Wendy Aylsworth
SMPTE Engineering Vice President
+1-818-977-7574

Thomas Wiegand
Fraunhofer HHI
Germany
Rapporteur ITU-T SG16

9 October 2008

Dear Mr. Wiegand,

Thank you for the liaison regarding ITU-T SG16's new work on IPTV Video Coding. This is an area of great interest to the SMPTE, as we have just announced the formation of a new Technology Committee on Broadband 23B. Please find an attached, separate letter on this topic. The SMPTE regrets that it has not had adequate time to provide a complete response, but Technology Committee 10E on Essence, chaired by Al Barton, will take the lead to draft a more thorough response.

Please note that VC-1 is published and in use with a complete suite of test materials is available (reference decoder, sample encoder , and sample bitstreams). This codec supports all parameters and bit rates provided in your example formats and resolutions:

SMPTE 0421M-2006 – VC-1 Compressed Video Bitstream Format and Decoding Process
SMPTE 0421M Amend. 1-2007 – VC-1 Compressed Video Bitstream Format and Decoding Process
RP 0227-2007 – VC-1 Bitstream Transport Encodings
RP 0228-2008 – VC-1 Decoder and Bitstream Conformance
RP 2025-2007 – VC-1 Bitstream Storage in the ISO Base Media File Format

The SMPTE is also in the process of standardizing VC-2, commonly known as Dirac-Pro, which is a wavelet-based, intra-frame video codec that provides coding at resolutions including SDTV and HDTV. The proponents intend to contribute the long-GOP form of this codec later for standardization. The proponents believe this compression mechanism to be free of any royalty-bearing license requirements. Further information on the specifications that form the basis of this proposed standard can be found at: http://www.diracvideo.org/. The SMPTE asks that SG16 consider this codec as well VC-1 for their possible application for IPTV.

The SG16 liaison raises some questions regarding the SG's ultimate goals with respect to its work on IPTV codecs. Does the definition of IPTV include only real-time streaming or does it extend to NRT down-loads of content? Is the intent to identify any/all codecs which meet a certain quality of performance or, instead, to simply select or create one generic codec? Will different phases of production, distribution and consumption be considered for different types of codecs? This information will allow us to better answer this first liaison and to ensure that SMPTE's work is complementary to that of SG16.

SMPTE looks forward to continuing work with the ITU-T SG16 on this topic.

Best regards,
Wendy Aylsworth