

New Workflow System Anchors Video Operations in IT Domain

Digital Rapids is introducing an IT-oriented approach to enabling entertainment companies to manage workflows across the entire enterprise while overcoming the hassles specific to processing video content for all aspects of the multiscreen service model.

“With our Kayak platform we’re attempting to establish some standardization and common ground around technology in the media entertainment industry,” says Brick Eksten, president and co-founder of Digital Rapids. “There have been other attempts to standardize a common workflow development platform but none as encompassing as this.”

This an ambitious goal in a highly competitive post-production media management marketplace heavily populated with process-specific solutions. But the company’s work with content owners and service providers over the past year has convinced its leadership that these players are ready to embrace a platform that operates from a pure IT perspective to streamline designing, implementing and managing workflows for all aspects of enterprise operations, including the processes directly associated with content management.

“Kayak isn’t specific to media and entertainment applications,” Eksten explains. “If you look

at the typical business operations environment for companies in this space, one half of the workflow processes are related to media and entertainment and the other half is purely about the operational requirements you find at any big enterprise.”

The way things work today, IT workflow management systems are in place at these companies to handle the more or less generic enterprise processes. But when it comes to the operational requirements directly associated with managing processes related to ingesting content onto distribution platforms, encoding, transcoding, adaptive streaming, broadcast and much else, everything is handled through process-specific systems that have to be manually assembled into a workflow system that can talk to the larger enterprise IT environment.

“Kayak serves as a framework for all your workflows,” Eksten says. “At the same time it brings together the technologies you need to empower media entertainment. This is the first time you can develop your entertainment workflows against a frame of reference that ties them directly into your business systems.”

Digital Rapids has previously publicized the Kayak platform as the underpinning for its latest iteration of the encoding, transcoding and other components it provides for video management.

At this year’s NAB Show the company is revealing the broader role for Kayak, where the template for designing workflows allows customers to draw on these specific processing components as elements in a catalog, which is to say, as elements that can be activated on servers and assigned specific policies for how they are applied by simply implementing commands on the workflow template.

This is very different from process-specific components typically built with service buses operating on a service oriented architecture (SOA) supporting a basic set of tasks along with adapters for integrating them with other vendors’ applications. “Such approaches are horribly expensive,” Eksten says. “If you look around the types of clients we work with in this industry, you won’t have to look far to see companies that have spent tremendous amounts of money to glue media and entertainment technologies together with business frameworks.”

“We’re really cutting through the chaff of how software is used in large facilities today,” he continues. “With Kayak, as you’re architecting your workflow you’re actually prototyping your applications, and as you’re prototyping them, you’re also testing them, and on completion of the testing you can move to deploy-



Brick Eksten, president & co-founder, Digital Rapids

ment. So you have all the tools to use in line in a single process.”

It comes down to streamlining a whole lot of work at all points in the workflow. Processes have to be configured based on whether content is live or ingested for storage, whether it is interlaced or progressive, how many channels of audio have to be managed, the aspect ratios and adaptive rate formats employed with receiving devices, whether or not loudness correction is required on ad spots in the program stream, whether there are language tracks to be kept in sync with the source, whether metadata should be overlaid or embedded in the content stream, just to name a few of the myriad details that have to be accounted for.

And everything has to keep working together. Such harmony “is very hard to maintain in the

SOA environment,” Eksten says. “It’s the biggest complaint you hear about SOA today.”

With a catalog of all the required processes to choose from within the Kayak domain, server resources can be used efficiently without requiring pre-installation of software, Eksten notes. “With Kayak you’re orchestrating the constituent parts and compiling them in real time,” he says.

“You don’t have to deploy your boxes to accommodate specific solutions. As you’re blue printing your operation you’re telling boxes which applications to pull in and how to run those processes. If you want to add a box, you don’t have to think about how it has to be used. Kayak points at that

and anything you’ve designed now runs on that blank slate. Provisioning is automated and completely dynamic.”

Enterprises that have traditionally relied on hardware-based proprietary systems to perform essential content processing tasks are growing increasingly comfortable with the software-focused IT approach to execution, he adds. Along with the benefits in flexibility, scalability and cost-efficient uses of off-the-shelf hardware, they gain a far more robust means of protecting against system failures.

“If you look at traditional hardware solutions, they’re based on use of SNMP (Simple Network Management Proto-

col), which is a fairly low level of protection against system failures,” he explains. “Things are inherently different with a software-based architecture.

“Inside Kayak each element of the catalog can be point monitored in real time as part of the pure IT framework. You can monitor anything you want using traditional Web technology. You can tell if one single component in the workflow is having problems. You can look and see where the bottlenecks are. That’s powerful.”

Digital Rapids has already made significant inroads into the traditionally hardware-based cable market in conjunction with operators’ need for multiscreen transcoding and other IP service

solutions, Eksten notes. “We’ve had some good solid penetration there, even though it’s still very nascent with regard to the overall uptake of software technologies in that market,” he says.

For example, Digital Rapids’ solutions are now used by two major North American MSOs for all their current multiscreen initiatives, he notes. Now the goal is to move those successes into other aspects of their video distribution operations.

In general, across the legacy content supplier segment as well as in a growing number of MSO and telco TV quarters, “we’re seeing more of an IT mindset. The next-generation products we’re introducing at NAB were built with these customers in mind.”