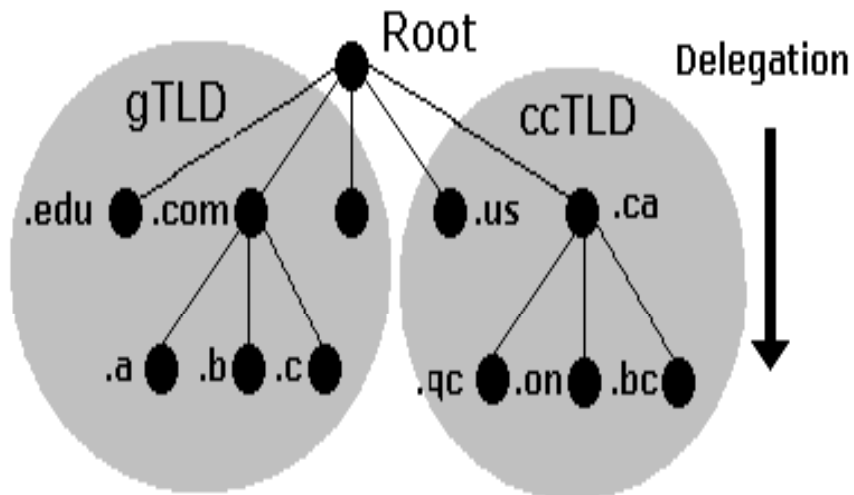


AfrinIC Anycast Root Server Program



WAIGF 2009
Alain Patrick AINA
Special Project Manager / AfrinIC Root Anycast Project
Coordinator

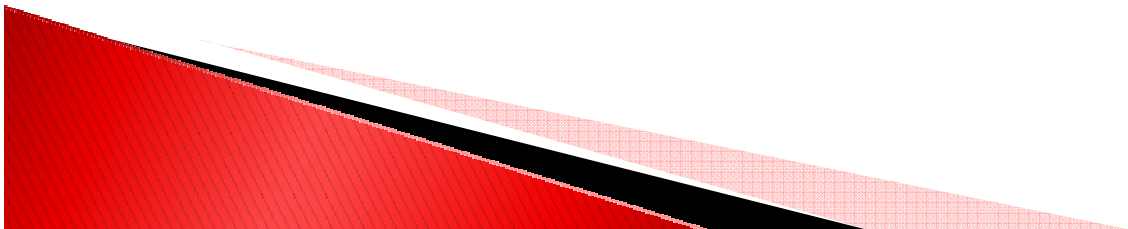
aalain@afriNIC.net

Objectives

- ▶ Improved the number of root instances in Afrinic region.

- ▶ Provide coordination point in Afrinic region
 - Coordinate with root operators
 - Facilitate discussions in the region (Afrinic meetings, mailing lists) to create a strong IXP community reinforcing the local infrastructure

- ▶ Fund and/or coordinate sponsorship
 - Hardware, hosting, maintenance costs (According to individual circumstances).



Root servers in the world-11/08



166 Instances, 7(1 Global node) in AfriNIC service region

<http://www.root-servers.org>

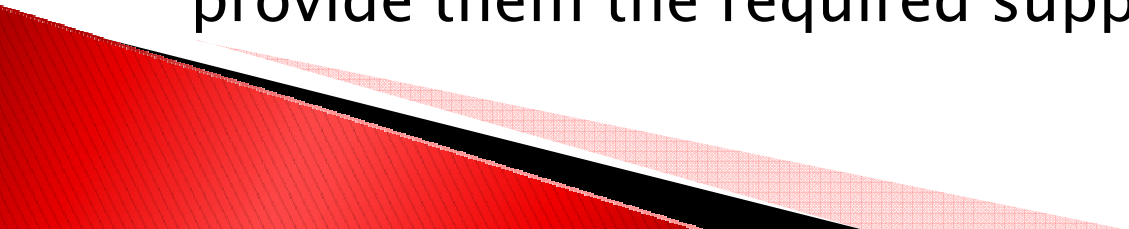
Afrinic role

- ▶ Undertake formal agreements
 - with root operators
 - with hosts (IXPs)
- ▶ Raise awareness among stakeholders and reinforce the role of IXP in Internet development.
- ▶ In this project Afrinic doesn't want to have a "root operator" responsibility

Basic criteria

- ▶ Have to be a well established IXPs
 - A minimum of participants to the IXP (3).
 - Have a structure supporting the IXP operations
 - Be able to monitor and provide useful data from the IXP.

 - ▶ Afrinic will work with Rootops to make their requirements available for all from a single entry point and will have a form that you can fill to apply to join the program.

 - ▶ We will have an agreement with qualified IXPs to provide them the required support.
- 

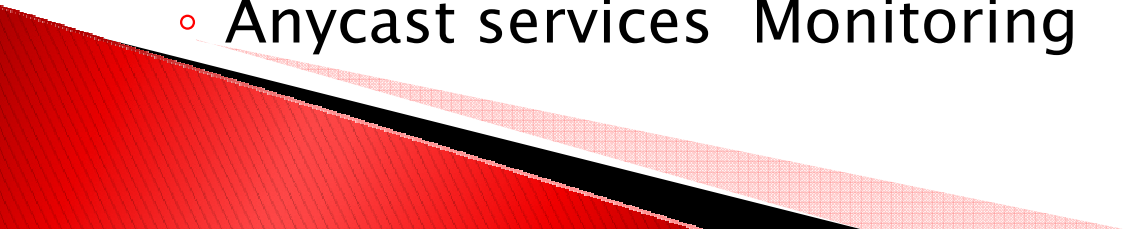
Achievements

Workshop in Cairo (2–3 November 2008)

▶ Participants

- IXPs
- Root OPS
- PCH

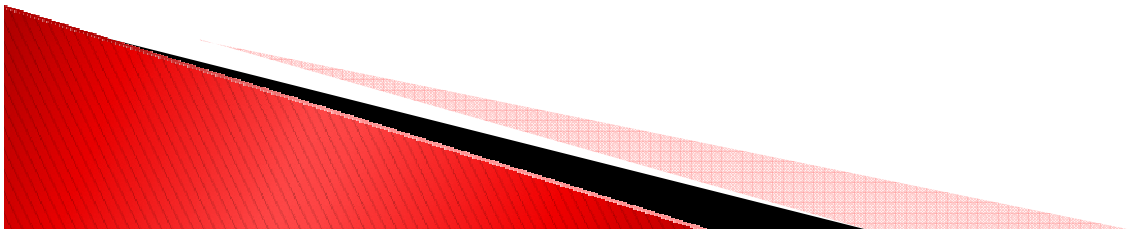
▶ Objectives

- Anycast Technologies
 - Root server copy from Various RootOps Perspectives
 - Anycast services Monitoring
- 

Achievements(2)

- ▶ MoU with F,I,K
 - To collaborate together on nodes deployment in our region
 - They seem hungry :-)

- ▶ Deployment of K-root at TIX
 - Joint effort: TISPA, AfrinIC, RIPE NCC
 - First AfrinIC-Sponsored root instance
 - More to follow



Achievements(3)



Afrinic-Sponsored K-Root at TIX(Tanzania)

Achievements(4)



191 Instances, 9(2 global nodes) in Afrinic service region

<http://www.root-servers.org> - seen 13/10/09

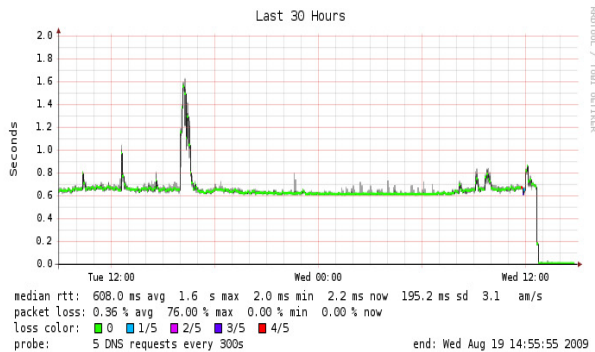
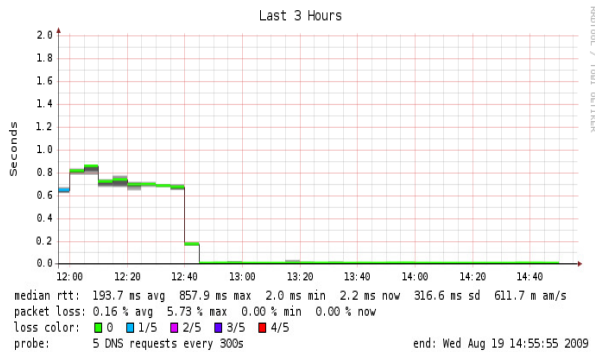
Achievements(5)

SmokePing
Targets:

- TIX latency
- Uplink
- VSATs
- clients
- Service latency
- DNS latency
- 196.45.144.2
- 196.45.144.3
- 193.219.212.230
- 196.216.162.67
- 204.61.216.16
- 80.247.147.122
- 193.0.14.129

193.0.14.129

Query time to K-root from .tz before and after



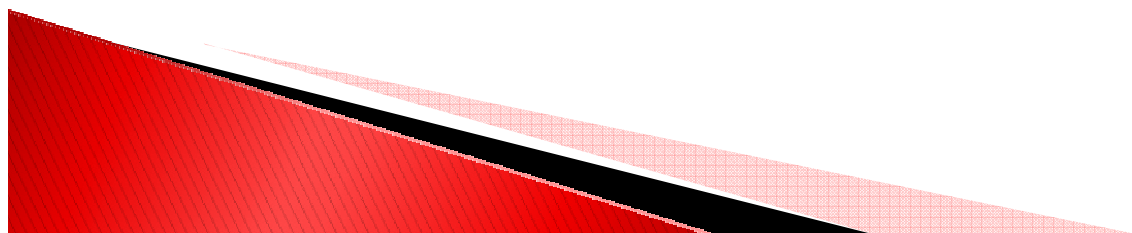
\$ traceroute k.root-servers.net

traceroute to k.root-servers.net (193.0.14.129), 30 hops max, 60 byte packets

- 1 196.45.144.1 (196.45.144.1) 0.273 ms 0.240 ms 0.210 ms
- 2 core-dsm.cats-net.ne.tz (193.219.212.225) 1.765 ms 1.721 ms 1.692 ms
- 3 gateway-tix.cats-net.ne.tz (196.45.145.219) 6.802 ms 7.435 ms 8.077 ms
- 4 ripe-ncc.tix.or.tz (196.223.5.10) 3.547 ms 3.535 ms 3.823 ms
- 5 k.root-servers.net (193.0.14.129) 3.806 ms 3.787 ms 4.063 ms

Contact information

- ▶ If you are interested:
 - Web page
 - <http://www.afrinic.net/projects/anycast.htm>
 - You can contact the project team:
 - root-project@afrinic.net
 - afrooftops@afrinic.net mailing list to share more information about this project as we move.



Thanks

- ▶ Partners since the beginning
 - ISOC, La Francophonie, NSRC
 - Egyptian NTRA
 - F,I,K ROOT
 - PCH
- ▶ TISPA, SIMBANET and Africa Online for their support to the K-Root at TIX
- ▶ You for listening to me :-)
 - Share the information in your community
 - Encourage IXPs to participate

Questions

