

ITU-T Workshop

Video and Image Coding and Applications (VICA)

Abstract

Geneva, 22 – 23 July 2005

Speaker: **Jörg Ott**
co-chair IETF MMUSIC;
Helsinki University of Technology, TKK

Session: 1: Network platforms

Title of Presentation: Think Semantics! The Need for Reconsidering Video Application
Protocol Design Principles

Multimedia and particularly video applications have been developed over the past 15+ years, using a variety of different networks as communication substrates. In the past, the design of multimedia applications and the respective media control and transport protocols was usually closely tied to the characteristics of the underlying networks. Moreover, inherent network features were taken as granted and they became inherent part of the application requirements. Example applications include video conferencing, digital video broadcasting, and albeit not necessarily involving video-telephony. While the efforts in the past succeeded in creating viable and widely used applications, they also established a strong legacy in at least two respects: an installed base of equipment that new versions are perceived to have to fully interoperate with and a mindset in the designers of applications and protocols that appears to leave them no choice but to follow a line of thinking predetermined in the past. It is this legacy that hinders exploiting the full promise of flexible IP-based communications when moving applications to the future. Instead of seeking backwards compatibility at all cost when moving to new communication platforms, designers are encouraged to trade full compatibility off for exploring new visions enabled by the new environment. In concrete terms, this means to actively question the past protocol features and mechanisms used to provide application features and look for alternatives (and it may even mean to question some application features). After many years, with IP telephony, we can witness the emergence of new ways of thinking that go beyond pure PSTN service replacement. When will video come along?