Standardized broadband labeling schemes, like the nutritional labels adopted by the FDA, need to be adopted in order to secure consumer protection and market competition. According to one 2015 report, "[at] present, the lack of standardization inhibits consumers from effectively comparing available broadband service offerings."[1] When faced with the prospect of choosing a broadband provider, consumers are provided with diffuse, vague, and unhelpful data towards making that choice, offering minimal and unhelpful advertisements of performance in nonstandard formats. In order to choose a provider, and then data plan, consumers end up relying on descriptions of network throughput capabilities which often do not accurately reflect expected performance. Moreover, what metrics are listed by ISPs are often ambiguous or incomplete, such as network download and/or upload speed, which can vary during broadband use.[2] This paradigm is corroborated by the fact that the FCC has recorded frequent complaints from consumers that their service is slower and rates higher than originally advertised.[3] At present, "individual consumers are not able to conduct the necessary work themselves to translating non-uniform disclosures for the purposes of comparison."[4] A broadband labeling scheme, as proposed by the NPRM, is required to combat these difficulties and secure consumer protection.

In reference to requests (12) and (13) of the NPRM, this comment will address the questions of 1) how the commission should go about collecting broadband label data from internet service providers (ISPs) and 2) how ISPs should be expected to communicate labels to consumers. It is our stance that the answers to both of these questions is linked to the particularity of data that should be supplied to individual consumers with varying levels of broadband access. The same data plan may vary in performance from consumer to consumer, depending on their surrounding broadband infrastructure. Therefore, although "the phrase 'nutrition label' implies a static representation of performance," the labeling system that end up being implemented needs to account for consumer heterogeneity.[5] We present the following broadband label distribution framework, which we claim will support the commission's mission in protecting consumers while contending with consumer heterogeneity.

Firstly, in reference to intent to collect broadband label data from ACP participating providers, we think the commissions' idea of accessing this data through a provider-hosted APIs is close to optimal. However, we suggest the following changes in order to address consumer broadband heterogeneity. Most importantly, the data collected by the commission must be indexed by some geographical unit, in addition to a unique identifier describing the plan itself, preferably ZIP code. This will ensure that the commission not only knows, generally, what plans

[1] Hong, Moy, and Styslinger. "Broadband Truth-in-Labeling: Empowering Consumer Choice Through Standardized Disclosure." newamerica.org, 2015. https://d1y8sb8igg2f8e.cloudfront.net/documents/Broadband_Truth-in-Labeling.pdf., 3

[2] Sundaresan, Srikanth et al. "Helping Users Shop for ISPs with Internet Nutrition Labels." acm.org. Association For Computing Machinery, 2011. https://dl.acm.org/doi/epdf/10.1145/2018567.2018571., 13

[3] Federal Communications Commission. "Federal Register: Protecting and Promoting the Open Internet." The Federal Register, 2015. https://www.federalregister.gov/documents/2015/04/13/2015-07841/protecting-and-promoting-the-open-internet.

[4] Hong, Moy, and Styslinger. "Broadband Truth-in-Labeling: Empowering Consumer Choice Through Standardized Disclosure." newamerica.org, 2015. https://d1y8sb8igg2f8e.cloudfront.net/documents/Broadband_Truth-in-Labeling.pdf., 3

[5] Sundaresan, Srikanth et al. "Helping Users Shop for ISPs with Internet Nutrition Labels.", 16

cost and cover, but also how coverage is affected by consumer location. Secondly, this data set is going to need to updated regularly, as coverage changes, and not just when data plans change. Such a data set would represent an up-to-date, auditable data set describing consumer broadband experience.

Secondly, we think that any implementation of a labeling system should make consumer heterogeneity an important factor in what labels consumers end up seeing. In that spirit, we believe that ISPs should be required to research, produce, and advertise data plans in a given location using locally-sourced broadband performance data. For any number of metrics that end up getting mandated in said label, ISPs can source appropriate metrics, both my running tests in point-of-sale neighborhoods, and sourcing performance metrics from other customers in the neighborhood or surrounding neighborhoods. Such metrics would give consumers a better idea of expected performance in their own areas, and could be mandated to appear on an ISP website, or collected by the commission through an API. Most importantly, consumers should have the ability to audit data plan performance as advertised locally by ISPs, in order "to know whether ISPs actually meet the performance metrics that they advertise."[6] Therefore, we propose that in addition to having access to local performance data, ISPs should be mandated to provide some sort of API or test suite, that consumers can use to test local connections to ISPs both before and after they purchase a plan.[7]

It is our belief that accounting for localized consumer heterogeneity would improve the effectiveness of the broadband labeling system adopted by the commission. Moreover, more accurate, localized broadband performance data could be more democratically researched and audited through the use of mandated local-performance test suites. More general forms of broadband labeling would not be as accurate or helpful for consumers, and mitigate the efforts of the commission in securing consumer protection and market competition.

SOURCES

Federal Communications Commission. "Federal Register: Protecting and Promoting the Open Internet." The Federal Register, 2015. https://www.federalregister.gov/documents/2015/04/13/2015-07841/protecting-and-promoting-the-open-internet.

Federal Communications Commission. "Federal Register: Empowering Broadband Consumers through Transparency" Accessed March 9, 2022. https://www.federalregister.gov/documents/2022/02/07/2022-02483/empowering-broadband-consumers-through-transparency.

Hong, Moy, and Styslinger. "Broadband Truth-in-Labeling: Empowering Consumer Choice Through Standardized Disclosure." newamerica.org, 2015. https://d1y8sb8igg2f8e.cloudfront.net/documents/Broadband_Truth-in-Labeling.pdf.

Sundaresan, Srikanth et al. "Helping Users Shop for ISPs with Internet Nutrition Labels." acm.org. Association For Computing Machinery, 2011. https://dl.acm.org/doi/epdf/10.1145/2018567.2018571.

[6] Ibid, 15
[7] Ibid, 17