ICN
NANOG 71 Lightning Talk

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Brief Akamai Overview

- Akamai is a highly distributed platform across 130+ countries

- Server clusters on this platform are "islands"
    - built for a specific purpose such as on-net, IX, etc.
    - use the internet to fill the cache or talk to other clusters

- Over time our cluster-to-cluster traffic aka "midgress traffic" was growing

- ISP routing issues such tromboning, filtering, de-peering were affecting inbound cache fill

- Our cluster-to-cluster communication was constrained by the existing feature set of the internet i.e. latency, MTU, IPv6 deployment

What did we do?

We built a multiservice backbone

- ICN (Inter City Network) connects our Akamai deployments together

- Similar to FB, Microsoft, Google, it transports our own traffic between our own equipment

- It will transport as many Akamai services as technically and commercially viable

What are we not doing?

We are not going to be an ISP

- Akamai is not going to sell IP transit or L3VPN, L2VPN and related products

- Nor compete with our Partners and Peers

- Or become a Tier-1

...We won't even sell you voice minutes!

Why did we build a backbone?

- Business case made sense and saved $, ¥, and £
  - cost optimization and performance gains justified investment

- Growing internal demands for traffic

- Further localized end-user traffic

- Optimize cache fill over network links we control

Benefit for you...

- Participants in our AANP (Akamai Accelerated Network Partner) program, Akamai's on-net cache platform, will see
  - optimized traffic delivery as the network is expanded
  - reduced cache fill traffic on transit links

- Akamai will peer closer to the source and will handle the transport of traffic to the destination

Network Topology in August 2017
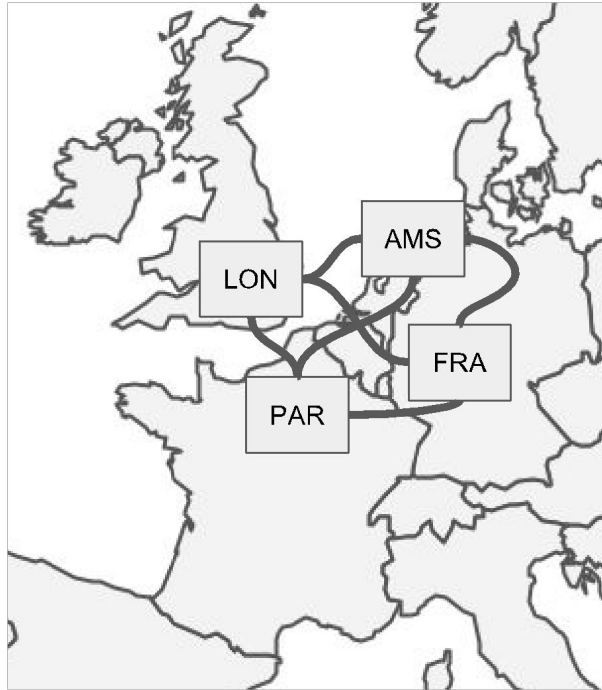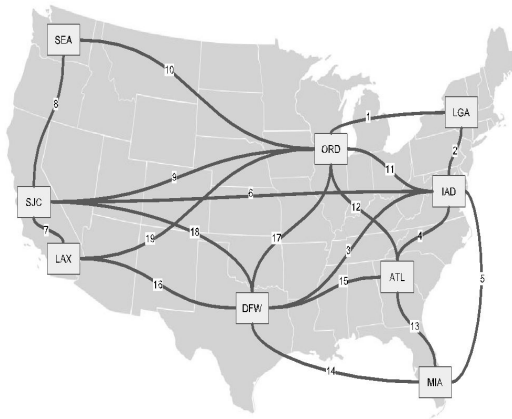
What is the future plan?

**Phase 1
(completed)**

- Midgress traffic in US, EMEA & APJ
- Performance Gains

**Phase 2
(2018 -)**

- Origin Fetches
- Add Peering
- Connecting the three continents
- Bandwidth Updates
- Expand the city list

Questions?

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