Suppose you would like to urgently deliver 50 terabytes data from Boston to Los Angeles. You have available a 100 Mbps dedicated link for data transfer. Would you prefer to transmit the data via this link or instead use FedEx overnight delivery? Explain.

Answer with detailed solution

Step 1:

40TB=40\*1024\*1014\*8= 3.32267520 108 Mbps, it will take

(40\*1024\*1014\*8/100)

3.322675200 106 seconds = 38.45688889

That is 38 days

Step 2:

An international express shipping service that is quick and trustworthy. sophisticated tools like transit times, customs tools, and real-time shipment tracking with international document preparation. On each shipment you send and receive, there is a signature proof of delivery. Quick and efficient customs clearance.

The data might be delivered the next day by FedEx overnight if we copy it to a removable disc. As a result, I like to send the data via FedEx overnight delivery.

Skype offers a service that allows you to make a phone call from a PC to an ordinary phone. This means that the voice call must pass through both the Internet and through a telephone network. Discuss how this might be done.

Step 1:

Internet and telephone network interface:

The telecom providers employ DSL (digital subscriber lines) to give their customers access to the Internet.

• The businesses that offer wired phone connections will also offer their clients data services.

• By doing this, the link between the telecom networks and the Internet networks is secured.

Step 2:

• Skype uses this interface to make a phone call from a PC. This is the process involved in a voice call travelling across the Internet and telephone network (personal computer).

• When a Skype user places a call from his PC, the call travels via the internet and reaches both networks' interfaces. The call then enters the telecommunications network and connects to the requested phone number using Skype's unique VOIP (voice over internet protocol) technology. It is a network-based protocol for internet telephony. The first peer-to-peer IP telephone network protocol was Skype.

Therefore, in order to make a voice call from a PC, Skype utilises both its own unique protocol and the interface between the internet and telephone networks.