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Microsoft Orchestrates Options on Azure Platform

Cloud Initiative Targets Video Costs

>> MEDIA PLATFORMS

By Fred Dawson

Call it the cloud of clouds. A growing number of vendors are offering their technologies from the cloud as part of a Microsoft-orchestrated ecosystem that could accelerate the pace of development across the video services landscape.

While many entities provide turnkey support for Web publishing on a cloud or hosted basis, the new orchestrated cloud environment promoted by Microsoft creates a way for each content distributor to mix and match remotely hosted applications in whatever ways they choose. The goal is to facilitate all facets of asset management and distribution for multi-screen operations, whether for positioning content on the Web or supplying it on a pristine "contribution" basis from broadcast post-production to service providers' headends.

It's not about moving everything to the cloud, at least not yet, say proponents. Instead, partners in the endeavor want to make it possible for content suppliers to leverage the cloud-based applications as seamless extensions of in-house processes, allowing them to maintain existing workflows and modes of operation while expanding to much greater storage volumes and wider reach without incurring massive capital costs.

For example, Digital Rapids has developed an application foundation, the Kayak Cloud, to be used in conjunction with the forthcoming 2.0 release of its Transcode Manager to seamlessly integrate on-premises and cloud-based media processing. The cloud transcoding support running on Azure enables on-demand, elastic resource expansion without the capital costs and operational hassles of adding local physical systems, says Digital Rapids president Brick Eksten.

"The rapid growth of revenue-expanding, multi-screen distribution opportunities and the exploding volume of available content are driving fundamental shifts in the way media enterprises approach their content processing workflows," Eksten says. "They don't want to be mired in deployment and capex issues. If they can burst into the cloud where costs are predictive and turnaround is predictive, they can move their focus out of engineering forecasting and into the hands of financial accountability."

"If you think about the expansion of digital content, by 2020 it's projected that the digital entertainment universe will be something in the magnitude of 20 million pedabytes of content," notes Jake Winett, global industry manager for media and entertainment at Microsoft Communications Sector. "To think about how you're going to store on premise spinning discs that amount of content even if you break it across the different companies, the ROI isn't there. It becomes this digital dilemma of the more IT I'm having to maintain on premise, the less I'm able to innovate and adapt and change to the market."

As a result, this is an opportune moment to step up the cloud initiative, Winett asserts. "Some of the analyst research that has come out shows that M&E as an industry is moving more quickly to the cloud than other industries, compared against retail, manufacturing and others," he says.

What's needed is the coherence and consistency of cloud-based operations that this kind of ecosystem brings to the market, says Randy Levine, senior vice president for digital partnerships at iStreamPlanet, a supplier of Web publishing services. "There's been a lot of cloud speak about it's easy to scale up and down in plug-and-play mode, but the pain point has been to get all the functions that go into what we do up and running together," Levine says. "It's easier to plug together processes working with the partners in this ecosystem."

Needless to say, the message behind the advantages of cloud-based operations wasn't well served with the Northern Virginia data center outage that Amazon's cloud-computing service suffered on April 21. But the event actually served as a vindication of sorts for the cloud paradigm insofar as users of the service like Netflix and other big enterprises who fully engaged the redundancy architecture of the Amazon EC2 service had no problems. It was the smaller startups who failed to purchase the redundancy capabilities who were hit with malfunctions.

Jake Winett, global industry manager, media & entertainment, Microsoft Communications Sector

While, generally speaking, "cloud adoption at the enterprise level has been slow," the situation is about to change, asserts Robert Brown, senior vice president for cloud solutions at Signiant, which provides support for content supply chain management. "We're seeing a tremendous amount of activity.

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Microsoft is pounding the message that we now have the operations support, the SLAs (service level agreements) and all the things you need to support enterprise-class operations. We see our business model and other software suppliers going from perpetual license agreements to cloud-based engagements."

Brown notes the moves on the part of Microsoft's own Xbox and Zune (portable media player) businesses to Azure-based cloud operations offer a case in point. "Xbox and Zune are moving thousands of terabytes of content into Azure-based storage," he says. "This isn't about in-house loyalty. They're not about to put their businesses at risk with anybody, including Microsoft Communications Sector."

At the NAB Show in April Microsoft entertained a bevy of ecosystem partners in its booth, all of whom are providing various functionalities related to content management and distribution on a hosted basis employing Microsoft's Azure cloud-support platform as the underlying template. Winett describes Azure as" a highly scalable, highly elastic mobile computing platform that allows media companies to use applications from our partners in a utility fashion."

The strategy also opens many Microsoft assets to cloud access, not as fixed features but as options which are available to those who want to use them. These include the company's massive storage infrastructure, content delivery network, Play Ready digital rights management system, Sequel data base server and Silverlight browser plug-in application framework.

Having the Microsoft Azure ecosystem to rely on helps immensely with the effort to persuade customers that they can tap into the Digital Rapids cloud-based transcoding system with assurance their other needs for operating efficiently in the cloud will be addressed as well, Eksten says. "One of the things that makes Azure unique is they also have storage as a component," he notes. "Amazon does as well, but Microsoft has massive capacity and is doing backup with data centers 500 to 2,000 miles apart around the globe. And they're bringing Sequel as a service. So now there's a platform that operates as a service with CDN, bandwidth, storage and compute cycles all under one umbrella."

Some of Microsoft's Azure ecosystem partners have been operating cloud-based services for some time, including Origin Digital, a unit of Accenture that supports IP broadcasting, and Signiant. In Signiant's case it's been about "standing up" private clouds run by each customer and, more recently, moving to semi-private clouds shared by more than one customer, Brown says.

"We work with big media companies to help manage accelerated movement of digital content in the post-production phase, which includes transcoding, rendering and delivering files," he explains. "The next extension is into the public cloud as in the case with Microsoft."

In Origin's case, "our business has been about the cloud since 1997 [when the firm was founded as Live on Line]," says Darey Lorincz, CEO at Origin, which does a lot of its business with sports outlets seeking global reach over the Internet. Prior to acquiring what is now Origin, Accenture said it could reach clients anywhere, he notes, but that was hard to do on a global basis.

"Our reach is real now," he says. "That's the province of Azure. Our business is completely elastic where our customers can turn resources up and down any time. If somebody in Singapore says they need encoding nodes, they don't have to stand it up. This kind of elasticity is creating business models overnight."

But, industry wide, "the uptake of the cloud won't be overnight," notes Digital Rapids' Eksten. "There's a lot of dogma around the traditional ways of doing things. But everyone faces the challenge of keeping up with demand. Transcoding, storing and moving digital files over the network, managing all the metadata – it's increasingly difficult to keep pace without taking on a lot of risk and spending money to build up infrastructure."

Digital Rapids has been working a long time to build the Kayak Cloud foundation, which Eksten describes as "the whole backend that facilitates publishing on a large scale with consistency and the means to control costs. Part of it is new finance models that allow people to subscribe to our technology, and part of it is the way we'll mange deployments in a seamless way. We've built something groundbreaking, because we've removed the entire concept of a software install. Everything is automated."

All kinds of content distributors can benefit from the capabilities to be introduced with Transcode Manager 2.0, he says, noting the software will be released in the second half of the year. "If we've done all the right work up front and solved the dynamics and how to onramp people into the system, it doesn't matter whether the customer is small or large," he asserts.

"But the biggest operators are the ones who need the most help in terms of being able to scale," he adds. "If you look across those organizations and look at how the business

Brick Eksten, president, Digital Rapids

is broken up with respect to traditional and next-generation ways of doing things, the next-gen operations are still the smaller component. If we can help them move quicker with the resources they have, they will be able to build their businesses faster."

Digital Rapids and the other players in the Azure program are focusing on the sweet spot in cloud services, knowing media companies and service providers are not about to give up hands-on control of their operations. "It's going to start with an evolutionary process," says Microsoft's Winett. "Media companies have made significant investments in on-premise technologies and applications. They're not going to folklift that and throw it out the door tomorrow."

As a result, "our partners are designing their cloud applications in a way that gives transparency to the operators and the end customers who use those applications so there's not a consciousness of, okay, now I have to go to the cloud," he continues. "The application has the intelligence to know when you've reached your peak utilization on premise, you can burst into the cloud based on the thresholds you've assigned. You have control over what's going to the cloud and what's not." <