IRTF & ISOC Workshop on
Research and Applications of
Internet Measurements (RAIM)
in Cooperation with ACM SIGCOMM

Yokohama, Japan
October 31, 2015

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Genesis

• EC looking for opportunities to bring SIG closer to industry
• Desire by the IETF/IRTF to increase researcher participation
• Collocated Tokyo/Yokohama meetings provided unique opportunity
• Decided to pick a few “hot” topics based on community interest
  • As expressed by paper submissions
Organizers

• Mark Allman, ICIR
• Kenjiro Cho, IIJ
• Lars Eggert, NetApp
• Mat Ford, Internet Society
• Ratul Mahajan, Microsoft Research
• Renata Teixeira, INRIA
• Brian Trammell, ETHZ
• Darryl Veitch, UTS
Desired outcomes

• Exchange information
• Introduce communities
• Foster collaboration

• Provide interactive discussion time

Increase this overlap!
Why standards?

And not code?

http://ietfmemes.tumblr.com/
Why should you care about standards?

• If you’re researching Internet-related topics, where do you learn what the real current issues are?
  • Hint: wireless ATM is not one of them
• You need to talk to operators, vendors, registrars, policy makers, regulators...
  • Assuming you are interested in research that could have an actual impact
• Where is it easy to meet these folks?
  • Standards bodies, operator meetings, industry forums
But don’t forget to think

• You will talk to many folks who aren’t researchers
• Their motivations are different
  • Often very short-term agendas
  • Few can abstract out to principles
  • Worried about symptoms, not causes
  • If all you have is a hammer, everything starts to look like a nail
  • Many are there to make money (or keep others from taking theirs)
• Think hard about the “problems” you learn about
Still... go mingle!

• If you’re interested in learning about some of the real problems
• If you’re interested in fixing some of them, you’ll need to participate more regularly
• For Internet and “future” Internet stuff: participate in the IETF
• Papers don’t get deployed
  • Unless you’re a hyperscalar publishing your old stuff for publicity
Code is not (always) the answer

- Code comes under a license
- License incompatibilities:
  I may not be able to use your code
- Reading licensed code to interoperate is bad:
  may still taint my code

- (Some) IETF standards come with IPR disclosures
- Disease with different symptoms, but industry is used to this
Participation takes time

• Standardization is very different from “fire & forget” academic venues
• The time commitment is substantial, both in terms of email discussion and meeting travel
• There are processes, and they are “interesting”
• You will need to convince a diverse set of stakeholders
  • Theoretically optimal ≠ practically optimal
  • Business aspects & deployment incentives are critical
• Don’t forget about research arms (e.g., the IRTF)
Need additional motivation?

• If you’re on an academic career path, standardization is unlikely to get you tenure
  • But it doesn’t often hurt you either

• You will meet likeminded people to collaborate with
  • And some of them have substantial budgets...

• If you’re going for an industry career path, getting positively noticed in these forums can be good
Your reception may vary

OH, SO YOU WANT YOUR RESEARCH PROJECT TO BE STANDARDISED?

MY PROPOSAL WASN'T DISCUSSED

LET'S WAIT FOR ANOTHER SIX MONTHS

HOW INTERESTING, TELL US MORE!

CAME TO PRESENT PROBLEM

ENDED UP AS DRAFT EDITOR
Logistics
Workshop structure

• **Keynotes** on (subjective) state-of-the-art and highlight hard issues
• **Lightning talks** to introduce participants, their work & viewpoints
• Lots of discussion time

• Collaborative minuting (to be turned into a workshop report)
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<thead>
<tr>
<th>Time</th>
<th>Len</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:00</td>
<td>15</td>
<td>Welcome &amp; logistics</td>
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<tr>
<td>9:15</td>
<td>45</td>
<td>Measurement platforms &amp; tools</td>
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<td>9:30</td>
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<td>Session keynote</td>
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<tr>
<td>10:00</td>
<td>120</td>
<td>Lightning talks</td>
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<td>12:00</td>
<td>90</td>
<td>Lunch break</td>
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<tr>
<td>12:30</td>
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<td>Measurement of fixed &amp; mobile broadband access networks</td>
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<td>Session keynote</td>
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<td>Break</td>
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<td>Internet characterization through measurements</td>
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Keynote etiquette

• Make this interactive
• Use the microphones (we are being live-streamed & recorded)
• Be prepared to postpone longer discussions until end of keynote
Lightning talk etiquette

• Everyone gets three minutes max, no exceptions
• No questions, hold until end (take notes)

• Everyone starts clapping after exactly three minutes
• Speaker stops promptly
• Speaker fast-forwards to first slide of next speaker
• Next speaker continues
Logistics

• We are being live streamed & recorded (thank you, Meetecho)
  • http://www.meetecho.com/ietf94/raim/
• Therefore, please use the microphones

• Lunch will be outside
  • Let the vegetarians get first dibs at vegetarian dishes
Questions?