

New Book Provides Answers to Help Ease the Broadcast Facility Transition to IP

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The challenge of making the transition to IP is the topic of a new book by SVG advisory board member Gary Olson. Entitled “Planning and Designing the IP Broadcast Facility: A New Puzzle to Solve” the book provides a beginning-to-end perspective designed to help decision makers understand the considerations and workflows required to make the move to IP. Olson took a few minutes to discuss the book and provide some insights for those in the midst of the IP transition.

SVG: The subtitle, A New Puzzle to Solve, says it all. What do you see as the biggest challenge in trying to solve a new puzzle when the pieces of the old puzzle, often, have to fit in or at least be useful during the transition so that the broadcast facility can still function?



Gary Olson's new book tackles the complex topic of bringing IP technologies into traditional broadcast plants.

Olson: It has been said that upgrading a facility while it's in full operation is like changing tires on a car while it's in the fast lane on a highway. That being said, the transition to IP has been evolving since editing adopted nonlinear technology. As the old puzzle pieces need replacement, based on their lifecycle or a change in requirements, the challenges are migrating core infrastructure to the IP side. As technology is replaced it will be most likely be replaced with IP-based systems that will be required to integrate with servers and storage. And often there is typically enough SDI distribution capacity but not enough IP network distribution capacity. It is not uncommon for an organization to have added some storage here and there along with a new edit workstation or upgraded layout capacity.

While different than the transition to digital, there are many similarities as digital transitions to IP. Getting content into the file-based architecture still needs SDI support. The book looks at where the changes take place.

SVG: Given the speed with which IP-based technologies change it takes a lot of guts to commit something to actual paper. But there are certainly core concepts that apply, regardless, of advances in technologies. Can you share one that is often overlooked by those who have not embraced IP?

Olson: What's interesting about this question is IP has been part of broadcast workflow for a long time. It started with nonlinear editing and then graphics. The core concepts are the same in IP as in SDI: maintaining the integrity of the content from its creation to distribution. Quality control and content management are still the foundation independent of technology and quality control may be one of the most important pieces of the puzzle that is overlooked. The same tools do not provide enough analysis and diagnostics for files and streams. Just as SDI brought gamut, jitter and eye patterns to waveform monitors and vectorscopes IP will need file analyzers as well as bit error detection and packet loss detection.

SVG: What are some of your favorite misconceptions about IP and broadcast that this book can dispel?

Olson: This is my favorite question. The great myth or misconception is that there are single solutions or a "silver bullet." There are many "end-to-end solutions" but not really any "beginning-to-end solutions." The IP architecture and workflow is an integrated set of technologies, systems and processes. There have always been "glue" products to integrate systems, DAs, A/D, D/A, embedders and debidders, etc. The concept is the same except now there is middleware, APIs, conductors and software adapters that have a similar role. The book's primary goal is to present the entire architecture with all the technologies, workflows and processes, and layout many of the decisions and provide some guidance on how to make them.

The book will be available next month at IBC and is also available today, online. [To order today please click here.](#)