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Based on discussions with:

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# Measurements from the edge are critically important

- Broadband is a critical resource
  - Not a luxury anymore
- View from the network edge is just as important as the view from the core
- The edge is as complex as the core
  - If not more – problems are devilishly difficult to pinpoint, let alone solve
- We want to understand many aspects of broadband
  - Performance + QoE
  - Reliability
  - Network interference (censorship, traffic shaping)

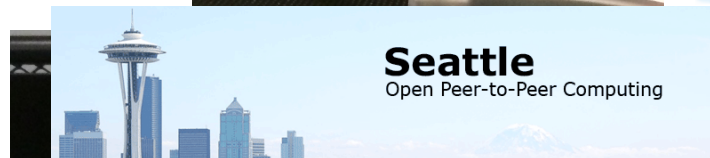
# ... Which explains why there are so many platforms



DASU



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Seattle

Open Peer-to-Peer Computing



RIPE NCC

RIPE NETWORK COORDINATION CENTRE



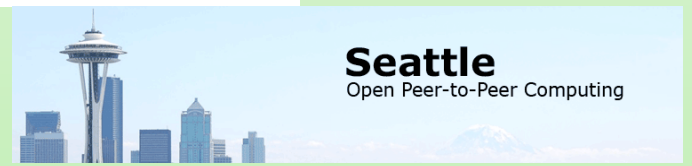
ICLAB



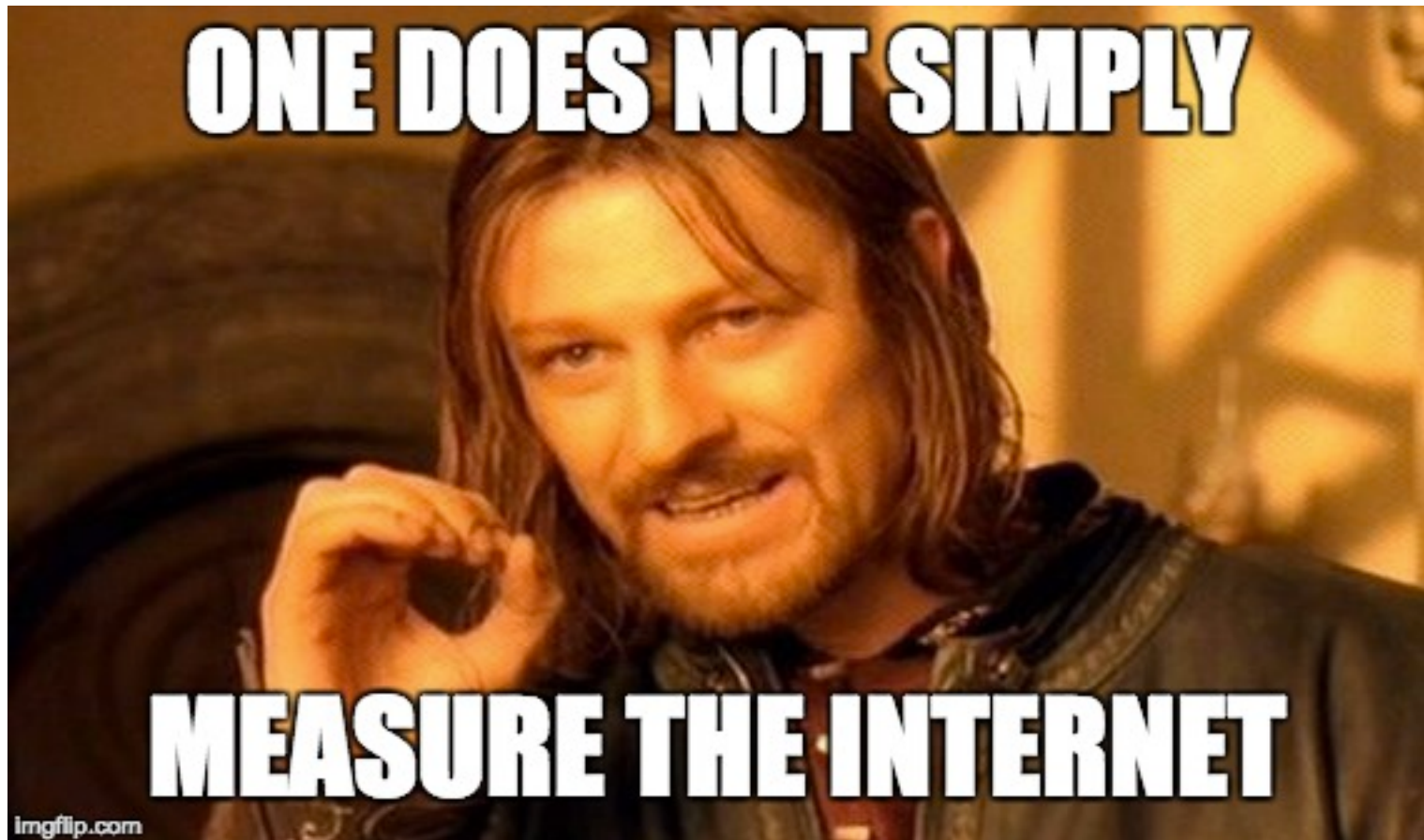
# ~~Can~~ we merge into a single platform? Should



Project  
BISmark

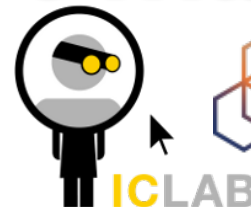


# Why merging may not make sense



# Why merging may not make sense

- Different user-bases
  - Different **tolerance** for risk
    - activists vs. network operators vs. home users
  - Different **expectation** for risk
    - E.g., don't expect RIPE Atlas to ping a bunch of Jihad-related hosts
- Different supported capabilities
  - To HTTP GET or not to HTTP GET?
  - Bismark that is in-path vs. off path devices
- Different auditing models
  - RIPE credit system vs. manual review on other platforms
- How to manage scheduling
  - Ensuring measurements don't conflict
  - How to prioritize conflicting measurements?



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**Ok... so what can/should we do?**

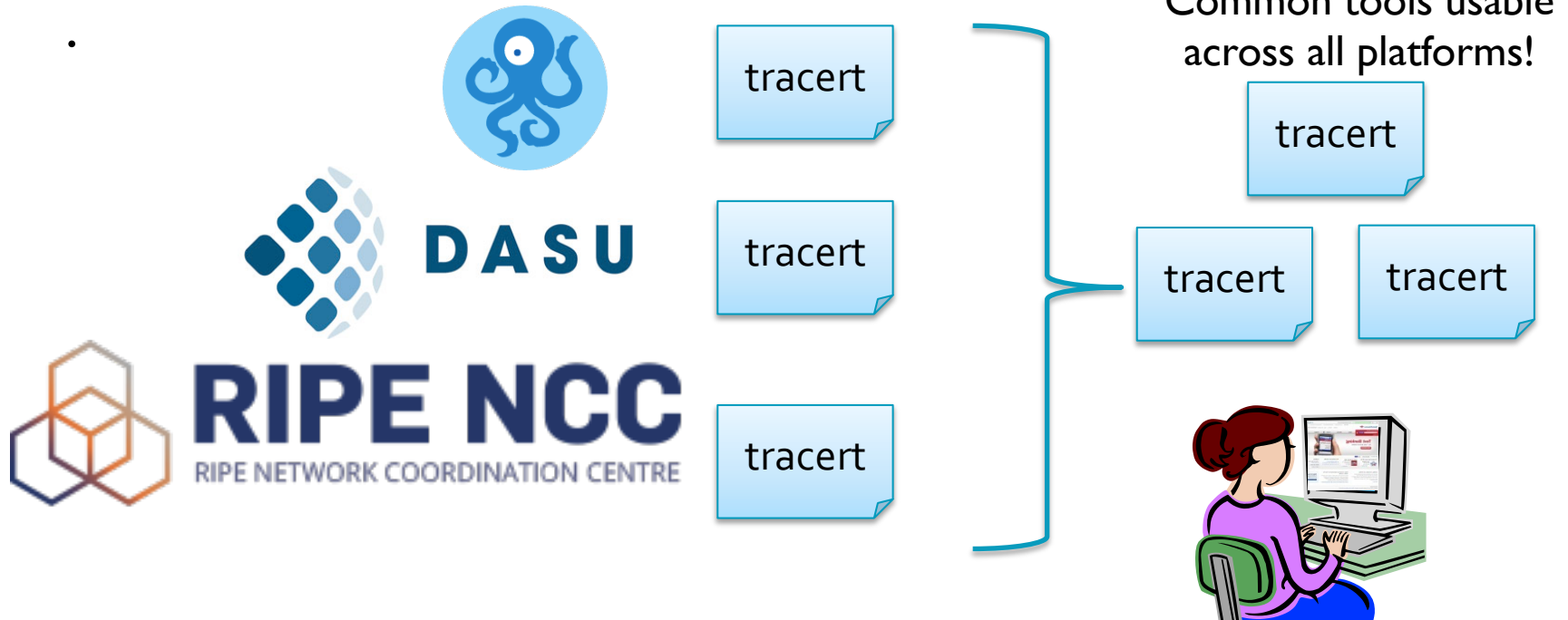
# ...baby steps

- Can we get the platforms to “play nicely” with each other?

## Basics:

Might still be more than one version ....

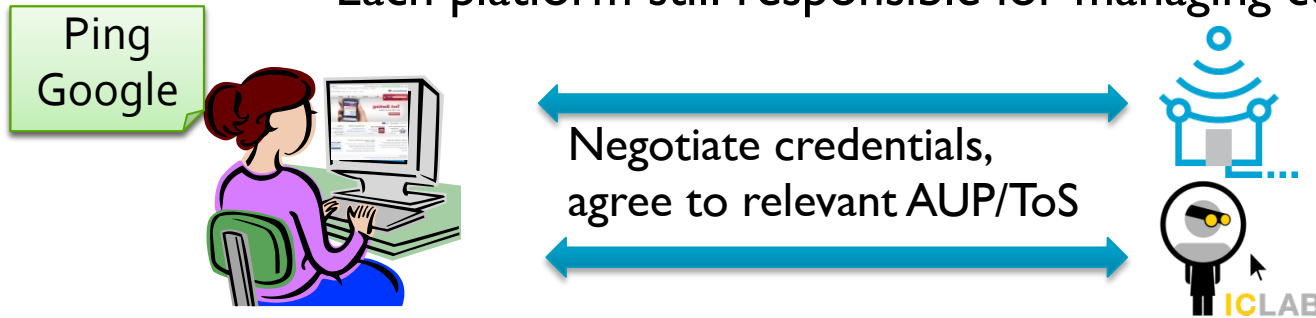
- Same output formats
- Common measurement code (common “quirks”)
  - Don’t want to have to remember that this is the RIPE Atlas vs. Dasu vs. OONI version of traceroute



# ...bigger steps

## Less basics:

- Common experiment interface
  - How to specify what should run
  - Same API across platforms, just specify credentials
    - Still subject to the blessing procedure of the platform
    - Each platform still responsible for managing consent process



## Even less basics:

- Make rolling measurement platforms easier
- Common codebase anyone can pick up and use
  - Basic pieces: scheduler, client, server, etc.



# Where we are at...

- ... created a mailing list
  - [camp@icsi.berkeley.edu](mailto:camp@icsi.berkeley.edu)
  - CAMP = Common Active Measurement Platform
  - ...also a GitHub repo: <https://github.com/cam-platform>
- Surveying relevant tools/frameworks
  - Scamper, scriptroute, RIPE Atlas, ICLab, etc.
- Trying to understand what ought to be supported
  - **Idea:** Historical requirements gathering
  - What is the minimal functionality that would enable 80/90% of IMC papers in the past X years?

**Looking for comments + feedback + people who want to be involved!**