

Market Friendly Policies at the FCC

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Overview

Real efforts are being made at the FCC to

- avoid unnecessary intervention; and
- use market friendly policies where possible

Recent examples of this stance:

- Approved merger of Internet backbone providers Level 3 and Global Crossing (L3/GCL Order, 9-2011)
- Adopted auction to allocate universal service funds (CAF Order & FPRM, 10-2011)
- Provide information on actual broadband speeds to improve consumer choice (Measuring BB America, 8-2011)

Level 3/Global Crossing Merger

Major transaction (~ \$3 bn), eclipsed by ‘other merger’

Competitive Analysis Focused on Internet Backbone

- L3 and GC sell global Internet connectivity (“transit”) to smaller ISPs, content providers, and enterprises, in US (and elsewhere)
- Obtain global connectivity via (1) own high-capacity, long-haul IP networks, and (2) interconnection with other major networks at *no fee* (unpaid “peering”)
- In past mergers, (2) designated “Internet Backbone Providers” (IBPs or “Tier 1 ISPs”) – whose service was deemed a distinct antitrust product market.

Competitive Concern: Merger May Worsen Interconnection Incentives

XO, another IBP, echoed a concern from past mergers (SBC/AT&T, Verizon/MCI 2005; WorldCom/Sprint 2000; WorldCom/MCI '98):

- Interconnection for Internet traffic is unregulated.
- A merged entity that controls a high enough share of traffic may degrade interconnection to prior peers, or use the threat to extract payments – “de-peer.” (End users also harmed due to weakened competition.)
- Logic (incomplete): degrading interconnection with smaller rival yields competitive advantage – rival loses more connectivity, so its quality suffers more.

Degradation Incentives: Closer Look

Simple setting: all networks initially connected, and

- degradation by network D vs. rival R bars traffic between R and customers that D controls – single-homed (SH) and ‘sticky’
- shares ↓ are of SH customers; customers value all links equally

Global degradation by D unprofitable if D’s share < 50%

- ‘Quality’ (reach) falls, and falls relative to rivals.

Targeted degradation vs. R may be unprofitable even if D’s share is much larger:

- R’s quality falls more, but D falls relative to other networks that retain full connectivity – so D loses customers / traffic to them
- More initial **multi-homing by D’s customers** eases concern:
 - (a) targeted rival R loses reach to fewer customers, and
 - (b) D more susceptible to losing traffic – switching is easier.

Key Facts in This Merger

Complainant XO alleged: Tier-1 market, L3/GC 35% share

- FCC noted increased competitive alternatives to Tier-1 ISPs (e.g. secondary peering); but assumed conservatively that Tier 1 service is a distinct category — as record still did not support concerns.
- Skeptical that L3/GC's share of Tier-1 connections or traffic reaches 35%; but anyhow, saw shares in this context as unreliable proxy for leverage over other networks in negotiating interconnection terms — for reasons 1) – 3):

Reasons to doubt this merger will harm competition:

- 1) Accept much smaller peers: L3 — larger IBP than GC —peers with much smaller networks that compete for transit. (37 peers in N.A., 20 sell transit.)
- 2) Multi-homing: For combined L3/GC, 86-88% of its customers multi-home with other providers. (Contrast residential broadband ISPs.) May help explain 1) – L3's inability to force much smaller networks to pay.
- 3) # of Tier-1 ISPs rose from 8 in 2005 to 12 in 2011.
- 4) Single complainant to FCC on de-peering.

Given the record, merger was approved with no conditions.

Reforming Universal Service Support

Some Highlights of CAF Order (11-2011)

Transitions support for networks in 'high-cost' areas to new Connect America Fund:

1. Supports networks for *voice and broadband*, including mobile
2. Establishes annual budget
3. Targets support to areas not served by unsubsidized carriers
4. Proposes to allocate support via market-based mechanisms (e.g., auctions) to maximize effectiveness
 - FNPRM seeks comments on various aspects
 - Mobility Fund Phase I is furthest along:

Mobility Fund Phase I

FCC adopts its 1st procurement auction ('reverse' auction)

- Will be implemented in 2012
- \$300 million one-time support for extending 3G/4G coverage to unserved areas (+ \$50 million for Tribal areas)

Select winning bids to maximize additional road miles covered nationwide given the budget

- Simplicity of single metric—additional road miles—especially important in testing 1st auction
- Nationwide auction creates bidder competition across regions, even if competition is limited within regions. (71 Economists)

Information on Broadband Performance

Advertised broadband speeds “up to # Mbps” often greatly overstate (but can understate!) average speeds

Better information can improve consumer choice among ISPs, and sharpen incentives to improve performance

FCC Report (8-2011) showed test results of speeds (& latency) *within each ISP's network*, for main residential wireline ISPs nationwide, by time of day

Report drew considerable attention, including prominent mention in ISPs' competitive advertising — and a major target of such ads has greatly improved its speed.

References

Comments of 71 Concerned Economists, “Using Procurement Auctions to Allocate Broadband Stimulus Grants,” submitted to the National Telecommunications Information Agency (NTIA) and Rural Utilities Service (RUS), April 13, 2009: <<http://ssrn.com/abstract=1377523>>

FCC, Level 3 / Global Crossing Order, adopted September 29, 2011: <http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0929/DA-11-1643A1.pdf>

FCC, Connect America Fund Order and FNPRM, adopted October 27, 2011: <http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db1122/FCC-11-161A1.pdf>

FCC, *Measuring Broadband America*, A Report on Consumer Wireline Broadband Performance in the U.S., FCC’s Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, 2011 WL 3343075, Aug. 2, 2011: <<http://www.fcc.gov/measuring-broadband-america>>