

The 5G impact on Manufacturing

Presented

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Connected World Series
Space + Terrestrial
The 5G Journey



The Digital Era is ushering in the Intelligence Era



4th Industrial Revolution

New business models
and revenue streams



Pervasive computing

Improved customer
experiences



Artificial Intelligence

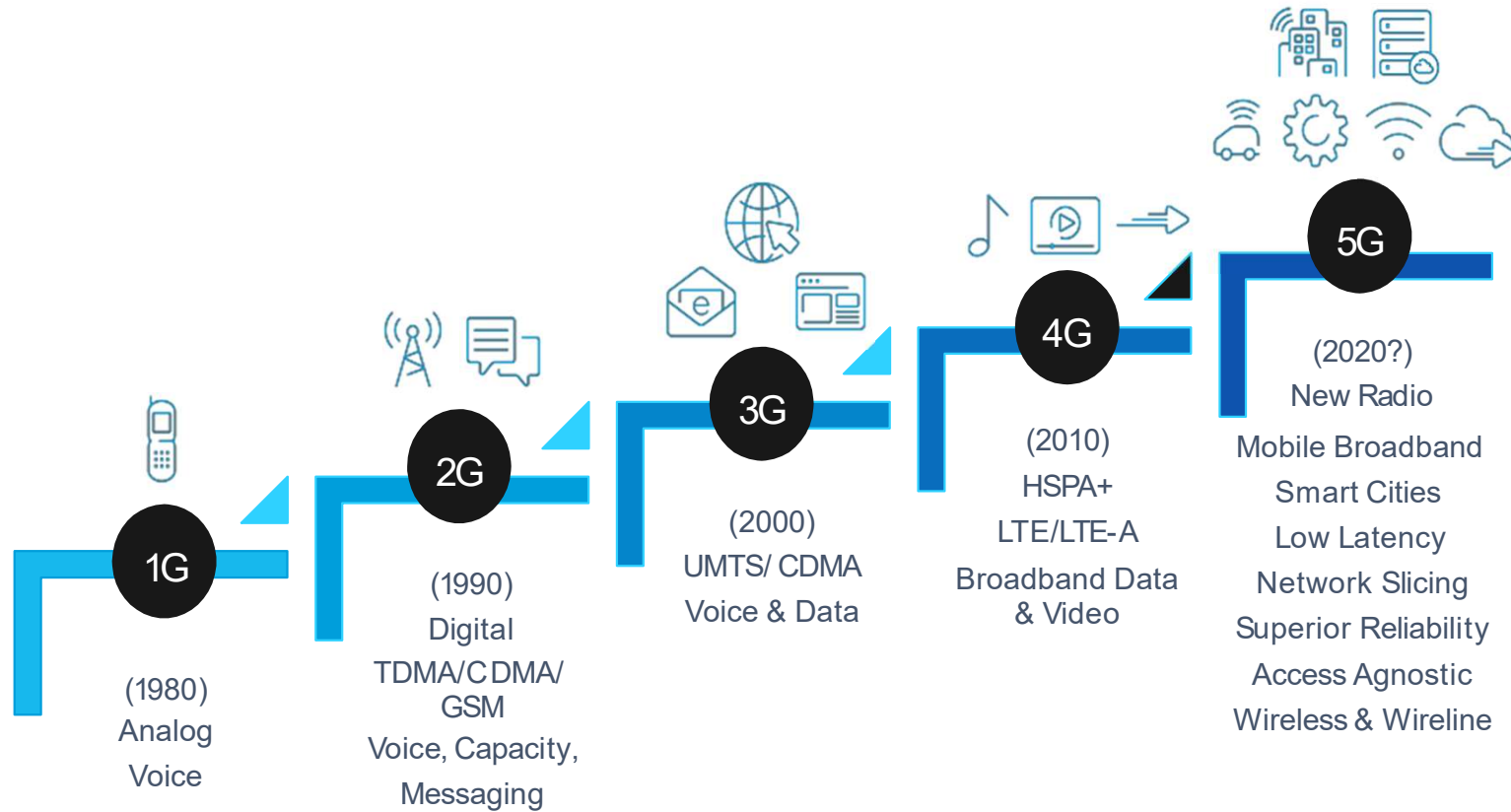
Next level efficiencies
for complex processes



Massive IoT

compute power
between devices

The Network Evolution



5G Eventual Capabilities



Ultra low latency

<10ms Round-trip time latency expected*



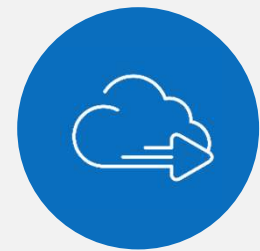
Ultra reliability

Support mission critical latency sensitive apps



Massive IoT connectivity

Support billions of connected devices



Ultra high-speeds

Faster speeds possible with mmWave and sub-6

*Numbers represent the long-term requirements for 5G and may take years to realize

mmWave = millimeter wave

Low latency industry use cases



Finance



Healthcare



Manufacturing



Retail



Sports &
Entertainment



Video intelligence



Robotics & drones



Extended reality



Compute offload



Gaming

5G Smart factory

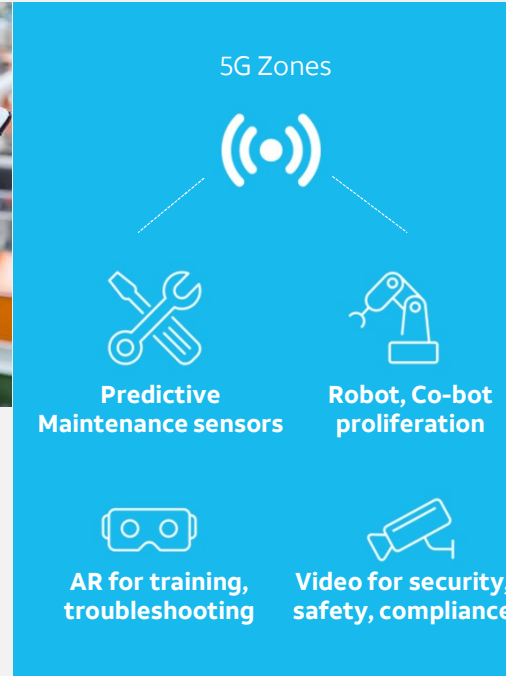
To be built on next generation networks

Mission critical applications on a purpose built licensed network



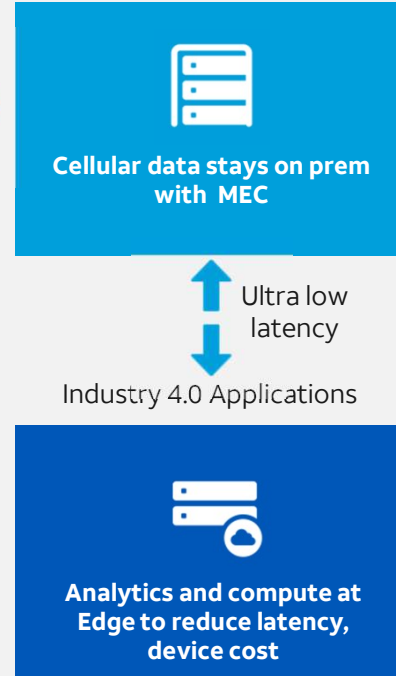
- ✓ Worker safety
- ✓ Asset Management
- ✓ Automation
- ✓ Data Privacy
- ✓ Low Latency
- ✓ Managed solution

Dedicated cellular network



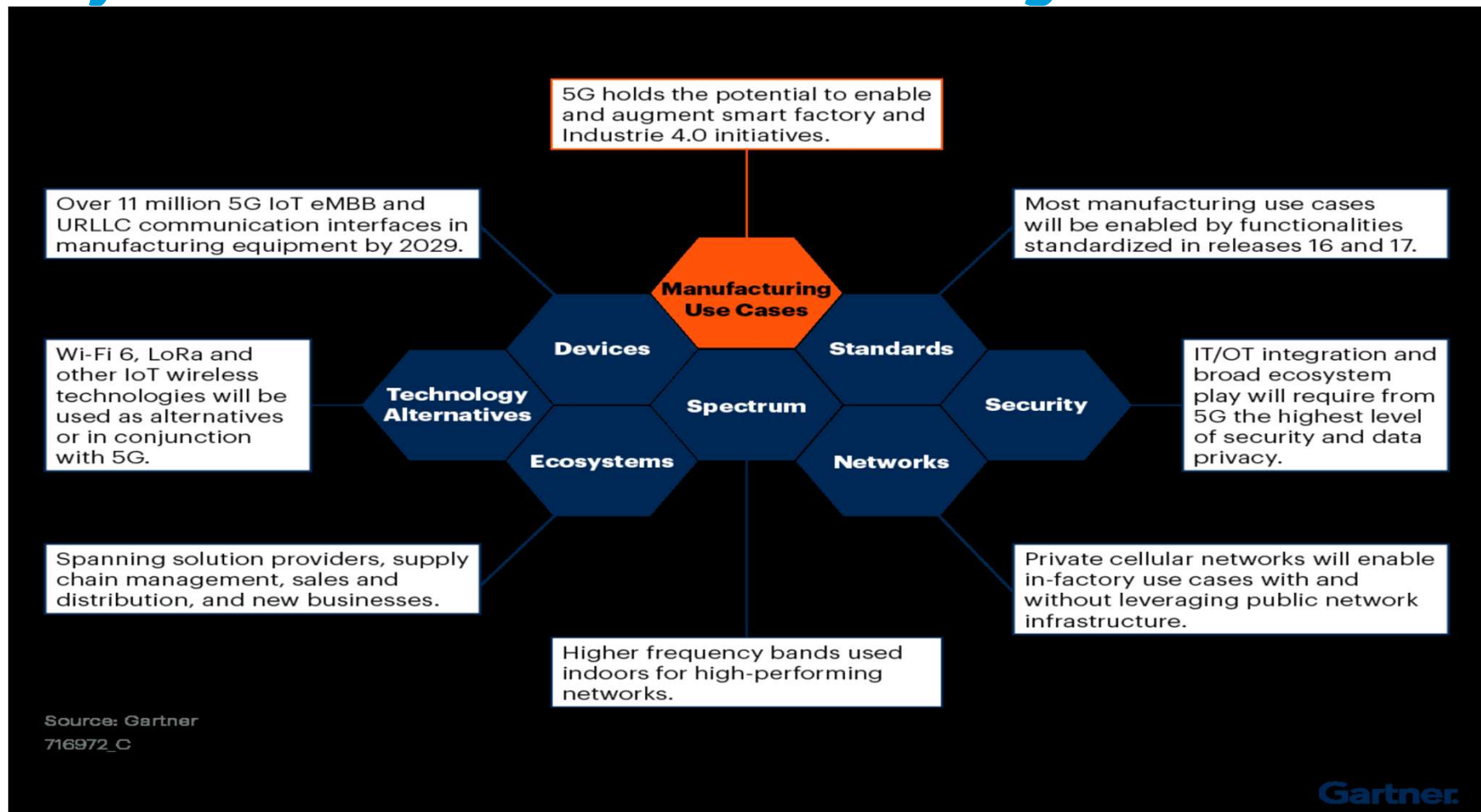
Ultra low latency

MEC¹



1. Multi-access edge compute

Key levers for 5G in Manufacturing

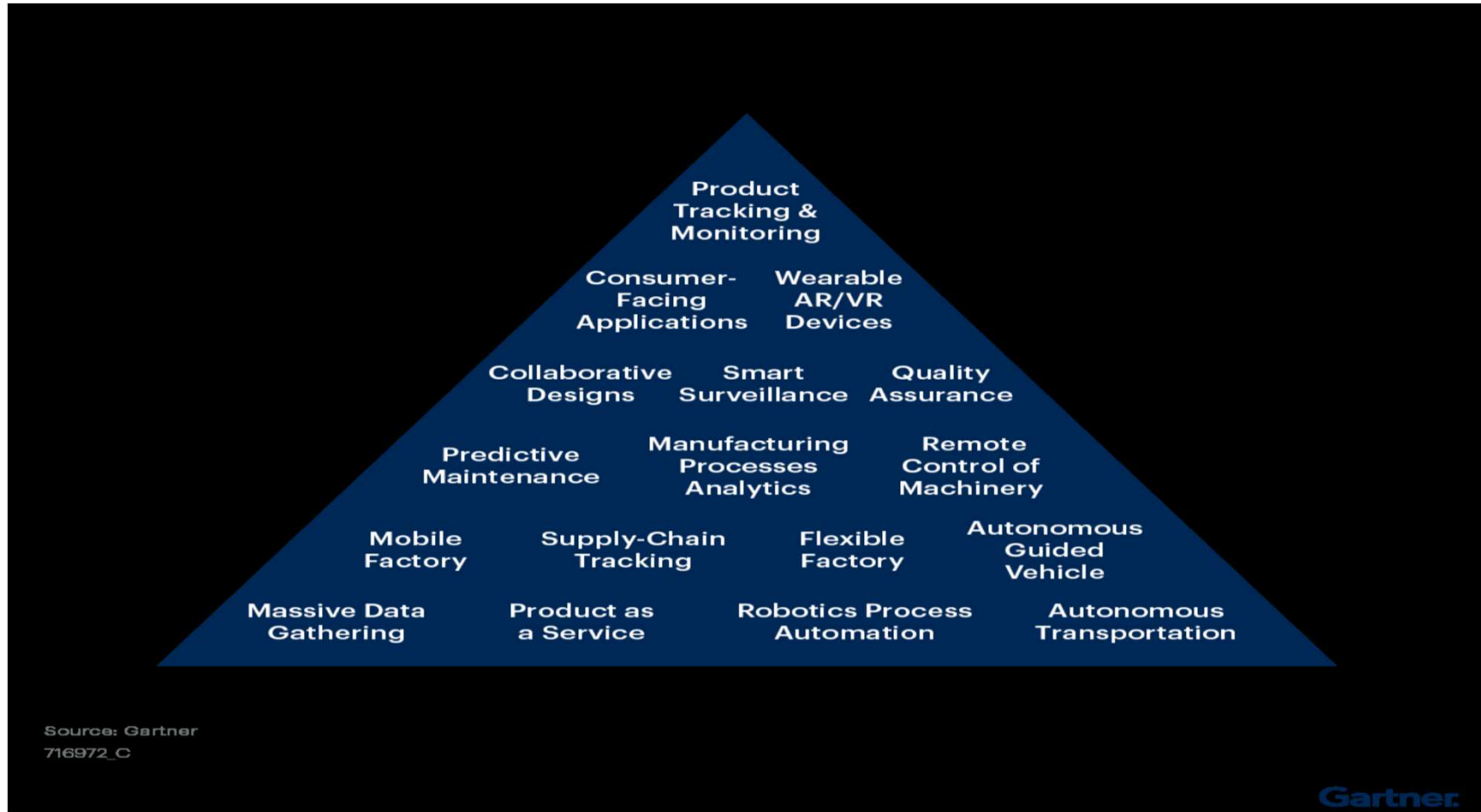


Source: Gartner
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Gartner

AT&T Business

5G Manufacturing Use cases



A large consumer goods Manufacturing company

5G + DAS + IIoT + Mobility

Transformative Solution

- 5G + DAS
- IoT + IIoT
- Mobile Solutions + EMM



This company is one of the worlds leading manufacturers of Silicon wafers and integrated circuits. The have a huge Facility in Texas with an area of 2.5 million square feet with an expansion planned in 2020

The Challenge:

They had limited wireless coverage inside and outside of their plant. Their workers rely on outdated wifi phones that only work in specific areas and have no mobile tools or connectivity to assets to manage productivity or improve plant performance.

The Solution:

- AT&T 5G plus LTE DAS, Strategic WiFi where applicable
- IoT connectivity to Assets outside the 4 walls, and IIoT connectivity to critical assets on the shop floor. IoT Analytics
- Strategic Mobile applications to automate functions and deliver information from analytics

They will connect all critical assets over outdoor LTE or indoor wireless networks. Data will flow to their database and analytics will be run. Information will be sent to critical staff as well as into their software systems to drive improved response and asset utilization



THANK YOU

