

# 5G Applications and Role Of Satellites

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**Technology industry and customers are transforming..**





**1982**



**2020**

## Fifth generation

Enhanced  
mobile  
broadband



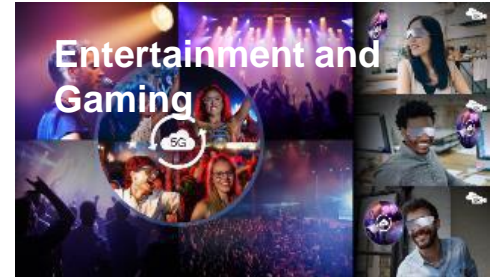
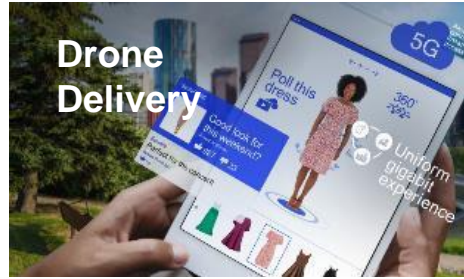
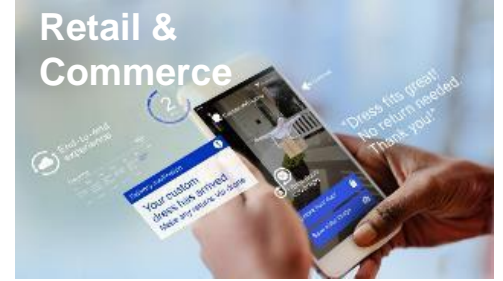
# 5G



Massive  
Internet of  
Things (IoT)



Mission-  
critical  
services



# 4.1B

The number of cellular IoT connections is expected to reach 4.1 billion in 2024.



# 10.8 PERCENT

Global 5G CAPEX and R&D is up 10.8% from last year's forecast to \$265B annually over the next 15 years.



# 13.1 TRILLION

The growth trajectory of sales enabled by 5G reaches \$13.1T in 2035

# \$40.75B

The global industrial robotics market value is expected to reach \$40.75 billion by 2024.



# 22.8 MILLION

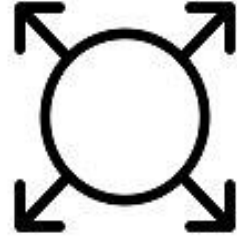
5G-enabled job growth is forecasted to be greater than previously expected - up from 22.3 to 22.8M over the next 15 years.



**Latency**



**Cost**



**Capacity**

# Enhanced Mobile Broadband (eMBB)

**5G to Premises**

**5G Fixed Backhaul**

**5G Mobility Backhaul**





# Mission Critical Services (Low-Latency Communications)

Latency tolerant

Latency critical



Source: Qualcomm

# Massive Machine-Type Communications (mMTC)

Backhauling IOT data

Real-time connectivity



# 5G as a Network of Networks

**Network function visualization (NFV)**

**Software defined networks (SDN)**

**E2E service management & orchestration  
(MANO)**



**Thank You**