



**ELECTRONIC FRONTIER FOUNDATION**  
Protecting Rights and Promoting Freedom on the Electronic Frontier

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## Introduction

The Electronic Frontier Foundation (EFF) is the leading nonprofit organization defending civil liberties in the digital world. Founded in 1990, EFF champions user privacy, free expression, and innovation through impact litigation, policy analysis, grassroots activism, and technology development. With over 40,000 dues-paying members and well over 1 million followers on social networks, we focus on promoting policies that benefit both creators and users of technology.

We offer this submission to provide a detailed history of the issue of network neutrality regulation, highlight the protections S.B. 822 seeks to establish that are pertinent to the events that took place in Santa Clara County, and to explain how the throttling instituted by Verizon was unnecessary for network management purposes.

## **The FCC's 2017 Decision to Abandon its Authority Over Internet Service Providers (ISPs) is the Source of the Problem and Why We Are Gathered Here Today**

The FCC decision to reclassify broadband providers as subject to regulation under Title I of the Communications Act, rather than Title II (also known as its common carrier authority), effectively deregulated the broadband industry. This is due to the fact that Title I carriers are subject to virtually no federal statutory obligations under current case law.<sup>1</sup> The FCC's decision to no longer exercise its authority to enforce net neutrality, privacy, competition, and public safety policy has forced local and state governments to shoulder a greater role in protecting their citizens.

The recent events of Verizon having throttled the Santa Clara fire department<sup>2</sup> during the worst fire in the state's history while attempting to upsell them after four weeks of delay is critical evidence of the state's interest in having regulations and why the recently passed law (S.B. 822) was necessary. Were S.B. 822 already law, the Attorney General would have the power to investigate Verizon's conduct and, if the facts reveal a violation of S.B. 822, to enact penalties. Without S.B. 822 or the FCC's authority, the only way Verizon could have been found liable for misconduct would be if they had made affirmative misrepresentations to the fire department.

The coercive business practice of selling more expensive plans during an emergency was effectively legalized by the FCC's 2017 Restoring Internet Freedom Order<sup>3</sup> because the national ban on "unjust and unreasonable" business practices no longer applies to broadband providers as of this June. Furthermore, Verizon's decision to throttle public safety broadband to such a low data stream as to render the service useless during a declared emergency is no longer subject to

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<sup>1</sup> See *Comcast Corp. v. FCC*, 600 F. 3d 642 (D.C. Cir. 2010); *Verizon v. FCC*, 740 F. 3d 23 (D.C. Cir. 2014).

<sup>2</sup> Jon Brodtkin, *Verizon Throttled Fire Department's "Unlimited" Data During California's Wildfire*, ARSTECHNICA (Aug. 21, 2018), available at <https://arstechnica.com/tech-policy/2018/08/verizon-throttled-fire-departments-unlimited-data-during-calif-wildfire>.

<sup>3</sup> EFF firmly believes that the facts presented by the Santa Clara County declarations to the D.C. Circuit demonstrates a 47 U.S.C. Section 201 unjust and unreasonable practice by Verizon. However, the Restoring Internet Freedom Order's reclassification of broadband providers into Title I information services relieved them of their general duty under Section 201 of the Communications Act. As a result, broadband ISPs may operate unjustly and unreasonably without legal repercussions.



review by the FCC in the absence of its authority to regulate broadband providers.<sup>4</sup> Furthermore, no agency is poised to prospectively address the critical balance between public safety and profit, which was one of the core reasons the FCC was originally created. What we have instead today is an earth shattering *silence* from the federal regulator in light of what happened in California because acknowledging the problem would force them to admit their error in issuing the Restoring Internet Freedom Order.

California decided to not adopt a policy of intentional helplessness by enacting a law with provisions that squarely address the problem. Under Section 3101(a)(7) of S.B. 822, the California Attorney General is empowered to address broadband provider practices that are “unreasonably interfering with, or unreasonably disadvantaging, either an end user’s ability to select, access, and use broadband Internet access service.” Thus the California Attorney General would be empowered to explore whether throttling a public safety entity’s broadband access during a state declared emergency to speeds akin to a dialup modem is “unreasonable.” Furthermore, Verizon’s throttling of public safety broadband service during an emergency may have “unreasonably disadvantaged” the fire department when the offered solution by Verizon was a wireless plan that doubled their costs.

In addition, under Section 3101(a)(8) the California Attorney General is empowered to enforce ISPs to “disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of those services.” As the emails submitted to the D.C. Circuit indicate, the Santa Clara Fire Department believed at two separate times that their situation was resolved and that they were entitled to an unlimited data plan without throttling both last year and in the middle of the emergency. The California Attorney General would be able to force Verizon to disclose its own communications as part of its new found authority to oversee the industry. It is generally expected that California’s law will take effect next year should the D.C. Circuit rule in favor of the states’ power to regulate.

### **The FCC’s 2017 Decision to Re-reclassify Broadband as an Information Service Broke From Decades of Bipartisan FCC Tradition**

The FCC’s 2017 Order did not simply return us to a pre-2015 status quo. To the contrary, it reversed decades of sound policy efforts to support and protect the open Internet. When the 1996 Telecommunications Act was enacted, all providers of Internet service were under the FCC’s common carrier authority, otherwise known as Title II of the Communications Act. When broadband Internet began with telephone companies deploying digital subscriber line (DSL) technology, it too was under the FCC’s Title II authority.

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<sup>4</sup> The FCC’s 2015 Open Internet Order granted the federal agency the general power to review broadband Internet access service provider business practices including the means they deploy throttling techniques (47 U.S.C. § 201 & 47 U.S.C. § 202). Traditionally, the FCC has approved of throttling services so long as the practice was a reasonable network management practice. EFF does not believe that throttling a public safety broadband service to 1/200<sup>th</sup> its original speed (and effectively rendering the service useless) would qualify as a reasonable network management practice. Indeed, the 2015 Open Internet Order encouraged ISPs to dedicate prioritization of bandwidth for public safety purposes during emergencies, which is the opposite of what occurred with its repeal.

In 2002, the FCC inquired how to treat newly invented cable modems from television providers and concluded that cable broadband was an information service (Title I of the Communication Act), which led to years of litigation until the Supreme Court under *Brand X* decided the FCC was entitled to *Chevron* deference.<sup>5</sup> However, the FCC regularly asserted that cable broadband was subject to the FCC’s ancillary jurisdiction authority and repeated its support for network neutrality. On his final year, President Bush appointed Chairman Michael Powell articulated the “four Internet freedoms” as a challenge to industry to keep the network open.<sup>6</sup> Furthermore, President Bush appointed FCC Chairman Kevin Martin issued the agency’s Internet Policy Statement,<sup>7</sup> which at the time was believed to allow the FCC to enforce network neutrality under Title I.<sup>8</sup> In fact, when Congress passed the American Recovery and Reinvestment Act to rebuild the economy after the financial sector collapse in 2008, it conditioned billions of dollars in federal money on following the Republican drafted network neutrality rules.<sup>9</sup>

Years later, though, a Republican-led FCC enforcement action against Comcast faced an initial setback after the D.C. Circuit questioned its legal theory of being able to regulate Title I carriers.<sup>10</sup> In 2010 the FCC under President Obama’s appointee Chairman Julius Genachowski, attempted to address the D.C. Circuit’s decision and rectify how the FCC could retain its oversight authority over the ISP industry. Many consumer advocates believed the FCC should return to relying on its Title II common carrier authority, but companies such as AT&T asserted that the FCC retained sufficient authority under Title I of the Communications Act and convinced the FCC to refrain from exercising its Title II authority.<sup>11</sup> Following the FCC’s 2010 network neutrality decision, Verizon sued the agency claiming it could not enforce network neutrality under Title I of the Communications Act and won in the D.C. Circuit in 2014.<sup>12</sup>

It is at this point, just one year before the landmark 2015 Open Internet Order, that the FCC under Chairman Tom Wheeler was driven to the conclusion that the agency’s Title I regulation theory was unsound and that in order to fulfill the agency’s public interest duty to preserve non-discrimination, competition, affordability, and support public safety over the network that it had to return to its common carrier authority, the same legal structure the commercial Internet started under at its birth. The D.C. Circuit categorically agreed with the FCC’s rationale and rejected

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<sup>5</sup> See *National Cable & Telecommunications Association v. Brand X Internet Services*, 545 U.S. 967 (2005).<sup>[1]</sup><sup>[SEP]</sup>

<sup>6</sup> FEDERAL COMMUNICATIONS COMMISSION, *Silicon Flatirons Symposium on The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age* (Feb. 8, 2004), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-243556A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf).

<sup>7</sup> FEDERAL COMMUNICATIONS COMMISSION, *Internet Policy Statement* (Sep. 23, 2005), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-05-151A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf).<sup>[1]</sup><sup>[SEP]</sup>

<sup>8</sup> TECH LAW JOURNAL, *FCC Classifies DSL as Information Service* (Aug. 5, 2005), available at <http://www.techlawjournal.com/topstories/2005/20050805a.asp>.

<sup>9</sup> Ryan Singel, *\$4 Billion in Broadband Stimulus Grants Tied to Strict Net Neutrality Rules*, WIRED (Jul. 1, 2009), available at <https://www.wired.com/2009/07/4-billion-in-broadband-stimulus-grants-tied-to-strict-net-neutrality-rules>.

<sup>10</sup> *Comcast Corp. v. FCC*, 600 F. 3d 642 (D.C. Cir. 2010).

<sup>11</sup> AT&T PUBLIC POLICY BLOG, *AT&T Statement on Proposed FCC Rules to Preserve an Open Internet* (Dec. 1, 2010), available at <https://www.attpublicpolicy.com/broadband/att-statement-on-proposed-fcc-rules-to-preserve-an-open-internet> (noting “we are pleased that the FCC appears to be embracing a compromise solution that is sensitive to the dynamics of investment in a difficult economy and appears to avoid over-regulation.”)

<sup>12</sup> *Verizon v. FCC*, 740 F. 3d 23 (D.C. Cir. 2014).

every major legal argument raised by the major wireless and wireline broadband industry.<sup>13</sup> In short, the *Comcast* and *Verizon* decisions completely buried the idea that the FCC retains any vestige of oversight or consumer protection power over Title I companies and that its authority to regulate is squarely within its Title II power. As a result, the Restoring Internet Freedom Order of 2017 is the first time the federal government has completely abandoned overseeing the telecom market with clear knowledge that it can do nothing now to regulate a highly concentrated and critical infrastructure industry.<sup>14</sup>

### **One Purpose of the FCC’s Network Neutrality Rules Was to Separate Business Decisions by ISPs from Engineering Issues That Made Throttling Necessary**

All of the FCC’s past rules and regulations over broadband access contain the near universal exemption of “reasonable network management”: that an ISP may reallocate network bandwidth to services and applications for a technical purpose, but not as a means to charge extra rents, harm competition, or stifle disfavored content. Given the power of the broadband providers to act as a gatekeeper to the Internet, the FCC had long held that they should be subject to non-discrimination rules such as network neutrality (until 2017).

As a preliminary matter, it is worth understanding how wireless broadband operates in order to recognize the extent Verizon’s throttling of public safety was both technically unnecessary and a discretionary business practice divorced from any engineering needs. Wireless broadband providers depend on government licenses of spectrum much in the same way radio and television channels are organized. Each spectrum license grants a right to use a set of frequencies to provide a service approved by the FCC or Department of Commerce (for example, National Public Radio in California operates over the frequencies 88.1 Mhz up to 91.9 Mhz to transmit FM radio signals). The assigned frequency has a set of unique physical properties such as how well a signal can travel over long distances, how much data it can carry, and how effectively it can penetrate obstacles.

Verizon’s 4G LTE network operates over spectrum that historically was used for television broadcasts before it was reassigned and auctioned in 2009.<sup>15</sup> It carries the physical characteristics that former analog television signals enjoyed, such as the ability to transmit clear signals over long distances through obstacles, and is considered “beachfront” property for broadband. Verizon purchased the leasing privileges to transmit their LTE service at \$4.74 billion in 2008, indicating just how valuable the public resource is to the company.<sup>16</sup>

Data travels over a wireless network from handsets or other devices by connecting to a nearby cell tower, which is then connected by a wire to the Internet. Each tower is capable of distributing a set amount of capacity that is divided among the users that are connected to the

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<sup>13</sup> *United States Telecom Ass’n v. FCC*, 825 F. 3d 674 (D.C. Cir. 2016).

<sup>14</sup> See Comments of the Electronic Frontier Foundation on Notice of Proposed Rulemaking at pg. 8, WC Docket No. 17-108 (July 17, 2017), available at [https://www.eff.org/files/2017/07/17/eff\\_comments\\_fcc\\_nn\\_.pdf](https://www.eff.org/files/2017/07/17/eff_comments_fcc_nn_.pdf) (detailing the decline of competition in high-speed Internet access in America).

<sup>15</sup> Sam Sewall, *The Switch from Analog to Digital TV* (Nov. 2, 2009), NIELSON COMPANY, available at <https://www.nielsen.com/us/en/insights/news/2009/the-switch-from-analog-to-digital-tv.html>.

<sup>16</sup> Chris Ziegler, *FCC Releases 700MHz Auction Details, Verizon, AT&T big winners* (Mar. 20, 2008), ENGADGET, available at <https://www.engadget.com/2008/03/20/fcc-releases-700mhz-auction-details-verizon-atandt-big-winners>.

tower. Increasing capacity for wireless broadband providers is a fairly straightforward exercise. Either they build additional towers to share the burden amongst connected users, they encourage users to use a nearby Wi-Fi hot spot to offload their data needs,<sup>17</sup> or they obtain additional spectrum licenses.

For simplicity's sake we can use flat numbers to illustrate a proper purpose of throttling that would fall squarely in the realm of reasonable network management. A tower that has 1 gigabit per second of download capacity (1000 megabits per second or mbps) can generally allow 10 users to each use up to 100 mbps of download capacity. If 20 users utilize that tower with data packages of 100 mbps download speeds each, the tower is forced to make choices. It cannot deliver the same 100 mbps of capacity to all 20 users at the same time, so it must throttle the speeds of all 20 users to ensure connectivity. The Open Internet Order recognized this dynamic nature of Internet access and would have no problem with a wireless broadband provider *temporarily* providing all 20 users with a 50 mbps download capacity until the congestion was alleviated.

What happened in Santa Clara, though, raises serious questions that the FCC could have explored under its Title II common carrier authority but cannot today. Specifically, why is Verizon's throttled speed so dramatically lower than the original speed purchased for public safety customers? According to the Santa Clara Fire Department's affidavit before the D.C. Circuit, their public safety wireless service had its speed throttled to 1/200<sup>th</sup> its original speed once it hit its arbitrary data cap. At 1/200<sup>th</sup> its original speed, the capacity burden on a 4G LTE tower would be practically invisible to the network. What steps did the company undergo to arrive at the conclusion that such a tiny fraction of the original service was appropriate? Did Verizon understand that such throttling would render the fire department's broadband access useless for any practical application (and thus incentivize the upsell)? Should it be permissible as a business practice to throttle a service in 2018 to a speed surpassed by modems invented in 1996, particularly when the customers are public safety entities? All of these questions lack a regulator with the power to investigate and resolve.

### **Verizon's Decision to End its Throttling Practice for Public Safety Users Demonstrates That it was a Business Practice and Not an Issue of Reasonable Network Management**

Verizon's use of throttling in the Santa Clara situation had nothing to do with managing congestion, ensuring quality of service, or any engineering matter. Verizon's decision to end the practice outright, while not raising prices, and applying this change to the west coast and Hawaii<sup>18</sup> has made it abundantly clear that everything that happened to the Santa Clara Fire Department was the product of corporate business decisions. Nothing was upgraded to allow Verizon to desist its throttling practices. Rather the overwhelming bad publicity forced Verizon to re-evaluate whether it was politically sustainable for them to continue to overcharge and

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<sup>17</sup> WIRELESS BROADBAND ALLIANCE, *More than 60% of Global Mobile Data Traffic Will be Offloaded Onto WiFi Networks This Year* (Apr. 4, 2017), available at <https://www.wballiance.com/more-than-60-of-global-mobile-data-traffic-will-be-offloaded-onto-wifi-networks-this-year>.

<sup>18</sup> VERIZON COMMUNICATIONS, *Verizon Statement on California Wildfires and Hurricane in Hawaii* (Aug. 24, 2018), available at <http://www.globenewswire.com/news-release/2018/08/24/1556454/0/en/Verizon-statement-on-California-wildfires-and-hurricane-in-Hawaii.html>.

under-provide public safety customers after successfully persuading the federal government to deregulate them. We should be concerned with these state of affairs where embarrassment and political calculation have substituted for public policy.

The reality remains that wireless broadband providers are completely unfettered by the public safety obligations that they were bound by as recently as 4 months ago.<sup>19</sup> Nothing has changed the fact that no government agency has direct authority to regulate ISPs to address public safety concerns. Indeed, nothing forces Verizon to maintain its new business practice nor binds other major national companies such as AT&T, T-Mobile, or Sprint. Such nationwide rulemaking resides exclusively within the FCC's now abandoned Title II common carrier authority, and only the restoration of that authority would allow regulators to begun evaluating and establishing rules that benefit public safety purposes divorced from a profit motive.

## Conclusion

The FCC's decision to abandon its core duties to the public is extraordinarily controversial<sup>20</sup> and has been met with opposition on all fronts from the public, the courts, California's legislature, and the Congress. California's law, S.B. 822, is now on the books but is on a temporary hold while litigation plays out and will likely come into effect in 2019. Once empowered, the California Attorney General will have the tools to investigate broadband access business practices to ensure that no unreasonable interference is occurring for users of the services. It is EFF's hope that public pressure to reverse the FCC will overcome the major ISPs political power in Washington D.C. and eventually restore the federal rules. However, until the state law or federal rules take effect, the danger that Santa Clara's Fire Department dealt with remains present not just in California but across the country and no legal remedy exists to prevent its repetition in the future. For a service as essential as broadband in today's world, users should not be dependent on the whims of corporate behemoths who gauge their responsibilities on whether bad press attention is coming their way. Users deserve the full power of law on their side to serve as an appropriate counter weight to the profit making incentives of private entities.

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<sup>19</sup> FEDERAL COMMUNICATIONS COMMISSION, *Restoring Internet Freedom Order Takes Effect* (Jun. 11, 2018), available at <https://www.fcc.gov/document/restoring-internet-freedom-order-takes-effect>.

<sup>20</sup> See Mozilla/Ipsos poll available at <https://blog.mozilla.org/blog/2018/04/23/new-mozilla-poll-support-for-net-neutrality-grows-as-trust-in-isps-dips> (Poll showing nearly 91 percent of Americans support the core tenets of network neutrality and where 63 percent do not believe ISPs will voluntarily put their interests first).