Major City Initiatives

- Improving Sustainability & Efficiency
- Reducing Crime & Increasing Security
- Enhancing Citizen Experience
Network Investments Like No Other

$126B invested since 2000 in network infrastructure

**Investment**
We invest billions of dollars every year to expand our network services and capacity, and to prepare for tomorrow’s even more powerful networks.
5G Leadership

5G opens new use case possibilities for smart cities.

• On schedule to deploy 5G in four markets in 2018, including Sacramento, Indianapolis, Los Angeles and Houston
• Largest portfolio of millimeter wave spectrum
• Fiber investment and buildouts underway in 50+ markets
• Low latency for voice and video applications; real-time remote control, automation and cloud-based applications
• Efficient, low-maintenance IoT solutions
Building the Future: Verizon Solutions

Intelligent Lighting
Intelligent Video
Intelligent Traffic
Smart Parking
Citizen Engagement
Light Pole as a Sensor Hub

Smart Lighting

Additional Sensors & Smart Apps

Foundation for Public Wi-Fi

One Network
No Trenching

Smart Parking
Traffic (vision zero)
Public Safety (some use cases)
Smart City Data Platform & Developer Support

Third-party applications

Smart Communities vertical applications

Parking  Traffic  Lighting  Kiosk

Smart Communities platform

API  API  API  API

Real-time vertical business logic (services)

Historic data

Data visualization layer

Analytics models

Calculation engine

Data warehouse

Verizon edge devices

ThingSpace

Pub sub  TS adapter  Third-party sensors

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Success Story

Kansas City

195 sensor nodes along 2.2 miles
90% coverage of KC’s streetcar tracks

- Lighting Control
- Traffic Analytics
- Smart Parking
- Public Safety
Transforming Data Into Actions & Benefits

**Lighting**
- Auto dimming
- Fault detection

**Benefits:**
- Energy savings
- Safer streets
- Decreased maintenance
- CO2 reduction

**Traffic**
- Traffic planning
- Signal timing

**Benefits:**
- Reduced congestion
- Time savings
- Reduced pollution

**Parking**
- Parking wayfinding
- Optimized enforcement

**Benefits:**
- Less time-to-park
- Increased labor-to-revenue efficiency

**Safety**
- Detecting poorly parked cars
- Video streaming

**Benefits:**
- Street car safety
- Pedestrian Safety
- Forensic investigation