DSCP Across SPs

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What would be cool for Games & Web Conf apps

- Desires:
  - A single less than best effort class
  - A single low bandwidth, low latency class
  - Goal is to have priority on down link from ISP to Homes
  - Space where delay sensitive congestion control algorithms do not compete with TCP
- Problems:
  - Apps will cheat and use up all of something or other
  - SPs are using the DSCPs for internal use
- Why it might be possible:
  - It is in the SP interest to give users better experience
  - It is in the large apps (youtube, netflix,etc) interest to make other apps work well.
    - video sites want to be used while someone else in the house is on a call or game
- Very long shot this could be solved but ..
  - SPs that provide a better user experience may win

Why ISPs need DSCP markings

- Network operators have business needs (SLA) around network performance
    - Enterprise networks pay more than wholesale customers
- Limited bitspace available
- Incentive for configuring my network correctly (SLA credit/refund to customer)
    - Customers are sticky based on these services
    - Higher revenue for these services to justify complex configuration
- Configuring any rate-shaping for customers often turns on DSCP marking in hardware
    - "`qos trust`" is appropriate on infrastructure links, not customer facing
    - Customers often want liability limits, eg: 2G commit on 10G port, does not want to burst due to overages
- No standard, nor any incentive for inter-provider QoS/DSCP