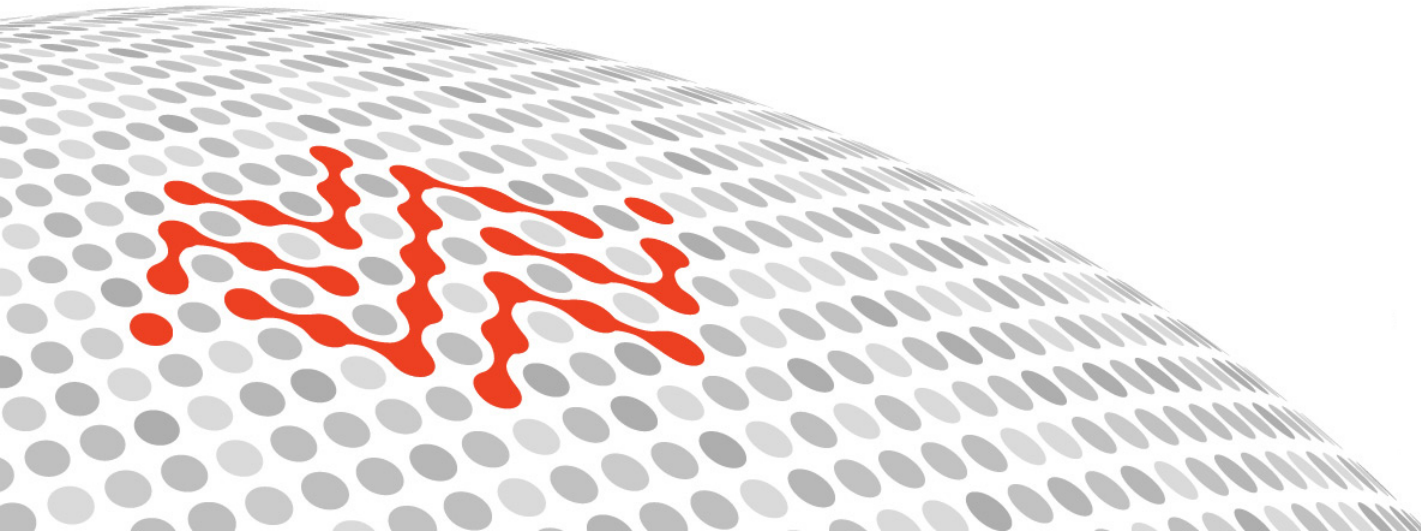
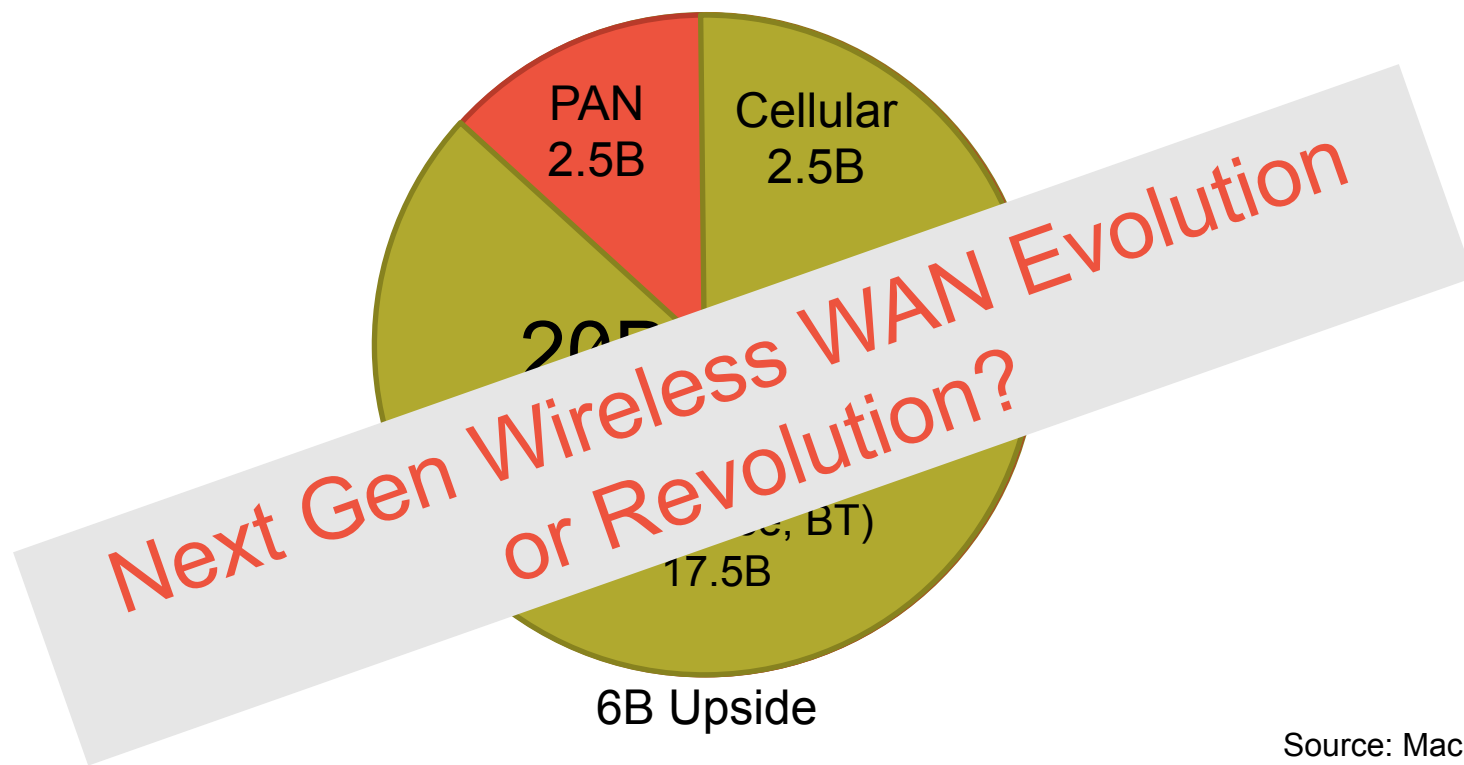
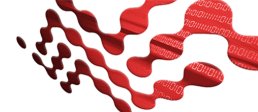


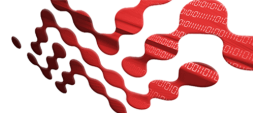
Wireless WAN for IoT

Philippe Guillemette, Chief Technology Officer

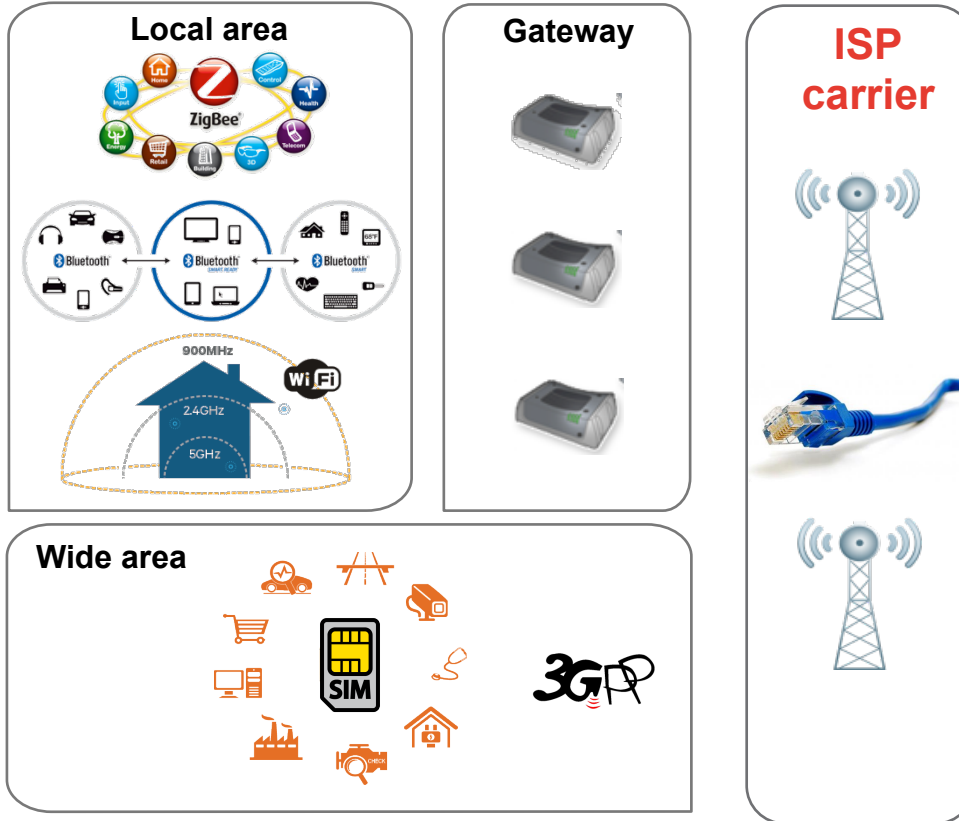




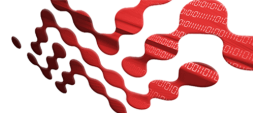
Network structure(s)



Sierra Wireless Developer Day 2014



Pros & Cons



Sierra Wireless Developer Day 2014

	Local area (PAN) + Gateway	Wide area (WAN)
Power consumption (5 years on AA)	Good to very good	Low to average
Ease of deployment	Low to very low	Very good
Security	Low	Very good
Total Cost	Good to average	Average to low (perception)
Mobility	Very low	Very good
Coverage	Worse	Better
Interoperability	Average to none	Very high
Speed	Very low to very high	Low to very high

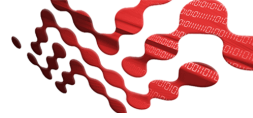


New Initiative : LTE-M

- Device cost
 - Reduce complexity : single antenna, half duplex
 - Low speed ~ 1 Mbps maximum
- Power consumption
 - Long sleep cycles → 100x battery life improvement
 - 5~10 years on simple battery
- Coverage
 - 15~20 dB coverage enhancement
 - Medium mobility preserved
- Goodies
 - Device-to-Device connectivity (like Mesh networks)
 - Deployment in unlicensed bands

Leverages existing networks

Alternatives - Long Range Low Power RF



Sierra Wireless Developer Day 2014

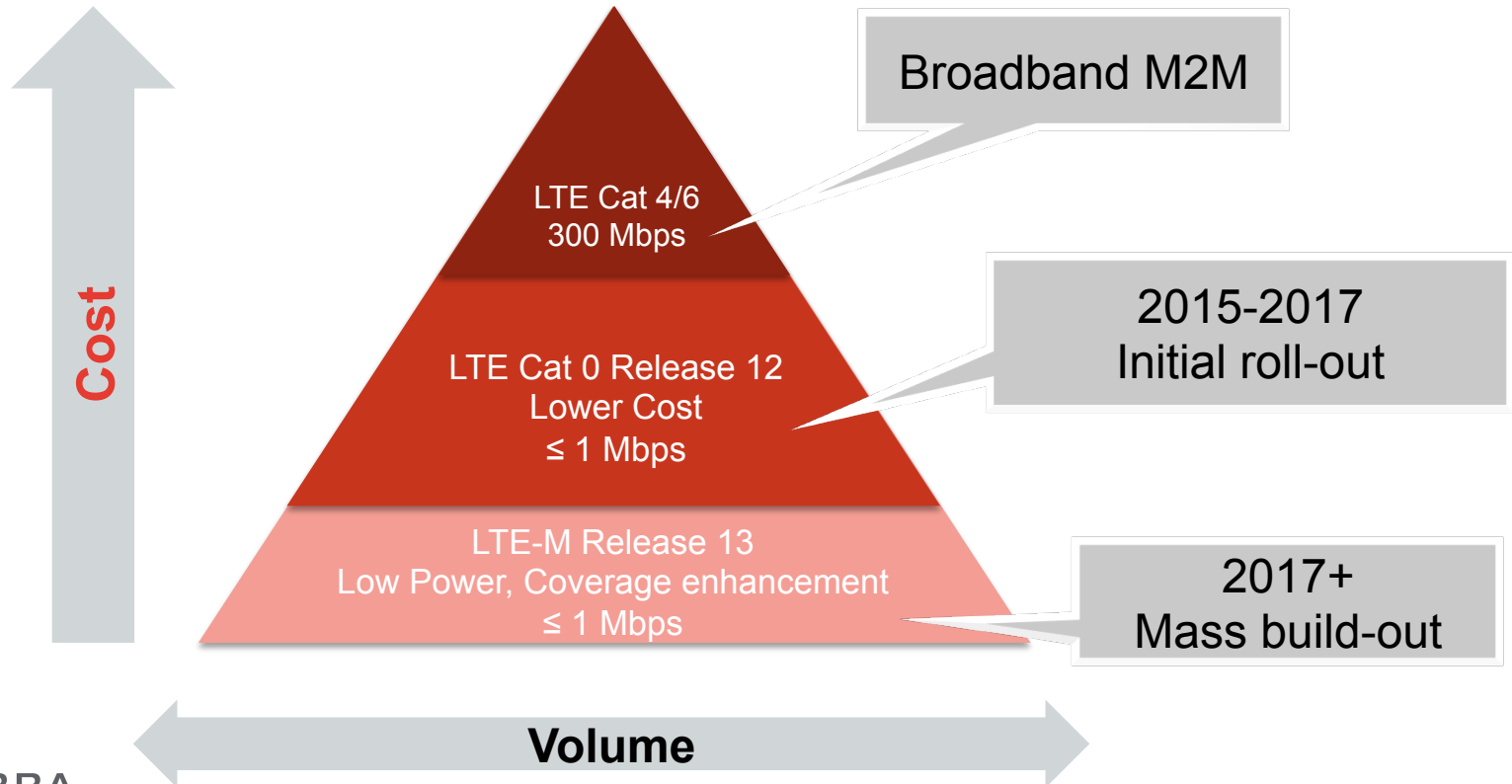


- Only work in unlicensed frequency band → more interference risks
- No leverage of existing network or chipset economy of scale
- Non standard, only proprietary today
- Not always bi-directional
- Can be very low rate
- Good for private suitable deployment
- Good for extreme power saving

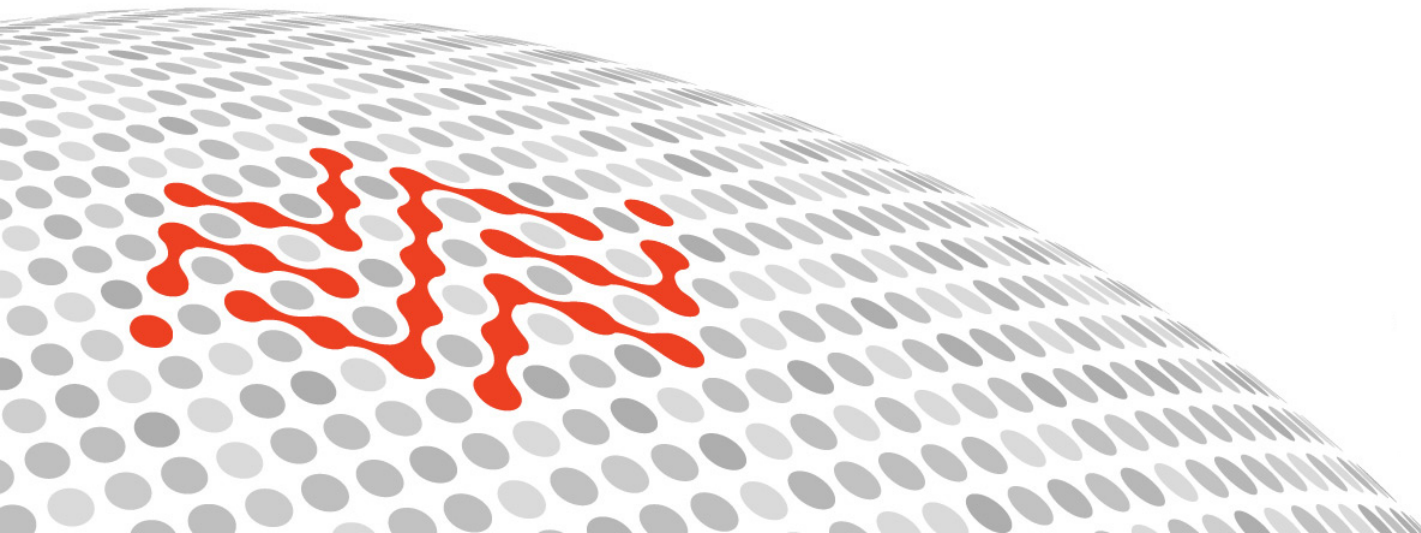
LTE-M Deployment



Sierra Wireless Developer Day 2014



Thank You



SIERRA
WIRELESS®