

Mobile Measurement

Characterizing Connection Endpoints | Greg Russell



Residential Assumptions

MeasurementLab treats clients as if they are at fixed locations, e.g. residential customers.

- 1. We publish the client IP address of each connection.
- 2. We use geolocation services to annotate geographic location based on IP address.

OK for residential broadband, though it would be good to have more information:

- 1. Is the test running through a **WiFi**?
- 2. What **other traffic** is there on the last mile connection?
- 3. What kind of connection is it? DSL? Cable? Fiber?





Rapidly growing share of our data! Not currently labelled!!

Different attributes are interesting for aggregation:

- 1. What tower is device connected to?
- 2. What is the signal strength to the tower?
- 3. What is the actual Lat/Lon of the device?

At the same time, there are major privacy considerations!!



Burning Questions:

Should Measurement-Lab handle mobile traffic differently?

What attributes should we focus on?

How do we protect privacy?

• We must avoid allowing tracking of mobile devices. Even without other PII, the track itself might be traceable to an individual person.

Other: Do some carriers create fake acks?