DNS Measurements Hackathon Results

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Goals of the Hackathon

- Bring together operators, researchers, designers, coders
- Combine creative skills
- Get feedback for RIPE NCC
- Contribute useful tools for DNS operators
- Make new connections
- Have fun!
Results
Summary

• 20-21 April 2017, Amsterdam
• 40 people, three sponsors, eight projects

RIPE Labs article
- https://labs.ripe.net/Members/becha/results-dns-measurements-hackathon

Collected code in GitHub repository
All Eight Projects

- Monitoring DNS Propagation Times
- DNS Resolver Hijack Tester
- DNS Fingerprinting
- Reverse DNS Statistics
- Everything you ever wanted to know about caching resolvers but were afraid to ask
- Passive DNS
- Anomaly Detection on DNS Auths
- RIPE Atlas Stream To Anywhere
Rewards
• “Team Anomalyzer”
  - The LARGEST BOX of stroopwafels
  - For scientific approach, use of existing measurements, and good teamwork

• Two teams working on DNS censorship
  - Six packages of traditionally-tinned stroopwafels
  - Shared between two teams: for collaboration
  - “DNS resolver hijack testers” & “DNS Fingerprinting”

• Passive DNS tool: hipster-stroopwafels prize
Of course, there were T-shirts...
Take Part in Our Hackathons!

- Watch this page: https://labs.ripe.net/hackathons

- Join us next time!
  - October 2017: location and topic to be announced
  - Spring and Autumn 2018
  - Be a host / local partner / juror
  - Be a sponsor

- Use the software and tools
  - Share your use cases and success stories

- Modify the code, contribute improvements
  - All the code is on GitHub
DNS-related RIPE Atlas Measurements
Maps Based on DNS Measurements

- DNS Root Instances
- Comparative DNS Root RTT
- Root Server Performance
User Measurements Visualisations

- List of probes: sortable by RTT
- Map: colour-coded by RTT
- LatencyMON: compare multiple latency trends

https://atlas.ripe.net/measurements/7954428/
DNSMON: dnsmon.ripe.net

• From anchors to ccTLDs

• https://labs.ripe.net/Members/fatemah_mafi/an-updated-dns-monitoring-service
DomainMon

- Like “DNSMON”, but
  - From probes
  - To second-level domains

- https://labs.ripe.net/Members/suzanne_taylor_muzzin/ripe-atlas-domainmon-is-here
New Additional DNS Measurements

• Measuring random domains
  - https://atlas.ripe.net/measurements/30001/

• Measuring popular domains
  - https://atlas.ripe.net/measurements/30002/

• https://labs.ripe.net/Members/chris_amin/new-ripe-atlas-root-zone-dns-measurements