

SMART STREET LIGHTS

Innovation & Technology Committee Meeting

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Smart Street Lights - Present Vs. Future



Existing Capabilities

- LED
- Controller ready
- Diagnostic report
- Air quality sensor



Future Capabilities

- Wi-Fi
- Camera
- Weather sensor
- Air quality sensor
- Digital display
- Power charging
- Emergency calls
- Accident detection

Smart Street Lights – What's Happening?

Round Rock, Texas – Giga Tera, Planled and Opterra

- 100 new high efficiency LEDS
- Flash red to alert motorist of emergency
- Limited number of lamp heads equipped with HD Cameras

Houston, Texas – CenterPoint Energy

- Converting 165,000 streetlights to LEDs over 5 years
- Lower greenhouse emissions by 10%
- Projected to save \$28,000,000 over 10 year

Dallas (West End), Texas – Dallas Innovation Alliance and Private Partners

- Street lights will provide WiFi, gauge air quality, detect noise and locate parking
- Pilot program

CPS Smart LED Street Light Pilot

Scope

- 90 light pilot
- District 5
- Utilized existing CPS infrastructure
- Test remote control capability of lights
- Analyze pilot results

Benefits

- Deter crime
- Increased illumination reduces traffic accidents
- Real time equipment status
- Instant inventory
- Remote control ability (cutoff and dim)



Legend

- Smart LED lights
- Park Smart LED lights
- Dynamic lights
- Access points

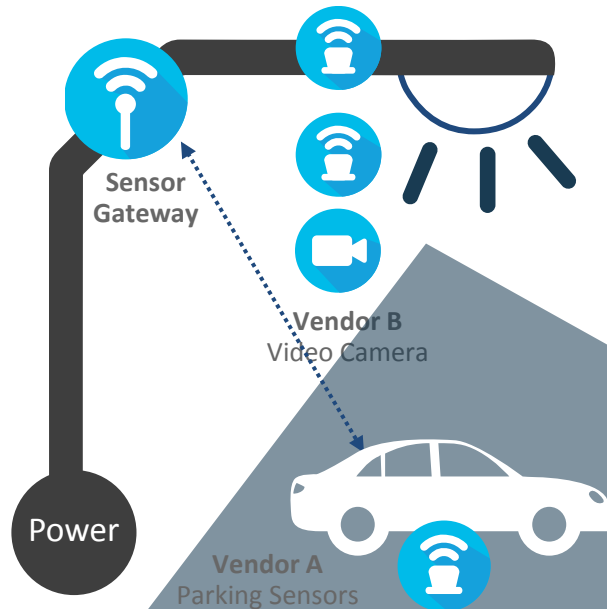
Smart Street Lights – Infrastructure

Option A – Existing CPS Owned Mesh

- Innovation zones
- Existing broad coverage
- Limited capability

Option B – Build New Mesh or Carrier Network

- Innovation zones
- Limited coverage
- High capability



City Operator Applications



Lighting
Control



Diagnostic
Reports



City Safety/
Security



Incident
Detection



City Air/Noise/
Pollution Maps



Situational
Awareness



Parking
Enforcement

Citizen Services



Public
Wi-Fi



Parking
Availability



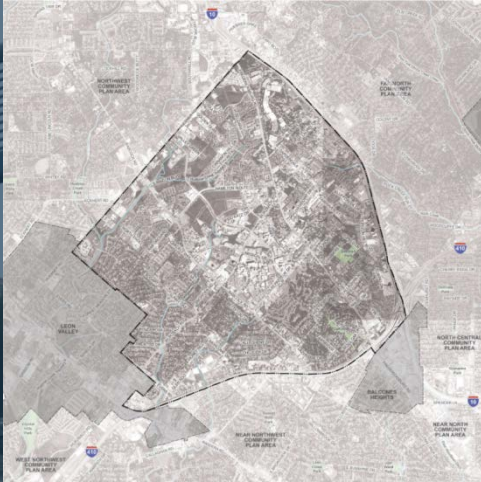
Traffic
Alerts



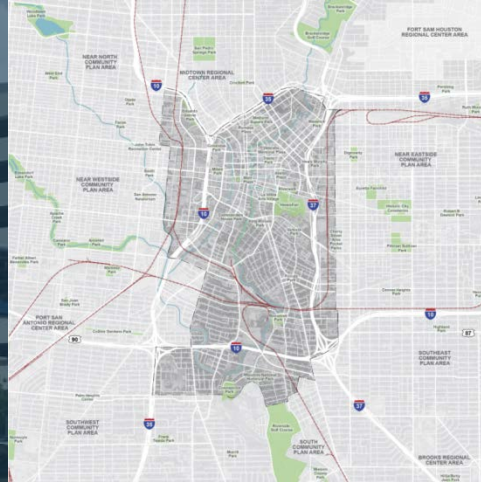
Incident
Detection

Smart Street Lights – Where Next?

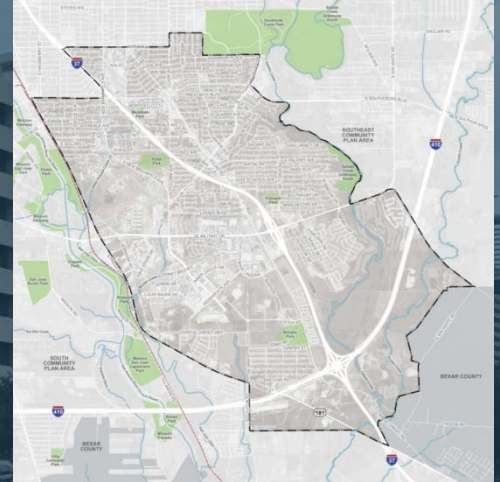
MEDICAL CENTER



DOWNTOWN



BROOKS



Request for Information

- Evaluate different vendor solutions (Innovation Zones)
- Include Downtown as an area to evaluate