

Lect 3 E: MPEG-2 Scalability

Q: Briefly discuss how MPEG-2

Scalability can be used in network with variable bit rate channels

Solution ① spatial: the enhancement layer provides higher spatial resolution

② Quality: Bits_enhance.

③ Temporal: The enhancement layer facilitates higher frame rate

The MPEG-2 scalable coding uses

① Layered coding: one basic layer

and one or more enhancement layers

② base layer independently encoded.
transmitted and decoded

to obtain basic video quality

- ③ Bit streams of base layer are sent first, to give users a fast and basic view of the video followed by enhancement layer to improve quality
- ④ The encoding and decoding of the enhancement, however, are dependent on the base layer or the previous enhancement layer

For the network with variable bitrate channels-

- ① When the bandwidth is high
MPEG-2 transmit both the base layer and enhancement layer
- ② When the bandwidth is low
~ only base layer