Muhammed Rudman
m.rudman@ixp.net.ng
www.nira.org.ng
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ccNSO Dakar
The .ng Registry Design

- 3R Registry Model
- Public WHOIS server on port 43
- Public WHOIS web interface whois.nic.net.ng
- EPP interface for the registrars
- Escrow backup with Cocca
- Stealth Primary Server
- SSH with user & IP restrictions
The .ng ccTLD network Architecture

- **The registry**
  - CentOS
  - Cocca registry software (web & EPP)
  - PostgreSQL Data Base software
  - Primary Stealth DNS-Bind

- **Ns.a.nic.net.ng**
  - Open BSD
  - Bind DNS Software

- **NMS**
  - Tembria Server Monitor
  - Paessler PRTG
  - Kayoka helpdesk

- **Warm standby Router & Switch**
New Power Design

- Motorized Automatic Voltage Regulators (AVR) for each power source.
- Double Power source
- Dual Automatic Transfer Switch (ATS).
- Multiple Power packs in each equipment.
- Remote monitoring of power, with ability shutdown devices remotely.
The New Network Design- Under review

- Redundant Site
- Fiber as the primary link and microwave the backup link between the two sites using VPN channel.
- Multiple ISPs with diversity in uplink transit provider.
- Multiple replication of registry Database with all nodes available.
- Onsite and offsite backup system.
- Multiple firewalls (stateful & stateless) with Intrusion Detection System.
- Dual authentication to all registrars into the registry: login details with either IP restrictions or Token.
Secondary Name Servers

- ns1.nic.net.ng 194.0.1.29 | Internet Computer Bureau
- ns2.nic.net.ng 204.61.216.40 | WoodyNet (PCH)
- ns3.nic.net.ng 208.78.70.93 | Dynamic Network Services
- ns4.nic.net.ng 204.13.250.93 | Dynamic Network Services
- nsa.nic.net.ng 41.222.79.3 | Nigeria
- nsb.nic.net.ng 72.167.122.8 | GoDaddy.com (removed 2 years ago)
MoU with Internet eXchange point of Nigeria (IXPN)

- Strategic partnership with IXPN towards resource sharing.
- The MoU with IXPN will provide dual site for redundancy as well as 24/7 network monitoring and support.
- Working with IXPN towards F-Root deployment in Nigeria.
- Looking forward to working with other Root server operators – Already in discussions with ICANN for L – Root.
Thank you

Questions?