

The Internet's Ecosystem

The Internet Society

Vision : **The Internet is for everyone.**

Mission: To **promote the open development, evolution, and use of the Internet** for the benefit of all people throughout the world.

Facilitates open development of standards, protocols, administration, and the technical infrastructure of the Internet.

Supports education in developing countries specifically, and wherever the need exists.

Promotes professional development and builds community to foster participation and leadership in areas important to the evolution of the Internet.

Provides **reliable information** about the Internet.

Provides **forums for discussion of issues** that affect Internet evolution, development and use in technical, commercial, societal, and other contexts.

Fosters an **environment for international cooperation**, community, and a culture that enables self-governance to work.

Serves as a **focal point for cooperative efforts to promote the Internet** as a positive tool to benefit all people throughout the world.

Provides management and coordination for on-strategy initiatives and outreach efforts in humanitarian, educational, societal, and other contexts.

The Internet Engineering Task Force

Mission: The mission of the IETF is to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.

The IETF will pursue this mission in adherence to the following cardinal principles:

Open process - any interested person can participate in the work, know what is being decided, and make his or her voice heard on the issue.

Technical competence - the issues on which the IETF produces its documents are issues where the IETF has the competence needed to speak to them, and that the IETF is willing to listen to technically competent input from any source.

Volunteer Core - our participants and our leadership are people who come to the IETF because they want to do work that furthers the IETF's mission of "making the Internet work better".

Rough consensus and running code - We make standards based on the combined engineering judgment of our participants and our real-world experience in implementing and deploying our specifications.

Protocol ownership - when the IETF takes ownership of a protocol or function, it accepts the responsibility for all aspects of the protocol, even though some aspects may rarely or never be seen on the Internet.

Internet Corporation for Assigned Names and Numbers

ICANN is a not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers. Through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet.

Internet Assigned Numbers Authority (IANA)

The IANA functions include the management of protocol parameters, Internet number resources and domain names.

The Internet Corporation for Assigned Names and Numbers (ICANN) performs these functions on behalf of the global Internet community.

Domain Name System

- Network Solutions
- GoDaddy
- Etc.

World Wide Web Consortium

The W3C mission is to lead the World Wide Web to its full potential by developing protocols and guidelines that ensure the long-term growth of the Web.

W3C's vision: **One Web.**

Open Standards

The following design principles guide W3C's work.

- **Web for All:** Accessibility, Internationalization, Mobile Web for Social Development
- **Web on Everything:** Web of Devices, Mobile Web Initiative, Browsers and Other Agents

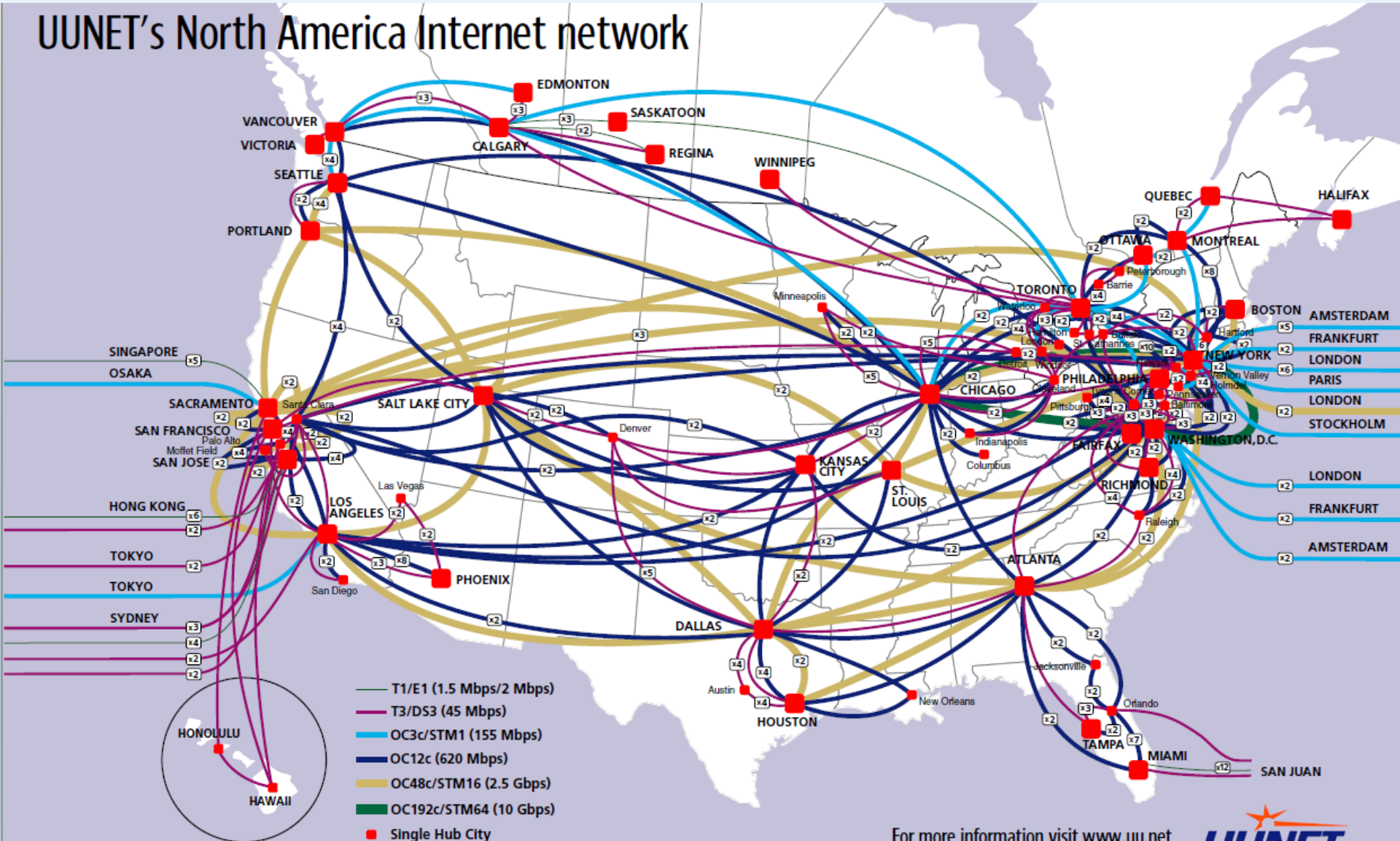
W3C's vision for the Web involves participation, sharing knowledge, and thereby building trust on a global scale.

- Web for Rich Interaction
- Web of Data and Services
- Web of Trust

National Grid

<http://www.nthelp.com/images/uunet.pdf>

UUNET's North America Internet network



- T1/E1 (1.5 Mbps/2 Mbps)
- T3/DS3 (45 Mbps)
- OC3c/STM1 (155 Mbps)
- OC12c (620 Mbps)
- OC48c/STM16 (2.5 Gbps)
- OC192c/STM64 (10 Gbps)
- Single Hub City
- Multiple Hubs City

For more information visit www.uu.net
 NB: UUNET also has infrastructure within individual countries, which is not shown on this map.
 June 2000



Submarine Cables

<https://www.telegeography.com/assets/website/images/maps/submarine-cable-map-2015/submarine-cable-map-2015-x.png>



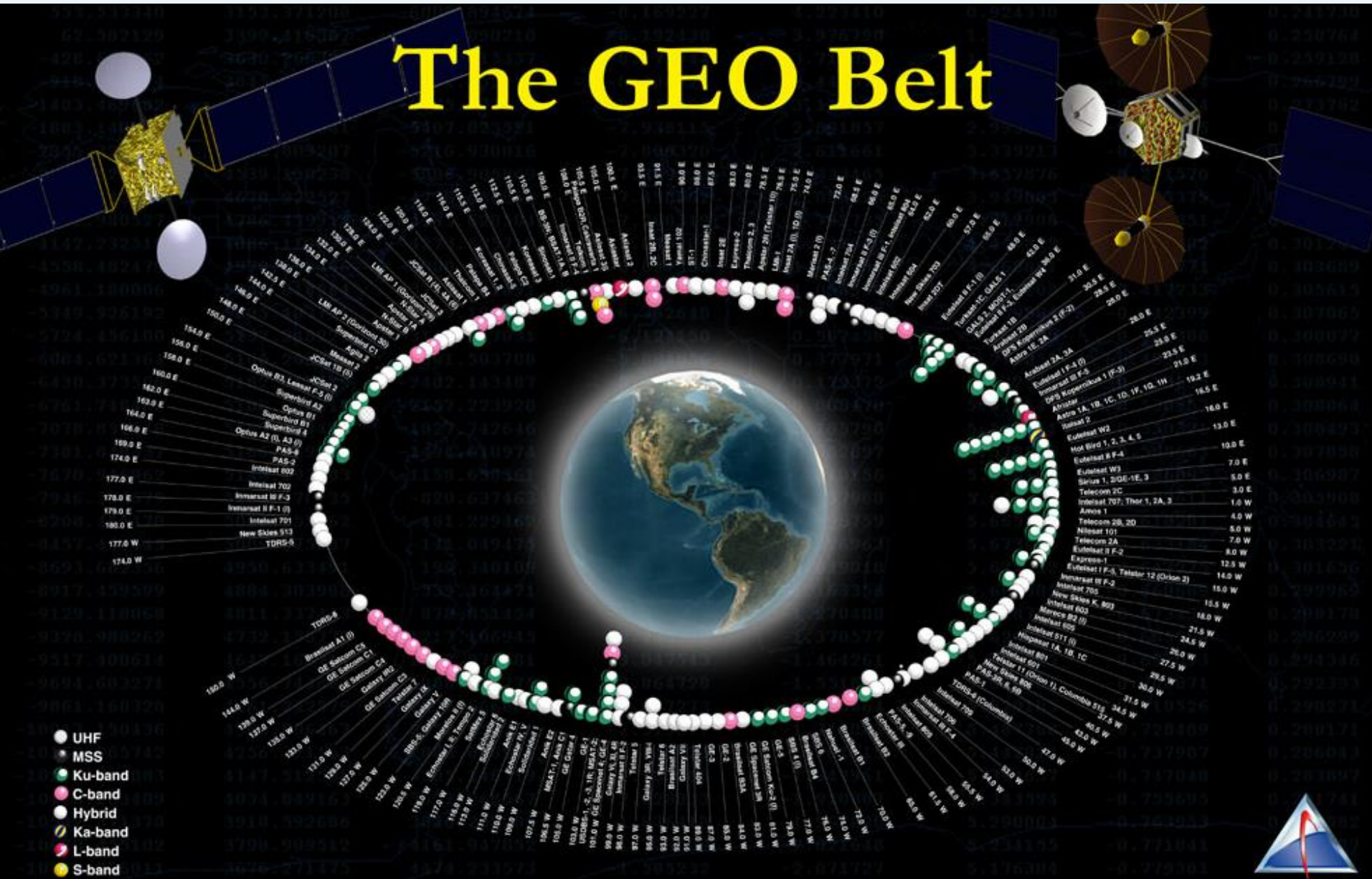
Submarine Cables

GLOBAL TRAFFIC MAP 2010

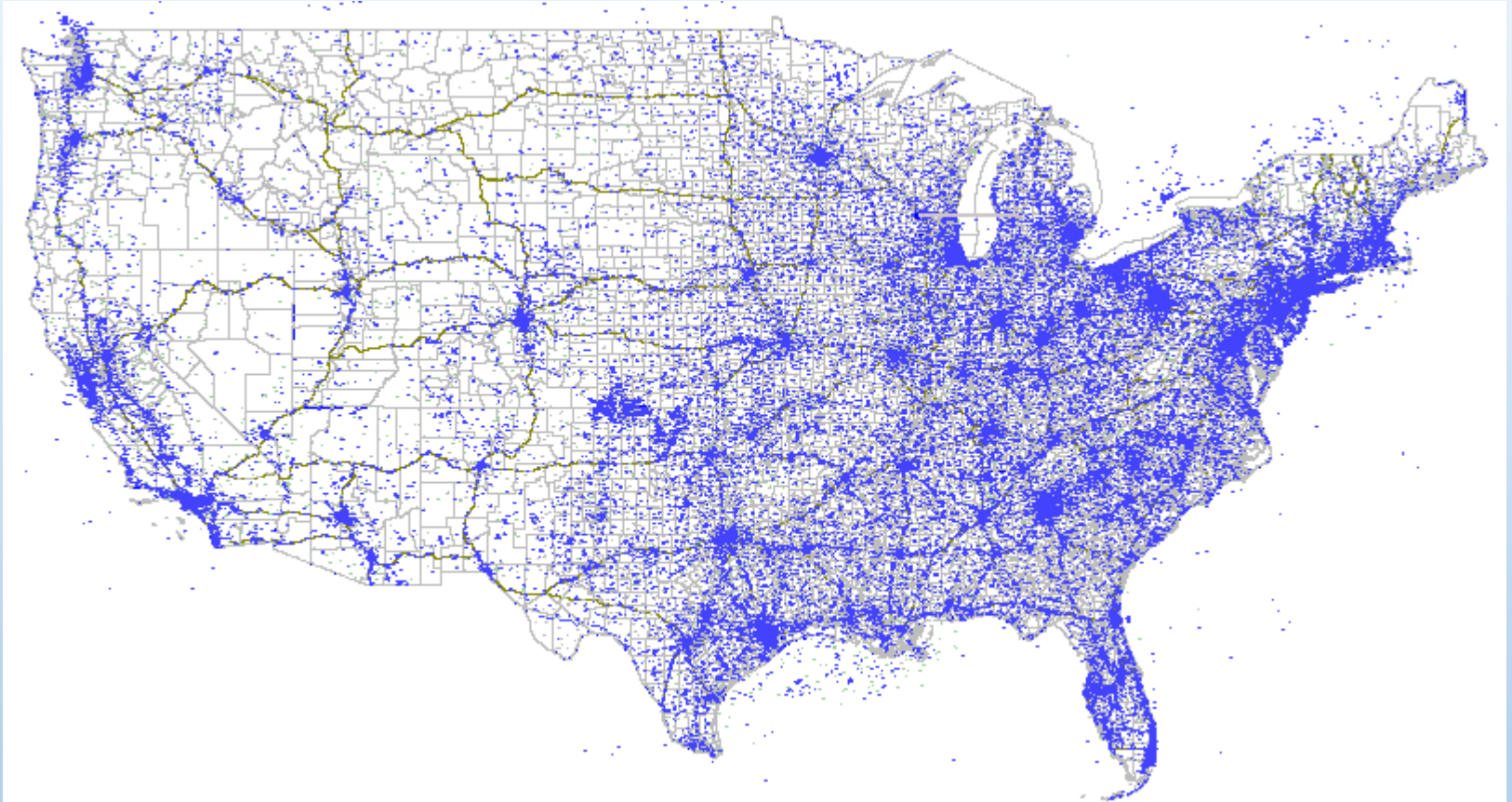


Satellites

http://1.bp.blogspot.com/-7ifxtV5P4q0/T0Flv7HqCBI/AAAAAAAAABG4/oM7PCKzKwPA/s1600/geo_belt.jpg



Cell Phone Towers

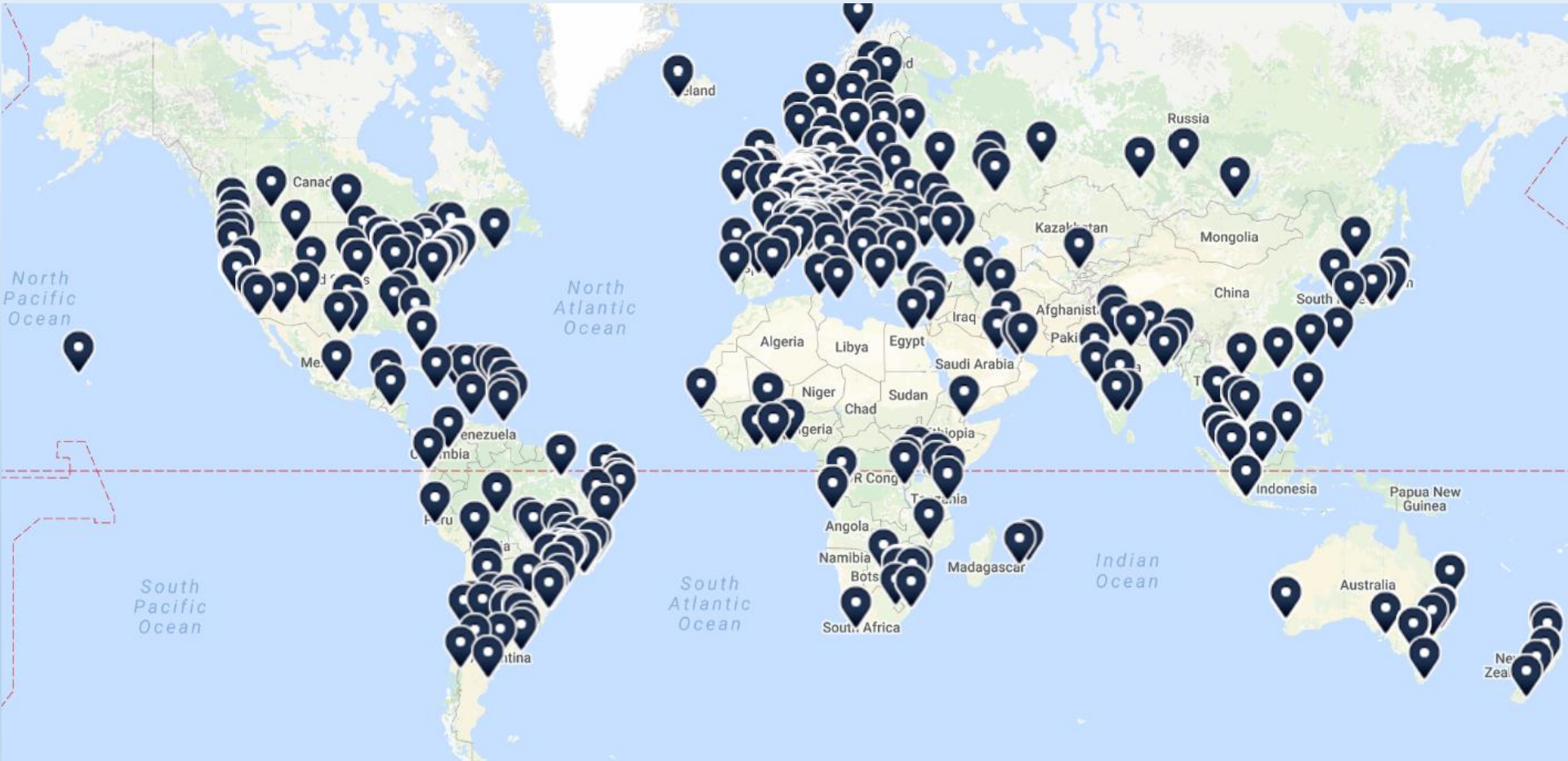


<http://opensignal.com/coverage-maps/US>

<http://www.statisticbrain.com/cell-phone-tower-statistics>

Internet Exchange Points (IXPs)

Physical infrastructure for Internet service providers (ISPs) to exchange Internet traffic between their networks. This reduces the traffic which must be sent to upstream transit providers, reducing costs while increasing efficiency and fault-tolerance.



Policy and Decision Makers, Corporate Entities, Investors, etc.

- Follow the money
- Trim Tab effect