KT Perspective on LTE in Unlicensed Spectrum

3GPP Workshop: LTE in Unlicensed Spectrum

2014. 06. 13

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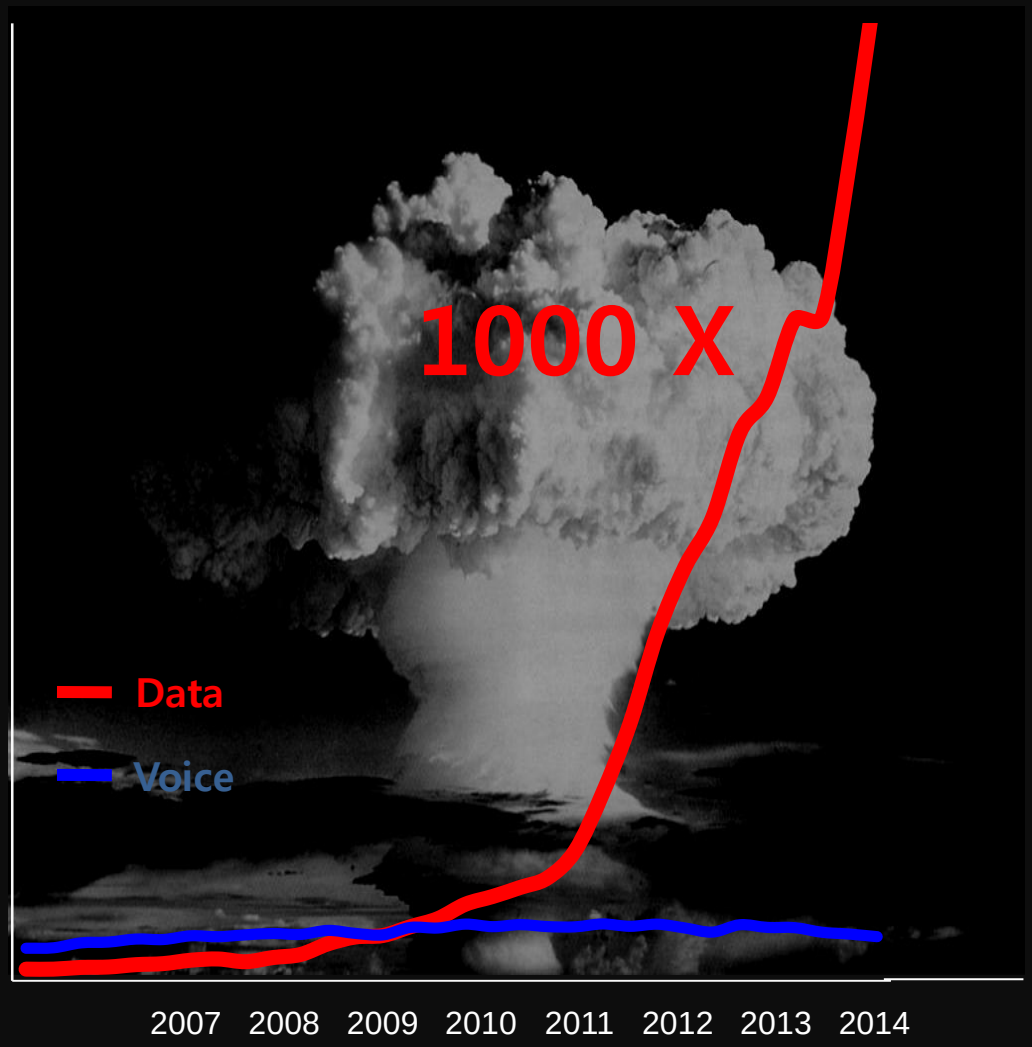
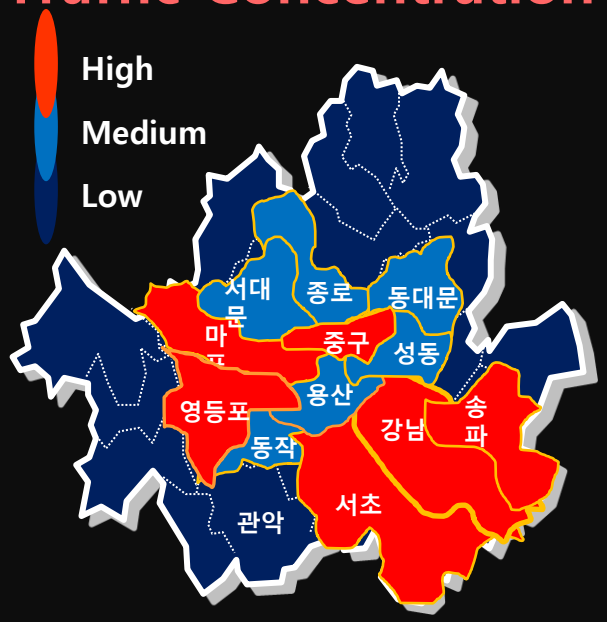
Usage of Data Traffic already exceed Operator's Expectations

More Spectrum is needed



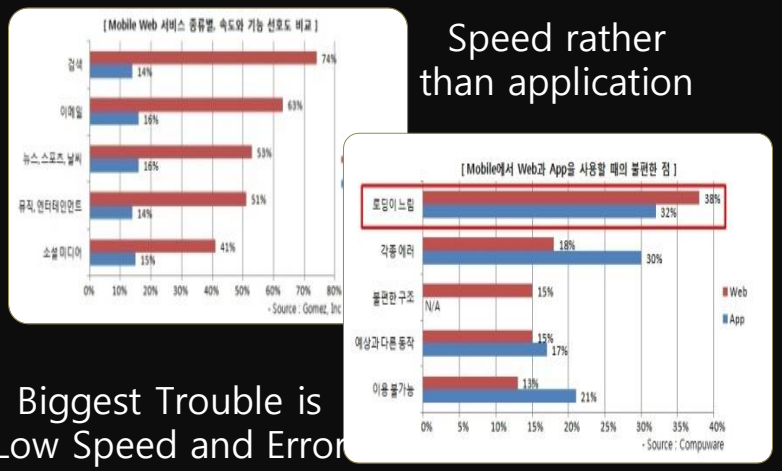
(Source: kt)

Traffic Concentration



- Traffic Portion: Metropolitan Area 62%,
  Seoul 34%, Gangnam 3 Strict 10%

Need for Speed and Stability



Speed rather than application

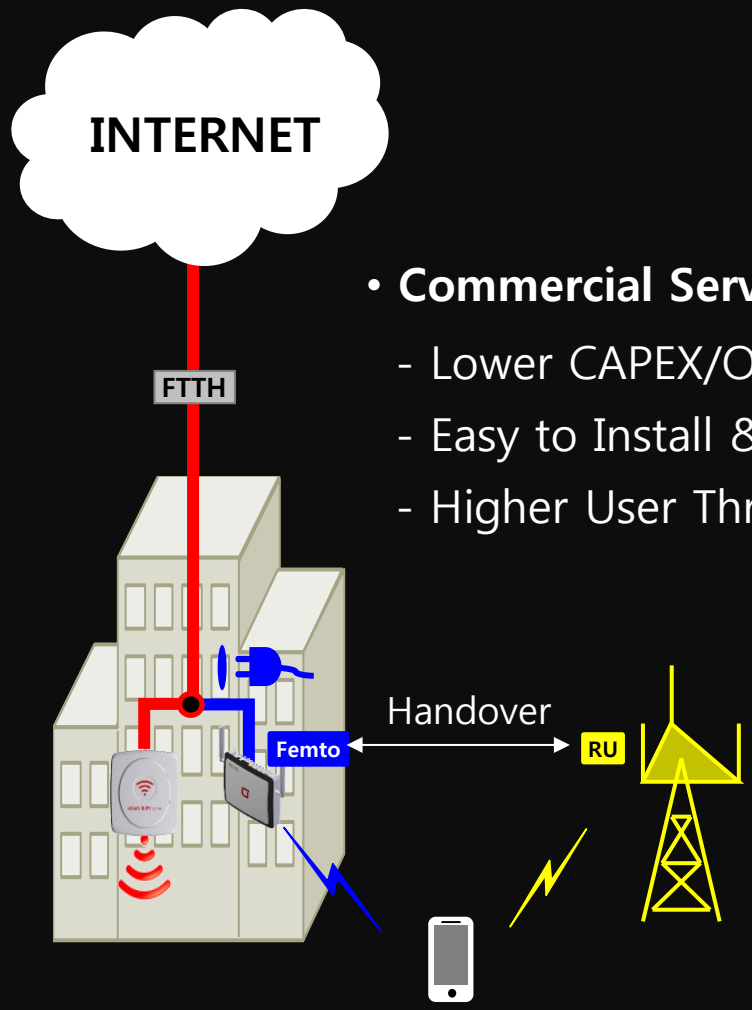
Biggest Trouble is Low Speed and Error

(Source: Compuware, Gomez, Inc, Aug. 2011)

Limit of Macrocell

Difficulties in deployment at dense urban area

III. Current Solution for Highly Demanding Data Traffic



- **Commercial Service : '12. 7**
  - Lower CAPEX/OPEX
  - Easy to Install & Extend
  - Higher User Throughput(50Mbps)

Can LTE-U deliver cost effective solution for Operators?

☐ Ensuring cost & performance effectiveness

- ○ Carrier Aggregation with Licensed Spectrum
  - CA already supported from Release 10
  - Easier to implement compared to Inter-RAT Carrier Aggregation
  - Enhance DL performance by using Unlicensed Spectrum as DL-only
  - No uplink should be allowed
- ○ Focusing on Harmonized Spectrum
  - Using global harmonized band can reduce development cost
  - Support of global roaming in Unlicensed Spectrum
  - Operators can offload heavy data traffic via Unlicensed Spectrum

☐ 3GPP Considerations

- ○ Start RAN Plenary level SI to achieve followings:
  - Decision from various candidate spectrum
  - Consensus on operator deployment Scenario
  - Identify regulation issues
- ○ Upon successful completion of RAN Plenary level SI, WI should follow in each WGs

Thank you

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