DATE: Tuesday, May 13th, 2014
TIME: 7:00 PM
TOPIC: IPTV
LOCATION: Rogers Communications Centre - Ryerson University
Room RCC-204 - Eaton Lecture Theatre
80 Gould Street Toronto M5B 2K3

ARRANGED BY: Paul Briscoe & Andrew Rode
SPONSOR: SMPTE Toronto Boot Camp VI
REGISTER AT: http://www.eventbrite.com/e/11540621309
www.smpte.org/sections/toronto

John Mailhot, Director of Product Architecture – Imagine Communications

“Applying SDN and other techniques to get an IP network to do your bidding”

There is a fair bit of buzz in the industry these days about Software Defined Networks and their application in the space of video networking inside complex facilities. This talk covers the meaning of SDN in the datacenter/hosting industry, and how that meaning translates to the professional video space, and then looks at some of the specific protocols used for implementing SDN in a standards-based way.

John Mailhot has been working in the field of High-Definition Television systems since its North American inception in 1990, first as part of the AT&T-Zenith Team, then as technical lead for the Grand Alliance encoder, and later as engineering manager and general manager of Lucent Digital Video, Astra Digital Video, and then at Harris. Today John manages product and system architecture for the broadcast infrastructure team at Harris. John has two degrees from MIT.

Leigh Whitcomb, Principal Engineer – Imagine Communications

“Achieving Error-Free Media in IP Networks”

Data errors on SDI links are fairly infrequent, and these errors only impact a few pixels. In the past, stations did little to manage the errors except to install low-error SDI links and monitor CRC error counts. Data errors on IP links are more common, and thousands of pixels or audio samples can be corrupted by a single bit error. The disruptions are even larger when compressed video or audio is in use. As IP is being used to transport more of a Broadcaster’s video and audio essence signals, new error management methods are required. Methods such as SMPTE 2022-1 and -5 Forward Error Correction (FEC) have been used. Unfortunately, FEC adds latency to signals and complexity to the products, which in turn, increases the cost. Propriety solutions have been used; unfortunately these do not allow for interoperable equipment. New error management methods are being developed by the broadcast industry and SMPTE. This paper discusses errors in IP networks and their impacts. Several methods to manage and correct errors such as SMPTE 2022-5, SMPTE 2022-7 will be examined and compared.

Leigh Whitcomb is a Principal Engineer for Imagine Communications in the AVP Group, having joined in 1991. He has received a Bachelor’s degree in Computer Engineering from the University of Waterloo and a Master’s degree in Electrical and Computer Engineering from the University of Toronto. Leigh participates in SMPTE Standards committees and with the VSF, including active involvement on SMPTE 32NF Video over IP ad hoc group, SMPTE 2022 family of standards and the SMPTE 32NF Time Labeling and Synchronization committee. Leigh is a Manager in the Toronto SMPTE section and his professional affiliations include SMPTE, IEEE and PEO.

The SMPTE Board of Managers will meet in Room RCC-102 starting at 4:45 PM. Pizza & Pop Dinner is provided at 6:30PM. There will be no break between presentations.