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Special Guest Lectures

HD Multipoint Videoconferencing**Petr Holub**

Institute of Computer Science, Masaryk University, Czech Republic

Johnston Hall 338

June 09, 2006 - 03:00 pm

Abstract:

A high-quality collaborative environment will be described based on high-definition video to achieve near realistic perception of a remote site. HD capturing relies on HD-SDI interface and produces a 1.5 Gbps UDP uncompressed data stream that is transferred over a 10GE high-speed IP network. The HD video stream displaying uses either software-based solution or the hardware HD-SDI solution. Data distribution to multiple participants of the collaborative environment is implemented using user-controlled UDP packet reflector based on the Active Element idea. Performance of the system and its latency will be examined. The system has been demonstrated at the iGrid2005 and SuperComputing05 conferences and experiences from these events will be analyzed especially with respect to the state of art networking technologies.

Speaker's Bio:

Petr Holub, Ph.D., graduated at Faculty of Sciences, Masaryk University in Brno and received the Ph.D. degree from Faculty of Informatics MU in informatics, focusing at high-speed networks, multimedia, and parallel and distributed systems. Currently he works at Institute of Computer Science MU in the Laboratory of Advanced Networking Technologies and participates on its scientific leadership. He is also a researcher with CESNET. His professional interests include high-speed networks and suitable protocols, active networks, user-empowered overlay networks, advanced collaborative environments, grid environments, and computational quantum chemistry and its implementation on distributed systems. He is an author of number of international research papers.

