

CONSUMER CHOICE: IS THERE AN APP FOR THAT?

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INTRODUCTION

The popular commercial for Apple, Inc.'s iPhone suggests there is an App for everything. Mostly, they are right: there are around 425,000 Apps and counting for their cutting-edge cell phone.¹ But the business practices of Apple, AT&T Mobility, Inc., and their industry companions make it clear that consumer choice is not available for download. While unprecedented capabilities of the iPhone and other mobile phones exist, consumers are strangled by carriers' anti-consumer and anti-innovation practices. This is not to say that carriers are acting malevolently; rather,

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1. From the App Store, APPLE, INC., <http://www.apple.com/iphone/apps-for-iphone> (last visited Dec. 10, 2011).

they believe it is in their economic interest to restrict features and tie consumers to long-term contracts, among other anti-competitive behaviors. This Note advocates against this contention, arguing that openness and competition lead to a better outcome for both consumers and carriers.

This Note begins with an examination of the current market conditions for U.S. wireless players. Part I explores the current market in wireless telecommunications and the attendant business model in the United States, focusing on the use of technology and contracts to lock in subscribers. Part II concludes that this model hurts consumer choice and stifles innovation. Part III discusses what government entity is best situated to make positive changes to the system. Part IV advocates for a new regulatory framework based on the most capable entity and sensible policy changes, and then turns to argue it is in consumers' and carriers' interests to accept change.

Moreover, the wireless market is evolving into delivery of many services—Internet, games, music, and more. This presents regulators with a unique opportunity to steer the industry to an optimum outcome, without quashing competition and innovation. This Note operates under the assumption that competition in our market economy is good. Judge Learned Hand said it best: “immunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress.”² Economic theory and proclivities aside, empirical studies suggest that, in the wireless industry, customer satisfaction, loyalty, and retention are in the interests of the providers.³ Satisfaction with the wireless service is a strong predictor of loyalty and performance of the service is predictive of satisfaction.⁴ Therefore, competition spurs innovation and choice. Competition and choice improve services and prices to consumers. The improvements offer more satisfaction to the consumers, who then remain loyal to services they are happy with. By improving competition, consumer choice and utility is improved, as well as the retention of customers for the carriers.

I. THE CURRENT WIRELESS TELECOMMUNICATIONS MARKET

It should be no surprise that four large companies dominate the wireless market: AT&T, Verizon, Sprint, and T-Mobile.⁵ There are small

2. *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 427 (2d Cir. 1945).

3. Abdolreza Eshghi et al., *Determinants of Customer Loyalty in the Wireless Telecommunications Industry*, 31 TELECOMM. POL'Y 93, 94 (2007).

4. *Id.*

5. *AT&T to Beat Verizon as Top Wireless Carrier in Second Quarter*, WIRELESS INDUSTRY NEWS (Aug. 10, 2010), <http://www.wirelessindustrynews.org/news-aug-2010/2063-081010-win-news.html>.

regional carriers, but in terms of national power, they are insignificant. This is partly evidenced by the Herfindahl-Hirshman Index (HHI), the market concentration index used by the Department of Justice Antitrust Division. Commonly used in merger cases with concerns of a market becoming too concentrated or noncompetitive, the HHI is a good indicator of competition in a given market. In the wireless telecom market, the HHI is estimated between 2000 and 6000.⁶ Any score of more than 1800 raises significant concerns.⁷ When considering the wireless broadband market, Professor John Blevins argues that the market has become increasingly consolidated, with six firms in the year 2000, down to four major firms today.⁸ These are, of course, the four big wireless carriers. He further argues that the big four have used laws, even those that are facially neutral, to protect and expand their market position. Moreover, these large wireless firms have used their size to increase barriers to entry and keep wireless service as a complementary, rather than substitute, good. Consequently, it seems clear that the big companies are aware of their clout, and not afraid to use it.

Therefore, each of the four large carriers wields a tremendous amount of power in the market. AT&T and Verizon make up approximately 60% of the market share, making them the largest two.⁹ They protect market control in at least three ways: using technology to

6. Tim Wu, *Wireless Carterfone*, 920 PLI/Pat 413, 419 (2007) (citing multiple studies that calculated the HHI in the mid-2000's). As of the writing of this article, AT&T is trying to buy T-Mobile. Anton Troianovski et al., *AT&T's T-Mobile Deal Teeters*, WALL ST. J., Nov. 25, 2011, available at <http://online.wsj.com/article/SB10001424052970204452104577057482069627186.html>. Normally, these types of mergers have passed regulatory hurdles. However, AT&T is encountering resistance. The Department of Justice filed suit to enjoin the merger under antitrust issues. Moreover, because it is a telecommunications merger, the FCC also reviews it. In November 2011, AT&T withdrew its petition to the FCC to focus on fighting the DOJ suit as well as reserved a \$4 billion accounting charge for the break up fee payable to T-Mobile should the merger be denied. This merger would lead to further market concentration and presents significant consumer concerns. See Eyder Peralta, *Would AT&T Merger With T-Mobile Hurt Consumers?*, npr.com (Aug. 31, 2011), <http://www.npr.org/blogs/thetwo-way/2011/08/31/140089442/would-an-at-t-mobile-merger-hurt-consumers>. Moreover, there is evidence that AT&T is more concerned with killing a competitor rather than expanding coverage as it argues. An internal document from AT&T was inadvertently filed with the FCC stating that AT&T could build out the network for a tenth of the purchase price. Kari Bode, *Leaked AT&T Letter Demolishes Case for T-Mobile Merger*, DSLREPORTS.COM (Aug. 12, 2011), <http://www.dslreports.com/shownews/Leaked-ATT-Letter-Demolishes-Case-For-T-Mobile-Merger-115652>. The likelihood of success of the merger remains unclear, however, and is something that consumers should follow closely.

7. For more information on HHI, see generally U.S. DEP'T OF JUSTICE, *Concentration and Market Shares*, in HORIZONTAL MERGER GUIDELINES 1.5 (1992), available at http://www.justice.gov/atr/public/guidelines/horiz_book/15.html.

8. John Blevins, *Death of the Revolution: The Legal War on Competitive Broadband Technologies*, 12 YALE J.L. & TECH. 85 (2010).

9. *Id.* at 93.

control what phones are on the network, selling phones with contracts and subsidies, and making the transaction costs of switching to a competitor high.

There are two main technologies used for cell phones: Code Division Multiple Access (CDMA) and Global System for Mobile Communications (GSM).¹⁰ Verizon and Sprint both use CDMA. AT&T and T-Mobile use GSM. CDMA uses a serial number that is required to interface with the network. In essence, the carrier knows exactly what phone is on the network because of the serial number. Consequently, Verizon, for example, is the gatekeeper of all phones on its network.¹¹ Sprint reluctantly does allow non-Sprint-sold devices on its network but they discourage this by refusing technical support and offering other perks for playing by the rules.¹²

Conversely, GSM uses Subscriber Identity Module (SIM) cards to connect. The SIM card provides the interface between the phone and the network. GSM accounts for 85% of the worldwide market for cell phone technology.¹³ As a result, travelers could simply switch out SIM cards when arriving in another country rather than paying roaming charges. This is most easily done with prepaid SIM cards where no contract is necessary. While this sounds simple—and it is—the current U.S. carriers prevent you from doing this through a process called locking. The software on the phone can be locked so it only works with a single carrier's SIM card. Consumers seemingly want the flexibility the SIM card offers and a small industry has developed of shops that hack the software and unlock the phone for you for a fee or allow you to purchase an already unlocked phone from the shop. However, these shops are little known. As a token compromise, some carriers, namely Sprint, will give the unlock code to the subscriber once all the contract terms have been fulfilled.¹⁴ However, AT&T refuses to give unlock codes to iPhone users—the only phone that has this distinction on their network.¹⁵

10. With the recent release of the Verizon iPhone, a direct comparison of how the different technology affects the features of the same phone, namely the Apple iPhone, see Dusan Belic, *Apple Details Differences Between CDMA and GSM iPhones*, INTOMOBILE (Feb. 19, 2011), <http://www.intomobile.com/2011/02/19/apple-differences-cdma-gsm-iphones>. For information on GSM v. CDMA generally, see John Herrman, *Giz Explains: What's the Difference Between GSM and CDMA*, GIZMODO (Sept. 14, 2010), <http://gizmodo.com/#!5637136/giz-explains-whats-the-difference-between-gsm-and-cdma>.

11. Wu, *supra* note 6, at 426.

12. Michael T. Hoeker, *From Carterfone to the iPhone: Consumer Choice in the Wireless Telecommunications Marketplace*, 17 COMMLAW CONSPECTUS 187, 203 (2008).

13. Timothy J. Maun, *iHack Therefore iBrick: Cellular Contract Law, the Apple iPhone, and Apple's Extraordinary Remedy for Breach*, 2008 WIS. L. REV. 747, 755 (2008).

14. Hoeker, *supra* note 12, at 203-04.

15. Chloe Albanesius, *AT&T Deal to Let Users Unlock Phones, But Not iPhones*, PC MAGAZINE (May 26, 2010), <http://www.pcmag.com/article2/0,2817,2364211,00.asp>; Mike Dano, *Under Settlement, AT&T to Unlock Phones—But Not the iPhone*, FIERCE WIRELESS

However, industrious consumers are not deterred and have developed a way of “jailbreaking” the iPhone: a software program that changes some of the code in the iPhone software to unlock it and open it up to other GSM carriers and other third party (non-Apple-approved) apps.¹⁶ This spurred much gray market activity for the iPhone, especially in China where phones were bought in the U.S., then immediately unlocked and sold for two to three times the price in China.¹⁷ This led some to comment on the “missing iPhones” phenomenon.¹⁸

Not only does the technology allow the carriers to control the market at the point of sale, but the current business model in the U.S. is also that the carriers sell the phones with a required contract. The carrier subsidizes the phone and then recoups that subsidy throughout the contract term (usually 2 years). This means that the consumer must trade fewer choices of phones and being locked into a contract for lower upfront cost. In other words, carriers “enforce customer loyalty.”¹⁹ A byproduct of this model is that carriers exert control over the phone manufacturer—sometimes even requiring the manufacturer to cripple features of the phone that the carrier does not approve of. Not only does this hurt choice but it also stifles innovation by punishing creation of cutting-edge features.²⁰

II. IN THE CURRENT MARKET, WE LOSE

Competition is good. It leads to greater choice in a market for consumers and advances innovation of essential communication technologies. The current cellular market is at best an oligopoly; at worst, a cartel. As noted, the big four carriers use the technology to restrict choice and as a result cause *de facto* vertical integration. Wireless consumers are increasingly unhappy with the service yet unable to choose an alternative.²¹ This market shift is accompanied by the

(May 25, 2010), <http://www.fiercewireless.com/story/under-settlement-t-unlock-phones-not-iphone/2010-05-25>.

16. Early responses to this from Apple included releasing a software update that “bricked” the phone if it had been unlocked. The effect of this was to destroy the product. Then Apple refused to honor the warranty on the phone, prompting lawsuits. Maun, *supra* note 13, at 753; Ian Shapira, *A Black Market for iPhone Apps Takes Off*, WASH. POST, Apr. 8, 2011, at A11; Marin Perez, *iPhone 3G Reportedly Unlocked*, INFORMATIONWEEK.COM (Dec. 17, 2008), http://www.informationweek.com/news/personal-tech/smart-phones/212500994?cid=RSSfeed_IWK_All.

17. Hoeker, *supra* note 12, at 198-99.

18. *Id.*

19. Maun, *supra* note 13, at 755.

20. See Wu, *supra* note 6, at 445-46.

21. Amit M. Schejter et al., *Policy Implications of Market Segmentation as a Determinant of Fixed-Mobile Service Substitution: What it Means for Carriers and Policy Makers*, 27 TELEMATICS AND INFORMATICS 90, 100-01 (2010).

demographic shift as wireless consumers become less affluent and younger.²² Compared to land line services, wireless services are now becoming viewed as a substitute, rather than complementary, service, meaning that these younger, lower-income consumers are choosing wireless over wire line but are not pleased with the choice of services.²³

The four major carriers use a contract model that locks in consumers for a specified term, usually two years. Non-contract plans have grown in popularity and consumers experience high levels of satisfaction with both monthly and pay-as-you-go plans.²⁴ Verizon, AT&T, and T-Mobile offer pay-as-you-go, or prepaid, plans on some phones.²⁵ The prepaid plans offered by these three large carriers are restricted to only a few phones and consumers view the plans as not the best deals on non-contract plans.²⁶ In the contract model, those who want to switch carriers or stop service may be subject to termination fees in the hundreds of dollars.²⁷ Since *Gatton v. T-Mobile*, discussed below, carriers prorate the termination fee, but the punishment is clear.²⁸ These termination fees raise the transaction cost of abandoning service with one major carrier to go to another. They act as a deterrent and ensure that whether the contract term is fulfilled or not, the subsidy given with the phone at the time of sale is recouped. These fees remain a problem; even if a consumer jailbreaks the phone, they cannot switch carriers unless they continue to pay the contract they desire to break or pay the termination fee. Thus, even if the consumer is adding a new carrier, the old carrier hangs on one way or another.

A cottage industry developed to unlock phones. When consumers jailbroke their iPhones, Apple responded with a software update that “bricked” the phones, rendering the phone useless.²⁹ Litigation resulted because Apple refused to honor the warranty. Indeed, this is not unique

22. *See id.*

23. *Id.*

24. 2011 U.S. WIRELESS NON-CONTRACT CUSTOMER SATISFACTION INDEX STUDY, J.D. POWER & ASSOC. (2011), available at <http://www.jdpower.com/news/pressRelease.aspx?ID=2011035> (Boost Mobile, a carrier that offers a non-contract monthly plan, is the highest ranked carrier of its kind.).

25. *See* each carrier's website: SPRINT, http://shop.sprint.com/mysprint/shop/plan/plan_wall.jsp?INTNAV=ATG:HE:Plans; VERIZON, <http://www.verizonwireless.com/b2c/plans/?page=prepaid>; AT&T, <http://www.wireless.att.com/cell-phone-service/go-phones/index.jsp#fbid=j1QSyCB4NmE>; T-MOBILE, <http://prepaid-phones.t-mobile.com/pay-as-you-go-plans>.

26. J.D. POWER & ASSOC., *supra* note 24.

27. *See, e.g.,* Early Termination Fee, SPRINT, http://shop2.sprint.com/en/services/termination_fee/early_termination_fee.shtml (last visited Dec. 10, 2011) (“early termination fee of up to up to [sic] \$350/line for Advanced Devices & up to \$200/line for all other devices”).

28. *See id.*; *infra* III (B).

29. Maun, *supra* note 13, at 753.

to iPhones; Microsoft Mobile OS also bricks if it is unlocked under certain conditions.³⁰ Complaints of Android phones being bricked are also widespread.³¹

Consumers are also punished with a dearth of choice of phones. Manufacturers are bullied by carriers into crippling phones. Professor Wu argues that phones were crippled in at least four ways: call timers, photo sharing, Bluetooth, and WiFi.³² Carriers coerced developers to take out call timers so that consumers could not tell how long they were on the phone or how many minutes they had used in a given month, and thus preventing an independent record for billing purposes.³³ As phones developed cameras, carriers wanted to force consumers to subscribe to photo-sharing sites that cost a monthly fee rather than allowing simple emailing from the phone for free (excluding the charges for data of course, which were also charged for the photo-sharing website upload).³⁴ Bluetooth is technology that allows connectivity at short distances among devices. This technology undermined the carriers' practices of photo sharing and other file transfer and printing capabilities.³⁵ WiFi was also restricted because the subscriber would avoid using the data services of the carrier, thus cutting into carrier revenue.³⁶

Notably, the Nokia e61 phone was released in Europe in 2006 with full capabilities.³⁷ The e61 was touted as the flagship product and a serious challenger to the Blackberry handset.³⁸ However, it never made it to the U.S.; only its crippled offshoot, the e62, did.³⁹ The e62 did not have WiFi or other features advantageous to consumers.⁴⁰ Much of the fear of the U.S. carriers centered on the ability of the e61 to utilize Voice over Internet Protocols (VoIP)⁴¹ calls through WiFi without using the

30. *Beware Windows Phone 7 Become a Brick After the Unlock with Chevron WP7*, MOBILE.DOWNLOADATOZ (Nov. 27, 2010), <http://mobile.downloadatoz.com/news/953,beware-windows-phone-7-become-a-brick-after-the-unlock-with-chevron-wp7.html>.

31. Devin Coldewey, *Droid-X Actually Self-Destructs if You Try to Mod It*, TECH CRUNCH (July 14, 2010), <http://www.mobilecrunch.com/2010/07/14/droid-x-actually-self-destructs-if-you-try-to-mod-it/>.

32. Wu, *supra* note 6, at 427-30

33. *Id.* at 427.

34. *Id.* at 427-28.

35. *Id.* at 427.

36. *Id.* at 428-29.

37. *Id.* at 427.

38. *Id.*

39. *Id.*

40. *Id.*

41. VoIP utilizes an Internet connection to deliver voice phone service. Internet VoIP usually goes through a computer, although with smartphones using WiFi, it would be possible to use that WiFi connection for VoIP service. See Voice-Over-Internet Protocols, FEDERAL COMMUNICATIONS COMMISSION, <http://transition.fcc.gov/voip/> (last visited Dec. 10, 2011). The most popular software-based VoIP service is Skype. Nadeem Unuth, *Software-Based*

data or phone services of the carrier.⁴²

The carriers were continuing business as usual until Apple, Inc. wanted to find a carrier for its iPhone. Apple was unique because it was an electronics giant that wanted to control the features and aftermarket capabilities of the phone. Verizon dismissed them. AT&T agreed under an exclusivity contract, the terms of which are not public.⁴³ The deal is unprecedented because it provides for revenue sharing between AT&T and Apple at an estimated \$10-18 per iPhone per month.⁴⁴ While the iPhone was an important step toward consumer choice because it stood up to the practices of the carriers, it was more of a half-step because Apple sought control as well. For example, the iPhone software does not support Adobe Flash, thus blocking access to some web sites.⁴⁵ Also, more importantly, Apple restricts the ability of the consumer to load Apps on the phone because each App must be approved by Apple unless the iPhone has been jailbroken, in which case the consumer can access a third-party App market such as Cydia.⁴⁶ In order to get approval from Apple, the developer must purchase Apple's Software Development Kit (SDK).⁴⁷ The developer must submit to Apple's rules and Apple gets 30% of all revenue.⁴⁸ Notably, Apps that modify or replace Apple's "Native" Apps, such as email or web browsers, are not allowed. Despite this, the iPhone was long seen as the champion of the mobile phone development market.⁴⁹

VoIP Services and Applications, ABOUT.COM, <http://voip.about.com/od/voipsoftware/aSoftphoneList.htm> (last visited Dec. 10, 2011). Vonage challenges many of the wire line providers for home service that connects to a standard phone. VONAGE, <http://www.vonage.com> (last visited Dec. 10, 2011).

42. Wu, *supra* note 6, at 430.

43. Hoeker, *supra* note 12, at 197-98.

44. *Id.*

45. Steve Jobs, *Thoughts on Flash*, APPLE.COM (Apr. 2010), <http://www.apple.com/hotnews/thoughts-on-flash/>.

46. Cydia is an App store much like what Apple runs but without Apple's restrictions and can only be accessed by a user who has jailbroken the iPhone. This means that any developer can sell an iPhone user an App, and since the phone has been jailbroken, the restrictions placed on iOS by Apple disappear. Cydia is therefore a competitor to the AppStore, albeit with some risk to the user because to access it, the user would need to break away from Apple. See *Cydia is Debian APT on the iPhone*, MODMYI.COM, <http://modmyi.com/cydia/search.php> (last visited Dec. 10, 2011).

47. iOS Developer Program: 1. Develop, APPLE DEVELOPER, <http://developer.apple.com/programs/ios/develop.html> (last visited Dec. 10, 2011).

48. iOS Developer Program: 3. Distribute, APPLE DEVELOPER, <http://developer.apple.com/programs/ios/distribute.html> (last visited Dec. 10, 2011).

49. Brad Reed, *SDK Showdown: Apple iPhone v. Google Android*, PCWORLD.COM (Apr. 23, 2008), http://www.pcworld.com/article/145035/sdk_showdown_apple_iphone_vs_google_android.html; see also David Pogue, *An Open Question: Is Open Source Better?*, SCIENTIFIC AMERICAN.COM (Jan. 31, 2011), <http://www.scientificamerican.com/article.cfm?id=an-open-question> (expressing uncertainty of which model – the iPhone or Android – is better for consumers and what leads to the large

The introduction of Google's Android operating system has also challenged practices as usual. The Android system is unique because it is based on an open-source platform.⁵⁰ Open-source programs are software offered with the source code open to the users to use and modify, creating a customizable product.⁵¹ The Linux operating system (on which Android is based) is an example of this in the personal computer world. Android licenses code to developers under the Apache Software License 2.0 and requires individual and corporate developers to sign a Contributor License Grant.⁵² But, as with Apple and the iPhone, Google takes a portion of revenue when using its marketplace. Google's entrance into the phone operating system market provides important competition to Apple and provides a customizable platform for the consumer.⁵³ Unfortunately, the consumer is still strangled by the carriers as the cell phone becomes more than just a phone.

Technology is certainly the most advanced it has ever been. Each phone has become the "third screen."⁵⁴ But if the carriers continue to dictate the terms of consumer contracts and manufacturer features, innovation will suffer. This is already a reality in the way that carriers treat media services and in what is known as the "walled garden restriction."⁵⁵ This restriction essentially uses the technology to lock in the consumer to the content that is approved by the carrier and the phone manufacturer. A notable example is the Apple AppStore. The iPhone can access the many thousands of Apps available for free or for a fee. On its

sales of both).

50. About the Android Open Source Project, ANDROID OPEN SOURCE PROJECT, <http://source.android.com/about/index.html> (last visited Dec. 10, 2011).

51. The current hot topic in the technology world is open-source v. proprietary software. Proprietary software is developed by companies that allow use based on strict licenses (e.g. Microsoft Office). All software is built on source code, from which the application is filled out. Instead of one company developing their source code and the applications, open source allows anybody to access the source code and make changes and customize it for their use. One advantage to this is that more secure applications can be built because of countless testers rather than one set of Quality Assurance employees. Open source also allows for more choice by the consumer because of the modifications made by the programming community. *See generally* Why Open Source?, REDHAT, <http://www.redhat.com/about/whyopensource/> (last visited Dec. 10, 2011). Regardless of the debate, open source is gaining prominence as evidenced by a NASA summit on the subject. Dan Rowinski, *NASA to Host Open-Source Summit*, GOV'T COMPUTER NEWS (Mar. 14, 2011), http://gcn.com/articles/2011/03/14/nasa-to-host-open-source-summit.aspx?sc_lang=en.

52. Licenses, ANDROID OPEN SOURCE PROJECT, <http://source.android.com/source/licenses.html> (last visited Dec. 10, 2011).

53. For a review of the two operating systems, *see* Priya Ganapati, *Apple iOS 4 v. Google Android 2.2: How Do They Stack Up?*, WIRED.COM (June 7, 2010), <http://www.wired.com/gadgetlab/2010/06/comparison-apple-versus-android/>.

54. Rob Frieden, *Lock Down on the Third Screen: How Wireless Carriers Evade Regulation of Their Video Services*, 24 BERKELEY TECH. L.J. 819, 820 (2009) (defining the "third screen").

55. *Id.*

face, this seems positive, but with a deeper look, it is quite restrictive. Apple requires that it approve all the Apps available for download while also taking 30% of the revenue generated from the App. Apple has been caught censoring content by not approving Apps that are against its image as a company.⁵⁶ Apple responded to circumvention of this by “bricking” phones. This downstream control is draconian and causes consumers to be unhappy with their wireless service.

Professor Freiden argues that wireless carriers should be subject to the same content nondiscrimination policies as cable companies. Because arrays of multimedia services are now available on cell phones, new problems arise for regulators. Currently, the Federal Communications Commission (FCC) seems incapable to classify carriers in multiple categories of regulation. As a result, they pick the least regulated “information services” classification rather than the heavily regulated “telecommunications” category.⁵⁷ This scheme ignores the fact that the carrier is using the telecommunications network to deliver the information services. As the carriers become increasingly vertically integrated (blending “content and conduit”⁵⁸), the loose regulatory scheme creates a situation where there is little oversight for wireless service carriers. The FCC has been inconsistent in applying this label to convergent services as evidenced by the treatment of VoIP service as a telecommunications class, thus placing strict regulation upon those companies.⁵⁹

Freiden goes on to argue that because the wireless industry, like the TV market, has anticompetitive characteristics, such as vertical and horizontal integration, carriers should be subject to the same type of regulation present in the TV market.⁶⁰ Specifically, the FCC’s Internet Policy Statement in 2005 disapproved of Comcast’s practice to restrict content and actually block access to customers that were using more data than others.⁶¹ Professor Wu points out that discrimination has already occurred in 3G broadband services.⁶²

56. See Jesus Diaz, *How Apple’s App Store Censoring Process Works*, GIZMODO.COM (Aug. 3, 2010), <http://gizmodo.com/#!5603174/how-apples-App-store-censoring-process-works> (“Even Steve Jobs publicly declared that he wanted a platform free of smut, despite the fact that you can use the Safari browser to access any web page full of true hard core porn.”). For concerns of these policies with respect to less racy subject matter, see Scott Rosenberg, *Apple as a News Censor: No Way to Run an App Store*, SALON.COM (Sept. 9, 2010), http://www.salon.com/technology/feature/2010/09/09/apple_apps_censorship_open2010. Contra Mitch Wagner, *Defending Apple’s App Store Censorship*, COMPUTERWORLD.COM (May 19, 2010), http://blogs.computerworld.com/16141/apple_censorship.

57. Freiden, *supra* note 54, at 824.

58. *Id.*

59. *Id.* at 824-25.

60. *Id.* at 822-23.

61. *Id.* at 840.

62. Wu, *supra* note 6, at 430-31.

Not only do these practices hurt consumers through lack of choice and lack of innovative products, carriers may lose as well. One study finds that customer satisfaction is a

strong determinant of customers' propensity to switch [carriers, which] implies that wireless service providers are better off in the long run if they improve customer satisfaction in an attempt to minimize customers' intention to switch providers. This is in sharp contrast to the widely used industry practice of 'locking-in' customers by restrictive contracts. Such a practice . . . constitutes a tactical short-term 'band-aid' solution to a more fundamental problem that requires a strategic response.⁶³

Carriers seem content to stifle change and their unwillingness suggests that external change is necessary in the form of regulation to encourage a more competitive market.

III. WHO CAN BE THE CONSUMER GUARDIAN?

The carriers, of course, have the power to change direction, but their practices have historically suggested that they are unwilling. Consumers alone have been unable to vote with their feet and force change. Therefore, it is up to the regulators to force carriers to adopt policies more conducive to consumer choice and innovation. But who is up to the task? The following examines past willingness to favor consumers, ability to address the current problems for the better, and who is best situated to make those changes now.

A. *The Federal Communications Commission*

The FCC is responsible for regulating the telecommunications market.⁶⁴ However, compared to traditional phone service or television, some commentators suggest that the FCC currently takes a laissez-faire approach toward wireless services, allowing carriers to run the show.⁶⁵ Professor Wu argues that the FCC can apply stricter regulation by analogy to the FCC's ruling in *Use of the Carterphone Device in Message Toll Telephone Service* in 1968.⁶⁶ The *Carterphone* decision

63. Eshghi, *supra* note 3, at 101.

64. Communications Act of 1934, 47 U.S.C. § 151 (2006).

65. See, e.g., Rob Frieden, *The FCC's Name Game: How Shifting Regulatory Classifications Affect Competition*, 19 BERKELEY TECH. L.J. 1275, 1314 (2004); ILLINOIS PIRG, CAN YOU HEAR US NOW: A REPORT ON HOW THE CELL PHONE INDUSTRY HAS FAILED CONSUMERS (2005), available at <http://www.illinoispirg.org/home/reports/report-archives/consumer-protection/consumer-protection/can-you-hear-us-now-a-report-on-how-the-cell-phone-industry-has-failed-consumers>.

66. *Use of the Carterphone Device in Message Toll Tel. Serv.*, 13 F.C.C.2d 420, 423

was a watershed moment for wire line services because it eliminated attachment restrictions by service providers. Before *Carterphone*, the AT&T monopoly claimed that only their approved phones could be connected to the network for security reasons. The decision allowed any phone to be plugged into the standard phone jack. Today, we take for granted that any phone can be plugged into any phone jack, or that any computer can be plugged into any Internet port. The provider is paid for their involvement in this scheme, but the consumer need not sign any long term contract or tell the provider when they would like to switch phones or computers. As Walt Mossberg states it: “This is the way digital capitalism should work.”⁶⁷ Many technological advancements can be traced back to the opening up of the networks for any developer to create products and sell them for use on any network. *Carterphone* was essential to this opening. As applied to wireless services, it would provide that any phone could be connected to any network, i.e. elimination of locking or similar methods. The FCC has the power to shift from the current queasiness toward wireless regulation to a *Carterphone*-esque scheme.

The mobile phone is now a mini computer and offers consumers myriad services, presenting problems for current regulatory schemes. The most recent overhaul of telecom policy was the Telecommunications Act of 1996, but technology has undoubtedly advanced beyond what those drafters could have imagined. As discussed, making a phone call is only a small part of what the mobile phone does. The multitude of services are called “converging technologies.”⁶⁸ The FCC has struggled to apply the legislative categories to the ever-morphing industry—and Congress has not offered much help.⁶⁹ Currently, the FCC must fit services offered into the regulatory classifications of radio or broadcasting, telecommunications service, cable service, or information service.⁷⁰ The FCC also tries to eliminate regulatory asymmetries—inconsistent regulations for similar services.⁷¹

However, there are other barriers to the FCC taking action. Courts have issued contradictory rulings in FCC regulatory classification cases, which are discussed below.

(1968) (Decision).

67. Walt Mossberg, *Free My Phone*, ALLTHINGS.COM (Oct. 21, 2007), <http://allthingsd.com/20071021/free-my-phone>.

68. See Frieden, *supra* note 65, at 1276.

69. *Id.*

70. *Id.* For complete definitions of these classifications, see 47 U.S.C §§ 153 (43), (46), (20) (2006); 47 U.S.C. § 522 (6) (2006).

71. Frieden, *supra* note 65, at 1276.

B. *The Judiciary*

The courts have been inconsistent on enforcing consumer rights in wireless service markets. Courts cannot be proactive, and must rule on the facts and law in front of them. They are institutionally incapable in some ways to effectuate broad change. Nonetheless, court decisions are an important piece of the puzzle.

1. Consumer Litigation

Dissatisfaction with wireless carriers has led to consumer-initiated lawsuits. In *Gatton v. T-Mobile*,⁷² consumers brought a class action alleging unfair business practices in regards to early termination fees and the sale of locked handsets.⁷³ After fighting over the arbitration clause in the service contract, the class action settled in February 2009 for money damages to those who were charged an early termination fee.⁷⁴ All of the major carriers claim to now prorate the termination fees.⁷⁵

Another class action against AT&T and Apple is ongoing in federal court in California. There, the plaintiffs allege numerous causes of action, essentially claiming that Apple and AT&T (ATTM) illegally restrained competition, locked consumers into agreements with AT&T, and punished consumers if they tried to leave.⁷⁶ The court summarized the causes of action as follows:⁷⁷

Cause of Action	Defendant
1 Monopolization of the aftermarket for iPhone applications, in violation of Section 2 of the Sherman Act	Apple
2 Attempted monopolization of the aftermarket for iPhone applications, in violation of Section 2 of the Sherman Act	Apple
3 Monopolization of the aftermarket for iPhone voice and data services, in violation of Section 2 of the Sherman Act	Apple, ATTM
4 Attempted monopolization of the aftermarket for iPhone voice and data services, in violation of	Apple, ATTM

72. *Gatton v. T-Mobile USA, Inc.*, 61 Cal. Rptr. 3d 344 (Cal. Ct. App. 2007).

73. Hoeker, *supra* note 12, at 201-02.

74. *Top Class Actions*, T-MOBILE ETF CLASS ACTION LAWSUIT SETTLEMENT, <http://www.topclassactions.com/open/427-t-mobile-etf-early-termination-fee-class-action-lawsuit-settlement> (last visited Jan. 6, 2012).

75. Hoeker, *supra* note 12, at 203.

76. *In re Apple & AT & TM Antitrust Litig.*, 596 F. Supp. 2d 1288 (N.D. Cal. 2008).

77. *Id.* at 1296-97.

Section 2 of the Sherman Act		
5	Conspiracy to monopolize the aftermarket for iPhone voice and data services, in violation of Section 2 of the Sherman Act	Apple, ATTM
6	Unfair and deceptive trade practices in violation of the consumer protection laws of 43 jurisdictions in the United States	Apple, ATTM
7	Unlawful conditioning of the iPhone warranty on consumers' use, in connection with the iPhone, of products and services "approved" by Apple, in violation of the Magnuson-Moss Warranty Act	Apple, ATTM
8	Trespass to chattels for issuance and transmission of Version 1.1.1, knowing it would alter or damage consumers' iPhone products	Apple
9	Knowing transmission of a program, which intentionally caused damage without authorization to iPhones, in violation of the Consumer Fraud and Abuse Act, 18 U.S.C. § 1030	Apple
10	Knowing transmission of a program, which accessed users iPhones without permission, resulting in damage to those iPhones, in violation of California Penal Code § 502	Apple

AT&T and Apple tried to compel arbitration and dismiss the claims, respectively. The court held the arbitration clause unconscionable and only dismissed count six because the plaintiffs failed to sufficiently allege this cause of action.⁷⁸ Subsequently, the court granted Apple's motion for summary judgment on counts eight through ten based on plaintiff's lack of injury in fact, and thus lack of standing.⁷⁹ The court also granted the motion for summary judgment on count seven because it found that Apple had replaced the plaintiff's iPhone after it became bricked.⁸⁰ Because it has taken more than two years to reach this result, it will likely be quite some time before the case is fully resolved. The counts still in dispute are the antitrust claims, which may offer the best hope for consumers.

Mark DeFeo argues that the best avenue for consumers is under a theory of illegal tying arrangement in violation of Section 1 of the Sherman Act.⁸¹ A tying arrangement is when two products or services

78. *Id.* at 1299.

79. *In re Apple & ATTM Antitrust Litig.*, No. C 07-05152 JW, 2010 WL 3521965, at *5-8 (N.D. Cal. July 8, 2010).

80. *Id.* at *5.

81. Sherman Act, 15 U.S.C. §§ 1-2 (2006) (Section 1 of the Sherman Act, through case

could be sold separately but are sold together.⁸² This is “illegal when the seller exploits his or her control over the tying product to force the buyer to purchase the tied product that the buyer either did not want or would have preferred to purchase from another seller on different terms.”⁸³ Illegal tying arrangements are anticompetitive because the products are “insulate[d] . . . from competitive pressures.”⁸⁴ As a result, consumers are harmed by having “less than optimal choice.”⁸⁵ DeFeo further argues that the Apple-AT&T use of locking fits the mold of an illegal tying arrangement. He concludes by stating that a judicial untying of the relationship “would facilitate competition in the service market by giving consumers the freedom to choose the service that best meets their demand *after* their initial purchase decision.”⁸⁶ This theory has not been tested so far, but it appears to be a viable option for consumers.

2. FCC Classification Cases

The current regulatory regime presents a number of issues. How the FCC classifies a service under different regulatory “silos” has caused inconsistent regulation and challenges services’ categorization. This silo-based model of classifications means that a service must be placed in a mutually exclusive category. Each category has different regulatory burdens.⁸⁷ Information services, for example, are largely unregulated.⁸⁸ Conversely, a telecommunication services classification results in Universal Service obligations and other common carrier regulation.⁸⁹ As technology progresses and convergent services become more pervasive, similar services might be treated differently under this silo regime.⁹⁰ In some instances, a reclassification can mean losing loosely-regulated status:

For example . . . [i]f VoIP becomes the functional equivalent to basic telephony services, but qualifies for unregulated status, then regulated voice telephony carriers surely will seek to recast their previously classified telecommunications services now as a software-defined information services. In time, telecommunications service providers

law, prohibits any agreement that unreasonably restrains trade. Section 2 prohibits monopolization.); Mark DeFeo, Note, *Unlocking the iPhone: How Antitrust Law Can Save Consumers from the Inadequacies of Copyright Law*, 49 B.C. L. REV. 1037, 1040 (2008).

82. DeFeo, *supra* note 81, at 1055.

83. *Id.* at 1055-56.

84. *Id.* at 1056.

85. *Id.* at 1064.

86. *Id.* at 1079.

87. Frieden, *supra* note 65, at 1276-77.

88. *Id.*

89. *Id.*

90. *Id.*

can migrate nearly every service they offer into the unregulated information service ‘safe harbor,’ and the FCC will have no legal basis to continue enforcing regulatory safeguards even though essential public policies and competition policies necessitate its ongoing involvement.⁹¹

If the FCC attempts to reclassify services into more regulated classifications, disadvantaged entities will likely bring litigation. Moreover, Professor Frieden points out the inconsistency with which courts have ruled on convergence technology classifications, thus creating a difficult situation for the FCC and the industry.⁹² One point that the wireless industry harps on is that more regulation would create uncertainty and undermine innovation and investment.⁹³ However, it appears that with courts’ inconsistent rulings, uncertainty exists in the current market. A new regulatory regime would address these incongruencies.

Moreover, recent cases suggest that the FCC might not be able to regulate some areas under their “ancillary authority” without a clear legislative direction.⁹⁴ This would further complicate their ability to implement change.⁹⁵

C. Other Federal Agencies

The Digital Millennium Copyright Act (DMCA),⁹⁶ passed in 1998, criminalizes circumvention of Digital Rights Management (DRM) for copyrighted works. DRM controls access to copyrighted software. The Act gives the Librarian of Congress the power to publish exemptions to the Act.⁹⁷ In other words, circumvention of DRM will not always be illegal. Exemptions are granted when the DRM interferes with a persons’ ability to make non-infringing use of the copyrighted work. Apple and AT&T attempted to protect their exclusivity agreement through the copyright on the underlying software of the phone. They tried to make it illegal to jailbreak the iPhone. Jailbreaking requires changing code in the software. Relying on the copyright protection of the software, Apple

91. For instance, the FCC is struggling with how to classify VoIP under current silos. *Id.* at 1312-13.

92. *Id.*

93. CTIA Policy Position on Net Neutrality, CTIA—THE WIRELESS ASSOCIATION, http://www.ctia.org/advocacy/policy_topics/topic.cfm/TID/43 (last visited Dec. 10, 2011).

94. *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

95. Declan McCullugh, *Court: FCC Has No Power to Regulate Net Neutrality*, CNET NEWS (Apr. 6, 2010), http://news.cnet.com/8301-13578_3-20001825-38.html.

96. Digital Millennium Copyright Act, Pub. L. 105-304 (1998).

97. 17 U.S.C. § 1201(a)(1) (2006).

sought to extend its control to each individual copy of the software on the phone.

In July of 2010, the Librarian disagreed with Apple and stated that it was merely a business decision and therefore not the proper role of copyright protection.⁹⁸ Two issues were addressed in this decision: whether jailbreaking, for the purpose of using third-party applications, and unlocking a phone for the purpose of connecting to a different network, is permissible under the DMCA. As to the former, the Librarian stated that every purchaser of an iPhone owns that copy of the software, while Apple retains copyright protection on the intellectual property underlying the software. The librarian relied on the “fair use” argument to find that jailbreaking is consistent with “the congressional interest in interoperability.”⁹⁹ In so finding, the Librarian relied on four fair use factors.

First, jailbreaking is a modification of the software by the owner of the copy to engage in private noncommercial activity designed to add functionality to the device.¹⁰⁰ Second, it is “customary” for operating systems to allow third party interoperability.¹⁰¹ If Apple were to restrict use on its computers, then the same principle applies and copyright law cannot aid in this restrictive business model. Third, the proportion of the copyrighted work that required modification is “*de minimis*” and accounts for only 1/160,000 of the copyrighted work.¹⁰² This factor was deemed insignificant because most of the original firmware is being utilized notwithstanding the modification. Fourth, the Librarian considered the effect upon the market and the value of the work.¹⁰³ This factor was also found to favor jailbreaking because the firmware itself has no economic value, as it is not sold separately from the iPhone. The Librarian concluded by recognizing shared jurisdiction on this issue with other federal agencies, but also recognized that further regulation by those agencies would be impossible unless this finding occurs.

In 2007, the Registrar found that circumventing phone locks was not a violation of the copyrighted work. In the 2010 decision, the Librarian again found that unlocking a phone was a lawful use of the copy of the phone’s software. Furthermore, the Librarian relied on the judgment that the purpose of the lock was to “keep consumers bound to their existing networks, rather than to protect the rights of copyright

98. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 75 Fed. Reg. 43,825, 43,828-30 (July 27, 2010) (to be codified at 37 C.F.R. pt. 201).

99. *Id.* at 43,829.

100. *Id.*

101. *Id.*

102. *Id.* at 43,829-30.

103. *Id.* at 43,830.

owners in their capacity as copyright owners.”¹⁰⁴ While this suggests that consumers can switch at will, the Librarian was careful to note that the terms of the service contract still apply, and that this decision was narrow in scope and does not represent a federal policy of consumer freedom to switch networks as that would be outside the powers of the Copyright Office. This decision is a small but important piece of the puzzle of legal rulings that favor consumer choice. Actions from other areas of government are required to attain true consumer choice in the wireless market.

D. Congress

Legislation is always an option. The FCC has interpreted its mandate from the Telecommunications Act to make the categories mutually exclusive, and the courts are too inconsistent to make the issue predictable. Congress has acted in the past to increase competition in the mobile service market. Number portability required in the Telecommunications Act of 1996 allowed consumers to take their current wireless number to any other carrier, and even take their landline number and turn it into a cell phone number. The carriers challenged this in court using some of the familiar arguments used currently. After seven years of delay, the rules went into effect on November 23, 2003. By some estimates, 12-18 million consumers switched carriers.¹⁰⁵ The new competition challenged the carriers’ restrictive practices.

Because of the way the FCC has interpreted its statutory mandate on regulatory classifications, it would be up to Congress to redefine or redo the scheme currently used. Current telecom bills seem more focused on net neutrality and, with the recent FCC order on this topic, the 112th Congress is polarized on what to do. Some want the FCC to be more stringent on regulating net neutrality; some think the middle road chosen by the FCC is the right one; and others want to overrule the FCC and reenter the deregulated era of deference to telecom companies.¹⁰⁶

Congress is ultimately the actor that could make the broadest change. One option would be for the FCC to be given explicit statutory authority to make rules regarding the Internet and wireless broadband. Another would be for Congress to enact new classifications and definitions for the telecommunications system. This, however, would require a sweeping overhaul of the current regulatory scheme and thus is

104. *Id.* at 43,831.

105. Stephen M. Kessing, *Wireless Local Number Portability: New Rules Will Have Broad Effects*, 2004 DUKE L. & TECH. REV. 6, ¶ 20 (2004).

106. *See e.g.*, John Eggerton, *Dems, Republicans Still Strongly Divided Over Net Regs*, BROADCASTING AND CABLE (Mar. 14, 2011), http://www.broadcastingcable.com/article/465242-Dems_Republicans_Still_Strongly_Divided_Over_Net_Regs.php.

unlikely to occur anytime soon.

IV. WHAT IS THE BEST OPTION?

A. *The Industry's Position*

The cell phone industry naturally disagrees with the problems laid out in this Note. The Cellular Telecommunications Industry Association (CTIA) finds nothing wrong with the current situation.¹⁰⁷ The CTIA “is an international nonprofit membership organization that has represented the wireless communications industry since 1984. Membership in the association includes wireless carriers and their suppliers, as well as providers and manufacturers of wireless data services and products.”¹⁰⁸ The CTIA published a study contending that people are satisfied with their current wireless service, that the service is the best value when compared globally, that the U.S. market is the most competitive when compared globally, and that the U.S. market fosters innovation more effectively than European markets.¹⁰⁹ However, this may be a case of the profit fox guarding the cellular hen house.

The CTIA focuses on the larger numbers rather than the gritty details of the practices of each of the carriers. It also glosses over the differences in the markets it compares, such as the fact that most individuals in Europe buy minutes without a contract rather than buying minute bundles and paying per month as with a U.S. contract. As a result, the per-minute value is higher without taking into account the costs of the contract, termination fees, and other downsides. The CTIA opposes any net neutrality legislation as well as any new regulatory scheme.¹¹⁰ It would prefer that the wireless industry remain an unregulated information technology classification.¹¹¹ While the industry is certainly not completely bad, it does need some change to foster consumer freedom and choice in order to truly drive the innovation that will bring about the next set of amazing devices.

107. See CTIA Policy Position on Net Neutrality, *supra* note 93.

108. *About Us*, CTIA—THE WIRELESS ASSOCIATION, <http://www.ctia.org/about-CTIA> (last visited Dec. 10, 2011).

109. *Study Ranks Satisfaction Rates Among Mobile Phone Users*, CTIA SMARTBRIEF (Dec. 5, 2005), <http://www.smartbrief.com/news/CTIA/storyDetails.jsp?issueid=A1E9C68E-58E2-47B6-8DC9-D72ABBCA3483©id=DDC48D5F-1A43-4E52-B7D0-F5B060BE60AD&lmcid=296640&brief=CTIA>.

110. CTIA Policy Position on Innovation and Competition, CTIA—THE WIRELESS ASSOCIATION, http://www.ctia.org/advocacy/position_papers/index.cfm/AID/12067 (last visited Dec. 10, 2011).

111. Net Neutrality Overview, CTIA—THE WIRELESS ASSOCIATION, http://www.ctia.org/advocacy/position_papers/index.cfm/AID/12051 (last visited Dec. 10, 2011).

B. A New Regulatory Framework

Communications technology has become essential to our everyday lives. For too long, wireless carriers have dictated the terms. While technology has undoubtedly advanced, it has not been able to truly reach new heights within the current market. There is persistent market failure, and regulators need to step in. This should occur in two stages. First, Congress should act to clarify the legislative mandate given to the FCC by allowing convergent technologies to be regulated with multiple categories or else create a separate scheme for these industries. Second, the FCC should start promulgating rules that foster competition, consumer choice, and innovation.

1. Attachment Rules

Consumers should be free to buy any device they choose and connect it to any network of their choice without interference from the carrier. Essentially, *Carterphone* would be extended to wireless services. Carriers would be paid for providing connectivity, just as in landline services. This would require phones to be sold without locks for GSM/SIM card phones, and would require a comparable chip for CDMA phones that can be swapped in and out freely without interaction with the carrier. In the absence of this chip, serial numbers should be provided to consumers so their devices are able to connect.

Customer loyalty and satisfaction are greater in wire line products.¹¹² By allowing any phone to connect to the network and disallowing the sale of locked phones, wireless customers would enjoy increased satisfaction with wireless service. Carriers of course may charge for the service, but they will be required to allow anyone to join or leave. This will foster competition and keep prices low. It will also help innovation because phone manufactures can sell directly to consumers and the market, not the carriers, will determine the advance of features.

Another justification that has been proffered by the carriers is that of network security. In the past, the concerns over network security have not panned out, but what if they are right? What if allowing any compatible device on any network would undermine network security? Unfortunately, the carriers are the only ones that can truly answer these questions. Rules should be put in place to protect network integrity but allow for maximum consumer choice and the spurring of innovation.

112. Schejter et al., *supra* note 21, at 101.

2. Reform the Carrier Contract Model

Two types of contracts cause problems in the current system: carrier-consumer contracts and carrier-manufacturer contracts. Of course, people should be able to enter into any type of contract that they want. However, the former type of contract is usually a contract of adhesion that forces the consumer to agree to all sorts of things like a ban on class arbitration or termination fees. The obvious consequence of changing this part of the system is that it would undermine the free (or cheap) phone for a two-year contract model. The central justification for this model is that the carrier subsidizes the price of the phone and recoups the cost of the phone over the contract period. The carrier could therefore lower the cost of service if recoupment of the cost of the phone was not a factor. Moreover, by eliminating the subsidy on the phone, the consumer trades a lower monthly service bill with more flexibility for a possibly higher up front cost of the phone. Carriers could certainly offer a few options: free phone with a contract, non-subsidized phone with a contract, and non-subsidized phone without a contract, just to name a few.

The last option would look a lot like a cable or Internet provider situation where the provider (Comcast, CenturyLink, DirecTv, etc.) charges monthly for the service and rents the box or dish to the consumer, and the consumer can cancel at any time. This provides the consumer with the freedom of choice on the consumer's time frame. If, for example, three months into the service, the consumer is unhappy with it, they can cancel and switch to another provider or leave the market altogether without a termination fee. This arrangement is commonplace and expected by consumers these days. It would be unimaginable that the cable or satellite provider would require us to buy a certain TV or computer to use with their service. Consumers should be free to switch, just as with cable or landline services, if they are unhappy with the service they are receiving.

The most notable carrier-manufacturer contract is the AT&T-Apple exclusivity agreement discussed earlier, which restricted access to the iPhone to one carrier. However, that agreement has expired, as the Verizon iPhone was released February 10, 2011.¹¹³ The iPhone was a sea change in more than just a technological sense, it was also a challenge to the carrier-driven phone market because Apple demanded control over the features. Because the iPhone was the competitor, other phones began to offer similar features. With further competition from Android and Windows Mobile as cell phone operating systems, manufacturers had

113. *iPhone 4 on Verizon Wireless Available for Pre-Order Tomorrow*, APPLE PRESS INFO (Feb. 2, 2011), <http://www.apple.com/pr/library/2011/>.

more choices on how to get phones to the market. The carriers could not act as gatekeepers to the features offered because of the increased competition.

Hopefully, the days of carriers forcing the crippling of features are in the rear-view mirror. Exclusivity agreements are not unique to Apple and AT&T, and these agreements harm consumer choice as well. Admittedly, there are technological differences between the Verizon and AT&T networks (see discussion in Part I). But consumers should be able to choose the carrier and the phone that they want. With the freedom-to-attach rules mentioned above, manufacturers may begin making phones with the capability to simultaneously use CDMA and GSM (some, like the Samsung 2ON, already do). This would allow consumers to easily switch from a CDMA carrier (like Verizon) to a GSM carrier (like AT&T), and vice versa. The bottom line is that the market should decide the features that a phone has, not the carrier.

3. Content Non-Discrimination

The mobile phone is not just a phone anymore. Smartphones will likely pass regular cell phone use percentage in the U.S. by the end of 2011.¹¹⁴ And with almost 60% of Americans using WiFi and mobile devices to connect to the Internet, there will be increased demand—and pressure on the network—for wireless access.¹¹⁵ Data plans are also coming down in price. Carriers should not be allowed to block content from consumers.

This comes into play in two ways: data regulation by carriers, and third-party developers. First, carriers should be held to net neutrality principles and not be allowed to regulate the network itself by burdening certain content providers. Second, third party developers should not be locked out of creating content because of a carrier or manufacturer's ability (and desire) to protect their own product or App. Net neutrality is essentially the concept that no content provider can be privileged over another—either through “paid prioritization” or “network management.” The CTIA insists that wireless providers need to manage their networks more vigilantly because of the inherently distinct features of the wireless service.¹¹⁶ CTIA claims carriers currently privilege voice over data, and 911 calls over it all. But the net neutrality rules proposed here would

114. Roger Entner, *Smartphones to Overtake Feature Phones in U.S. by 2011*, NIELSENWIRE (Mar. 26, 2010), <http://blog.nielsen.com/nielsenwire/consumer/smartphones-to-overtake-feature-phones-in-u-s-by-2011/>.

115. Olga Kharif, *Smartphone Use on the Web Goes “Mainstream”*, BLOOMBERG BUSINESSWEEK (July 7, 2010), http://www.businessweek.com/technology/content/jul2010/tc2010077_481216.htm.

116. CTIA Policy Position on Net Neutrality, *supra* note 93.

only apply to Internet and App non-discrimination. The FCC promulgated rules for net neutrality in December of 2010.¹¹⁷ While most of the details of the order are outside the scope of this Note, the order did include extension of some of the principles to wireless carriers. Namely, “mobile providers . . . can’t block access to ‘lawful’ Websites or ‘competing’ services.”¹¹⁸ The rules also require more extensive disclosure of network practices to consumers. One consequence of this is that VoIP services like Skype cannot be blocked from smartphones. This is encouraging news from the FCC, but it is still vulnerable to attack in the courts and from Congress, which have both favored a less stringent regulatory framework.

One possible drawback is that carriers may increasingly rely on menu pricing for data usage, which could raise the cost to the consumer. By making higher data usage more expensive, the carrier would not need to manage the network because the consumer would do it for them based on the economic decision of whether to download or view a movie or website.

C. How Consumers Benefit

Consumers benefit from, in a word, choice. Choice of carrier. Choice of phone. Moreover, consumers would further benefit from increased flexibility once they purchase the phone. This flexibility would help foster competition among wireless carriers because those carriers would know that a consumer could switch at any time. Of course, there will be consumers that do not switch even if they are unhappy with the service because transaction costs cannot be totally eliminated. However, the flexibility will increase pressure on the carriers to compete on price, quality, and customer service. In the current lock-in model, loyalty is enforced, not earned. It is likely that if these reforms go into effect, carriers might try to enter into exclusivity contracts because if they limit the choice of phone then they have reversed the reforms informally.

Exclusivity contracts are normally analyzed under the antitrust laws. However, vertical restraints such as these are rarely struck down and are analyzed under the so-called rule of reason. If carriers attempt to restrain choice again through exclusive contracts, then further rules banning this behavior should be considered. However, there is no guarantee that manufacturers will play along and actually enter into exclusive contracts

117. Verizon is challenging these net neutrality rules. Joelle Tessler, *Verizon Challenges FCC’s Net Neutrality Rules*, HUFFINGTONPOST.COM (Jan. 20, 2011), http://www.huffingtonpost.com/2011/01/20/verizon-challenges-fcc-net-neutrality-rules_n_811869.html.

118. Declan McCullough, *FCC Net Neutrality Rules Reach Mobile Apps*, CNET NEWS (Dec. 23, 2010), http://news.cnet.com/8301-13578_3-20026581-38.html.

because they too would be able to choose more freely with the new rules. Overall, consumers will benefit from increased choice. Additionally, in the long run, consumers would benefit from innovations that are driven by consumers rather than carriers. Since consumers and not carriers would drive the demand side, the innovative efforts would shift focus.

D. *How Carriers Benefit*

Carriers, too, would benefit from increased innovation and competition. First, it presently costs about \$300 to recruit a new customer, whereas it costs only about \$20 to retain a customer.¹¹⁹ This is largely because to add a new customer, the carrier must convince them to switch from another carrier, which involves costs to the consumer and, as a result, the carrier must offer more incentives.¹²⁰ These costs would certainly be less expensive under the proposed reforms, but there remains a cost to the carriers to try to convince a consumer to switch. Therefore, it is in the carriers' interest to make their services better so that consumers do not switch.

Moreover, "wooing customers" with free phones, free minutes, or other incentives does not work and only wastes scarce resources.¹²¹ Carriers should instead focus on customer satisfaction with the service. Satisfaction is almost completely determinative of loyalty and, consequently, retention by the carrier. By lowering the switching costs of consumers, carriers can redirect resources toward improving and expanding service.¹²² A satisfied customer, who has choices in carrier and phone, and who enjoys the experience with the carrier, will have no need to switch. Carriers benefit by keeping this customer. And increased choice and competition create a market milieu in which this is possible.

CONCLUSION

The cellular phone has become an integral part of modern U.S. society. Workers can telecommute via their Blackberry. The Red Cross can raise money for disaster relief via text message. The boundless information of the Internet can be accessed anywhere. The technology available today is the most advanced ever. Nevertheless, all of this can get better. The wireless telecom companies have operated in a regulatory scheme that has allowed for anticompetitive and anti-consumer behavior.

The watchdogs of the industry have stood idle for too long. The

119. DongBack Seo et al., *Two-Level Model of Customer Retention in the U.S. Mobile Telecommunications Service Market*, 32 TELECOMM. POL'Y 182 (2008).

120. *Id.* at 183.

121. Eshighi, *supra* note 3, at 101.

122. *Id.*

FCC has been either pro-carrier, ambivalent, or pro-consumer. The courts have inconsistently applied the statutory definitions, and have likewise overruled or confirmed the FCC's decisions in a seemingly random fashion. Congress passed the Telecommunications Act of 1996 and considered its job done. Now, most of developments in telecommunications law are focused on net neutrality or converting to digital television rather than recognizing the inconsistencies in the wireless world that need fixing. Other agencies like the Copyright Office have been pro-consumer but represent only a small piece of what needs to be done. The regulatory scheme should be overhauled. The CTIA is right that wireless communications is an inherently distinctive industry. Therefore, it should be given its own category under the FCC definitions and not be crammed into an ill-fitted silo of regulation.

The resulting rules should take into account the unique aspects of the wireless world. These rules should include freedom to attach any device, the elimination of forced consumer-carrier contracts that are clearly in favor of the carrier, stringent disclosure requirements, and the requirement that carriers do not discriminate against content delivered on their network. In short, consumers should be allowed a choice: a choice of phone; a choice of network; a choice to switch if unhappy with current service. A free market functions best on perfect information and competition. Accordingly, the approach that should be followed is one that fosters innovation, protects consumers, and results in high quality service through a high quality product for a price decided on by the market.