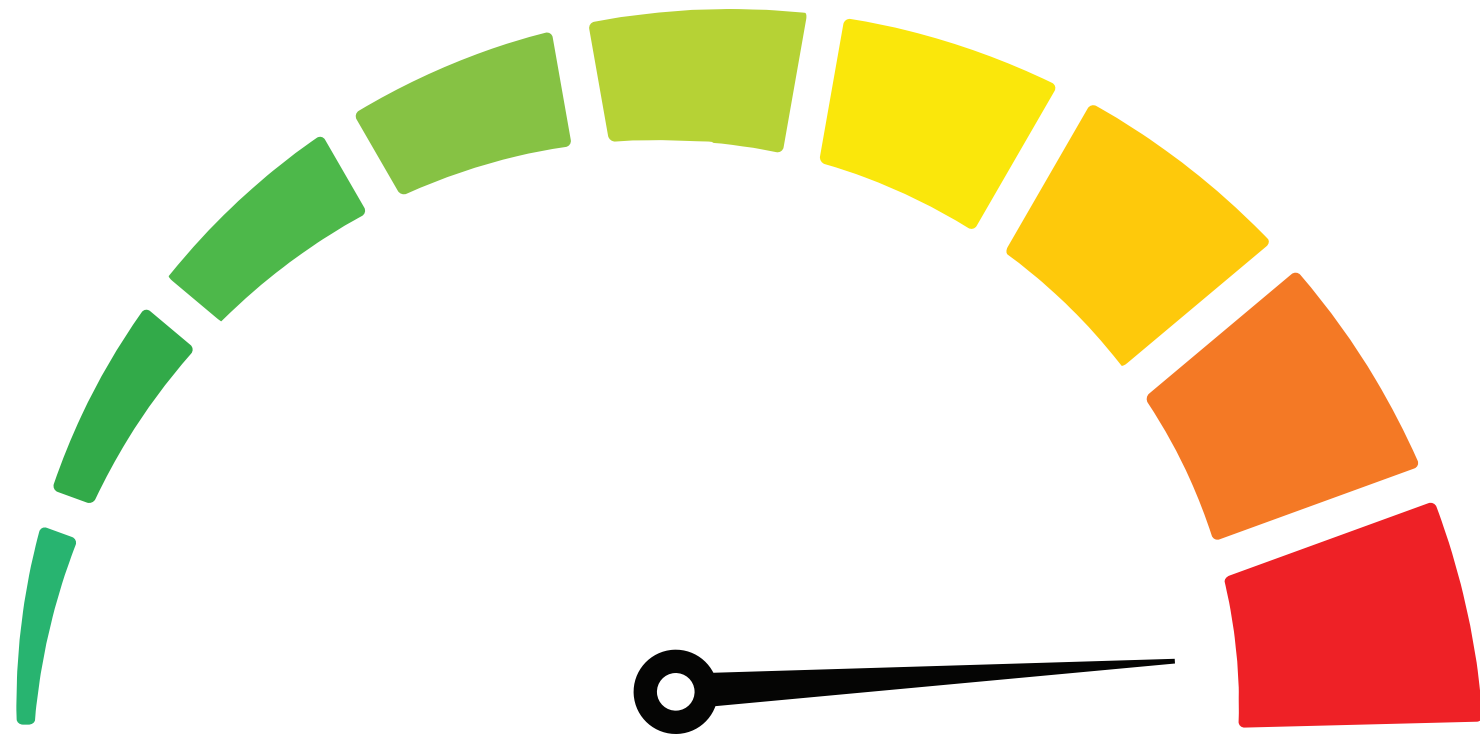




5G Reality Shock

Fulfilling 5G Expectations



5G Consumer Expectations

The promise of 5G services and devices have reached a level of marketplace Super-Hype. Through a steady bombardment of 5G marketing campaigns and mainstream media reporting, consumer expectations for 5G have been elevated to record-breaking levels.

- How can Mobile Operators deliver and profit on this monumental consumer promise?
- How can Mobile Operators differentiate their 5G network performance?
- How will the industry separate technology fact from fiction?
- How will marketing hype transition to 5G network reality?

5G network performance expectations will be achievable only when Mobile Operators embrace an innovative and modern, **BIG SOFTWARE** mindset to drive best in class network performance.

The 5G Reality Challenges



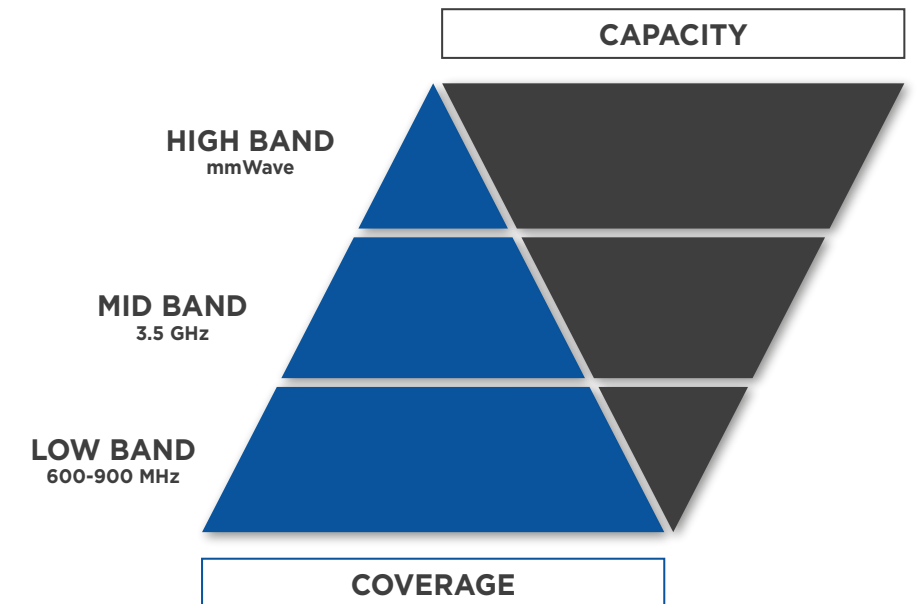
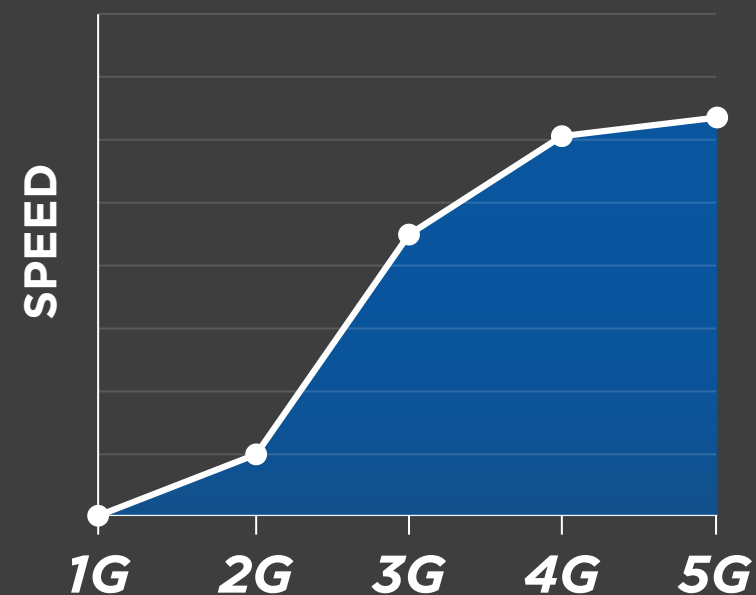
“I just spent \$1200 on my new smartphone, I can’t wait to try 5G!”

- Consumers will be keenly focused on their new 5G device performance – but it’s the network that will govern their experience
- 5G Smartphone = 8K video, super-fast, super cool, super different – consistently fast and snappy performance – the network has to keep up!
- With such a significant smartphone investment, consumers will be easily disappointed. Mobile Operators must diligently pursue every pathway to powerful network performance

The Technology Performance Curve has flattened

- Previous wireless technology “G” migrations provided significant data speed increases, consistently improving mobile broadband experience
- This is not true with the transition from 4G to 5G - they both provide 1.4 bps for every Hz of spectrum. They are *essentially the same*
- With no technological improvement between 4G and 5G it all comes down to spectrum – how much do we have and how far does it go?

TECHNOLOGY GAIN



FACT: Mid/Low band spectrum will provide the predominant 5G experience

- High frequency millimeter bands are up to 100MHz wide and provide super-fast 5G capacity, but mid/low band spectrum (less than 20MHz wide) is essential for 5G coverage
- Because mid/low band spectrum provides the predominant 5G experience, networks need new innovations to meet performance goals
- **With elevated expectations, a focus on performance in the mid/low band spectrum is critical for 5G network differentiation**

Supercharge Your 5G Network

5G network performance and service level differentiation mandates an innovation focus using mid/low band spectrum. Software innovation can enable ultra-high data speeds with massive mid/low band coverage that will augment hotspot millimeter wave deployments. Embracing software to drive next level 5G network performance in mid/low band spectrum is a foundational, strategic network imperative.

- Software that drives performance gains for consumers by removing inefficiencies in the network and maximizes spectral efficiency
- Software that is cloud-native, requires no radio OEM integration and can be deployed network wide in hours
- 5G applications that run 200% faster in the mid/low bands when accelerated using Opanga Networks portfolio of cloud-native RAN Optimization software products

Supercharge your mid/low band 5G network with a Big Software mindset and partner with Opanga Networks

**Speed up your Network
Slow down your CAPEX**

Learn more at:
www.opanga.com