

Speaking notes prepared for "Cross Platform Workflow – The Multiplatform Universe" PBS TECH Conference 2007

BILL WEBER:

Thank you. I'm Bill Weber, WHYY's Vice President for Content Distribution & Chief Technology Officer. In recognition of the previous excellent presentations and the approaching lunch hour I will be brief and to the point. First, I want to convey the sense of urgency we have at WHYY in going forward with multiplatform distribution – primarily Video on Demand for now, and other platforms beyond VOD as they evolve and expand in the months and years ahead.

The future of public media is at stake!

How we navigate the transformation from our traditional – and familiar – linear broadcast model to the fast emerging on-demand world of content distribution will define the identity and ultimate success of public broadcasting. Make NO mistake - the change is happening now, it's happening faster than we imagined, and if we are not attentive to this change, it will overwhelm our ability to serve and satisfy the audience appetite for increasing amounts of content in new unique new ways.

VOD and other on-demand media are ideal for the public broadcast audience. They become interested in a subject over-the-air and then can follow-up as far as their own interests carry them. What we've seen so far with the power of meeting the audience's interactive interests online just points to what is possible through VOD. The good news is that the challenge of preparing and delivering content to multiple platforms is not as daunting as you might imagine. Let's look at some necessary conditions that must be met if public broadcasters are going to be able to rise to this challenge.

After the initial capital costs required to create VOD ready content, the ongoing operating costs cannot be too burdensome. It is not possible or practical to expect that member-stations will be able to set up extensive parallel operations to support multiplatform delivery. Automation and streamlined packaging, delivery and tracking techniques are required. This can not be an extra step – it must be a parallel step that, for the most part, must take care of itself.

Is this possible? Fortunately, the technical infrastructure that makes VOD itself possible also makes it possible to meet these high demands.

WHYY entered a developmental partnership with Comcast four years ago in Philadelphia. At that time, Comcast made a bold business decision to develop and deploy a controversial video on demand delivery strategy. The result today speaks for itself as shown in these slides. The universe of cable, satellite and fiber content delivery services are now scrambling to meet the enormous viewer demand for these personalized TV services.

Review slides....

Before handing this over for Michael Atkin, BroadView Software's founder, to go into the particulars of their solution I want to envision what all this can mean to your station. Now, during membership fund raising drives, we offer various premiums to encourage membership support.

The fulfillment and support of the delivery of these physical premiums is a very expensive and continuing operational cost. In many cases millions of dollars each year.

Here's a much better business model to consider - instead of offering physical premiums supplied by a commercial fulfillment house, why not offer greater access to the content and electronic premiums at a fraction of the cost? Thereby, returning the many dollars spent externally to fulfill directly to the station's operating budget to create additional content and increased community value and awareness.

Now, Michael will explain the actual hands-on approach that he is developing with WHYY to bring new efficiencies to WHYY's existing, multi-vendor VOD implementation.

MICHAEL ATKIN:

Thank you, Bill. My name is Michael Atkin and just as a bit of background, we started BroadView Software in the 80's to support a newfangled media concept called "pay-per-view". In retrospect, pay-per-view was just the first light of the on-demand media universe that we're now seeing, and it is a vision that has been a long time coming.

Now, Bill raised the core challenge of multiplatform delivery for public broadcasters – how to do it without the need for establishing a parallel operation. Yes, the technology that makes VOD possible also makes that possible. But it isn't just technology – there is no magic bullet. What the technology enables is workflow transformation, a critical term we have been hearing the last two days. That's the key to working smarter and more efficiently. At too many stations, operations consist of an amalgam of stand-alone systems that are bundled together with a lot of manual intervention to smooth out the rough spots. Achieving workflow efficiency means getting these systems to work closely together. Also, better to smooth out the rough spots once and for all with a good integration rather than having to roll that boulder up the hill time and again.

So it is important to look at your whole operation. But I also know that you have to start somewhere. Let's look at the four key elements that make up a VOD system, what these involve and how they work.

MISCONCEPTION: VOD NOT A LIBRARY, BUT BOOKS ON WHEELS

First, there's a basic misconception about VOD. Some may think that it means offering all of your content all of the time – the complete archive. For those unfamiliar, it seems like it is about providing access to your full content library. The core offering remains the same, with occasional additions. So managing this really takes little more than just adding new entries to the card catalog. But that is not the case. The reality is that what's actually available in a VOD offering is defined by the storage space at the cable company. This is a limited resource that must be managed to maximize use. So, to follow this library analogy, it's better to think of VOD as more like a "books on wheels" concept. You pick and choose what's going to have the greatest interest over a particular time frame, and then arrange these offerings in a way that will make it easy for the audience to find what's of interest. You may get the mistaken impression that having just a limited amount of content is limiting. But actually, as we'll see, this opens opportunities for stations to brand, promote and connect with viewers. It also provides your underwriters to do the same, opening important new opportunities for revenue streams.

Let's look at these two functions and how they need to work together. To follow the "Books on Wheels" analogy, VOD Scheduling is picking, placing and tracking what's on the cart as it goes on its daily and weekly rounds. To put it in more technical terms, it is about provisioning the limited storage space properly – making sure that the right video is available at the right cable operators VOD servers at the right time. Or, to put this more in terms of programming, this is really about making the most of your inventory. It can also mean making sure that you are complying with licensing limitations – you may only have a certain window to offer particular material. A proper VOD Scheduling system keeps you in compliance, keeps content fresh and topical to audiences. This is especially important when it comes to posting – and taking down – daily news programs.

So, hand-in-glove with this provisioning is a second key VOD function - the need to organize and present the available material effectively. This is done through what are called Navigation Trees. Navigation Trees are the basic structure and design of the menu that your audience sees on screen to find content. Since the content is rapidly changing to make the best use of available space, Navigation Trees, too must change to reflect the current content. Think of this as analogous to the design and layout of a Web site – except that it requires constant refreshing, updating to stay current. Ideally, the design of the tree should reflect the content, so a fixed template really will not make the most of the possibilities for showcasing content – and also opportunities for station branding and imaging as well as for underwriting. Though the dynamics involved are somewhat different from Web page design, there are some principles in common. First, regularly refreshed provide ongoing reasons for visitors to return to check what's the latest. Like online attractions, a cobweb site doesn't get people into the habit of checking back daily to see what's new. The key to most successful, well-trafficked sites is that you get a new experience with each visit. The same principle holds true for a successful VOD implementation. The Navigation Trees are fresh, draw viewers in, and give something new regularly – especially by offering access to breaking news stories.

Now, does that mean you have to have the equivalent of a Web designer/Web master working constantly to keep VOD Scheduling and Navigation Trees up-and-running – perhaps a complete production team? Fortunately, no. While there is a great deal of variety possible, there is limited real estate available on-screen. That makes the task far more manageable. It can be handled effectively with some easy-to handle software tools that work right alongside VOD Scheduling. Remember, this all has to work, according to Bill Weber's Pubcast dictum, without the need for major manual intervention, staff additions, or exhaustive effort.

Our third VOD function is an outgrowth from conducting Scheduling and setting up Navigation Trees. That's what's called "Packaging". "Packaging" is what becomes possible once content has been successfully – and properly ingested for multiplatform distribution. Different program elements – the core content, plus station ID, underwriting – are knitted together. We're creating what's called "Media Fabric" and so this calls for the proper tools to knit these elements together. Not long ago, this kind of mix-and-match was carried out manually by splicing tape. Then, nonlinear editing took this to a new level. Now, to achieve the full power of working with Media Fabric means being able to accomplish all this with automated tools. A few keystrokes is all it takes, and you don't need an engineer or an editor to make this happen.

So why do we "package" the different program elements instead of just letting the core content go out bare? For the same reason you don't do that on air. Adding bumpers, wrappers, underwriting adds value and revenue streams. It promotes YOUR public broadcast brand. It's what takes the content from being generic to being local or regional. I don't want to get into the technical details too much – am happy to answer questions along that line after – but I just will say that the key

here is having the appropriate metadata. And that means properly ingesting the content. To make good on the promise of doing all this without extraordinary effort on the back end means some care needs to be invested in the prep work. But once ingested properly, the value of your content multiples because it can be packaged and repurposed time and again with little effort.

So, we're almost out of time and we've got one more key VOD function to mention. To recap, you're scheduling content, creating navigation trees to make it attractive and accessible. Then, you package the content to add value. That leaves the heavy lifting – what's called “flattening” – actually taking the packaged piece, putting it into the proper format for the particular delivery platform, and sending it on its way. Flattening can target any number of platforms – VOD, Web-based distribution, whatever.

The process of flattening can be thought of as a simple transcode of the content from one format and bit rate to another, however life and broadcasting is often not that simple. You often have to standardize audio and multiple tracks, embed branding or other content flags and objects into the video stream, potentially change and /or correct aspect ratios. You might even have to embed signature coding for companies like Nielsen or even Digital Rights Management (DRM). All of this requires first and foremost detailed and consistent metadata about the underlying components. Only with this information is it possible to automate the flattening of packages.

Further, the flattening process as explained is often much more complex than simple transcoding. The following block diagram outlines the major functional pieces involved in a complex flattening process. Again, like packaging, this all used to be handled manually. But today, there are turnkey solutions to automate and simplify this process. At WHYY, The Seachange/AnyStream Quicksilver server takes care of the flattening. So while we can go into a great deal of technical detail about what happens and how that is carried out, the reality is that this is – and needs to be – virtually invisible from the station end. If it isn't then we haven't achieved the goal of making this as nearly effortless for station staff as is needed.

We're out of time here and there's still much to say, and hopefully questions to answer. Just as a demonstration of the way that we're already accustomed to – and expect – to be able to receive content on demand, we've prepared much of this information for you on demand – on our website. I think you'll agree that offering you that access is not just a courtesy. Or a bonus. Increasingly, it's an expectation. Rest assured your audience feels the same way. Also, you are invited to join us over lunch after this session ends in a few minutes. And with that, perhaps we'll also have time for any questions.