

An Introduction to 5G

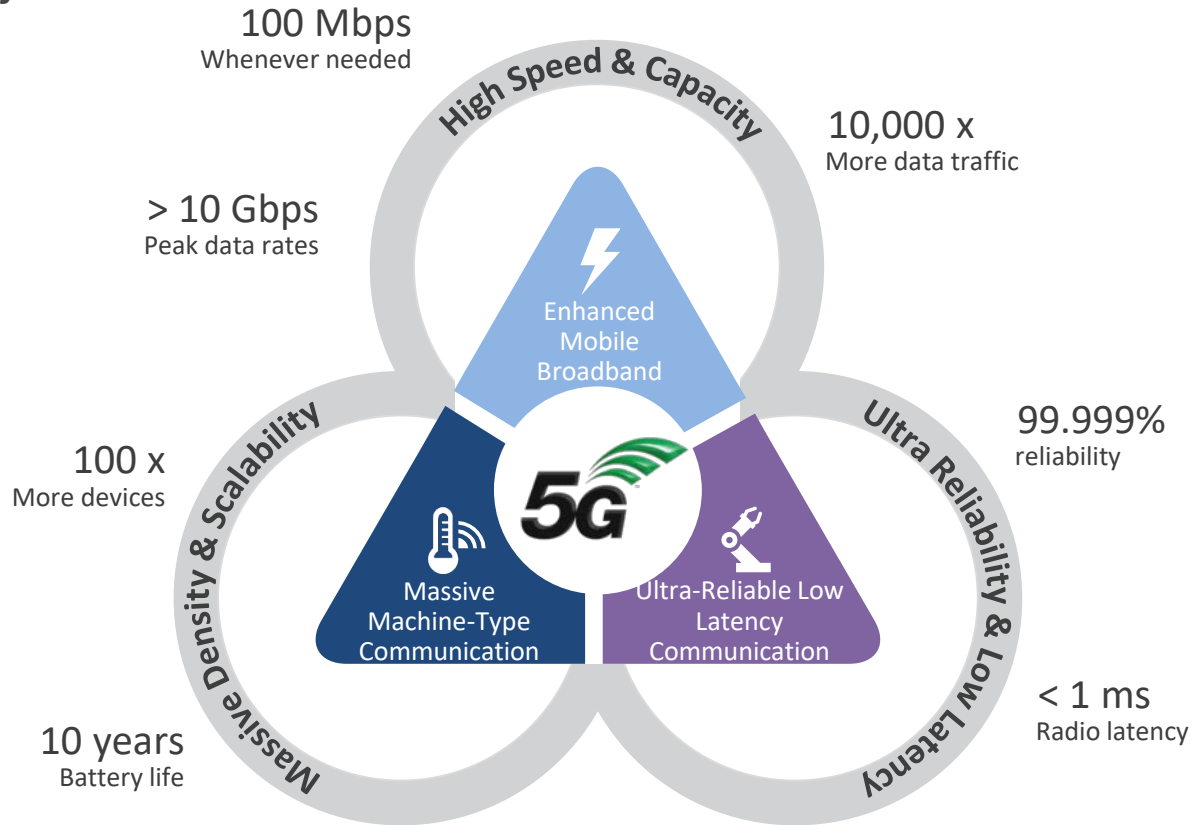
*Maine Technology Users Group
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Wireless communications has begun the transition to the next generation



The new capabilities that 5G delivers can be segmented into three categories

Key Attributes of 5G



Key Technical Advancements of 5G:



Higher frequency radio spectrum



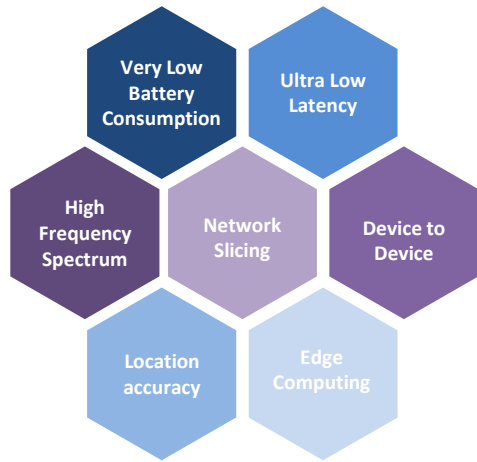
Network slicing



Mobile Edge Computing

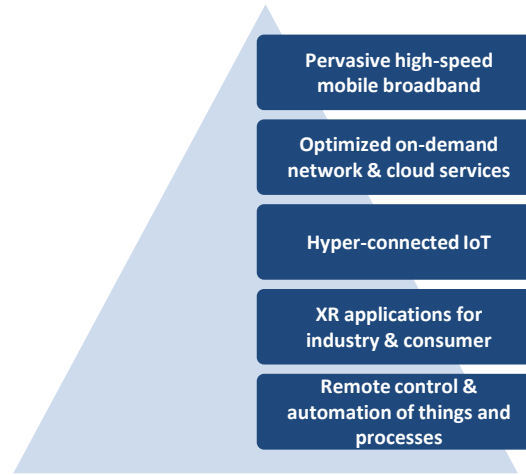
5G's technical characteristics will translate into improved experiences and facilitate entirely new use cases

What is 5G?



Technology

What's in it for me?



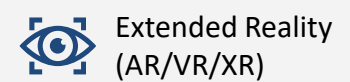
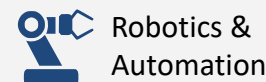
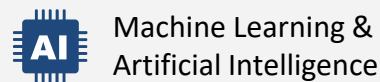
Benefits

What will it be used for?



Use Cases

Complementary Technologies to 5G:



5G's impact on society will be significant and varied

Select 5G Use Cases



Fixed Wireless Access

Extending broadband access to under- and poorly-served areas

- Fiber-like speeds in denser areas via mmWave spectrum
- Competition for cable incumbents virtually nationwide
- Commercial services – Fixed/WiFi replacement/ failover



Wireless Healthcare

Improving outcomes by enhancing access to care and information

- Patient-centered applications used outside of hospital environments
 - Wearables, Wireless Assisted Living
- In-hospital applications
 - Untethering, AR/VR, Remote surgery
- Access enhancers
 - Telehealth, Connected Ambulances, Doctor-in-backpack

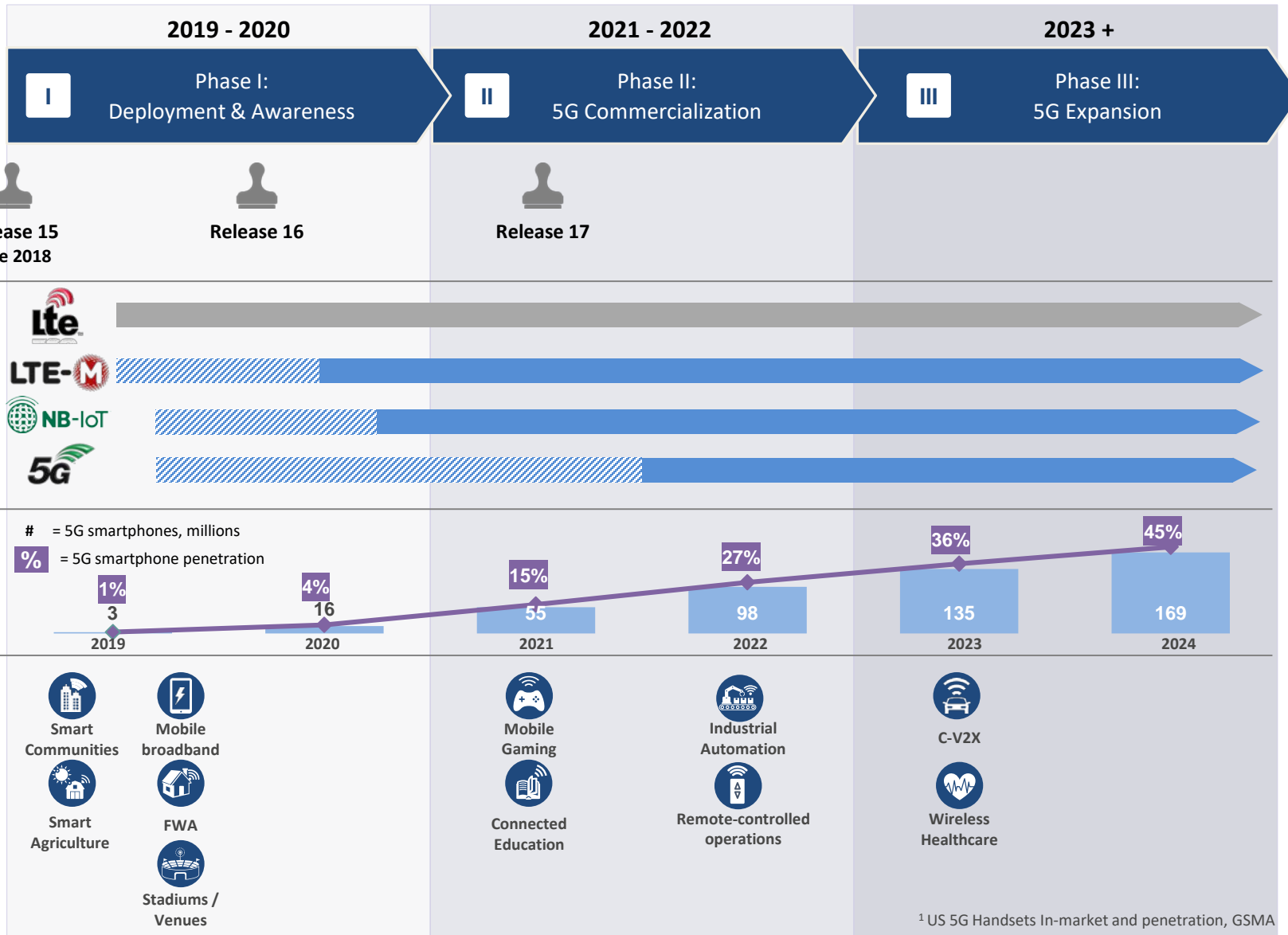


Connected Education

Extending access and improving learning

- Untethered operations
- Extend the classroom to new locations and remote users
 - Field study, multi-campus, remote attendance
- AR/VR to enhance learning experiences
 - Virtual tours, visual learning prompts

As with most new technology introductions, 5G will take time to develop



¹ US 5G Handsets In-market and penetration, GSMA

thank you

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