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Towards Efficiencies in Canadian Internet Traffic Exchange

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Abstract

Canadian Internet access is heavily and unnecessarily dependent upon foreign infrastructure, especially U.S. infrastructure. This dependence imposes significant burdens upon Canadian Internet users:

* Service prices are higher than would be the case if Canadian networks more densely interconnected domestically.

* Network speed is slower than would be the case if Canadian networks more densely interconnected domestically.

* When data en route from one Canadian network to another passes through other countries, the data is subject to examination by companies and government authorities in those countries. Canadian data-protection laws are understood not to protect data as it passes through other countries.

Despite these challenges, experience in other countries shows a clear way forward. By establishing more Internet exchange points (IXPs) within Canada, Canada can reduce the portion of network traffic that travels from one point in Canada, through the United States or other nations, and back to another point in Canada. The key benefits:

* By reducing reliance on costly international data transit, additional IXPs will reduce networks' ongoing operational costs. These cost savings will flow to Canadian Internet users, and unnecessary export of capital will be reduced.

* By providing high-speed domestic links, additional IXPs will increase the amount of bandwidth available to Canadian users, mitigating networks' bandwidth shortages and removing networks' incentives to impose bandwidth throttling and usage caps.

* By favoring shorter and more direct routes, additional IXPs will reduce network latency, improving the performance of new services like video and cloud-based applications.

* By allowing Canadian data to remain in Canada as much as possible and as often as possible, additional IXPs will reduce the risk of Canadian data becoming subject to foreign laws and practices.

* By increasing the richness and density of connections between Canadian networks, additional IXPs will increase the reliability of Internet access in Canada and its resilience to disaster and attack.

Keywords: [Internet](#); [Networks](#); [Canada](#); [Privacy](#); [Communication Technology](#); [Technology Networks](#); [Internet](#);

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