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IN THIS ISSUE

- The FCC's "Open Internet" Order: Minimal regulation despite a spot-on assessment of access provider monopoly power
- Verizon to start offering iPhones: A big deal, or a big so what?

The FCC's "Open Internet" Order: Minimal regulation despite a spot-on assessment of access provider monopoly power.

In its recent order on Net Neutrality (*Preserving the Open Internet*), the FCC demonstrates a keen and insightful understanding of the extraordinary incentives and unique opportunities that broadband Internet access providers have to limit Internet openness. Unfortunately, the Commission has failed to translate this fundamentally correct assessment into meaningful regulatory measures to address the numerous – and serious – policy issues that it had identified.

Dismissing the arguments of those who characterize "net neutrality" concerns as unfounded paranoia – a group consisting mainly of the major incumbent local exchange carriers (ILECs) and their wireless affiliates, the major multi-system cable operators (MSOs), and the ILECs' and MSOs' respective trade groups and lobbying organizations – the Commission concluded that "broadband providers have incentives to interfere with the operation of third-party Internet-based services that compete with the providers' revenue-generating telephony and/or pay-television services." It correctly identifies three areas where broadband access providers have incentives to exploit their control of last-mile Internet access to inflict competitive harm on providers of "content, applications, services, and devices accessed over or connected to broadband Internet access service" (so-called "edge" products and services), and in so doing are able to competitively benefit their own "edge" products and services:

- "First, broadband providers may have economic incentives to block or otherwise disadvantage specific edge providers or classes of edge providers, for example by controlling the transmission of network traffic over a broadband connection, including the price and quality of access to end users. A broadband provider might use this power to benefit its own or affiliated offerings at the expense of unaffiliated offerings;"
- "Second, broadband providers may have incentives to increase revenues by charging edge providers, who already pay for their own connections to the Internet, for access or prioritized access to end users. Although broadband providers have not historically imposed such fees, they have argued they should be permitted to do so. A broadband provider could force edge providers to pay inefficiently high fees because that broadband provider is typically an edge provider's only option for reaching a particular end user. Thus broadband providers have the ability to act as gatekeepers." (Another term for a "gatekeeper," according to footnote 66 of the Order, is "terminating monopolist"); and
- "Third, if broadband providers can profitably charge edge providers for prioritized access to end users, they will have an incentive to degrade or

decline to increase the quality of the service they provide to non-prioritized traffic. This would increase the gap in quality (such as latency in transmission) between prioritized access and non-prioritized access, induce more edge providers to pay for prioritized access, and allow broadband providers to charge higher prices for prioritized access. Even more damaging, broadband providers might withhold or decline to expand capacity in order to 'squeeze' non-prioritized traffic, a strategy that would increase the likelihood of network congestion and confront edge providers with a choice between accepting low-quality transmission or paying fees for prioritized access to end users."

Moreover, the FCC has recognized that actions by broadband access providers that work to reduce Internet openness also have negative consequences for end users and for the broader economy. In a welcome change of policy tone, the FCC doesn't pull any punches in concluding that there is limited competition for broadband Internet access. In stark contrast to the various "predictive judgments" regarding the development of competition that the FCC had incorporated into the analysis and rationale underlying its various unbundled network element (UNE), Section 271 Bell long distance reentry, regulatory forbearance, and Bell/Bell and Bell/IXC merger proceedings, the Commission here refuses to rely upon such "predictive judgments" as to future competitive conditions in the market for broadband Internet access:

A broadband provider's incentive to favor affiliated content or the content of unaffiliated firms that pay for it to do so, its incentive to block or degrade traffic or charge edge providers for access to end users, and its incentive to squeeze non-prioritized transmission will all be greater if end users are less able to respond by switching to rival broadband providers. The risk of market power is highest in markets with few competitors, and most residential end users today have only one or two choices for wireline broadband Internet access service.

Thus, the Commission squarely rejects the notion that an end user can easily switch broadband providers if dissatisfied with (unreasonable) restrictions that the broadband provider has placed a particular edge provider, its products or its services.

In light of this analysis, the FCC has no trouble concluding that formal rules are necessary to preserve the openness of the Internet and that the benefits of such rules far outweigh the costs. Notably, the Commission finds that

Widespread interference with the Internet's openness would likely slow or even break the virtuous cycle of innovation that the Internet enables, and would likely cause harms that may be irreversible or very costly to undo. ... Effective open Internet rules can prevent or reduce the risk of these harms, while helping to assure Americans unfettered access to diverse sources of news, information, and entertainment, as well as an

array of technologies and devices that enhance health, education, and the environment. ... By comparison to the benefits of these prophylactic measures, the costs associated with the open Internet rules adopted here are likely small. ...

Clearly, the Commission's understanding of the enormous potential for anticompetitive abuse by "terminating monopolists" providing mass market broadband Internet access and the various harms that such conduct would impose upon the Internet and the US economy generally is spot-on. Indeed, while the Order nowhere directly addresses the fundamental question as to whether broadband Internet access constitutes a common carrier telecommunications service subject to Title II of the Communications Act (see our discussion of this issue in *Views and News*, November 2010), the Commission here observes that "[l]ike electricity and the computer, the Internet is a 'general purpose technology' that enables new methods of production that have a major impact on the entire economy." And precisely this conclusion would certainly be consistent with the Commission's definition of "broadband Internet access service" as

A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service. ... This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence, or that is used to evade the protections set forth in this Part.

The term "broadband Internet access service" includes services provided over any technology platform, including but not limited to wire, terrestrial wireless (including fixed and mobile wireless services using licensed or unlicensed spectrum), and satellite.

What the FCC thus describes epitomizes "basic" – that is, telecommunications – service that falls squarely within the purview of Title II. Yet after laying out all the right reasons for the adoption of open Internet rules, the FCC undermines its cause by continuing to rely upon indirect rather than direct legal authority over providers of broadband Internet access services. The Open Internet Order never deals head-on with the choice to maintain a classification scheme that excludes broadband Internet access from the category of Title II "telecommunications service." Rather than adopting the direct and straightforward approach of reclassification, the Commission has engaged in a complex legal analysis to establish a nexus between a patchwork of provisions in the Communications Act and its net neutrality rules. In our view, reclassification has a strong factual basis, and would be far more likely to withstand the inevitable appeals (Verizon's was filed on January 20) than will the legal theory underlying this Order. Commissioner Michael Copps in his separate statement seems to agree with this assessment: "I continue to believe that a reassertion of our Title II authority would have provided the surest foundation for future Commission action. And I note with interest that the Commission's Reclassification docket will remain open."

The net neutrality rules as adopted

The FCC "sunshine meeting" was held on December 23, 2010. By a 3-2 strict party-line vote, the Commission adopted a set of net neutrality rules and principles that seemed to satisfy no one – including the major consumer broadband service providers (whom Commissioner Copps in his separate statement referred to as "Big Phone [and] Big Cable"). In fact, all five Commissioners issued

separate statements to accompany the order. The two other Democrats, Commissioners Copps and Clyburn, felt that the *Order* did not go far enough in assuring an open Internet. The two Republicans – McDowell and Baker – take the position that no new regulations are required, that there has been no empirical demonstration of any market failure, that such concerns are speculative, that the Commission lacks authority to regulate in this area, and that the ruling will likely be overturned by the courts.

While one might be tempted to conclude that a set of rules that satisfies nobody must be doing something right, it may not be that simple. A reading of the Order together with the separate statements would seem to suggest that the two sides may be talking past each other. The Order – and the Copps and Clyburn statements – are directed specifically at broadband Internet *access* – at the last-mile link between the mass market residential/small business consumer and the local telco or cableco. The Order does not regulate or impose any net neutrality rules upon backbone networks, content and applications providers, hardware manufacturers or software companies. It does not address or regulate any of the gatekeeper powers that these "edge" providers may themselves exercise. It does not direct Apple with respect to content and software offered through its iTunes and App Stores. It does not tell Google how search results are to be displayed or reported, or tell Yahoo, MSN, or other Internet portals what content to make available on their respective sites. It does not set controls on backbone providers with respect to the services they offer to content and applications providers, Internet access providers, or to large enterprise customers. And it does not regulate anyone's prices or terms of service. Its focus is solely with respect to the one specific area of the Internet ecosystem in which consumers face no or extremely limited competitive choices – i.e., *broadband Internet access*.

In that regard, much of the rhetoric coming from net neutrality opponents – including the two dissenting Commissioners – seems highly misplaced. *The Open Internet Order does not regulate the Internet*. Indeed, it doesn't regulate much of anything, but whatever it does purport to regulate is strictly limited to *access*. The substantive rules as adopted consist of roughly one page of text (42 lines), and establish requirements in four specific areas:

- (1) "Transparency" with respect to "the network management practices, performance, and commercial terms of [the provider's] broadband Internet access services;"
- (2) "No Blocking" with respect to fixed broadband Internet access service of "lawful content, applications, services, or non-harmful devices, subject to reasonable network management" and with respect to mobile broadband Internet access service, no blocking of "consumers from accessing lawful websites, subject to reasonable network management; nor shall [mobile broadband Internet access providers] block applications that compete with the provider's voice or video telephony services, subject to reasonable network management;"
- (3) "No Unreasonable Discrimination" with respect to fixed broadband Internet access service, as to "transmitting lawful network traffic over a consumer's broadband Internet access service" with the caveat that "[r]easonable network management shall not constitute unreasonable discrimination;" and
- (4) an express carve-out from the adopted Open Internet rules where the provider "may have to address the needs of emergency communications or law enforcement, public safety, or national security authorities" or involving "reasonable efforts by a provider of

broadband Internet access service to address copyright infringement or other unlawful activity.”

Note that the FCC has declined to apply the “No Unreasonable Discrimination” rule to mobile broadband Internet access providers, committing instead “to put in place basic openness protections and monitor the development of the mobile broadband marketplace.”

The “No Unreasonable Discrimination” provision may be particularly problematic due to the Commission’s refusal to view broadband Internet access providers as “common carriers” subject to Title II. Its reasoning goes something like this: Common carriers are required to hold out and to provide service indifferently to all who request it, whereas “an entity ‘will not be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal’ with potential customers.” Broadband providers “that chooses not to offer its broadband Internet access service on a common carriage basis can, for instance, decide on a case-by-case basis whether to serve a particular end user, what connection speed(s) to offer, and at what price.” Under this reasoning, while the provider is permitted to refuse to provide service to any specific customer, if it does provide service, it may not engage in unreasonable discrimination with respect to such customer.

The FCC’s willingness to let broadband providers off the hook with respect to any obligation to serve is particularly curious in light of Congress’s 2009 directive to the FCC to develop a National Broadband Plan to ensure that every American has “access to broadband capability,” and the FCC’s recognition, in the NBP, that

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.

As to the “reasonable network management” exceptions to the new rules, the adopted definition is more tautological than it is specific: “A network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.”

Specialized Services

So-called “specialized services” are furnished via the same last-mile physical facility that provides the customer’s broadband Internet access service, but which are logically separated from the bandwidth that is earmarked for Internet access. For example, a cable company that provides digital VoIP telephone service will typically create an IP channel specifically for this purpose that is separate from the IP data stream that the customer utilizes for Internet-based content and applications. By establishing such separate data channels, the provider is able to prioritize traffic associated with the specialized service by insulating it from the traffic on the customer’s Internet access channel and from traffic on the public Internet generally.

The FCC has recognized that the provision of such specialized service-specific channels operates to create a de facto prioritization for such services vis-a-vis competing services offered over the public Internet. Thus, if the customer purchases VoIP phone service from the cable company, it is furnished via a dedicated channel, but if any competing nomadic VoIP phone service – e.g., Vonage – will share

the customer’s Internet access bandwidth with other Internet-based services. Similarly, cable-based video-on-demand (VoD) services are furnished via a dedicated (non-IP) channel, whereas streaming video available over the public Internet – e.g., from Netflix, Amazon and others – must compete for Internet bandwidth.

The FCC Order recognizes the potential anticompetitive impact of such “specialized services,” identifying in particular two specific concerns – (1) that the reservation of bandwidth for specialized services could choke off capacity available for general Internet use; and (2) the possibility that the reserved specialized service channel could offer superior speed, reliability and overall quality of service that would be unavailable to a competing application that can be accessed only via the public Internet. Nevertheless, save for a commitment to “monitor” the use of such specialized services by broadband Internet access providers, the Commission has not otherwise restricted their use or required that the equivalent arrangement be offered to competing edge providers.

The FCC’s timidity here creates a gaping loophole in the “No Unreasonable Discrimination” rule as adopted, and presents an opportunity for an access provider to offer VoIP telephony, video-on-demand and other applications without having to make such capability available to rival application providers. Significantly, the implications of this loophole were not lost on the US Department of Justice. In its January 18, 2011 Proposed Final Judgment setting out specific conditions for approval of the Comcast/NBCU merger, the DoJ goes beyond the FCC’s adopted Open Internet rules in several key respects:

- Comcast shall not offer a Specialized Service that is substantially or entirely comprised of [its] affiliated content.
- If Comcast offers any Specialized Service that makes content from one or more third parties available to (or that otherwise enables the exchange of network traffic between one or more third parties and) its subscribers, Comcast shall allow any other comparable Person to be included in a similar Specialized Service on a nondiscriminatory basis.
- Comcast shall offer Internet Access Service that is sufficiently provisioned to ensure, in DOCSIS 3.0 or better markets, that an Internet Access Service subscriber can typically achieve download speeds of at least 12 megabits per second. ...

However, the DoJ conditions do not treat Comcast Title VI video services, including video-on-demand, as “specialized services,” so the practical effect of these “conditions” may be quite limited.

The need for these additional provisions is hardly unique to Comcast, since the incentives and opportunities exist for any broadband Internet access provider to engage in such conduct irrespective of its direct ownership of content. It is thus curious that the FCC does not apply similar requirements generally to all broadband access providers. But, like many others aspects of this Order, there is a large gulf between the Commission’s recognition of the potential harms and any specific proactive regulatory initiatives.

Verizon to start offering iPhones: A big deal, or a big so what?

According to the technology blogosphere, it has never been a question of if, so much as a question of when Verizon Wireless would offer the Apple iPhone. After much speculation,

Apple and Verizon answered the “when” question last week, with an announcement that a CDMA 3G version of the iPhone would be available from Verizon on February 10, 2011. However, this ending to the exclusive relationship between AT&T and Apple raises more questions than it answers. Some very critical information has yet to be announced at Verizon (just how much will Verizon charge for iPhone data service) and industry outcomes are still unclear (how will the arrival of the iPhone at Verizon affect AT&T; will the Verizon network prove to be resilient enough to withstand the increased data usage associated with the iPhone?). While it seems straightforward that Apple will benefit tremendously from increased iPhone sales, the implications for Verizon, AT&T, Google, and other companies competing in the smartphone space are less than clear.

The Wireless Carriers

It seems inevitable that the iPhone will attract new customers to the Verizon network, and that some current AT&T subscribers will defect to Verizon now that the iPhone is available. But there are some unknowns that may limit mass defections. First, the industry standard of locking wireless customers into two-year contracts will likely keep customers tethered to AT&T. Facing early termination fees of as much as \$350, AT&T iPhone customers may not be interested in immediately trading networks for a possible network performance boost. Verizon claims that its network is ready for the iPhone, but these claims are untested.

The prevalence of family plans may also make it difficult for consumers to switch to Verizon. While the carriers do not disclose such statistics publicly, ETI research has determined that a substantial portion of all non-business wireless subscribers are on family plans. Since termination fees are applied per phone, an AT&T family plan customer considering switching carriers could be hit with charges approaching \$1,000. Limiting the defection to only the plan’s iPhone user(s) would reduce termination charges, but splitting up the family across two carriers would mean higher monthly fees.

Verizon has also not yet released the pricing tiers of the data plans for the iPhone. Although the availability of an unlimited data plan will likely attract some heavy data users from AT&T (AT&T eliminated its unlimited plan in June 2010), Verizon’s price points will be critical to the attractiveness of switching. Even the availability of the unlimited plan is of questionable value for many consumers – AT&T recently disclosed that 98% of its iPhone subscribers use less than 2 gigabytes of data on a monthly basis, leaving AT&T’s 2 GB plan a viable option for many.

3G vs. 4G

It comes as a bit of a surprise that the Verizon iPhone will be little more than a typical iPhone 4 with a CDMA chipset, i.e., the VZW iPhone will be running at 3G speeds. This raises two important questions: First, while the AT&T data network has gotten a bad rap in the press for its performance (or lack thereof) in a few major metro areas (e.g., New York, San Francisco) AT&T uses a technology called HSPA to accommodate its 3G data traffic. This technology is technically up to five times faster than Verizon’s EDGE network (even though both are considered “3G”). Even if Verizon customers do not encounter frustrations with dropped calls and network congestion in major metropolitan areas, consumers may well be disappointed with available data speeds. Second, all of the major wireless carriers have been very vocal about rolling out 4G wireless

networks, touting possible speeds well above the 3G level. Verizon’s 4G offering, LTE, is already available in several key markets to users who purchase an LTE laptop card. Inasmuch as Apple has announced a new iPhone model every summer since its initial release in 2007, consumers may be better off waiting to sign up for the Verizon iPhone until after the next iPhone model is released. 4G phones (running Google’s Android system) are already available from Sprint and T-Mobile networks, so it’s a pretty safe bet that Apple’s 4G iPhone will be out soon.

Google and Android

Verizon’s lack of access to the iPhone over the last several years has forced it to adopt other smartphone standards, namely phones running the Android operating system created by Google. Verizon has been touting the capabilities of these phones as it attempts to compete with AT&T and the iPhone. Android-based phone sales now outpace iOS/iPhone sales (although the sales figures for the singular iPhone device are much more impressive than any other single model of phone). Will Verizon’s eager adoption of the iPhone squelch demand for Android devices? Will AT&T ramp up Android availability in its stores? The outcome here is unclear.

Up to now, Google and Verizon have portrayed a cozy relationship (joint positions on net neutrality, joint filings before the FCC). A shift in Verizon’s focus toward iPhones and away from Android-based handsets could affect that relationship, although Google’s broader interests still extend well beyond mobile devices. Apple’s market cap has soared to \$300-billion (some 50% above Google), and given Apple’s “my way or the highway” reputation, the iPhone could change the market dynamics between Verizon and Google.

Is the iPhone actually good for business anyway?

Since the January 2007 introduction of the first iPhone, AT&T’s share price has actually *dropped* by 16%, while Verizon is off only 5%. And since the June 2010 release of the iPhone 4, Verizon again outpaced AT&T in the stock market – Verizon is up nearly 19% to AT&T’s 11%. While stock prices reflect more than just wireless business, there are no standard industry metrics showing that AT&T has outperformed Verizon during its period of exclusivity with the iPhone. Verizon has outperformed AT&T on churn (the rate at which customers disconnect service), while remaining competitive with new subscriber additions. Verizon is touting the iPhone 4 as “the phone that changed everything.” But from a business perspective, it is less than clear that the iPhone really changed everything for AT&T. Only one company has unambiguously benefitted from the Apple iPhone: Apple itself.

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