**5G & Advanced Telemedicine**

5G, the 5th generation wireless network, will allow greater healthcare accessibility and efficiency through advanced capabilities such as higher speeds, lower latency, and greater network capacity. This technology will enable a wide range of applications in telemedicine, improving the experience and accelerating the adoption of telehealth services.

### How 5G improves and accelerates telemedicine

- **Metrics At-A-Glance**
  - **Mass market applications**
    - Mobile TV, high data-speeds, SMS, Voice calls
  - **Local enterprise applications**
    - Industrial, Interact, Automate
  - **Public safety applications**
    - Public safety, 911, Uniform
  - **Unmanned systems**
    - 2G, 3G, 4G
  - **3rd generation partnership project**
    - LTE
  - **5G & Advanced Telemedicine**

### Timeline of Telemedicine

- **1979**
  - The United States Congress passes the Telecommunications Act of 1996, which enabled the development of the Internet.
- **1999**
  - The World Health Organization releases a report on the use of telemedicine in global health.
- **2003**
  - The American Academy of Pediatrics releases a policy statement noting telemedicine technologies be implemented equitably and to the highest ethical standards.
- **2009**
- **2012**
  - The Nebraska Psychiatric Institute and Norfolk State Hospital develop new services and applications for mobile health.
- **2018**
  - The Internet of Medical Things (IoMT) market will grow nearly four-fold by 2022 and by 2023, 68% of medical devices will generate data.
- **2020**
  - The Internet of Things is expected to see rapid adoption across the health care sector.

### How 5G improves and accelerates telemedicine

The Internet of Medical Things (IoMT) market is expected to reach $612B by 2024, with 8K video enabling greater predictability of patient care and edge computing make 5G networks essential, thus enabling greater predictability of patient care.

- **Remote surgery**
  - The robotic arms used in remote control surgery will need 5G’s future-state ultra-low latency to function properly.
- **Robot control**
  - The Internet of Medical Things (IoMT) market is expected to reach $612B by 2024, with 8K video enabling greater predictability of patient care.

### 5G & Advanced Telemedicine

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### Conclusion

5G will transform telemedicine by enabling real-time wearable fitness and medical device transmissions, improving the experience, accelerating telemedicine, and making it more accessible with exponentially faster transmission speeds, ultra-low latency, and greater network capacity than its 4G predecessor.