

CAIDA

BREAKING NEWS

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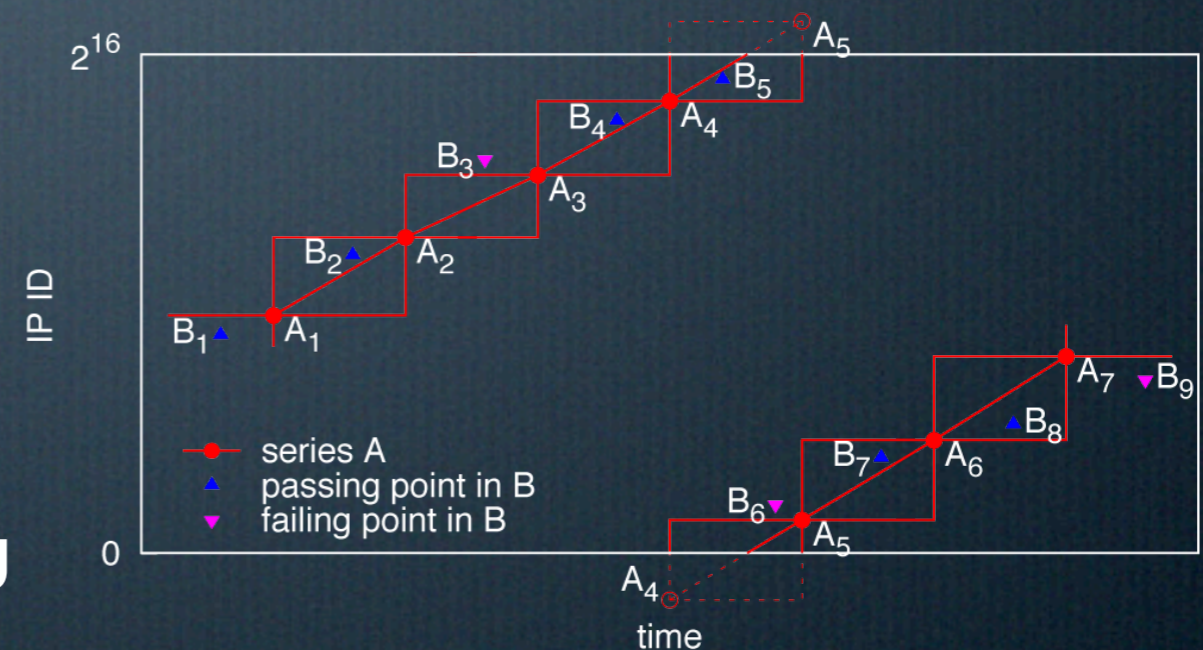
Web-based meta-data repository of Internet measurement datasets

- Revamped, streamlined collection submission interface
 - Submit new collection in < 30 mins
- Improves the ability to find research data
- Anybody can add datasets- you don't need to be the owner
- Go and try it!

Collection name ?	<input type="text"/>
Short description ?	<input type="text"/>
Creators ?	<input type="text" value="handle or partial name (press DOWN key for..."/> add another
Primary contact ?	<input type="text" value="handle or partial name (press DOWN key for..."/>
Keywords ?	<input type="text" value="comma-separated list (press DOWN key for..."/>
Summary ?	<input type="text"/>
Motivation ?	<input type="text"/>
Data start time ?	<input type="text" value="yyyy"/> - <input type="text" value="mm"/> - <input type="text" value="dd"/> <input type="text" value="hh"/> : <input type="text" value="mm"/> : <input type="text" value="ss"/> . <input type="text" value="mil"/>
Data duration ?	<input type="text"/> <input type="button" value="seconds"/> <input type="radio"/> ongoing
Description ?	<input type="text"/>

IP-ID based router alias resolution toolset

- Monotonic ID-Based Alias Resolution (MIDAR)
- Monotonic Bounds Test
 - For two addresses to be aliases, their combined IP-ID time series must be monotonic
- Scales to millions of pairs
 - Sliding-window probe scheduling
 - Supports multiple vantage points
- Highly accurate - practically no false positives or negatives
 - Only 372 (of 3,888,291) false negatives in validation run



MARINDA (available as part of MIDAR)

Distributed shared memory (tuple space) implementation

- Decentralized communication and coordination
- Simplifies network programming in a distributed system
 - Message-oriented group communication
 - Persistent connection
 - Automatic marshaling of structured data
- Ruby language bindings
- Stand-alone release coming soon...

```
#!/usr/bin/env ruby
require 'rubygems'
require 'marinda'

$tod = Marinda::Client.new("/tmp/localts.sock", 2000,
                           :scope => :global)

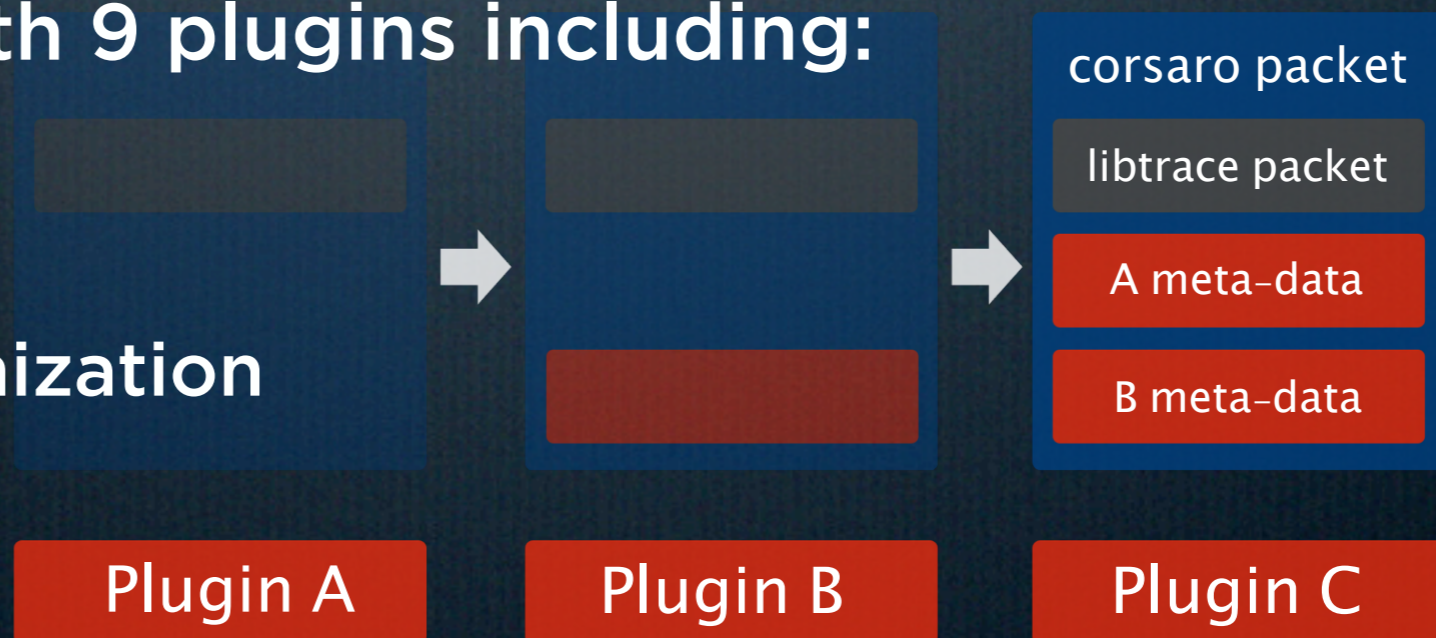
$tod.write ["TRACEROUTE", "ark", 2, "lax-us", "www.caida.org",
           [["attempts", 1], ["method", "icmp-paris"]]]

result = $tod.take ["RESULT", "ark", nil, nil, nil, nil, nil]
```

Software suite for large-scale analysis of (darknet) traffic traces

- High-speed traffic trace analysis and aggregation
- Designed for darknet data; works with any packet traces
- Easily extensible, cooperative plugin architecture
- FlowTuple (NetFlow-like) packet header aggregation
- Version 2.0 ships with 9 plugins including:

- IP Geolocation
- AS lookups
- CryptoPAn Anonymization



Interactive web interface to on-demand topology measurements from Ark monitors

- Easy way for researchers to conduct on-demand topology measurements on Ark
- Currently supports ping and traceroute (ICMP, TCP, UDP)
- Command-line support coming soon...

Measurement Results

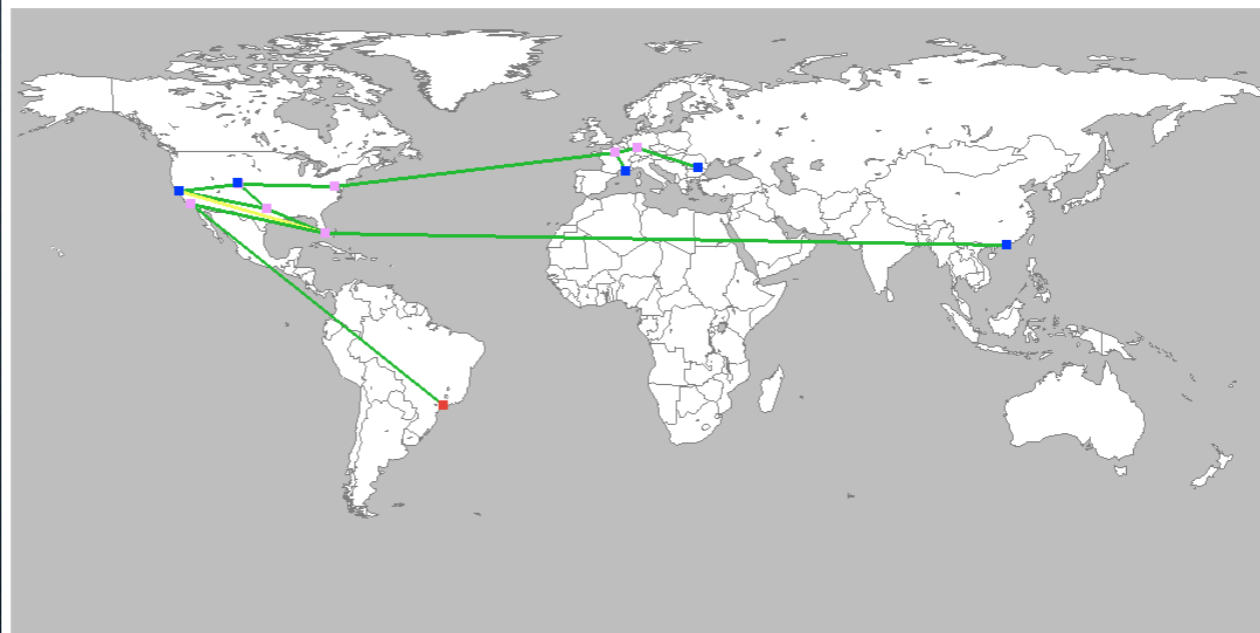
ping to www.google.com from All IPv4 (59) using ICMP

Source	Target	RTT (ms)
syd-au	74.125.237.115	1.0
sao-br	74.125.234.240	1.1
sao2-br	74.125.234.18	1.1
sjc2-us	74.125.224.82	1.2
zrh2-ch	173.194.35.18	5.2
sea-us	173.194.79.99	8.0
lej-de	173.194.69.103	9.3
bma-se	173.194.32.50	10.9
eug-us	173.194.79.104	13.3
bjc-us	74.125.227.17	15.7
cdg-fr	173.194.35.179	18.0
jfk-us	173.194.73.104	18.3
sql-us	173.194.79.103	19.6
scl-cl	173.194.42.18	20.7
nap-it	173.194.35.148	23.0
vie-at	173.194.35.148	24.0
pna-es	74.125.230.176	24.0
lax-us	173.194.79.106	26.9
rno-us	173.194.79.106	31.1
otp-ro	173.194.35.178	34.0
mtm-mx	74.125.227.147	34.6

traceroute to sao2-br.ark.caida.org from commercial network (6) using ICMP

Traceroute Geo Map

Node Color Key: ■ Source ■ Intermediate ■ Destination Link Color Key: — Direct — Indirect



Other Views: [USA](#) | [South America](#) | [Europe](#) | [China](#) | [Japan](#)

IN OTHER NEWS

- Scamper cvs-20130824 released
 - JSON output format for traceroute, ping, alias resolution techniques
 - IPv6 support for alias resolution (ally, speedtrap, radargun)
- New Macroscopic Internet Topology Data Kit (ITDK) release (July 2013)
- We're always looking for talented people
 - www.caida.org/home/jobs/