April 29, 2010

Electronic Filing

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
12th Street Lobby, TW-A325
Washington, D.C. 20554

Re: Written *Ex Parte* Communication, WT Docket No. 09-66, GN Docket No. 09-157, GN Docket No. 09-51.

Dear Ms. Dortch:

At a time when the facts are of paramount importance to setting the course of American economic policy, a recent panel hosted by the New America Foundation and *Slate* magazine fell short of any reasonable standard of either pursuing or discussing actual facts. With the Federal Communications Commission ("Commission") rightly committing itself to a fact-based, data-driven review, and as the Commission completes its *Mobile Wireless Competition Report*, CTIA urges the Commission to reject the spurious assertions of this panel.

Instead of a balanced discussion of the current marketplace, and of policy choices that can help the U.S. continue to lead the world in innovation and customer benefit, New America panelists Sascha Meinrath, director of the New America Foundation's Open Technology Initiative, Tim Wu, professor at Columbia University, and Farhad Manjoo, a technology writer for Slate magazine, (the "New America panelists") repeated baseless, unsupported, and incorrect claims – and even fabricated a few new ones.[1] As Tim Wu did several years ago, the panelists constructed a gloomy alter-reality in which American inferiority is a given, and in which a looming wireless monopoly is either a menacing boogeyman, or the only way to obtain service quality. In fact, neither assertion is remotely true. As described in this filing, the facts show that

[1] See Howard Buskirk, Panelists Ask Why U.S. Wireless Market Isn't Better, COMMUNICATIONS DAILY, Apr. 5, 2010.

the U.S. is neither facing imminent threat of a wireless monopoly, nor would the heavily-regulated approach that comes with such a market structure serve the interests of U.S. consumers.[2] The U.S. wireless market is – without question – the most competitive market in the world, with the lowest concentration and Herfindahl-Hirschman Index ("HHI") among the 26 Organization for Economic Co-Operation and Development ("OECD") countries monitored by Bank of America Merrill Lynch ("BofA Merrill Lynch").[3] Indeed, while BofA Merrill Lynch had reported that the UK had an HHI slightly lower than the U.S. as of year-end 2009, the U.S. now has the lowest HHI among all these surveyed countries after the approval of the merger of two of the UK's operators.[4] By contrast, the HHI in the UK is now more than 500 points above that of the U.S.

U.S. wireless consumers benefit from this competition, enjoying the lowest prices (with the lowest average revenue per minute among those same 26 OECD countries), the most advanced networks (with the largest number of consumers served by 3G of any country in the world, and in terms of 4G deployment), the most innovative applications market (with over 240,000 applications now available for U.S. mobile consumers) and the most cutting edge network devices (with devices such as the Apple iPhone, iPhone 3G and 3GS; Apple iPad; Google G1, MyTouch and Nexus One; Blackberry Storm, Bold, Pearl, Tour and Curve 8900; Samsung Instinct; Palm Pre and Pixi; Amazon Kindle; Barnes & Noble Nook, and more; all launched in the U.S. first).

This short paper debunks the most egregious of the false claims arising from this event. CTIA urges the Commission to look beyond rhetoric and gird itself with facts. And the facts tell

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[2] *See, e.g.,* CTIA Comments, WT Docket No. 09-66 (filed Sept. 30, 2009) ("*2009 CTIA Innovation and Investment Comments*").

[3] Bank of America Merrill Lynch does not monitor the wireless markets of the following OECD countries: Iceland; Ireland; Luxembourg; and Slovakia. *See* Glen Campbell et al, Global Wireless Matrix 1Q10: A Modest Recovery, Asia in the Lead, Bank of America Merrill Lynch (Apr. 13, 2010) (reporting year-end 2009 data).

[4] *See, e.g.,* Associated Press, "France Telecom, Deutsche Telekom merge in UK," Associated Press (Apr. 1, 2010), *available at*: http://www.google.com/hostednews/ap/article/ALeqM5hElG71SFgqVHE4-NHNhI5ZWZsMuQD9EQ81GG0 (viewed on Apr. 21, 2010).

a story of continuing innovation and success that reflect bipartisan commitment to competition and private investment.

Wireless in the U.S. is More Competitive Than Any Country in the OECD

Although some of the New America panelists opine that wireless competition is more robust in Europe and Asia, the *facts* completely belie those claims. Far from the panelists' claims of a dearth of competition in the U.S. wireless industry, the U.S. market, whether measured in terms of number of facilities-based competitors, market share, HHI, or the percent of each countries' market controlled by the Top 2 or 3 providers, is more competitive than any nation in the 26 OECD countries tracked by BofA Merrill Lynch in its Global Wireless Matrix.[5]

Moderator Nicholas Thompson invoked the curious term "quadopoly" to describe the U.S. market.[6] Yet again the facts reveal that there are eight facilities-based carriers that serve more than one million subscribers in the U.S., with more than 140 separate wireless carriers, and 43 non-facilities based Mobile Virtual Network Operators ("MVNOs") also providing service.[7] Roughly 65% of Americans have a choice of five or more facilities-based providers, without even counting MVNO competition.[8] Competition is present

> "8 facilities-based carriers . . . serve more than 1 million subscribers in the U.S., with more than 140 separate wireless carriers."

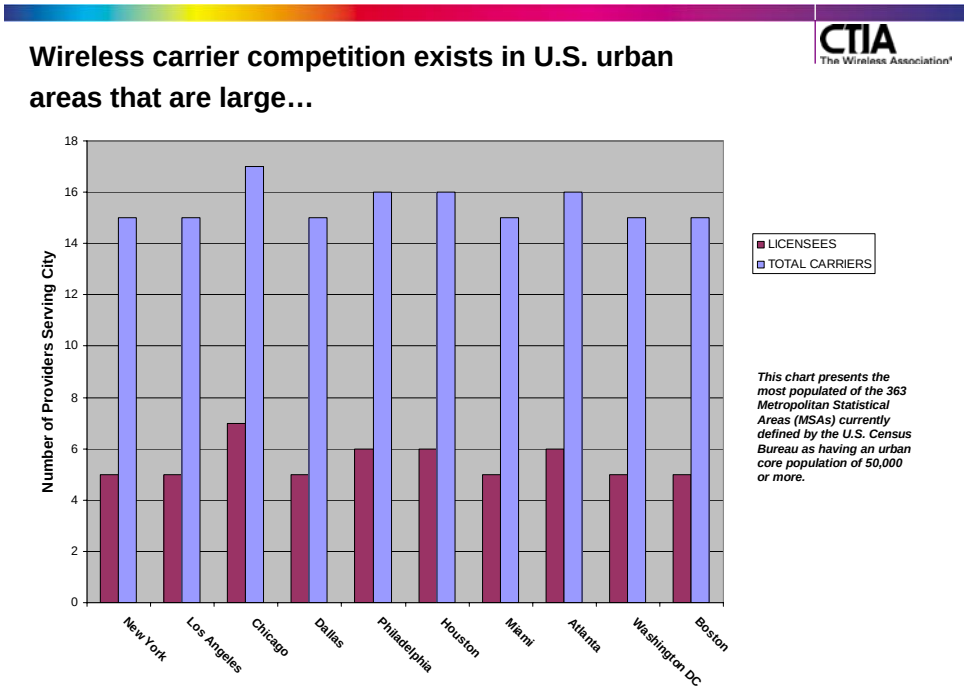
[5] *See supra* p.2 (discussing the HHIs for the OECD countries monitored by BofA Merrill Lynch).

[6] To illustrate the folly of this argument, one need look no further than the UK Office of Communications' ("Ofcom") "Mostly Mobile" report, which found the UK wireless market to be the most competitive market in Europe. In the UK, the top three wireless carriers serve 92.6% of the market, and the top four carriers serve 100% of the market. By comparison, the top four U.S. carriers serve 89.9% of the market, and the top five serve less than 92.2% of the market according to the BofA Merrill Lynch report.

[7] See CTIA's Wireless Industry Indices: Semi-Annual Data Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry, Mid-Year 2009 Results, at 4 (November 2, 2009) ("CTIA's Wireless Industry Indices Report"); see also Nick Jotischky et al., Global MVNO Operations - A study of current business models and emerging opportunities, Informa Telecoms & Media (May 2009), available at http://www.telecomsmarketresearch.com/research/TMAAAQPN-WCIS-Insight--Global-MVNO-Operations---A-study-of-current-business-models-and-emerging-opportunities.shtml (last accessed Sept. 23, 2009) ("Global MVNO

not only in the largest markets, but also in smaller markets. In the following two charts, CTIA demonstrates that there is vigorous competition in the top 10 largest Metropolitan Statistical Areas ("MSAs") in the nation, and also in the 10 least populous Core Based Statistical Areas ("CBSAs") in the nation (i.e., CBSAs nos. 931-940).

The first chart depicts the staggering levels of competition in the most populous MSAs:

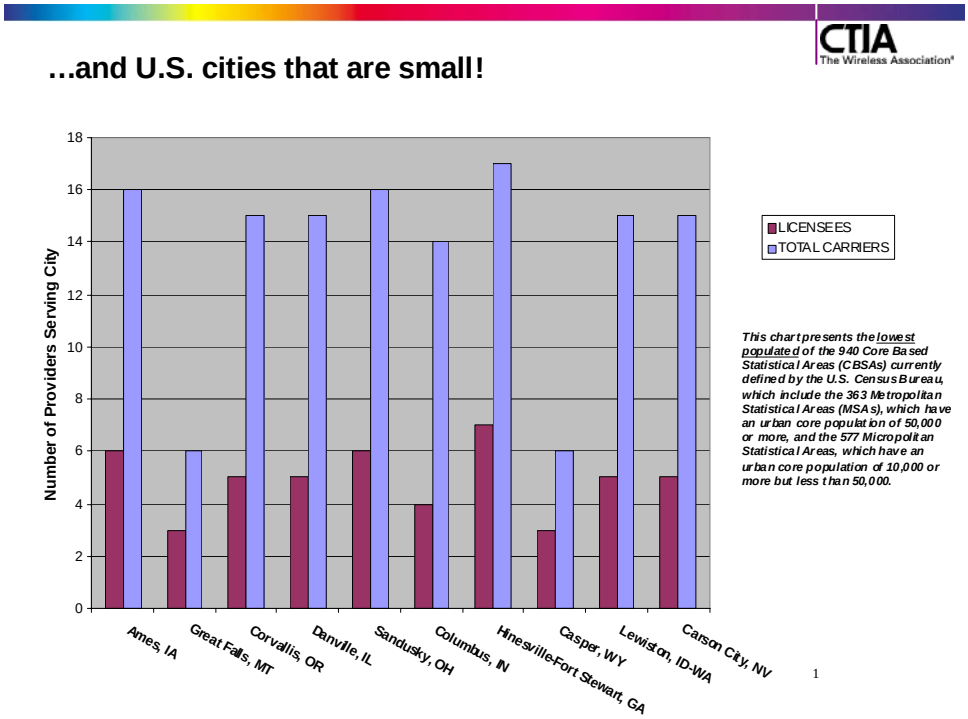


As depicted in this chart, there are no less than five facilities-based wireless carriers in every one of these large U.S. metropolitan areas, with four of the ten markets having at least six providers. Considering facilities-based and non-facilities based providers, there are no less than fourteen providers in each area.

Operations") ("The MVNO market remains competitive in USA with 43 such companies in operation . . . as of 3Q 2008."). A review of MVNO websites has confirmed that 43 such companies offer service in the U.S as of April 27, 2010.

[8] *See* CTIA Comments, WT Docket No. 09-66 (filed Sept. 30, 2009) at 6 ("CTIA Competition Comments"); *see also* CTIA Reply Comments, WT Docket No. 09-66 (filed Oct. 22, 2009) ("CTIA Competition Reply Comments").

As a complement to the chart above, CTIA also looked at the ten least populous of the 940 CBSAs and also found abundant competition among service providers, with no fewer than three facilities-based providers and, in many cases, fourteen or more providers in total:



By any measure, consumers have abundant choices when selecting their wireless provider, and carriers compete vigorously to meet U.S. consumers' wireless needs.

Again, the international perspective reaffirms this point. Of the top 26 OECD countries, 12 have three or fewer competitors, 12 have four, and only the U.S. and Canada have more than five.[9]

[9] *See supra* n.4. Note that due to the recently completed merger between T-Mobile and Orange, the UK now has four wireless providers.

Countries with Three Providers	Countries with Four Providers	Countries with Five or More Providers
Australia	Austria	
Czech Republic	Belgium	Canada
Finland	Denmark	USA
France	Germany	
Greece	Italy	
Hungary	Japan	
Korea	Mexico	
Netherlands	Norway	
New Zealand	Poland	
Portugal	Spain	
Switzerland	Sweden	
Turkey	UK	

When viewed on the global stage, the U.S. market is the *least* concentrated market by a very wide margin among the 26 OECD countries tracked by BofA Merrill Lynch, as measured by HHI.[10] As shown in the following chart, the level of concentration in the next closest country (Germany) is approximately 500 points above that in the U.S.

"The level of concentration in the next closest country (Germany) is approximately 500 points above that in the U.S."

[10] *See supra* p.2.

Wireless Mobile Competition in OECD Countries, 4Q09								
HHI Values								
Number of Operators	1	2	3	4	5	6	Others	HHI Sum
Australia	1,689.21	1,069.29	686.44	0.00	0.00	0.00	0.00	3,444.94
Austria	1,823.29	924.16	349.69	67.24	0.00	0.00	0.00	3,164.38
Belgium	1,849.00	846.81	635.04	7.29	0.00	0.00	0.00	3,338.14
Canada	1,361.61	912.04	806.56	4.41	4.00	0.16	0.00	3,088.78
Czech Republic	1,656.49	1,361.61	501.76	0.00	0.00	0.00	0.00	3,519.86
Denmark	2,079.36	761.76	388.09	50.41	0.00	0.00	0.00	3,279.62
Finland	1,489.96	1,398.76	576.00	0.00	0.00	0.00	0.00	3,464.72
France	2,246.76	1,253.16	292.41	0.00	0.00	0.00	0.00	3,792.33
Germany	1,310.44	1,024.00	306.25	204.49	0.00	0.00	0.00	2,845.18
Greece	1,971.36	998.56	576.00	0.00	0.00	0.00	0.00	3,545.92
Hungary	2,043.04	1,017.61	529.00	0.00	0.00	0.00	0.00	3,589.65
Italy	1,225.00	1,142.44	432.64	106.09	0.00	0.00	0.00	2,906.17
Japan	2,410.81	772.84	368.64	14.44	0.00	0.00	0.00	3,566.73
Korea	2,560.36	979.69	327.61	0.00	0.00	0.00	0.00	3,867.66
Mexico	5,069.44	436.81	18.49	12.96	0.00	0.00	0.00	5,537.70
Netherlands	2,693.61	605.16	552.25	0.00	0.00	0.00	0.00	3,851.02
New Zealand	2,480.04	2,125.21	16.81	0.00	0.00	0.00	0.00	4,622.06
Norway	3,014.01	918.09	62.41	47.61	0.00	0.00	0.00	4,042.12
Poland	985.96	942.49	912.04	59.29	0.00	0.00	0.00	2,899.78
Portugal	1,909.69	1,267.36	428.49	0.00	0.00	0.00	0.00	3,605.54
Spain	1,883.56	973.44	479.61	7.84	0.00	0.00	0.00	3,344.45
Sweden	2,143.69	846.81	259.21	72.25	0.00	0.00	0.00	3,321.96
Switzerland	3,856.41	424.36	299.29	0.00	0.00	0.00	0.00	4,580.06
Turkey	3,169.69	620.01	353.44	0.00	0.00	0.00	0.00	4,143.14
United Kingdom	1,764.00	712.89	571.21	54.76	0.00	0.00	0.00	3,102.86
United States	1,017.61	858.49	285.61	139.24	5.29	2.89	37.21	2,346.34

Source: Bank of America Merrill Lynch, "Global Wireless Matrix 1Q10"

Note that this calculation actually overstates the YE2009 HHI for the US, as it counts all "others" as a single operator with a 6.1% market share, instead of as 140+ separate operators, with market shares ranging from 2.1% to less than 0.001%. Also note that HHIs for The UK, Canada and Norway have been adjusted to reflect the merger of the third and fourth operators in the UK, and the existence of additional operators not reflected in the original BofA Merrill Lynch table for the other two countries. The HHI for France has been adjusted to include the MVNO subscribers with their underlying carriers.

From the same international vantage, the U.S. market share is not even particularly top heavy: the combined market share of the top two U.S. carriers is less than that of the top two providers in all of the 26 OECD countries monitored. The same is true if you consider the market share of the top three providers in each country, as well.[11]

Moreover, under the revised Horizontal Merger Guidelines recently proposed by the Department of Justice ("DOJ") and the Federal Trade Commission ("FTC"), the U.S. wireless market is the only wireless market among the 26 OECD countries not to be classified as Highly Concentrated.[12] By the proposed guidelines, the U.S. market would be classified as only Moderately Concentrated, again with an HHI approximately 500 points lower than the next most competitive country (and more than 500 points lower than the UK).

Innovation is Thriving in the U.S.

Any fact-based review of the U.S. market demonstrates that U.S. wireless providers compete and differentiate themselves through service offerings, usage plans, network coverage and reliability, and service quality and customer care, among other features. So, the panelists' dual and inconsistent critiques of wireless innovation in the U.S. – that applications in the U.S. trail behind other countries or that, alternatively, U.S. providers are confusing U.S. consumers by offering too many products – both fail a reality check.

"Mobile application downloads will rise about 145% this year, to 5.9 billion from only 2.4 billion in 2009. . . ."

[11] *Id.* Notably, no single carrier has anything close to a dominant share of the market for mobile wireless services. According to BofA Merrill Lynch, as of year-end 2009, the following were the market shares for the largest wireless providers: Verizon Wireless – 31.9%, AT&T Mobility – 29.3%, Sprint Nextel – 16.9%, T-Mobile USA – 11.8%, MetroPCS – 2.3%, Leap Wireless – 1.7%.

[12] Federal Trade Commission Seeks Views on Proposed Update of the Horizontal Merger Guidelines

The ever-increasing abilities of wireless networks and smartphones have combined to foster staggering innovation and competition in the application space. The results are applications that not only entertain, but also educate and improve health and public safety. Innovative applications that are easy to download and use continue to revolutionize the wireless industry. There are more than 240,000 applications available, more than double the number (100,000) that were available when CTIA filed its Competition Comments just six months ago. At the Apple App Store alone, more than three billion of its more than 185,000 applications have been downloaded since its launch in July of 2008.[13] A recent report by ABI Research predicts that mobile application downloads will rise about 145 percent this year, to 5.9 billion from only 2.4 billion in 2009, and ABI analyst Mark Beccue identified the U.S. as the hub of this activity.[14] As Beccue explains: "In this case, the U.S. has become the leader in this next round of mobile innovation."

"There are more than 240,000 applications available, more than double the number (100,000) that were available when CTIA filed its Competition Comments just six months ago."

"[T]he U.S. has become the leader in this next round of mobile innovation." -- ABI analyst Mark Beccue

The following chart shows some of the application stores that are available to consumers:

[13] *See* Letter from Christopher Guttman-McCabe to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 09-66, GN Docket No. 09-157, GN Docket No. 09-51 (Feb. 12, 2010), Attach. at 7.
[14] "ABI sees 2010 as Breakthrough Year for Mobile Apps," Stephen Lawson, Network World (Apr. 5, 2010), viewed at: http://www.networkworld.com/news/2010/040510-abi-sees-2010-as-breakthrough.html?hpg1=bn.

Application Store	Date Launched	Number of Apps Available[15]
iTunes App Store	July 2008	185,000 apps
Android Market	October 2008	38,000 apps
Palm Software Store	January 2009	5,000 apps and games
BlackBerry App World	April 2009	5,392 apps
Nokia Ovi Store	May 2009	6,843 apps
Palm App Catalog	June 2009	1,970 apps
Windows Mobile Marketplace	Oct 2009	1,014 apps

At the other extreme, the panel's peevish complaint that technology companies are doing too much in producing devices and applications that are popular – in essence, that consumers can buy what they want without having to write all of the code themselves – is particularly mystifying. The record shows that U.S. wireless providers are delivering a wide array of products and services to meet consumer demand. These products reflect the reality that not all consumers have the time or ability to write their own code or reprogram their operating systems. Yet, options also exist for those who want to exercise greater input on their wireless experience. As economists Gregory Rosston and Michael Topper have observed: "recent developments suggest that wireless providers are responding to consumer demands for more 'openness' to third-party content and applications without the need for regulatory mandate."[16] So, the highly competitive U.S. wireless ecosystem is constantly evolving to deliver the services that consumers desire.

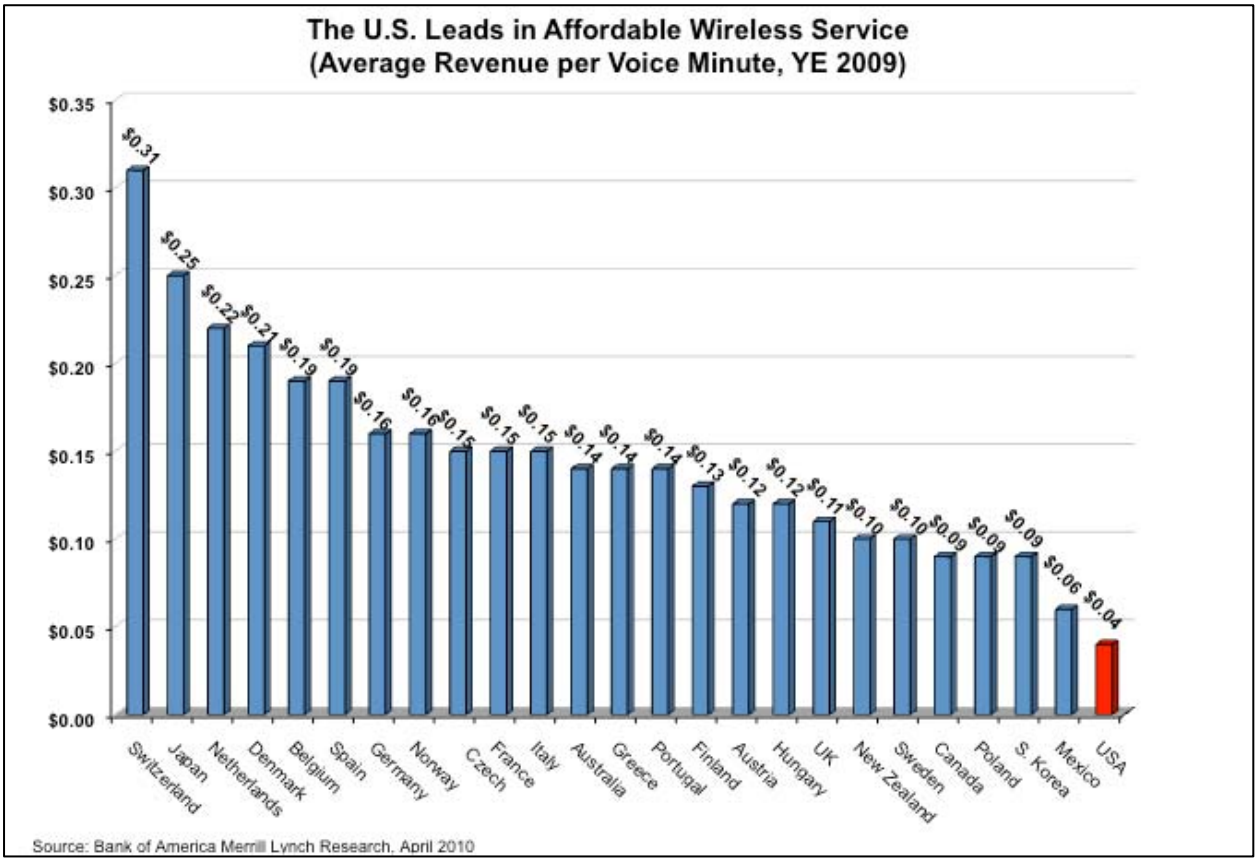
[15] The Palm Software Store launched with more than 5,000 apps and games. See Michael Kwan, "Palm Gets Own Dedicated App Store Too," Mobile Magazine, Dec. 16, 2008, available at http://www.mobilemag.com/2008/12/16/palm-gets-own-dedicated-app-store-too/ (last accessed Apr. 17, 2010). Other app stores' numbers are reported by Distimo, *available at*: http://www.distimo.com/appstores/ (last accessed Apr. 16, 2010).

[16] "An Antitrust Analysis of the Case for Wireless Network Neutrality," Gregory L. Rosston and Michael D. Topper (July 2009).

U.S. Consumers Enjoy World Leading Value as a Result of Competition

Contrary to the panelists' allegations that U.S. wireless consumers face high prices and slower speeds than consumers in other developed countries,[17] nothing could be further from the truth. This section shows that their pricing claims are incorrect, while the following section addresses their incorrect statements about wireless networks.

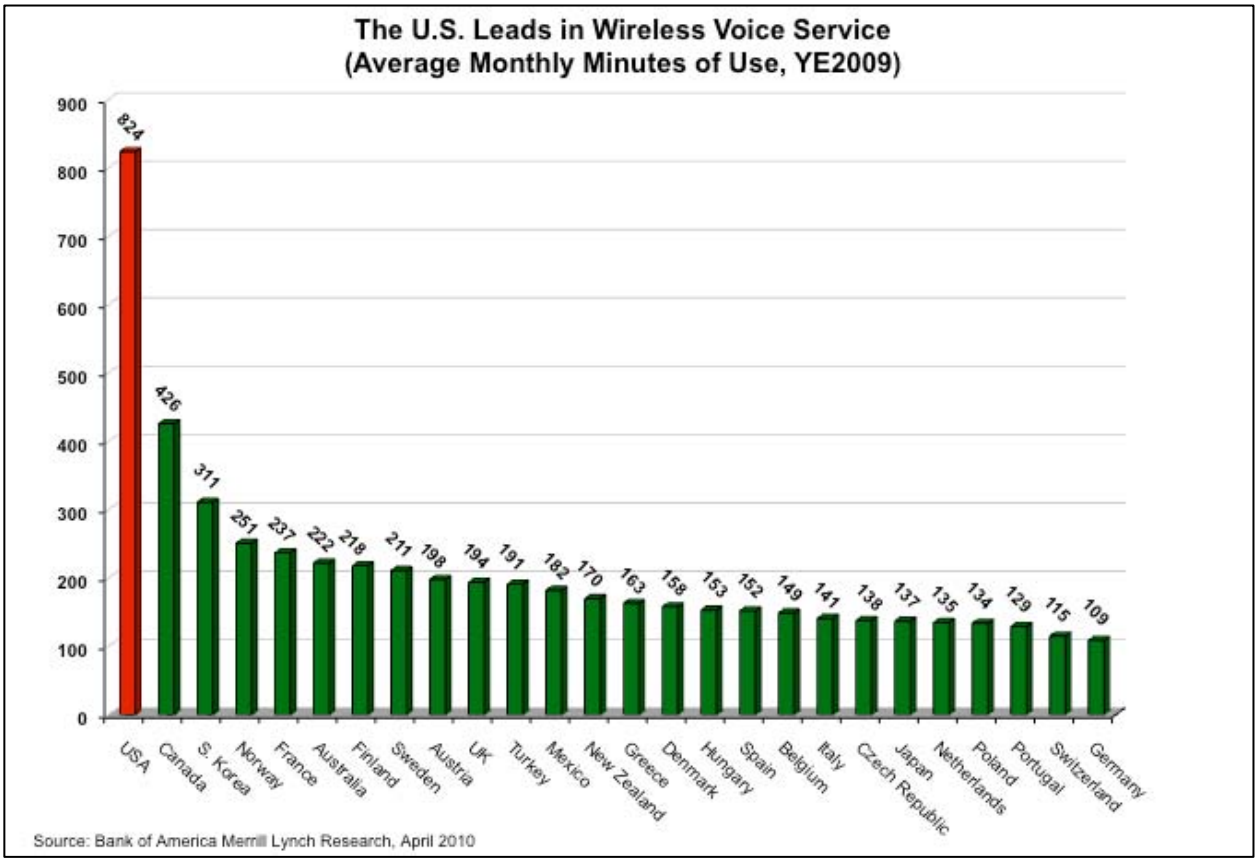
Indeed, according to independent third party analysis as recently as April 2010, and as shown in the following chart, U.S. consumers benefit from the lowest effective cost per minute among the 26 OECD countries monitored.[18]



[17] *See* Howard Buskirk, *Panelists Ask Why U.S. Wireless Market Isn't Better*, COMMUNICATIONS DAILY, Apr. 5, 2010.
[18] *See* CTIA Competition Comments at 60-61.

Particularly with respect to pricing, U.S. providers have often led the way in developing innovative service and calling plans. For example, wireless service providers in the U.S. pioneered bucket plans, lowering the cost of service to consumers and freeing them to get the most from their wireless service. That represented a significant change from the past, and as a result (unlike users in many European countries) Americans began to make and receive more calls, and derive increased value and benefits from the use of their wireless phones.

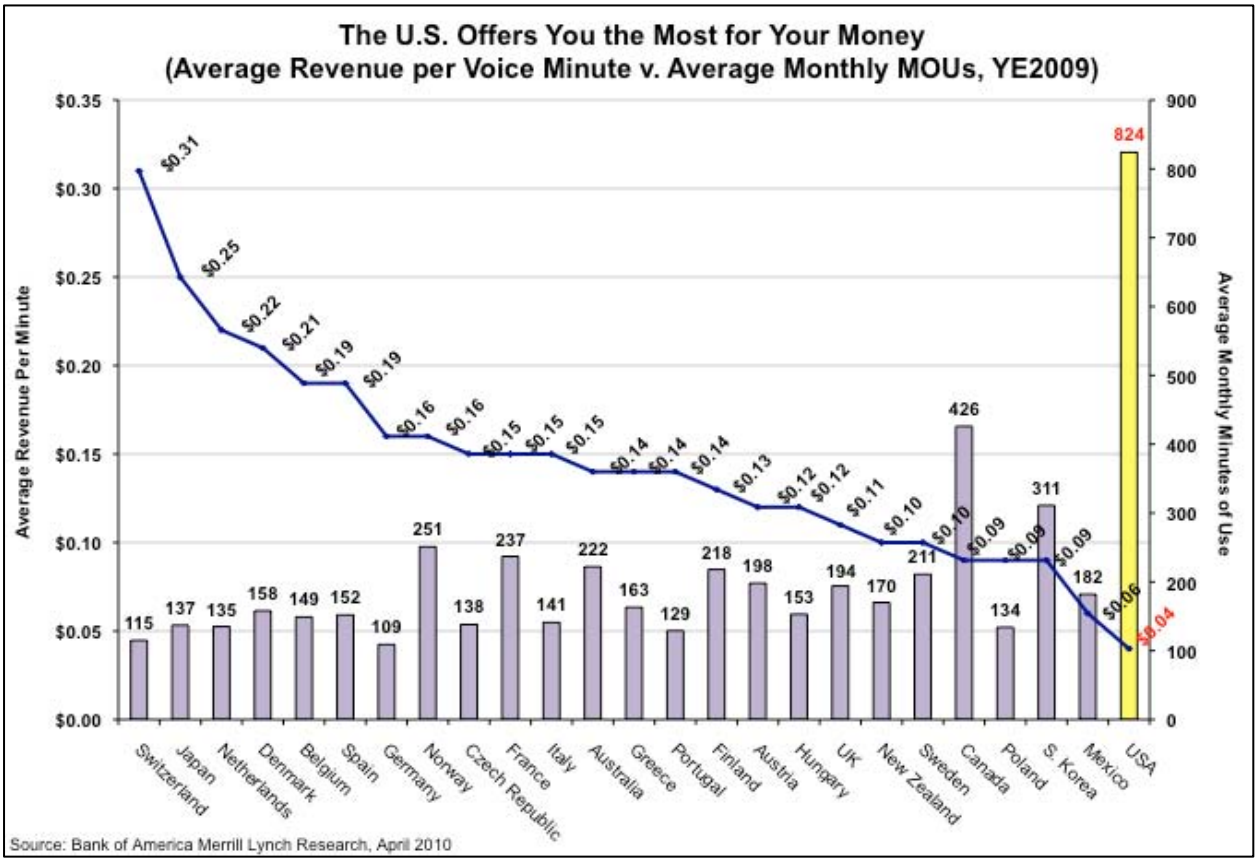
Indeed, as shown in the next chart, American consumers' average minutes of use soared to more than 800 minutes of voice service per month.[19]



By contrast, wireless consumers in other countries use far fewer minutes and pay much higher per-minute rates.

[19] *See* CTIA Competition Comments at 57-59.

The following chart depicts these two trends together, highlighting that U.S. consumers have embraced wireless services to a greater extent and with greater value than consumers in other leading countries.



Recent research confirms the value that competition in the U.S. wireless market continues to bring to consumers. As of the end of 2009, the average revenue per minute in the U.S. was four cents.[20] Across Europe's developed countries, the average revenue per minute was sixteen cents, and the average wireless consumer used just 160 minutes a month, with a range from Sweden's low of ten cents a minute to Switzerland's effective revenue per minute of 31 cents.[21]

[20] Glen Campbell et al, *Global Wireless Matrix 1Q10: A Modest Recovery, Asia in the Lead*, Bank of America Merrill Lynch (Apr. 13, 2010) (reporting year-end 2009 data).
[21] *Id.*

It should be no surprise then that Swedish consumers use 211 minutes a month compared with Swiss consumers' average of 115 minutes a month.[22]

In fact, as the New America commentators look abroad for answers, they should note that wireless providers and regulators are looking back at the U.S. as a model for network build-out, advanced services, and coming to much different conclusions about what will help drive consumer satisfaction. Over the past decade, the U.S. model has had an impact on wireless worldwide. For example, foreign providers have begun offering larger calling plans, and foreign regulators are looking at liberalizing their technology requirements, to encourage the kind of innovation and flexibility the U.S. network operators have exercised since 1993.

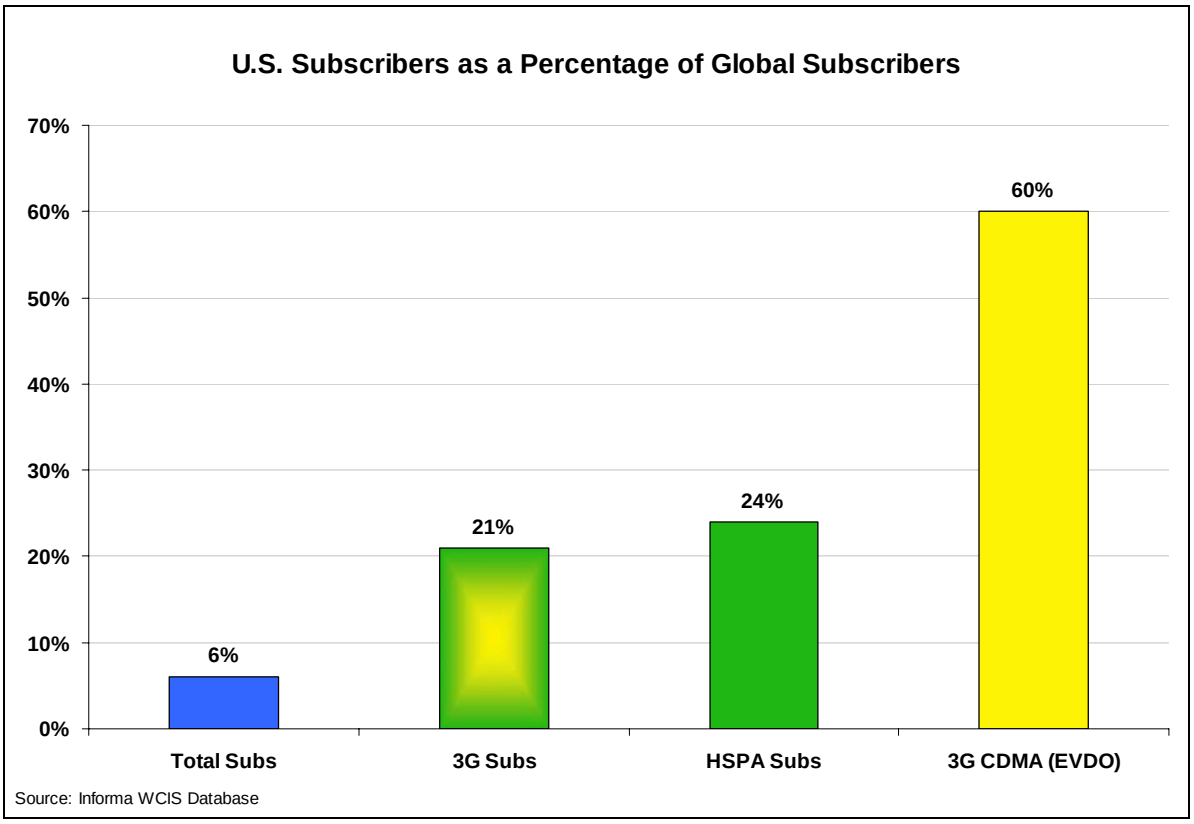
Investment by U.S. Wireless Providers Puts the U.S. at the Forefront of the Mobile Broadband Revolution

When it comes to mobile broadband, the U.S. is again at the forefront in terms of deployment and adoption. We first examine mobile broadband adoption and find that, while the U.S. accounts for only 6% of the total world's total wireless subscribers, the U.S has more than 21% of the world's 3G subscribers.

This is illustrated in both the GSM and CDMA technology families. In GSM, the U.S. has 24% of the world's 200 million 3G GSM High Speed Packet Access ("HSPA") subscribers. AT&T alone has more HSPA subscribers than any other carrier in the world. The story is the same when looking at EV-DO technology, used by Verizon Wireless, Sprint Nextel, Leap Wireless, and other carriers. While we have 33% of the world's CDMA subscribers, we have 60% of the 3G EV-DO subscribers.

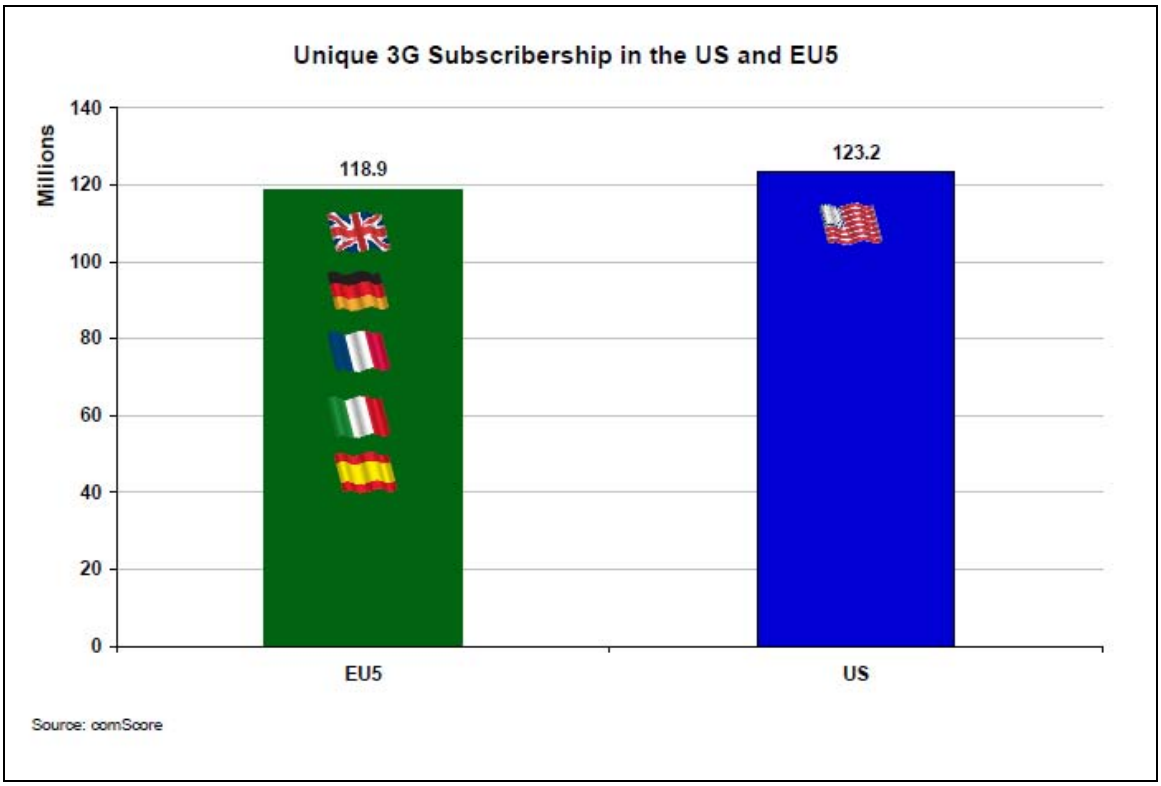
[22] *Id.*

This U.S. global leadership in mobile broadband adoption is demonstrated across technologies in the following chart:



Another international comparison also demonstrates U.S. leadership in mobile broadband adoption. As shown in the following chart, the U.S. has more 3G consumers than are found in the five largest European countries combined: France, Germany, Italy, Spain and the United Kingdom ("the EU5").[23]

[23] According to comScore, for the three months ending in February 2010, the US averaged 123.2 million unique 3G subscribers compared to 118.9 million unique 3G subscribers in the EU5. comScore MobiLens™ (downloaded Apr. 2010).

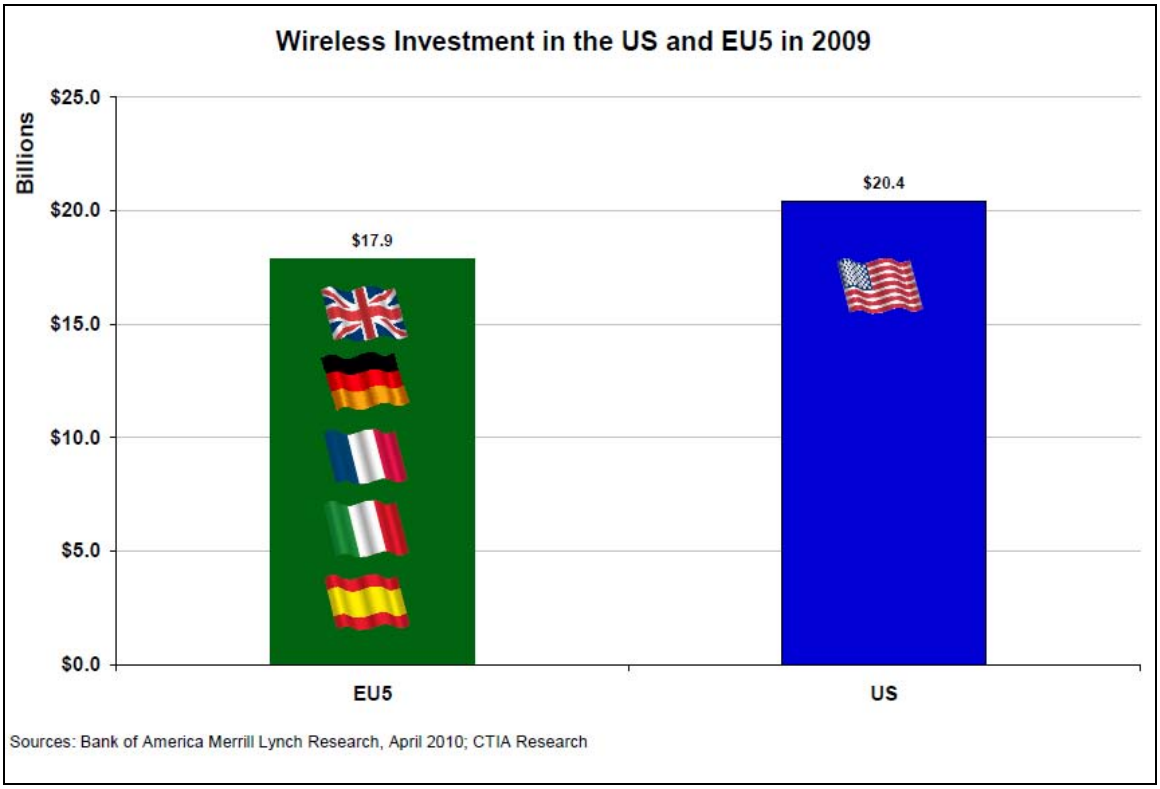


To meet this growing consumer demand, U.S. wireless service providers have continued to demonstrate their commitment through capital investment in their networks. As shown in the chart on the following page, in 2009, U.S. wireless providers invested $20.4 billion in their currently operational networks alone, compared to $17.9 billion invested by wireless providers in the five largest European countries combined.[24] With 4G rollout already underway, the U.S. wireless market is poised to lead well into the 21st century. Indeed, Clearwire's WiMAX network already provides services in 28 markets across the U.S. covering 38 million people, and Clearwire has plans to expand its network to cover up to 120 million people by the end of 2010. And, in the

> "In 2009, U.S. providers invested $20.4 billion in their currently operational networks alone, compared to $17.9 billion invested by wireless providers in the five largest European countries combined."

[24] Glenn Campbell, *Global Wireless Matrix 1Q10: A Modest Recovery, Asia in the Lead*, Bank of America Merrill Lynch at 14 (Apr. 13, 2010).

development and deployment of the Long Term Evolution 4G standard ("LTE"), Verizon Wireless, AT&T, and Cox Communications continue to test their LTE networks, with Verizon Wireless announcing that it would have commercially available 4G service in 30 cities by the end of 2010.[25]

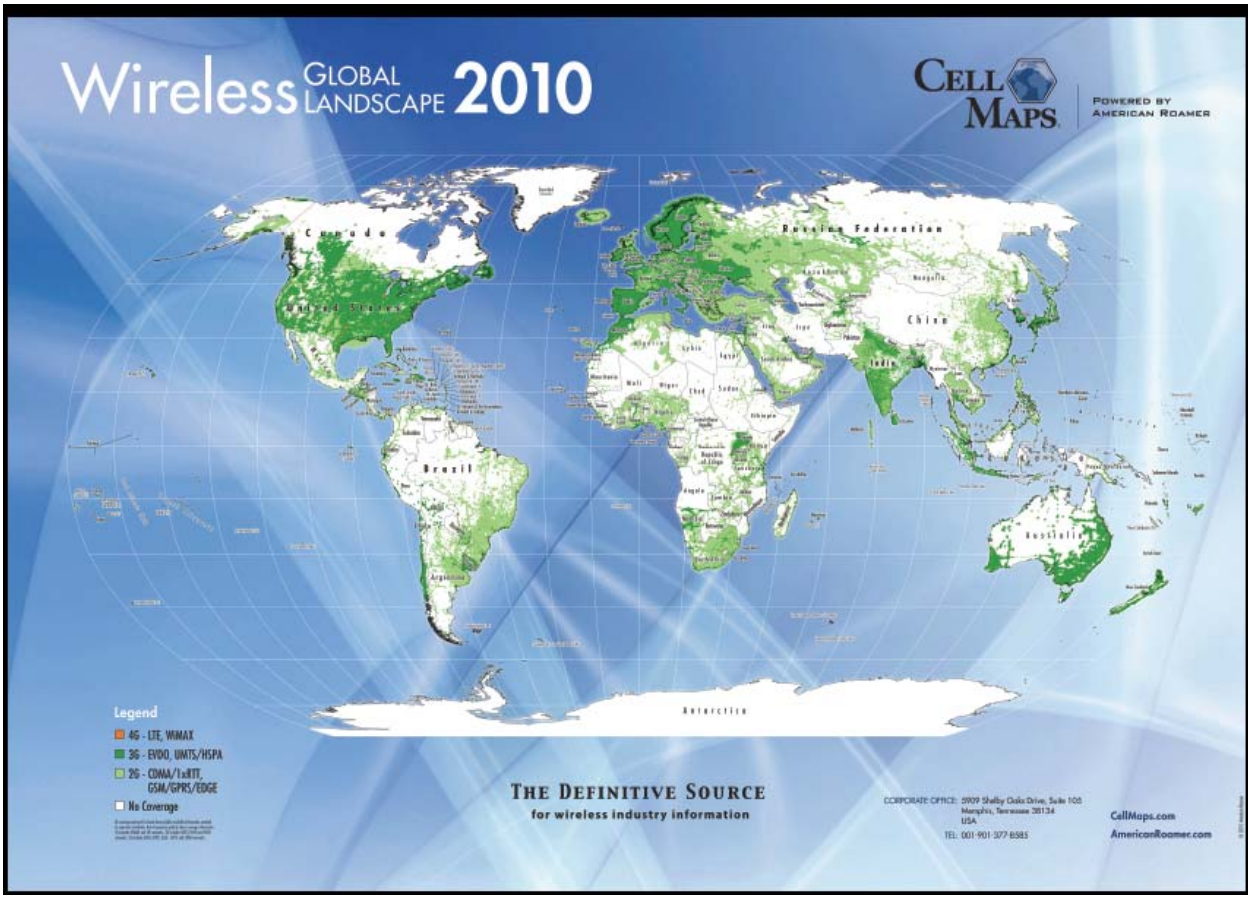


While the New America panelists question wireless coverage in the U.S., it is clear that U.S. providers continue to deploy additional cell sites – adding well over 51,000 additional sites between December 2006 and December 2009.[26] And the number of cell sites is likely to increase substantially as carriers continue deploying networks in the AWS 1 and 700 MHz spectrum and upgrading their existing networks to 3G and 4G technologies. U.S. providers' considerable ongoing investments will help them expand and enhance their networks, which in turn allows

[25] *See* Letter from Christopher Guttman-McCabe to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 09-66, GN Docket No. 09-157, GN Docket No. 09-51 (Feb. 12, 2010), Attach. at 1.
[26] *See* CTIA Semi-Annual Wireless Survey Results, Year-End 2009 Top-Line Survey Results, *available at*: http://files.ctia.org/pdf/CTIA_Survey_Year_End_2009_Graphics.pdf.

them to support new and better services for American consumers. And while the New America panelists look abroad for examples of infrastructure sharing, they fail to recognize the strong trend of collocations involving multiple carriers sharing the same towers. Indeed, as CTIA sought to obtain reasonable time periods for local review of wireless siting applications, the record showed that carriers commonly had more applications pending to collocate on existing towers than for applications to build new towers.[27]

The extent of 2G, 3G, and 4G coverage in the U.S. is depicted in the following map, created by American Roamer, which shows wireless coverage by technology across the globe. The map illustrates the U.S. leadership in both 3G and 4G deployment.



Source: American Roamer

[27] *See Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance*, WT Docket No. 08-165, *Declaratory Ruling*, 24 FCC Rcd 13994 at ¶ 34 n. 107 (2009).

As CTIA responds to the unfounded critiques of U.S. wireless coverage, CTIA also must address the proffered suggestion that consumer-deployed signal boosters should be a point of emphasis for meeting mobile broadband needs. Indeed, the panel's sweeping dismissal of actual and potential interference occurring to wireless networks from signal boosters is troubling.

Responding to a question from a representative of signal booster manufacturer Wilson Electronics, Sascha Meinrath characterized carriers' interference concerns as "ludicrous," without articulating any basis and despite the record evidence at the FCC from numerous Public Safety entities, commercial wireless service providers, and signal booster manufacturers documenting real world interference examples and expressing concerns about increasing incidents. It is a fact that interference from signal boosters can range from degraded or dropped calls to complete disruption of wireless services. Public Safety entities and wireless carriers have detailed the staggering numbers of incidents. Indeed, The Association of Public-Safety Communications Officials-International, Inc. ("APCO") recently warned that: "Many public safety agencies have been frustrated by interference from unauthorized signal boosters, and the difficulty of locating the interfering devices. Thus, APCO supports recommendations … that only licensees, or those with licensee consent, can install signal boosters."[28] Panelists, however, seemed to have no problem with unauthorized "self help" signal boosters causing significant interference to wireless networks (including Wilson Electronics' devices) and threatening to diminish increasingly wireless-reliant consumers' ability to contact Public Safety entities.

"Many public safety agencies have been frustrated by interference from unauthorized signal boosters, and the difficulty of locating the interfering devices." -- APCO Comments

[28] Comments of The Association of Public-Safety Communications Officials-International, Inc., WT Docket 10-4, at 2 (filed Feb. 5, 2010) ("APCO Comments") ("Thus, APCO supports recommendations … that only licensees, or those with licensee consent, can install signal boosters.").

The scarce attention to interference issues, except for the brief, one-sided discussion of unauthorized signal boosters, is both alarming and telling. It was an important missed opportunity to address spectrum use and efficiency, an issue that informs the coverage, capacity and innovation aspects the panel purported to address. U.S. wireless providers have adopted innovative approaches precisely to improve coverage and capacity – for example, by lowering the "noise-plus-interference floors" within exclusive-use, licensed commercial mobile bands, carriers have realized greater spectral efficiencies. A consequence of these developments, however, is that these signals are increasingly subject to interference as mobile devices come close to each other. Thus, in order to meet the coverage and capacity issues that were purportedly so important to the panelists, it is critical that the FCC continue to prioritize interference protection.

> "It is a fact that interference from signal boosters can range from degraded or dropped calls to complete disruption of wireless services."

Conclusion

Ironically, at the close of the day, one panelist had to admit that he was cherry-picking the best bits from other countries' wireless ecosystems. Cherry-picking, by definition, misrepresents reality both here and abroad, and critically ignores context. Nevertheless, and as described above, CTIA believes that, by any reasonable measure, the U.S. is at the forefront of the mobile broadband revolution.

CTIA agrees that we should always try to learn from the best of every other countries' wireless landscapes. At the same time, neither should the critics ignore the fact that the devices, applications, and services offered here in the U.S. are popular, flexible, are among the most innovative in the world, and are continuing to evolve. Hopefully going forward, we will have actual debates and they will be based on facts, not unsupported and incorrect claims.

If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Christopher Guttman-McCabe

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