## 异构网络流媒体 Media Streaming over heterogeneous Network

## **Challenges:**

- **■** Limitation and variance of Bandwidth
- **■** End-end Delay and jitter
- **■** Congestion and packet lost
- Heterogeneous of network and device

## Our research work:

■ High efficiency and scalable video coding Scalable video coding Transcoding between MPEG-2 and H.264

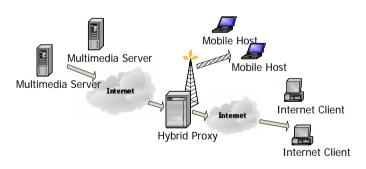
Distributed video coding

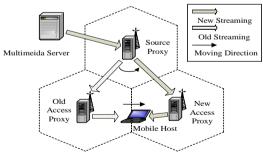
Unbalanced Multiple Description Coding for streaming over wireless/mobile network

■ Distributed hierarchical video server and streams schedule



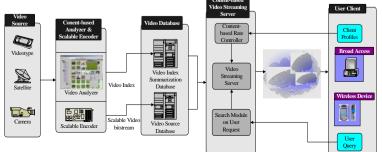
■ Streaming Proxy Server and proxy cooperation





MobileCache- Multimedia Proxy Cooperation in wireless environment

**■** Content based video streaming



Large scale peer to peer video streaming architecture

Supported by 863, 973, NSFC Cooperation with Intel, Microsoft MSRA

256 Kbps Receiver 2

64 Kbps | Receiver 3

Domain E

Internet

Receiver 1

Ethernet