Facilitating Focused Internet Measurements

Zhihua Wen, Sipat Truikose, Michael Rabinovich
presented by Ted Stein

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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

$x \in \text{PlanetLab}, y \in \text{Gnutella}$
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
• 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