

A Priority Manifesto

What Priorities Can and Can't Do

Alan Frindell, Meta

1. The resource you are prioritizing is the **bandwidth at the bottleneck link**



Priority Manifesto

2. You **cannot prioritize across connections**

This is done by the kernel and intermediate switches/routers

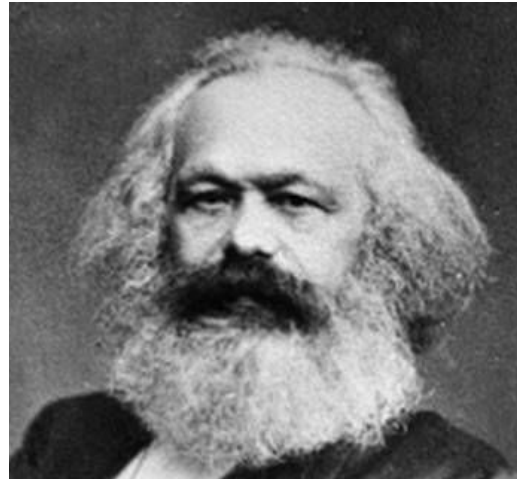
Corollary: Coalesce traffic you want to prioritize onto the same connection, if possible

MoQ: Prioritizing across MoQ connections is out of scope?



Priority Manifesto

3. You can only prioritize if you have **more than one thing to send**

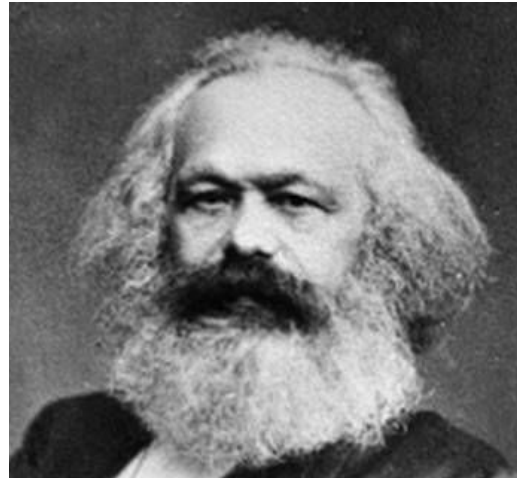


Priority Manifesto

4. Prioritization is a **zero-sum game**

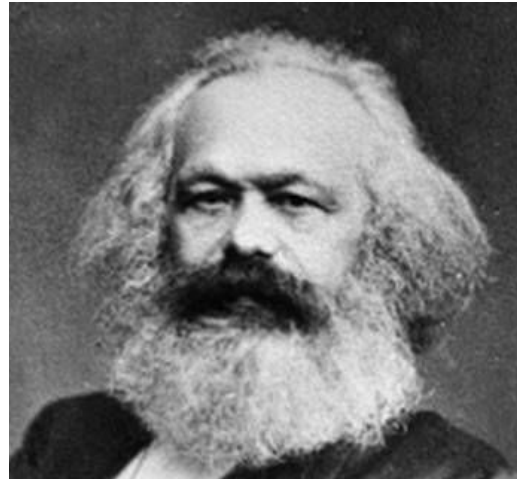
To make something faster, something else needs to be slower

MoQ: Slower or less reliable (eg dropped)



Priority Manifesto

5. Prioritization is only as effective as the **input signal**
Capturing this signal is the hardest part



Priority Manifesto

6. **Reprioritization has a 0.5-RTT penalty**, which limits its effectiveness

MoQ: Reprioritization => Any message from the subscriber
=> Publisher can't reprioritize

