

14 TCP, UDP and routing – Part 2

—Answers

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Work through these after trying the questions yourself.

14.1 TCP.

14.2 UDP.

14.3 Streaming, gaming or DNS (any one).

14.4 A source IP address and a destination IP address.

14.5 A router.

14.6 The video call uses UDP: speed matters more than a perfect picture, so a lost frame is simply skipped rather than waited for. The download uses TCP: every byte must arrive in order, so it checks and resends missing data, which can cause a brief pause.

14.7 To guarantee delivery, TCP sets up a connection and sends acknowledgements, resending any lost data and putting packets back in order. This extra work adds overhead and delay, which is wasteful for real-time uses like live video, where UDP's speed is better.