



AS16509

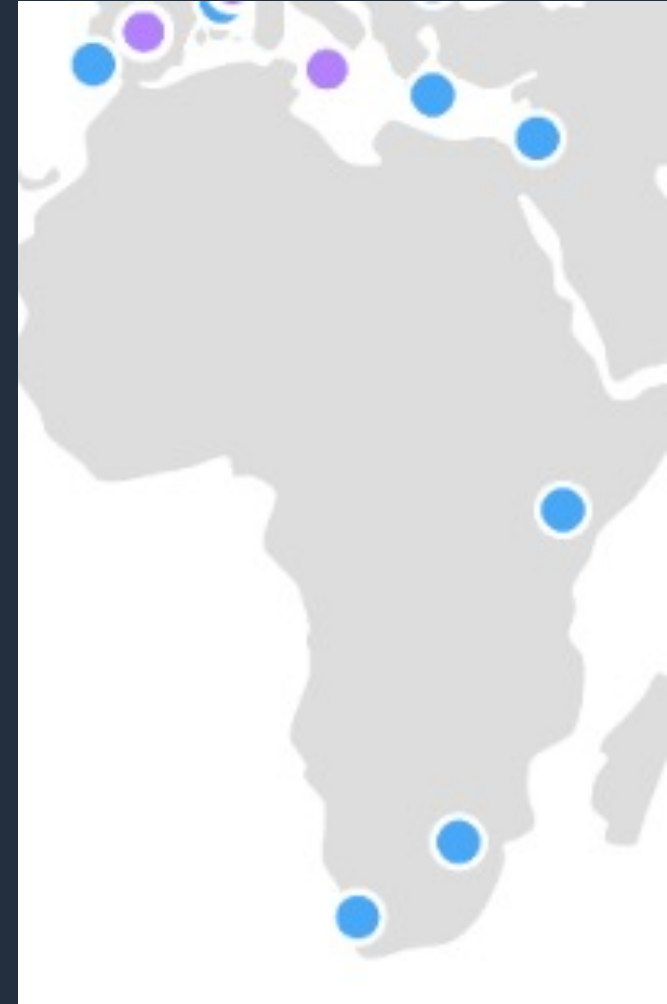
Interconnect with Amazon and
improve your users' experience

Jørgen Grinnes

AWS Interconnect

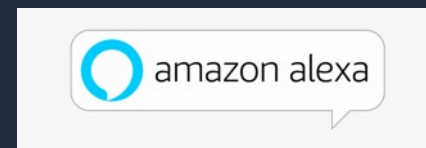
Agenda

1. About Amazon/AWS
2. Amazon in Africa
3. What's all this traffic?
4. How Amazon routes and maps traffic; routing policies
5. How can an African network influence traffic exchange with Amazon?
6. Local Zones: cloud compute in the edge



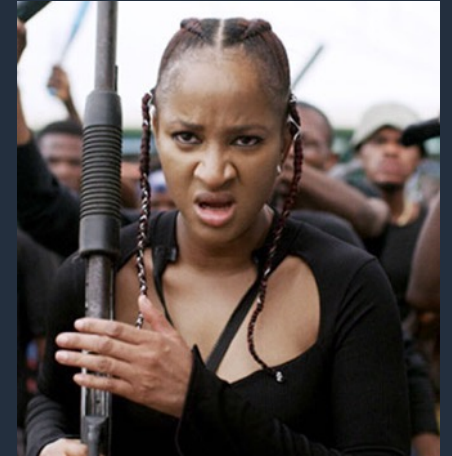
Amazon at a glance

- Amazon is an American technology company
- Amazon.com; online shopping
- Amazon Web Services; cloud computing
- Prime Video; video streaming and content
- Amazon Music
- Fire Tablets; Fire TV
- Echo and Alexa
- Kindle E-readers
- ...and much more



What's all this Amazon/16509 traffic?

- Amazon CDN: CloudFront
 - Amazon content
 - Third party content
 - Most of Amazon traffic into Africa
- Cloud Services traffic
 - Amazon Elastic Compute Cloud (EC2)
 - Amazon Simple Storage Service (S3)
 -and many more services (>200)



Amazon Prime Video launched in Nigeria

- Amazon Prime Video launched in Africa in 2016; in Nigeria August this year
- >20,000 original TV shows and films available
- International & local content
- Amazon Originals – also produced in Nollywood and elsewhere in Africa

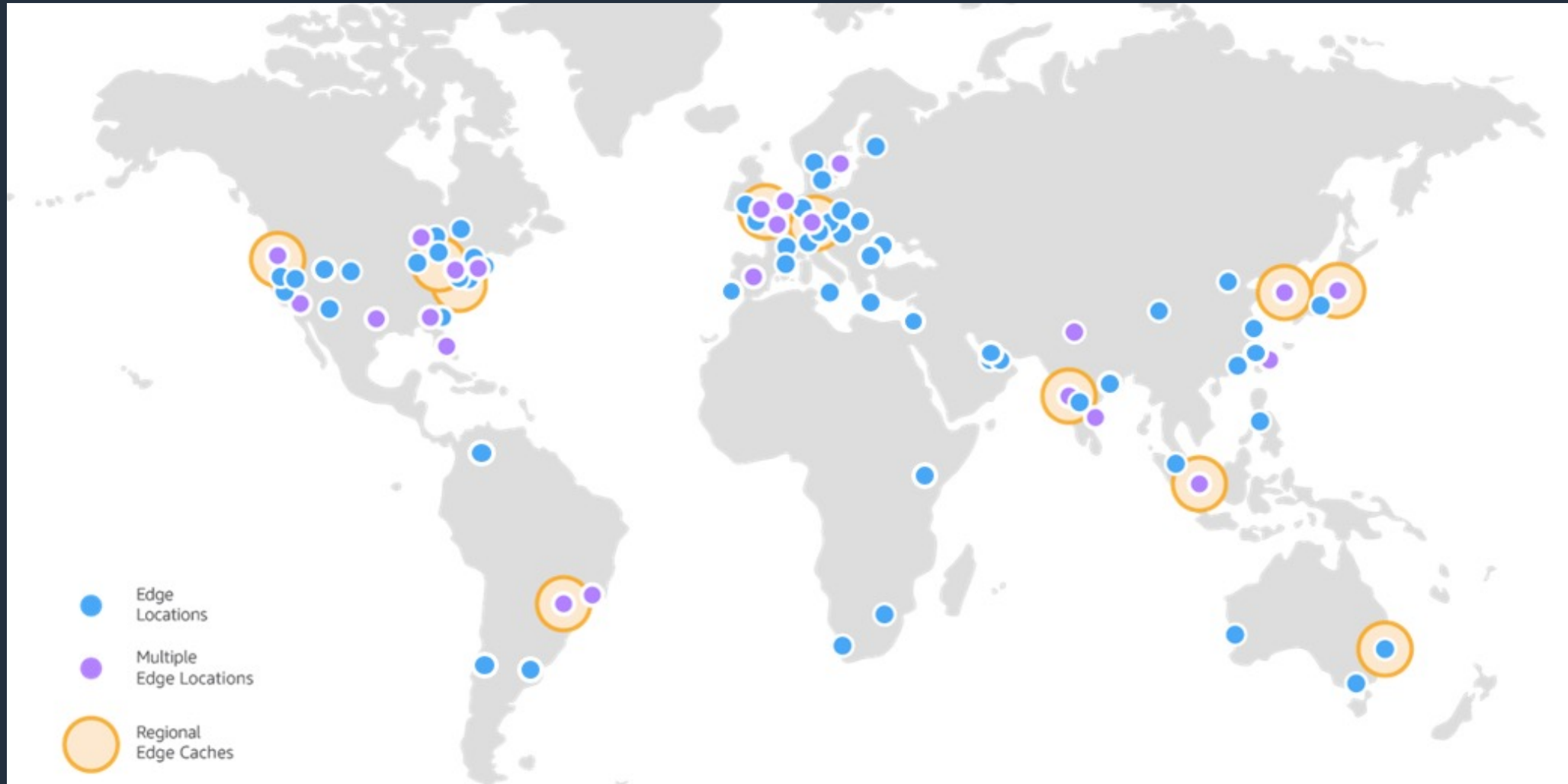


AWS Regions host cloud compute, cloud storage and other AWS services. 27 AWS Regions – 7 more announced



>300 POPs world wide – just starting in Africa

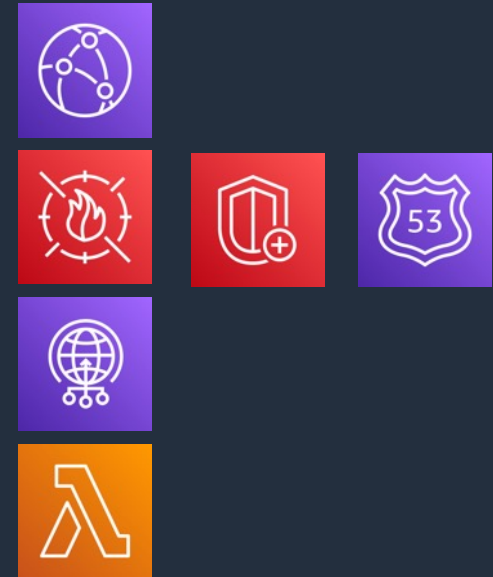
One of the world's largest backbones



What does AS16509 serve from where?

AWS Edge Services

- Amazon CloudFront: Petabit-scale CDN
- Security: Web Application Firewall, Shield (DDOS), Route53 DNS
- Acceleration: Amazon Global Accelerator
- Computing: CloudFront Functions, Lambda@Edge (Serverless)
- Served from **>300 Global PoPs**
- CloudFront: Local egress



AWS Cloud Services

- Amazon Elastic Compute Cloud (EC2)
- Amazon Simple Storage Service (S3)
-and many more services (>200)
- Served from 27 AWS Regions
- Rides AWS backbone (EMEA)



How to improve traffic exchange with AWS/16509?

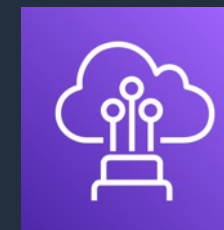
Peer with us!

- Private Peering: Redundant PNIs to our edge POPs in >90 countries
 - ADC in Nairobi and Cape Town; Teraco in Johannesburg and Cape Town
 - Amazon prefers 2x100Ge
- Public Peering: >90 public exchanges
 - NAPAfrica, CINX, KIXP
- Come and talk to me about opportunities in West Africa!



AWS Direct Connect

- Available in selected PoPs (115) for direct connect to the cloud-regions
 - Johannesburg and Cape Town
- Can be direct, or through a connectivity partner
- Comes with SLAs and QoS
- Receives all AWS routes



New products from AWS will further lower latencies



Local Zones

- Cloud Compute at the edge
- Supports selected compute services such as EC2
- Ties back to a parent-region through AWS' backbone
- Also coming to edge POPs in Africa



Wavelength-Zone

- Similar to Local Zone but for 5G-services
- Installed in telco-locations
- Ultra-low-latency access for 5G
- Day1 Partners are Verizon, Vodafone, KDDI and SK-Telecom





Thank you!

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