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FCC Releases Report On Wireline Broadband Performance

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A report by the Federal Communications Commission (FCC or Commission) has found that actual broadband speeds provided by wireline broadband service providers are substantially close to, and in some cases exceed, advertised speeds. The FCC's report, titled *Measuring Broadband America: A Report on Consumer Wireline Broadband Performance in the U.S.*, evaluated the service offerings of 13 of the largest wireline Internet service providers (ISPs) using three technologies-Digital Subscriber Line (DSL), cable, and fiber-to-the-home. The report focused on upload and download speeds and latency during peak periods in March 2011 and was based on measurements taken in the homes of 6,800 consumers who participated in the study.

In 2010, the FCC hired SamKnows, a company that conducted a similar study of broadband speeds in the United Kingdom, to design and manage the study. To measure actual broadband performance, SamKnows provided consumer participants with "whiteboxes" to install between their home computers and their Internet gateway. SamKnows also measured performance at certain server-side reference measure points across the country and various ISP-provided measurement points. The FCC has made available a technical appendix with more details regarding the methodology as well as the underlying data from the study.

The report provides results from five broadband-related tests: sustained download speed; sustained upload speed; burst download speed; burst upload speed; and latency. The report found variances between different technologies and individual ISP service offerings, as summarized below:

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Sustained Download Speeds. During peak periods, fiber-to-the-home services averaged 114% of advertised download speeds, while cable services averaged 93% of advertised speeds and DSL services averaged 82% of advertised speeds. Cable suffered the greatest speed loss during peak periods (7.3%), compared with 5.5% for DSL and 0.4% for fiber-to-the-home.

Sustained Upload Speeds. During peak periods, fiber-to-the-home services averaged 112% of advertised upload speeds, while cable services averaged 108% of advertised speeds and DSL services averaged 95% of advertised speeds. Average actual upload speeds exceeded advertised speeds for 8 of the 13 ISPs participating in the study.

Burst Download and Upload Speeds. The report found that burst services, under which some cable providers temporarily increase bandwidth to a consumer, improved short-term performance for activities such as Web browsing, but offered less benefit for large downloads, video streaming, or video chatting.

Latency. The report noted that latency was lowest for fiber-to-the-home services, followed by cable and DSL.

The report did not account for user-based factors, such as computer or local network limitations, the performance of content providers or the effect of peering arrangements between various ISPs. The report also only focused on broadband performance in three typical speed ranges: less than 3 Mbps, between 3 and 10 Mbps, and greater than 10 Mbps.

The Commission suggested that it will seek to use the results of the report to implement a standardized set of broadband measurements to improve the information available to consumers about actual broadband performance. In particular, the report called for possibly expanding the study to assess "the complete connection between a subscriber and the universe of content providers and services with which he or she interacts" and for continuing the dialogue with the stakeholder community to explore ways to make broadband performance testing more efficient and scalable.

*District of Columbia Bar pending. Supervised by principals of the firm.