

# What's the Buzz About Cellular 5G?

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# Evolution of wireless technology



**1G**

- Analog voice


1989



**2G**

- Text messaging
- Digital voice


1996



**3G**

- Data
- Mobile Email
- Smart Phones
- M2M


2002



**4G<sup>LTE</sup>**

- High speed data
- LTE Advanced
- LPWAN
- Internet of Things (IoT)

2010

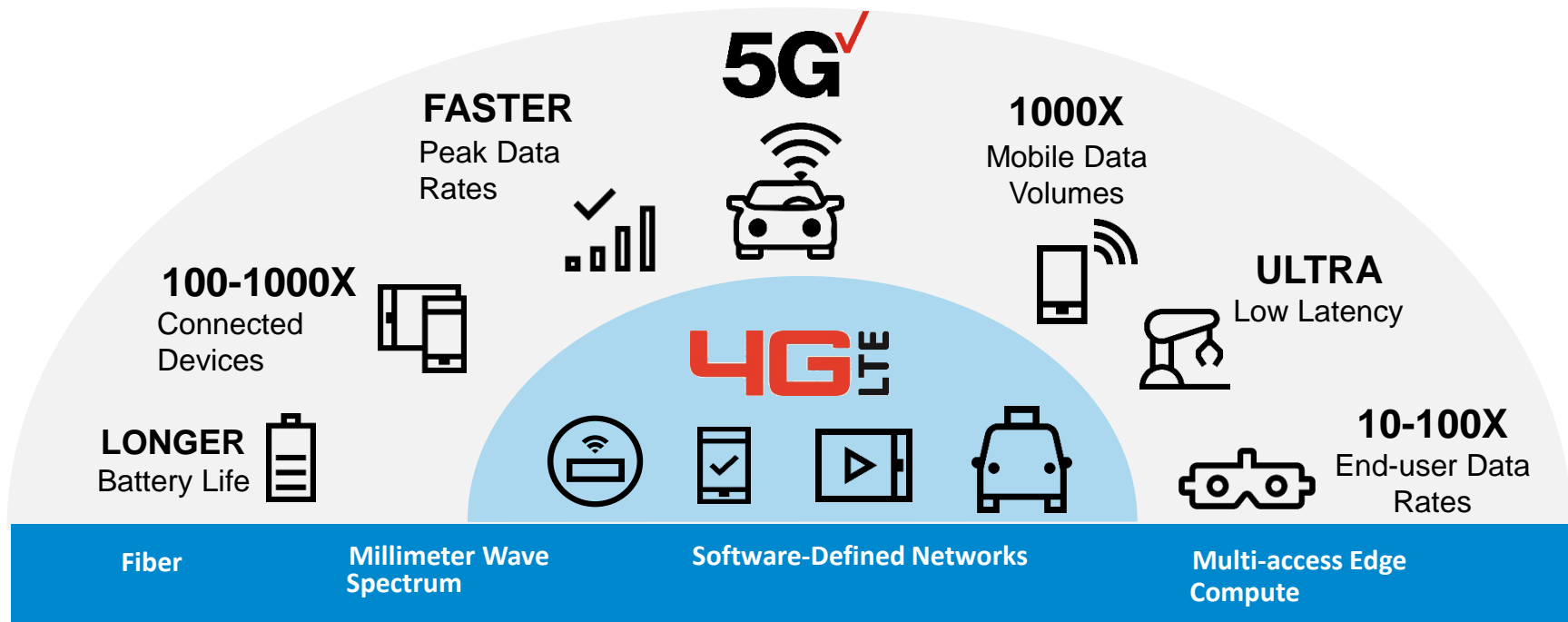


**5G<sup>✓</sup>**

- Ultra-low latency
- Ultra broadband
- Massive IoT scale
- Edge computing

2018

# Forward-compatible 4G networks complement 5G

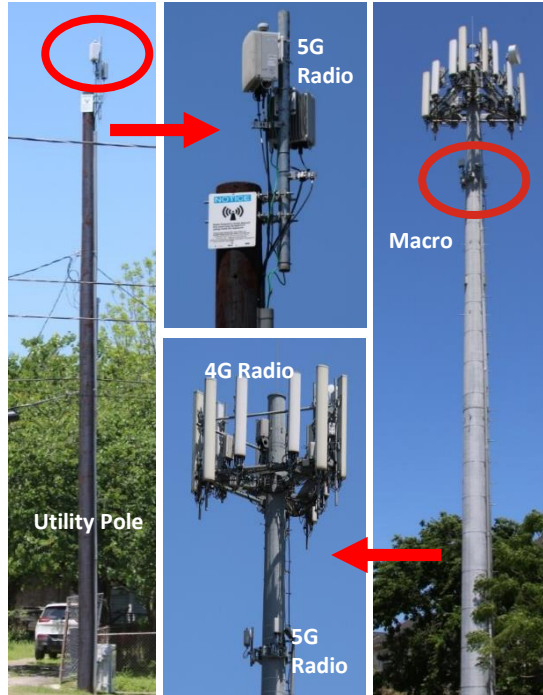


# 5G build strategy and site installations

Sacramento (Utility & Light Pole)



Indy (Utility & Macro)



Houston (Utility)



LA (Light Pole)



# Cellular 4G Adoption Growing - AMI Deployments



## Modernizing your grid is simpler than you think.

Grid Wide Utility Solutions  
customer use cases



### Dakota Valley rural coverage solution

Dakota Valley Electric Cooperative is a public utility cooperative based in Milhor and Edgely, North Dakota. Dakota Valley Electric Cooperative is one of 17 distribution cooperatives in North Dakota. It serves 6,000 members on 4,700 miles from the Minnesota border to South Dakota. Dakota Valley was keen on finding a smart metering solution that provided complete coverage in its service territory. It further wanted the ability to receive 100 percent of all reads and data from its meters. Other requirements included the ability to monitor power quality at the meter to better manage its distribution as well as provide back-office integration with its National Information Solutions Cooperative (INSC) billing and outage management systems (OMS).

After a successful pilot that met all of its advanced metering infrastructure (AMI) requirements, Dakota Valley chose Verizon Grid Wide Utility Solutions for both its residential and commercial meters. It is now in full deployment of 9,000 meters throughout its territory.


### Peninsula Light improves prepaid operations

Peninsula Light Co. is a member-owned electric cooperative located in Gig Harbor, Washington, serving the Gig Harbor, Key Peninsula and Fox Island areas in western Pierce County. The utility has grown to be the second largest cooperative in the Northwest, serving over 20,000 meters with 977 miles of line and 112 square miles of service territory.

Peninsula Light's prepaid program was challenged with reliability issues associated with power line carrier limitations, speed and inconsistencies. It was unable to reliably and consistently execute remote connects and disconnects. Verifications and notifications were slow and sometimes non-existent. These challenges resulted in increased calls to customer care, increased truck rolls and a general lack of trust in the power line carrier system.

After a successful demonstration of Verizon's reliability, speed and verification/notification capabilities for remote disconnect/reconnect, Peninsula Light chose Verizon Grid Wide Utility Solutions as its new platform for its prepaid program. Grid Wide proved to be fast and efficient in delivering "Last Gasps" and service restoration notifications.

Peninsula Light now has a fully functional Smart Metering Platform as a Service (PaaS) in which to build on across its entire service territory. Peninsula Light will be able to rapidly expand its prepaid offering because Grid Wide doesn't require building a new communications infrastructure, adding additional equipment to its data center or substations, or installing additional software.






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