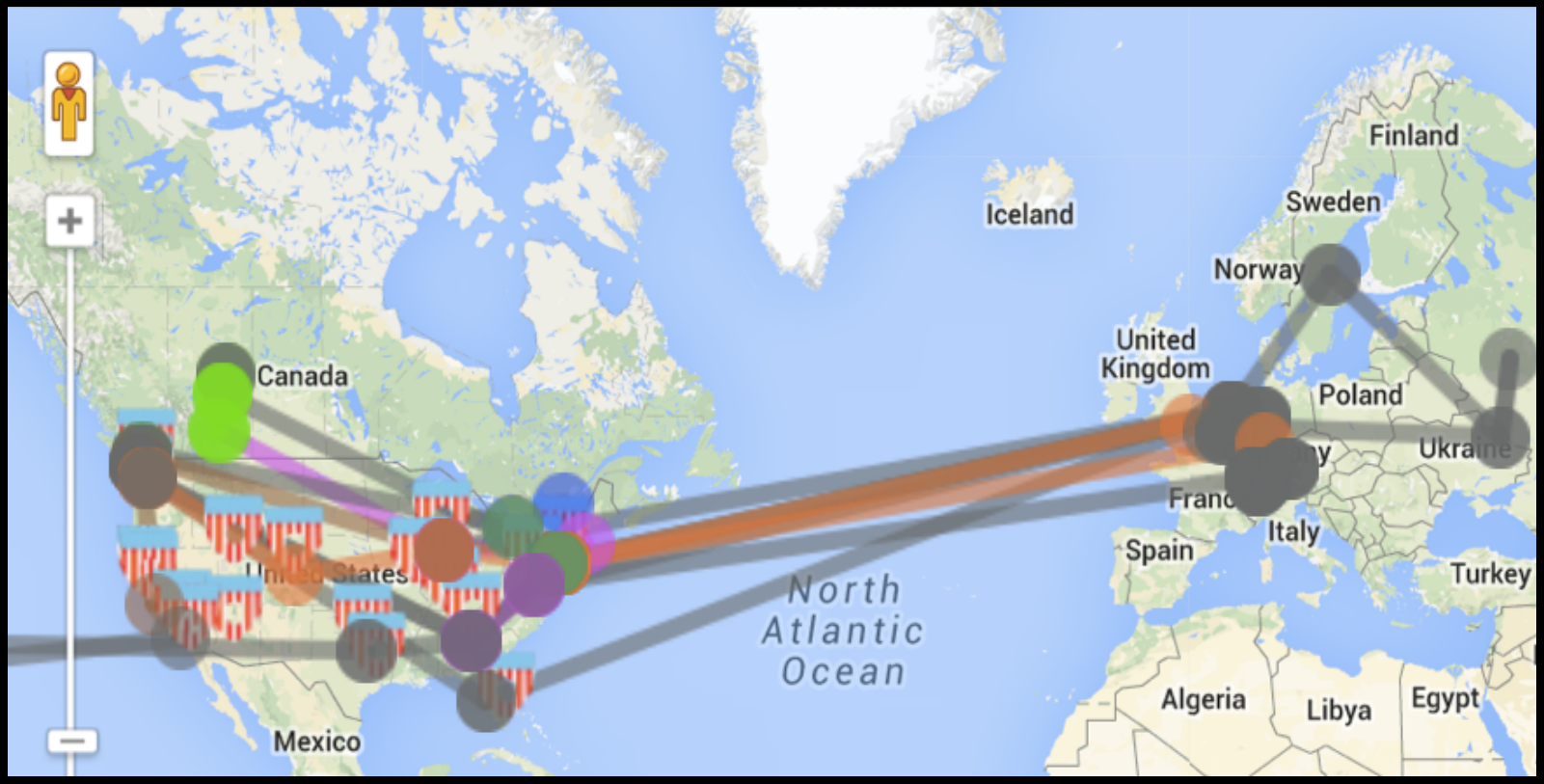
IXmaps.ca

Mapping internet routing and surveillance from a user privacy point of view



Antonio Gamba, Colin McCann,
Andrew Clement, Jonathan Obar
Faculty of Information, University of Toronto

Network topology and geography panel
Technical Plenary, IETF90
Toronto, Canada, July 21, 2014

IXmaps – Internet Exchange mapping

- Crowdsourced traceroute generation & collection
  > 30,000 TRs > 250 contributors/origins > 2,500 URLs
- Systematic geo-location of (core) routers
- Map traceroute paths via GoogleMaps/Earth
  – NSA surveillance splitter sites, carrier transparency + …
- Custom filtering of traceroutes
  – NSA interception, 'boomerang routing,' ISP, city, ….

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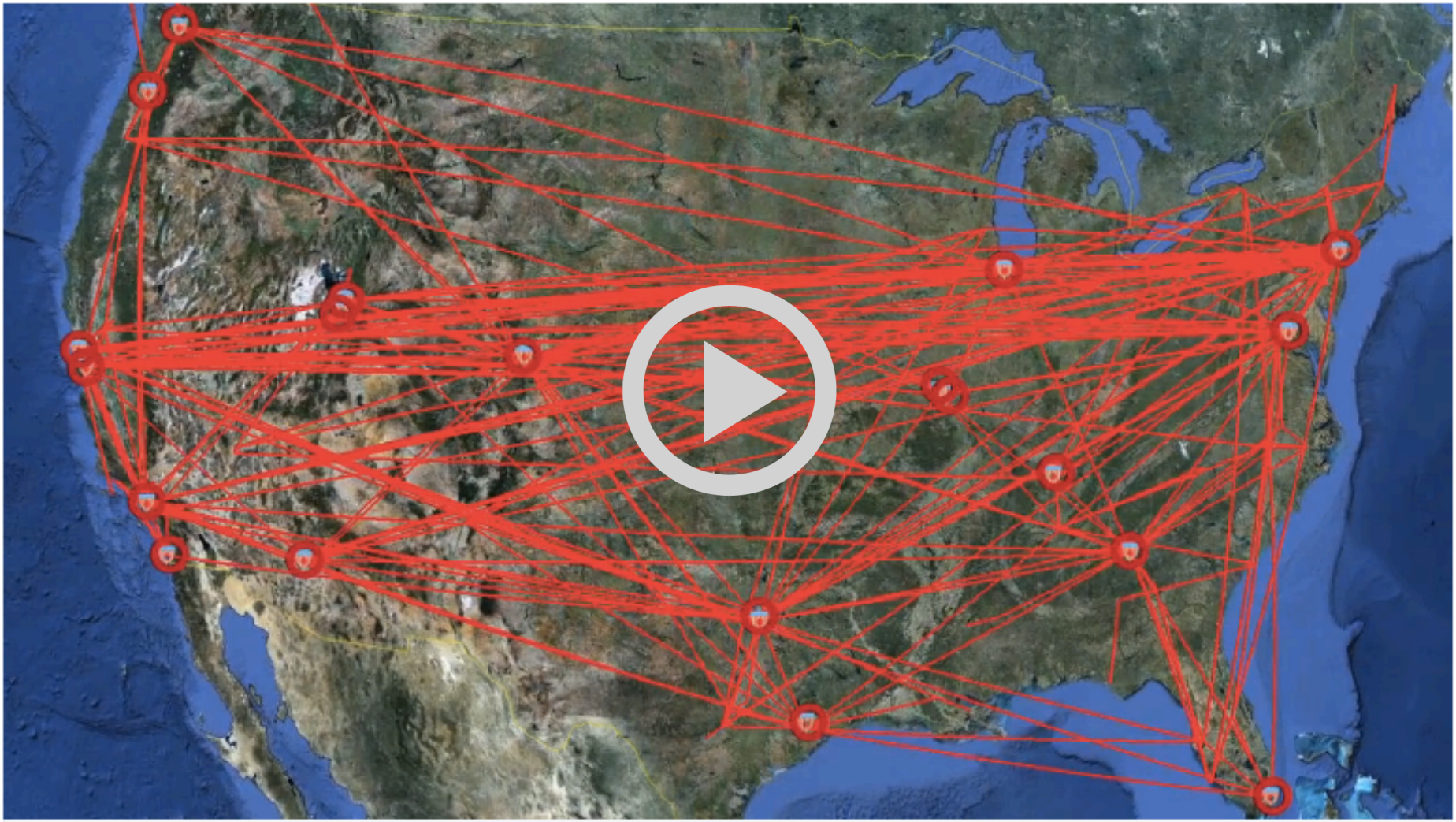

What Is IXmaps?

from **The New Transparency** PLUS 1 year ago NOT YET RATED

Notable results/implications

US NSA interception

- Comprehensive Continental US coverage
- Shows where your packets get ‘split’ by the NSA

Canadian Boomerang routings

- ~25% Canadian traffic?
- High risk of NSA interception, depending on carriers involved

Reveals carriers/ISPs,
comparative privacy transparency assessments

- Part of wider transparency and accountability initiatives

Current development

With support of CIRA grant - see RFP

- Re-build TR generation
- Re-build geo-location

With further support?

- Internationalization
- Sustainability/FLOSS migration

See where your packets go!
(and contribute to the database)

Note: RFP for re-building traceroute generation and geo-location modules

http://IXmaps.ca

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