The Mixed Blessing of a Deregulatory Endpoint for the Public Switched Telephone Network

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Objectives of the Paper

- Identify the costs and benefits resulting from incumbent carrier discontinuation of common carrier, wireline voice telephone service. Assess whether incumbent carriers need substantial deregulatory incentives in the face of competitive necessity and fast declining POTS revenues.

- Use case studies of recent carrier interconnection and consumer access disputes to examine whether and how private carriers using marketplace driven negotiations and commercial incentives can achieve timely and reasonable outcomes.

- Consider whether migration to all IP, private carrier networks shift costs from carriers to consumers.

- Provide an unsponsored assessment whether and how commercial, marketplace-driven solutions to disputes can replace regulation.

The Benefits and Burdens of Common Carriage

- Legacy telephone companies may reach a long sought goal: liberation from nondiscrimination, transparency and the duty to serve as the carrier of last resort. This confers opportunities for greater efficiency, operational synergies and the ability to concentrate on providing higher margin services, e.g., wireless and broadband. Incumbents can retire obsolete plant, vastly reduce the number of employees and pension liability and avoid regulation-induced costs.

- By seeking authority to discontinue conventional PSTN services, incumbent carriers that continue to offer voice telephone services will qualify as private carriers providing an information service, or unclassified Voice over the Internet Protocol ("VoIP") service.

- Existing private carriers do not receive universal service funding even as VoIP subscribers have to pay into these funds.

- Other lost benefits: preferred or free access to rights of way and spectrum; favorable tax treatment; leadership in standard setting and policy making; vertical integration synergies, the right to demand interconnection with other carriers.

Worst Case Scenario: Many Legacy Carrier Burdens Without the Upside Benefits.

If incumbents become reclassified as VoIP carriers, they will have to comply with several costly regulatory obligations:

to collect universal service funding without opportunities to receive any subsidy, unless they continue to provide broadband services;

to provide subscriber access to emergency 911 service;

to cooperate with law enforcement authorities;

to incorporate the technical accommodations for persons with disabilities, such as deaf callers;

to allow subscribers to keep their existing telephone numbers when switching services; and

to compile and report service outages, etc. to the FCC.

Best Case Scenario: The Information Service Deregulated Safe Harbor

If incumbents become reclassified as information service providers, they will qualify for deregulation, possibly subject to a questionable FCC ancillary jurisdiction claim.

As former lead carriers, incumbents probably will not have problems in the migration from compulsory common carrier interconnection to voluntary models.

Internet interconnection models, e.g., peering and transit are likely to replace telecom models, e.g., access charges, bill and keep.

Incumbents may even be able to leverage access to their networks for preferential terms; however they risk triggering more disputes about interconnection terms and conditions as well as issues about what end user subscriptions guarantee.

Private carriers are apt to impose surcharges for “toll grade” QOS for both content creators and end users, e.g., “toll free” data access and better than best efforts routing.

Case Studies in Balkanization and Challenges to Ubiquitous Service

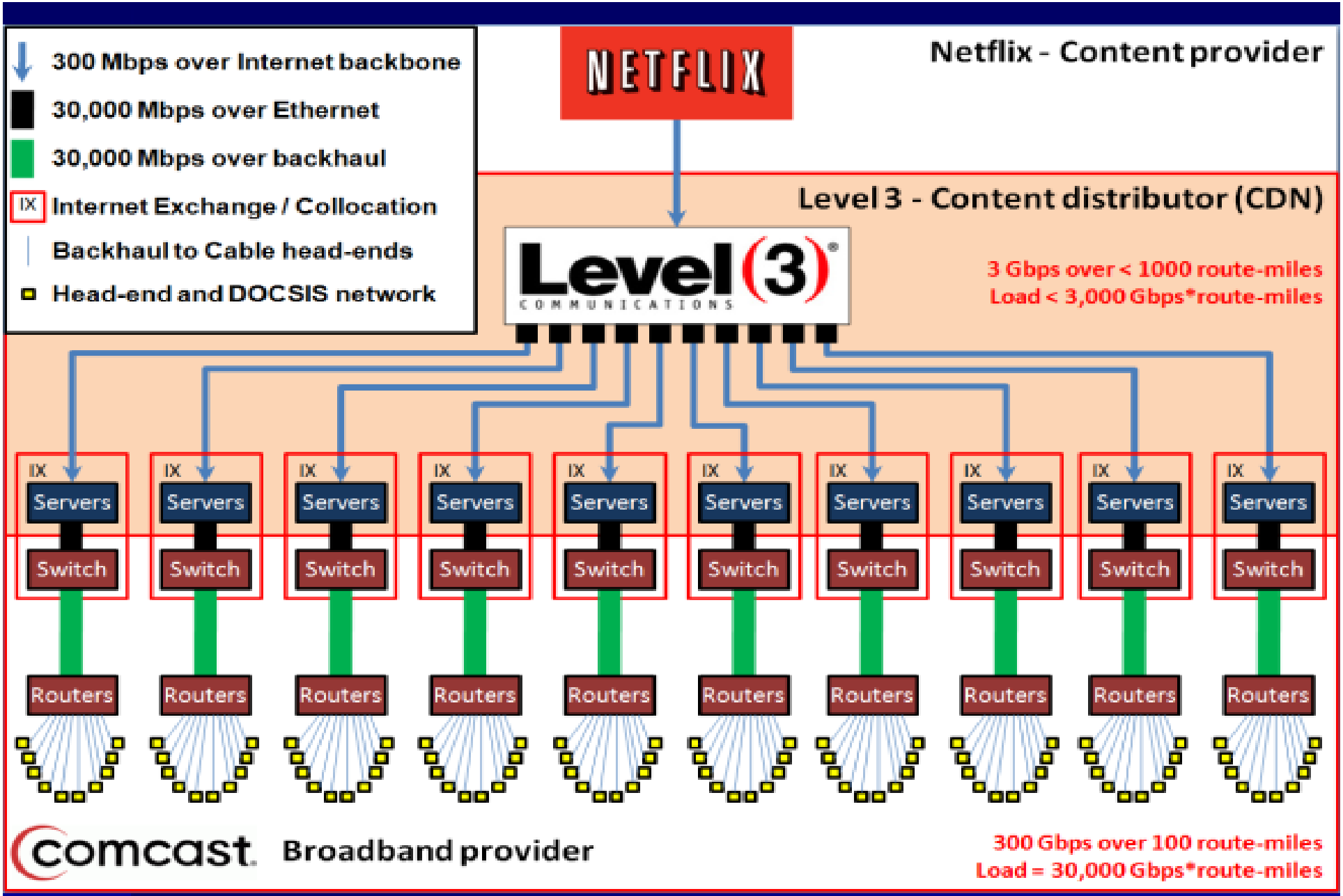
Level 3-Comcast Dispute

In late 2010 Comcast imposed a traffic delivery surcharge when Level 3 became the primary CDN for Netflix.

Level 3 characterized the surcharge as a discriminatory toll while Comcast framed the matter as a commercial peering dispute.

Comcast is correct if one narrowly focuses on downstream traffic termination.

But more broadly the dispute raises questions about the scope of duties Comcast owes its broadband subscribers and whether Level 3 is entitled to a good faith effort to abate the traffic imbalances with upstream traffic.

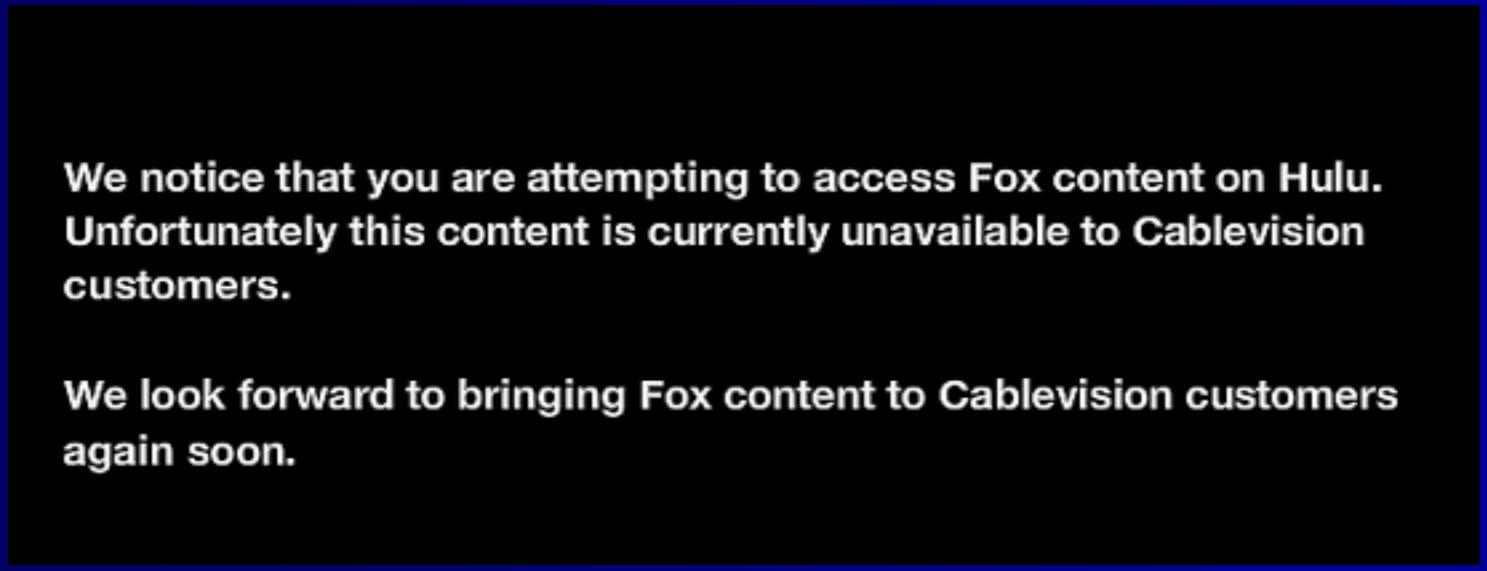


Source: George Ou, Digital Society, http://www.digitalsociety.org/2010/12/division-of-labor-between-broadband-and-cdn/

Case Studies in Balkanization and Challenges to Ubiquitous Service

Cablevision-Fox Dispute

For added leverage in a content retransmission dispute Fox used deep packet inspection to identify Cablevision subscribers seeking access to Fox content available to anyone via the Hulu intermediary web site. Fox denied Cablevision subscribers access and instead sent this message:



Case Studies in Balkanization and Challenges to Ubiquitous Service

Google Voice

AT&T challenged Google's decision not to provide access to all telephone lines, including ones in rural areas whose termination charges vastly exceeded standard rates, i.e., "traffic pumpers" with inducements such as "free" conference calling.

Apple temporarily denied Google shelf space at the iPhone Apps Store triggering an FCC Wireline Competition Bureau query.

In both instances the matter got resolved, or at least did not trigger substantial regulatory intervention. iPhone users now can access Google Voice and Google Voice has not been classified as a regulated telecommunications service.

The FCC has Limited Jurisdiction to Remedy Anticompetitive Practices or Adverse Impact on Longstanding Public Interest Goals

Regardless whether future voice telephone services are classified as VoIP or information services, the FCC will have no direct statutory authority and questionable ancillary jurisdiction even to remedy disputes.

VoIP regulation was based on a functional equivalency argument which will have less plausibility if wireline POTS disappears.

Absent new legislation the FCC will not have a direct statutory link to justify its possibly necessary intervention when carrier interconnection and consumer access disputes become protracted.

VoIP may continue to evidence distance insensitivity and/or carriers may continue to cost average. If not, the cost of service in rural areas may rise defeating universal service goals.

The FCC may continue to invoke promotional obligations in the Telecommunications Act of 1996 , e.g., Sec. 706. But the Comcast case (no statutory support for open Internet initiatives) casts doubt whether the FCC can intervene even if empirical evidence shows consumer harms.

Ironically, deregulation may eventually trigger statutory re-regulation should consumers/voters complain vigorously.

Conclusions

In the migration from common to private carriage, incumbents may have overestimated the value of deregulation vis a vis lost financial and operational benefits accruing from regulation.

Wireline carrier management appear to assume that greater operational efficiencies (fewer personnel, less maintenance, reduced regulation, higher margins and an IP-centric wireless network) will offset likely lost universal service funding, priority access to rights of way, mandatory interconnection, tax benefits, spectrum set asides, etc.

Heretofore private carrier negotiations (peering, transit, retransmission consent) have reached closure, albeit not always on a timely basis, particularly since end users continue to pay during negotiations, e.g. cable retransmission consent.

Such negotiations may bog down or harm consumers, particularly if consumer access issues are integrated with carrier interconnection issues, e.g., broadband end users surely expect their subscription guarantees high QOS even for full motion video, not conditioned on a surcharge payment, or other carrier interconnection concession.

Incumbents have not shown NGN alternatives as having the same costs, QOS, availability, reliability and scalability.

Additional Research Questions

If consumers must migrate from POTS to a NGN (IP-centric) replacement, what are the net consequences in terms of consumers' out of pocket costs, as well as network QOS, availability, reliability and scalability?

Can wireless networks accommodate the complete off loading of wireline traffic? Would this offloading exacerbate spectrum scarcity?

If incumbents continue to rely on wireline copper plant, e.g., U-verse, do they gain deregulation without conferring much upside consumer benefits? For example most carriers offer AYCE wireline service at about $20 a month, but metered wireless service costs 2 or 3 times as much.

How would deregulation create incentives for carriers to migrate from copper to fiber media?

As many incumbents have eschewed POTS universal service funding, will they similarly avoid broadband subsidies tied to open network access requirements?

Will the migration remedy the digital divide, including areas with limited or no wireless service?