Angani

AFPIF 2015 – Impact of Peering on Angani

Managed Cloud Services

We invested in the Grid

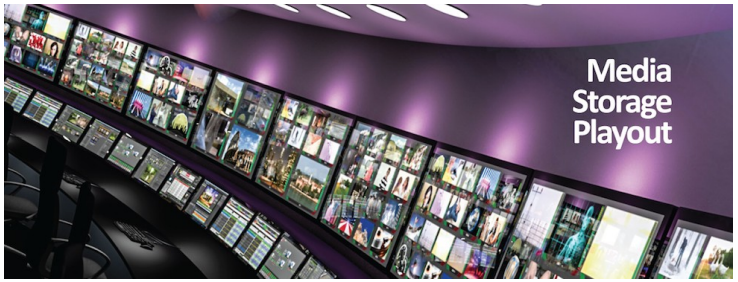
Build infrastructure so Businesses don't have to

The Angani Cloud

- 2 x Redundant Zones
- 99.95% uptime
- Capacity of 1,000s of Servers
- Over 1PB of raw storage Capacity

Reliability – Realtime Applications

- Emails, Hosting, Domain Reseller
- Bus Tickets
- Teleradiology
- TV



Success

- 0 to 40
  - We now push 40Mbps at KIXP with bursts for our Storage customers over 100 Mbps
- Number 4 Local Hosting provider within 12 months
  - We helped alleviate a lot of stress from traditional hosting providers. FOCUS.
  - We see more content owners realizing the benefits of a Local User Experience

Challenge

- 90% of local African content is still hosted outside the country – Dyn Report.
- Our collective MISSION should be to localize another 15-20% of Internet traffic by localizing all this content hosted outside the continent.

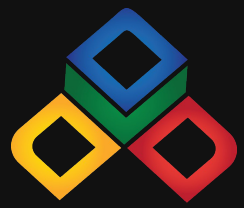
Unique Environment

- KIXP
  - Open peering policies – it was easy for us to join
  - Affordable pricing – we are a startup after all
  - Good reachability from all corners of Kenya. Pretty Much.
  - Reliability
- Fiber Penetration
  - Lots of fiber in the ground. The way it's sold needs to change.
  - 1 GByte file on a 1Mbps connection takes 2-3 hours
  - 1 GByte file on a 10Mbps connection takes 15 minutes
- Datacenters
  - East Africa Datacenter – nothing like it in the region
  - More compelling Datacenters like KOOBA being built – makes our lives easier.
  - Datacenter providers – we can help you provide the "softer Cloud layer" ;)

Unique Proposition

- Unlimited local bandwidth (1Gbps at KIXP)
  - Because we can
  - Because we should – KIXP, lots of fiber, open up the local networks
  - This makes the Cloud offering simple

Lessons Learnt



- Lessons Learnt – Redundancy Redundancy Redundancy
  - 2 Datacenters
  - 2 ISPs
  - 2 of everything . 3 if you can afford to .

EADC

Month	Uptime(%)	Avg(ms)	OK	NOK
1	98.57	436.06	86404	1247
2	99.97	405.66	79127	21
3	94.23	453.12	80732	4942
4	97.99	518.57	55438	1132
5	95.51	469.94	77186	3625
6	99.27	428.35	82368	603
7	98.39	407.92	84718	1379
8	99.89	261.99	88992	91
9	99.91	256.51	89205	75
10	99.93	261.42	89100	60
11	99.54	264.98	85916	395
12	99.98	237.74	90105	15

Month	Uptime(%)	Avg(ms)	OK	NOK
1	99.98	259.09	89270	10
2	99.54	263.69	80032	368
3	99.83	250.98	89131	149
4	99.99	252.74	86139	4
5	99.6	226.41	89276	355
6	99.98	227.05	66347	13

- Hosting Security
  - You play on a global scale
  - Hosting companies want fully “Managed Services”
  - We had to learn a lot – processes, escalations, notifications, sandboxing, auto-updates etc

Challenges

- Regional Connectivity is still a bottleneck
  - 4 months to negotiate an ISP connection in Kampala for a Customer.
  - Customer could only upgrade from 1Mbps to 2 Mbps
  - Quote: $200 per Mb internet, but $250 per Mb from Kampala to Nairobi local
  - Why can't you run East Africa, West Africa, South Africa regions only ?

- Local Loops
  - Still sold wrong. The Cloud is the future. We need 10/100/1000 connectivity
  - We have lots of Fiber – we need to open up the local loops
  - Remember the time when people were told "copy backups at night" – that still happens !!

- Human Resource
  - Everyone became a Developer building Android apps.
  - "Linux fundis" are scarce. We are working with universities, intern program, KENET to "Bring Back the Sysadmin"

Thank You

Thank You