COMPUTER NETWORK

UNIT-4

ASSIGNMENT-4

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Scenario: A video Conferencing system uses QUIC + Forward Error Corection (FEC).

Parameter:

   ↪ Loss = 5%

    ↪ Packet size = 1000 B.

    ↪ FEC adds 20%

Questions:

1. What is actual packet size with FEC?

Ans: FEC adds 20% of redundancy to each other.

- 20% of 1000 bytes = 0.20 x 1000 = 200 bytes.

- So, actul size per packet with .FEC =

   2000 + 200 = 1200 bytes.

Answer = 1200 bytes.

2. For 10,000 packets, how many redundancy Packet are sent?

Sol:

FEC adds 20% extra data. That means for every 100 packet, 20 redundancy packets are added.

- Redundancy packets = 10000 × 0.20

$$= 2,000 \text{ packet.}$$

Answer = 2000 redundancy packet.

3. What is total over head in MB?

Ans:

Overhead = Extra data due to FEC.

Each redundancy packet = 1000 bytes.

→ Total overhead = 2000 × 1000 bytes.

= 2000000 bytes.

Convert to MB.

$$\frac{2000000}{1024 \times 1024} \approx 1.91 \text{ MB.}$$