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Lab 9

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1. Streaming video systems can be classified into three categories. Name and briefly describe each of these categories.

UDP Streaming: A TCP/IP protocol that is widely used for streaming audio and video, voice over IP (VoIP) and videoconferencing.

HTTP streaming: The video is stored in an HTTP server as an ordinary file with a specific URL. Upon requesting, the server sends the video as quickly as possible.

Adaptive HTTP streaming: also known as MPEG-DASH, is an adaptive bitrate streaming technique that enables high quality streaming of media content over the Internet delivered from conventional HTTP web servers.

2. List three disadvantages of UDP streaming:

* UDP is considered an unreliable delivery protocol because it does not check for errors.
* The unpredictable and varying amount of available bandwidth between server and client causes problems
* Some firewall are configured to block UDP traffic which also causes problems

3. What is a packet that is received after its scheduled playout time considered lost?

A packet that arrives after its scheduled play out time cannot be played out. So from the application’s view the packet has been lost.

4. How are different RTP streams in different sessions identified by a receiver? How are different streams from with the same session identified?

RTP streams in different sessions: different multicast addresses; RTP streams in the same session: SSRC field; RTP packets are distinguished from RTCP packets by using distinct port numbers.

5. What is the role of a SIP registrar? How is the role of SIP registrar different from that of a home agent in Mobile IP?

The role of a SIP registrar is to keep track of the users and their corresponding IP addresses which they are currently using. Each SIP registrar keeps track of the users that belong to its domain. It also forwards INVITE messages (for users in its domain) to the IP address which the user is currently using. The role of an SIP registrar is similar to that of a home agent in Mobile IP because, In Mobile Internet Protocol (Mobile IP), a home agent is a router on a mobile node's home network that maintains information about the device's current location, as identified in its care-of address.