

**THE TIME HAS COME FOR BROADBAND INTERNET TO
BE REGULATED AS A UTILITY: HOW THE COVID
PANDEMIC CRYSTALIZED THIS REALITY**

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**I. OVERVIEW AND ASSERTION / THE INTERNET SHOULD BE REGULATED
AS A UTILITY**

On March 11, 1989, the World Wide Web became publicly available.¹ In the relatively short time since then, the internet has

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¹ Farnoush Amiri, *The World Wide Web Is 30 Years Old-and Its Inventor Has a Warning for Us*, NBC NEWS (Mar. 12, 2019), <https://www.nbcnews.com/tech/tech-news/world-wide-web-30-its-inventor-has-warning-us-n982156>.

equal access. The time has come for broadband internet to be treated as a utility to equalize access and standardize pricing.

This paper will explore how the internet has become a necessity for the benefits it provides and how this has been brought into focus by the COVID pandemic. It will then explore how segments of society are marginalized and cannot benefit from internet access by taking an in depth look at the function, history, and legality of public utilities. Finally, it will explore how this access issue can be resolved by regulating the internet as a public utility, providing some potential next steps toward realizing a utility internet model.

II. THE MODERN INTERNET REQUIRES BROADBAND

Internet connectivity is a spectrum but in practicality it has two broad categories with older landline technologies at the slow end and the modern broadband at the higher. The older phone line system including its highest speed service, DSL, provides sufficient bandwidth for basic internet services such as email and low-resolution video but it is broadly recognized as insufficient for modern internet usage. Broadband on the other hand is defined as having an internet connection that enables twenty-five megabits per second download speed and three megabits per second upload speed.⁹ Broadband, most commonly delivered over cable, fiber optic and satellite, is considered table stakes to participate in high resolution uses such as internet videoconferencing, remote access, large file transfers, and high-definition video streaming.

Importantly, these four oa80.00000912 0 612 792 reWing.

opened opportunities for workers to explore new roles that offer remote work. Access to broadband internet improves employment options of all types for residents within the coverage area. Studies have shown that simply providing unfettered access to the internet improves an area's socioeconomics simply by making it easier to locate and apply for jobs.¹⁰ With a responsive internet connection, workers can access job listings and conduct job research to discover opportunities that match their skills.¹¹ Lacking internet access has the opposite effect: "Recent Pew research indicates that job seekers without broadband at home have a harder time contacting potential employers, filling out online job applications, creating a professional resume, and highlighting employment skills on social media."¹²

Simply using and browsing the internet is challenging with poor internet connectivity. Modern internet sites are data intensive and assume broadband access speeds. Without broadband, many online sites time out before fully loading and advanced online features such as videoconferencing suffer such high latency that they are practically non-functional. Imagine if during a job search, every individual job listing took up to a minute to load and online applications repeatedly timed out due to network latency. To demonstrate the impact, this

crippling obstacle, unfairly isolating a large swath of American workers from equal access to jobs.

COVID forced the largest ever remote-work experiment in history and dramatically changed the opinions and workplace expectations of employers both large and small. During the earliest COVID restrictions, many employers scrambled to enable remote work but were pleasantly surprised to find that much of business continued and the economy even grew despite the upheaval. As the first easing of restrictions arrived, many employers were entertaining permanent remote or hybrid-remote solutions but had not fully internalized those options. Just as employees were trickling back into physical work sites another round of restrictions reversed the flow. The second transition back to remote was much smoother, but employers were forced to consider permanent remote solutions to better prepare for unpredictable future disruptions.

The easy assumption is that the digital divide falls neatly between urban and rural areas, but studies show that 75% of those with insufficient internet access are within urban areas.¹³ Urban areas are most likely to have jobs that can convert to remote work which amplifies the impact. Skilled workers who were commuting to the office found themselves unable to work because they lacked sufficient remote capabilities. The remote work standard is no longer a luxury but rather a necessity and has created a new class of haves and have nots like the days before electricity and telephone were regulated. Utilities provide equal access to a publicly beneficial commodity and the time for creating an internet utility has arrived.

The most common utilities are electricity, gas, telephone and water services.

These services can be publicly or privately owned but their universal necessity has justified regulation to provide fair and equal access. The internet, and specifically broadband internet, is increasingly just as essential. As described “by Susan Aaronson, director of the Digital Trade and Data Governance Hub at George Washington University, affordable high-speed internet access is a service that government should provide,” is an essential public good and is essential to equality of opportunity, access to credit, access to other public goods, access to education.¹⁶

Utilities are rate-regulated by state’s Public Utilities Commissions (PUC). A PUC approves and regulates a utility’s rates and service quality and in exchange the utility gains a right to a monopoly on the service they provide.¹⁷ This tradeoff gains the utility a captive market and predictable revenue while the ratepayers gain access to the service at a defined rate that is shielded from market fluctuations.¹⁸

which deliver electricity from generation plants to individual homes and businesses. Before an electrical utility can even begin to sell its services, it must completely install the required infrastructure. This high upfront cost and commitment creates a natural barrier to entering the market. Additionally, the rights-of-way for power lines cannot typically be duplicated. The first system in place controls the distribution as replicating it would be an unnecessary and redundant expenditure of resources. Thus, the utility creates and controls a scarce resource.²¹

Very similarly, physical broadband internet suffers a high cost of entry for physical cabling from distribution centers to individual homes and businesses. The rights-of-way here are less restrictive than electricity as many areas commonly have both cable and fiber infrastructure available in parallel. This is not truly redundancy but rather competing distribution technologies. Further, emerging broadband cell and satellite services are competing directly with physical cabling infrastructures and even promoting expansion into areas not served by physical cabling. Regardless of the distribution type, installing these infrastructures still requires prohibitively high costs of entry whether it be digging cable trenches, installing cell towers, or launching satellites. Thus, broadband internet's high cost of entry fits this first element of a natural monopoly.

The second aspect of a natural monopoly is a profit model dependent on economies of scale. To move beyond the high initial outlay into eventual profit, public utilities target a market tipping point where the cost of production is minimized by economies of scale. Economies of scale occur when a high number of users benefit from a small production environment such that the average cost equals marginal cost.²² Economies of scale promote early entrants into a market but naturally deter competition since the serviceable customer base is limited and largely consumed by the first entrant.

Using electricity again as an example, the cost of the service would be unbearable if each household required a dedicated generation facility. Instead, a company builds a single generation facility and uses that single source to power thousands of homes thus spreading the generation cost across many customers. The larger the customer base per generator, the lower the average cost to produce which drives up

similar model since internet distribution is centrally provided with the cost spread over a very large number of end users. Thus, broadband internet business models meet the second factor of a natural monopoly as well.

The natural monopoly's combination of high costs of entry and

requires higher speed connection. Internet is a necessity for equal access to remote work, jobs sites and online jobs research. Intermixing online activities into daily living has created an inelastic demand similar to public utility services.

Together, broadband internet's natural monopoly characteristics, broad dependence and criticality, and inelastic demand show that it would benefit from utility classification.

A. Benefits of Utilities

So then what benefit does a utility classification and its government regulation serve? First, it protects from the natural

commission could do little to prevent the electricity monopoly from price gouging vulnerable citizens in desperate need of electricity. By refusing to properly regulate electric public utilities, Texas experienced widespread system failure and astronomical price increases due to the monopolistic behavior of utilities.”²⁹

Utility regulation protects from scenarios such as the one in Texas. Regulation protects citizens and businesses who rely upon the utility being available consistently and reliably. It ensures that unanticipated service costs are addressed equitably and allows the government a means to monitor them.

In return for this regulation, the government grants the firm a pseudo-monopoly which brings a highly predictable customer base and profitability. In return the firm agrees to government oversight of the prices the firm can charge its customers; strict oversight into which assets the firm can purchase and sell; restrictions on the firm's ability to pick and choose its customers; and designation of a specific service territory.³⁰ The utility model is a framework that developed slowly over an extended period and can be used to incorporate new services as they

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“From 1882 to 1932, electricity production and consumption grew considerably.”³⁶ The electricity industry in the United States grew from a novel luxury for wealthy customers to an industry with \$12.7 billion in capital assets and equipment by 1932, servicing 25 million customers.³⁷ This market was almost exclusively served by the for-profit utility holding companies. This segmenting of the market based purely on profit is very similar to the segmentation seen with broadband internet.

In the 1920 and 1930s, states pushed for the establishment of state-run regulatory commissions to reign in the utility holding companies. Acting as virtual monopolies the utility holding companies were engaging in predatory pricing for often unreliable service. State-run commissions it was thought could regulate and legitimize these monopolies to eliminate predatory pricing and guaranteed a reasonable quality of service. In exchange, utility companies would gain sanctioned protection from competition and a guaranteed geographic market. By the early 1930s, thirty-seven states had state commission-based regulation of their electric utilities.³⁸

Initially used to power common areas and wealthy homes, electricity usage quickly expanded into more homes and businesses through monopoly franchised services. As the number of municipally controlled utilities expanded independently across the nation, regulatory chaos ensued. C.O. Ruggles, of Harvard University, noted in 1929 that there was “no rhyme or reason” to how each utility was regulated. They were almost all, however, uniformly understaffed, underpaid, and inexperienced. Likewise, there was little uniformity to exactly what public services each commission controlled and for which of the often-overlapping jurisdictions. Ruggles defined the scope of the issue and need for a more universal regulation scheme.³⁹

(1) The industries of this country are rapidly becoming dependent upon central electric stations. . . . With electric power a factor in American manufacturing, equitable regulation of the power industry is of far more importance than it was when it was confined merely to the field of lighting. . . . (2) The economies and the improvements in the character of the service which

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* at 146

³⁹ *Id.*

Holding Company Act (PUHCA) spelled the end for large dominant utility holding companies.

Title I of the Public Utility Holding Company Act (PUHCA), placed the capital structure of interstate public utility holding companies under the supervision of the Securities and Exchange Commission and required these companies to confine their operations to utility service in a single state or in contiguous states. Title I also placed wholesale interstate electric rates under Federal Power Commission (FPC) approval.⁴⁴

requirements. Today's model of locally owned and controlled electricity service under federal regulation operates largely as it did over 100 years ago. Many municipal utilities established in the 19th and 20th centuries still operate which demonstrates the sustainable benefit of public utility services.⁵⁵

community, to enjoy the arts and to share in scientific advancement and its benefits."⁶²

in the early 1900s. Both electricity providers and now internet services, grew to benefit from economies of scale as they expanded coverage in dense population centers. But unlike the electricity generators, it is more difficult to cleanly break internet service providers into geographic regions because their services are not as rigidly tied to

to regulate the communications industry. Regulation was broken into two sections, Title I and Title II.⁷¹ Only services under Title II are rigorously regulated, including electrical utilities.

“Today's telecommunication regulatory structure largely

for higher speeds and the FCC's classification was challenged in court by several parties in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*.⁷⁹ Brand X was attempting to have the cable infrastructure classified as a utility which would mandate other services be allowed to use the lines similar to phone companies allowing their lines to be used for purposes other than voice phone calls. As a small company, this would allow Brand X to provide their own competing internet service by leveraging the upfront infrastructure investments that had been made by cable companies.⁸⁰ Ultimately, the Supreme Court applied the deferential standards from *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* to determine whether the court had the authority to override an agency's construction of their own statute when the statute was within the agency's jurisdiction.⁸¹ Chevron established that "[w]hen a challenge to an agency construction of a statutory provision, fairly conceptualized, really centers on the wisdom of the agency's policy, rather than whether it is a reasonable choice within a gap left open by Congress, the challenge must fail."⁸² They further found that the court did not have responsibility for assessing the wisdom of policy choices stating "our Constitution vests

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The FCC refined their approach and in 2010, released its FCC Open Internet Order. This order again created two new classes of internet access, wired/fixed and wireless.⁹² It also laid out three new rules: (1) transparency for both fixed and mobile broadband providers; (2) a no-blocking provision for both fixed and mobile broadband providers; and (3) an anti-discrimination rule for fixed providers, under which they could not unreasonably discriminate against lawful network traffic. It was Verizon this time who challenged the order in *Verizon v. FCC*.⁹³ The court again struck down some

requires the FCC to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁹⁶

The FCC’s defeat lay in its own conflicting definitions. The FCC under § 706 could not act “in a manner that contravene[d] any specific prohibition contained in the Communications Act.”⁹⁷ The court held that “the [FCC] would violate the Communications Act were it to regulate broadband providers as common carriers,” given the FCC’s “still-binding decision to classify broadband providers” as information services and not telecommunication services.⁹⁸ Since the two classifications remain mutually exclusive, the court concluded that the FCC could not on one hand classify a service as an information service and on the other hand impose common carrier obligations designed for a telecommunication service.⁹⁹

The classification conflicts were resolved in 2015 when the FCC finally reclassified Internet as a Title II telecommunications service subject to common carrier regulation with its 2015 Open Internet Order.¹⁰⁰ An impetus for this change was the continuing exclusionary behaviors of broadband providers, this time in providing “fast-lane” priority access to higher paying customers, one of the behaviors that utility regulation was developed to prohibit. The FCC wanted to address this behavior directly with its Title II common carrier provisions of non-discrimination and no-blocking.

Yet again the FCC was challenged in court, this time by the United States Telecommunications Association who petitioned the D.C. Circuit to review the Order on the grounds that it was “arbitrary, capricious, and an abuse of discretion . . . ; violates federal law, including, but not limited to, the Constitution, the Communications Act of 1934 ... and FCC regulations promulgated thereunder; conflicts with the notice-and-comment rulemaking requirements of 5 U.S.C. § 553; and is otherwise contrary to law.”¹⁰¹

Despite the challenge to this reclassification, the Appellate Court this time ruled that the FCC correctly classified broadband as a telecommunications service.¹⁰² In one notable section the court took

pains to explain that with the modern broadband internet, the access service was distinctly separated from the content on the internet.

That consumers focus on transmission to the exclusion of add-on applications is hardly controversial. Even the most limited examination of contemporary broadband usage reveals that consumers rely on the service primarily to access third-party content. The “typical consumer” purchases broadband to use “third-party apps such as Facebook, Netflix, YouTube, Twitter, or MLB.tv, or ... to access any of thousands of websites.” . . . consumers today “pay telecommunications providers for access to the Internet, and *access* is exactly what they get. For *content*

pseudo-monopolies to expand coverage and structure accessible pricing.

Yet, with the solidified authority to regulate broadband internet as a utility after so many years, before they could even begin to address how it might be structured, the FCC in 2017 yielded to political pressure and inexplicably reversed course. They decided to classify broadband once again as an information service, a fundamental part of its repeal of the 2015 net neutrality rules, thus yielding most of their power to regulate internet access as a utility.

diligence,” with “a reasonable degree of skill”.¹⁰⁸ This standard of care reflects “that the privilege of serving the public as a common carrier necessarily entails great responsibility, requiring common carriers to exercise a high duty of care towards their customers.”¹⁰⁹

As a regulated entity, public utilities may be liable for offenses typically only reserved to the state.¹¹⁰ Under 42 U.S.C. § 1983, a person may only file suit alleging constitutional violations against state actors.¹¹¹ However, when serving a state-like role that entails serving the public, a common carrier can be held liable as a state actor.¹¹² A finding that an entity is essentially a state actor derives from coercive power exerted by the state and the state's control over the entity's

In fact, public outcry i

For example, the mental health benefits of broader access can be extrapolated from the opposite effect demonstrated by COVID restrictions. “Covid-19 triggered a staggering uptick in mental illness

they worry a lot or some about paying for this service and 30% of smartphone owners say they worry at least some about paying their cellphone bill. This is disproportionately felt by Hispanic or Black broadband or smartphone users and those with lower incomes are especially likely to say they worry about these types of bills.¹²⁰ However, Title II would address these price concerns in the same manner as the price concerns were addressed for electrical utilities and it would no longer be a justifiable objection for broadband providers. In reality, the cost barriers today are the result of their for-profit model as was the case in the early days of electricity. A utility model provides expansion and upgrades in all geographic areas with costs defrayed by government subsidies and an increased captive customer base. Further, social aid programs provide subsidies that can allow utilities to lower the individual cost while maintaining profit. Subsidies reduce the affordability barrier to individual households, theoretically opening opportunities discussed earlier to change an area's socioeconomics. In this way both the company and the consumer are bettered by the arrangement.

Lastly, utility regulation raises the aggregate service quality and availability across all consumers and provides a consumer protection mechanism should the utility fail to meet their obligations. As with electrical utilities, all households should be able to rely on the same broadband ease of access and service quality regardless of their street address or household income.

X. CONCLUSION

Utilities are fundamental to our society. Renters and homebuyers do not need to research the electricity, water, and gas quality before deciding where to live because these are known quantities. The time has come for internet access to be the same. Far too much of everyday living relies on quality internet access to justifying continuing to treat it as an optional luxury.

Following the status quo of for-profit broadband will only serve to maintain the price gouging, inconsistent service availability and marginalization of underserved communities. The FCC must re-assert

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their authority to develop a working municipal public utility model for broadband internet.