

Meddle:

Transparency and Control for Mobile Networking

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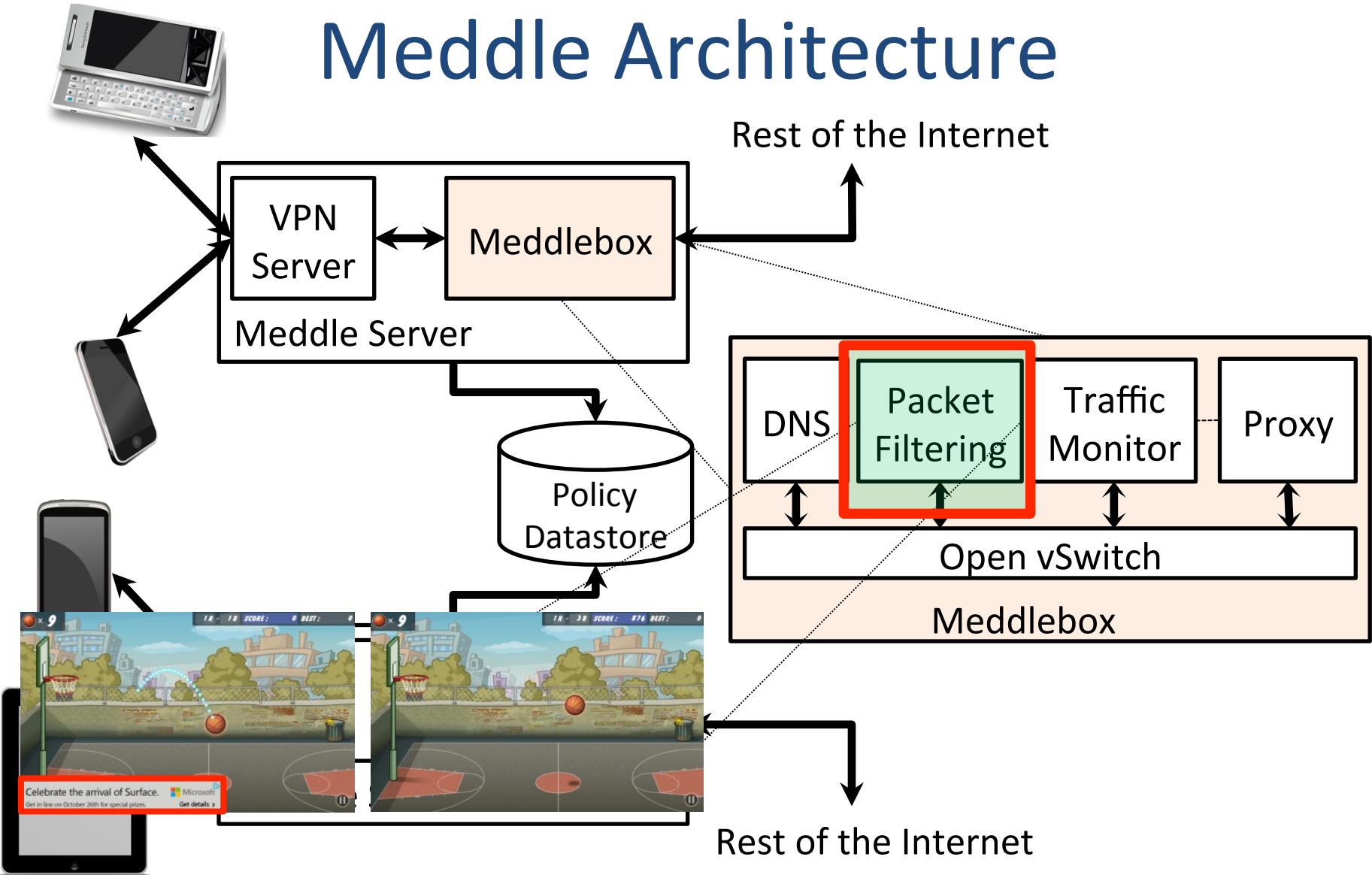
Motivation and Goals

- Opaque mobile ecosystem
- Limited user control over mobile traffic
- Limited coverage of measurement studies
- Improve mobile ecosystem transparency
- Increase control over mobile traffic
- Low barrier to entry for comprehensive coverage and representativeness

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Meddle Architecture



Key Features

- Vantage point for mobile measurement
 - Comprehensive coverage (cross-*)
 - Passive measurements
- Experimentation platform
 - Facilitates new middlebox research
- Practical deployment model
 - Low barrier to entry
 - Clear incentives for user adoption

Some interesting results

Deployment: 19 devices, 14 users (11 iOS)

- All Safari Google searches pre-iOS6 were in the clear
- Traffic from our users is split 60/40 (Wifi/cell)
- Almost zero opportunity for compression
- Even with Wifi, there is a case for 'onloading'

How You Can Help

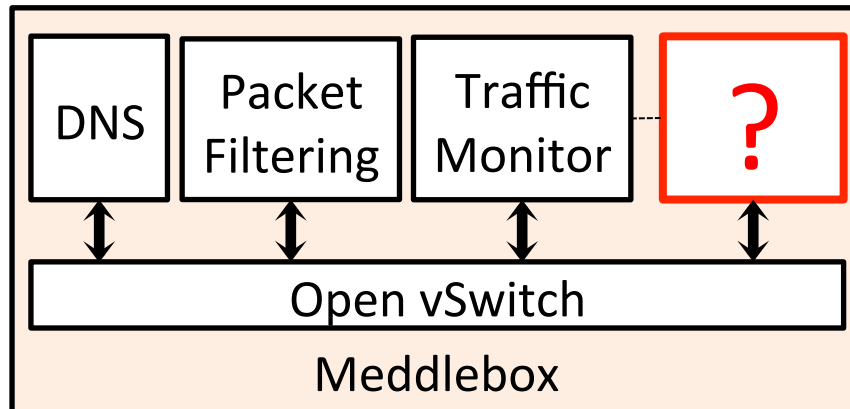
- Participate in IRB approved study



**Ad
blocking
included!**

How You Can Help

- Participate in IRB approved study
- Participate in building out meddlebox features



Visualization (Demo)

Data sharing

Nope, sorry. This is horribly sensitive data.

...that said, it's possible we can, with user consent, provide anonymized samples.

We don't have this consent yet.

Thank You

For an overview, see
meddle.cs.washington.edu

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