Facilitating Focused Internet Measurements

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an edge-based measurement platform

- like PlanetLab, lets researchers run experiments from specific vantage points
- like Satellite, needs well-connected supernodes
- promises “more representative” vantage points

interaction flows

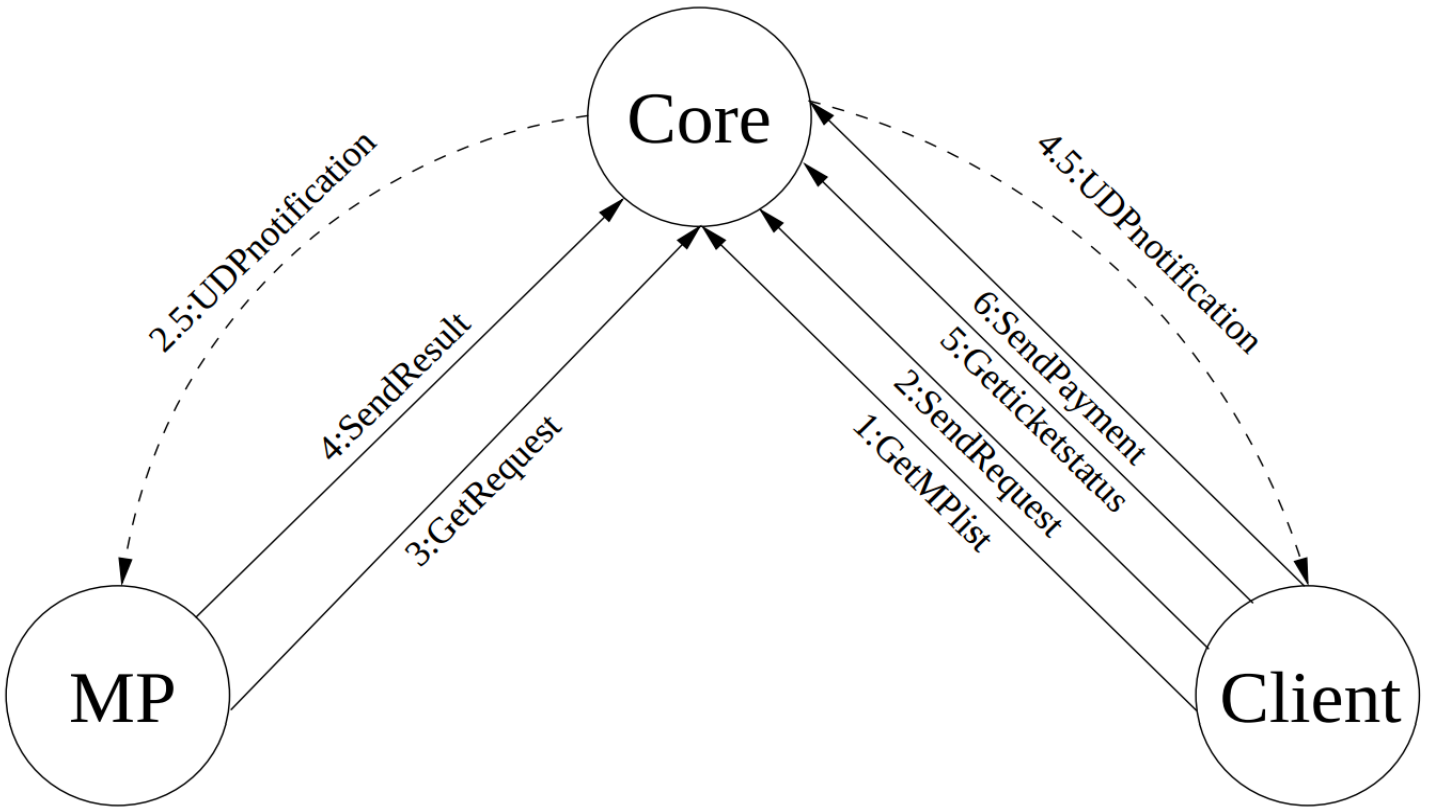
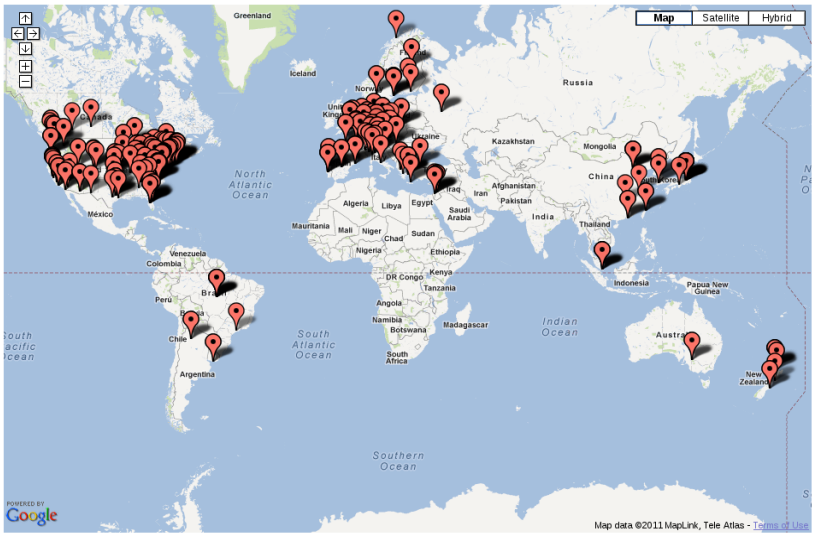
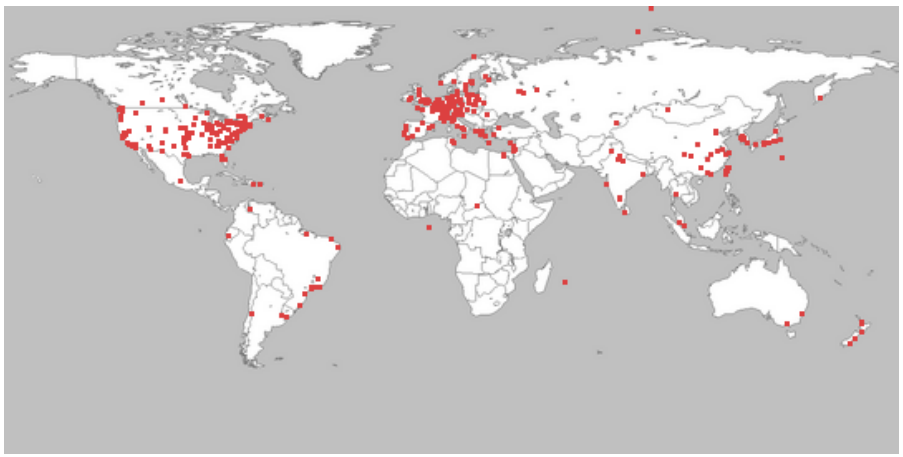


Figure 2: The interaction flows in DipZoom

geographical distribution



(a) DipZoom



(b) PlanetLab

API

- explicit session management
- programmatic filtering of MPs by location, system properties, etc.
- submission requests submitted to individual nodes

scalability

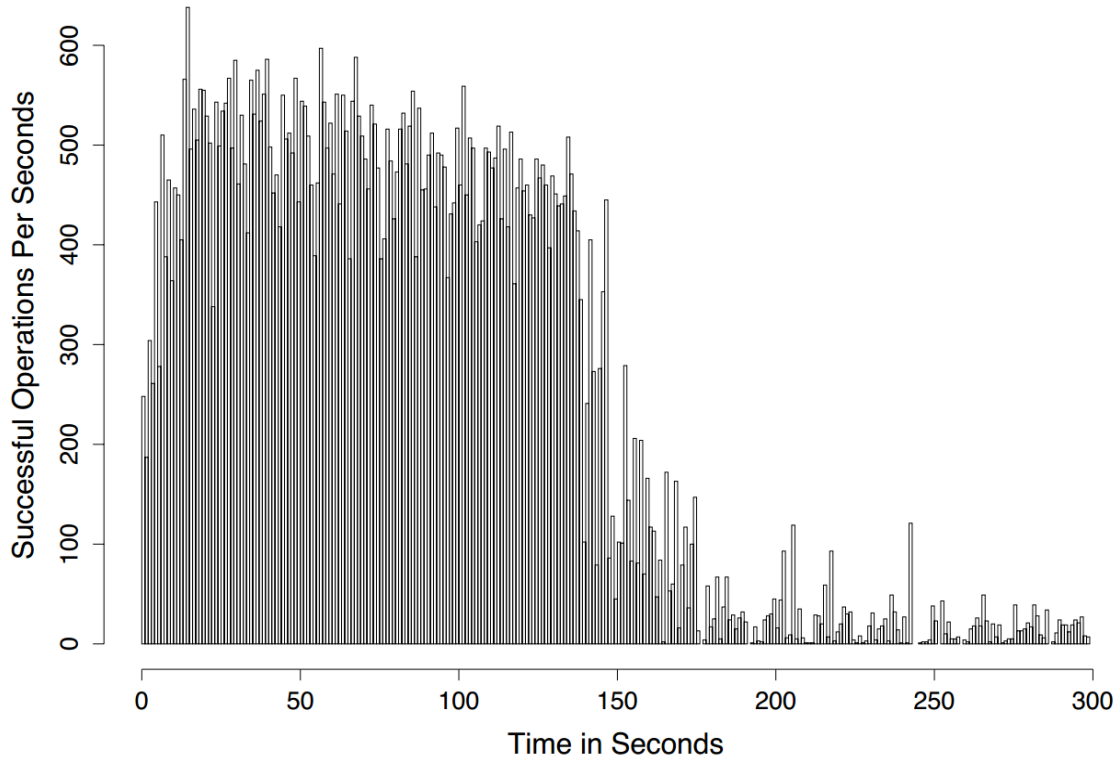


Figure 6: The sustained rate of MP operations involved in a measurement

250 dummy MPs *vs.* an Opteron @ 2.2 GHz and 2 GB RAM

quality of results

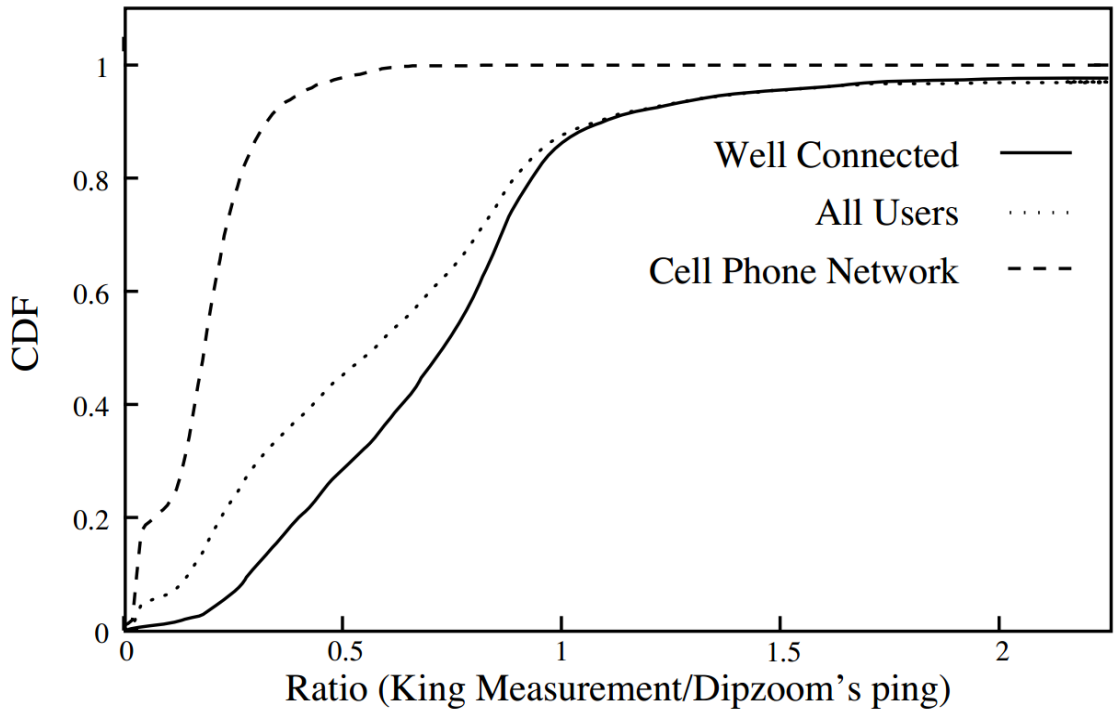


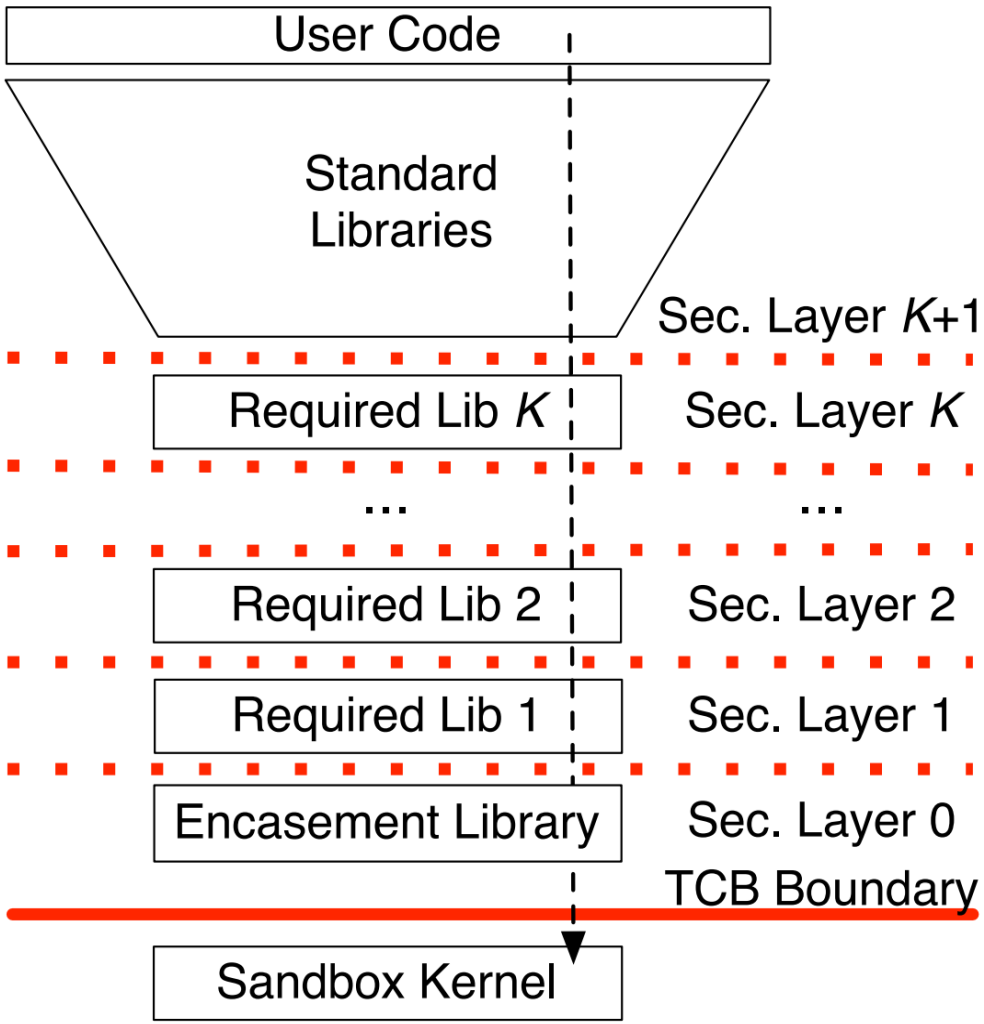
Figure 8: The accuracy of King measurements

$x \in PlanetLab, y \in Gnutella$

compared to Seattle

- more complex API: 150 lines of Java vs. 10 lines of Python for a simple demo
- lacks a clear incentive to participate as an MP

Seattle security



wait, what

- **Sendpayment.** The confusingly called sendpayment function returns the measurement results of completed

what's the first rule of cryptography?

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NEVER ROLL YOUR OWN

issues

- incentives to join?
- secure through obscurity