

CS2105 Terms and Additional Notes

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1 Backbone of Internet

The principal data routes between large, strategically interconnected computer networks and core routers of the Internet

2 The reasons of pkt loss

- Signal interruption
- Physical hardware
- Software Bugs
- Security threads

3 "Bandwidth" in network

The word "bandwidth" has multiple meanings in network, it can be:

1. Channel Compacity: the theoretical maximum digital rate at which data can be transmitting through a **link**(i.e. Shannon compacity)
2. Throughput or data rate: how much data can be transmitted through a **channel** in unit data
3. (Analog Signal) : the maximum analog frequency - minimum analog frequency, which denotes the frequency range that a channel can support. This often has to do with physical property of transmission medium

4 Why only certain frequency is allowed in cable

All cable has,

1. resistance
2. inductance
3. capabilities

which result in signal attenuation, the higher the frequency and the longer the cable, the more the attenuation(this is one reason why the cable can guarantee at most 100 m)

5 Piggybacking

Piggybacking is a technique used for improving the efficiency of bidirectional protocol
When frame carry data from A to B, it also carry control information for B(e.g.ACK)

6 Ping

Check whether a host is alive using ICMP

7 Telnet

Check whether a host is listening to port 80

8 curl

check if certain web is responding to a HTTP request correctly

9 check sum