

How much buffering in home gateways?

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Homegate bar BoF

- Bar BoF = no charter yet!
- My interpretation:
 - best practices or even requirements for making good home gateways

Buffering

- How much buffering (packets or bytes) is appropriate for slow links?
 - think 64 kbps - 1 Mbps for upstream
- Bandwidth * delay * sessions = too much
- So what: 10 packets? 20? 5?
- Hard to define as delay in milliseconds: at 128 kbps even buffering 2 pkts = 200 ms

10 packets?

- Old Cisco modem interfaces: 10 packets
- (High speed) switches very little buffering
- I'm thinking 10 packets is a nice round number for FIFO/tail drop queuing
- On 128 kbps, 10 pkts = 1000 ms still sucks but sucks *a lot less* than 100 pkts = 10 s
- But will it break TCP...?

Queuing strategy

- Assume some will use FIFO
- Do we want to recommend AQM?
 - RED/WRED?
 - if so, more buffering?
 - WFQ?
 - some diffserv classes by default?
- ECN?

Feedback appreciated!

- If you have opinions, or better yet, data, on any of these issues, that would be much appreciated
- See www.ietf.org/mailman/listinfo/homegate
- I'll monitor the LEDBAT list and take results to homegate