CAIDA Active Topology Data
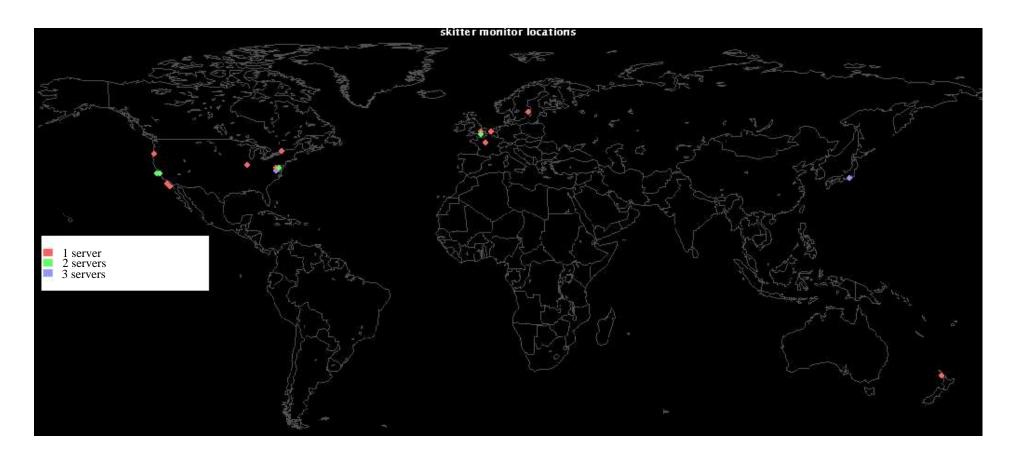
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Overview

- data collection tools

- restricted
  - IP Forward Path Topology

  - (IDTK) Internet Data Tool Kit

  - netacuity (geographic)

- public
  - AS Adjacencies

  - Router-Level Topology

  - NetGeo (geographic)

Data Collection Tools

skitter monitor locations

1 server
2 servers
3 servers

- skitter
    IP address forward path topology and RTT
    topology from monitor to set of IP addresses

- iffinder
    discovers router relationships between IP interfacer

IP Forward Path Topology

wide spread collection of IP path topology

- data
  - 25 skitter monitors in 8 countries and 4 continents
  - destination list
    * one IP address per /24 in routable prefix
    * 54% of prefixes and 5.7% of /24s
    * 1 cycle per day
- time period
  - traces continuously collected
- access
  - http://www.caida.org/tools/measurement/skitter/research.xml remote access available on request.

Internet Data Tool Kit

collection of IP topology and supplimental material

- data
  - IP Topology data (2 dozen skitter monitors)
  - Post processed IP topology data/summaries
  - iffinder results for IPs in the topology
  - Hostnames for IPs in topology
  - BGP tables from Route Views
  - sample analysis scripts
- time period
  - 3 weeks starting in April
  - released once per year since 2002
- access
  - http://www.caida.org/tools/measurement/skitter/research.xml
    Remote access available on request.

AS Adjacencies

AS Adjacencies seen by skitter in a day

- data
  - AS Adjacencies aggregated from skitter IP Paths

- time period
  - 24 hours of IP Paths
  - released once per day

- access (public)
  - http://www.caida.org/tools/measurement/skitter/as_adjacencies.xml

Router-Level Topology

public anonymoused Router-Level Topology

- data
  - IP links from ITDK
  - iffinder IP-to-router mapping
  - end result is anonymized

- time period
  - 2003 ITDK
    - ∗ 3 weeks starting in April 2003

- access (public)
  - http://www.caida.org/tools/measurement/skitter/router_topology/

Geographic

- public
  - NetGeo
    * unsupported since 2002
    * parsed Whois
    * IP,AS mapping to geographic headquaters
  - Owl
    * development
    * parsed Whois
    * IP,AS mapping to Organization
    * Organization to geographic headquaters
- private
  - netacuity
    * Digital Envoy commercial tool
    * IP to Geographic

Conclusion

- restricted
  - http://www.caida.org/tools/measurement/skitter/research.xml
    - ∗ IP Forward Path Topology
    - ∗ Internet Data Tool Kit

  - http://www.digitalenvoy.net/technology/netacuity.shtml
    - ∗ netacuity

- public
  - http://www.caida.org/tools/measurement/skitter/as_adjacencies.xml
    - ∗ AS Adjacencies

  - http://www.caida.org/tools/measurement/skitter/router_topology/
    - ∗ Router-Level Topology

  - http://www.caida.org/tools/utilities/netgeo/
    - ∗ NetGeo