DoP (DNS Over RaspberryPi):
Running DNS hierarchy using Raspberry Pi

DNSathon: Hackathon on DNS

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#BeninDNS
www.dnsforum.bj
Benin DNS Forum: who we are?

- **Local Forum on Domain Name System and Internet**, inspired from Africa DNS Forum. **Build a strong local ecosystem** on Internet and DNS issues, improve engagement, gender & diversity on IG, and improve technical capability and entrepreneurship.

- **Open**: 5 local associations work together

- **5 days event with various activities**:
  1. Woman DNS Academy,
  2. Multi-stakeholder meeting for managers,
  3. DNSathon (hackathon on DNS),
  4. Public forum with panels and tutorials (Parakou and Cotonou),
  5. Internet City.

- **Reports available** at [https://dnsforum.bj/rapports/](https://dnsforum.bj/rapports/)
You say DNSathon!

- DNS + Hackathon or hackathon on DNS,
- Introduced in BDF 2017 agenda following the local community's interest in learning and understanding the technical implementation of the DNS hierarchy,
- Each edition composed of 50 to 60 engaged participants with a high collaborative approach contribute to the implementation of a prototype of the end-to-end DNS 4R Infrastructure with DNSSEC,
- Use Raspberry Pi 3 devices and produce a white book to help other communities.
Building the DNS hierarchy!

- **6 Groups:** network, 4R, documentation,
- 1 coach and 3 assistants,
- Brainstorming on the roadmap and debriefing sessions,
- Stay almost closest to real world: Bind, PDNS, Unbound, VLAN, resilience, ...
Building the DNS hierarchy!
Building the DNS hierarchy: activities

- **Infrastructure**: build the network and connect resources;
- **Root**: install & configure authoritative NS ., create zone file, custom root hints and distribute;
- **Registry**: install & configure authoritative NS TLD, create zone file, HTTP API;
- **Registrar**: create domain registration portal and connect to registry API: http, php, Python, database;
- **Resolver**: install and configure resolver, root hints;
- **Documentation**: collects data from teams for consolidation.
Building the DNS hierarchy: outcomes

- Better understanding of how things work.
- More confidence.
- A 100% working system
- All results consolidated and publicly shared in the Github of the Coach: https://github.com/AlfredArouna/DNSathon
- A white book is being finalized (1st edition in french but will be translated in english Later). Quick overview here
Building the DNS hierarchy: what next?

- Dual stack infrastructure
- DNSSEC
- DoT/DoH
- ...

- Available to support other communities to reproduce.
- Motivation to learn and engagement to organize.
DNSathon: hackathon on DNS
Thank you, Merci, Akpé, E chéoun, Mi wanou.
Quelques Sponsors et Partenaires