Network Access

ITS 625
• Makes use of “spare” spectrum in the twisted pair local loop
• Originally developed as 2-wire T1 alternative
• Many speeds and “flavors”
  • Almost all are asymmetric
• All are highly sensitive to distance and line quality
DSL at the CO

Overall Structure

Customer LAN  →  ADSL Modem  →  Splitter or Filter  →  DSLAM

Customer Voice Devices

Internet  →  Voice Switch

DSLAM - Digital Subscriber Line Access Module

CO

Local Loop
Cable Modems
Today’s Cable Network

Summary

• ~800MHz capacity on the cable plant
• Downstream divided in 6MHz channels
  • Programming or data channel of ~30Mbps
• Upstream ~45MHz at low end of spectrum
  • ~3Mbps per MHz of spectrum, shared