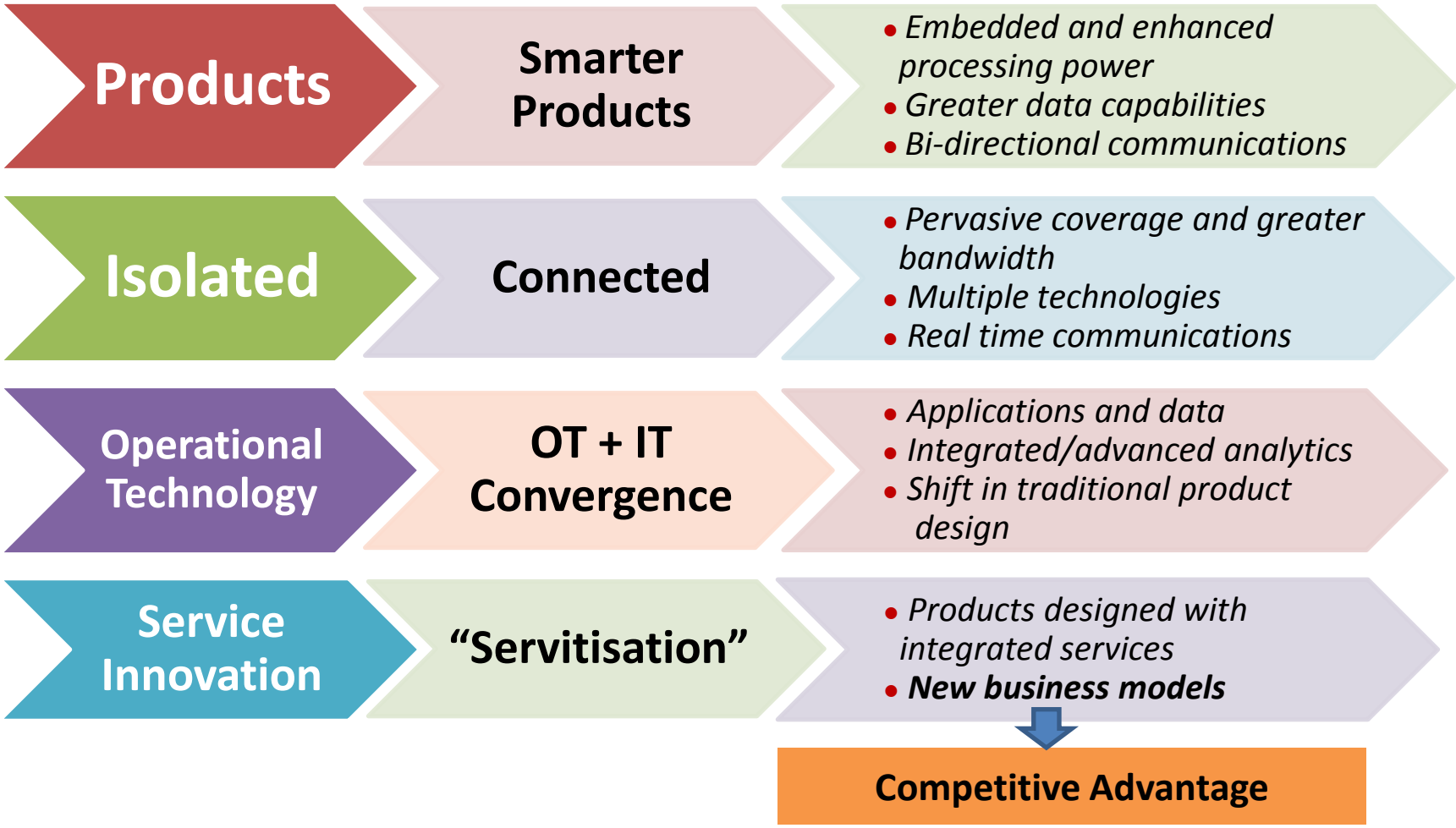
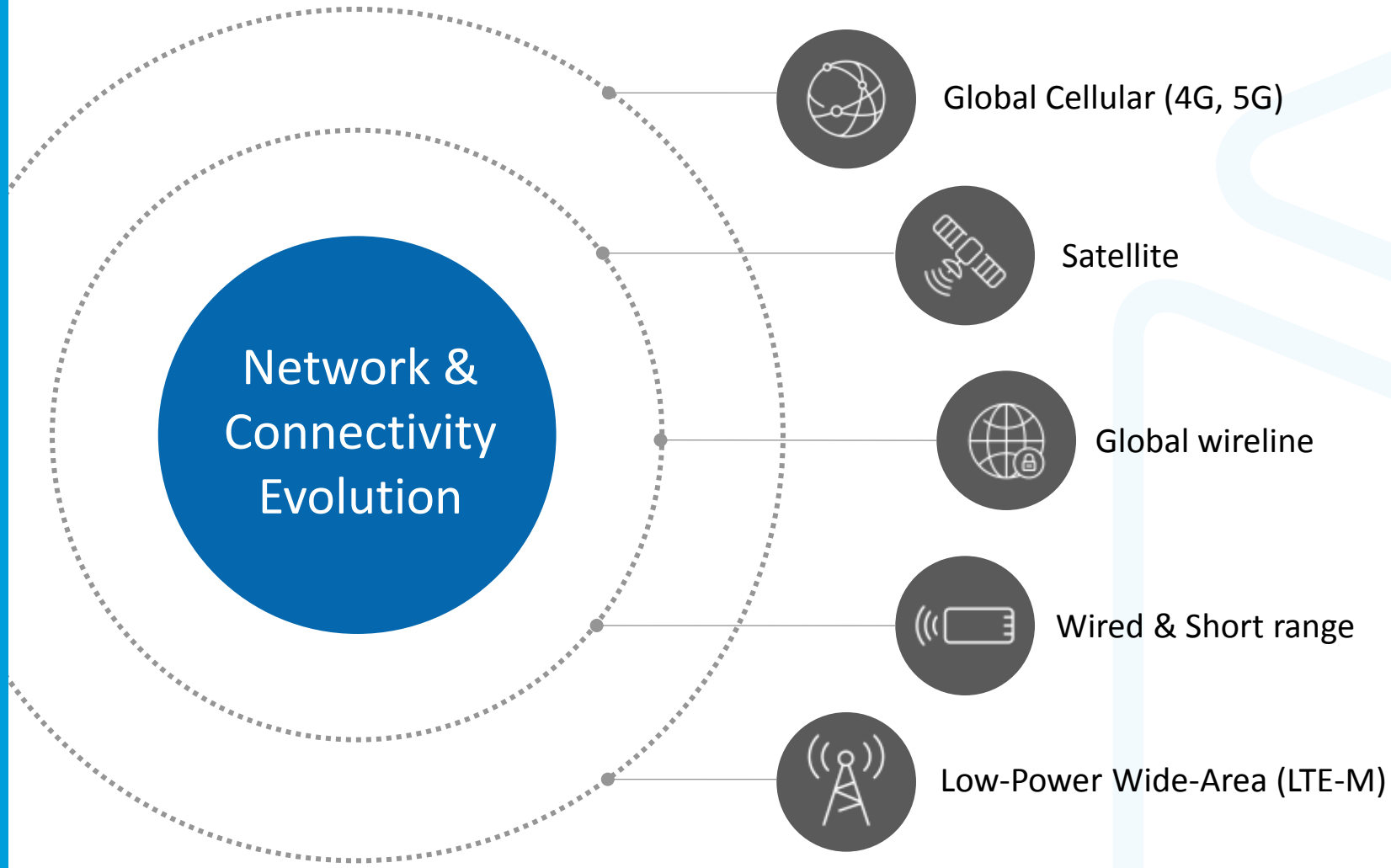
CONNECTED ENTERPRISE – ROLE OF AI and IOT

GEOSPATIAL WORLD FORUM , HICC , 18th Jan 2018

Enterprise IoT is fundamentally changing the business of companies



Connectivity – Multi-Network Strategy



IoT solutions can span across different network technologies. AT&T offers a multi-network approach to provide the flexibility and agility customers need to optimize their IoT solutions.

Global SIM – Value Proposition

Single SIM Simplicity

Global wireless IoT connectivity (2G/3G/4G) in all regions of the world

- Best-in-class roaming partners with optimized national coverage
- Access to hundreds of mobile network operators worldwide

Integrated compatibility with global networks

- Flexible solutions, best-in-class services
- Designed and built to the GSMA specifications for remote provisioning

Operational and financial efficiency

- Reduces the need for multiple device SKUs
- Eliminates need for customers to have agreements in each market
- Helps improve logistics, operations, and time to market

AT&T Control Center streamlines device deployment

- Agile and scalable – supports massive deployment of IoT solutions
- Global service management platform with advanced diagnostic tools, smart process automation, and machine monitoring
- Flexible global billing meets local regulatory and legal requirements
- Global customer care and support

Pillars of IoT

Security

Endpoint Security

Establishing trust and control of IoT devices

- *Global SIM for bi-directional device & network authentication*
- *Firmware/Software updates over the air (FOTA/SOTA)*
- *Enterprise Mobile Management (more complex devices)*

Network Security

Highly secure connectivity from endpoint to backend with network-based controls

- *Default configuration: Private IP address, Peer-to-Peer block*
- *End-to-end private tunnel & closed loop communication path (Private APN/AT&T VPN/AT&T NetBond for IoT)*
- *Blacklist/Whitelist for Voice/SMS/IMEI*

Data/App Security

Securing workloads and applications in the cloud and/or premise

- *Industrial IoT (SCADA/ICS): Bayshore IT/OT Gateway*
- *Firewalls: network and premise-based*
- *DDoS Defense*

Threat Management

Monitoring customer assets and network for proactive threat detection and response

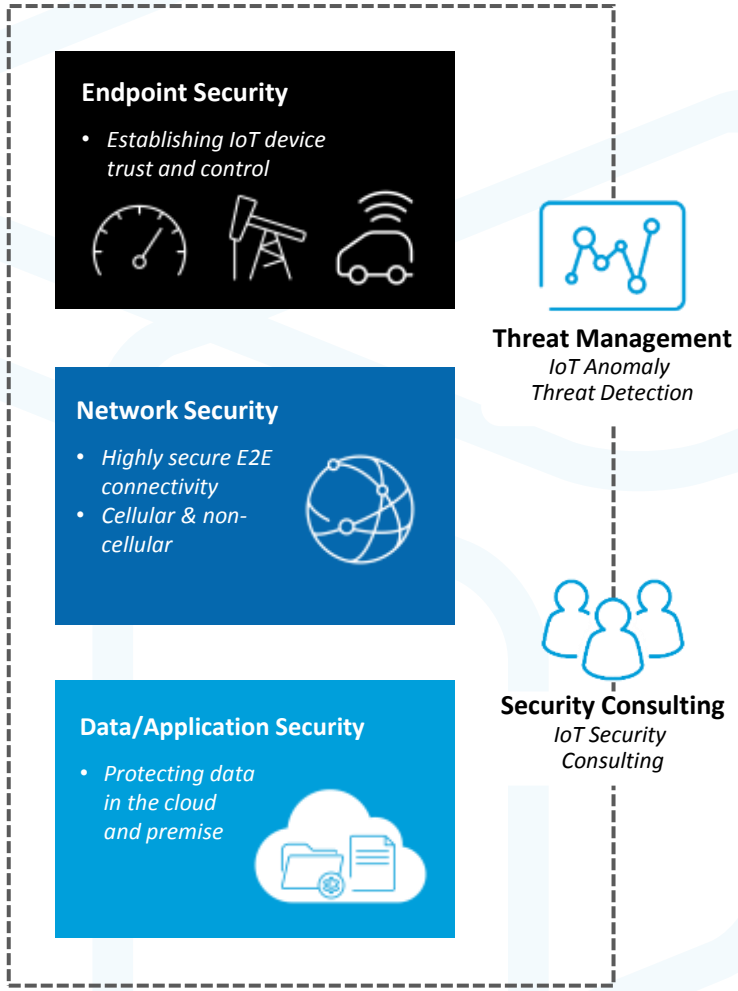
- *IoT Anomaly Threat Detection (POC)*
- *AT&T Threat Manager Log Analysis*

IoT Security Consulting

Ongoing security validation and risk assessment of IoT ecosystem

- *IoT Security Consulting*
- *IoT Security risk assessment*
- *Standards compliance*
- *Penetration testing*
- *Secure network architecture*

Four Layer Approach to Securing the Internet of Things



AT&T Business

AT&T By The Numbers (2Q17)

Why AT&T

147M
Mobility Subscribers

25
Number of connected car OEMs

200+
Countries & territories via roaming

264,000
Worldwide employees in 60 countries

2.5M
Connected fleet vehicles

1.7M
Asset management devices

34M
Connected IoT devices

Relationship with a single global carrier with connectivity to over

500
carrier networks

140
Years serving customers

8
Nobel Prizes

14.6M
Connected Cars

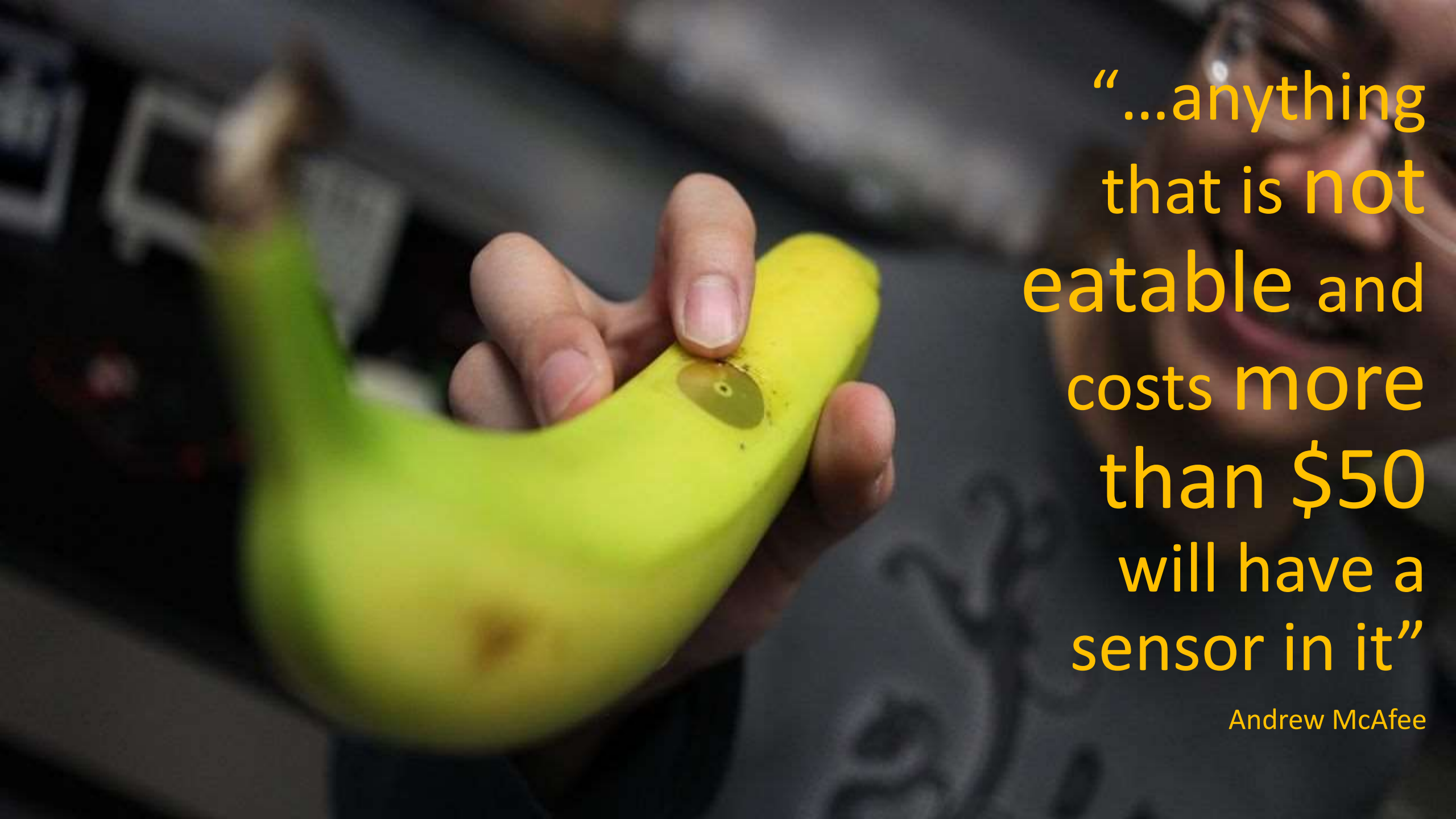
Headcount of personnel focused on IoT

400+
world wide

Internet data centers across the globe

36

AT&T Business


"...anything that is not eatable and costs more than $50 will have a sensor in it"
Andrew McAfee