



Mobile World Congress Update “The Service Provider Perspective”

[@justinspratt](https://twitter.com/justinspratt)

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Agenda:

1. Net Neutrality Fracas

2. LTE vs. WiMax

3. Indoor mobile coverage – WiFi vs. Femtocells

4. What “Series Seven” says about mobile ecosystem



Net Neutrality:

- Telco's pissed – paying for huge pipes and costly spectrum
 - Worried about being “dumb pipes”
 - But Google, et. al., makes all the profits
- They want to charge “toll fees” for certain types of traffic
 - Take a cut of the lucrative ad revenues web and content companies
- I am betting on Google and Obama



LTE

- LTE turns the GSM world into “IP” (as in internet)
- They are looking at VoLTE for voice, currently circuit based
- Needs high base station density → interference issues
- 2012 expected to go “mainstream”,
 - most in 2014: HSDPA + Dual carrier + MIMO = 42Mbps
- Pieter Uys “LTE is a software upgrade” – very wrong
 - 10x more base stations; much bigger backbone



WiMax

- 802.16 is the IEEE standard
 - In other words, it is Internet compliant
- Generally, WiMax is 10% of the cost of LTE
- Interoperability is easy due to IP compliance
- In South Africa, ICASA still struggling with:
 - Pricing model – beauty or auction?
 - Frequency needed
- 802.16e is new standard for mobile roaming, which will allow voice transmission



LTE v WiMax: so who wins?

BOTH!

- Method of transmission is increasingly irrelevant
 - both speak “IP” (internet language)
- WiMax is much cheaper and will eventually do voice
 - but, GSM has an installed base of over 3bn
- Telco's likely to build both depending on myriad variables
- Service Providers likely to predominately use WiMax
- Intel building a dual-mode WiMax and Wi-Fi chip
 - seamless roaming between wifi and wimax
- will be embedded in all phones and laptops



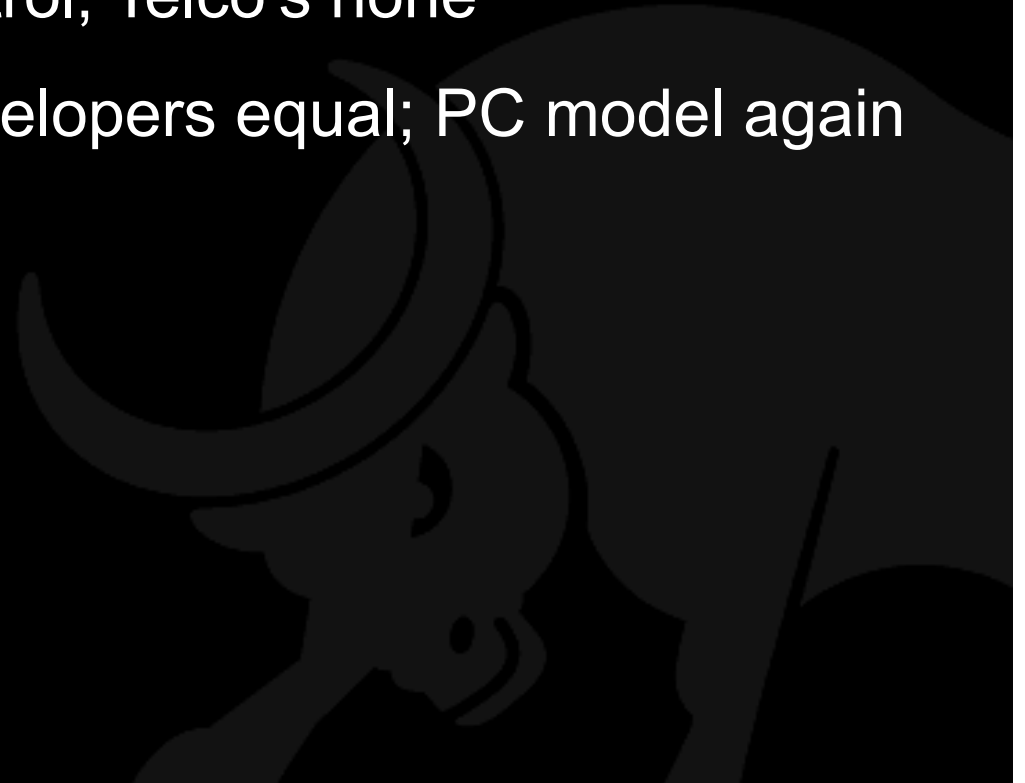
Femto v WiFi:

- You are going to hear the word “Femto” a lot in next
- Looks like DSL router; behaves like GSM base station
- Purpose: capture traffic and offload to terrestrial network
- Fixes interference and propagation issues
- Eventually one device will do DSL, WiFi and Femto
- Standards are a mess, so WiFi will win for next 24 months



“Series 7” and the mobile ecosystem:

- 3 platform models:
 - iPhone – Apple controls; Telco's tiny; developers tiny
 - Android – developers control; Telco's none
 - 7 Series – Telco's and Developers equal; PC model again



Thanks for listening!

Justin Spratt
[@justinspratt](https://www.instagram.com/justinspratt)

