AGENDA

AT&T By The Numbers
AT&T and Smart Cities
City Segment Solutions
Partner Ecosystem Delivery
Premier Execution
Next Steps
AT&T is the world’s largest communications company. 

- >275k AT&T Employees in 60+ countries 
- 225 Countries served by AT&T services 
- 125.9 PB Of data cross AT&T backbone in a day 
- $140B Total investment between 2011-2015 

Over the last five years, AT&T has invested more in the United States than any other public company.
What is a Smart City?

The integration of technology with a strategic approach to sustainability, cost reduction, citizen well-being and economic development.

Source: International Electrotechnical Commission, 2014
AT&T IoT
Smart Cities
Why is AT&T in the Smart City Space?

- **30.3M** Connected Devices
- **>2200** Types of devices
- **10.5M** Connected Cars
- **40+** AT&T Fiber
- **40k** Wi-Fi Hot Spots

As a market leader in the Internet of Things, AT&T brings together innovative technologies to make cities **cleaner, safer** and **stronger**.
AT&T Smart Cities Framework

**Highly Secure Connectivity**
- 4G LTE
- Private LTE
- Broadband
- Wi-Fi
- Giga Power
- Satellite

**Scalable Platforms**
- Control Center
- M2X
- Flow Designer
- Security
- NetBond
- Cloud

**Vertically Integrated Solutions**
- Energy & Utilities
- Transportation
- Citizen Engagement
- Public Safety
- Infrastructure

**Strategic Alliances**
- Cisco
- Deloitte
- Ericsson
- GE
- Hitachi
- IBM
- Intel
- Nokia
- Southern Company
- Qualcomm

**Thought Leadership**
- National Institute of Standards and Technology (NIST)
- Envision America
- Spotlight Cities
- DOT Challenge
AT&T is Driving Smart Cities Initiatives Across the U.S.

- **Atlanta, GA**
  - Epicenter for U.S. Intelligent transportation
  - Awarded $40M DOT grant, PPP raised $90M

- **Chicago, IL**

- **Columbus, OH**
  - Awarded $40M DOT grant, PPP raised $90M

- **San Francisco, CA**
- **Los Angeles, CA**
- **Dallas, TX**
- **Portland, OR**
- **Miami-Dade County, FL**
- **Montgomery County, MD**
- **Boston, MA**
- **New York, NY**
- **Charlotte, NC**
- **Chapel Hill, NC**

**Additional Cities:**
- + **77** US DOT Applicant Cities
- + **10** Envision America Cities

---

**AT&T Smart Cities Initiatives Across the U.S.**

- **Atlanta, GA**
  - Epicenter for U.S. Intelligent transportation
  - Awarded $40M DOT grant, PPP raised $90M

- **Chicago, IL**

- **Columbus, OH**
  - Awarded $40M DOT grant, PPP raised $90M

- **San Francisco, CA**
- **Los Angeles, CA**
- **Dallas, TX**
- **Portland, OR**
- **Miami-Dade County, FL**
- **Montgomery County, MD**
- **Boston, MA**
- **New York, NY**
- **Charlotte, NC**
- **Chapel Hill, NC**

**Additional Cities:**
- + **77** US DOT Applicant Cities
- + **10** Envision America Cities
Atlanta
North Avenue and Buckhead

Problem:
• Traffic congestion
• High profile crime targets
• Unclear organization and categorization of data
• Corridor vehicle/pedestrian safety
• Resource consumption

Solutions:
• Pedestrian Analytics
• KPI establishment and benchmarking
• Smart irrigation

Citizen Value:
• Decrease commute times
• Reduction in crime
• Access to more jobs

Deployment:
• 12/15/16

Chicago, IL
Millennium Park and O'hare Airport

Problem:
• Lack of information for tourists and residents
• Lack of data to support airport urban planning
• Fragmented transportation information for visitors
• Opportunity to empower public transit riders with data and connectivity

Solutions:
• Smart kiosk
• Big Data insights for airport
• Smart transportation board
• Connected bus shelter

Citizen Value:
• Increase attraction utilization
• Operational efficiency
• More productive visitors
• More productive residents

Deployment:
• 12/15/16

Montgomery County, MD
Rockville Pike (RT41)

Problem:
• Low ridership
• Limited transit to rider information
• Lack of data interoperability
• Urbanization

Solutions:
• Rider Experience
• Bus Tracking
• IoT (Internet of Things) Connect
• Bus Transit Information
• Smart Bus Stop

Citizen Value:
• Increased ridership
• Informed rider
• Increased transit revenue

Deployment:
• 12/9/16

Dallas Innovation Alliance
Historical West End Dallas

Problem:
• Public Safety
• Citizen Engagement
• Resource Efficiency
• Resiliency

Solutions:
• Smart Lighting
• Smart Waste
• Wi-Fi Hot Spots
• Smart Irrigation
• Digital Kiosk
• Environmental Sensors

Citizen & City Value:
• Citizens feel safer walking
• Access to real time transit services
• Cleaner environment
• Decreased operational costs

Deployment:
• 12/20/16
Key Learnings

- Build a Strong Internal Team
- Quantify and Understand City Needs
- Engage the Right Stakeholders
- Align Funding
- Engage the Right Partners
Vertically Integrated Solutions

- **Energy & Utilities**
  - Smart Grid solutions
  - Smart lighting solutions
  - Water management
  - Private LTE Network

- **Transportation**
  - Mass Transit
  - Smart Parking
  - Route optimization
  - Urban planning

- **Public Safety**
  - Video surveillance
  - Communication solutions
  - Gunshot detection
  - Environmental monitoring

- **Infrastructure**
  - Waste management
  - Smart building solutions
  - Roads / bridges
  - Venues / parks
  - Municipal services

- **Citizen Engagement**
  - Public Wi-Fi hotspots
  - City ‘help/find’ Apps
  - Venue/event experiences
  - Smart City Operations Center
AT&T Platform Innovation: Smart Cities Operations Center
These are the most critical phases in the lifecycle of Smart City solutions. Far from a device or platform, a successful Smart City project empowers the vision of the municipality to generate new revenues, conserve expenses, validate compliance, and improve citizen relations.
AT&T proposes a key discovery session with one of our Strategic Alliance Partner

Calibration of Use Cases

Gather
- Needs
- Drivers
- Priorities
- Timelines
- Constraints

Augment
- Solution Examples
- Partners
- Reference Architecture

Align
- Smart City Architecture
- Roadmap
- Strategic Plan

Refined Statement of Customer Requirements

Proof of Concept Planning
RFP/Tender Requirements Specification
Business Model Scenario Planning
(with selected partners, as appropriate)