ICSI Updates: *Netalyzr*

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“Where do I donate”
-User Feedback

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- All opinions are those of myself, not those of the sponsors or my coauthors
Updates on Netalyzr

- The growing dataset
- IPv6 nuggets
- Netalyzr as a component in other research
- Netalyzr on Android
- Proxy Traceroute
- DNSSEC and TLS
Netalyzr’s Dataset Keeps Growing

- 790,000 sessions from 530,000 IPv4 addresses
  - 180 GB of raw data...
- 20-70 new sessions in a typical hour
- We’ve begun doing limited data releases to researchers
  - Extract just a portion of the database that is useful to answer a researcher’s questions
  - E.g. to ISI and I-root operators we provided the results of CHAOS queries to the root
Some IPv6 nuggets

- ~23K IPv4 addresses can fetch data using IPv6
  - 5.8% of sessions
- IPv6 fragmentation is *broken*
  - *Worse* than IPv4
  - 37% can’t send fragmented traffic
  - 37% can’t receive fragmented traffic
  - 44% overall either can’t send, can’t receive, or can’t do both
Using Netalyzr in Other Research Projects

- The command line client:
  - A (signed) .jar file
    - -q: only output the resulting URL
    - Signature allows you to download and run
  - A supported **json** API
    - Replace “summary” with “json” in the URL
    - All uploaded information
      - Pointers to any large pieces
    - Some test results from the server side
    - Fully commented output
- A mode browser
  - -m MODE on CLI or m=MODE on the web URL
  - Allows you to fetch all results with this mode
    - If you arrange with us to provide you access
Android Version: Soon to be submitted

- Based on the full Netalyzr applet/CLI test suite
  - Currently a forked codebase for the tests itself, but will soon be reintegrated to a common codebase
  - Rendering in a web page with a different style sheet
- Currently no significant additional tests
  - We don’t know what we should test for!
- Current plan is to submit to Google’s app store Real Soon Now
Proxy Traceroute
DNSSEC and TLS

- Currently developing a comprehensive test suite for DNSSEC
- Client transport & client-side validation:
  - Can the client get RRSIGs and the DS for .com from the roots?
  - Can the client get RRSIGs and arbitrary records from an arbitrary server?