

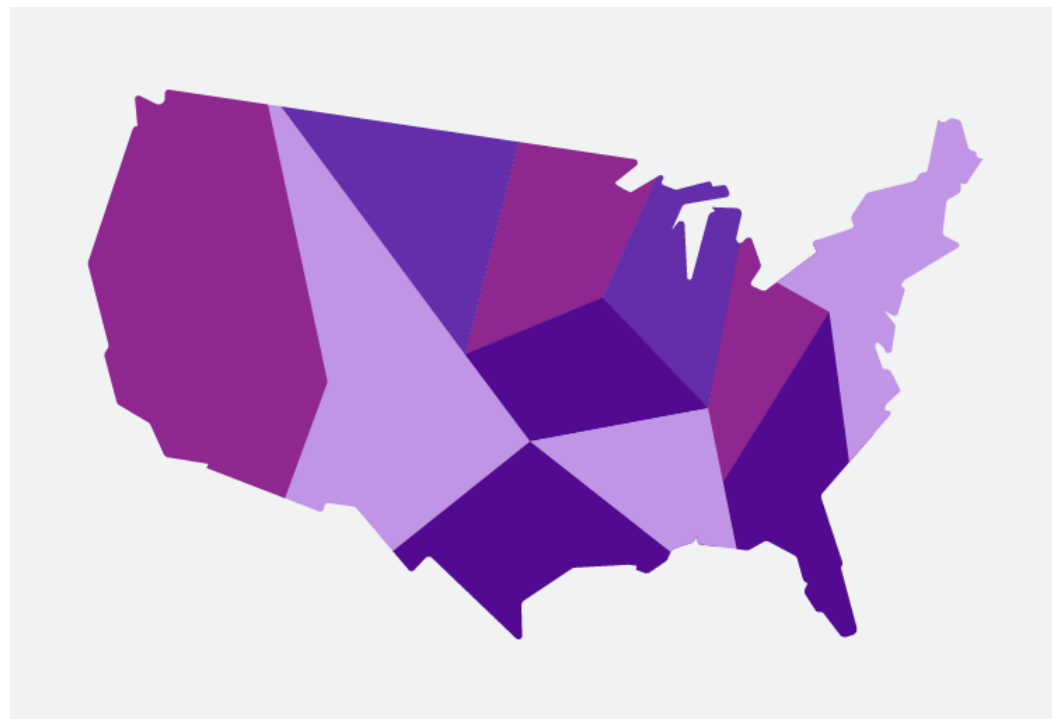
# Shared Wireless Communications Infrastructure 101

Tim Brown, Government Affairs Manager  
Du Le, Wireless Solutions Engineer

Presentation to the Glendale City Council

March 8<sup>th</sup>, 2022

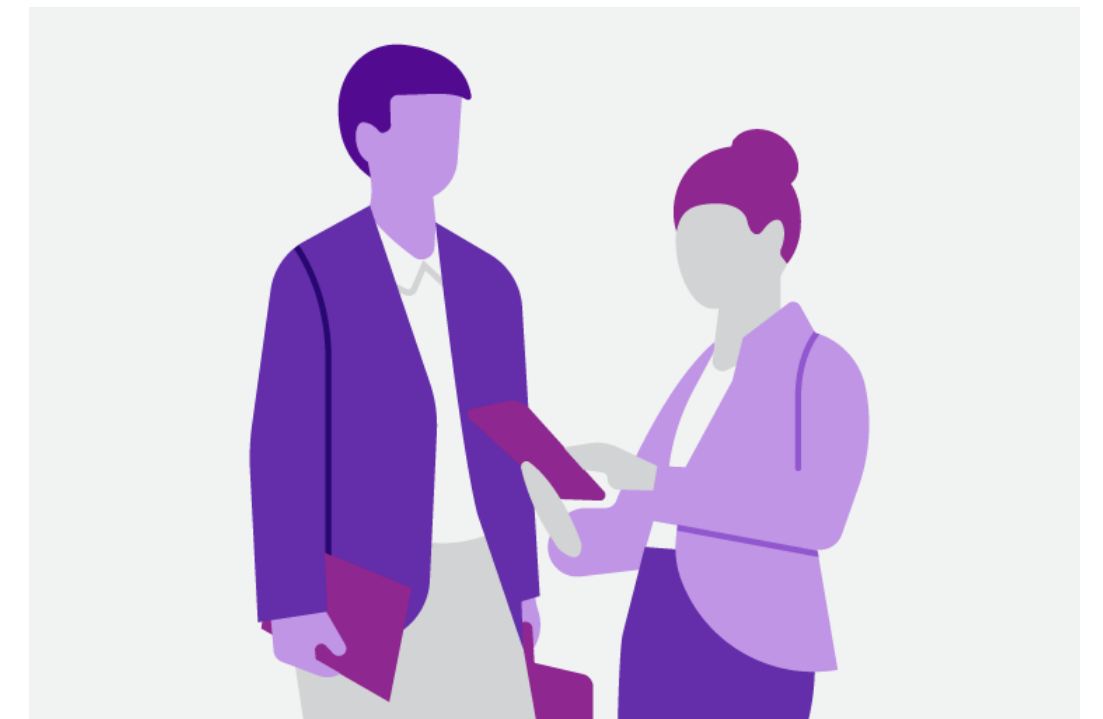
# Crown Castle is a stable and reliable partner that you can count on.



50+ offices  
around the country



Local service teams and  
24/7 Network Operations  
Center support



Long-standing relationships  
with local partners

# We enable the services that make life more convenient, enjoyable—and safe.

## Video

is projected to be 77% of mobile data traffic by 2020.<sup>2</sup>

50% of households rely exclusively on their mobile phones.<sup>1</sup>

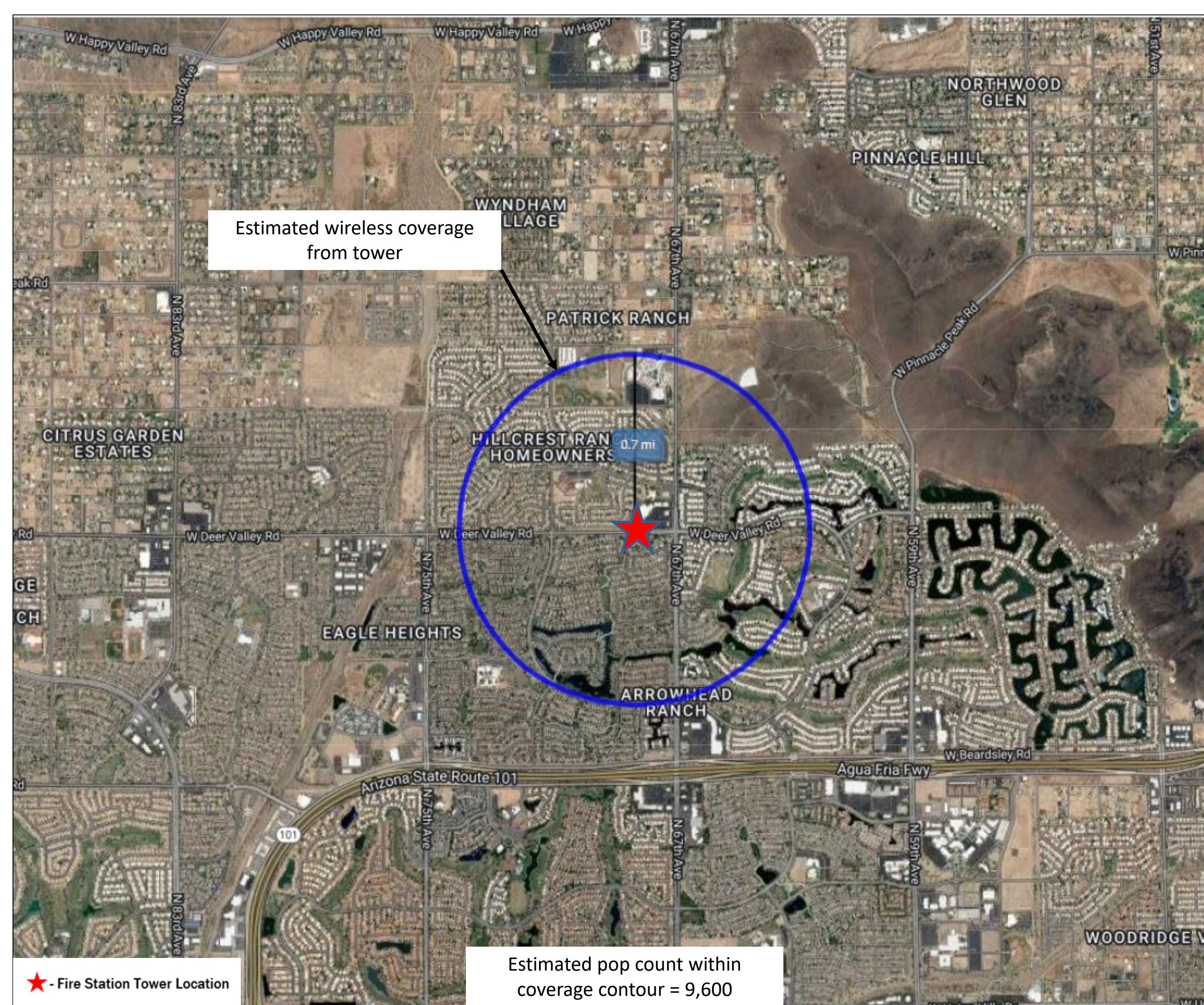
80% of 911 calls are placed from wireless phones.<sup>3</sup>



# Enables smarter, safer communities



Creating necessary coverage for keeping communities safe and connected.



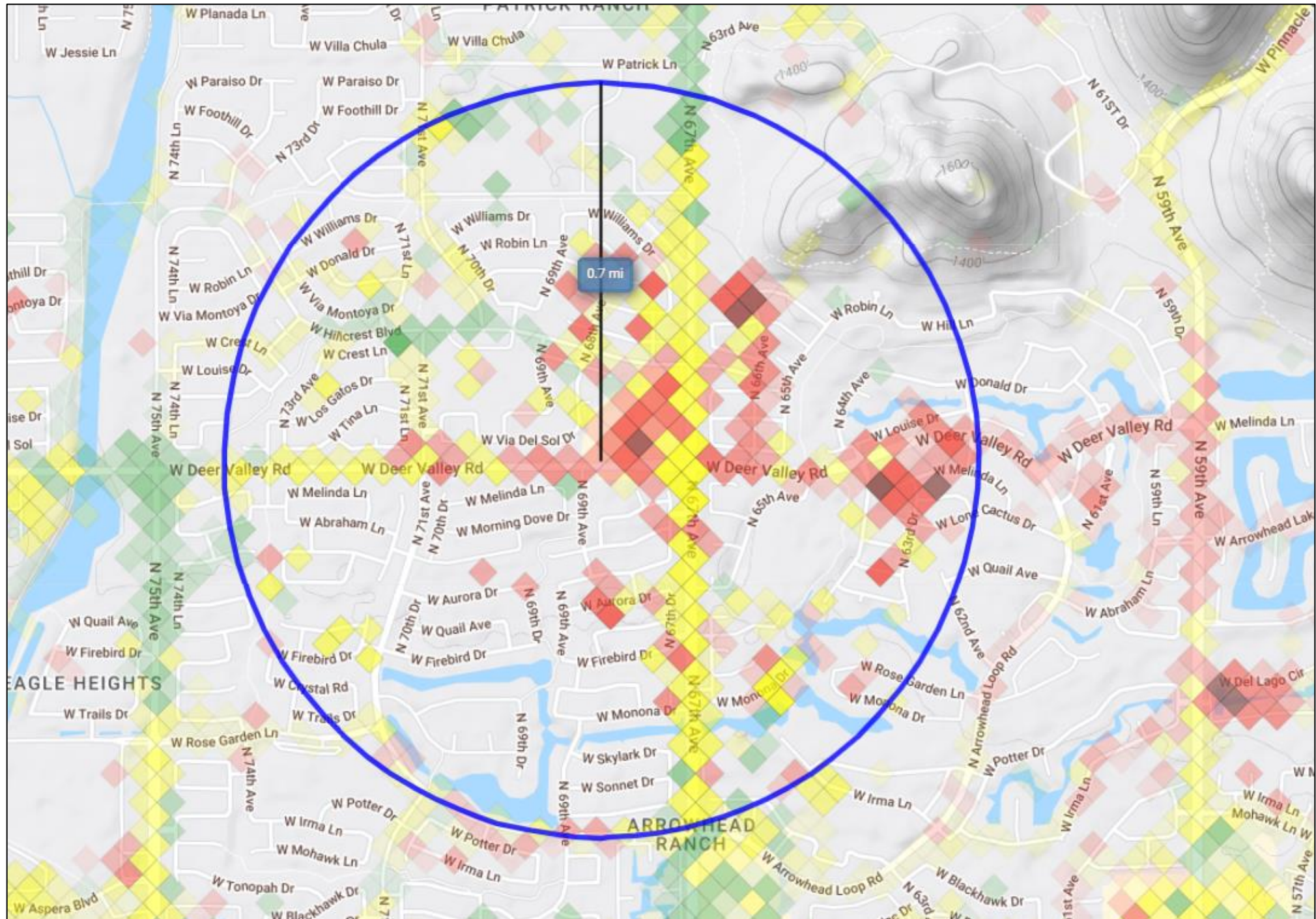
# Existing Coverage Comparison : How Will Wireless Service Be Impacted Without Tower?

**Carrier 1: Coverage**



RSRP	Ranges
>-90 dBm	Excellent (4 to Full Bars)
-90 to -105 dBm	Good (2 to 3 Bars)
<-105 dBm	Poor (0 to 1 Bar)
No Coverage	No Service

**Carrier 2: No Coverage**



RSRP	Ranges
>-90 dBm	Excellent (4 to Full Bars)
-90 to -105 dBm	Good (2 to 3 Bars)
<-105 dBm	Poor (0 to 1 Bar)
No Coverage	No Service

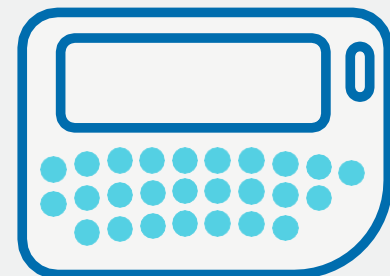
# Evolution of Wireless Service

## 5 generations of wireless service

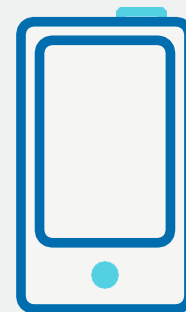
1G



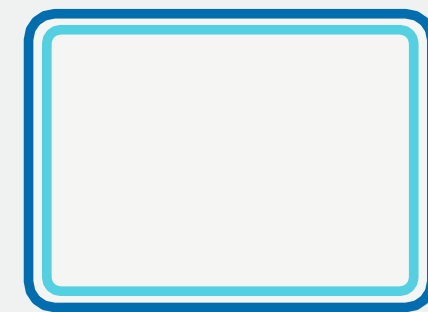
2G



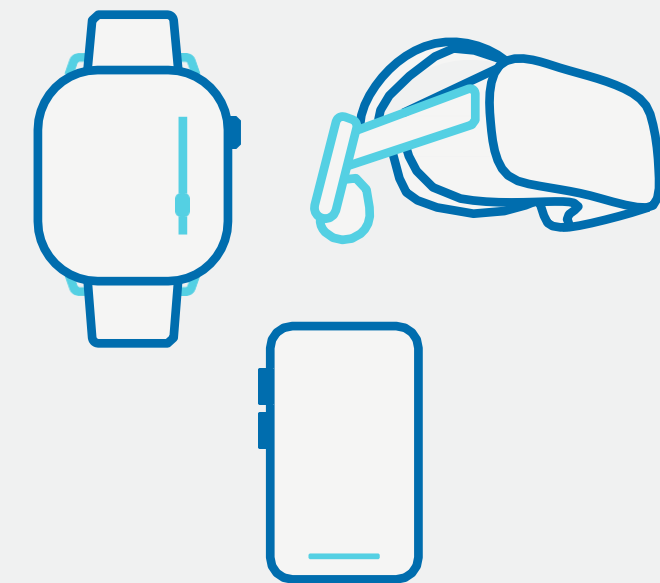
3G



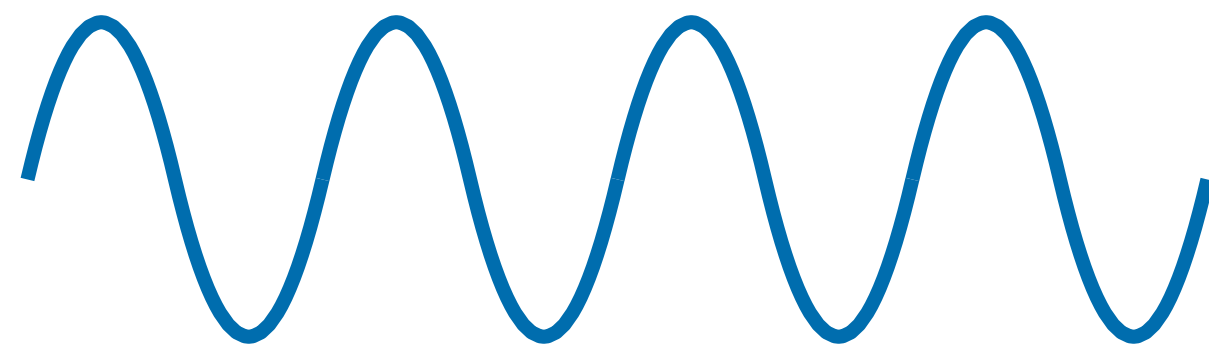
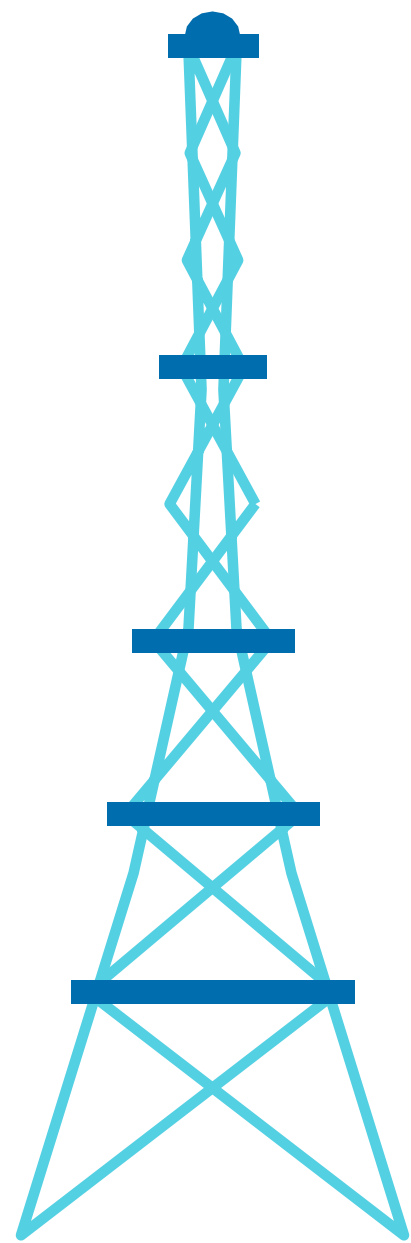
4G

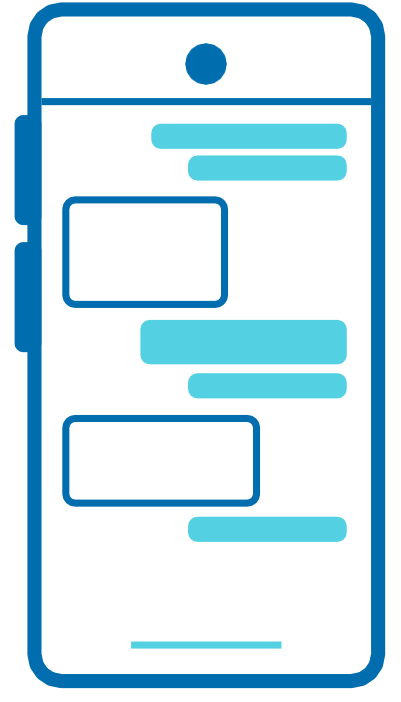
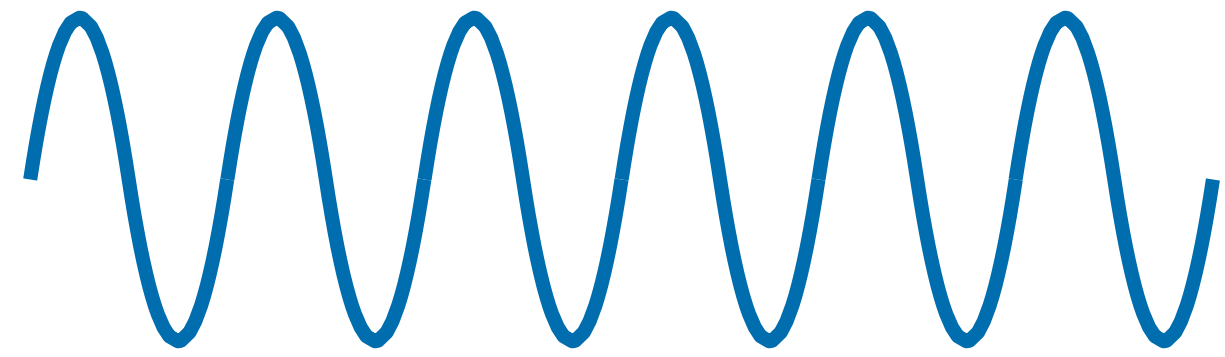


5G



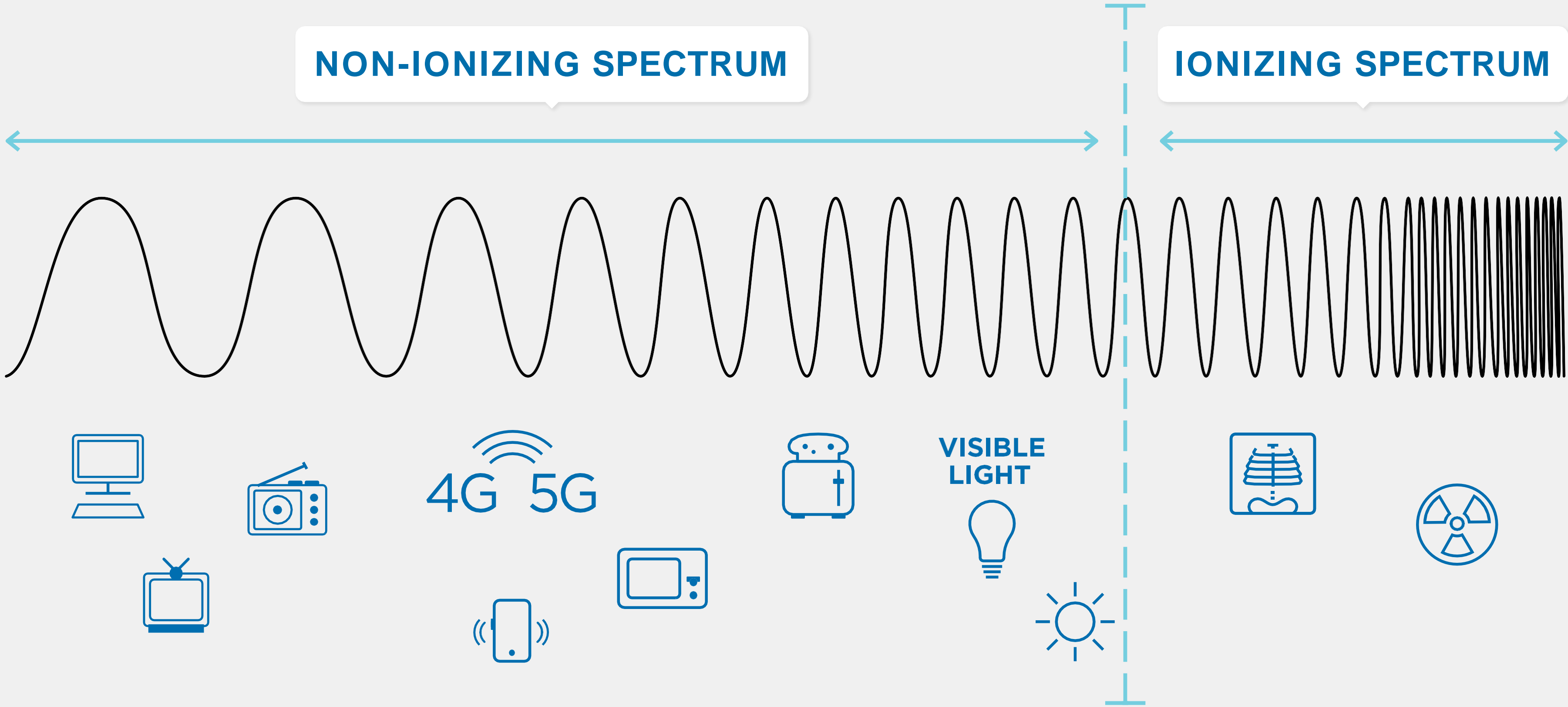
Electromagnetic energy:  
Radiant energy that travels  
in the form of a wave.





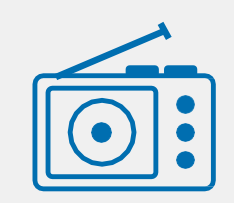
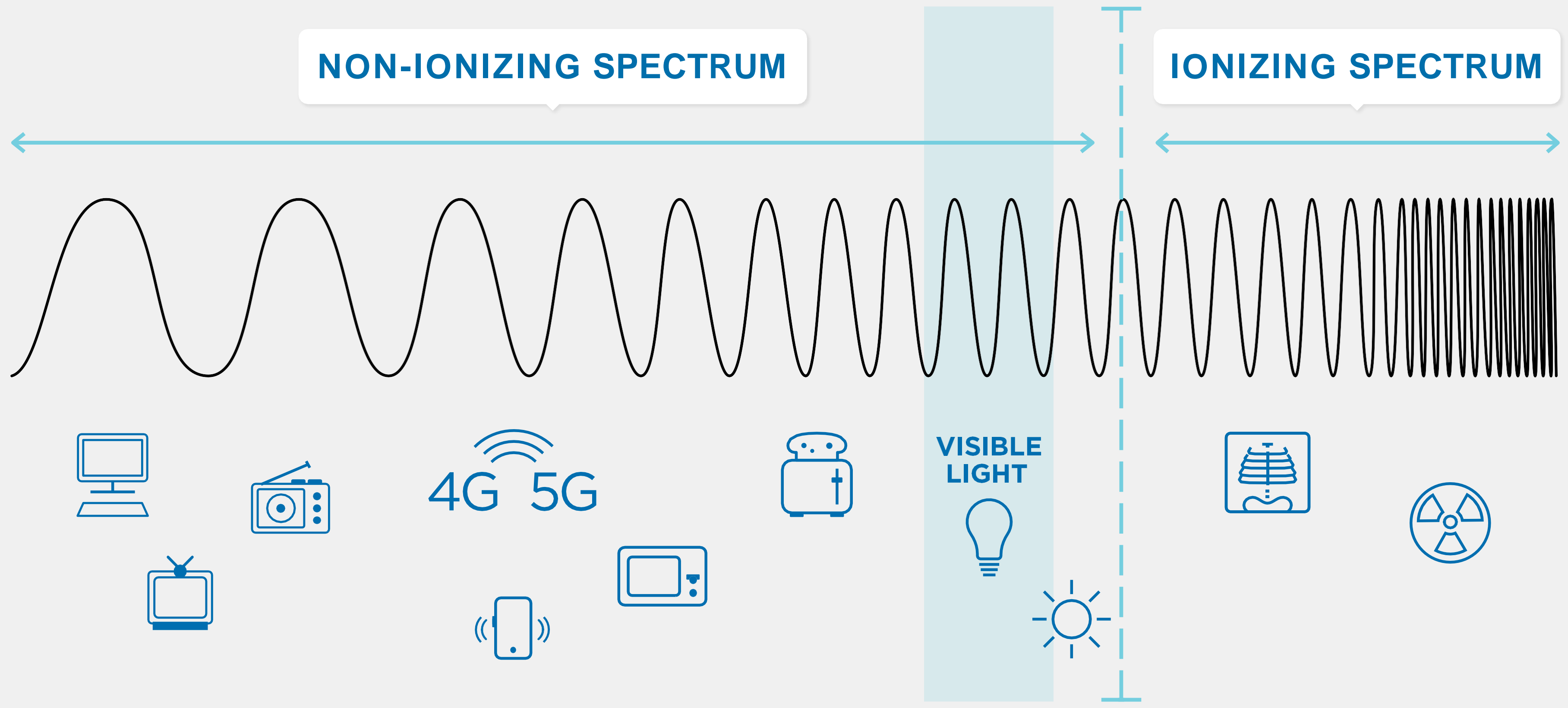
**NON-IONIZING SPECTRUM**

**IONIZING SPECTRUM**

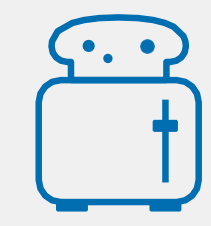


**NON-IONIZING SPECTRUM**

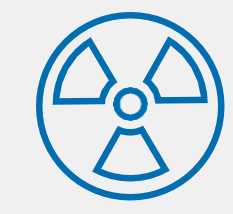
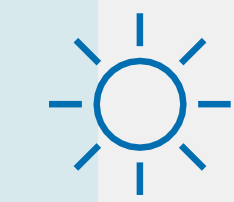
**IONIZING SPECTRUM**



4G 5G

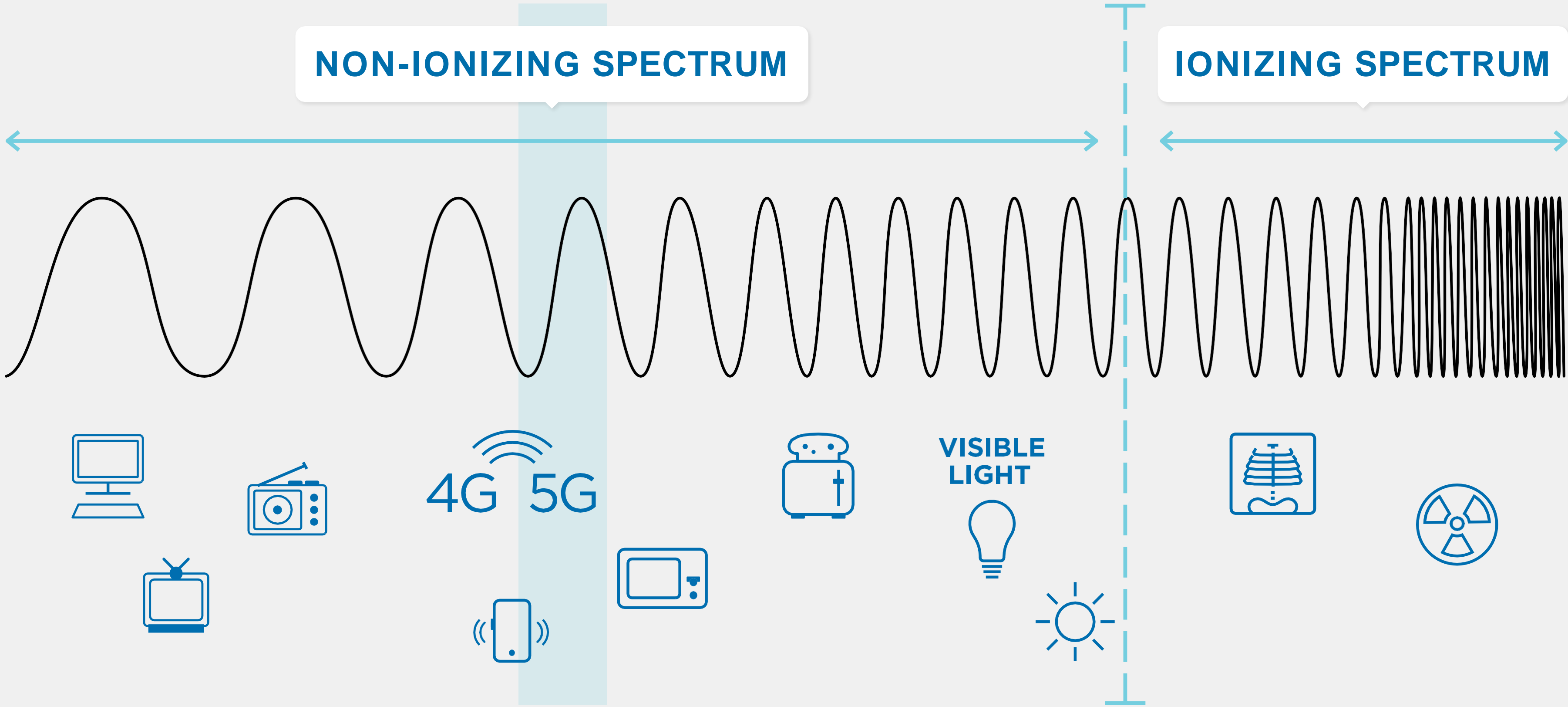


VISIBLE LIGHT



**NON-IONIZING SPECTRUM**

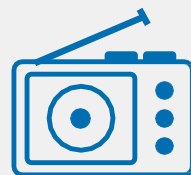
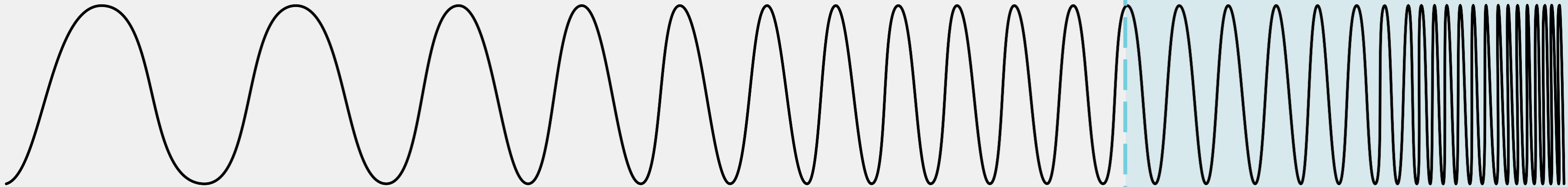
**IONIZING SPECTRUM**



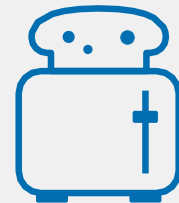
**VISIBLE LIGHT**

**NON-IONIZING SPECTRUM**

**IONIZING SPECTRUM**



4G 5G

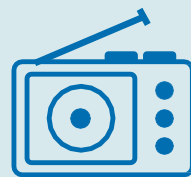
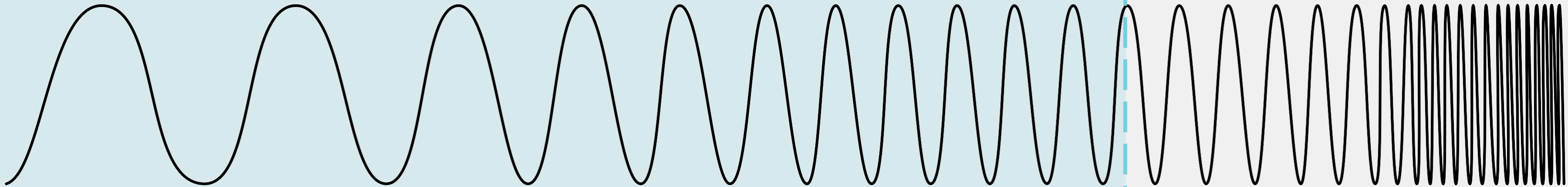


VISIBLE LIGHT



**NON-IONIZING SPECTRUM**

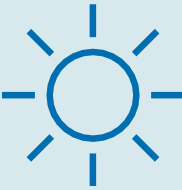
**IONIZING SPECTRUM**



4G 5G



VISIBLE LIGHT



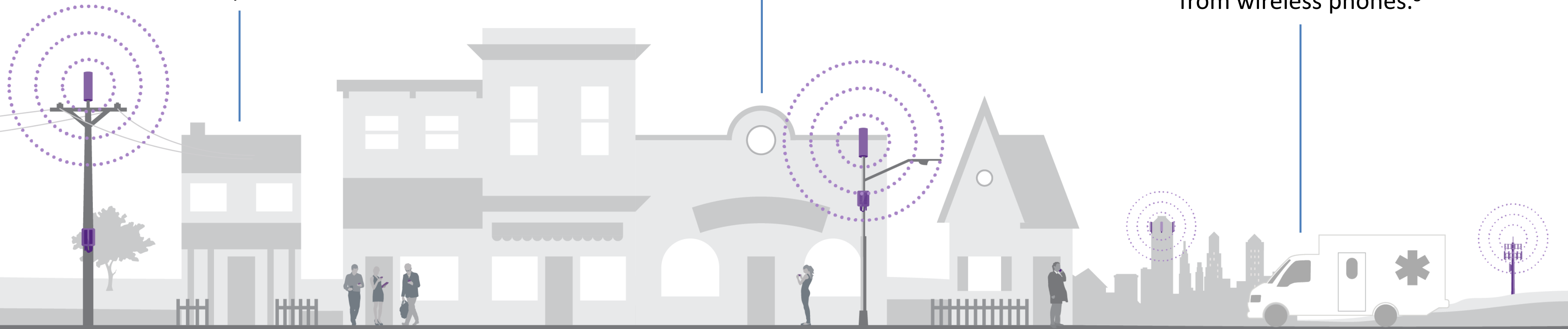
# We enable the services that make life more convenient, enjoyable—and safe.

## Video

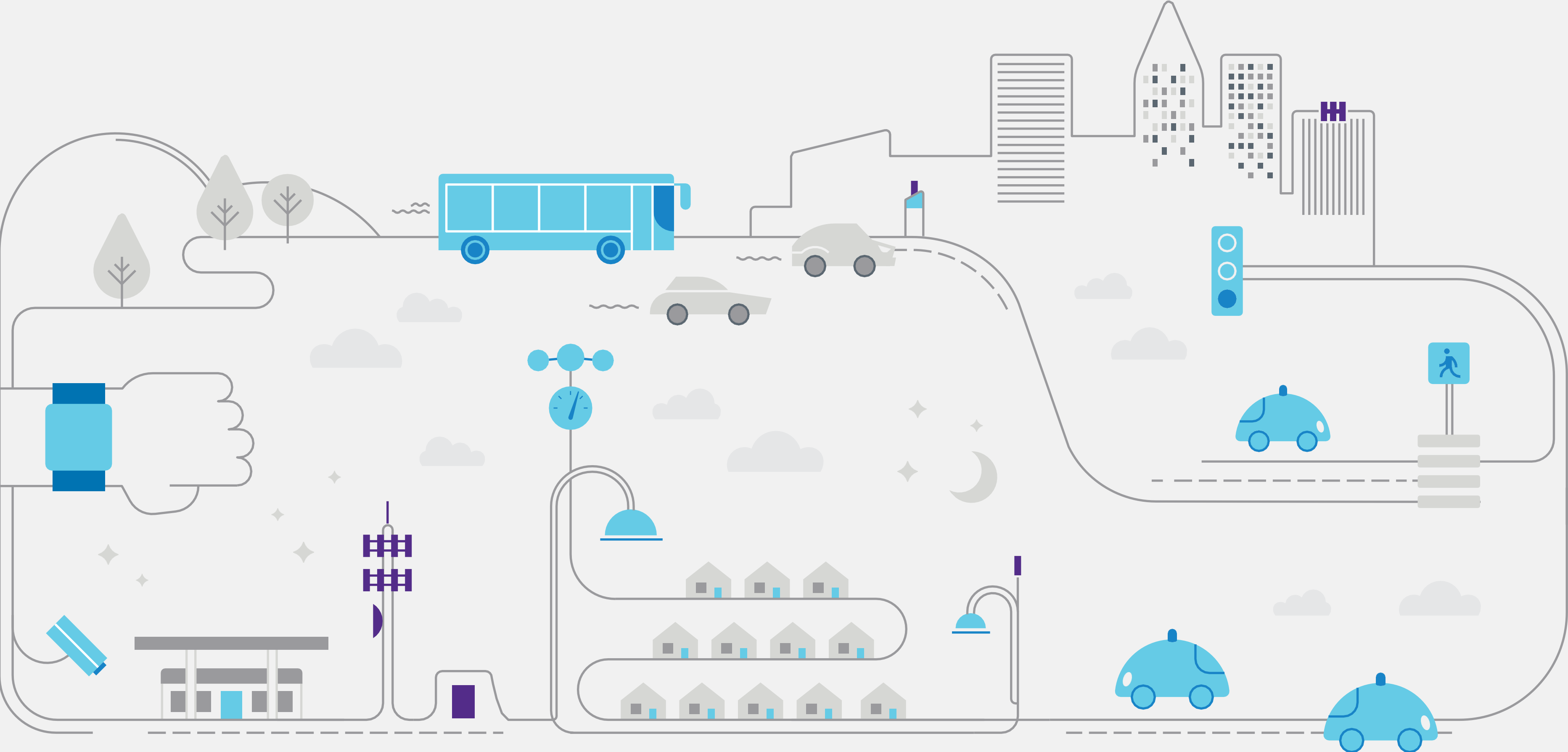
is projected to be 77%  
of mobile data traffic  
by 2020.<sup>2</sup>

**50%**  
of households rely  
exclusively on their  
mobile phones.<sup>1</sup>

**80%**  
of 911 calls are placed  
from wireless phones.<sup>3</sup>



# Enables smarter, safer communities



Thank you.