Peering with Fastly

as54113.peeringdb.com

fastly.com/peering

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Interconnection Manager

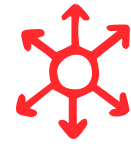March 2023

What is Fastly?

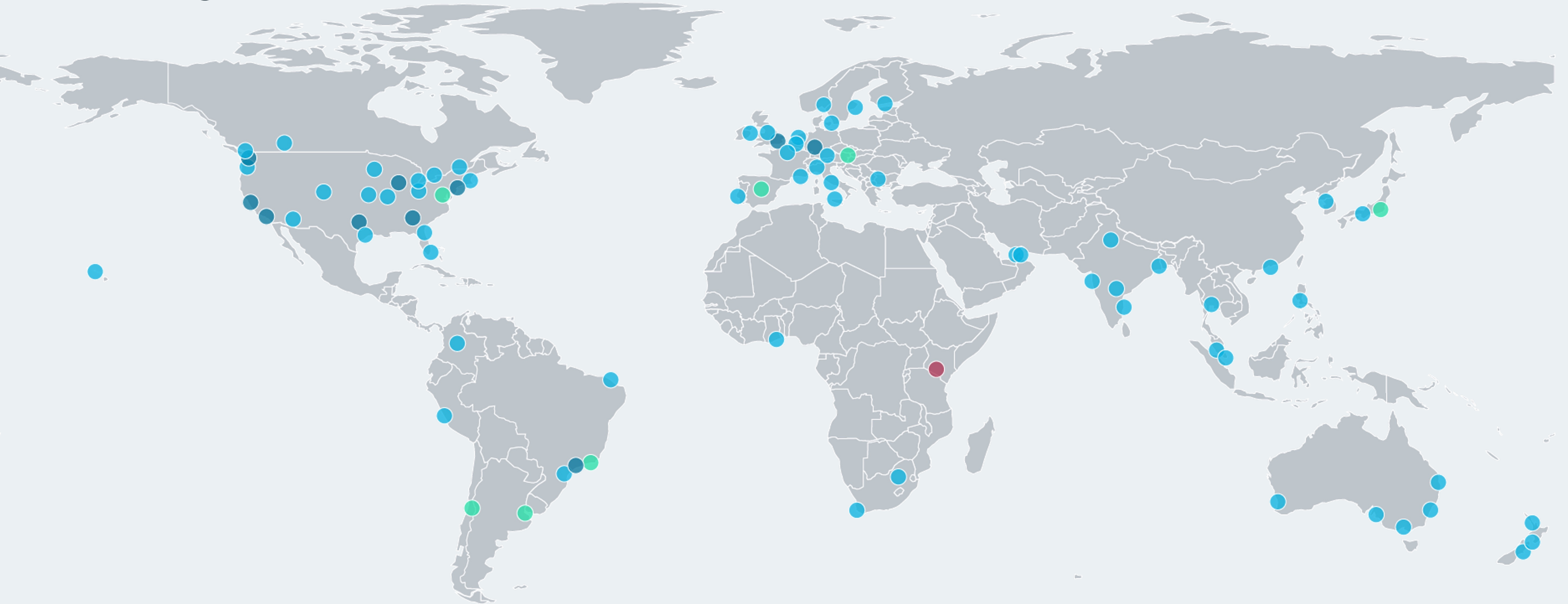(Last update: 31st of December 2022)

97

PoPs

121

IX Connections

252 T

Edge Capacity

Fastly Points-of-Presence (POPs)

● Current POP ● Current multi-POP ● Planned new POP ● Planned POP expansion

Central Europe POPs

Current POP   Current multi-POP   Planned new POP   Planned POP expansion

Some of our customers across industries

Why we peer

- **Performance**
  - **Lower latency and better throughput to end users**

- **Capacity**
  - **More bandwidth than current paths**

- **Redundancy**
  - **Multiple paths into your networks**

- **Cost reductions**
  - **Transit savings**
  - **Reduction of backbone usage in your networks**

How to peer with Fastly

- **Look at our website and PeeringDB page**
  - fastly.com/peering
  - as54113.peeringdb.com

- **Keep your information up to date**
  - We use automation based on your PeeringDB data
  - Prefix filters generated from your IRR data

- **Identify common exchanges or facilities**

- **Drop a mail to peering@fastly.com**
  - Include your ASN, proposed peerings and traffic levels

Peering at exchanges

Multilateral

- We import all routes from route-servers
- We send unicast prefixes to all route-server peers
- We can also selectively send anycast prefixes to smaller peers via the route-servers where BGP communities allow

Bilateral

- For medium to large peers
- Full matrix of BGP sessions
- We announce a full set of anycast and unicast for the local PoP

On-Net Caches?

- **No on-net caches at the moment**

- **Fewer but more powerful PoPs rather than lots of small ones**
  - https://www.fastly.com/blog/why-having-more-pops-isnt-always-better

Fundamentals

How your traffic ends up in a site

Anycast

- Certain prefixes are anycasted
- Network selects best path to reach Fastly nodes
- In majority of the cases that's the closest PoP for delivery

DNS

- Resolver query lands in PoP due to DNS anycast
- Served by that PoP's unicast prefixes by default
- Some traffic gets moved to other PoPs
  - Customer config
  - Traffic engineering reasons

Traffic Engineering

I don't see all Fastly traffic on the PNI/exchange

- **Not all content is in every PoP**
  - Jurisdiction
  - Customer disabled delivery from that region

- **We moved traffic to a different site where we are not interconnected**

- **Fastly does not operate a backbone, so you can't see all of Fastly behind one peering session**

Traffic Engineering

I have a larger network and connect with Fastly in several Places

- **"Hot potato" routing for Fastly prefixes**
  - Make sure to route Fastly prefixes to the closest interconnect, regardless of type

- **Have multiple resolvers in your network. Ideally dedicated resolvers per region**
  - Traffic will organically be handled in the best Fastly PoP without intervention
  - We can fine tune and can adjust traffic steering if anycast leads to suboptimal results

- **Deterministic ECMP**
  - If you use ECMP anywhere in your network, ensure your hash inputs create a stable path for any single TCP session

Thank You!

https://as54113.peeringdb.com/
https://www.fastly.com/peering

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