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comment to FCC Proceeding 14-28 "Open Internet"

High-speed last-mile operators are more-or-less defacto monopolies in the markets that they operate in. DSL is useless. No RF-based network will support mass adoption of non-linear unicast (VoD, OTT) viewing of video at high-fidelity HD, much less 4k, deep-color/10-14bitRGB, high-frame-rate, 8k, etc.

The last-mile network operators are leveraging their monopoly to over-charge (and under-serve) the consumer. AND, they are double-dipping: extorting bribes from content-suppliers in order to obtain non-congested interconnection to the last-mile operator's network. Last-mile operators are guilty of racketeering, in the literal sense.

In the early Internet, interconnection "traffic-balance" requirements (and settlement fees if unbalanced) were intended to ensure that long-haul carriers were not disadvantaged by the effect of HOT POTATO routing. (The long-haul network providing transit for the destination bore the burden of carrying the bulky content, the long-haul transit network serving a content supplier only carried relatively minute request strings and TCP acks.) NONE of that is applicable to last-mile operators.

The last-mile physical plant (eg cable-modems and even GPON FTTH) are inherently asymmetrical in design: providing much more capacity towards the residential consumer and much less upstream. They will never have traffic balance. Further, most last-mile operators prohibit the operation of servers on residential network connections. This too reduces the traffic in the upstream direction.

It is intentional DECEPTION (fraud) for network operators to demand traffic-balance on their last-mile networks. It is plain and simple EXTORTION for them to demand settlement-fees.

Last-mile operators are refusing to upgrade network interconnections, allowing them to become congested and useless. They are essentially holding a gun to the head of the content suppliers until they agree to paid-peering/paid-private-connection. This is plain and simple a PROTECTION RACKET. The big last-mile operators should be prosecuted under RICO.

In today's Internet, requested content is often sourced from servers in the SAME CITY as the consumer who issues the request. (eg CDNs and private distributed server systems utilize variable-DNS responses and other techniques to ensure that the server closest to the requester is the one that serves the response to him/her) For example, a person in Los Angeles who requests a piece of content is often retrieving that content from a server a few miles away in the LA area. The network-provider hired by the content-supplier will thus hand the data to the last-mile network IN THE SAME CITY as the consumer who requests the content. NO LONG HAUL TRANSMISSION IS REQUIRED BY THE LAST-MILE OPERATOR. It is REASONABLE to expect the last-mile operator to accept the data stream and deliver it to the consumer at the data-rate contracted and paid-for by the consumer. The last-mile operator is already being paid A LOT (most would agree) by their direct customers. That is enough money to expand and maintain the last-mile network. To demand bribes from the content supplier for delivering data from one-side of the city to another is simple extortion.

(While we're at it, it is FRAUD to claim that a last-mile customer is getting "X" megabit downstream service, when in fact the last-mile infrastructure is heavily statistically over-committed, and the actual sustainable bandwidth available to the customer during busy-hours is "tiny-fraction-of-X". Last-mile operators have been LYING TO CUSTOMERS for years. When will the FCC, FTC or other government agency act to demand that last-mile operators clearly state the CIR. Similarly, charging for "total bytes sent per month" is a scam. The scarce-commodity in a last-mile network is busy-hour bits-per-second (rate), not the area under the curve for the entire month. Last-mile operators are charging for total-bytes in order to disadvantage

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OTT video suppliers and/or impose a surcharge on the consumer. They get away with this because there is no effective competition for very high speed Internet service in most markets.)

A final note regarding competition.

I remember the days of two 800Mhz cellular providers. Prices were high and coverage was terrible. NOTHING CHANGED in the cellular business until we got four or five competitors. It took that level of competition to goad the greedy incumbents into investing in their plant (instead of investing in corporate empire building and executive bonuses).

The world of last-mile land-line networking today is similar to the old world of two 800Mhz cellular carriers. Prices are high, service sucks, the parent corporations are engaged in empire building and the execs are raking in big-bucks. The FCC can't throw RF spectrum at this to solve the problem. Only construction of FTTH will deliver the unlimited bandwidth needed to support non-linear unicast viewing of 1080, 4k, deep-color, high-frame-rate, etc. Only MULTIPLE competing FTTH providers will ensure proper bandwidth is available at a fair price.

Thank you for reviewing this note. I and probably most of the citizens of the USA are very angry at how we are treated by the telecom industry. I hope you find a legal method to come down on them hard. Until such time as there is genuine competition in high-speed land-line Internet service within each market (multiple FTTH providers), the government should treat the last-mile operator as a monopoly and supervise/regulate them extensively.

PS

Watch out for industry-funded think-tank reports, PR sock-puppets and astro-turfed citizens groups organized by the telecom industry. Remember the fight over local loop unbundling for DSL? When big bucks are at stake, there is apparently no moral low-ground that they won't stoop-to.