

# CAPPED INTERNET: NO BARGAIN FOR THE AMERICAN PUBLIC

*Move to usage-based pricing on cable broadband is about reaping ever-higher profits, not “fairness”*

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The cable industry recently changed its tune on data caps. Previously, the industry insisted that caps on Internet usage were necessary for managing network capacity and preventing congestion. Now, they argue that caps promote fair pricing and more affordable broadband. Michael Powell, president of the cable association NCTA and a former chairman of the Federal Communications Commission (FCC), echoed this theme in January at an event held by the Minority Media and Telecommunications Council (MMTC). Mr. Powell conceded that data caps are not about congestion management, but rather that “[the] principal purpose is how to fairly monetize a high fixed cost” and offer lower cost plans to encourage broadband adoption.<sup>1</sup>

The shift in rhetoric is clearly designed to win over a skeptical public. Yet cable providers paid off their fixed network construction costs long ago, and as a result now enjoy enormous profitability. Capped plans and usage-based pricing (a model in which users are charged for a specific amount of data usage) will enable cable companies to further increase those profits. Unfortunately for the American public, these new plans will also increase the cost on essential Internet service and discourage the development of innovative applications and services.

## High Fixed Costs? Cable’s networks already bought and paid for

Cable networks were expensive to build and included high fixed costs to dig up streets and install wires to offer service. But those major investments were made many years ago to provide and enhance cable television service. In public comments submitted to the FCC in 2002, a representative of the cable provider Cox Communications wrote:

*Cox’s and other cable operators’ upgrades of their cable systems are not driven by the provision of cable modem services. Rather, these upgrades were and are necessary to ... remain competitive against the offerings of direct broadcast satellite [television services] ... The provision of cable modem services has no impact on cable operators’ decisions to upgrade to increase their cable system bandwidth.<sup>2</sup>*

As the comments explained, once these network upgrades for television service are in place, it is only a matter of installing a few pieces of equipment at certain network locations and in the customer’s home to offer broadband Internet access. No additional construction or impact to public rights-of-way is needed to provision broadband service.<sup>3</sup> Other industry observers have also noted that subsequent network upgrades to cable facilities are typically inexpensive, observing that “because there are little, if any, capital investments in the infrastructure to deploy DOCSIS 3.0, [cable] operators will enjoy minimal deployment costs and a healthy return on investment on the infrastructure already in place.”<sup>4</sup>

Yes, cable companies and others have invested billions in building networks, but they have received more than healthy returns on those investments for several decades. According to analyst estimates listed on the NCTA website, cable companies invested over \$185 billion in capital expenditures between 1996 and 2011. But these networks generated close to \$1 trillion in revenue in the same time period.<sup>5</sup> Moreover, both Comcast and Time Warner Cable are now spending less on capital expenses relative to revenue than in past years.<sup>6</sup>

## Fair Pricing or Monopoly Pricing?

The recent shift in rhetoric has also attempted to characterize usage-based pricing as a “fairer” pricing structure: customers who use more should pay more. The cable industry posits that discounted—but capped—plans would provide a lower cost option for Internet service. Yet the meager discounts currently on the table for the low-capped plans are dwarfed by the incredibly low costs for cable companies to provide abundant Internet service.

A leading Wall Street telecommunications analyst estimates the current operational margins on cable broadband service to be as high as 95 to 97 percent.<sup>7</sup> These margins are driven not only by the efficiency of capitalizing on past upgrades made for television, but also the rapidly declining costs associated with the transport of Internet data across networks. Industry experts and researchers have estimated this cost to be at most a few cents per gigabyte (GB). In the United States, “the marginal cost of providing an extra gigabyte of data is less than one cent, and falling”<sup>8</sup>; in Canada, researchers estimate a cost of around seven cents per GB.<sup>9</sup> In addition, according to TeleGeography’s IP Transit Pricing Service, “transit in major Western cities remains competitive, so the reduced costs are passed on to the broadband carriers.”<sup>10</sup>

In the U.S. broadband market, only Time Warner Cable has introduced a nationwide plan that offers a capped plan at a discounted price. Marketed as “Essentials Internet,” the company offers a \$5 discount on a \$45 broadband plan for a package capped at 5 GB of data per month. To put the data usage in perspective, in 2012 the FCC reported the median cable broadband subscriber uses about 28 GB per month.<sup>11</sup> Thus, for a modest 11 percent discount, an individual must reduce his or her data consumption by 82 percent compared to the median cable user. Is this “fair” pricing by anyone’s definition?

Advocates for data caps and usage-based pricing analogize implementing caps on Internet service to charging per kilowatt hour for electricity. The comparison is appealing, particularly since broadband customers increasingly view their Internet access a basic utility, as critical to their daily lives as electricity. However, the parallels end there as the broadband to electricity analogy is not reflective of economic realities. Unlike broadband providers, electrical utilities face additional costs to bring more electricity to customers. They need to accurately allocate marginal costs to heavy users because those heavy users can be more costly for the electrical utility to serve. Representatives from ISPs have not disputed that marginal costs for additional bandwidth are negligible,<sup>12</sup> which means that there is not much of a difference in operational costs to provide broadband service to a light or heavy user.

Furthermore, while electric utilities are heavily regulated, the broadband market is a comparative “wild west” where companies have little oversight and consumers have few protections. Electrical utilities typically have their rates—and in some cases the rate of return investor utilities can provide to their shareholders—determined by a state regulatory commission. It is difficult to imagine regulated electric utilities enjoying greater than 90 percent operating margins. And it is doubtful that the cable industry would embrace a similar suite of regulations in order to implement a usage based pricing scheme for broadband service.

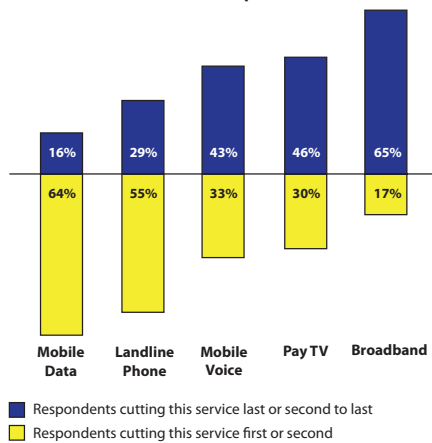
### Are the cable companies really offering “less for less”?

*Time Warner Cable’s “Essentials Internet” offers broadband users a \$5 discount for using less than 5 GB of data per month. But with overage fees of \$1 per GB (up to 25 GB), the low-cost option would become considerably more expensive than TWC’s Standard broadband package (the only “Essentials Internet” option that meets the FCC’s definition of broadband) if a customer were to use as much data as the median cable broadband user. Thus, Time Warner Cable offers light users an 11% discount for 82% less data consumption, but would charge \$23 in overage fees for matching the median cable user.*

Data Consumption	Plan Type	Cost
<b>Unlimited</b>	Standard Broadband	<b>\$44.99</b>
<b>5 GB</b>	Essentials Internet	<b>\$39.99</b>
<b>28 GB*</b>	Essentials Internet with overage fees	<b>\$62.99</b>

\*According to the FCC, the median cable broadband user consumes 28 GB per month.

Which services would you cut first if you had to reduce expenses?



Demand for broadband is becoming more inelastic. Market research has shown that current broadband customers value the service highly and will cancel other services or reduce spending in other areas in order to maintain access when faced with price increases for broadband.

In a 2012 report on usage-based pricing, the Cisco Internet Business Solutions Group found that customers increasingly consider broadband more essential than mobile voice, mobile data, landline phone, or pay TV, with 65 percent indicating that they would cut home broadband service last or second to last among the five options. By contrast, only 17 percent said that they would cut home broadband first or second. Thus, given consumers willingness to sacrifice other services for broadband, the report observes, “Usage-based pricing can be a tool to catalyze new revenue.”

Source: Cisco Internet Business Solutions Group, “Moving Toward Usage Based Pricing,” March 2012.

## Why “Discipline” Online Video and Innovation?

During the same MMTC event in January, NCTA President Michael Powell argued, “If you have an unlimited pricing model, you can basically say: ‘I can build an app or a service and I don’t really concern myself with how much bandwidth consumption it will take...There is no disciplining element.’”<sup>13</sup> However, the perceived need to “rein in” developers runs completely counter to encouraging the development of next generation, high-bandwidth Internet applications and services.<sup>14</sup> Instead, the disciplining argument is consistent with promoting the cable industry’s self interest because it directly targets online video services. As Internet speeds have increased, so have competitive over-the-top-video services that offer an alternative to cable’s traditional pay TV options. And cable providers that also serve as Internet service providers have little incentive to allow those video services to compete on a level playing field. As technology reporter Stacey Higginbotham explains in reference to cable provider Comcast’s data cap:

*“By offering the cap as a stick to prevent over-the-top streaming from disrupting pay TV, and the carrot of exempt television content from the Xfinity service, Comcast is well on its way to creating a safe haven inside its network to keep subscribers complacent and making the idea of leaving to grab content elsewhere a risky proposition.”*<sup>15</sup>

Unfortunately for the American public, data caps and usage-based pricing on cable broadband will impact not just entertainment services like Netflix—they also threatens to impede other innovation, including the growing world of online education. The promise of massive open online courses rests on the assumption that users can stream online lectures, participate in interactive seminars, and receive real-time feedback from professors in an environment similar to a physical classroom. Moreover, this trend toward online education tools extends to younger students as educators and app developers are experimenting with ways to reach them through emerging technology. Early education teachers, for example, have begun to address problems such as poor reading proficiency by utilizing Skype and FaceTime to offer students one-on-one tutoring.<sup>16</sup>

Discouraging the use of more bandwidth-intensive tools—or worse, hampering their development in the future—could have a tremendously detrimental impact, particularly on traditionally underserved populations that should benefit the most from these new innovations.

When understood in this context, data caps hardly represent an evolution toward a “fairer” system of broadband pricing. Instead, they allow already profitable cable providers to take advantage of inelastic demand and an uncompetitive marketplace to charge higher fees from captive consumers at the expense of future innovation. Ultimately, as telecom policy expert Susan Crawford explains, “Usage caps have allowed American carriers to impose scarcity (so that average revenues can continue to increase), while other countries have focused instead on providing abundant bandwidth for new ideas and new ways of making a living.”<sup>17</sup>

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