Lecture notes for VoIP

Def: VoIP
- Voice over IP
- Internet telephony: Protocol for transmission of voice over packet-switched network
- Examples: skype, vonage
- Available as soft-phones, hard-phones, and mobile phones
- Traditional telephony: PSTN (public switched telephone network) is circuit-switched

Def: SIP
- Session Initiation Protocol
- Provides multimedia connection setup & teardown, uses existing protocols like DNS

Def: IMS
- IP Multimedia Subsystem
- Delivers multimedia content to mobile users

Privacy
- Failure to encrypt traffic
  - Allows for eavesdropping & alteration
- Sigint
  - Endpoints of communication
  - Properties of short encrypted messages (e.g. language, some words)

Availability
- Internet DoS attacks impact phone service

Authentication
- VoIP phishing (vishing)
  - Automated calls ask for private data (Jon Ramsey demoed on Wed)
- VoIP spam
  - Automated nature of email spam moving to telephone
- Solutions: Reverse Turing tests / CAPTCHA, caller reputation