Quiz

Introduction

- What is the switching mechanism used in the Internet?

  - Circuit switching

  - Packet switching

- What is NOT the benefit of packet switching

  - Better utilization

  - Simple

  - Guaranteed throughput and delay

  - Serving more clients

- Define what is "store and forward"

  - Receive all the bits of a packet and forward the packet

- DNS is a "distributed" and "hierarchical" application. Explain what is the difference between

  - Distributed: multiple servers share the loading

  - Hierarchical: different layers of servers are in charge of various tasks. For example, the root server returns a list of the authoritative servers. The authoritative servers return the answer for a particular zone and authorize the registration.

- Consider non-persistent HTTP. If a webpage include 5 images, how many TCP connections it will need to obtain all the objects?

  - 6

- Define what is the geographical distance between two hosts

  - distance measured by the distance between two geographical locations. The unit is meter, km, etc.

- Define what is the path length in between two hosts

  - Number of hop counts in the Internet between the two hosts

- Which of the following CDN server selection strategy consumes the most signaling overhead?

- • Geographically closet

- • Shortest path length

- • Fasted response time first

- Consider a packet including the payload of two 4-bit integers as follows: 1 0 0 1 0 1 1 1

  - • $(1\,0\,0\,1)_2 + (0\,1\,1\,1)_2 = (0\,0\,0\,1)_2 \implies$ 1's complement $= (1\,1\,1\,0)_2$

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