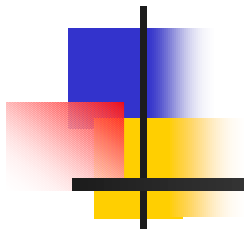
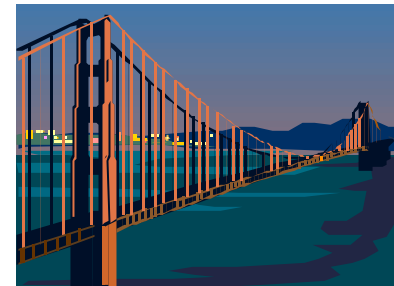
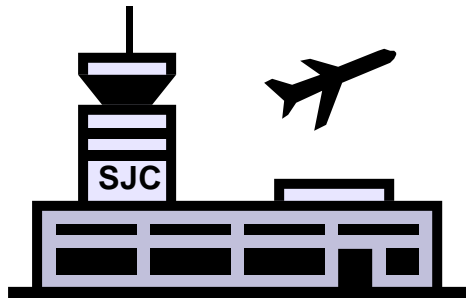


MPEG in Mobile

- 3GPP -



DoCoMo USA Labs
President & CEO
Toshio Miki



6/20/2001

WEMP4 at San Jose



3G-324M

CS Conversational

✍ Video

✍ H.263 Baseline

✍ *H.263 Profile 3 Level 0*

✍ *MPEG-4 Simple Profile Level 0*

✍ Speech

✍ AMR, AMR-WB

✍ *G.723.1*

✍ Protocols

✍ Multiplex : H.223 Level2

✍ Control : H.245

Packet Switched Streaming (1)

- ✍ Video
 - ✍ H.263 Baseline
 - ✍ *H.263 Profile 3 Level 0*
 - ✍ *MPEG-4 Simple Profile Level 0*
- ✍ Speech : AMR, <AMR-WB>
- ✍ Audio : *MPEG-4 AAC LC*
- ✍ Image : JPEG, GIF
- ✍ Text : XHTML basic, UTF-8, UCS-2
- ✍ Further Study Items
 - ✍ Synthetic Audio, Vector Graphics

Packet Switched Streaming (2)

✍ Scene description

- ✍ SMIL 2.0 Basic Language Profile, plus
 - ✍ EventTiming
 - ✍ MediaClipping
 - ✍ MetaInformation

✍ File Format : **MP4**

- ✍ Interworking with MMS (Download/Stream)
- ✍ OK to use as a server storage format
- ✍ Non-ISO codec support
- ✍ MPEG-4 System (BIFS/OD) shall be ignored

Packet Switched Streaming (3)

Protocol Stack

Video Speech Audio	Scene Description Presentation Description Still Images Bitmap Graphics Vector Graphics Text	Presentation Description	
Payload Formats	HTTP	RTSP	
RTP			
UDP	TCP		UDP
IP			



Further Study Issues

- ✍ PS Conversational
 - ✍ Media Coding will be common
- ✍ PS Streaming
 - ✍ Device Capability, User Preference
 - ✍ Service Aspects : DRM, Security, Charging
 - ✍ End-to-End QoS
 - ✍ Up-streaming
 - ✍ Interoperability with Internet
 - ✍ Future Enhancement
 - ✍ Synthetic Audio, Graphics
 - ✍ Enhanced Coding, Scene description
 - ✍ Metadata