



CIRAs latest initiatives for ISPs CANWISP 2020



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Let's pretend...

INTERNET FREEDOM UNDER THREAT

The United States has a tradition of generally broad protection of freedom of speech, w Internet age. Thus American courts have struck down most laws attempting to limit co including provisions of the Communications Decency Act restricting indecent speech on American Civil Liberties Union, \$21 U.S. \$44 (1997)) and sections of the Child Online Prot protecting children from material defined as harmful to them (in *AGLU v. Makeusey*, \$34 F denied, 129 Sup. Ct. 1032 (2009)).

But other nation



PRIVACY & SECURITY

Government failing to protect Canadians from cyber threats, says Senate report



Howard Solomon @howarditw
Published: October 29th, 2018

The federal government is failing to protect Canadians from increasingly

FINANCIAL POST

Counterpoint: Big telcos have no business howling over CRTC decision that encourages fair internet prices

Telus CEO threatens 5,000 job cuts if forced to sell access to wireless networks

Telus, BCE Inc. and Rogers Corp. say they'll cut investment if the CRTC requires them to sell access to players known as mobile virtual network operators



Darren Entwistle, CEO of Telus. Tyler Anderson/Photomedia

Forbes

Billionaires Innovation Leadership Money

11,444 views | Nov 23, 2018, 05:41am

Is The Internet Under Threat? Interview With #SaveYourInternet Member On EU's Copyright Directive



Ana Garcia Valdivia Contributor @ Leadership Strategy
I write about the Spanish economic policy in the framework of EU

f Are you aware of the new Copyright Directive that the EU wants to take forward for next year? If you like to send gifts and memes to your friends, in you upload and watch videos on YouTube, or you write and share articles on the web, you should



Internet: Pixabay

The Conference Board of Canada

Focus Areas Services Insight

Emerging Cyber Threats: Ransomware, Cryptojacking, and IoT Attacks

August 07, 2019

Focus Area — Innovation & Technology



Entertainment

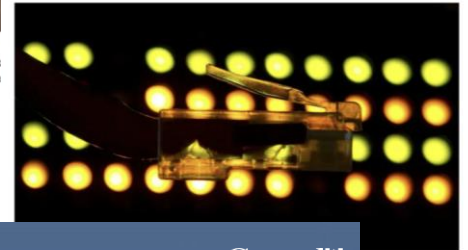
Federal Court issues first ever order to block piracy website



Decision is the first nationwide blocking order in Canada, setting a precedent that worries critics

David Friend - The Canadian Press - Posted: Nov 19, 2019 2:14 PM ET | Last Updated: November 19, 2019

recent Desjardins, Canadian



Company that's offering

Communications Security Establishment



Canada

About us Cyber Centre Careers Tutte Institute The Edward Drake Building

Home About us Media and Public Affairs

About us
The Minister

2019 Update on Cyber Threats to Canada's Democratic Process



We are here to cheer
for the internet





A trusted Canadian internet





BROADBAND FUND

Closing the digital divide in Canada

Whether you're at home, at work, or on the road, your phone should be able to connect using LTE, you should have an Internet connection with access to broadband speeds of at least 50 Mbps download and 10 Mbps upload and access to unlimited data.



Broadband at 50/10 Mbps, unlimited



Canada
85.7%



Rural communities
40.8%



Mobile LTE



Canada
99.3%



Major transport roads and highways
87.2%



Rural communities
96.5%



Government
of Canada

Gouvernement
du Canada

Jobs ▾

Immigration ▾

Travel ▾

Business ▾

Benefits ▾

Health ▾

Se...

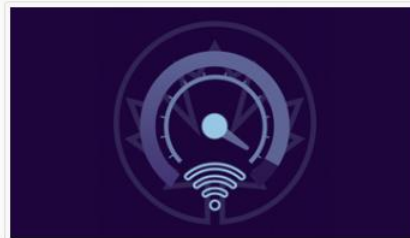
[Home](#) → [Innovation, Science and Economic Development Canada](#) → [Get connected](#)

Universal Broadband Fund

From: [Innovation, Science and Economic Development Canada](#)



Building the New Program Together



[Start Speed Test](#)



[National Broadband Internet Service
Availability Map](#)

Press release

"In partnership with the Canadian Internet Registration Authority (CIRA), the Government of Canada has launched a quick and easy Internet speed test. This test will provide CIRA and the Government with the data needed to expand high-speed networks to rural, remote, northern and underserved communities across Canada."

ISED, Sep 6, 2019



CIRA Internet Performance Test

- Most internet tests focus on **SPEED** testing.
- IPT is a **QUALITY** test about individual internet connections.
- Collects many data points through **Off-Net** connections.

Netago sent the ISED/CIRA test link to their subscribers. They now have the data to identify exactly where to upgrade their network AND can demonstrate that to ALL funding agencies.

How about you?

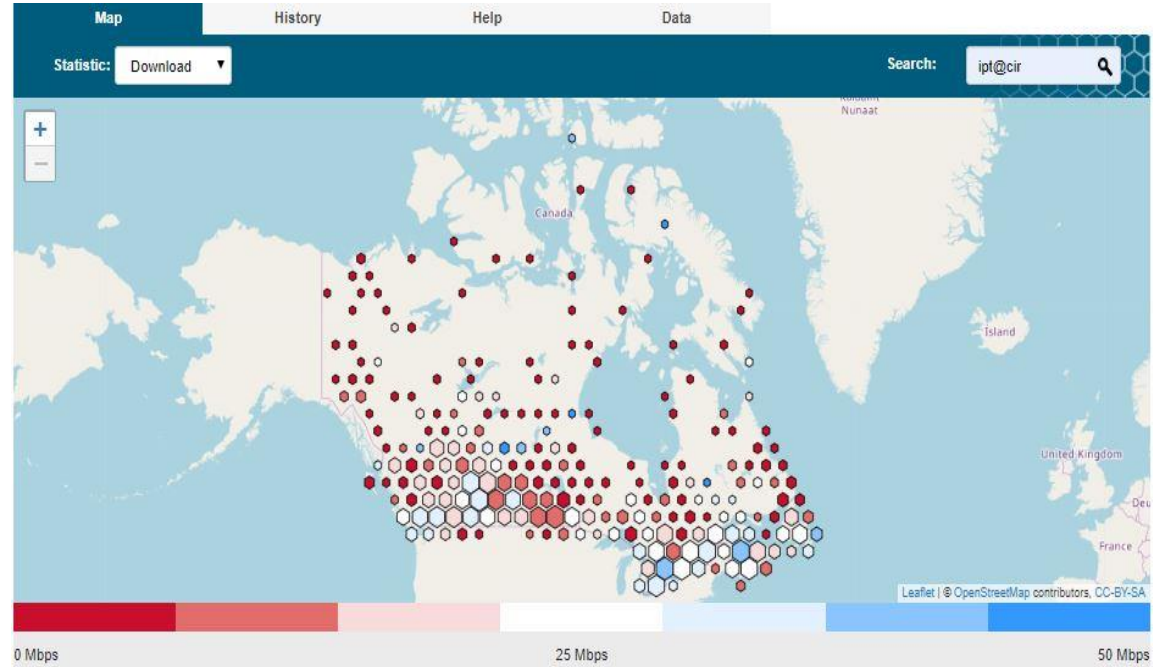
"We appreciate what CIRA is trying to accomplish..this is great data."

Netago Feb 2020
16 days - **3,868** tests.

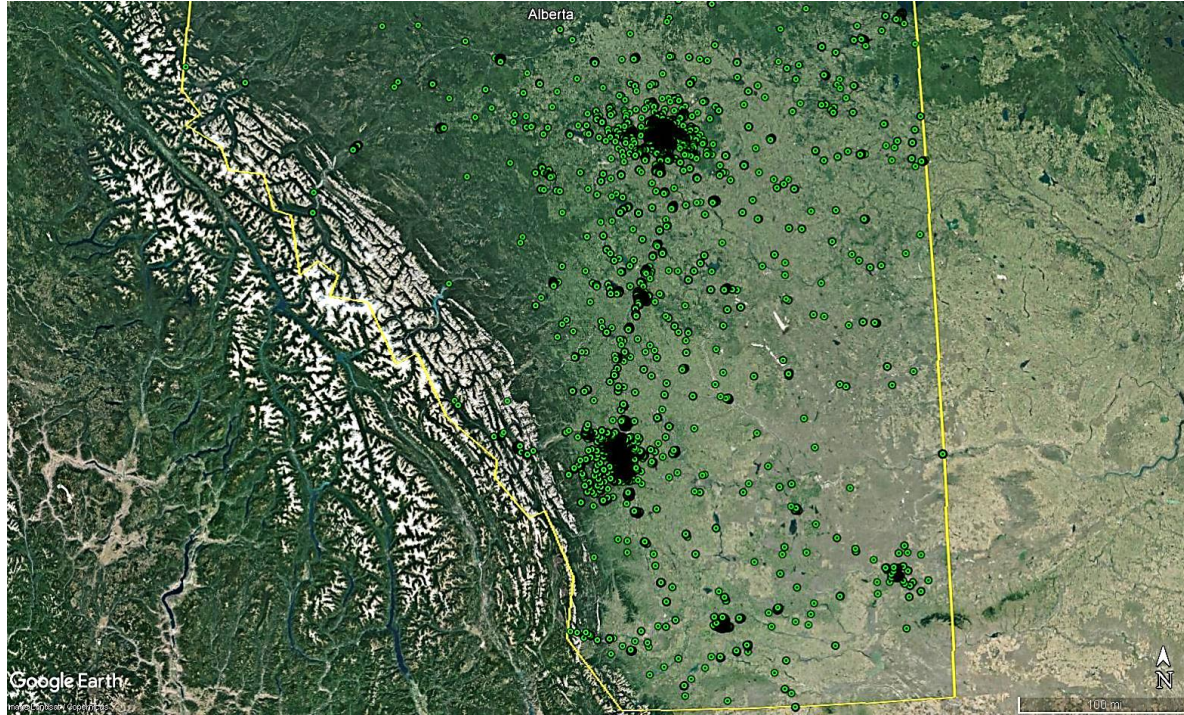


The Canadian experience

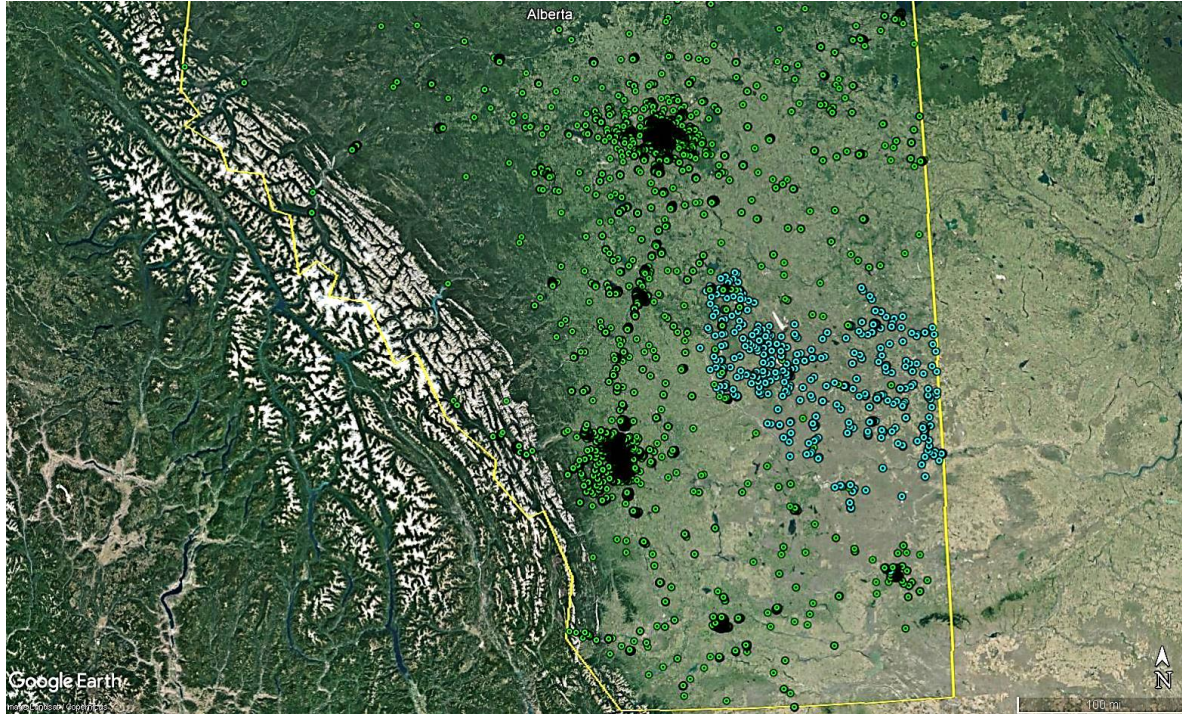
- Canadian Tests since May 13, 2015 = **612,864**.
- 46 Cities, ISPs & Rural Communities have a CIRA Lander data.



Alberta test – Feb 2



Alberta test – Feb 20





When you get home:

Please send all your customers the ISED/CIRA Internet Performance Test link

<https://performance.cira.ca/ISED>

Let CIRA know when you connect with your subscribers and we will send you reports and maps about the data. This will help ISED/CIRA all Canadians.

Grant.Street@cira.ca

Community Investment



Community investment

- CIRA's Community Investment Program grants fund innovative community internet projects to build a resilient, trusted and secure internet for all Canadians.
- Through its annual grants program, 151 projects have been funded since 2014, with an expenditure of \$6.7 million.
- 2020 is the seventh year in which we will provide \$1.25 M in funding to projects that will help build a better online Canada.



Supporting Canadians

In 2019, 153 eligible applications were reviewed by the Community Investment Committee: 21 were funded

4 Funding Areas:

- Infrastructure
Digital Literacy
Cybersecurity
Community leadership

Priority given to initiatives that benefit:

- Students (K-12 and post-secondary)
- Northern, rural and Indigenous communities

Example projects

Infrastructure:

- High-speed fibre optic installation connecting underserved remote and rural communities in Winnipeg's Metropolitan region
- Supporting infrastructure growth at Saskatoon Internet Exchange (YXEIX) by installing a second peering location in the heart of Saskatoon's business and financial district
- High-speed internet connectivity to two small francophone communities on the Port au Port peninsula in Newfoundland
- Mobile mesh technology for improved internet connectivity in remote indigenous communities of Canada's Arctic



**Protection
from malware,
ransomware,
phishing and bots**

Let's talk D-Zone DNS Firewall

WHAT ORGANIZATIONS ARE FACING



71%

of organizations **reported experiencing at least one cyber-attack** last year

Impacts included:

- **Lost time to respond** to incident: **28%**
- **Repair and recovery** costs: **23%**
- **Damage to reputation**: **13%**

D-Zone DNS Firewall

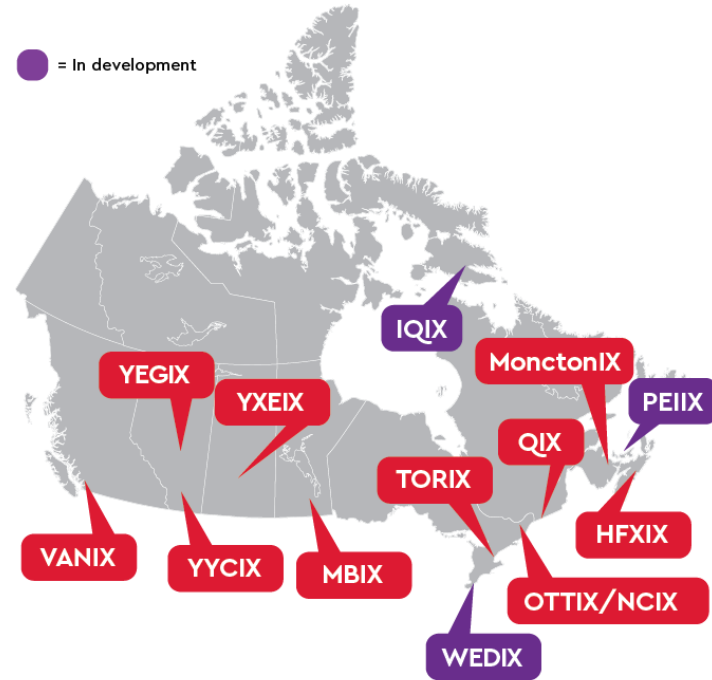
- Malware and phishing protection at the DNS.
- Global threat science (provided by Akamai) provides defence-in-depth and a very low false positive rate.
- ISPs benefit from reduced botnet and malware traffic on their network.



Leveraging **IXPs** across Canada

Advocate and support a better Internet in Canada that doesn't rely on US transit

- Faster
- More Reliable
- Sovereign



D-Zone DNS Firewall Nodes

Affordable infrastructure or
service upsell

- Two clouds
- Two nodes per site
- Transit and IXP connected





Introducing CIRA Canadian Shield

Free cybersecurity for all Canadian households

Private

Recursive DNS server

Protected

Private + malware and phishing protection

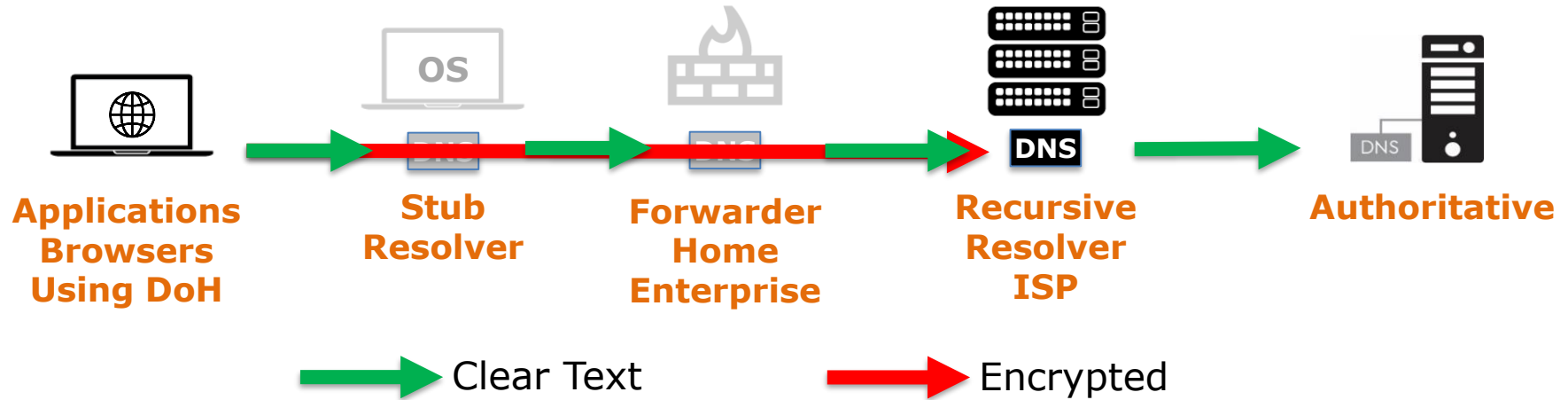
Family

Protected + pornographic content filtering

(And it will be the first Canadian DoH service)



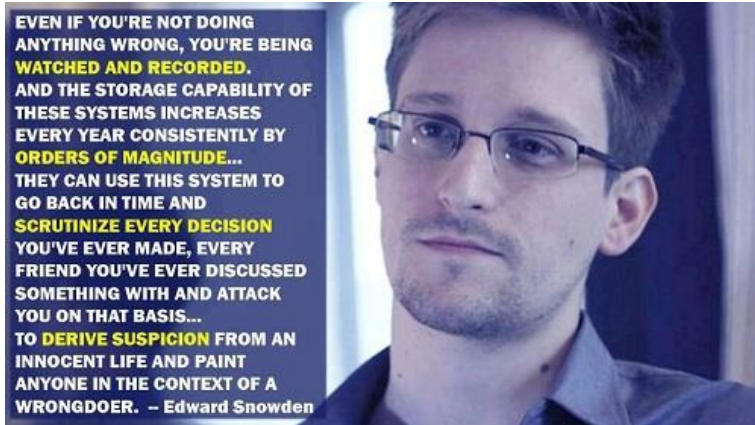
DoH – a very brief tutorial



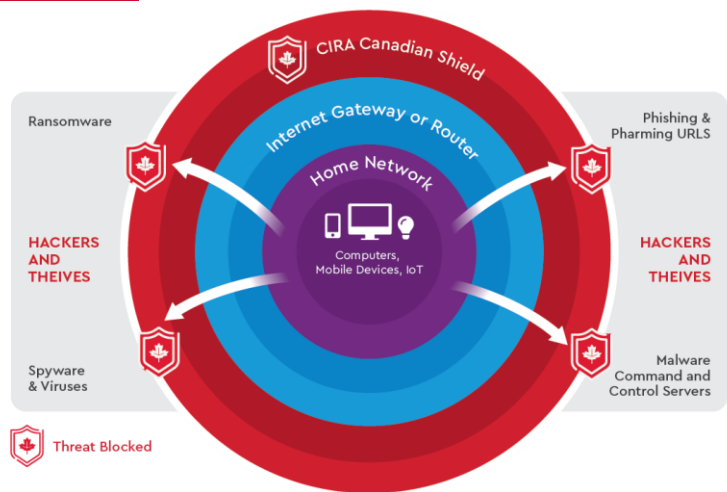
And this is why...

**Snowden to the IETF: Please make an internet
for users, not the spies**

June 2013



1. Secret court orders allow NSA to sweep up Americans' phone records
2. PRISM
3. Britain's version of the NSA taps fiber optic cables around the world
4. NSA spies on foreign countries and world leaders
5. XKeyscore, the program that sees everything
6. NSA efforts to crack encryption and undermine Internet security
7. NSA elite hacking team techniques revealed
8. ...



	Features	IPv4	IPv6	DoH	DoT
Private	DNS resolution only	149.112.121.10 149.112.122.10	2620:10A:80BB::10 2620:10A:80BC::10	https://private.canadianshield.cira.ca/dns-query	private.canadianshield.cira.ca
Protected	Malware and phishing protection	149.112.121.20 149.112.122.20&	2620:10A:80BB::20 2620:10A:80BC::20	https://protected.canadianshield.cira.ca/dns-query	protected.canadianshield.cira.ca
Family	Protected + blocking pornographic content	149.112.121.30 149.112.122.30	2620:10A:80BB::30 2620:10A:80BC::30	https://family.canadianshield.cira.ca/dns-query	family.canadianshield.cira.ca



+



Interested?

Contact me to get on the EAP

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Exclusive early access
CIRA Canadian Shield

↓



In a few short weeks we will be launching CIRA Canadian Shield to the general public and we need your input and feedback to ensure the service is ready for all Canadians. The **free service** will be available to all Canadian households to provide malware, phishing and botnet protection, with DNS privacy, for their devices and home networks.

Why are we doing this?

- 1) To protect Canadians from the massive increase in global cyber-threats
- 2) To reduce the increasing reliance on foreign corporations for critical (and personal) DNS information
- 3) To give Canadians options for an internet they can trust from a Canadian not-for-profit

To secure your early access to CIRA Canadian Shield, please provide your email address below and we will send you instructions on how to proceed.



Register to be part of
the Early Access
Program!

Email*

After you register you will be redirected to the service landing page with set-up instructions.

Submit



- The CIRA Internet Performance Test is helping ISED identify opportunities for investment and evaluate the success of the results
- CIRA offers the DNS Firewall to ISPs to help keep bad traffic off their network and off customer's computers
- CIRA invests in the community with direct funding and programs like IXPs and the CIRA Canadian Shield