

# 5G: The Present and Future

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# DISCUSSION OUTLINE

1. What is 5G
2. Promises of 5G
3. Fiber to the Home vs 5G
4. Fiber for 5G
5. Q and A



# What were the previous generations?

- 1G, the first generation of telecom networks (1979), lets us talk to each other and be mobile
- 2G digital networks (1991) let us send messages and travel (with roaming services)
- 2.5G and 2.75G brought some improvement to data services (GPRS and EDGE)
- 3G (1998) brought a better mobile internet experience (with limited success)
- 3.5G brought a truly mobile internet experience, unleashing the mobile apps eco-system
- 4G (2008) networks brought all-IP services (Voice and Data), a fast broadband internet experience, with unified networks architectures and protocols
- 4G [LTE](#) ( for Long Term Evolution), starting in 2009, doubled data speeds
- 5G networks expand broadband wireless services beyond mobile internet to IoT and critical communications segments

# What does 5G Promise?

- 5G is the name of the 5<sup>th</sup> Generation of mobile networks
- 5G promises speed improvement, the technology is expected to unleash a IoT (Internet of Things) ecosystem where networks can serve communication needs for billions of connected devices, with trade-offs between speed, latency, and cost.



# 5G Promises

- 1-millisecond latency
- 1000x bandwidth per unit area
- Up to 100x number of connected devices per unit area (compared with 4G LTE)
- 99.999% availability
- 100% coverage
- 90% reduction in network energy usage
- Up to 10-year battery life for low power IoT device

**THESE ARE ALL PROMISES MADE BY MARKETERS – THE REALITY WILL BE DIFFERENT!!**

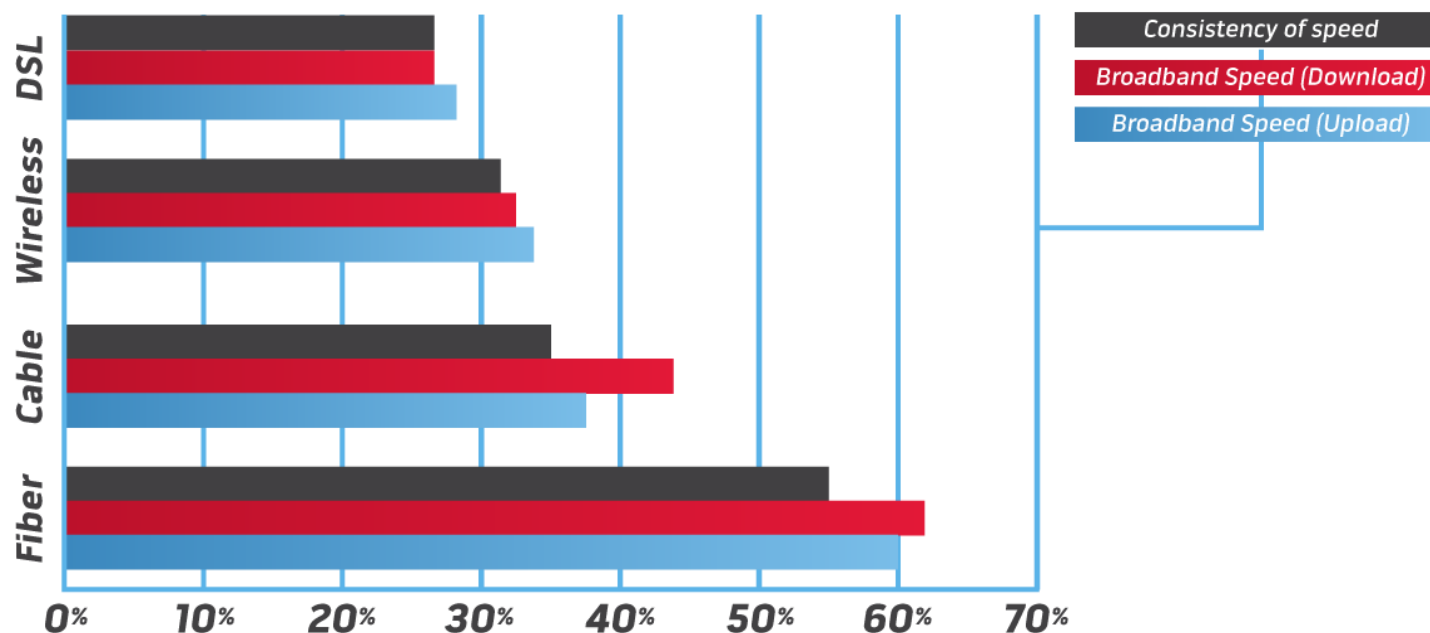
# Fiber to the Home vs 5G

## Fiber to the Home

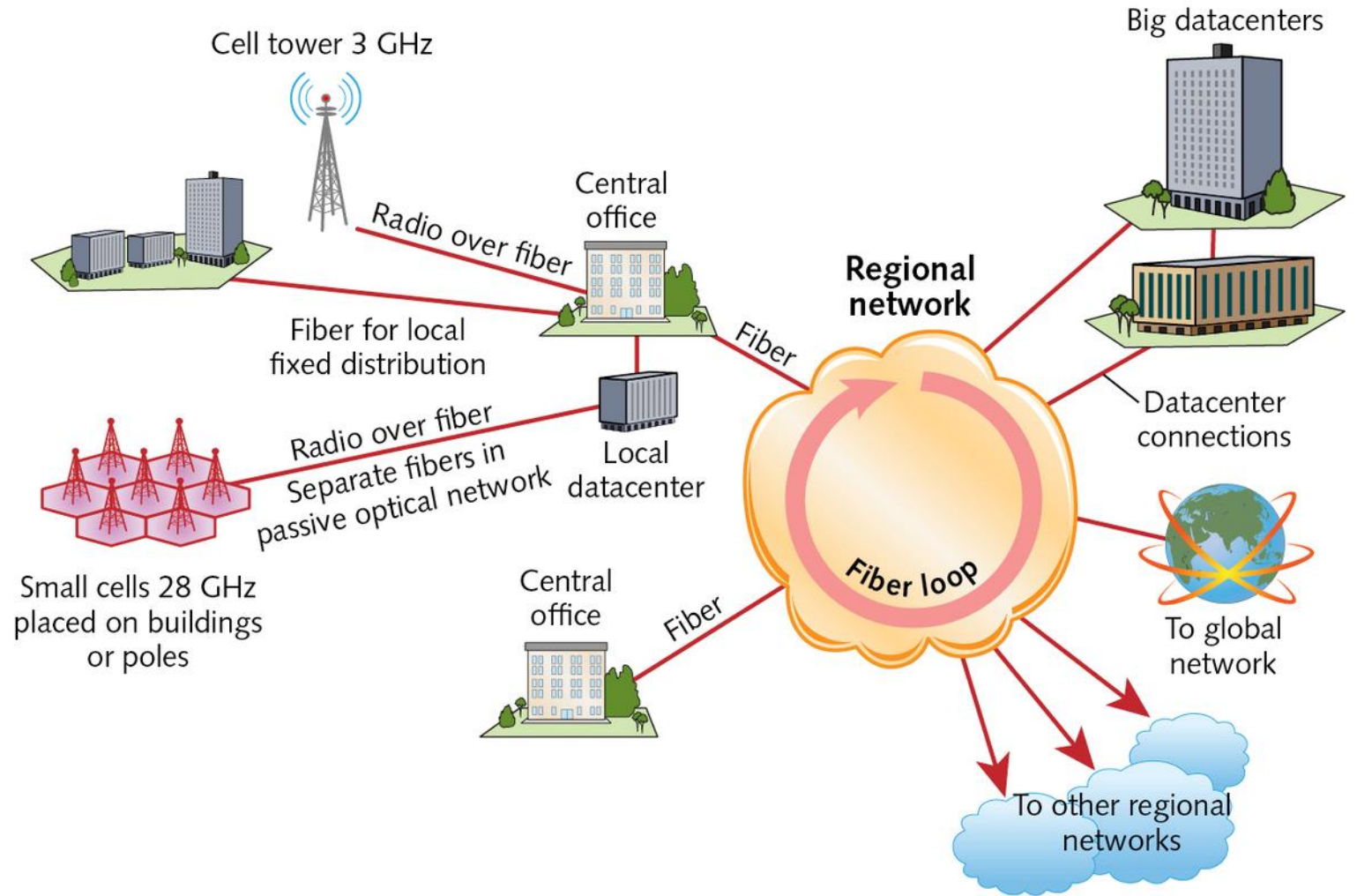
- Hargray offers the ‘gold standard’ of Internet service delivery – FTTH, FTTP
- Less than 15% of American cities have access to FTTH, FTTP
- Most reliable and fastest service – highest customer satisfaction
- By operating a fiber network Hargray delivers “The Fastest Internet in Town” for our customers

### Customer Satisfaction with Internet service

Percentage “very satisfied” with aspects of data



# Fiber for 5G



# Q and A



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