Re: Order Issuing a Direction to the CRTC on a Renewed Approach to Telecommunications Policy

Canadian Internet Registration Authority | July 18, 2022

Executive Summary

1) The Canadian Internet Registration Authority (CIRA) commends the Department of Innovation, Science and Economic Development Canada (ISED) for its commitment to competition, affordability, consumer interests and innovation in Canadian telecommunications through the Order Issuing a Direction to the CRTC on a Renewed Approach to Telecommunications Policy (hereinafter "the Order").

2) CIRA's submission reflects its role as (a) the .CA country-code top-level domain registry operator, (b) its experience with the CIRA Internet Performance Test, (c) experience in domestic and global internet governance and policy, and (d) as a cybersecurity services provider.

3) CIRA agrees with the proposed direction to the Canadian Radio-television and Telecommunications Commission (CRTC) to "use the tools available to gather the necessary information to make sound decisions while being more proactive in strategic planning and market monitoring,"[1] and respectfully submits that the Order should further instruct the CRTC to include timely, third-party market data in its toolkit of data sources, in addition to data it may already have access to from telecommunications service providers and other sources.

4) Specifically, CIRA submits that:
    a) A direction to the CRTC to develop strong and timely internet performance monitoring capabilities will encourage greater, better-informed participation in policy-making processes and promote better public policy outcomes.

    b) Requiring regular testing of the performance of internet service providers' (ISPs) internet services and making that information available will help consumers when selecting a provider, especially in rural areas where internet users are more likely to rely on wireless internet access services.

    c) Independent third-party testing and the public reporting of broadband data will help verify the expected levels of network performance, address concerns about the integrity and reliability of ISP-provided data, and aid broadband investment decisions and regulatory decision-making to maximize return on public investment.

[1] Government of Canada, "Summary of the Government of Canada's new proposed policy direction to the CRTC," https://www.canada.ca/en/innovation-science-economic-development/news/2022/05/summary-of-the-government-of-canadas-new-proposed-policy-direction-to-crtc.html

d) As such, CIRA recommends that the CRTC's network performance testing include third-party data sources, as third-party quality of service testing is a core accountability metric that would be a strategic addition to the Commission's measurement toolkit.

e) To that end, CIRA submits that section 17.d. of the proposed Order be amended to read:
17. The Commission must enhance and protect the rights of consumers in telecommunications markets by
d. collecting, reporting publicly and making available to consumers information about services, including in relation to performance and mobile coverage, by
i. requiring that ISPs regularly test the performance of fixed internet services, including services based on commonly used technologies used in rural areas, and
ii. determining the availability of information on the performance of fixed internet services, including in rural areas, that may be available from reliable third parties and using this data in its determinations

About CIRA

5) CIRA is a member-based, not-for-profit organization best known for managing the .CA country code top-level domain on behalf of Canadians. CIRA operates the .CA registry and associated .CA domain name system (DNS) network, with over 3.2 million domains under management.

6) While CIRA's core mandate is the safe, stable, and secure operation of the .CA domain and its underlying technologies, the organization also connects, protects, and engages the internet community in Canada and beyond by providing high quality registry, DNS, and cybersecurity services.

7) CIRA runs a Community Investment Program to help Canadians thrive online and ensure that the internet is a force for innovation, connection, and trust.[2] This includes, (1) the Grants program, which gives $1.25 million to community-led internet projects every year, (2) CIRA Canadian Shield, (3) the Canadian Internet Governance Forum, (4) our involvement in Internet Exchange Points, which makes Canada's internet faster, cheaper, and more reliable, and (5) the CIRA Internet Performance Test.

[2] CIRA, "Community Investment Program," https://www.cira.ca/community-investment-program

8) CIRA is committed to building a more trusted internet for Canadians, in which Canadian networks are global leaders in access, speed, quality, and data sovereignty.

Introduction

9) CIRA commends ISED's Order Issuing a Direction to the CRTC on a Renewed Approach to Telecommunications Policy ("the Order") promoting competition, affordability, consumer interests and innovation. Moreover, CIRA commends the commitment to transparency and evidence-based decision-making in expanding access. More data makes for better regulatory decisions, and better policy outcomes for Canadians.

10) CIRA welcomes the opportunity to comment on the proposed Order. CIRA shares the belief that the internet is central to Canadian life and vital for the full participation in our economy, society, and democracy. As such, access to internet services is essential.

11) CIRA's experience with the Internet Performance Test (IPT) serves as the foundation for the comments in this submission. CIRA's experience in domestic and global internet policy and governance and technical understanding of internet architecture are also reflected in the recommendations.

12) While CIRA's experience with the IPT serves as the foundation for these comments, the recommendations are borne out of the veritable belief that all independent, third-party data can be valuable for improving Canadian telecommunications.

13) CIRA's IPT is one of the most advanced tests of internet speed and quality available, with the public interest at its core. It measures the actual performance of an internet connection in network conditions, closely representing the internet experience of Canadian users. Over 1.2 million tests have been run in Canada.[3]

14) Building on the IPT platform, CIRA has worked with municipalities, provinces and other stakeholders to enable decision-makers to better understand the state of connectivity in their community. This includes the Government of British Columbia, the City of Hamilton, and the Rural Municipalities of Alberta.[4]

[3] Visit CIRA's Internet Performance Test at https://performance.cira.ca/
[4] CIRA, Smart Community Performance Testing, https://www.cira.ca/community-investment-program/internet-performance-test/smart-community-performance-testing

A direction to the CRTC to develop strong and timely monitoring capabilities will encourage greater participation in policy-making processes and promote better public policy outcomes

15) At CIRA, we believe that all stakeholders should have the opportunity to participate in designing policy. We have long championed the multistakeholder model of internet governance, in which civil society, the private sector, governments, the technical community, and end-users are represented at the decision-making table.

16) Section 5 of the Order instructs the CRTC to improve its market monitoring and knowledge of telecommunications in Canada:

> *5. The Commission should further develop strong and timely market monitoring, research and strategic foresight skills and use the results that it obtains from these activities in the exercise of its powers and the performance of its duties.*

17) Regulatory agencies like the CRTC can play a key role in promoting a robust public policy dialogue by collecting and publishing timely, independent data on the state of Canada's telecommunications sector. This data will reap several benefits for Canadian consumers and public policy.

18) CIRA notes that smaller companies, researchers, advocacy organizations, and individual Canadians often face information asymmetries when participating in public policy consultations.

19) Access to data about telecommunications infrastructure enables an accurate assessment about the state of telecommunications, for example, where access gaps may lie within broader geographic areas, and as such helps address that information asymmetry by enabling greater and more informed participation in public consultations.

20) CIRA submits that the proposed direction to the CRTC should require the addition of third-party data sources as a critical element of strong and timely monitoring capabilities, which will in turn encourage greater participation in the policy-making process, which will promote better public policy outcomes.

Requiring regular testing of the performance of ISPs' internet services, and making that information available will help consumers when selecting a provider, especially in rural areas where internet users are more likely to rely on wireless internet access services

21) In its *Measuring Broadband Canada* report, the CRTC recognizes that ISPs sell internet packages with maximized advertised speeds, though actual internet performance may deviate from the speeds advertised upon the purchase of an internet subscription.[5]

22) In 2016, the CRTC declared broadband internet a basic service, and established a universal service objective (USO) that each Canadian should have access to: 50 megabits per second (mbps) download speed, 10 mbps upload, and minimum thresholds for other performance metrics – latency, jitter, and packet loss – and emphasized that these speeds are to "be the actual speeds delivered, not merely those advertised."[6]

23) Thus, in instances where an internet subscription is advertised to have speeds up-to the USO 50/10 standard, but the actual speeds experienced by a user fall short, this deviation can be problematic.

24) As it stands, data from CIRA's IPT shows the median download speed in rural Canada was 20.94 mbps, short of the USO's mbps considered basic. Conversely, in urban Canada, the median download speed was 77 mbps.[7] In rural areas in particular, the difference between a 5 mbps download speed and a 25 mbps download speed can be the difference that allows students to complete remote classes, or businesses to reach their customers.

25) The Order states that:

17. The Commission must enhance and protect the rights of consumers in telecommunications markets by

d. collecting, reporting publicly and making available to consumers information about services, including in relation to performance and mobile coverage, by

i. requiring that service providers regularly test the performance of their fixed Internet services, including services based on commonly used technologies in rural areas…

26) By having access to timely data about internet performance, consumers will be able to make informed decisions in choosing between services and providers. Moreover, requiring the publication of data about ISPs' services will encourage service providers to compete on the actual network performance they deliver to their customers, as opposed to their advertised maximum speeds.

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[5] CRTC, Measuring Broadband Canada, Report, June 2020, https://crtc.gc.ca/eng/publications/reports/rp200601/rp200601.PDF

[6] Telecom Regulatory Policy CRTC 2016-496, https://crtc.gc.ca/eng/archive/2016/2016-496.htm

[7] Link to pending IPT report (released July 11)

Independent third-party testing and the public reporting of broadband data will help verify the expected levels of network performance, address concerns about the integrity and reliability of ISP-provided data, and aid broadband investment decisions and regulatory decision-making to maximize return on public investment

27) While regular testing of the performance of ISPs fixed internet services is important, CIRA submits that the CRTC's network performance measurement toolkit be supplemented with the inclusion of independent third-party testing using the testing criteria established by the Commission.

28) In Telecom Decision 2018-241, the CRTC determined a measurement methodology to be used in their Broadband Measurement Project. Specifically, the Commission found the following:

a) … *broadband [quality of service] QoS is to be measured using a sample-based approach, during peak times... and using a measurement probe at the modem in the customer premises to an off-net measurement server connected to an [Internet Exchange Point] IXP in a Canadian Tier 1 city.*[8]

29) CIRA submits that this is the appropriate testing methodology, because it assesses the speed and quality of broadband services under real world conditions and provides a truer portrait of a user's internet experience.

30) Moreover, CIRA submits that section 17.d. be amended to the following:

17. The Commission must enhance and protect the rights of consumers in telecommunications markets by

d. collecting, reporting publicly and making available to consumers information about services, including in relation to performance and mobile coverage, by

i. requiring that ISPs regularly test the performance of fixed internet services, including services based on commonly used technologies used in rural areas, and

ii. determining the availability of information on the performance of fixed internet services, including in rural areas, that may be available from reliable third parties and using this data in its determinations

31) Self-reported ISP data helps identify connectivity gaps across Canada, however, layering in third-party QoS data offers a more comprehensive picture. In particular, independent third-party testing

[8] Telecom Decision CRTC 2018-241, https://crtc.gc.ca/eng/archive/2018/2018-241.htm

of network performance can demonstrate gaps, weaknesses, and strengths in regional connectivity, and by using a measurement methodology that reflects subscribers' real-world experiences, informed decisions related to network investments can be made.

32) Moreover, third-party network data will help address concerns about integrity and reliability of data, relative to data provided by ISPs themselves, thereby improving the confidence of consumers themselves. Independent third-party data will have greater credibility as it does not originate from the ISPs. As well, it can help fill in gaps where ISPs do not have a sufficient level of data available about internet performance in a given region.

33) Third-party quality of service testing is a core accountability metric that would be a strategic addition to the Commission's measurement toolkit.

34) CIRA submits that third-party testing and the public reporting of broadband data will ensure Canadians receive the network performance they are promised by providers and will maximize return on public investment into broadband projects. As such, it is important for the Order to include the regular third-party testing of network performance to achieve these results.

Conclusion

35) CIRA respectfully submits that the success in achieving the objectives of the Order would be enhanced by requiring the CRTC to use and make public timely, third-party market data about the quality of internet services.

36) Specifically, CIRA submits that:

a) A direction to the CRTC to develop strong and timely monitoring capabilities will encourage greater participation in policy making processes and promote better public policy outcomes

b) Requiring regular testing of the performance of ISPs' internet services and making that information available will help consumers when selecting a provider, especially in rural areas where internet users are more likely to rely on wireless internet access services.

c) Independent third-party testing and the public reporting of broadband data will help verify the expected levels of network performance, address concerns about the integrity and reliability of ISP-provided data, and aid broadband investment decisions and regulatory decision-making to maximize return on public investment.

d) As such, CIRA recommends that the CRTC's network performance testing include third-party data sources, as third-party quality of service testing is a core accountability metric that would be a strategic addition to the Commission's measurement toolkit.

37) CIRA appreciates the opportunity to participate in this important consultation.