Multimedia Coding on Academic and Industrial Perspective

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Now

- Multiple International Coding Standards
- Video, for example
  - JPEG, JPEG2000
  - H.261, H.263
  - MPEG-1, MPEG-2, MPEG-4 part 2
  - MPEG-4 part 10: AVC = H.264
  - Microsoft Windows Media Video
- Next?

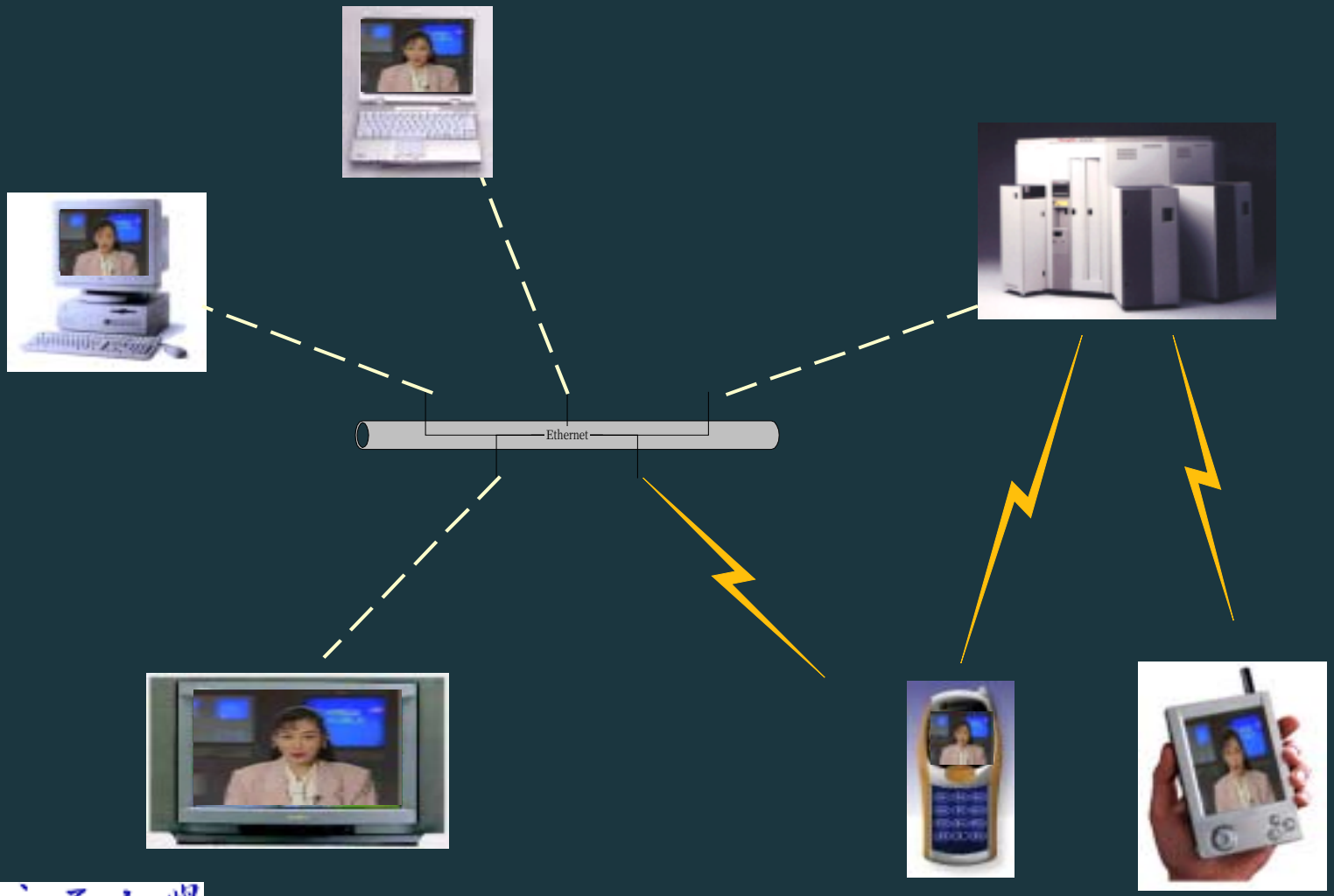
Next?

- Why Many Coding Standards?
  - Advances of coding technology -- efficiency
  - Demands of picture quality (size, bit rate,…)
  - Transmission environment – TV channel, Internet, …
  - Marketing strategy (?)
- Next? Scalable video coding at MPEG

SVC Advantages

- Scalability: **SNR, Spatial, Temporal, Complexity** → ***Combined*** scalability
- *Reliably* deliver video to *diverse* clients over *heterogeneous* networks using available system *resources*
- *Ex.* ***Wireless LAN video***
  - Bandwidth variations
  - Device scalability
  - Robustness to data losses
  - Scalable power

Wireless Applications



Scalable Video Coding

MPEG-21 – Part 13 !?
Call-for-Proposal (N6193, Dec. 2003)

Dec. 31, 2003	Deadline for Pre-registration
Feb. 1, 2004	Formal registration (€ 1,800)
Feb. 16, 2004	Coded test material at the test site
Feb. 20, 2004	Subjective assessment starts
March 1, 2004	Registration/submission of documents
March 9, 2004	Report of the subjective test results
March 15-19, '04	MPEG 68th meeting, München, Germany

Other Issues

- "Profiling" multiple existing standards
  - Merge common tools
  - Unify "syntax"
- ***Digital Rights Management (DRM)***
  - MPEG-2/4 IPMP
  - MPEG-21
- Challenge!
  - Academic – search for high-efficient compression with "features"
  - Industry – "usable" algorithms