Speed Matters.   Reliability

Out of TCP and UDP, UDP mai packets deliever hona ka guarantee ni hai so vo video call mai chalega but agar smooth stream chahie toh TCP use krna hoga. Also TCP sirf packet phuchata hai jab network slow ho to thoda resolution girata hai and still packet recieve krta hai - 2 cheese hai iske lie .
1. HTTP live streaming (HLS)
2. MPEG Dash(Used for live streaming)
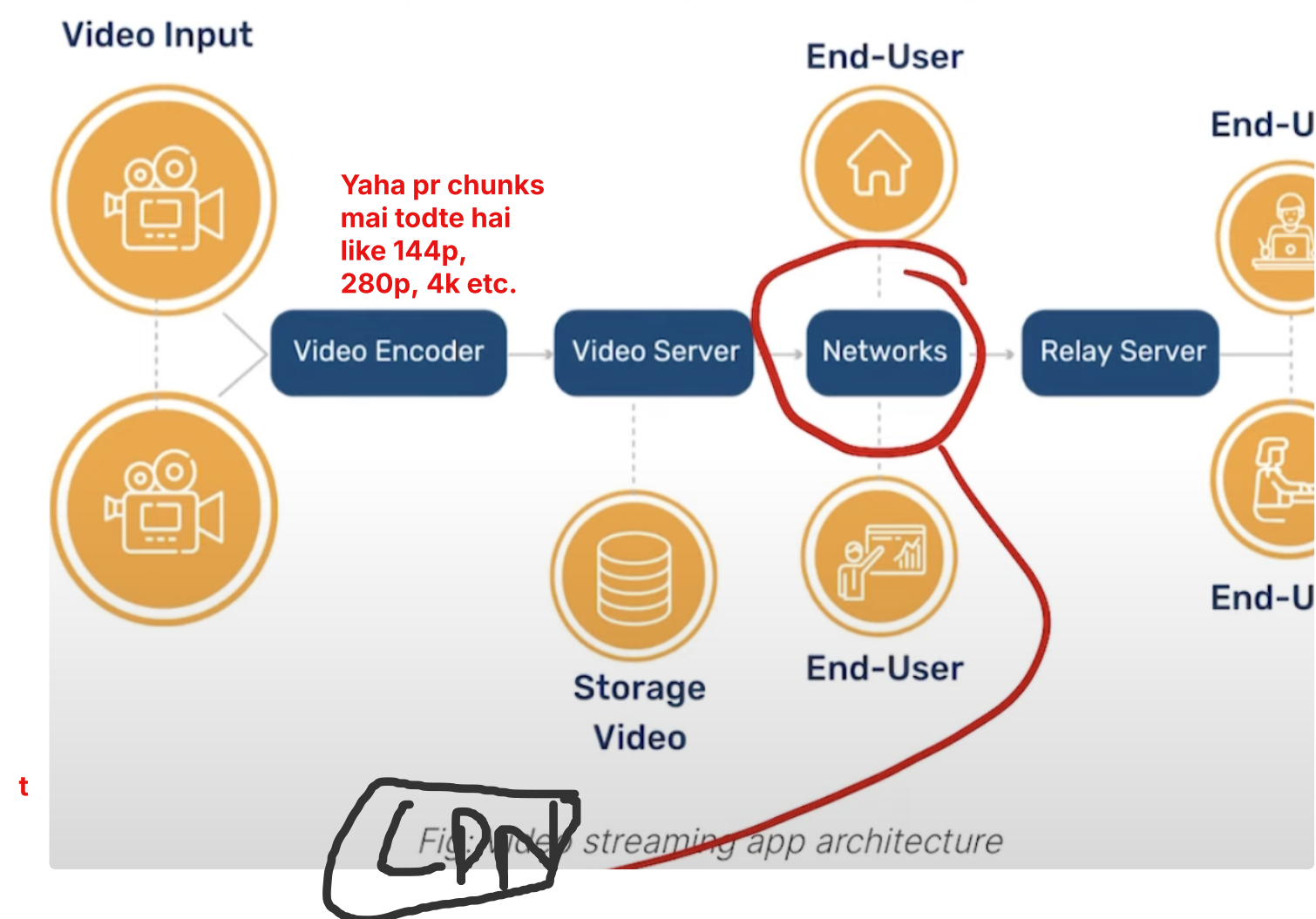
Adaptive Bit Streaming working

When we get vide it is converted into multiple video resolution like 480p, 780p, 1080p,2040p

BitRate & Encoding - Rate of video transfer, agar network acha zyada bits transfer honge else akm bits honge and quality girega. Ye bits encode hote hai on an avg 6 second long, jo ek ek karke transfer hote hai.

Distributiin

Transfer hone ke baad distribution hota hai CDN use karke
HLS jo hai vo index of chunk maintain krta hai, so jab vo client ke pass phuche vo ussi index ke saath retrieve krta hai so movie ek seq mai dikhta hai. Agar network slow ho tab buffering hoti hai because advance mai hi bits ni aaye hote

Video Input

End-User

End-U

Yaha pr chunks mai todte hai like 144p, 280p, 4k etc.

Video Encoder → Video Server → Networks → Relay Server

Storage Video

End-User

End-U

t

LPN

Fig video streaming app architecture

Finally kya hua

Jab ek baar chunks phuche fir VLC player jaise baki ke pass ek chunks ka manifest file hota hai jisme ordering hoti hai. Isiliye jab video aata hai ek sequence mai aata hai,.