April 16, 2019

The Honorable Miguel Santiago
Communications and Conveyance Committee
Capitol Office
Room 6027
Sacramento, CA 94249-0053

The Honorable Jay Obernolte
Communications and Conveyance Committee
Capitol Office
Room 4116
Sacramento, CA 94249-0033

Re: A.B. 1366 - Oppose

Chair Santiago and Vice Chair Obernolte:

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. With over 30,000 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.

EFF strongly opposes the AB 1366. Continuing the state’s prohibition on exerting authority over broadband Internet access services by any “department, agency, commission, or political subdivision of the state,” including the California Public Utilities Commission is ill advised. State and local governments must reassert their authority over local broadband providers to promote competition, equal access, affordability, public safety, and other public interest equities. The same circumstances that led to the passage of S.B. 822 last year continue, namely the Federal Communications Commission’s (FCC) complete abandonment of its responsibility to oversee the broadband access market. State and local governments must fill the void.

Passing A.B. 1366 would essentially condemn consumers to having no choice in the high-speed future. Meanwhile our counterparts in advanced Asian markets or the EU have a thriving, competitive market for high-speed access. EFF has found that every country ahead of the United States in terms of high-speed broadband adopted policies designed to promote competition — rather than choosing abandonment of their competition authority through deregulation.

**Cable Companies Will Monopolize a Majority of Broadband Access Connections Ready for the Future Unless We Adopt Competition Policies to Promote Fiber Deployment**

For years, Americans have had a persistent cable and telephone regional duopoly for broadband access since the advent of facilities-based broadband competition in the early 2000s, with the entry of cable modems. No other industry has been able to build a communications network that has challenged their dominance nationwide. Many factors have played into this market structure. Perhaps the most prominent is that both industries were independently built as monopolies, and often aided by preferential financial instruments due to their monopoly status.1 However, for the last decade the duopoly has faded as the cable industry has demonstrated its unique advantage in upgrading its systems to meet the broadband future.

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1 Susan Crawford, *Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age*, 72, Yale
This advantage stems from historical luck rather than foresight. Telephone networks were built with copper infrastructure to service low-capacity voice communications. Cable systems were built with coaxial cable lines meant to transmit high-capacity video services as a means to extend broadcast signals. Today, the telephone system that delivers broadband via digital subscriber line (DSL) technology is reaching its hard limits as a broadband delivery system with speeds below 100 mbps. Meanwhile, cable systems have already deployed gigabit download speeds and are likely to be able to reach 10 gigabit speeds. In essence, the copper wires connecting homes are ill-suited for the future, while coaxial cable wires have proven resilient.

In 2007, Comcast’s Senior Vice President of New-Media Development openly acknowledged the structural advantage his industry had over the telephone industry. As he noted, the entire cable industry would be able to incrementally upgrade to DOCSIS 3.0 (an international telecommunications standard for high-bandwidth data transfer over a coaxial cable TV system) for a “couple billion dollars,” while Verizon would have to invest $18 billion to cover just 14 percent of the country with fiber optics. The discrepancy in cost is due to the fact that telephone companies have to completely replace their copper infrastructure with fiber optics in order to surpass cable systems using DOCSIS. Notably, Verizon discontinued its fiber optic deployment of FiOS in 2010 with a total of $23 billion invested in connecting homes. Cable companies’ structural advantage has continued with the gigabit rollout of DOCSIS 3.1, which again relies on largely inexpensive incremental upgrades to the cable network, while the telephone industry must deploy fiber-to-the-home (FTTH) to be a viable alternative.

Rather than seeing the telephone industry aggressively switching to fiber optics, we are instead witnessing wholesale abandonment of direct competition with cable systems and a singular focus on products in Fifth Generation wireless (5G), which are substantially slower than DOCSIS 3.1. As applications and services demand more bandwidth (as projected below), Californians will increasingly need to use the broadband access options that deliver those speeds — which will be their local cable monopoly.

<table>
<thead>
<tr>
<th>Year</th>
<th>North America IP Based Traffic in Exabytes Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>14.4</td>
</tr>
<tr>
<td>2018</td>
<td>43</td>
</tr>
<tr>
<td>2022</td>
<td>90</td>
</tr>
</tbody>
</table>


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4 Id.
Fiber is the only known viable option for telephone companies (or any other company) to compete and outpace gigabit cable systems. As a transmission medium, it carries a series of advantages that even the fastest cable system has not yet matched. It provides extremely fast uploads and is already commercially available at 10 gigabit symmetrical speeds. Equally important, a fiber optic network’s speed can be greatly increased by inexpensively switching out the electronics, rather than make expensive upgrades to the network itself. We see evidence of this from financial data reported by the world’s fastest ISP: Chattanooga’s local government fiber broadband network EPB. Its transition from a gigabit network to a 10 gigabit network in 2015 involved very little new capital expenditure, while profits continued to increase.

The Regulatory and Competitive Differences That Exist Between when Section 710 was First Enacted in 2012 as Compared to Today Weigh Against AB 1366

The competitive landscape for broadband access service appeared more positive when Section 710 was first enacted, and the FCC was still exerting its authority to oversee the industry to police misconduct. Since then, however, much has changed in ways that demonstrate why passing A.B. 1366 would be damaging to competition and seal in the cable monopoly while allowing the telephone industry to avoid direct competition with cable.

Federal Regulation of ISPs in 2012 versus 2019

When the 1996 Telecommunications Act was enacted, broadband was being deployed by telephone companies with DSL under the FCC’s Title II authority. In 2002, the FCC inquired how to treat newly invented cable modems. It concluded that cable broadband was an “information service” (Title I of the Communication Act), which led to years of litigation until

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the Supreme Court in *Brand X*\(^8\) decided the FCC was entitled to *Chevron* deference, upon which the FCC declared all broadband was an “information service.” The FCC regularly asserted that broadband was subject to its ancillary jurisdiction authority and then-Chair Kevin Martin asserted authority over broadband access under Title I.\(^9\) However, a Republican-led FCC enforcement action against Comcast called its ancillary jurisdiction theory into question.\(^10\)

In 2010, FCC Chair Julius Genachowski began to address the D.C. Circuit’s decision on whether the agency could, in fact, regulate broadband companies under its Title I authority. Many consumer advocates believed the FCC should return to relying on its common carrier authority, which applied to broadband at the birth of the commercial market. But AT&T successfully convinced the FCC that the agency had ample authority over their industry under Title I of the Communications Act.\(^11\) Following the FCC’s 2010 decision to regulate ISPs under its Title I authority to enforce network neutrality, Verizon sued the agency and claimed it had no authority over their industry. Verizon won in the D.C. Circuit in 2014.\(^12\) Prior to that court decision, California’s legislature considered and passed SB 1161, to create Section 710 and temporarily withhold its authority to regulate in 2012, on the premise that the federal government was exerting overall responsibility.

As SB 1161’s author stated, “since the birth of the Internet, the federal government has asserted overall responsibility and maintained a bipartisan policy of limited regulation to foster a free and open Internet here and worldwide.”\(^13\) That history of federal oversight over the industry ended on December 14, 2017, when the FCC adopted the deeply controversial and widely opposed “Restoring Internet Freedom Order.” EFF noted this was the first time the federal government had completely abandoned overseeing the telecom market despite increasing levels of “concentration and dwindling competition.”\(^14\)

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\(^8\) See National Cable & Telecommunications Association v. Brand X Internet Services, 545 U.S. 967 (2005).


\(^10\) Comcast Corp. v. FCC, 600 F. 3d 642 (D.C. Cir. 2010).

\(^11\) 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.”)

\(^12\) Verizon v. FCC, 740 F. 3d 23 (D.C. Cir. 2014).

\(^13\) https://www.mercurynews.com/2012/05/30/sen-alex-padilla-bill-will-preserve-hands-off-regulatory-approach-toward-voip/

Competitive Landscape in 2012 versus 2019 Shows its Decline

In 2012, the competitive options for broadband were substantially better than they are today. According to the FCC’s data (see chart below) for that time period, 97 percent of the public had two or more options for services that nearly reached the FCC’s benchmark for broadband (4 mbps download and 1 mbps upload). A majority had two or more options for services that exceeded federal benchmarks for broadband. Google Fiber announced the previous year that it intended to wire cities with gigabit fiber connections, shortly following Verizon’s decision to stop its FTTH deployment. This sparked hope that a 3rd option will challenge the duopoly.

![Figure 5(a)](image_url)

**Figure 5(a)**

However, the most recent FCC data on the status of broadband access today paints an extremely different picture than 2012. While the FCC’s metric for broadband has been updated to 25 mbps download and 3 mbps upload speed, the number of Americans with access to two or more of those options is down to 82 percent — which, notably, is near the limits of DSL technology through copper in the U.S. When looking at speeds in excess of 100 mbps (see chart below) — where cable’s structural advantages over telephone companies begin to take effect — we find that less than 20 percent of the market has a choice of two or more options. The rest of the market, an overwhelming 83 percent, is served by a monopoly or has no access at all to high-speed connections for the future. The FCC’s own data noted that fiber deployments are slowing down. While the Fiber Broadband Association’s 2018 report noted that last year marked the highest number of fiber connections in history at 5.9 million households, more than half of those are due to a government mandate on AT&T to deploy fiber optics set to expire in 2019.

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Low Income and Rural Californians are the Most Likely Groups to have a Monopoly or No Choices at All for High-Speed Broadband Access

The FCC’s own data (see chart below) in its 2018 Communications Marketplace Report indicates that both low-income and rural Americans, if they have access at all, typically have access to cable broadband but not FTTH. In fact, the neighborhoods that regularly have high-speed competition in excess of 100 megabits per second (mbps) tend to be affluent. California residents who are economically and geographically advantaged are already gaining the benefits of cheap and fast Internet access at gigabit speeds at the low price of $40 to $60 a month on average. This is because affluent neighborhoods represent low hanging fruit to the ISP industry, as it can charge for multiple services and predict a higher adoption rate for its products.

**Fig. D-10**

<table>
<thead>
<tr>
<th>Population Density</th>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>More Than Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Quartile (Lowest Pop. Density)</td>
<td>61.3%</td>
<td>30.0%</td>
<td>7.5%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Second Quartile</td>
<td>37.2%</td>
<td>40.4%</td>
<td>16.2%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Third Quartile</td>
<td>29.3%</td>
<td>44.1%</td>
<td>17.7%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Fourth Quartile (Highest Pop. Density)</td>
<td>22.4%</td>
<td>36.4%</td>
<td>18.7%</td>
<td>22.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median Household Income</th>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>More Than Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Quartile (Lowest Median Household Income)</td>
<td>45.1%</td>
<td>37.7%</td>
<td>11.3%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Second Quartile</td>
<td>44.1%</td>
<td>37.4%</td>
<td>12.5%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Third Quartile</td>
<td>37.3%</td>
<td>38.4%</td>
<td>15.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Fourth Quartile (Highest Median Household Income)</td>
<td>23.5%</td>
<td>37.5%</td>
<td>21.0%</td>
<td>18.0%</td>
</tr>
</tbody>
</table>

**Competition Policy Promoted by Local, State, and the Federal Government is Needed**

A.B. 1366 promotes the idea that government inaction will produce a competitive, universally accessible, and affordable high-speed broadband market. However, that has not been the case in any country that is on track to surpass the United States. Rather, all levels of government play an integral role to promote competition in broadband access. These roles include: the management of the local rights of way, oversight of network interconnection, reducing costs in public works, eliminating anti-competitive barriers raised by private incumbents, building infrastructure that promotes competition, and actively promoting new market entrants that resolve the gaps inherent in today’s market. It is for these reasons that many California ISPs that compete with major incumbents opposed the FCC’s 2017 decision to abandon its authority to regulate the broadband
access market. Many also opposed the original enactment of Section 710 in 2012 for reasons similar to why EFF opposes its reenactment today.

If we look at what our international competitors are doing, we find that every advanced country has rejected the premise offered by A.B. 1366. In the EU, there has already been a far-reaching multi-year inquiry and effort by the governments to determine how best to lower the cost of entry by better management of local rights of way and reducing the infrastructure costs of new entrants through sharing policies and other efforts to promote a “gigabit society.” These policies would be prohibited under A.B. 1366. In the EU, those strategies have produced a brand-new, vibrant, open-access fiber industry that seeks to connect the entire zone to fiber optics. South Korea, the world leader in broadband access today, has had its government spend decades promoting policies to achieve its current status.

In terms of rights of way, California currently regulates pole attachments and access to conduit for the telecom sector to facilitate the deployment of networks but is in need of an update. One of the critical benefits of the FCC’s 2015 Open Internet Order was that all providers of broadband — not just telephone and cable television companies — were granted the legal benefits of federal competition policy. Prior to 2015 (and now as of 2018), even massive corporations like Google ran into difficulties deploying their fiber network when AT&T refused to allow Google to attach to AT&T-owned poles in Texas.

Local governments play an integral role in promoting competition through their own local power. The city of Brentwood, California was able to make it financially feasible for Sonic to profitably deploy a gigabit fiber network for $40 a month. In the late 90s, Santa Monica executed on its “Telecommunications Master Plan” after a two-year process of workshops, surveys, and interviews with existing businesses. This eventually led to CityNet, which connected the business community to locally owned high-speed fiber and is now offering residential services. But A.B. 1366’s prohibitions raise serious questions as to whether a local

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24 Brentwood City Council, Resolution Approving and Authorizing the City Manager to Execute a Conduit and Fiber Lease Agreement with Sonic Telecom, LLC, Substantially Consistent with the Attached, to Provide Gigabit Internet Service Within the City of Brentwood (May 13, 2014) at 1, available at http://brentwood.granicus.com/MetaViewer.php?view_id=36&clip_id=1846&meta_id=151754
government could undertake any infrastructure planning that imposes obligations on an incumbent cable or telephone company.

**Open Access Fiber is a Vibrant Industry Outside the United States and Holds Tremendous Promise for Rural Californians, But Will Never Come if We Enact A.B. 1366**

One of the most potentially revolutionary changes in telecom policy today is the birth of an industry that does not directly sell broadband access, but is rather treating fiber as an infrastructure — and connecting homes and business with an open-access approach. California’s own Facebook is now investing heavily in this industry in Africa and South America, and is opening up its own fiber networks in the United States. However, if we lack the policies and regulations that promote the entry of open-access fiber into the market, we will miss out on the opportunity. If Google Fiber, backed by one of the world’s largest corporations, couldn’t overcome private incumbent barriers, what hope do local governments and small ISPs have without the law? Facebook has not rewritten the rules of telecom infrastructure.

For example, if an open-access fiber company attempted to deploy a network in a difficult-to-serve or unserved market, it is likely to only have few options — or perhaps just one — to interconnect with another provider for access to the public Internet. Under the 2015 Open Internet Order, every broadband network was under a good faith duty to negotiate interconnection. Today, no such legal duty exists. Should the CPUC establish a state-based good faith duty to negotiate for broadband networks, as still remains for telephony, such a duty would undoubtedly face challenge by the incumbents under A.B. 1366. But if we do not provide legal certainty to new entrants that will need to connect with incumbents in order to exist, it is likely no such industry will enter the challenging markets in California.

Such an outcome could be categorically disastrous for rural Californians. Rural markets are uniquely difficult to serve, as spread-out populations make it difficult to recover the costs of building the infrastructure to connect all residents. However, new approaches to connecting those markets — namely through supporting the construction of one fiber network that can aggregate demand from anchor institutions and retail broadband providers under an open-access regime — is proving fruitful. One study even suggests that it is feasible that rural markets can be connected to fiber for zero subsidies, if long-term, low-interest loans are offered and the fiber is treated as an infrastructure project.

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Such approaches are being used in countries such as Ireland\(^{30}\) and New Zealand\(^{31}\), and hold tremendous promise. But it will not be possible to try these approaches if the state does not have the authority to pave the way for its entry.

**A.B. 1366 Has Other Serious Ramifications for Vulnerable Populations, Most Significantly in the Area of Prisoners’ Rights to Communicate with Family**

In addition to competition policy, EFF regularly works to promote the freedom of expression, especially for the most vulnerable. Any state ban on intrastate regulation of Voice over Internet Protocol (VoIP) services has direct impacts on a nearly twenty-year legal and political battle over inmates’ rights to communicate with family. In February 2000, Martha Wright filed a class-action lawsuit against Inmate Calling Service (ICS) providers on behalf of her grandson and other inmates. The case protested extreme fees being levied on their telephone calls by the prison facility and ICS at rates as high as $56 for a four minute call. The reason for these high charges? Kickbacks negotiated between private ICS providers and prisons, where contracts for monopoly ownership of the prison’s communications system was granted to whatever private provider will charge the most and return the largest portion back to the prison itself.

The FCC intervened on this egregious practice in 2013, by issuing an interim order regulating the rates for ICS calls for both interstate and intrastate communications.\(^{32}\) EFF noted to the FCC when it was collecting comments on the proper means to regulate ICS providers that communications for inmates are expanding beyond traditional telephone services to include email and video services.\(^{33}\) However, the D.C. Circuit court found that the Communications Act clearly divides the responsibilities to regulate intrastate telecommunications to the states\(^{34}\) and reversed the FCC in part, leaving it to the states to directly resolve this matter for local communications.\(^{35}\)

California banned the practice of tying rate charges to kickbacks in 2007, but the question of rate regulation for per minute calls may become an open issue.\(^{36}\) Codifying A.B. 1366 as drafted may reverse progress — as the ICS industry has been transitioning to VoIP services. It would further invite challenge as to whether the prohibition on tying kickbacks to services would even apply to the ICS industry anymore, should they offer only VoIP communications, because the underlying state law expressly regulates contracts that provide “telephone services”—and arguably, A.B. 1366 stands for the proposition that those are different than VoIP.

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34 47 U.S.C. § 152(b)
35 *Global Tel*\(^ {4} \)\(^ {6} \)\(^ {h} \)\(^ {i} \)\(^ {n} \) v. Federal Communications Com’r*, 866 F.3d 397 (D.C. Cir. 2017).
36 Senate Bill No. 81 § 32, 2007-2008 Session, (reducing concession fees to zero by 2011).
Indeed, the current FCC, backed by the same major ISPs that supported the Restoring Internet Freedom Order to abandon federal oversight over the industry, is actively asserting the spirit of A.B. 1366 as law today. In its effort to support the cable industry’s litigation to preempt state oversight over VoIP services in their entirety even when they operate exactly like telephone service, the FCC made clear it believes that VoIP services in all forms are immune from state regulation. Should that legal argument carry the day, states’ ability to regulate intrastate activity of the ICS industry will be severely curtailed.

California should not join the FCC in its efforts by enacting A.B. 1366, given that the serious and profound consequence regarding prisoners’ rights to communicate and the ICS industry’s long exploitive history.

A.B. 1366 Represents a Step Backwards at a Time When the State Should Be Proactively Promoting a Competitive Gigabit Fiber for All Californians Plan

We should always expect applications and services to demand greater amounts of bandwidth with advances in technology. However, all signs point to a cable industry monopolization of the future, due to its structural advantages over copper telephone networks. Verizon and Google have both discontinued their FTTH deployments to compete and AT&T’s deployment mandated by the government will expire this year.

The fundamental question becomes if they are not going to compete with cable, who will?

The state legislature, CPUC, and all relevant bodies of the state and local governments should actively analyze, plan, and execute on pro-competition policies. That begins with rejecting AB 1366. The world’s other advanced economies are reaching milestones in fiber deployment and surpassing the United States on access, affordability, and deployment because they adopted policies that made progress. While our federal government continues to neglect its duty, Californians must take on this challenge for the benefit of all its citizens.

Sincerely,

Ernesto Falcon
Legislative Counsel
Electronic Frontier Foundation

37 Brief of the Federal Communications Commission as Amicus Curiae in Support of Plaintiffs-Appellees, Charter Advanced Services (MN), LLC v. Lange, 903 F.3d 715 (8th Cir. 2018).
38 Charter Advanced Services (MN), LLC v. Lange, 903 F.3d 715 (8th Cir. 2018).