

TCP Starvation UDP dominance

It is a general best practice not to mix TCP-based traffic with UDP-based traffic (especially streaming video) within a single service provider class due to the behaviors of these protocols during periods of congestion.

Specifically, TCP transmitters will throttle-back flows when drops have been detected. Although some UDP applications have application-level windowing, flow control, and retransmission capabilities, most UDP transmitters are completely oblivious (ignari) to drops and thus never lower transmission rates due to dropping.

When TCP flows are combined with UDP flows in a single service provider class and the class experiences congestion, then TCP flows will continually lower their rates, potentially giving up their bandwidth to drop-oblivious UDP flows. This effect is called *TCP-starvation/UDP-dominance*.

This can increase latency and lower the overall throughput.

