DNSSEC Activities in Africa ICANN DNSSEC ROADSHOW

DNSSEC WORKSHOP
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Why DNSSEC

- Good security is multi-layered
  - Multiple defense rings in physical secured systems
  - Multiple 'layers' in the networking world

- DNS infrastructure
  - Providing DNSSEC to raise the barrier for DNS based attacks
 - Provides a security 'ring' around many systems and applications

Benefits to End-Users

- Users who validate will not see answers from the DNS that fail validation
  - might increase helpdesk load, but the alternative is infected computers, stolen bank details, etc
- Ongoing work to improve SSL security using DNSSEC-signed certificates
  - IETF "dane" working group

Benefits to Content Providers

- Reduce the risk that your content is being intercepted by unknown third parties
  - for end-users that validate, at least
- Demonstrate technical proficiency and security awareness

DNSSEC Adoption ccTLDs and gTLDs

http://www.ohmo.to/dnssec/maps/   07/09/2013
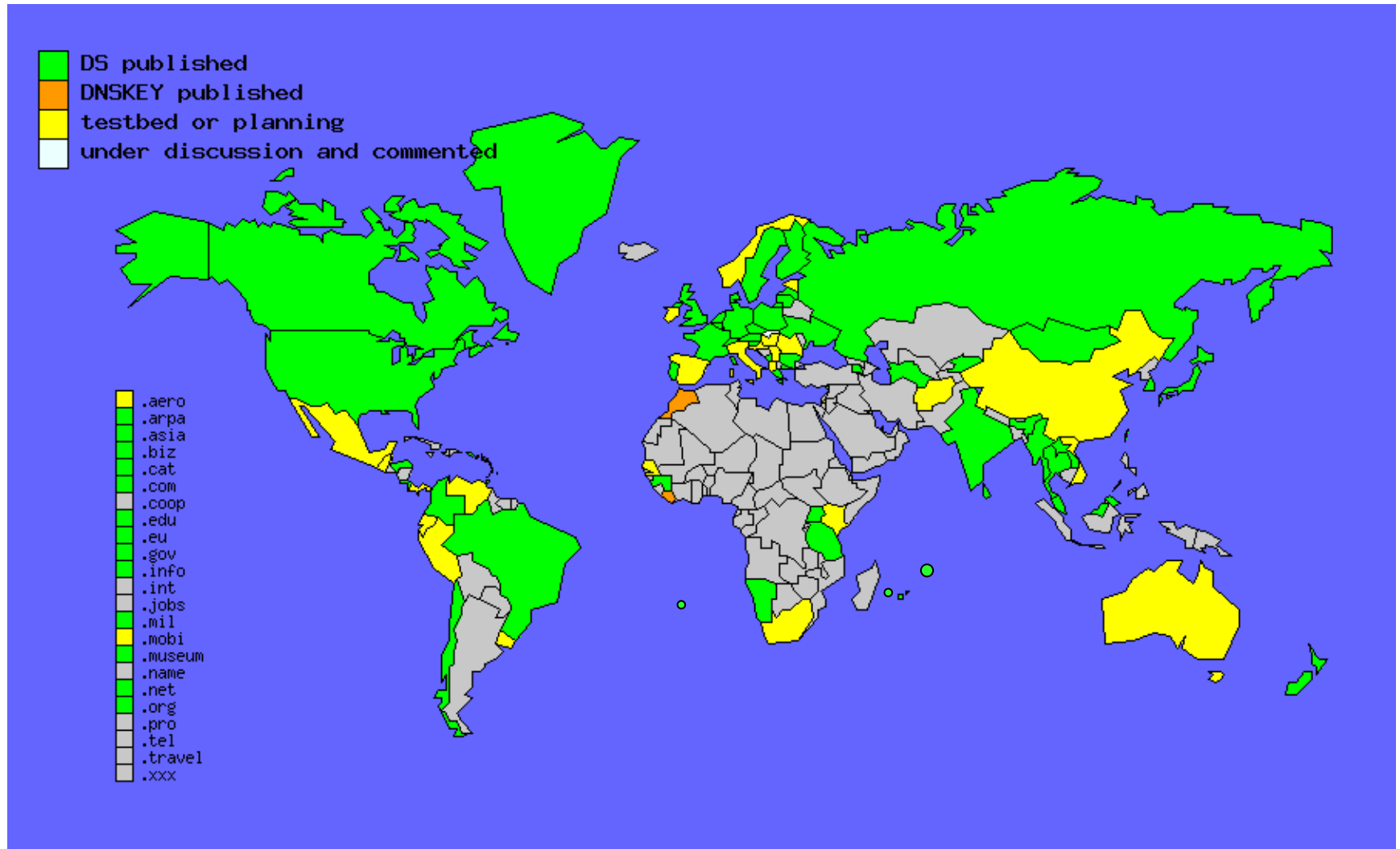
African DNSSEC Roadshow

Encourage and improve DNSSEC deployment in AFRICA

- Assess current status of DNSSEC deployment on the continent and in selected countries

- Visit country to highlight on going DNSSEC deployments if any, and train ccTLD managers and ISPs on DNSSEC deployment strategies and techniques.

    - http://www.africanncommunity.org/index.php/projects

African DNSSEC Roadshow (Cont'd)

ICANN AFRICAN DNSSEC ROADSHOW

SEEN AT 2013/07/09 00:00:01

Script runs every day at midnight. For any questions/comments, contact aalain@trstech.net

SUMMARY

Root zone signed : 2010/07/15

Unsigned ccTLDs : 47
Signed ccTLDs without DS in root zone : 2
Signed ccTLDs with DS in root zone : 9

AFRINIC managed reverse DNS zones

IPV4	IPV6	Date of first DNSKEY Record	Date of first DS Record
• 41.in-addr.arpa. • 196.in-addr.arpa. • 197.in-addr.arpa. • 102.in-addr.arpa. • 105.in-addr.arpa. • 154.in-addr.arpa.	• 0.c.2.ip6.arpa. • 3.4.1.0.0.2.ip6.arpa. • 2.4.1.0.0.2.ip6.arpa.	2012/04/01	2012/04/22

CCTLD	COUNTRIES	FLAG	INFO	KEY-ID	ALGORITHM	Date of first DNSKEY Records	Date of first DS Records

http://dnssec-africa.org
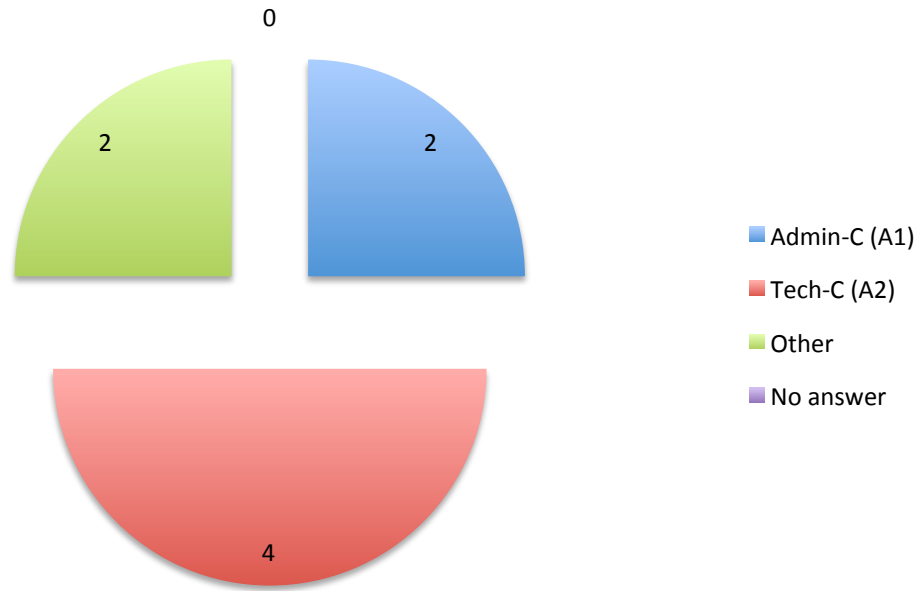
Africa DNSSEC Roadshow (Cont'd)

DNSSEC survey

• Assess your registry readiness to deploy DNSSEC, to determine where do you stand and what can be done to help and make it happen

- – Respondents role ?
- – Registry model ?
- – Registry/Registrars relationship ?
- – EPP ?
- – DNS anycasted, zone secret, zone transfer security ?
- – Reasons for non adoption of DNSSEC ?
- – Deployment timelines ?

Respondents

.ci   http://www.nic.ci/

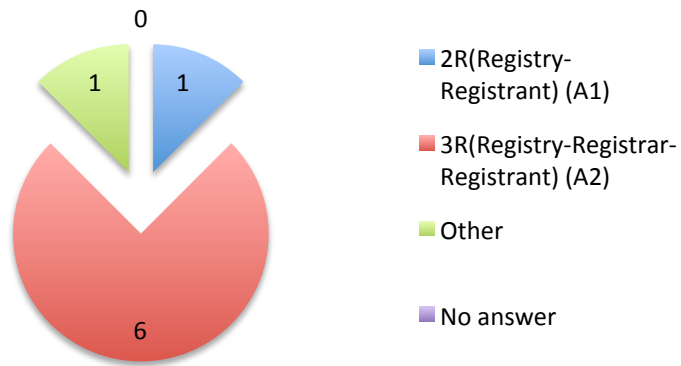.ng   http://www.nira.org.ng/

.ke   http://www.kenic.or.ke/

.tn   http://whois.ati.tn/

.za   http://www.zadna.org.za/

.sn   http://www.nic.sn/

na   http://www.na-nic.com.na/

Bj   http://www.nic.bj/

Total 8

Respondents Role

Total respondents: 8

Registry Model
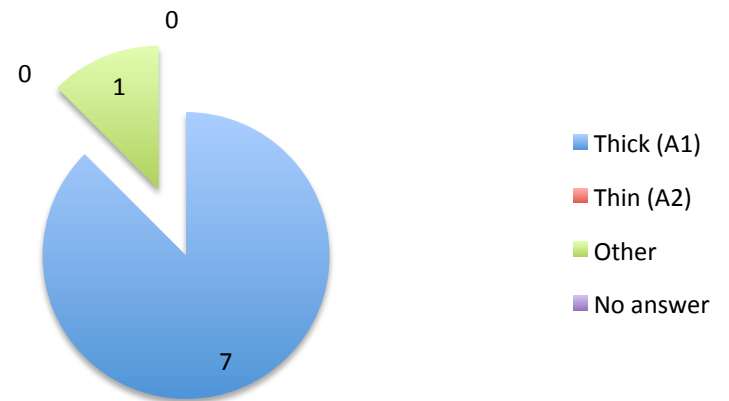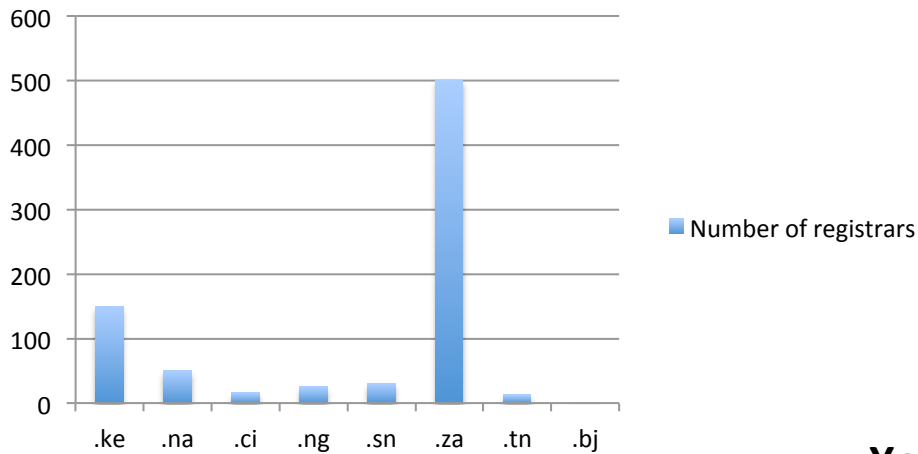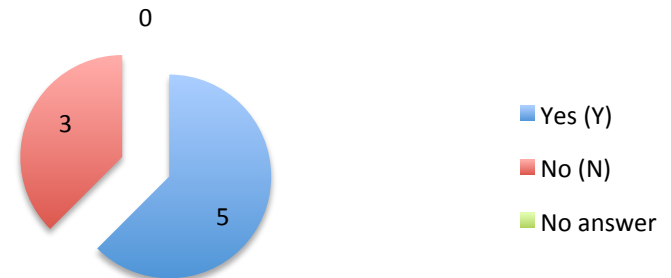
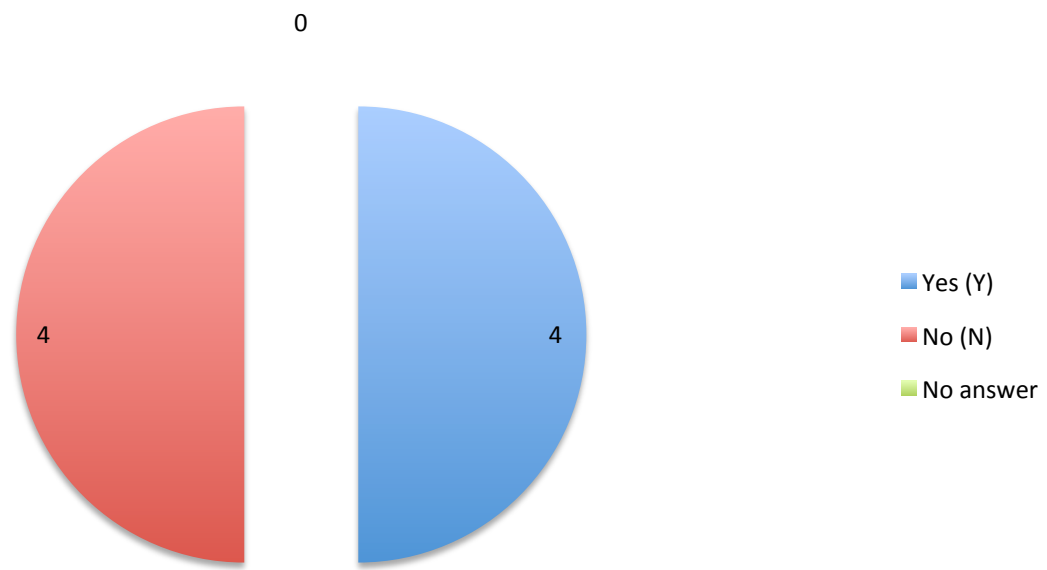# Registrars relationship

Number of registrars

Your Registry system offers hosted registrar interfaces ?

Registry-Registrar

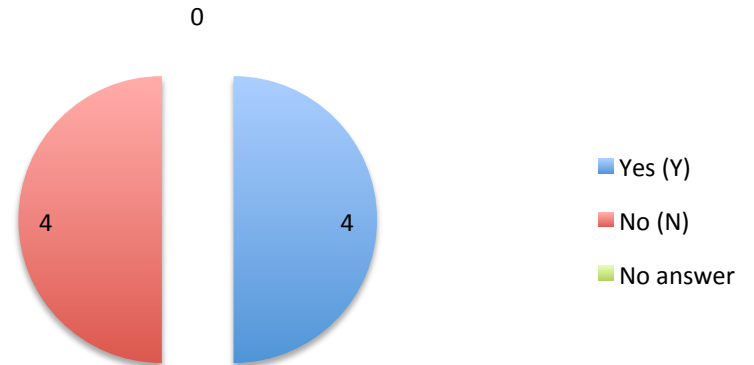**Do you use EPP for the Registry-Registrar relationship ?**

- Yes (Y)
- No (N)
- No answer

DNS

Are the DNS services for your CCTLD zone Anycasted ?

0

3

5

- Yes (Y)
- No (N)
- No answer
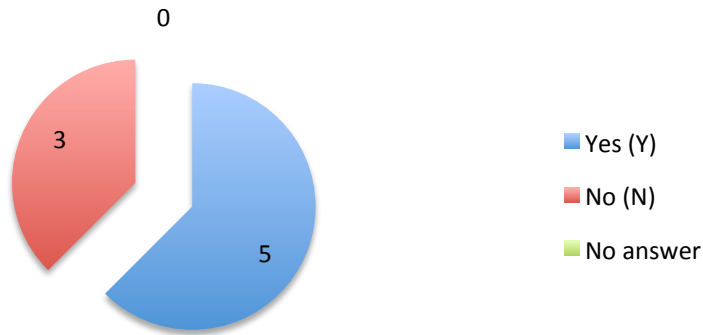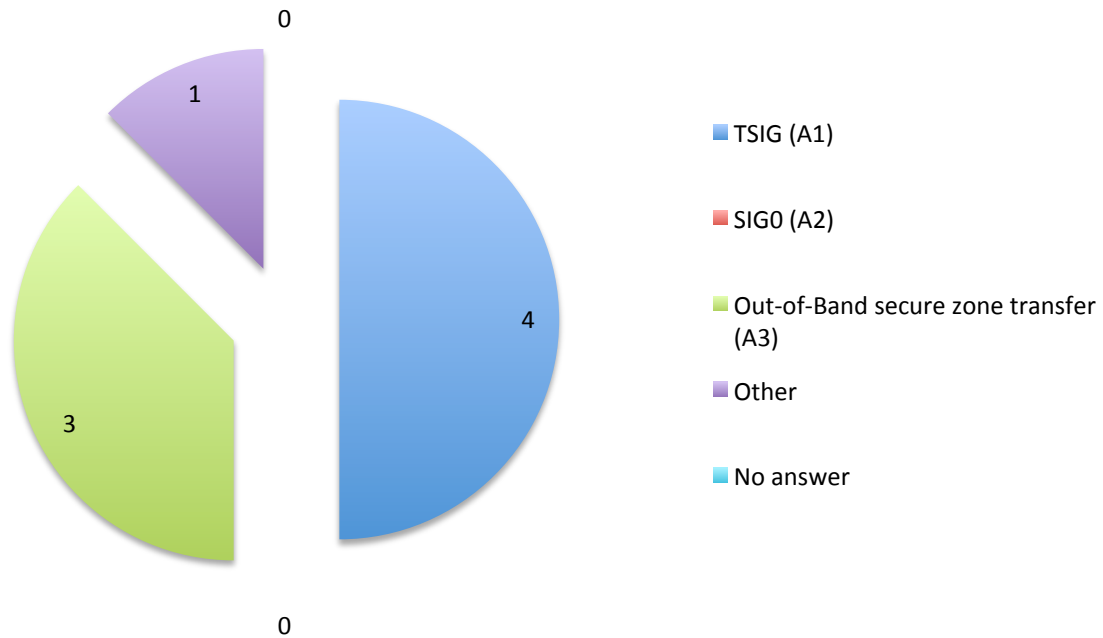
Is your zone content secret?

0

4

4

- Yes (Y)
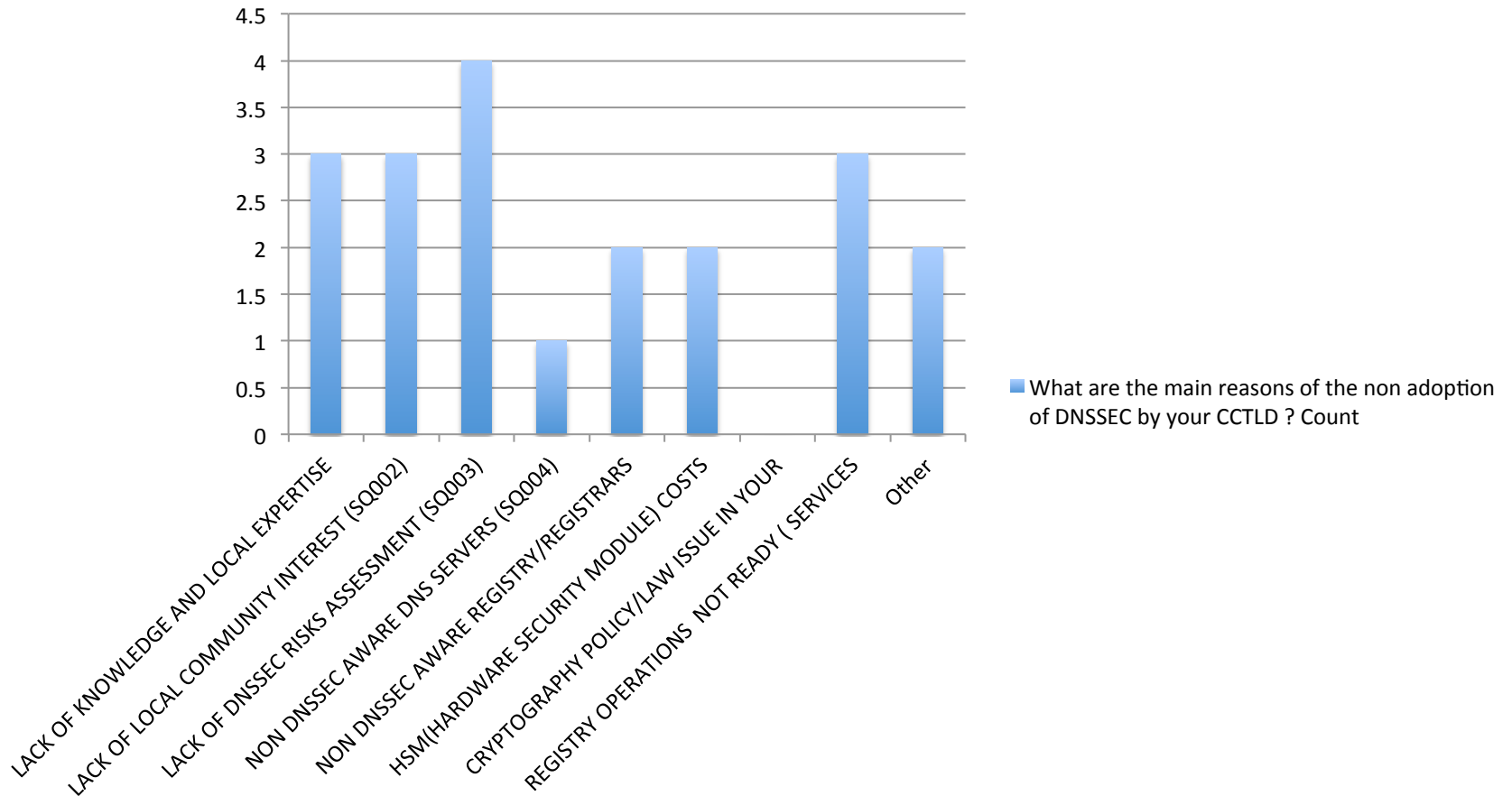- No (N)
- No answer

DNS

Master/Slaves zone transfer authentication

DNSSEC

What are the main reasons of the non adoption of DNSSEC by your CCTLD ? Count

DNSSEC (Cont'd)
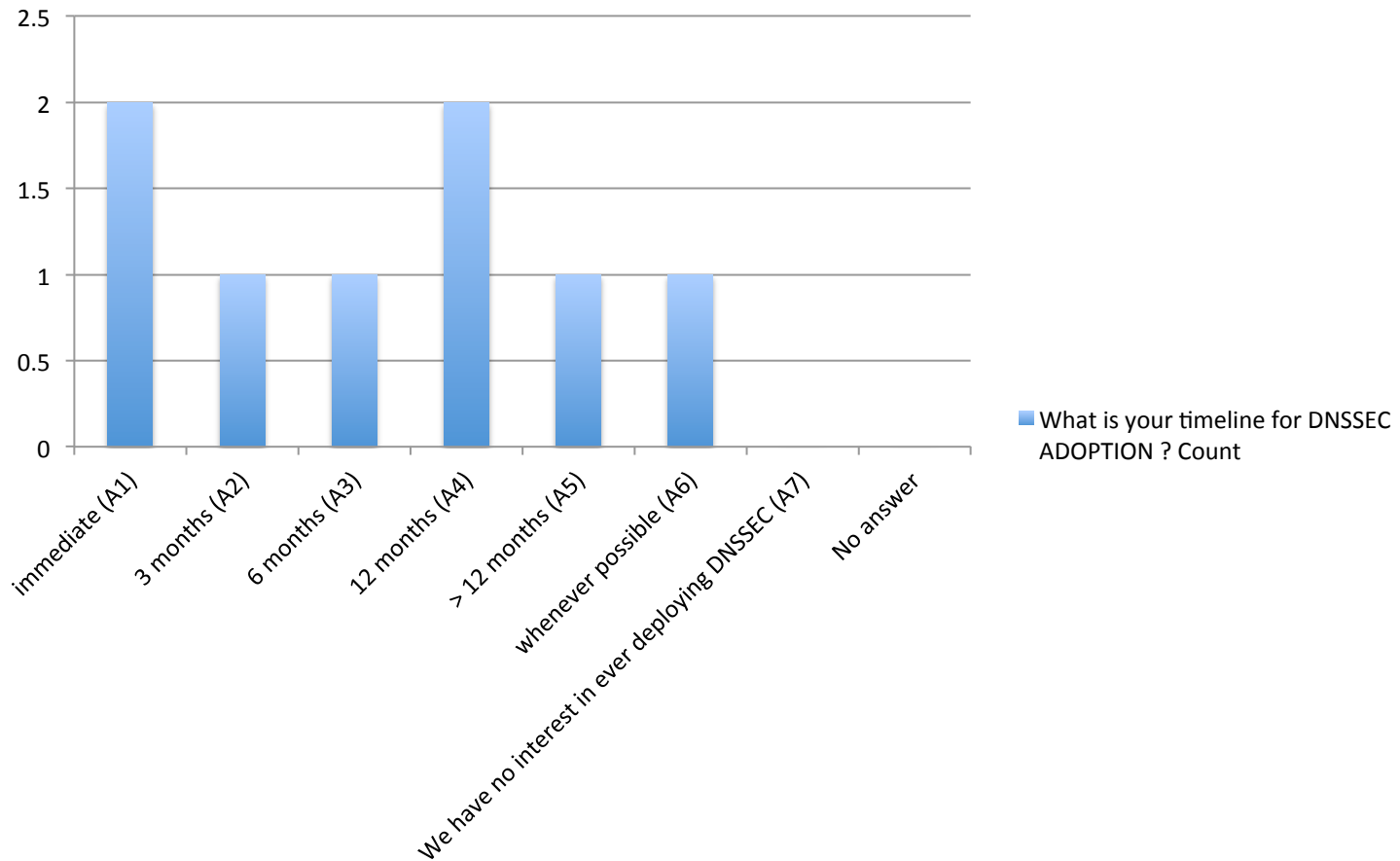
Survey Results

3 types of situation

- No issue, just time to do it

- Deployed. Lack of Community interest

- Not ready, need help: Registry operations, risks analysis, technical expertise…..

Action Plan

- "No issue, just time to do it "
  - Send us your roadmap or tell us how to help
- "Deployed. Lack of Community interest"
  - Lets figure how to increase local community interest: Awareness event ?
- Not ready, need help: Registry operations, risks analysis, technical expertise,…
  - Send DNSSEC experts for 3 days event
  - Awareness, protocol detail and deployment, direct assistance
  - .ke (done), .ng(next week), .bj (July), .ci (September)…..
  - .tn had an ICANN/NSRC DNSSEC training in April. Follow up

So the Panel discussions,

DNSSEC Activities in Africa

What would help to promote DNSSEC deployment? What are the challenges you have faced when you deployed DNSSEC?

9:15-11:00am(Break 10:15-10:30)
ISPs, Registries, and Registrars

Panelists

- Wilson Abigaba, Computer Frontiers/.ug
- Simon Balthazar, TZNIC
- Mouhamet Diop, Kheweul Senegal
- Mark Elkins, DNS/ZACR
- Alex Corenthin and Khoudia Gueya Sy, .SN/Senegal
- Toilem Godwin and Anthony Wambugu, KeNIC
- Eberhard Lisse, .na/Namibia
- Vika Mpisane, ZADNA
- Nii Narku Quayno, .gh registry, SAHARA.NET, AfNOG

Discussions(9:35 – 10:15)

Registries/Registrars perspectives: Max 5mn per speaker

- Have you deployed DNSSEC at your Registry,
- How many sub-domains are signed and built Chain of trust
- What are the challenges ?
- What are doing about ?

- Does your Registrar system support DS
- How many registrants with DS do you have
- Challenges/opportunities

Questions/Comments from the audience

Discussions(10:30 – 11:00)

ISPs/End users perspectives : Mark: 5mn

    - What since your have enabled DNSSEC validation on your recursive/caching NS ?

    - What are the challenges ?

    - What are doing about ?

DNSSEC in the RDNS: AFRINIC experience : 5mn

    - What since AFRINIC has signed its managed in-addr.arpa/ip6.arpa. Zones and allow DS in ?

    - What are the challenges ?

    - What are doing about ?

Questions from The Audience