancements without substantial additional cost.

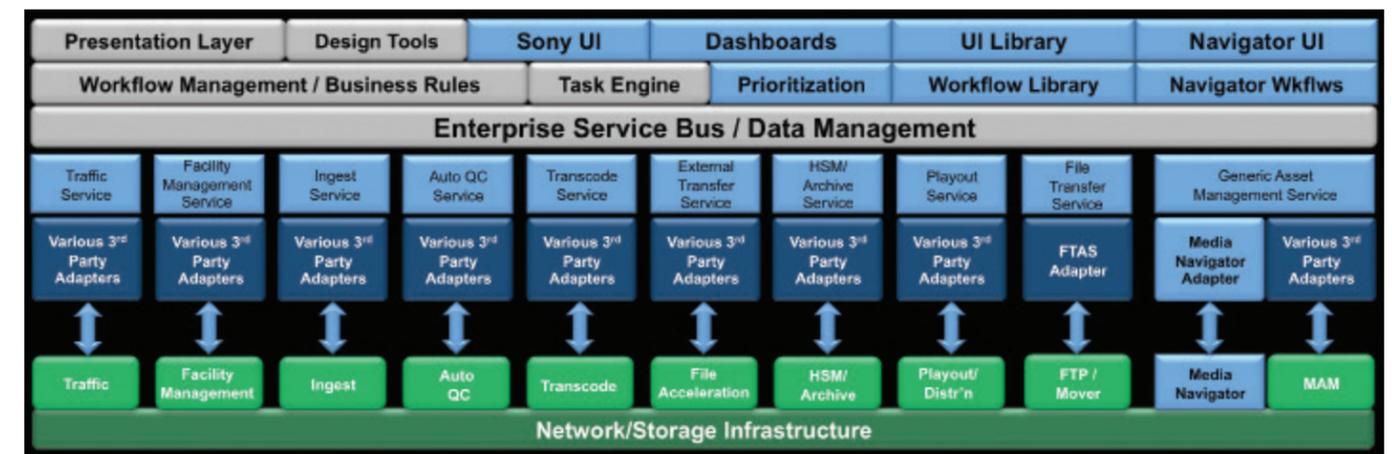
Do-it-yourself (Build applications and workflows on ESB platform)

Another alternative to hiring an IT integrator is to select from a number of ESB alternatives, including some open-source implementations, and use internal resources to build a media workflow system. It is possible to spend a little less on the ESB, but that is just the platform and much of the real cost is in building the applications that sit on top of the platform. While this approach is likely less costly than hiring an IT integrator, it is still almost certainly more costly than a ready-made content management/workflow system such as MBC. And while it seems that such a solution would be the best fit for the unique requirements of an enterprise, these solutions typically lack the innovative benefits that come from having input from a wide range of global users.

Also consider that several MBC customers either originally hired an IT integrator or developed their own solutions based on commercial ESBs, but have since migrated to MBC. Why? Originally these customers had no choice, as there was no complete solution such as MBC available five years ago. But after seeing firsthand just how time-consuming and expensive it was to develop their own solution (or have it developed by integrators), they began searching for an out-of-the-box content/workflow management system, and ultimately chose MBC. Now instead of spending all their time developing an application, these software engineers are busy building workflows and satisfying the needs of their internal customers.

Do Nothing

Doing nothing is perhaps the most dangerous approach of all. Sometimes the cost of entry can appear a bit daunting, but that must be compared to the cost of doing nothing, both today and in the future. Most people contemplating a workflow system are doing so because their current processes are inefficient, lack visibility, and create numerous operational problems. And it is very unlikely that



Legend: Gray = Enterprise Service Bus (ESB) Lt Green = Customer Applications Dk Green = Customer Network & Storage Infrastructure, Lt Blue = Sony MBC Core Dk Blue = Sony Optional elements