

NAB Musings on the Move to IP



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The Move to IP or Down the Rabbit Hole



The future of IP in media is just beginning.

At NAB 2015, the dominate discussion on the floor and in many technology presentations focused on; Cloud Services, file based workflows, stream and file analyzers, SOA, ESB, Metadata, Big Data, Storage and “when we will be moving to IP?”. Just how close is this transition?

It seems that from a practical standpoint, that 95% of acquisition, production and distribution is already IP - computer based, networked technology and workflows. The last element that is not fully IP is live production, quite specifically live video directly out of the camera as an IP encapsulated stream into a production switcher where it is intercut and layered with other live streams and file based content that is streamed/played in the production switch. Many of the server manufacturers are still not set up to receive an IP encapsulated stream because they have not had to.

Is it possible that 5% of the technology and workflow is consuming 98% of the discussion on IP? Cloud is IP, software is part of the IP workflow, file creation, transport and storage are all part of the IP architecture.

In each of the significant transitions in broadcast and production technologies, from Analog Composite to Color Difference, then in the first transition from analog to digital, from MPEG1 to MPEG2 and from SD-SDI to HD-SDI. In each instance of change, broadcasters and content producers did not rent dumpsters and hire bulldozers to toss out the sun-setting technology and completely replace it with the "new" technology. It just created interesting engineering challenges!



Few media managers will be willing to bulldoze an expensive and working SDI infrastructure just to install IP. There will be a transition period where SDI works in parallel with IP solutions enabling a smooth transition.

For each of these, there was a transition period with lots of black boxes, interfaces, analog or digital glue that were there to ease the process. So what has changed? Not Much! Only that in addition to boxes, adapters and hardware interfaces, there are API's, middle-ware and gateways.

While we are solidly in IP and file based production, delivery, infrastructure, technology and workflow, it does not mean SDI has been eradicated from broadcast and production. Globally, countries and regions adopt at different paces.

The new workflows and the best use of this technology is still evolving. The integration between both technology systems and business processes is tighter than ever before. Enterprise and Production can no longer exist as silos.

The demand for content on different platforms and quest for new features is certainly still developing. There needs to be a greater acknowledgement and acceptance that IP **IS** here. That does not mean it's complete. There are still technology issues and adoption challenges. And solving the live production problem is as much a cultural issue as it is a technology issue.

The transition to IP encompasses every aspect of content creation, production, management and distribution. And, it will take a concerted effort, a new level of understanding, plus more training and change management. Despite these challenges, IP is here.

