

MARCH 2020

NRRI Alert: Telecommunications Questions to Consider as Schools and Businesses Go Online

The COVID-19 virus will have impacts on telecommunications services and systems across the country. This NRRI alert provides some thoughts regarding questions commissions may wish to consider as we move to a "virtual world."

Growth in traffic volume may impact service availability. Internet traffic volume will grow significantly as more and more schools and businesses begin to operate online. To date, we have not experienced the sustained level of Internet traffic that may be expected over the coming weeks. Although Internet Service Providers (ISPs) have generally configured their networks to handle traffic volumes two to three times greater than normal, these levels have been tested primarily through surge events (for example, voting for Dancing With the Stars winners), rather than the sustained traffic volumes we should expect from large numbers of simultaneous users accessing distance learning, corporate virtual operations, and streaming services simultaneously. Home WiFi systems may be particularly susceptible to issues as multiple users access online content.

Potential for reduced data speeds. Slowing Internet traffic (throttling) is prohibited by the Restoring Internet Freedom rules; however, ISPs may still engage in "network management," particularly in times of significant network congestion. ISPs have not yet reported surges in network traffic but this could change as more operations, including schools, move online.¹

Virtual Private Network (VPN) system capacity

challenges. It would be prudent for commissions to test their VPNs to ensure that there is enough capacity for simultaneous remote access by employees. If the system is not configured with enough capacity, a strategy of rotating access could be implemented to reduce traffic to supportable levels.

Consumer Internet access. As schools and businesses move to virtual operations, and libraries and other locations with public Internet access close, the digital divide will become more apparent. Although schools are offering remote learning for those students who can access it, the digital divide makes this access spotty at best.²

To help minimize the disruption caused by limited access to the Internet or the need to access services via mobile rather than fixed broadband, NARUC President Brandon Presley has asked the Federal Communications Commission (FCC) to require wireless carriers to lift data caps and drop data overage charges on wireless plans. Many consumers in areas without broadband coverage use their cell phones as their primary method of accessing the Internet. "These customers should not be penalized for doing their jobs or furthering their education due to these unforeseen changes that are outside their control." President Presley has also requested that the FCC prohibit ISPs from throttling service during this emergency.

Members of the US Senate have echoed this thought, sending a letter to the country's largest

- 1 See https://www.axios.com/broadband-providers-brace-for-coronavirus-stress-test-cf4d93bb-940d-470b-a139-2ca3307dc57f.html.
- 2 Recognizing that many students do not have access to broadband or to computers, Prince Georges County, Maryland, schools have closed but will not offer remote learning. See https://www.nbcwashington.com/news/local/maryland-to-close-public-schools-gatherings-ofmore-than-250-people-banned/2239127/.
- 3 See https://twitter.com/BrandonPresley/status/1238202867233755137.

Internet providers, AT&T, Cox, Charter, CenturyLink, Comcast, Sprint, T-Mobile, and Verizon, requesting that carriers remove service caps and provide better broadband access to consumers immediately.⁴

The FCC has created the "Keep America Connected" pledge, asking carriers to

- Not terminate service to any residential or small business customers because of their inability to pay their bills due to the disruptions caused by the coronavirus pandemic;
- (2) Waive any late fees that any residential or small business customers incur because of their economic circumstances related to the coronavirus pandemic; and
- (3) Open its Wi-Fi hotspots to any American who needs them.⁵

Carriers have responded to these requests by lifting data caps on their wireline broadband service, although wireless service caps remain for many companies. Comcast has increased speeds on its Internet Essentials program for low-income families with students that need the Internet, but has not yet removed data caps. Comcast and other carriers have also opened their wireless hotspots to those who need Internet access for telework and remote learning.

NRRI will continue to follow how the COVID-19 virus is affecting telecommunications and will provide updates on an ongoing basis.

For more information, contact Sherry Lichtenberg at 202-222-0379 or slichtenberg@nrri.org.

- 4 See https://www.warner.senate.gov/public/_cache/files/2/3/239084db-83bd-4641-bf59-371cb829937a/ A99E41ACD1BA92FB37BDE54E14A97BFA.letter-to-isps-on-covid-19-final-v2.-signed.pdf.
- 5 See https://docs.fcc.gov/public/attachments/DOC-363033A1.pdf.
- 6 See https://arstechnica.com/tech-policy/2020/03/at-comcast-keeps-charging-overage-fees/.
- 7 Ibid.

About the Author

Sherry Lichtenberg, Ph.D. is the Deputy Director of NRRI and its principal researcher for telecommunications.

About NRRI

The National Regulatory Research Institute (NRRI) was established in 1976 as the research arm of the National Association of Regulatory Utility Commissioners (NARUC). NRRI provides research, training, and technical support to State Public Utility Commissions. NRRI and NARUC are co-located in Washington, DC.

The purpose of NRRI Insights is to provide a forum that gives readers information about and insights into new ideas, questions, and policy positions affecting the regulatory community. To that end, these articles represent differing points of view, policy considerations, program evaluations, etc. and may be authored by those with an economic or policy interest in the subject. We hope that sharing diverse ideas will foster conversation that will support innovation in the industries we study. Each of the papers is reviewed both internally and externally for factual accuracy and their contribution to the body of regulatory knowledge. NRRI encourages readers to respond to these articles, either via "letters to the editor" or by joining the conversation with critiques/articles of their own.

NRRI provides these diverse views as part of our role fostering communication in the regulatory community, and we do not accept compensation for publication. We welcome submissions from all members of the regulatory community and look forward to presenting diverse and competing points of view.

Please provide your comments and questions concerning Insights papers to slichtenberg@nrri.org.

* * *

The views expressed in these papers are the authors' and do not necessarily reflect those of NRRI or NARUC.