The Geography of The Internet

It all is topology.

Who am I?

- Assistant Director of the Digital Equity and Broadband program at Washington State University

- Recovering IT person, no I will not help you fix your printer

- Curler, yes like with the stones and ice
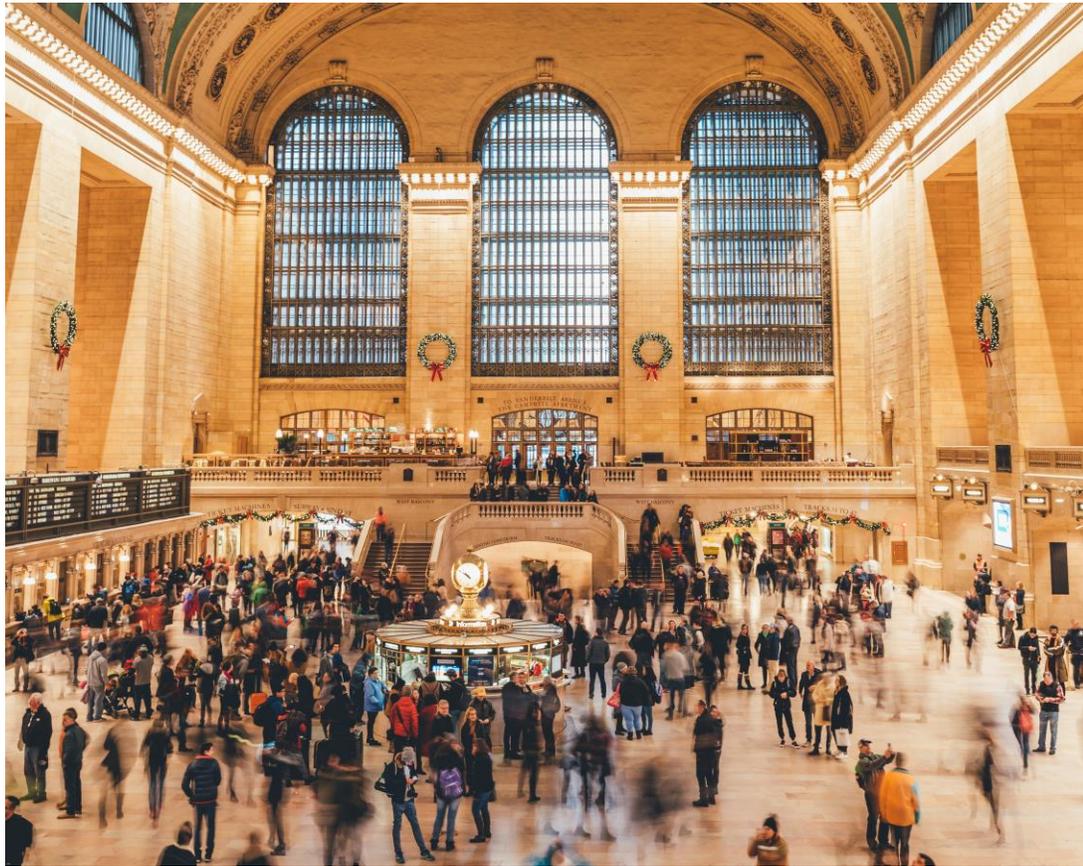
Where it starts

- Computer
  - NIC

The next step

- Structured cabling

… or

- Bus systems
  - Segments
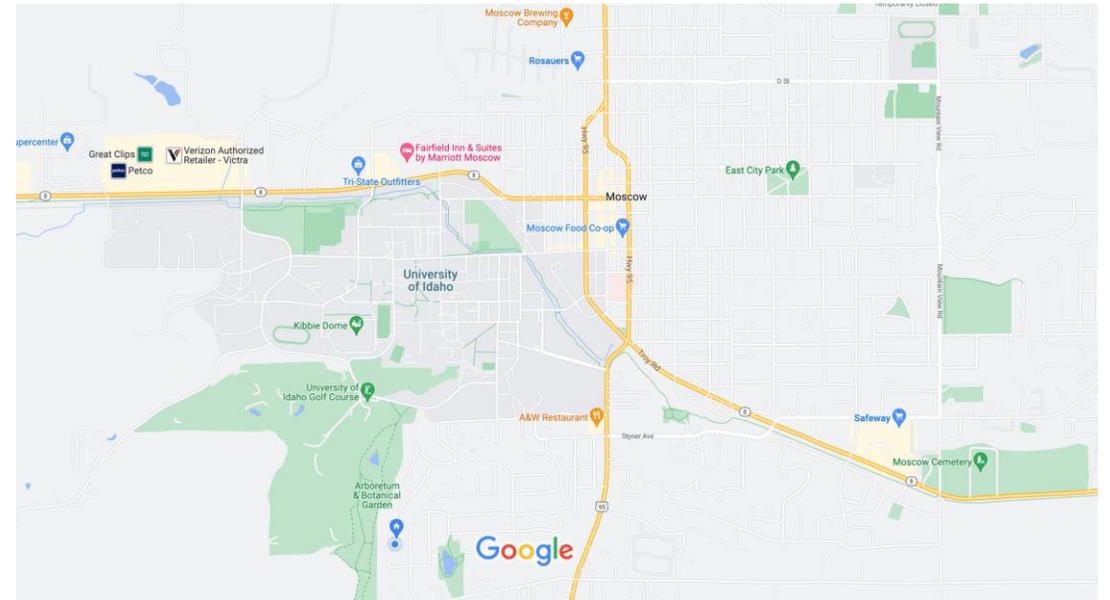 - Wi-Fi

Leaving the neighborhood

- Router
  - Addressing
  - Quick subnet chat
    - 192.168.1.50 == Internal Mail Stop
      - RFC 1918
      - Globally not unique
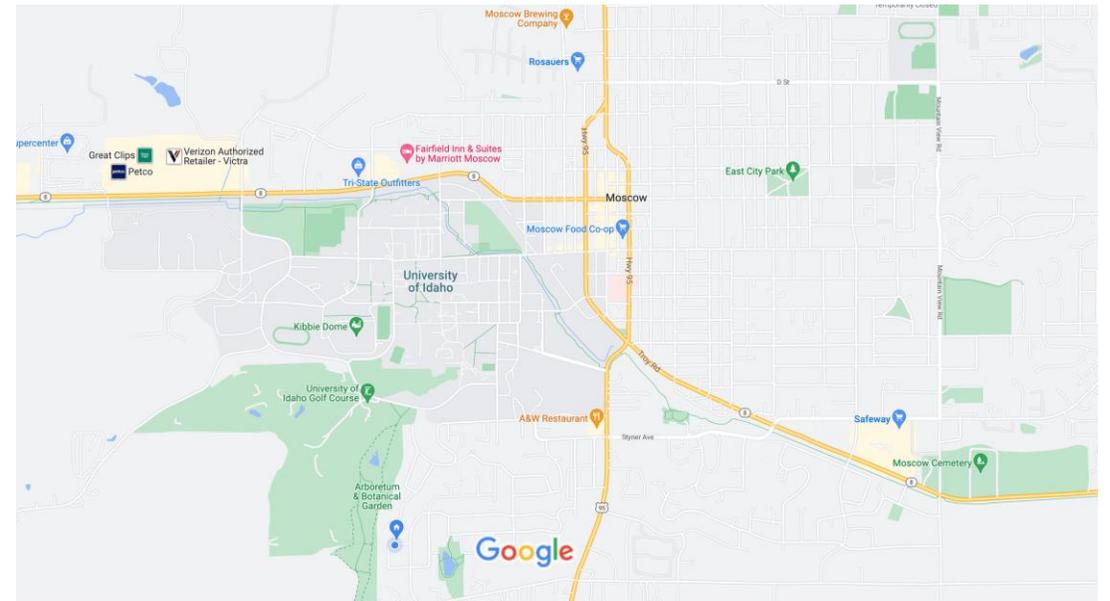   - 205.174.153.10 == Full Address
      - Globally unique

Let's talk about the Enterprise

- Routing protocols
  - EIGRP
  - OSPF
  - RIP
- Rely on trust

Let's talk about the Enterprise

- But there are many of these overlayed in the same physical geography
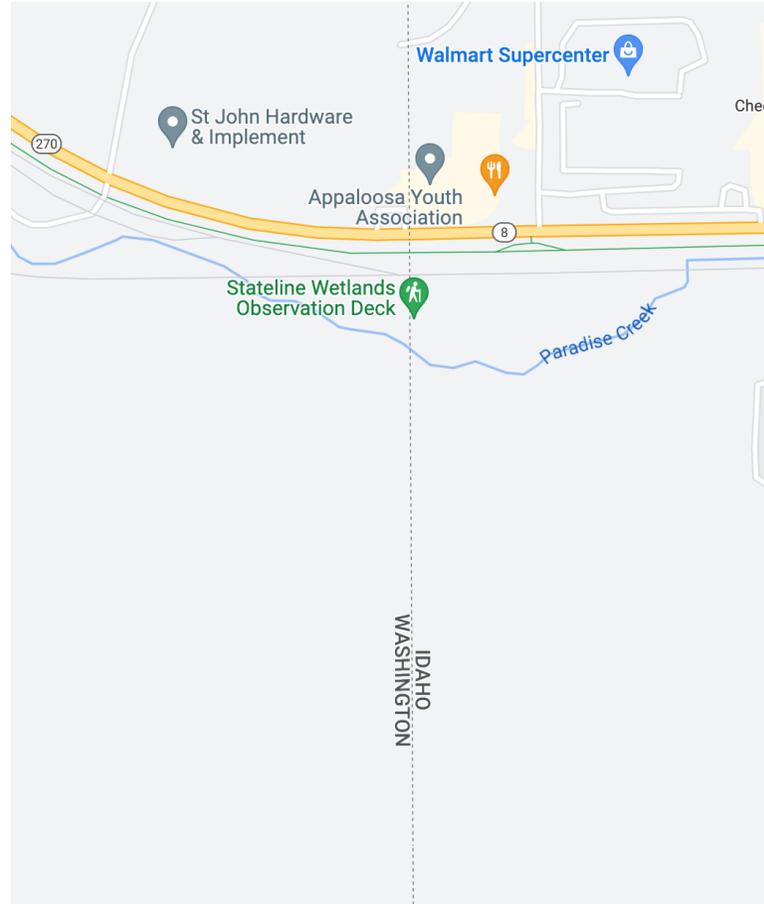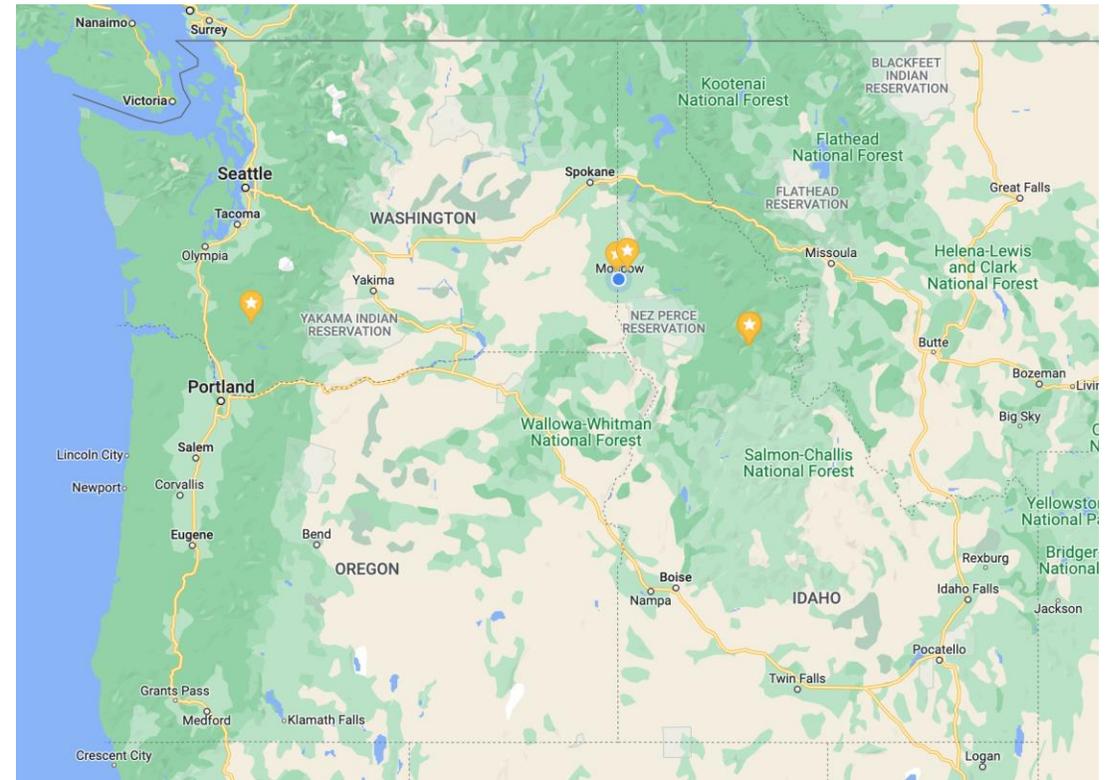
Security

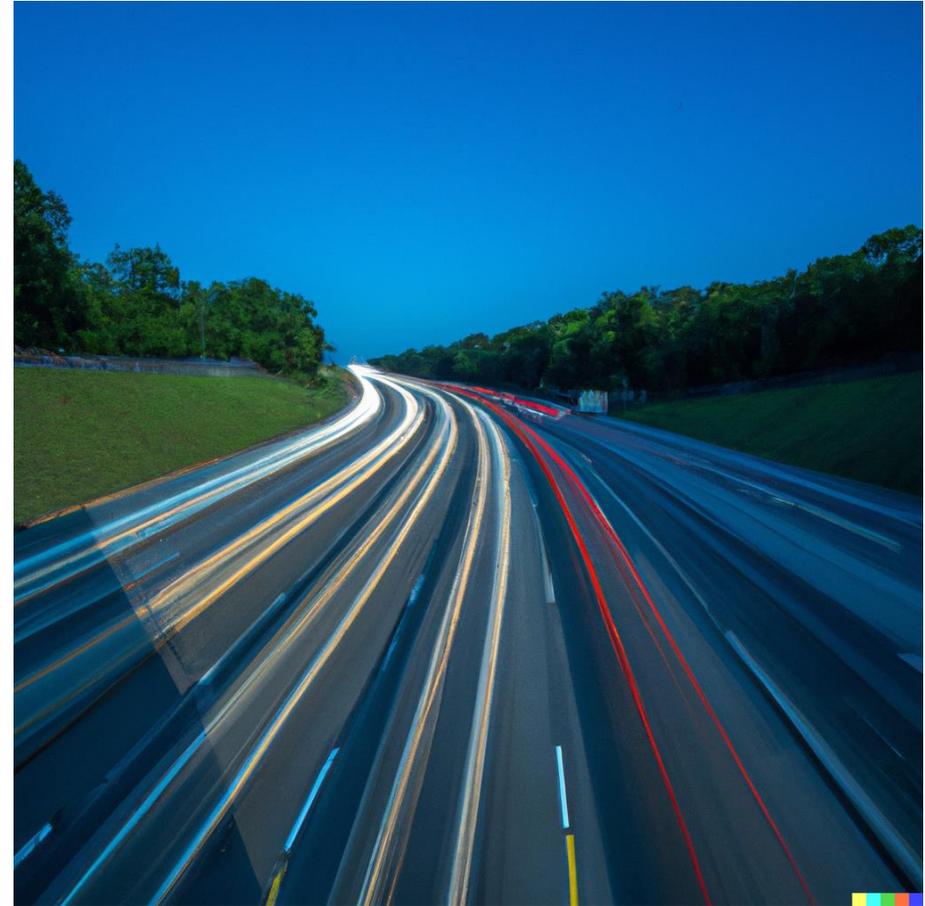- Firewalls

But what about right here?

Backbone providers

- The ones you have heard of:
  - Lumen
  - Verizon
  - AT&T
- The ones you haven't:
  - Hurricane Electric

Backbone… Part 2

- And the ones you really haven't
  - Zayo
  - IIG
  - Ports
  - PUD
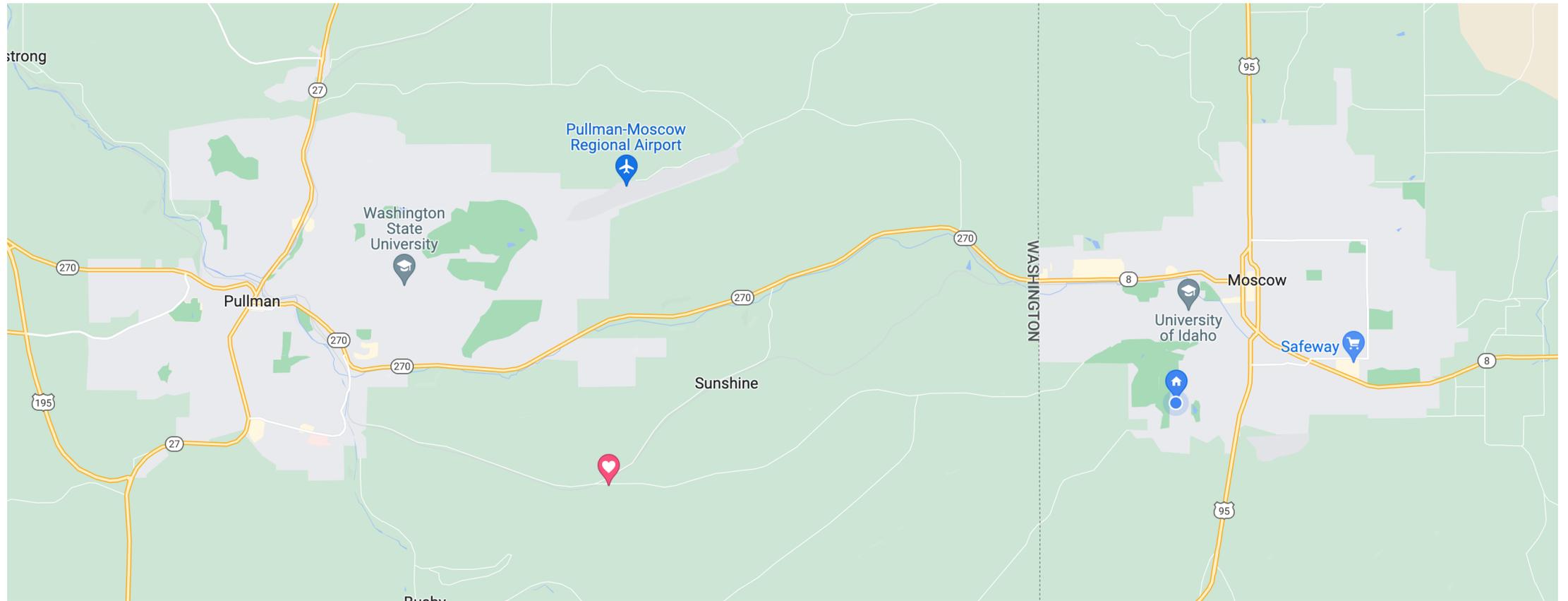- These are the road (transit) providers

Internet Exchange Points (IXP)

- Bypass backbone providers
- SIX – Seattle Internet Exchange

I think we all knew where this was headed

Links

- https://bgp.he.net/
- https://www.submarinecablemap.com/
- https://he.net/3d-map/
- https://www.peeringdb.com/
- https://www.seattleix.net/
- https://spoix.net/

GPON