

Network Neutrality: History Will Repeat Itself

Robert C. ATKINSON

Columbia Institute for Tele-Information (CITI), New York

Abstract: Network neutrality concerns about abusive discrimination by telecom network operators with market power is nothing new. There is long history in the United States of actual discrimination by network operators and consequential government actions to eliminate or at least mitigate the adverse consequences of market power, including unreasonable discrimination. History gives credence to network neutrality advocates' concerns about abusive practices by network operators but, equally, the history also provides assurance that government will step-in to remedy any serious abuses. With militant internet advocates and huge network-dependent businesses ready to expose any threat to network neutrality, it is difficult to imagine that government won't be aware of any systemic abuse by network operators. So, the network neutrality debate is really more about the pros and cons of *ex post* and *ex ante* regulation than some sort of new and unexplored issue of abusive discrimination. Under the current circumstances of no demonstrated abuses by network operators, it is highly likely that most if not all government agencies in the United States will adopt a "wait and see" (*ex post*) attitude. However, "network neutrality" is inevitable either because the government will not permit abusive non-neutrality or because the network operators won't "cross the line" and behave in a manner that causes the government to impose onerous regulation. This will leave a "gray area" where some people will object strenuously to network operators' behavior, but the misbehavior will not be great enough to stimulate government intervention.

Key words: Network neutrality, discrimination, Computer Inquiries,

■ What is "network neutrality"?

First, what is "network neutrality" (or net neutrality)? As the Congressional Research Service (CRS) observed:

"The move to place restrictions on the owners of the networks that compose and provide access to the Internet, to ensure equal access and nondiscriminatory treatment, is referred to as "net neutrality." There is no single accepted definition of "net neutrality." However, most agree that any such definition should include the general principles that owners of the networks that compose and provide access to the Internet should not control how consumers lawfully use

that network; and should not be able to discriminate against content provider access to that network." ¹

First, it is important to note that this general description of "net neutrality" is quite similar to the traditional obligation of telecommunications common carriers to serve the public without discrimination. ² It is also important to appreciate that the CRS explanation requires network operators to be "neutral" toward the two distinct groups that typically constitute an internet-enabled connection: individual consumers and application or content providers. Similarly, the CRS concept of "neutrality" encompasses two distinct aspects: unfettered access by consumers and non-discrimination among application and content providers. One Wall Street analyst summarized the network neutrality issue in the following terms:

"The carriers' ace in the hole is their control of last-mile broadband access – the ability to create an advantage for their own voice and video services through various means: pricing, traffic prioritization and segregation – *depending on what regulation and the marketplace allow* – and to reestablish themselves as gatekeepers. (More extreme approaches involving traffic blocking and impairment appear to be off limits, at least in the U.S.)." ³

Another investment analyst agreed, also pinpointing the source of the potential problem as the network operators' "market power" as the result of their control of the "last-mile" connection between the Internet and the consumer:

"Telco and cable broadband network owners are looking to claim more of the economic value that has flowed to edge providers of Internet Protocol (IP) services, such as Google, Yahoo!, Amazon, and eBay. ... We believe the battle is largely about market power and the extent to which Bells and cable can use their dominance in last-mile and local broadband access to extract premium returns." ⁴

"Market power" derived from "last mile" bottlenecks has been a recurring theme throughout the history of telecommunications in the United States. And, it continues as a recurring theme in the network neutrality debate:

¹ Congressional Research Service, "Net Neutrality: Background and Issues", May 16, 2006, <http://www.fas.org/sgp/crs/misc/RS22444.pdf>

² See discussion of common carriage, *infra*.

³ Merrill Lynch, "Net Neutrality: Will Carriers Remain Gatekeepers?," Feb. 14, 2006 (bold in original, italics added).

⁴ Stifel Nicolaus, "Net Neutrality: Value Chain Tug of War," March 2006.

stakeholders that believe network operators possess "market power" seek network neutrality regulations to counter that perceived market power while parties that oppose network neutrality regulations don't see a "market power" problem and naturally resist what they see as crippling restrictions.

Is the sort of market power discrimination feared by the proponents of network neutrality regulations more than a theoretical possibility? Broadly speaking,

"To shift value, the telcos and cable could try various strategies, which roughly fall into three categories: (1) blocking or degrading traffic; (2) managing their networks in ways that improve overall operations but also complicate some edge services; and (3) requiring payments for providing preferential service to edge traffic. In order for such tactics to work, *they must be technically feasible, not subject to significant market bypass, and not be objectionable to the government.*"⁵

It is highly likely that government would not tolerate the easily detected, most intrusive and obviously anti-competitive tactics for which there is no "fair" justification. Literally blocking traffic or diverting it would be an example. Such activity could be prohibited *ex ante* but the inevitability of swift and severe government intervention will discourage the worst behavior, making such *ex ante* prohibitions unnecessary as a practical matter. Indeed, in the most notable case, so far, where a carrier attempted to block consumers from accessing a competitive service (a Voice over Internet Protocol – VoIP - service), the FCC acted very quickly to compel the carrier to end the practice.⁶

A few network operator tactics, such as reasonable network management tools needed to keep the network available to all, are not likely to raise serious neutrality concerns. Other tactics might be acceptable because they provide clear consumer benefits, such as providing more bandwidth or better quality of service or prioritizing traffic (for example, to give remote medical monitoring traffic higher priority than web surfing) for a higher fee. But many tactics that could be used by network operators can be both perniciously anti-competitive and beneficial at the same time and will therefore be subject to case-by-case, generally *ex post*, weighing of such factors as anti-competitiveness, commercial reasonableness and fairness, and consumer benefit.

⁵ *Id.* (italics added)

⁶ See, discussion of FCC enforcement and the *Madison River* case, note 43, *infra*, and accompanying text.

■ Network neutrality concern is not surprising: there is a long history in the United States of telecom "discrimination" (that is, "market power") problems, and periodic government reactions

Concern about discrimination by network operators with market power now being raised by network neutrality proponents is nothing new. There is long history in the United States of actual discrimination by network operators followed by government reactions that eliminate or at least mitigate the adverse consequences of market power, including unreasonable discrimination. This history gives credence to network neutrality advocates' concerns but, equally, the history should provide assurance that government agencies will step-in to remedy any serious abuses. From this perspective, the network neutrality debate is more about the pros and cons of *ex post* and *ex ante* regulation.

The following review of some previous market power and discrimination problems in the United States is intended to be illustrative and certainly not exhaustive.

Common law's "common carrier" nondiscrimination

Historically a common carrier is a: "Transporter who holds himself out to the general public for the transportation of goods over a definite route and according to a regular schedule."⁷ The transportation common carrier concept was adopted into telecommunications:⁸

"In a telecommunications context, a telecommunications company that holds itself out to the public for hire to provide communications transmissions services [is a "common carrier"]".⁹

The prohibition on unreasonable discrimination is the most important component of the common carrier obligation.¹⁰

⁷ See e.g., The Lectric Law Library, <http://www.lectlaw.com/def/c069.htm>

⁸ Before the formation of the FCC in 1934, interstate communications in the United States was subject to regulation by the Interstate Commerce Commission which was primarily concerned with traditional transportation common carriers.

⁹ ATIS Committee T1A1, http://www.atis.org/tg2k/_common_carrier.html

Communications Act of 1934

The Communications Act of 1934 was a response to the monopolization of the American telephone system and the ineffectiveness of earlier regulatory schemes. Title II of the Act (47 U.S.C. sections 201-221) established regulated telecommunications common carriers, defined in a circular fashion as "any person engaged as a common carrier for hire." Even so, in Congressional debates leading to the 1934 Act, assurances were given that "common carriage" was well understood and needed little explanation.¹¹ The statute made the non-discrimination obligation explicit. Section 202(a) of the Communications Act¹² provides:

"It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage."

AT&T Consent Decree (1956)

Prior to the settlement of a federal antitrust suit in 1956, the tightly integrated Bell System operating companies (AT&T Long Lines and the monopoly local Bell Operating Companies) only purchased equipment from the affiliated Western Electric Co. and consumers could only use terminal equipment rented from AT&T. Clearly, AT&T's market power discriminated heavily against competing suppliers of equipment.

The 1956 Consent Decree settling the case did not include the structural separation - divestiture of Western Electric - that had been sought by the Justice Department. Instead, AT&T was barred from engaging in any business other than the provision of common carrier communication subject to the non-discrimination requirements of the Communications Act.

¹⁰ Eli M. NOAM, "Beyond Liberalization II: The Impending Doom of Common Carriage", 18 *Telecomm. Pol'y*, 435, Sec. II (1994). See generally, Cybertelecom – Common Carriers, http://www.cybertelecom.org/notes/common_carrier.htm

¹¹ *Id.*

¹² 47 U.S.C. 202(a).

Terminal equipment interconnection (1960s) ¹³

AT&T and the Bell System prohibited by common carrier tariff the interconnection of customer-owned terminal equipment to their networks, continuing to use their network market power to discriminate against Western Electric's equipment competitors. In the 1956 *Hush-a-Phone* case, the FCC supported the restrictive tariffs but was overturned by the D.C. Circuit Court which held that the tariffs were an "unwarranted interference with the telephone subscriber's right reasonably to use his telephone in ways which are privately beneficial without being publicly detrimental." ¹⁴ In the later *Carterphone* decision ¹⁵, the FCC determined that the tariff prohibitions on connecting "foreign attachments" directly to the telephone network was an unreasonable practice prohibited by Sec. 201 of the Communications Act. The FCC decreed that any equipment could be attached to the telephone networks as long as it didn't harm the network. By 1975, the FCC had established a registration program which allowed any equipment that met its minimal technical standards to be attached directly to the telephone network. These actions neutralized the telephone monopolies' market power and ability to discriminate against non-affiliated equipment suppliers, resulting in a competitive terminal equipment industry and rapid innovation of such equipment.

Long Distance competition/equal access (1970s)

The advent of new microwave technologies in the 1960s made it theoretically possible for new entrants to compete with AT&T's long distance monopoly. ¹⁶ However, effective competition was difficult because AT&T's Bell Operating Companies and the so-called "independent" local telephone companies (those not affiliated with AT&T) would not connect with new

¹³ See generally, Cybertelecom – Customer Premises Equipment, <http://www.cybertelecom.org/ci/cpe.htm>

¹⁴ *Hush a Phone v. FCC*, 238 F2d 266 (1956) The Hush a Phone device simply attached to the mouthpiece of a telephone handset to help keep the conversation private. It did not connect electrically to the telephone network.

¹⁵ In the Matter of Use of the Carterfone Device in Message Toll Telephone Service, 13 FCC 2d 420 (1968).

¹⁶ Initially, the FCC found that adequate frequencies were available to allow private microwave systems (*i.e.*, for the broadcast networks). *Above 890*, 27 FCC 359 (1959), *recon.*, 29 FCC 825 (1960).

"specialized" common carrier entrants such as MCI¹⁷ on the same basis as they connected the AT&T Long Lines network for private line services. The FCC ordered the local telephone companies to cease the discrimination¹⁸ and eventually specified that the Bell System companies had to provide the "specialized" carriers with the interconnections that were similar to those provided to AT&T.¹⁹ However, the FCC had only authorized the competitive carriers to provide private line services, not basic long distance telephone service. In 1974, the FCC attempted to halt MCI's "shared private line" that challenged AT&T's long distance telephone services. In a series of cases, the DC Circuit Court overturned the Commission²⁰ by determining that specialized carriers could use their authorized facilities for any purpose unless the FCC's authorization contained an explicit prohibition on such use.

Then, AT&T attempted to stifle long distance competition by substantially raising the cost of local interconnection and the local telephone companies provided the competitive long distance services with "unequal" interconnection that required competitors' customers to dial as many as 10 extra digits. This discriminatory interconnection arrangement, flowing from the local exchange carriers' market power, was a chronic problem even after the FCC brokered a deal that resulted in a discounted interconnection charge that reflected the inferior interconnection.²¹ The battle between AT&T and its competitors was not resolved until the break-up of the Bell System.

AT&T Consent Decree/Break-up of Bell System (1982)

The discriminatory "unequal access" provided to AT&T's long distance competitors and the refusal of the local Bell System operating companies to

¹⁷ Microwave Communications, Inc., 18 FCC 2d 953 (1969).

¹⁸ In addition to broadly authorizing competitors to address "specialized" markets such as data transmission, the FCC directed local telephone companies to connect the specialized carriers' terminals to customers' premises. *Specialized Common Carriers*, 29 FCC 2d 870 (1971), *aff'd sub nom.* Washington Util. and Transp. Comm'n v. FCC, 513 F.2d 1142 (9th Cir.), *cert. denied*, 423 US 836 (1975)

¹⁹ Bell System Tariff Offerings, 46 FCC 2d 413 (1974), *aff'd sub nom. Bell Tel. Co. of Pennsylvania v. FCC*, 503 F.2d 1250 (3d Cir. 1974), *cert. denied*, 422 US 1026 (1975).

²⁰ *Execunet I*, 561 F.2d 365 (D.C. Cir. 1977), *cert. denied*, 434 US 1040 (1978); *Execunet II*, 580 F.2d 590 (D.C. Cir.), *cert. denied*, 439 US 980 (1978); *Execunet III*, 659 F.2d 1092 (D.C. Cir. 1981).

²¹ *ENFIA*, 71 FCC 2d 440 (1979).

purchase equipment from anyone except the affiliated Western Electric Co. led the Department of Justice in 1974 to file another antitrust suit. After the government presented its evidence, the presiding judge denied AT&T's motion to dismiss, finding that the government's case tended "to show that defendants have sought in a variety of ways to exclude the competition by restricting the interconnection to local facilities".²² The suit was then settled in 1982 as a structural separation with AT&T divesting the local Bell Operating Companies who were prohibited from offering long distance services.²³ Although the BOCs were still local service monopolies, the theory of the settlement was that the structural separation would eliminate the local telephone companies' incentive to discriminate in favor of either AT&T or its competitors because they were forbidden to provide long distance services of their own.

Computer Inquiry (1971-1999)

See "FCC's Computer Inquiry Saga," below.

■ The FCC's *Computer Inquiry* saga (1971-1999) as precursor of "network neutrality"

The *Computer Inquiry*

Network neutrality isn't the first time that the FCC has specifically considered the implications of the convergence of communications and computers. Rather, the FCC conducted a nearly 30 year series of three *Computer Inquiry* proceedings to establish the boundaries and relationships between the regulated telecommunications industry and the unregulated computer services industry. It is instructive to see how the FCC's *Computer Inquiry* rules and policies changed over time in response to available evidence of changes in technology, markets and market power. It is

²² United States v. AT&T, 524 F. Supp. 1336, 1353 (D.D.C. 1981).

²³ United States v. AT&T, 552 F. Supp. 131, 226-34 (D.D.C. 1982), *aff'd sub nom.* Maryland v. United States, 103 S.Ct. 1240 (1983). The details of the divestiture were approved by the District Court in August 1983.

reasonable to assume that the FCC will continue to adjust its policies in the "net neutrality" era for precisely the same reasons. Discrimination and market power concerns - net neutrality concerns - drove the Computer Inquiries. Recently, the FCC observed that the *Computer Inquiry* restrictions (principally applying to the pre-Divestiture Bell System) were:

"[...] necessary to protect the public against such anticompetitive activities as denial of access and predatory pricing by these "monopoly telephone companies exercising significant market power on a broad geographic basis." ²⁴

Remote data processing services, which evolved in the 1960s, combined centralized computer processing with common carrier telecommunications services. As such, they are the ancestors of today's internet services. Data processing services were offered by a variety of companies not affiliated with the common carriers. However, there was an expectation that AT&T, which controlled most of the telephone network, would want to offer remote data processing services of its own, raising concerns about carrier discrimination against unaffiliated data processing competitors and the leveraging of monopolized common carrier services into a competitive adjacent market. These are precisely the network neutrality concerns of today. There were three *Computer Inquiry* proceedings to address the concerns about a network operator's ability to discriminate against competitors' computer services:

Computer I (1971) ²⁵ distinguished unregulated "data processing" from regulated "communications" and required a carrier to have a maximally separated entity for data processing services. This was *ex ante* structural separation regulation.

Computer II (1980-81) ²⁶ distinguished "basic service" from "enhanced service" (an "information service" in the terms of the Telecommunications Act of 1996) and imposed "structural safeguards"

²⁴ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, CC Docket No. 02-33, released Sept. 23, 2005, FCC 05-150, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf (hereinafter *Wireline Broadband Framework*) at 16.

²⁵ Docket No. 16979, Final Decision and Order, 28 FCC 2d 267 (1971), *aff'd in part sub nom. GTE Service Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, 40 FCC 2d 293 (1973).

²⁶ 77 FCC 2d 384 (1980), *recon.*, 84 FCC 2d 50 (1980), *further recon.*, 88 FCC 2d 512 (1981), *aff'd sub nom. Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982) (*CCIA v. FCC*), *cert. denied*, 461 U.S. 938 (1983).

(separate subsidiaries: less separation than *Computer I* maximal separation) for the Bell System's enhanced services. Other carriers were required to provide basic services to affiliated and non-affiliated Enhanced Services Providers without discrimination but no structural separation. Terminal equipment was de-tariffed and deregulated.

Computer III ²⁷ (1986-1999) eliminated "structural separation" in favor of "non-structural safeguards" for dominant AT&T and Bell Operating Companies. The non-structural safeguards were an elaborate set of Open Network Architecture (ONA)/Comparably Efficient Interconnection (CEI) requirements. ONA required AT&T and the BOCs to "unbundle" basic services into Basic Serving Arrangements (BSAs) and Basic Service Elements (BSEs). CEI was the non-discrimination provision that required AT&T and BOCs to interconnect with non-affiliated ESPs on a basis which is comparable to the connections provided to an affiliated ESP. Other facility-based carriers were required to observe the normal common carrier obligation of non-discrimination vis-à-vis their own and others' enhanced services.

The End of Computer Inquiry Rules for Broadband Internet Access Services (2005)

After determining that broadband service offered by cable TV systems was an "information service" rather than a common carrier telecommunications service and being upheld on this judgment by the

²⁷ Phase I - CC Docket No. 85-229, 104 FCC 2d 958 (1986), *recon.*, 2 FCC Rcd 3035 (1987), *further recon.*, 3 FCC Rcd 1135 (1988), *second further recon.*, 4 FCC Rcd 5927 (1989); *Phase I Order and Phase I Recon. Order vacated sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990).

Phase II - CC Docket No. 85-229, Phase II, 2 FCC Rcd 3072 (1987), *recon.*, 3 FCC Rcd 1150 (1988), *further recon.*, 4 FCC Rcd 5927 (1989); *Phase II Order vacated, California I*, 905 F.2d 1217 (9th Cir. 1990).

Remand Proceeding, CC Docket No. 90-368, 5 FCC Rcd 7719 (1990), *recon.*, 7 FCC Rcd 909 (1992), *pets. for review denied sub nom. California v. FCC*, 4 F.3d 1505 (9th Cir. 1993).

Post-Remand Proceedings:

- BOC Safeguards - CC Docket No. 90-623, 6 FCC Rcd 7571 (1991), *vacated in part and remanded sub nom. California v. FCC*, 39 F.3d 919 (9th Cir. 1994), *cert. denied*, 514 U.S. 1050 (1995);

- BOC Provision of Enhanced Services - CC Docket No. 95-20, *Notice of Proposed Rulemaking*, 10 FCC Rcd 8360 (1995) *Further Notice of Proposed Rulemaking*, 13 FCC Rcd 6040 (1998);

- Report and Order, 14 FCC Rcd 4289 (1999), *recon.*, 14 FCC Rcd 21628 (1999).

Update Proceeding: *Further Comment Requested to Update and Refresh Record on Computer III Requirements*, CC Dockets Nos. 95-20 & 98-10, Public Notice, 16 FCC Rcd 5363 (2001).

Supreme Court²⁸, the FCC had to decide whether the functionally equivalent DSL broadband internet access services offered by telephone carriers as a common carrier service (and subject to *Computer Inquiry* rules) should also be classified as an information service. The Commission considered this issue in the *Wireline Broadband Framework* proceeding²⁹ and concluded that the *Computer Inquiry* regulations stifle broadband internet access innovation and investment while the development of multiple broadband access networks (at least cable, telco and some wireless) mitigate market power and discrimination concerns. Therefore, the Commission declared telephone companies' broadband internet access to be an information service and determined that the *Computer Inquiry* rules would no longer apply to such services.³⁰

With respect to network neutrality concerns, the Commission discounted the threat of discrimination by suggesting that the network operators have good business reasons to not discriminate. It said:

"[...] we expect that facilities-based wireline carriers will have business reasons to continue making broadband Internet access transmission services available to ISPs without regard to the *Computer Inquiry* requirements. The record makes clear that such carriers have a business interest in maximizing the traffic on their networks, as this enables them to spread fixed costs over a greater number of revenue-generating customers."³¹

²⁸ National Cable & Telecommunications Ass'n v. Brand X Internet Services, 125 S. Ct. 2688 (2005) (NCTA v. Brand X), aff'g Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, GN Docket No. 00-185 & CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002) (Cable Modem Declaratory Ruling and NPRM).

²⁹ *Wireline Broadband Framework*, note 24, *supra*, at 23.

³⁰ The FCC outlined four policy factors that guided its decision:

- 1) the increasing integration of innovative broadband technology into the existing wireline platform [e.g., promoting innovation]
- 2) the growth and development of entirely new broadband platforms [e.g., encouraging investment]
- 3) the flexibility to respond more rapidly and effectively to new consumer demands [e.g., benefiting consumers]
- 4) our expectation of the availability of alternative competitive broadband transmission to the currently required wireline broadband common carrier offerings. [e.g., stimulating broadband]. *Id.* at 43, (bracketed comments added)

It should be noted that, to the extent that these factors change or are not fully realized, the FCC could revise or even reverse its decision..See, note 54, *infra*, and accompanying text.

³¹ *Id.* at 35.

Of course, network neutrality proponents would argue that the operators' real need is to maximize revenues and profits rather than simply traffic volume and that those business needs will encourage profit-maximizing discrimination.

The FCC also suggested that removing internet access from a common carrier regime will encourage innovative pricing arrangements that will, in turn, benefit innovative internet start-ups. It observed:

"Non-common carriage contracts will permit ISPs to enter into various types of compensation arrangements for their wireline broadband Internet access transmission needs that may better accommodate their individual market circumstances. For example, ISPs and facilities-based carriers could experiment with revenue-sharing arrangements or other types of compensation-based arrangements keyed to the ISPs' marketplace performance, enabling the ISPs to avoid a fixed monthly recurring charge (as is typical with tariffed offerings) for their transmission needs during start-up." ³²

Opponents of network neutrality regulation echo this rationale when they suggest that the dominant internet and e-commerce companies (such as Google, Skype and Yahoo!) want to subject network operators to common carrier-type non-discrimination regulations to make it more difficult for operators to help new start-ups to compete with them.

The FCC also believes that it should be encouraging investment in innovative new technologies, concluding that:

"[...] eliminating the *Computer Inquiry* rules at this time will make it more likely that wireline network operators will take more risks in investing in and deploying new technologies than they are willing and able to take under the existing regime. Tailored private contractual agreements, in general, provide service providers more flexibility in developing a new technology and more incentives to do so." ³³

Network neutrality proponents would argue, however, that the FCC is being shortsighted and even misguided. They argue that it is equally or even

³² *Wireline Broadband Framework*, note 24, *supra*, at 48. The FCC also observed: The ability to deliver such innovative services over their platforms in order to attract customers will likely motivate wireline facilities-based broadband transmission providers to negotiate mutually beneficial arrangements that enable the wireline facilities-based broadband transmission provider to share the financial rewards of bringing the new Internet access applications or services to consumers. *Id.*

³³ *Id.* at 39.

more important to encourage investment in and deployment of new technology at the "edge" of the network rather than in the "core." They point out that the real drivers of the internet have been and will be applications (*i.e.*, Google, YouTube) and e-commerce models (*i.e.*, eBay) and these innovations will be stimulated by requiring network operators to be non-discriminatory. Minimally, they would suggest that the FCC shouldn't be discouraging "edge" innovation by removing the *Computer III*-type of protections.

A major overall policy objective of the FCC is encouraging deployment of broadband infrastructure in the United States by, among other things, making investment in such infrastructure more attractive. With this policy in mind, the Commission concluded that:

"[...] the inability to customize broadband service offerings inherent in the nondiscriminatory access requirement impedes deployment of innovative wireline broadband services taking into account technological advances and consumer demand. Thus, [...] such requirements[...] would deprive consumers of more efficient and innovative enhanced services. Similarly, a continued obligation to provide any new broadband transmission capability to all ISPs indiscriminately[...] would reduce incentives to develop innovative wireline broadband capabilities [...].³⁴

FCC's Broadband Policy Statement (Sept. 23, 2005)

On the same day the FCC released its *Wireline Broadband Framework* order it also released a Policy Statement to address the concerns raised in the *Framework* proceeding about the loss of common carrier protections that would result from the reclassification of telephone companies' broadband internet access as an information service. Specifically the FCC's *Broadband Policy Statement* said:

"[...] to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers, the Commission adopts the following principles:

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to access the lawful Internet content of their choice.

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are

³⁴ *Id.* at 53.

entitled to run applications and use services of their choice, subject to the needs of law enforcement.

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to connect their choice of legal devices that do not harm the network.

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to competition among network providers, application and service providers, and content providers."³⁵

The Commission then stated that it "[...] will incorporate the above principles into its ongoing policymaking activities" with an important two-point footnote proviso:

"Accordingly, we are not adopting rules in this policy statement. The principles we adopt are subject to reasonable network management."³⁶

Merger and license conditions provide another vehicle for network neutrality regulation

Network neutrality concerns were stimulated at least in part by the consolidation of the American telecom and cable industries during the past decade and the consequential concern about the "market power" flowing from the consolidations. Activists and telecommunications-dependent businesses have always been concerned that the consolidation would increase network providers' market power and lead to less competition and higher prices. "Network neutrality" was the name given to these concerns.

Before approving a license transfer in a merger or similar transaction involving major telecommunications companies, the FCC has typically required the merging companies to offer a series of conditions regarding their post-merger behavior. Many of these merger conditions deal with competition issues and it was therefore quite natural that conditions would be sought and offered concerning "network neutrality," once the term came into popular use. More recently, the FCC has considered attaching some

³⁵ FCC Policy Statement, FCC 05-151, released. Sept. 23, 2005, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.doc. (italics in original).

³⁶ *Id.*

network neutrality conditions to the issuance of new wireless spectrum licenses.

The Verizon-MCI and SBC-AT&T mergers provided the first opportunity to address network neutrality in the context of a license transfer condition. The FCC's orders approving the transaction included one condition relating to network neutrality:

"Net Neutrality

Effective on the Merger Closing Date, and continuing for two years thereafter, Verizon/MCI will conduct business in a manner that comports with the principles set forth in the FCC's Policy Statement, issued September 23, 2005 (FCC 05-151)."³⁷

Shortly after the MCI-Verizon and SBC-AT&T mergers were approved by the FCC, but before the Orders were released, the former Chairman of SBC (now AT&T) made a comment in *Business Week* that inflamed the "network neutrality" debate. According to the article:

"Pressed on the threat from these Web upstarts, [Chairman] Whitacre leans forward in his chair and raises his voice. "They don't have any fiber out there. They don't have any wires. They don't have anything," he argues. "They use my lines for free -- and that's bull. For a Google or a Yahoo! or a Vonage or anybody to expect to use these pipes for free is nuts!"³⁸

More recently, three network neutrality conditions were included in connection with the merger of AT&T (formerly SBC) with BellSouth that was approved by the FCC at the end of 2006. The first condition agreed to by AT&T simply repeated its earlier commitment to respect the FCC's Broadband Policy Statement:

"1. Effective on the Merger Closing Date, and continuing for 30 months thereafter, AT&T/BellSouth will conduct business in a manner that

³⁷ Order Approving Verizon-MCI Merger, released Nov. 17, 2005, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-184A1.pdf; the same condition was included in SBC-AT&T Merger order released Nov. 17, 2005, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-183A1.pdf. For the referenced Policy Statement, see notes 35 and 36 and accompanying text.

³⁸ See, http://www.businessweek.com/magazine/content/05_45/b3958089.htm.

comports with the principles set forth in the Commission's Policy Statement, issued September 23, 2005 (FCC 05-151)." ³⁹

The second commitment is a much more specific network neutrality commitment applicable to AT&T's wireline (but not to wireless) Internet access:

"2. AT&T/BellSouth also commits that it will maintain a neutral network and neutral routing in its *wireline broadband Internet access service*. This commitment shall be satisfied by AT&T/BellSouth's agreement not to provide or to sell [...] any service that privileges, degrades or prioritizes any packet transmitted over AT&T/BellSouth's wireline broadband Internet access service based on its source, ownership or destination." ⁴⁰

However, AT&T made it perfectly clear that "neutrality" would NOT be applicable to business services and to its developing IPTV service:

"3. This commitment does not apply to [...] enterprise managed IP services, [...]. This commitment also does not apply to AT&T/BellSouth's Internet Protocol television (IPTV) service." ⁴¹

Thus, AT&T's merger commitments established the "two-tier" internet feared by proponents of network neutrality: a "neutral" low-speed, conventional internet and a non-neutral sophisticated, high capacity internet. Many observers believe that this two-tier arrangement is a precedent for the outcome of any overall network neutrality regulations:

"Not only is there a framework for language, the [AT&T-BS merger] condition also provides a structure for how to address the issue. It essentially obligates the company to offer a service (broadband Internet access) for which traditional common-carrier-like network neutrality rules would apply, while exempting from those obligations other services (such as enterprise VPN, mobile wireless, IPTV, etc.) for which policymakers do not see a need for non-discrimination." ⁴²

³⁹ AT&T Merger Commitments attached to AT&T's Dec. 28, 2006 letter to FCC. The letter was attached to the FCC's Dec. 29 press release announcing approval of the merger, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-269275A1.pdf

⁴⁰ *Id.*, italic added.

⁴¹ *Id.*

⁴² Stifel Nicolaus, "Washington Telecom Weekly," Jan. 5, 2007.

FCC enforcement action provides a venue for resolving net neutrality issues on a case-by-case basis

Opponents of network neutrality regulation often suggest that it would be better to "wait and see" if any problems actually develop and then have regulators respond to specific instances of abuse (*i.e.*, *ex post* regulation). Supporters of network neutrality often express concern that the regulatory process isn't fast enough to stop abusive practices before considerable damage is done, and they therefore argue for *ex ante* regulation.

In early 2005, Vonage determined that Madison River Telephone Co., a small rural telephone company, was preventing its DSL customers from accessing Vonage's VoIP service, presumably to protect Madison River's conventional telephone service from competition. The FCC reacted with amazing speed to stop Madison River from blocking access to Vonage. The Commission's Enforcement Bureau opened an investigation on February 11, 2005 and by March 3 had negotiated a settlement where:

"[...] the Bureau requires, and Madison River agrees, that Madison River shall not block ports used for VoIP applications or otherwise prevent customers from using VoIP applications."⁴³

It is worth noting that this enforcement action was brought as a violation of a common carrier obligation under Sec. 201(b) which requires that:

"All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is hereby declared to be unlawful."⁴⁴

Shortly after the *Madison River* decision, the FCC decided that a telephone company's DSL internet access service - the service at issue in the case - is an information service subject to Title I of the Communications Act, not a common carrier service subject to Title II (including Sec. 201).⁴⁵

However, the reclassification of DSL as an information service does not mean that the FCC would be indifferent to the sort of blocking conducted by Madison River. In the reclassification proceeding (*Wireline Broadband Framework*), the Commission said:

⁴³ FCC Consent Decree, DA 05-543, March 3, 2005.

⁴⁴ 47 U.S.C. 201(b).

⁴⁵ See discussion of *Wireline Broadband Framework* at pp. 11-13, *supra*.

"While we agree that actively interfering with consumer access to any lawful Internet information, products, or services would be inconsistent with the statutory goals of encouraging broadband deployment and preserving and promoting the open and interconnected nature of the public Internet, [citing to *Broadband Policy Statement*] we do not find sufficient evidence in the record before us that such interference by facilities-based wireline broadband Internet access service providers or others is currently occurring [...]. Should we see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles, we will not hesitate to take action to address that conduct."⁴⁶

It is worth noting that no systemic violation of network neutrality principles has come to light, despite close observation of the situation by internet-dependent businesses and militant internet advocates. So far, therefore, State and federal agencies that have looked at the issue have all concluded that *ex ante* government intervention is not currently necessary.

If "market power" is the root problem, can greater broadband competition assuage network neutrality concerns?

The history of telecommunications regulation in the United States has been the history of government intervention to prevent or at least mitigate the adverse consequences of carriers' "market power" which has typically resulted from a carrier's control of the "last mile" connection between the user and broad telecom network. The 1982 Consent Decree that broke up the Bell System and the Telecommunications Act of 1996 are but two significant examples of actions designed to mitigate "last mile" market power, the first by imposing structural separation and the second by encouraging local competition.

As the market power of network operators has changed from the total monopoly prior to the 1960s to the broad although imperfect competition of today, policies based on the degree of market power have changed accordingly. For example, the FCC justified its virtual abolition of the *Computer Inquiry* rules on such a change of circumstances, saying:

⁴⁶ The FCC added, "Federal courts have long recognized the Commission's authority to promulgate regulations to effectuate the goals and accompanying provisions of the Act in the absence of explicit regulatory authority, if the regulations are reasonably ancillary to the effective performance of the Commission's various responsibilities. [citations omitted]." *Wireline Broadband Framework*, note 24, *supra*, at 52.

"[...] we determine that the competitive pressures and technological changes that have arisen since 1990 have reduced the BOCs' incentive and ability to discriminate against unaffiliated ISPs in their provision of broadband Internet access service [...].⁴⁷

[...] We fully recognize that not all American households can choose between cable modem and DSL-based Internet access service today. [...] There are, however, other existing and developing platforms, such as satellite and wireless, and even broadband over power line in certain locations, indicating that broadband Internet access services in the future will not be limited to cable modem and DSL service."⁴⁸

Some of the strongest proponents of network neutrality regulations agree that such regulations wouldn't be required if there was sufficient competition to curtail the "last mile" market power that permits discrimination. For example, Google's chief network neutrality spokesperson said:

"The best long-term answer to this problem is significantly more broadband competition [...]

Most consumers face few choices among broadband carriers, giving carriers tremendous market power. [...] As a result, carriers increasingly will have an economic incentive to use their power to block competitors, seek extra payments to ensure that Internet content can be seen, and generally control consumer activity online.

Were there sufficient competition among and between various broadband networks, Google's concerns about the future of the Internet would largely be allayed. Unfortunately, [...] nearly half of all consumers lack meaningful choice in broadband providers.⁴⁹

Of course, opponents of network neutrality rules agree with the FCC that there is already more than enough broadband competition to ameliorate any market power and discrimination concerns. A spokesperson for the telephone service industry said:

"In a new communications era defined by multiple choices - multiple communications pathways - consumers simply will not continue to purchase service from a provider that seeks to block or restrict their Internet access. When consumers have choices in the marketplace, consumers have control. There is vigorous competition between DSL,

⁴⁷ *Wireline Broadband Framework*, note 24, *supra*, at 26.

⁴⁸ *Id.* at 28-29.

⁴⁹ Senate Testimony of Vint Cerf, Vice President and Chief Internet Evangelist, Google, Feb. 7, 2006.

cable modem, wireless, satellite, and other Internet access providers." ⁵⁰

Wireless internet access is growing rapidly and, based solely on the number of users, it would appear that the much feared cable-telco broadband duopoly is threatened by wireless broadband, ⁵¹ minimizing network neutrality risks. However, the bandwidth required for new video-oriented services (e.g., streaming video, YouTube, IPTV, videoconferencing, etc.) may overwhelm wireless broadband services, meaning that the market power and discrimination potential of the cable-telco duopoly may be untouched. This potential was described by one Wall Street analyst who observed that:

"[...] the debate will end up being largely about high-bandwidth real-time uses, such as live or interactive video and gaming. As such, it could be that there will be increasing "broadband" competition but, for some significant time, only two local broadband providers capable of facilitating video, gaming, and other high-bandwidth real-time uses. If wireless or some other technology cannot eventually offer such a high bandwidth pipe, it could drive network neutrality concerns to move from broadband, generally, to "big" broadband networks, particularly." ⁵²

Since some markets will have multiple broadband networks while others, particularly remote and rural markets, may have none or just one, the danger of network neutrality abuses may vary inversely to the number of broadband systems. This implies that any network neutrality problems might be quite localized, so that any regulations would need to be tailored to the localized circumstances of each market, something more easily accomplished in an *ex post* fashion.

■ What's next?

In the near-term, the answer is probably "nothing...just more rancorous debate." This answer, of course, assumes that there are no (or very few) instances of actual network neutrality problems of the *Madison River* sort, which is the situation to date. Two major network operators (Verizon and

⁵⁰ Senate Testimony of Walter B. McCormick, Jr., President & CEO, United States Telecom Assoc., Feb. 7, 2006.

⁵¹ See, e.g., Morgan Stanley, "Speed Is Key as Broadband Market Matures," Jan. 26, 2007.

⁵² Stifel Nicolaus, "Net Neutrality: Value Chain Tug of War," March 2006.

AT&T) are bound by merger conditions that require adherence to the FCC's "Broadband Policy Statement" and nearly every other internet access supplier has stated that they will comply with the FCC policy, so the prospect of another *Madison River* is slight. In the absence of a broad public outcry that another *Madison River* might engender, neither the FCC or Congress is unlikely to act until after the next Presidential election, at the earliest.

This does not mean that the *status quo* will prevail for the foreseeable future. If Network Neutrality is regarded as merely the next phase of the ongoing 30-year *Computer Inquiry* saga, then it would be reasonable to assume that policies and rules will be subject to the same periodic adjustments based on technology, market and market power changes. Such a changeable future has been suggested by astute Wall Street analysts, who noted:

"[...] in the early days of the Internet, the government's "enhanced service provider exemption" gave Internet service providers (ISPs) leverage with telco networks, creating an opportunity for companies such as AOL and EarthLink to grow in a narrowband world. As broadband emerged, the government largely rejected AOL's "open access" campaign and eased telco regulation, shifting leverage back to the telcos and cable over the ISPs.

Government action was based on fact-specific situations and does not, in our view, provide reliable indicators of how it will react to the current network-edge battle. *History does suggest, however, that government is willing to wade into these value-chain disputes to shift the negotiating leverage, and further, that it also has been willing to reverse its policy direction if it thinks that the leverage has shifted too far in one direction.* Thus, network neutrality should not be seen as a one-time debate in which a single decision will resolve every issue permanently."⁵³

And the FCC has clearly stated that it's current policy can and will be changed in response to changing circumstances. It said:

"The Commission is free to modify its own rules at any time to take into account changed circumstances. [...]. As such, in our discretion, subject to reasoned explanation, we are free to alter the policy judgment reflected in those requirements based on our assessment of their relevant costs and benefits in light of changed technological and market conditions."⁵⁴

⁵³ *Id.* (emphasis supplied)

⁵⁴ *Wireline Broadband Framework*, note 24, *supra*, at 44.

■ Conclusion

Network Neutrality is not a new issue. It is just the latest in a series of disputes about market power and discrimination that started with the invention of the telephone more than 100 years ago. Since the beginning of the "convergence" of computers and telecommunications 30 years ago, the FCC (and Congress and the States to lesser extents) has periodically adjusted policy regarding the involvement of network operators in "computer" services. When the power of the network operators was substantially greater than that of the computer services sector, the government's policy, on an *ex ante* basis, was to impose structural separation, first to exclude and then to substantially regulate the network operators' involvement in "computer" services. As the size and strength of the computer services sector increased rapidly relative to network operators' toward the end of the 20th century with the flowering of the "Internet Age" and the advent of competition in the telecommunications sector, all *ex ante* restrictions on the network operators were largely removed.

Proponents of "Network Neutrality" regulations now believe that the balance between "telecom" and "computer" is in danger of tipping back in favour of "telecom" and they are therefore urging the adoption of strong *ex ante* rules to prevent such a change. Their opponents think the balance is just fine.

Time will tell who is right. What seems clear from the history is that government will step in if the balance tips "too much" in the direction of *either* "telecom" or "computer." With militant network neutrality advocates and huge internet-dependent businesses keeping a careful eye on network operators' behavior, network operators are unlikely to risk stimulating government intervention by abusing their position. So, in summary, "network neutrality" is inevitable either because the government will not permit abusive non-neutrality or because the service suppliers won't "cross the line" and behave in a manner that leads to regulation. This will undoubtedly leave a "gray area" where some people will object strenuously to network operators' behavior, but the misbehavior will not be great enough to stimulate government intervention.