http://www.hkengineer.org.hk/program/home/article.php?aid=6823&volid=150

Next-gen streaming developed for multicast

A research team from the Hong Kong University of Science & Technology (HKUST) has developed a next-generation streaming cloud for large-scale, high-bitrate applications over the Internet.

Existing Internet broadcasting technologies suffer from a number of constraints, including low visual quality, prolonged delays, high costs and limited system scalability. A research team led by Prof Gary Chan, associate professor of the Department of Computer Science Engineering, makes use of innovative streaming technologies to push high-quality contents to distributed viewers. It achieves high-quality multimedia broadcasting with 70% cost savings on bandwidth and 30% on hardware.

Using a distributed and self-optimising protocol, the cloud, which has been named Streamphony, achieves system scalability to virtually unlimited number of users. Its patented technology adapts to the network environment to attain the best performance.

"Streamphony divides the multimedia stream into multiple 'sub-streams' and intelligently 'pushes' them over multiple paths in the cloud. This new design paradigm is a quantum leap from the traditional design, leading to its remarkably low delay. It also enables the integration of IP multicast to substantially cut down network traffic and cost, " Prof Chan explained.

Streamphony has been adopted by Mei Ah Digital Technology Ltd and a major telecommunication company for high-quality live broadcasts planned in December this year.