Dawn Of The 5G World

AT&T Perspective

Michael Robinson

Director, Business Development

AT&T Intellectual Property

Note – The material presented herein reflects the opinions of the presenter and not necessarily those of AT&T

AT&T

AT&T 5G Rollout

- Current Deployment
  - Live in 12 Cities: Atlanta, Charlotte & Raleigh, NC, Indianapolis, Jacksonville, FL, Louisville, KY, Oklahoma City, New Orleans, Dallas, Houston, San Antonio & Waco, TX
  - Millimeter wave spectrum
- 2019-2020 Deployment
  - Live in 9+ additional cities: Austin TX, Las Vegas, Nashville, New York City, Orlando, Los Angeles, San Diego, San Francisco and San Jose, CA, (millimeter wave spectrum)
  - Nationwide coverage available early 2020 (sub 6Ghz spectrum)
- 2019 5G Device Introduction
  - NETGEAR Nighthawk 5G Mobile Hotspot
  - Two (2) Samsung smartphones (5G mmWave and sub 6 GHz)

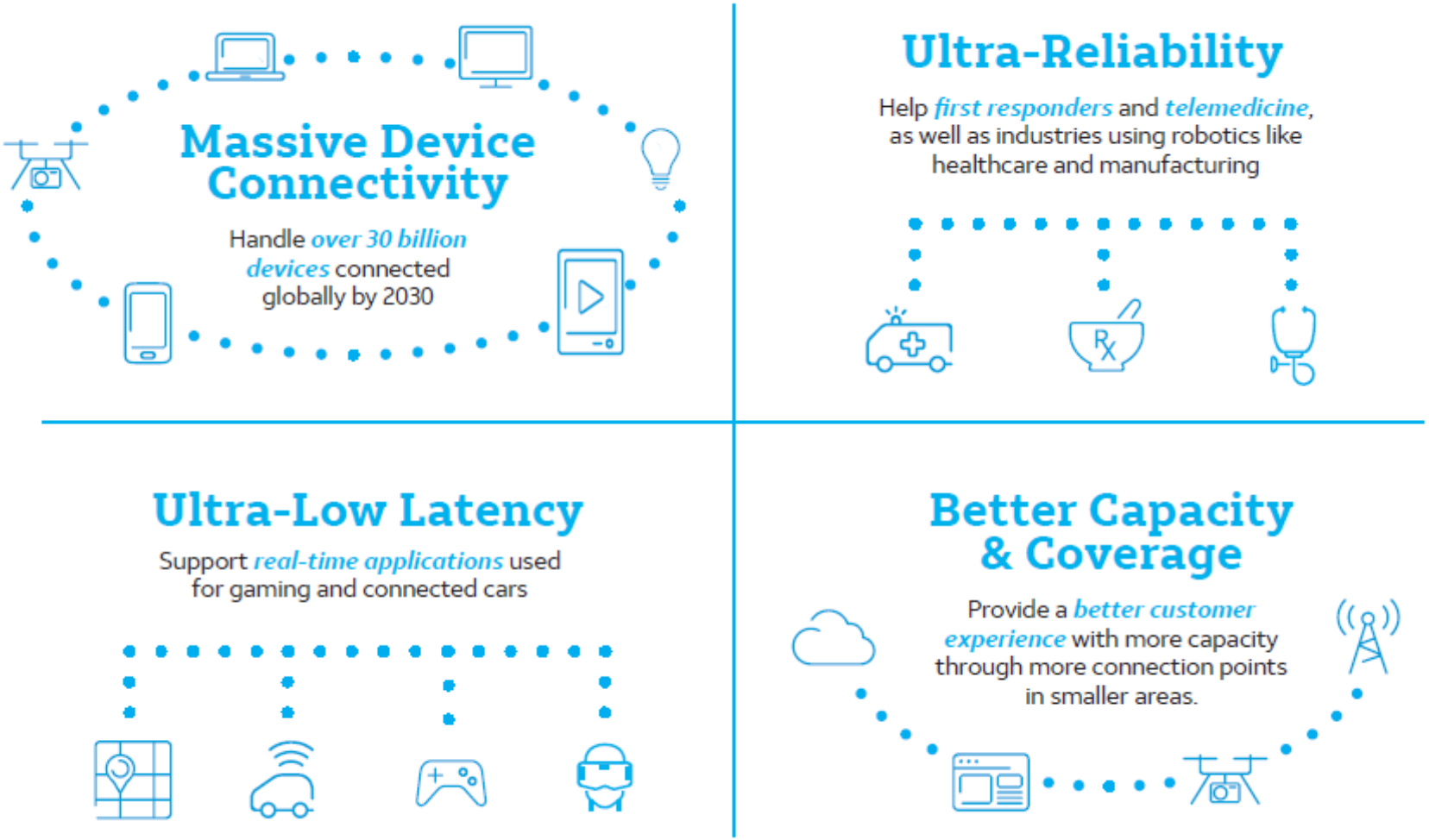
AT&T

5G Business Use Cases

- Healthcare
- Retail
- Finance
- Manufacturing
- Future Developments - AT&T Foundry

AT&T

5G - More Than Just Faster Speeds



AT&T

5G Use Cases

- Healthcare
  - Provide more effective healthcare and improve revenue realization for providers
  - Minimize need for annual exams or office visits
    - Wearables/Home Sensors provide near constant monitoring
    - Alert healthcare providers of potential ailments or abnormalities
  - Preventative Care: wearables will calculate daily recommendations, provide prompting based on medical records, real-time vitals, projected needs
  - Hospital of the Future collaboration with Rush University Medical Center and the Rush System for Health

Retail

- Enable in-store 3D printers to create custom products
- AR/VR to try on clothing
- Home improvement stores use VR to create personalized demo of remodeling options

AT&T

5G Use Cases

- Finance
  - Create highly customized financial/insurance experiences
  - High resolution video enables customer interaction with in-person or AI representatives
  - Security – AI cyber immune system to send threat intelligent defender cells from one edge of the network to the other
  - Insurance companies
    - Dispatch drones for claim investigations
    - Holographic teleportation for adjusters – tour damaged property to provide benefits more rapidly

Manufacturing

- IoT neural network enables a ‘brain’ to react, calibrate and optimize end-to-end manufacturing process
- Robots mimicking human capabilities to carry out high-risk, dangerous tasks
- Network reliability and low latency enables manufacturing equipment to communicate wirelessly with back-end systems for time critical operations
- Samsung Austin Semiconductor “Innovation Zone”
  - Test bed for the Smart Factory
  - Use cases:
    - Location services to improve safety
    - Industrial IoT sensors – environmental & equipment conditions

AT&T

AT&T Foundry (Plano, TX) - Use Case Development

- Plano Foundry prototypes innovative solutions for AT&T customers in manufacturing, retail, finance, public sector
- 5G functionality (2019) to co-create 5G solutions:
  - Using 5G-enabled network slicing in a manufacturing shop floor to create a separate network for operational equipment efficiency,
  - Transform the retail buying experience for consumers through innovative solutions like digital signage, IoT-enabled smart shelving and auto-inventory tracking,
  - Enabling life-changing healthcare technologies, like Aira, that use our IoT connectivity to bridge the physical gap between caregiver and patient,
  - Deploying drones to rethink the damage assessment process for insurance companies, and
  - Applying AI or machine learning techniques to enhance situational awareness for first responders

AT&T