Mobile Broadband Working Group

CFP

April 2014 Workshop
Economic health

• The overall ecosystem depends on the facilities owners continuing to invest in upgrades to capacity and capability.
• Investment must be justified by return on investment and overall profitability.
• Could broadband access stagnate?
  • Some ISPs (especially mobile) claim they are in pain.
Three issues

• Growth in demand.
  – Is raw capacity the only issue?
• Cost of usage.
  – More properly, cost of investment in capacity.
• Sources of revenues.
  – Follow the money.
A prediction of growth

Fixed Access Network Traffic - United States

Sandvine Global Internet Phenomena Report 1H 2013
And another--mobile
THIS MAY NOT HAPPEN!

• Growth is not exogenous.
  – Important to understand what will shape it.
    • Netflix, QoE, cost.
    • Why should providers invest? What are drivers?

• Exponential growth requires exponential response.
  – More of a challenge for mobile providers.
    • New spectrum, spectrum efficiency are linear.
      – Slow the need to take other steps.
    • Only exponential response I can see is smaller cells.
      – Could this be a “Clay Christensen” event?

• In wireline world, subscriptions may be saturating.
  – Unclear about mobile, but will happen sometime.
Costs

• Data hard to get, but...

• Mobile usage costs may be 10x or more than fixed wired access.
  – Must engineer for ubiquity, not just capacity.

• If this is so, hard to see how mobile can substitute for wired access.
  – But fixed wireless may be a different story.
  – Small cells, again.
Revenues

• Flat rate encourages experimentation, excitement, new uses.
  – Flat rate is bad for recovery of usage based costs.

• Usage tiers better align costs and revenues.
  – But may inhibit usage, drive “off-loading” to fixed wireless, etc.

• My personal interest: Advertising.
  – Follow that money.
Future plans

• Draft white paper is out.
  – Bill Lehr and Marie-Jose Montpetit
• Setting new directions.

• Possible topic: quality of experience
  – QoE
  – Sources of impairment in the network.
    • Current work—congestion.