

What is crucial is that the destiny of Twitch, Netflix Inc. and any other future high-capacity streaming service -- think telemedicine, education and civic engagement -- is utterly dependent on the goodwill of just four companies: Comcast Corp., Time Warner Cable Inc., Verizon Communications Inc. and AT&T Inc.

Each of those four companies, in turn, has the ability and incentive to extract unconstrained tribute from anyone wanting to reach their subscribers. The Federal Communications Commission must intervene decisively to both reassert its authority and help U.S. mayors fix this situation by calling for the construction of open fiber networks without a built-in conflict of interest.

All four of these companies have built moats around their subscribers -- mobile wireless subscribers for AT&T and Verizon, wired cable high-capacity Internet access subscribers for Comcast and Time Warner Cable. No one can send information to those subscribers across the drawbridges that cross those moats except on terms set by these companies.

There are very few places in the U.S. where these four giant carriers allow independent networks carrying traffic from the data centers run by Amazon (and future Twitch.tv successors) to put that data on the carriers' controlled networks. According to a petition Netflix filed last week, by refusing to widen the gates at that handful of locations, the companies can allow the drawbridges to get so crowded that data center traffic experiences interference, and subscribers inside the moat cannot receive it reliably.

Adding to the power of Comcast and Time Warner Cable, the subscribers inside their moats are stuck. Both cable companies face little or no competition for the high-capacity wired connections that

are needed for applications like Twitch.tv to work. Making a terrible situation worse, if Comcast is allowed to merge with Time Warner Cable, almost two-thirds of U.S. households will have no choice for high-capacity connectivity other than Bigger Comcast.

Amazon understands this. Amazon needs to reach subscribers who are requesting its services, and gamers in particular are impatient with inexplicable delays. Amazon knows it will have to make a deal with Comcast, but it wants that deal to be as favorable as possible. Its purchase of Twitch is aimed at adding heft when it faces Comcast across the negotiating table.

AT&T and Verizon are exercising the same kind of power in the mobile wireless market. Interestingly, these two companies are watching Comcast as well; Comcast's Wi-Fi plans may limit AT&T and Verizon's scope to that subset of Americans who are willing to pay to connect while in motion.

This is not a story of huge companies fighting one another. This is a sweeping narrative of private control over the central utility of our era: high-capacity Internet access. We, the people of the United States, are the collateral damage in this battle; we are stuck with second-class, expensive service.

The FCC needs to act by taking two key steps: reclaiming the regulatory authority it gave up 10 years ago over high-capacity Internet access and clearing the way for more cities to call for the construction of fiber networks that have no built-in conflict of interest. [Think Chattanooga](#) rather than Comcast.