

IP-telephony Topics

1. Traditional Telephony. Basic Components of a Telephony Network.
2. Differences between Traditional Telephony and VoIP. Basic Voice Encoding: Converting Digital to Analog. Coder-Decoder.
3. Benefits of Packet Telephony Networks. Packet Telephony Components
4. Analog Voice Basics. Types of Local-Loop Signaling.
5. Basic Voice Encoding: Converting Analog to Digital. The Nyquist Theorem. Voice Compression and Codec Standards.
6. Real-Time Voice in a Best-Effort IP Internetwork. Packet Loss, Delay, and Jitter.
7. Need for QoS on WAN Links. Recommendations for Generic QoS in the WAN. Applying QoS for End-to-End Improvement of Voice Quality.
8. IP QoS Mechanisms. Classification. Marking. Trust Boundaries. Congestion Management. Traffic Shaping. Compression. Link Fragmentation and Interleaving
9. Major VoIP Protocols. Configuring H.323. Configuring MGCP
10. VoIP Signaling. Call Control Models

Learning materials you can find on

<http://www2.hh.se/staff/cnap/IPTmaterials.html>

[en_IP_Telephony_SLM_v10.pdf](#)