

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of GN Docket No. 14-28, *Protecting and Promoting the Open Internet* and GN Docket No 10-137, *Framework for Broadband Internet Service*

Comment of MFRConsulting

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Mobile Broadband is a Common Carrier Service

Summary 1
The CTIA’s Unsustainable Propositions..... 2
 Broadband Service is Separable from “Information Services” 3
 Mobile Broadband Service is Public and Interconnected 4
 CTIA’s Analysis of “Functional Equivalence” is Obfuscate and Irrelevant..... 6
Conclusion 7
Appendix: The CTIA’s Presentation of Fabricated and Misleading Evidence..... 7

Summary

The CTIA, the wireless sector’s trade association, recently submitted an *ex parte* filing in the two FCC dockets 14-28 (*Open Internet*) and 10-137 (*Framework for Broadband Internet*) presenting a legal analysis that claims to find that Section 332 bars the Federal Communications Commission from treating Mobile Broadband under a common carrier regime or Title II¹. This Comment demonstrates that the CTIA’s finding is incorrect on the basis of established public policy and the rights of the FCC to establish regulations. In sum, the trade association is denying that wireless services are indispensable, even though the evidence clearly denotes that they are – at least as far as the American public is concerned.

In addition this finding makes no sense in light of technological developments, consideration of the equivalence of services delivered over mobile broadband with those that have been given common carrier treatment, and the meaning and understanding of words in the English language, notably “public,” “private,”

¹ <http://apps.fcc.gov/ecfs/document/view?id=60001010832>, including the attached White Paper, “Section 332’s Bar Against Common Carrier Treatment of Mobile Broadband: A Legal Analysis.”

“interconnected”, and “switched.”

Moreover, the CTIA filing contradicts itself in arguing that there is no separate “telecommunications service” in mobile broadband which is characterized as an inseparable element of an “integrated information service”², while emphasizing that broadband service is distinct from a video, or a social network, or a VoIP (voice over IP (Internet Protocol)) service.³ The CTIA’s position - defying logic - is that broadband service is simultaneously *separable* and *indivisible* from the services delivered over broadband channels.

The refutation of the finding presented in this filing, and recognition of the mutually exclusive or contradictory statements advanced to support it, is based not only on the application of reasonable and sensible meanings to language, and the use and intent of words in the context of public policy goals and the intent of statutes, but also on several demonstrable facts about the mobile sector. These facts include the essential roles, *public* interest implications, and characteristics of the services mobile operators deliver to the *public over public* resources, as well as consumers’ expectations and experiences as they and mobile operators make the transition to the world of multi-service mobile IP (Internet Protocol) broadband.

In the foreseeable future ALL mobile telecommunications-information-entertainment services and applications will be delivered over mobile broadband channels. If the CTIA’s finding is accepted, then the idea of common carriage, and the goals and purposes it serves, will disappear entirely from the world of mobile communications, undermining the precepts of U.S. communications policy that have served this country admirably for over 80 years.

The CTIA’s Unsustainable Propositions

Acceptance of the CTIA’s “finding”, i.e., that the Communications Act prohibits the FCC from reclassifying mobile broadband under Title II, requires a suspension of belief in reality and acquiescence in the propositions that:

- Individual words, and in particular “telephone” and “switched” should be read in isolation, not in the context of the sentence, paragraph or statute in which they appear⁴;
- The word “public” should be interpreted as meaning “private” in the context of mobile communications services provided to the public;
- Broadband is simultaneously inextricable or inseparable and distinct from

² Id., pp.11-12 of White Paper.

³ Id., Section II of White Paper, starting on p.19.

⁴ This proposition is rejected by the CTIA itself in its Interveners’ Brief for Respondents (the FCC in this instance) in the Petition for Review of the FCC’s Final Rules for the Incentive Auction brought before the U.S. Court of Appeals for the D.C. Circuit by the National Association of Broadcasters (NAB)– see p. 15 in <http://origin.library.constantcontact.com/download/get/file/1116948470874-107/Court+of+Appeals+CTIA+12-23-14.pdf>

- the broad and diverse category of online “information services”;
- The emerging realities and essential social and economic value of the services delivered over mobile broadband channels to consumers and public and private organizations should be ignored, as if they have no relevance to the goals of established public policy for telecommunications in the U.S., the rights of consumers, and the obligations of mobile operators as stewards of public resources.

The CTIA is disregarding the actual experiences, needs, and legitimate expectations of customers reflected in a common carrier regime, the need to adapt the principles of universal, affordable access to public network services to the broadband era, and the meanings of words. These flaws and errors are consistent with a pattern that has emerged in recent years of the CTIA’s practice of presenting misleading “evidence” in support of its positions and recommendations, and completely ignoring verifiable facts, reasonable analyses and credible arguments. Other examples of false and/or disingenuous “facts” propagated by the CTIA are given in an Appendix.

Broadband Service is Separable from “Information Services”

The notion that broadband cannot be separated from the services delivered over broadband, and hence are not eligible for Title II treatment since these “information services “ are not⁵, is ridiculous, as at least three examples demonstrate. As noted in this filing, the CTIA is simultaneously supporting the idea of the indivisibility of broadband and “information services,” while going to great pains to justify the opposite position, namely that broadband is not any of these “information services.”

First, there are hundreds, or perhaps thousands, of providers of broadband-delivered services - some competing directly with services offered by the broadband operators over the infrastructure they control - that do not offer mobile broadband service themselves. These “over the top” services providers are therefore operating on the basis that the latter are separable from, and not inextricably bound up with, their “information services”.

Second, many foreign countries are able to make the distinction between broadband and other services that the CTIA has trouble recognizing. In their regulatory regimes, these countries neither differentiate between telecommunications service (or electronic communications service in the European Union) and broadband, nor do they put the latter in a separate category as an indivisible component of “information services”.

Third, within the mobile sector that CTIA represents there are Mobile Virtual Network Operators (MVNO) that lease capacity from mobile operators and then sell retail services including mobile broadband data and access to the public Internet based on this capacity. They too, like Web companies that do not offer broadband

⁵ Id., White Paper, pp11-12.

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data service, are capable of distinguishing between broadband and information services although the CTIA argues that such a distinction is impossible.

Mobile Broadband Service is Public and Interconnected

The CTIA discusses the intent of Congress in 1994 and language from the FCC in 2007, and argues on this basis that only public switched networks that use the North American Numbering Plan (i.e., telephone numbers) are truly “public” and intended to be considered as subject to common carrier or Title II regulation.

The CTIA often makes sensible observations about the rapidity and extent of advances in mobile communications technology and services. It correctly points out the dangers and risks of thinking about and addressing issues raised by emerging and profound developments in mobile communications [if they are viewed within a framework defined by an outdated and obsolete perspective on the sector that fails to take account of new realities.](#)

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Why then, in this filing, is the CTIA clinging to an obsolete view of mobile communications as if past thinking focused on mobile telephony should determine regulatory decisions to be taken in today’s broadband era? Why is the CTIA arguing that the Communications Act PROHIBITS the FCC from changing regulations (eliminating some, modifying others and introducing new ones) to adapt them to today’s technologies, market realities, and customers’ legitimate expectations in accordance with the precepts of this Act?

There is a precedent in which the FCC did consider public switched networks to include more than voice services, for example (emphasis added): *“In sum, we regard the term “public-switched message networks” for purposes of implementing the Executive branch restriction to include those facilities established to provide switched message service such as MTS, telex, TWX, telegraph, teletext, facsimile and **high speed switched data services.**”* This precedent dates from an FCC case in 1985⁶.

There is a more fruitful and, if well applied, forward-looking approach to establishing regulations suited to today’s environment than reliance on analyses of potentially conflicting past statements about the meanings of individual words and phrases. These interpretations were made in various very different technological and market circumstances that are also all substantially different from those that prevail and are emerging today. They are contingent, not ordained or necessary. The FCC is required to act on the basis of reasonable interpretations of the statutes under which it operates. Reasonable interpretations should reflect the principles on which these statutes were established. They are not restricted only to those that [refer to specific conditions or circumstances of technology, or of markets, that are not explicitly embedded in the statutes.](#)

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⁶ Establishment of Satellite Systems Providing International Communications, 101 F.C.C.2d 1046, 1101 (1985).

Section 332 does not contain technology-related or other restrictions on the meaning of the words public switched network. Indeed 332(d) states in subparagraph 2: "*the term "interconnected service" means service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission).*" This definition gives rise to the following observations:

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- It is reasonable for the FCC to review and update its definition of terms in line with technological and other developments, especially those as profound as have become manifest since the turn of the century, and even over the past eight to ten years; for example:
 - It is reasonable today to consider that the term "switching" should encompass packet switching (the basis of the Internet) as well as the traditional telephone or circuit switching,
 - It is reasonable today to consider that IP addresses should be considered as defining the end points of communications as telephone numbers have done for telephone calls, and hence a public "interconnected" service should include communications between IP addresses as well as between telephone numbers – consistent with the meaning of "interconnected" as something that can call or connect to, or be called by or connected with, any point using a national numbering system;
- The word "private" takes on an entirely new meaning – and one that is the opposite of its usual sense - if a service offered to the *public* based on the licensed exploitation of the *public* resource of spectrum awarded through exclusive licenses is classified as a "private mobile radio service" in line with the CTIA's recommendation;
- The consequence of accepting the CTIA's argument about the illegality of reclassifying mobile broadband under Title II is that the very idea of common carriage from the mobile communications sector will be eradicated once not only new, but also ALL, existing telecommunications services are replaced by IP-based alternatives delivered over broadband channels. This outcome would represent a fundamental change in public policy in the telecommunications sector, which it does not lie within the authority of the FCC to decide. The FCC is chartered with implementing policy, not with setting it.

The CTIA claims that mobile broadband services offered to the *public*, over *public* resources that the *public* then uses in multiple ways to connect on demand with human correspondents (other members of the *public*), as well as sources of information, entertainment, and other applications, and information processing and storage facilities throughout the nation and the world, are not an interconnected *public* switched service but a private service. This claim is unreasonable and indefensible⁷.

⁷ Even the narrow technical argument that broadband cannot be a common carrier service because it does not involve the NANP or a service that is functionally equivalent to a common carrier service is

CTIA's Analysis of "Functional Equivalence" is Obfuscate and Irrelevant

The White Paper presented by the CTIA includes a set of statements that allegedly "prove" that "*Mobile Broadband is not the Functional Equivalent of CMRS.*"⁸ The term Mobile Broadband can refer to transmission infrastructure and to the Mobile Broadband Service based on this infrastructure that is offered to the public. As the CTIA points out correctly, services such as VoIP, video, and social media applications are offered on top of this broadband service. The CTIA's argument that Mobile Broadband is not the functional equivalent to a service such as VoIP, is a statement of the obvious, namely that they occupy different levels in the Open Systems Interconnection model of a communications system, as depicted here:

Open Systems Interconnection (OSI) Model

THE 7-LAYER MODEL	DATA UNIT	LAYER
HOST LAYERS	Data	<i>Application (network process to application)</i>
	Data	<i>Presentation (data representation and encryption)</i>
	Data	<i>Session (inter-host communication)</i>
	Segments	<i>Transport (end-to-end connection and reliability)</i>
NETWORK LAYERS	Packets	<i>Network (path determination and logical addressing (IP))</i>
	Frames	<i>Data Link (physical addressing)</i>
	Bits	<i>Physical (media, signal and binary transmission)</i>

VoIP-service specific protocols cover layers 5 to 7 (Session, Presentation, and Application) while mobile broadband access, as for example in the LTE protocol architecture, embraces layers 1 to 3. This framework provides a basis for distinguishing a broadband telecommunications service from "information services," which, according to the CTIA, is not feasible.

47 CFR 20.3 defines CMRS (Commercial mobile radio service) as follows:

A mobile service that is:

(a)

- (1) *Provided for profit, i.e., with the intent of receiving compensation or monetary gain;*
- (2) *An interconnected service; and*

unsustainable in the context of VoLTE (Voice over LTE). The CTIA dismisses the significance of VoLTE in just one comment (between parentheses in the original:) (*Similarly, voice over LTE ("VoLTE") is a distinct offering and cannot render the broadband offering CMRS.*) However, VoLTE is the functional equivalent from a customer's perspective of a common carrier voice service, and enables a broadband user to contact any NANP number, which the CTIA argues is a criterion for common carrier classification.

⁸ Id., White Paper, p. 13.

(3) Available to the public, or to such classes of eligible users as to be effectively available to a substantial portion of the public; or
(b) The functional equivalent of such a mobile service described in paragraph (a) of this section.

Mobile broadband service satisfies all the criteria of paragraph (a) and therefore qualifies as CMRS.

Conclusion

The CTIA's "finding" that there is a legal prohibition against Title II reclassification of mobile broadband is indefensible on any grounds, from public policy and regulation to technological and market realities and dynamics, as well as the needs and rights of customers in the era of broadband networks. The CTIA is tying itself in knots and has been forced to contradict itself in striving to find justifications for this position.

The CTIA has succeeded in exposing the absurdity of its perspective, the inconsistencies in its various claims, and the disingenuous nature of the evidence it presents. The CTIA's exhortation, and implied legal threat to the FCC, not to reclassify mobile broadband under Title II reveals a disregard for the obligations of its members - the mobile operators - as stewards of scarce public resources. It exhibits a lack of understanding of the respective roles of and interrelationships between mobile broadband service and the content, applications, and services accessed and delivered via broadband channels.

Appendix: The CTIA's Presentation of Fabricated and Misleading Evidence

As the leading trade association of the wireless communications industry the CTIA plays a valuable and unique role in providing statistics and information on the status as well as the past of and trends in this sector that occupies a critical role in the U.S. economy and the lives of U.S. residents. It is therefore unfortunate that the CTIA has in recent years developed the practice of supporting its policy positions with fabricated evidence and information presented in misleading formats, instead of relying on verifiable facts and defensible, credible analyses to justify them.

Two examples of this phenomenon are the CTIA's repeated:

- (a) Use of a spurious metric of spectrum efficiency, and
- (b) Publication and updating of a statistic that is mislabeled as the percentage of "wireless-only" U.S. households.

This behavior could be ignored if it involved isolated instances, and if the CTIA responded to attempts to draw its attention to the fundamental flaws in this "evidence", and to engage in discussions about how to develop better and more honest information that would be valuable in reaching decisions on key regulatory issues. But the CTIA has continued to present such "evidence" despite published

criticisms that demonstrate its flaws and misrepresentations. The CTIA has not tried to rebut these criticisms. It has ignored them completely, despite being given access to convincing evidence demonstrating the errors inherent in the evidence it has been propagating, [both](#) through direct communications and in public filings with the FCC.

The CTIA's spurious metric of spectrum efficiency⁹ has been invoked on multiple occasions to support the claim that that its largest members (Verizon and AT&T) are the most efficient users of spectrum in the U.S. and indeed globally. The results of this metric are used to argue that the best public policy is not to impose any restrictions on these two largest U.S. mobile operators' ability (e.g., through spectrum set asides in auctions or spectrum caps) to acquire as much spectrum as they want. I have shown that, according to this metric, Chinese mobile operators are several times more efficient than U.S. operators (a result I do not believe, but have presented as one example to refute the metric's validity).

The second "fact" provided by the CTIA - its mislabeled metric of "wireless-only" U.S. households (the latest CTA estimate as of December 2013 was 41% of all U.S. households¹⁰) - actually only covers residences that do not subscribe to traditional voice services delivered via the copper-based public switched telephone network, even if these households also depend heavily on wired connections for broadband access and/or video and/or fixed VoIP services. It therefore substantially exaggerates the role of mobile networks and undercounts the importance and criticality of fixed broadband services for U.S. consumers.

The "wireless-only" statistic should be relabeled "POTS-free" households (Plain Old Telephone Service). This label would create an accurate view of customers' needs and desires for communications services delivered over fixed and wireless access channels. It would not give the false impression to the headline- only and/or non-expert reader that substantial numbers of U.S. households have no interest in or need for fixed broadband connections.



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⁹ See Bloomberg Daily Report for Executives, May 31, 2013 "The Mystery of the Spurious Spectrum Efficiency Metric: Why Are America's Wireless Leaders Promoting a Meaningless Measure?" and <http://apps.fcc.gov/ecfs/document/view?id=7021920798>. I have on several occasions over a period of almost 3 years challenged the CTIA and other users of this metric to rebut my finding that it is spurious and has no probative value. I have offered to discuss how an honest metric might be constructed. No response has been forthcoming. On request I can supply evidence of these contacts as well as of filings to the FCC that include exposure of the specious nature of this metric. The CTIA most recently referred to this metric in a filing in the Incentive Auction Docket 12-268 in November, 2014 - see footnote 72 in <http://apps.fcc.gov/ecfs/document/view?id=60000982214>
¹⁰ <http://www.ctia.org/your-wireless-life/how-wireless-works/annual-wireless-industry-survey> (accessed December 30, 2014)

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