

CAKE Bandwidth Calculation - LinuxTweaks

This document explains how to calculate and configure CAKE for optimal QoS:

1. Measured Line Rates:

- Upstream: 22.6 Mbit
- Downstream: 60.1 Mbit

2. Overhead: 44 bytes

3. RTT: 2ms (recommended for close servers)

4. Diffserv4 Thresholds:

Bulk = 62.5% of rate = $0.625 \times 22.6 = 14.125$ Mbit ~ 14125 Kbit

Video = 50% of rate = $0.5 \times 22.6 = 11.3$ Mbit ~ 11300 Kbit

Voice = 25% of rate = $0.25 \times 22.6 = 5.65$ Mbit ~ 5650 Kbit

5. Example tc command:

```
tc qdisc add dev wlp3s0 root cake bandwidth 22.6Mbit diffserv4 triple-isolate ack-filter rtt 2ms raw  
overhead 44
```

This script and formula can be used to configure friends' routers or wireless networks by substituting their measured line rates.

Always round slightly down (~90-95%) to ensure headroom.