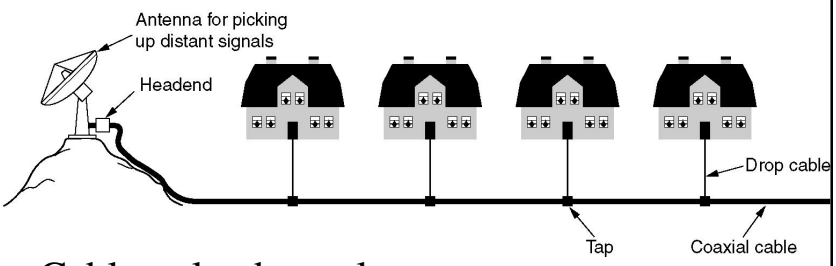
Cable Television

- Introduction
- Internet over cable
- Cable Modems
- Comparison

History

- Community Antennas _____



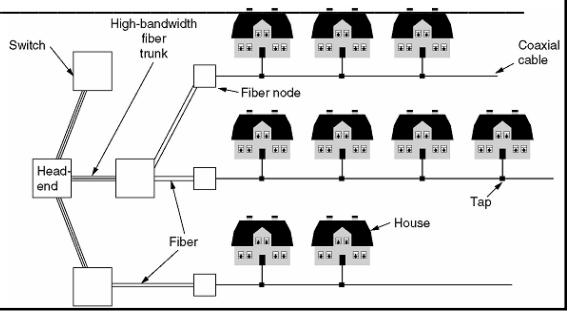
- Cable only channels _____

_____

- Cable networks _____

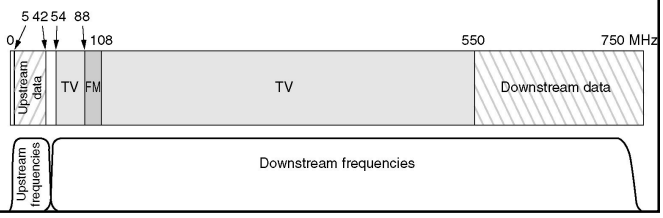
Internet over cable

- HFC _____
  - Fibre trunks _____
  - Coaxial multidrop _____
    _____
  - Switches must be changed _____
    _____



Spectrum Allocation

- Leave TV & Radio intact leaving two _____
- Asymmetric data: _____
- Two amplifiers needed _____
- Transmission
  - QAM-64 / QAM-256 _____
  - Payload _____
  - QPSK _____

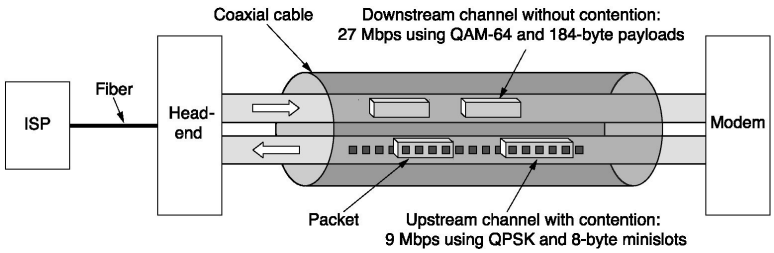


Cable Modems

- Interfaces
  - Modem-to-computer: _____
  - Modem-to-headend…
    - Always on: _____
    - Startup phase (when turned on):
      - System parameters _____
      - Channel assignments _____
        _____
      - Ranging: _____
      - IP address: _____
      - Security _____

Cable Modems (2)

- Upstream payload
  - 8 byte minislots for requests _____
  - Contention _____
    - » Algorithm: _____
- Downstream payload _____
  - 204 byte packets _____
  - TDM _____



DSL vs. Cable

- Local wiring: _____
- Bandwidth shared: _____
- Service level: _____
- Availability: _____
- Security: _____
- Reliability: _____
- Choice: _____