

**Before The
FEDERAL COMMUNICATIONS COMMISSION
445 12th Street S.W.
Washington, D.C. 20554**

In the Matter of:)	
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)	
Further Inquiry into Two Underdeveloped)	GN Docket No. 09-191
Issues in the Open Internet Proceeding)	WC Docket No. 07-52
)	
)	

COMMENT OF CENTER FOR INDIVIDUAL FREEDOM¹

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¹ CFIF is a non-profit, non-partisan organization with over 250,000 grassroots supporters and activists across America. It was established in 1998 for the purpose of safeguarding and advancing Constitutional rights, as well as ensuring continued American innovation, leadership, economic prosperity and worldwide entrepreneurial preeminence. As a central part of that mission, CFIF advocates public policies that advance technological, Internet and broadband development most effectively and efficiently.

I. Introduction

The American public is rapidly approaching the end of its patience.

A primary basis for that disapproval is a federal government whose administrative agencies increasingly succumb to “the danger of dogma,” as earnestly described by Federal Communications Commission (FCC) Chairman Julius Genachowski during his June 16, 2009 nomination hearing.² By a two-to-one margin (53% to 27%), for instance, scientific opinion polls reveal an electorate opposed to the FCC’s current effort to regulate the Internet.³ Moreover, the United States Court of Appeals for the District of Columbia Circuit ruled unanimously this year that the FCC does not possess authority to regulate Internet service providers’ network management practices.⁴ Furthermore, the nation’s elected Congressional representatives have also refused to enact Net Neutrality legislation.

Despite these unequivocal rejections, the Commission persists in its ironically dogmatic effort to enact the Net Neutrality agenda by any means necessary. As demonstrated herein, that effort contravenes both history and economic reality, just as it contravenes public opinion, the judicial branch and the elected legislative branch.

² Statement of Julius Genachowski, Nominee to Serve as Chairman of the Federal Communications Commission, U.S. Senate Comm. On Commerce, Science, and Transportation, at 3 (June 16, 2009).

³ See April 9, 2010 Rasmussen Reports opinion survey of 1,000 adults with margin of sampling error for the survey of +/- 3 percentage points and 95% level of confidence, *available at* http://www.rasmussenreports.com/public_content/business/general_business/april_2010/53_oppose_fcc_regulation_of_the_internet.

⁴ *Comcast Corporation v. Federal Communications Commission, et al.*, No. 08-1291 (2010).

Specifically, this Comment addresses the FCC Wireline Competition and Wireless Telecommunications Bureaus' solicitation of comments on two issues in the Open Internet proceeding that they determined merited further development. Accordingly, the Center for Individual Freedom (CFIF) respectfully files instant Comment to address those issues of further development.

II. Discussion

A. Specialized Services

The first issue meriting further development is the relationship between open Internet protections and services that are provided over the same last-mile facilities as broadband Internet access service (commonly labeled “managed” or “specialized” services). Paragraph 3 states particularized concerns that “consumers may not be able to effectively exercise their preferences for broadband Internet access service (or content, applications, or services available through broadband Internet access service) over specialized services.”

A perfect example of “the danger of dogma” described by Chairman Genachowski and referenced in the Introduction above, this constitutes a needlessly and falsely divisive issue. The simple reality is that specialized service offerings are already widespread and exist well within the norms established over a decade ago by the Internet Engineering Task Force (IETF). Moreover, specialized services constitute an important tool for independent small businesses, which create most new jobs in the United States and which play a pivotal role in propelling economic growth in the midst of our current difficult economic conditions.

As far back as December 1998, the IETF explicitly recognized specialized services:

“Differentiated services are intended to provide a framework and building blocks to enable deployment of scalable service discrimination in the Internet. The differentiated services approach aims to speed deployment by separating the architecture into two major components, one of which is fairly understood and the other of which is just beginning to be understood. In this, we are guided by the original design of the Internet where the decision was made to separate the forwarding and routing components.”⁵

Moreover, the IETF at that time affirmed the freedom “to configure the node parameters in whatever way that is appropriate for their service offerings and traffic engineering objectives.”⁶

Accordingly, the unprecedented technological growth and Internet innovation we have witnessed in the twelve years since RFC 2474 have occurred within a regulatory environment sanctioning the existence and logic of specialized services.

During that period, we have witnessed a twenty-fold increase in email traffic (from 12 billion per day to 247 billion per day) and a thousand-fold increase in the number of pages available via Google search (from approximately 1 billion to approximately 1 trillion).⁷ Since the IETF promulgated those standards in 1998, majorities of American households and businesses have acquired broadband access, and now utilize the Internet via a multitude of technologies – wireless, satellite, cable, copper and fiber. In the past five years alone, American per capita bandwidth has increased by a multiple of twelve, from 262 kilobits per second to over 3

⁵ IETF Request for Comments 2474, at 2.

⁶ *Id.*

⁷ Oliver J. Chiang, *The Decade in Data*, *Forbes*, December 28, 2009.

megabits per second. Similarly, American Internet use per month has increased twelve-fold, from 170 million gigabytes per month to 2 billion gigabytes per month.⁸ Since 2000, the U.S. has experienced \$4 trillion in investment in information infrastructure and software, including almost \$500 billion in 2008 alone.⁹

Therefore, when the FCC in its instant inquiry asks at Paragraph 5, “Which policies will best protect the open Internet and maintain incentives for private investment and deployment of innovative services that benefit consumers?”, the answer is obvious. Namely, the same policies that have prevailed throughout the twelve years in which the U.S. has enjoyed unprecedented Internet investment, growth, innovation, employment and consumer enjoyment will best facilitate continued progress.

The alternative suggested by Net Neutrality dogmatists, in contrast, only promises to introduce new regulatory uncertainty and constraint, which in turn will jeopardize incentives for continued private investment and risk-taking. The FCC suggests in Paragraph six possible regulatory intrusions, including (a) definitional clarity mandates, (b) marketing and stand-alone service restrictions, (c) burdensome disclosure requirements, (d) non-exclusivity requirements, (e) artificial limitations on specialized service offerings, and/or (f) capacity allocation mandates. No evidence, however, exists to demonstrate past, current or likely future abuses that these proposed regulations would somehow alleviate. To the contrary, the Internet’s past and current growth and innovation clearly establish that the

⁸ Bret Swanson, *Google and the Problem With 'Net Neutrality*, *The Wall Street Journal*. October 5, 2009.

⁹ George Gilder, *Cap and Trade for the Internet*, *The Wall Street Journal*, March 16, 2010.

absence of such regulatory burdens have enabled two decades of unprecedented worldwide and domestic technological advancement via the Internet.

The stakes are far too high for this Commission to engage in the sort of unnecessary and destructive regulatory fiat that has already been rejected by public opinion, the courts, and Congress.

B. Application of Open Internet Principles to Mobile Wireless Platforms

The second issue meriting further development is the application of open Internet rules to mobile wireless Internet access services, which have unique characteristics related to technology, associated application and device markets, and consumer usage. Paragraph 6 of the Commission's instant inquiry "seeks comment on 'how, to what extent, and when' openness principles should apply to mobile wireless platforms, with a particular emphasis on furthering innovation, private investment, competition, and freedom of expression." Paragraph 10 further specifies that the Commission's focus is "how best to maximize consumer choice, innovation, and freedom of expression in the mobile application space, while ensuring continued private investment and competition in mobile wireless and broadband services."

The simple answer is that Net Neutrality regulations will subvert the FCC's own wireless goals by denying network engineers the flexibility to manage increasing traffic amid increasingly scarce capacity.

Despite the worldwide economic downturn, Internet growth and innovation have remarkably managed to continue. More pertinently, no Internet segment has

grown or innovated more than wireless. In just the past five years, we have enjoyed unimaginable dynamism and expansion of consumer choice in products like smartphones and services like mobile video. We have also witnessed well over \$100 billion in investment by wireless carriers, U.S. ascent past Europe in 3G mobile networks and prices 60% lower than overseas counterparts.¹⁰ Moreover, wireless offers the most promising opportunity to meet the FCC's goal of broadband expansion to underserved rural and lower-income areas.

It is not by mere coincidence that this remarkable episode of human innovation has occurred in the absence of Net Neutrality.

It also defies logic for Net Neutrality proponents to now contend that the very regulatory freedom that brought wireless growth and innovation to date must paradoxically be terminated in order to continue that growth and innovation.

The fundamental problem we face is that the laws of physics and bandwidth scarcity present a looming roadblock for continued wireless growth. The coming demand curve far exceeds expected capacity growth. Wireless data traffic is on a pace to double annually, and traffic by the year 2017 is projected to increase by a factor of 40.¹¹ Such offerings as cloud computing, video and other new applications will only consume increasing amounts of available wireless capacity.

It is also important to note that a small portion of Internet users continue to consume a drastically disproportionate share of available capacity. The top 1% of connections accounted for 20% of traffic in 2009, and the top 10% of connections

¹⁰ Swanson, *supra*.

¹¹ Coda Research Consultancy, *Mobile Broadband and Portable Computers: Revenue, User and Traffic Forecasts 2009 – 2017*, July 19, 2009.

accounted for an astounding 60% of traffic.¹² In other words, a small number of users can jeopardize Internet service quality for the larger consumer population.

So how can we most effectively accommodate ever-increasing wireless demand?

Unfortunately, existing and near-term physical capacity to meet demand is alarmingly limited. Approximately 240,000 cell sites in the United States service 280 million subscribers, or over 1,000 per cell site.¹³ In dense urban areas, that saturation level stands even higher. Moreover, in comparison to wireline capacity, wireless capacity is exponentially more limited and approximately seven times more expensive to expand. Adding spectrum to the domestic mobile marketplace requires up to ten years, according to wireless analysis.¹⁴ So while additional radio spectrum and new technologies like 4G offer promise, they won't prevent the looming danger of future constraint.

Reliance upon capacity expansion alone will not suffice.

Instead, one reasonable and feasible option exists to accommodate increasing numbers of wireless consumers, increasing capacity burdens created by such developments as cloud computing and streaming applications: flexible traffic management. Accommodating new service demands will require regulatory latitude for network engineers to handle finite capacity, as well as additional

¹² Cisco, *Cisco Visual Networking Index: Usage Study*, October 21, 2009.

¹³ *Wireless Week, By the Numbers: July – August 2009*, August 1, 2009; CTIA, *Wireless Quick Facts, Mid-Year Figures*.

¹⁴ RCR Wireless, *Analyst Angle: Solutions for the Broadband World*, November 4, 2009.

hundreds of billions of dollars in private investment in networks, fiber optics and infrastructure.

The FCC's currently proposed rule would undermine that. Instead of freedom to innovate and manage traffic, it would impose a one-size-fits-all principle that requires all bits to be treated the same, and would reduce all service to the lowest common denominator by precluding data prioritization, admission control, creative network designs and more varied service options from which consumers could freely choose. A small portion of wireless users would ultimately degrade service for the entire consumer population under the Commission's proposed rule.

Simply put, without allowing network engineers and service providers regulatory flexibility, we simply cannot expect continued network innovation, investment, competition and expansion to prevent data bottlenecks. By imposing a new regulatory atmosphere of uncertainty and restriction, the FCC would create systemic uncertainty, operational difficulty and other unintended effects.

In the end, forcibly imposing artificial openness principles would only serve to frustrate its own stated wireless goals as expressed in Paragraph 10 of the FCC's present inquiry.

III. Conclusion

In light of the evidence and history set forth herein, the FCC must tread carefully in contemplating new regulatory restrictions upon specialized services and wireless Internet access services. Imposing contentious new mandates will only

undermine the progress that we have achieved to date in the absence of such regulations, litigation and legislative and judicial rebuke.

Respectfully submitted,

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