Smart City... What is it?
Smart City

- A developed area with an internet connected population, infrastructure, work place, homes, devices, and vehicles that can exchange data or communicate to each other wirelessly.

- Intended to enhance quality of life and the area economy: economy, mobility, environment, people, living, and government services.

- Columbus Ohio won the Smart City Challenge with a plan to increase poor people's access to new transportation options. $50M + $90M
Internet of Things (IoT)

- IoT is required to be a Smart City.
- The Internet of Things (IoT) is a system of internet connected devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.
- any object that can be assigned an IP address and can transfer data over a network
Why Smart City?

- Better Living
  - Enhance Safety and Mobility
  - Reduce Congestion and Emissions
  - Minimize Travel Time Delays
  - Ease in Communication, Data Sharing/Transfer & Connection

- Support Economic Development
  - Minimize Travel Issues that Impact Employee Production
  - Reduce Parking Demands & Repurpose Existing Parking Facilities
  - Alternative Means to Communicate and Produce
Communications - Connections

- COMMUNICATIONS
  - V2V - Vehicle to Vehicle
  - V2I - Vehicle to Infrastructure
  - V2X - Vehicle to Ped, Bicyclist, and others
  - Emergency Vehicles
  - Mass Transit Vehicles
  - DSRS Broadcast
  - - Dedicated Short Range System
  - Cellular Communication
  - OBU - On Board Unit
  - RSU - Roadside Unit

- MESSAGES
  - SPaT - Signal Phase and Timing
  - BSM - Basic Safety Message
  - PSM - Personal Safety Message
  - EVP - Emergency Vehicle Priority
  - TSP - Transit Signal Priority
Which technology will you adopt?