AT&T Smart Cities

City of Cupertino, CA

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AT&T Business

AT&T IoT portfolio

Security	Solutions	Vehicle solutions; Asset management; Smart Cities; Fleet
	Platforms	• Analytics as a Service • AT&T DataFlow • Operations Center • AT&T Control Center • IoT Gateway • Multi-Network Connect
	Multi-Network Connectivity	Satellite; Wired; Wireless (5G, LTE, LTE-M, and NB-IoT)*
	SIMs and Devices	Global SIM; Gateways; Agents; Devices
Professional Services and Consulting		

* 5G and NB-IoT are scheduled for deployment in 2019

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AT&T Business

AT&T Smart Cities

$135B
Global Smart City Spend by 2021*

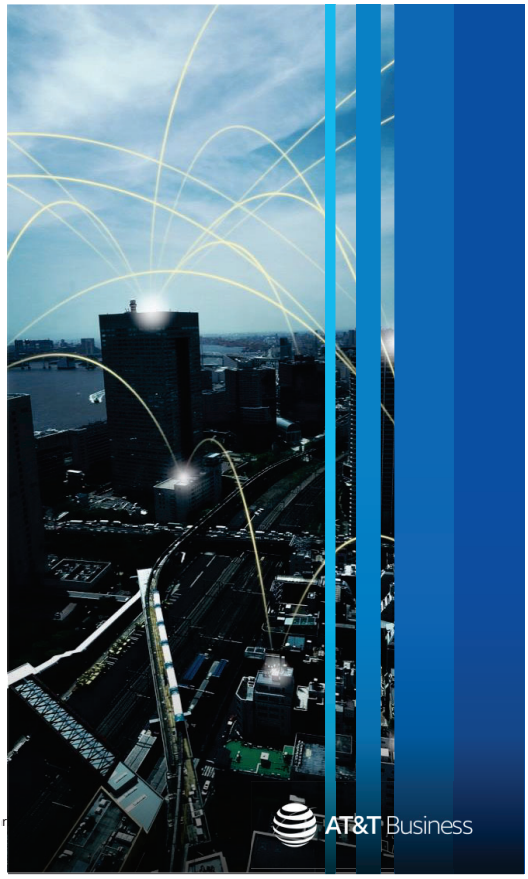
81%
Of Population Living in Cities by 2025**

Highly secure connectivity | Platforms | Vertically integrated solutions | Strategic alliances | Industry leader

8 Smart Cities Framework spotlighted

Atlanta, Chicago, Georgia Tech, Chapel Hill, Dallas, Miami-Dade County, Montgomery County, Portland

*IDC 2018
**Orbis Research



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AT&T Smart Cities framework

Highly secure connectivity

- 4G LTE
- LTE-M
- NB-IoT
- Private LTE
- Broadband
- Wi-Fi
- Fiber
- Satellite

Platforms

- Control Center
- DataFlow
- Security
- Multi-Network Connect
- Cloud

Vertically integrated solutions

- Energy and Utilities
- Infrastructure
- Public Safety
- Transportation
- Citizen Engagement

Strategic alliances

- Badger Meter
- Cisco
- Deloitte
- Ericsson
- GE
- Hitachi
- IBM
- Intel
- Nokia
- Qualcomm
- Southern Company

Industry leader

- National Institute of Standards and Technology (NIST)
- Envision America
- Spotlight Cities
- DOT Challenge

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AT&T is Driving Smart Cities Initiatives Across the U.S.

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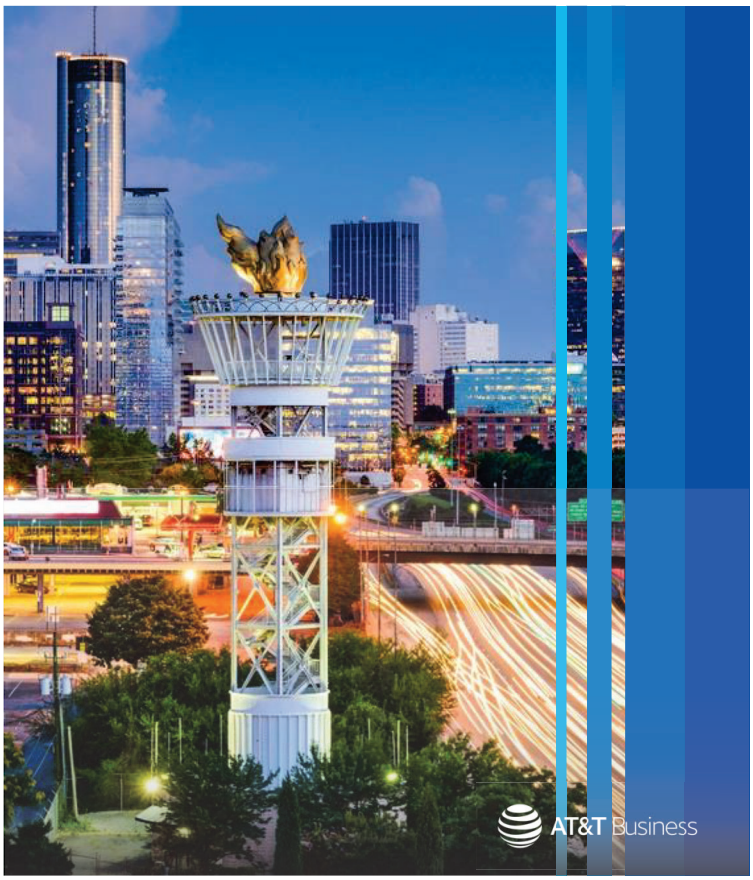
IoT in Atlanta

AT&T is collaborating with Georgia Power and the City of Atlanta on a 5-tiered program that provides a roadmap for other cities

- Engage ecosystem
- Activate city departments
- Digitize 5 corridors
- Activate student developers
- Activate tech community



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Digital Infrastructure

Sensors

Camera
2 x 1080p color

Microphone
2x microphones

Environment
Temperature
Pressure
Humidity
Vibration

Edge Metadata

Traffic
Count, Direction, Lane, Speed

Parking
Car-In, Car-Out

Pedestrian
Count, Direction

Multi-sensor platform capable of ubiquitous data collection and edge analytics. A city controls access to the gathered data, enabling applications that use the data for a city's desired use cases.

Benefits

- Establish an IoT Smart Cities platform that is open, secure and scalable
- Foster and unlock the local development community
- Drive economic development through open APIs
- Single piece of hardware that is discrete and aesthetically pleasing
- Control and monitor activity within a city at the CIO level through a dashboard

Universal arm mount

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current powered by GE

LTE-enabled lighting node

Cost-effective, modular, and expandable platform for the deployment of smart lighting solutions

ADVANCED LIGHTING CONTROLS
to turn on, off or dim lights remotely

UTILITY GRADE ENERGY METERING
measures energy usage at the street and pole

TILT AND VIBRATION SENSING
monitor the health of your lighting infrastructure

LOCATION BASED SERVICES
using GPS and beacon technology

WI-FI FOOTPRINT EXPANSION
available with wi-fi module purchase

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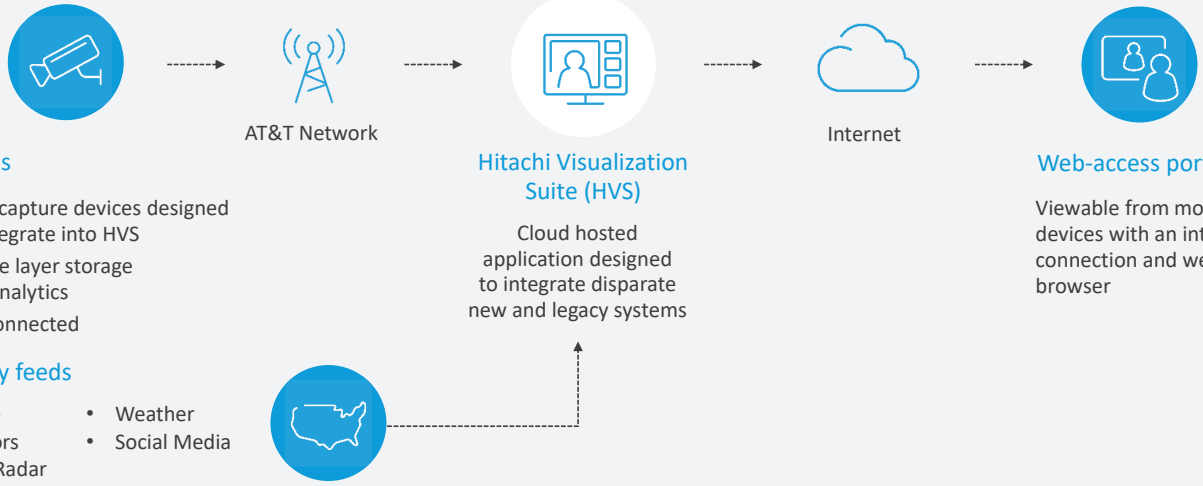
Surveillance for public safety

AT&T Smart Cities – Surveillance is an end-to-end, integrated public safety surveillance solution.
It provides a view across your community during event situations and enables insights to address everyday challenges.



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Transforming the skies

400% Increase in commercial drones by 2022

- Unleash the potential
- Empower cities, utilities, and public safety

Source: FAA Aerospace Forecast, 2018-2038; baseline is 2017 registered "non-model" drones

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FirstNet: An infrastructure dedicated to public safety

11

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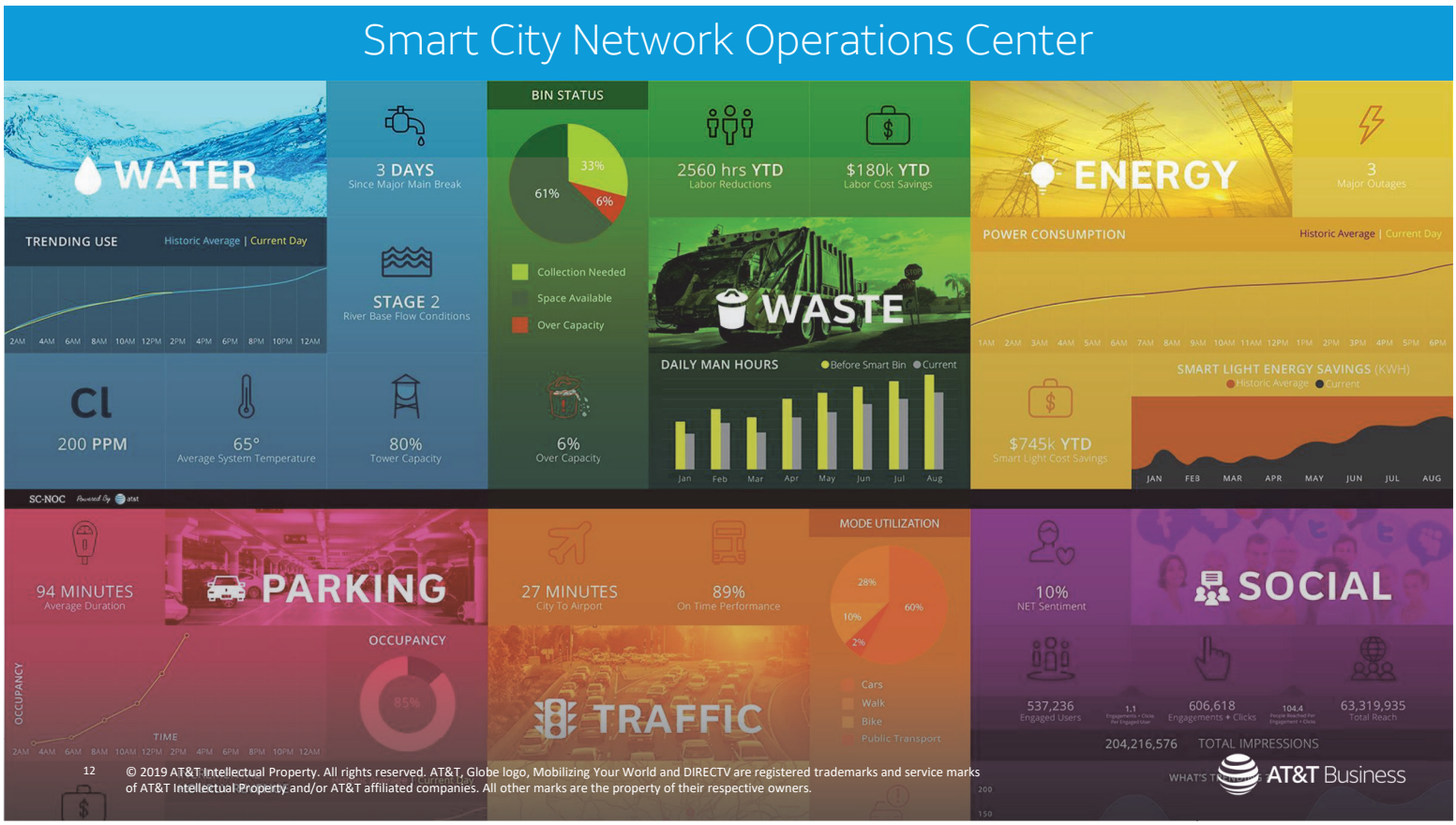

12

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AT&T Professional Services for Internet of Things (IoT)

Provides a suite of IoT services for ongoing development and support of your IoT solutions

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Structure Monitoring

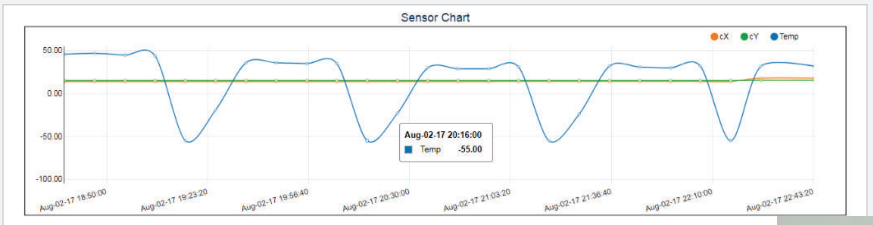
Structure Monitoring provides governmental and private entities with the ability to remotely monitor key infrastructure which has been equipped with AT&T LTE enabled crack and tilt sensors. Monitoring occurs in near real-time via any web-enabled device.

Solution Components:

- Crack sensor
- Tilt sensor
- Remote monitoring portal
- AT&T IoT Platform & Operations Center

Benefits may include:

- Increase efficiency, safety and awareness
- Make more informed decisions
- Lower operations cost



Date	Time	cX	cY	Battery	Temperature	Alert Name
Wednesday, August 2, 2017	22:43:34	18.070	15.560	100	32	none
Wednesday, August 2, 2017	22:26:0	18.060	15.550	100	32	none
Wednesday, August 2, 2017	22:16:0	14.180	15.160	100	-55	none
Wednesday, August 2, 2017	22:06:0	14.180	15.170	100	32	none

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Smart Irrigation

WeatherTRAK® smart controllers are AT&T cellular-enabled, commercial-grade controllers that can be deployed anywhere AT&T has coverage in the United States. By being connected to the AT&T cellular network and using weather analytics, the smart irrigation solution can support water conservation goals 365 days a year.

Benefit examples

- Reduce water consumption by an average of 40%[1]
- Reduce landscape run-off by up to 71%[2]
- Save thousands of dollars per site with a typical payback in 12–36 months
- 97% customer satisfaction rates[3]

1. *Report on Performance of ET-Based Irrigation Controller: Analysis of Operation of WeatherTRAK™ Controller in Field Conditions by Aquacraft, Inc. , Santa Barbara County ET Controller Distribution and Installation Program Final Report , LADWP Weather-Based Irrigation Controller Pilot Study*
2. *Irvine ET Controller Residential Runoff Reduction Study*
3. *HydroPoint Data Systems, Inc.*

+ HydroPoint

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Fleet Management

Solutions designed to meet the needs of every size fleet

Route optimization
insight into your routes, usage, maintenance and driver behavior

Manage fuel costs
optimize routes, decrease idling, educate drivers on aggressive behavior

Maximize Up Time
Monitor actual vs. expected performance and schedule proactive maintenance

Alerting
engine diagnostics, dashboards, and alerts (ex. Get right resources/parts to right locations)

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