

ECSE-6600: Internet Protocols

Informal Quiz #13

Shivkumar Kalyanaraman:
GOOGLE: "Shiv RPI"
shivkuma@ecse.rpi.edu



Telephony and IP Telephony (Slide set #15): Informal Quiz

Telephony & IP Telephony

T F

- Telephony is based upon packet-switching
- The telephone network was originally designed for a single application: voice.
- A handset transducer converts voice into electric signals
- Balance circuits are used in the last mile to attenuate side tones
- Trunks are typically lines between central offices that carry multiple phone conversations (I.e. multiple circuits), providing economies of scale.
- A crossbar is an example of a space-division switch
- SS7 is a signaling network that manages the setup of phone circuits.
- A “common carrier” is allowed to regulate or monetize the content carried over the telecommunications pipes.
- The explosion of the PBX market took place after users were allowed to own their telecommunications infrastructure
- UNE-P refers to the unbundling of network elements by the ILECs as required by FCC rules as part of the 1996 Telecom Act.
- The plummeting price of long-distance telephony is one of the drivers for internet telephony or VoIP.
- VoIP allows the merger of the customer site telephony infrastructure with their Internet infrastructure.
- Vocoder attempt to preserve the signal waveforms while compressing them

Telephony & IP Telephony

T F

- Hybrid coders achieve higher MOS (I.e. voice quality scores) at relatively lower data rates
- Pulse code modulation is PAM + quantization
- Quantization does not lead to any information loss.
- Companding customizes the quantization to match the perceived voice quality levels
- Companding is an example of a linear or uniform quantization.
- Vocoders encode only perceptually important aspects of speech w/ fewer bits than waveform coders
- GSM and modern cellular systems use hybrid coding techniques for encoding voice.
- SIP is a data-plane protocol like RTP
- SIP is proposed as a replacement for H.323
- SIP maps host-independent addresses to host-dependent names or addresses.
- MGCP and Megaco are gateways between large IP and PSTN networks.