


**Facebook**

A world map is centered on a dark blue background. The map is rendered in a lighter blue color and features a network of white lines connecting various points across the continents, symbolizing global connectivity. The text is overlaid on the map.

**Give people the power to share and make  
the world more open and connected**

# Content Evolution

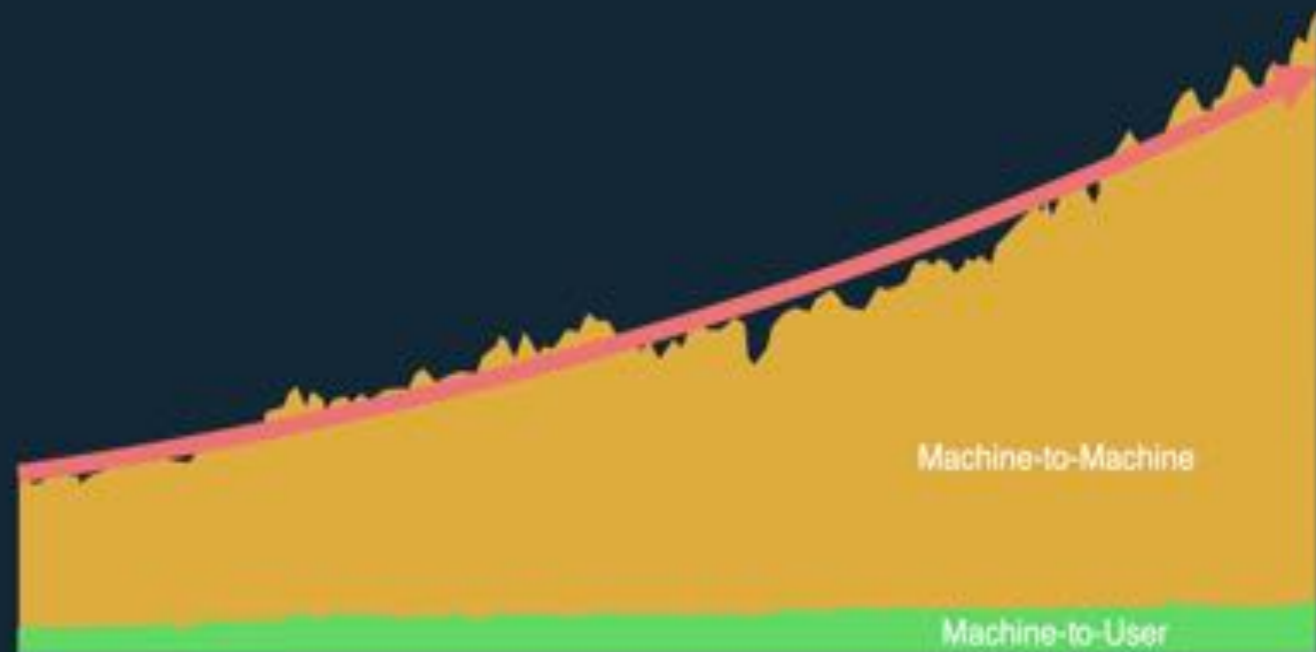
"Wow, Italy is so beautiful!"



# Why is This Problem Hard?

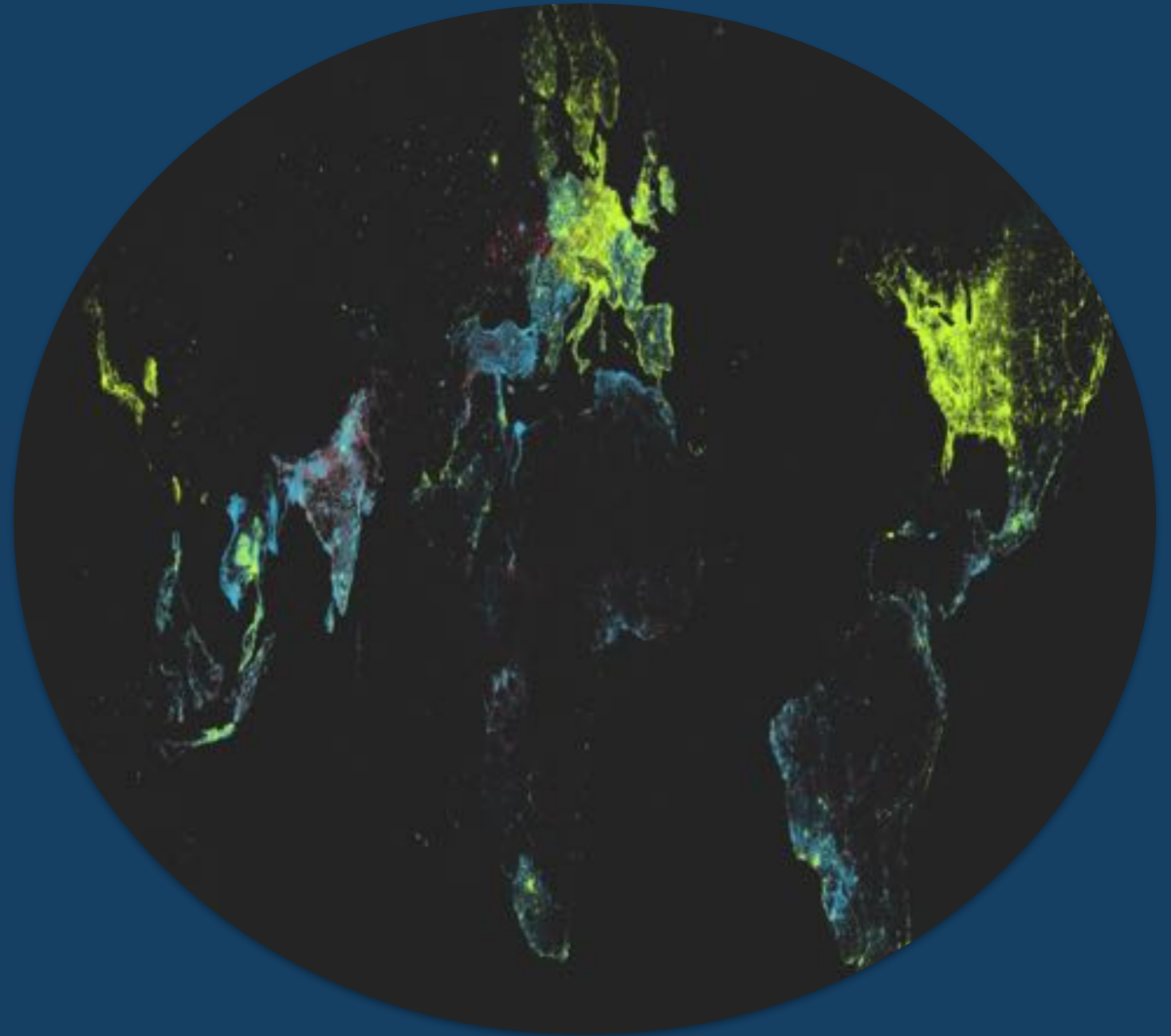
- Data Center and Backbone Traffic is Vastly Greater Than Egress to Users
- Variable Content; Everyone is Sharing
- Small Head, Long Tail

Rise of the @scale data center network



# It Takes Big Pipes

- Reliability
- Scalability
- Collaboration



# How FBCDN Delivers Content



## Redundancy Through Tiers of Distribution

- Open Compute Data Centers
- Edge PoPs
- FNA



# Our Peering Best Practices [AS32934]

- Up to Date PeeringDB Entry
- Initiate the Upgrade Process Early On
- Multiple Peering Locations for Failure Modes
- Bundles on Separate Routers for Diversity
- Local Redundancy
- PNIs Where it's Justified
- 10GE and 100GE Ports

Contact [peering@fb.com](mailto:peering@fb.com) For More Info



# FNA Caches

- Caching Popular Static Content
- Profile Photos -> Videos
- Significant Offload
- Flash Based Storage
- Prefixes are Signaled via BGP

Contact [fna@fb.com](mailto:fna@fb.com) For More Info

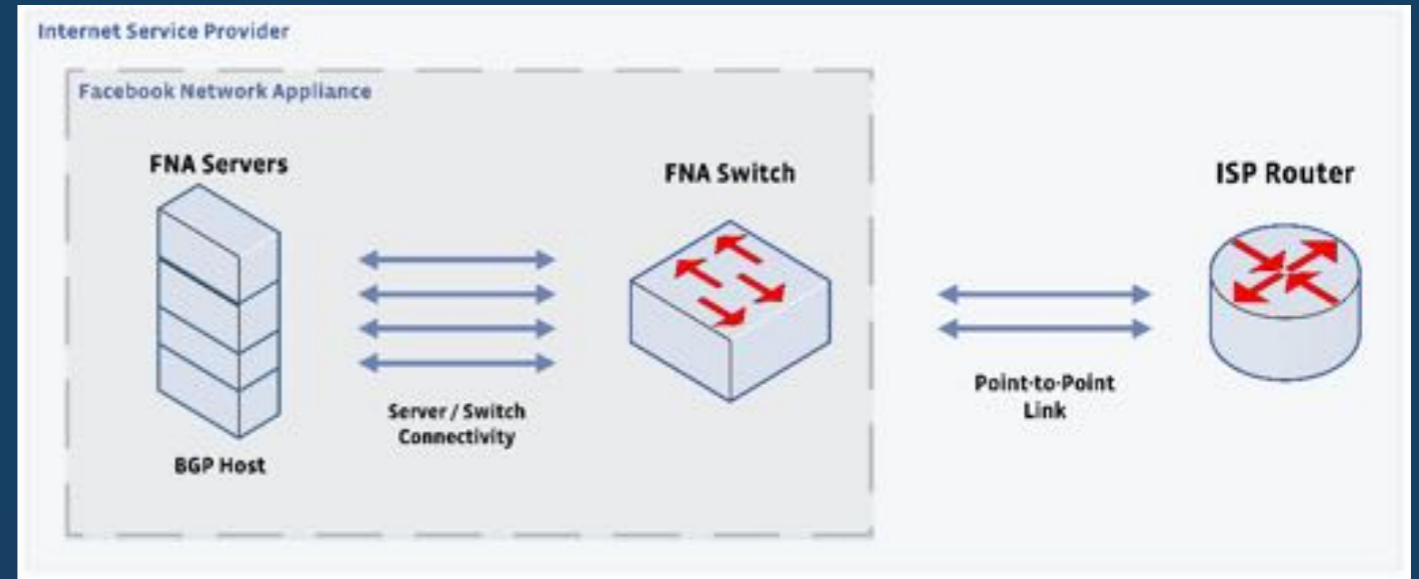




# FNA Deployments

## Tech Specs

- Servers and Top of Rack Switch
- AC or DC Power
- Multiple 10GE or 100GE Uplinks



## Considerations

- Peak Traffic
- Distance to Nearest PoP
- Latency and Application Performance
- Growth Rate of Market



# FNA Features and Learning Curve

- **VIPs for Services**
- **Intelligent Up Stream Filling**
- **Cache-Fill IPv4 Requests via IPv6**
- **Documentation**



**Thank You**

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**THIS JOURNEY  
1% FINISHED**