21ES614 Internet of Things

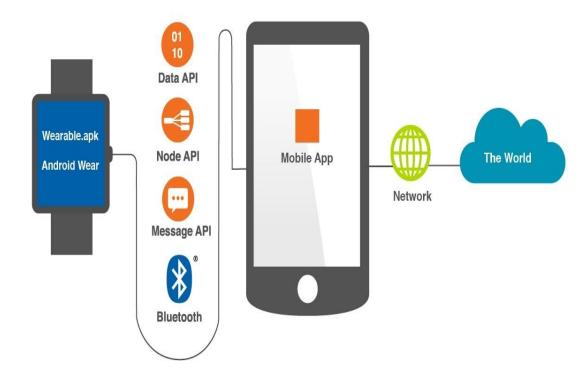
Sarath T.V

Smart Home

- Aka Home automation: control and automation of
 - lighting,
 - heating,
 - ventilation, air conditioning, etc.
 - Appliances: washing machine, dishwasher, refrigerators, etc.
- Very old (geek) dream, but a limited market
 - too expensive: restricted to very costly installation
 - too complex to install and operate (KNX, etc.)

Smart wearable

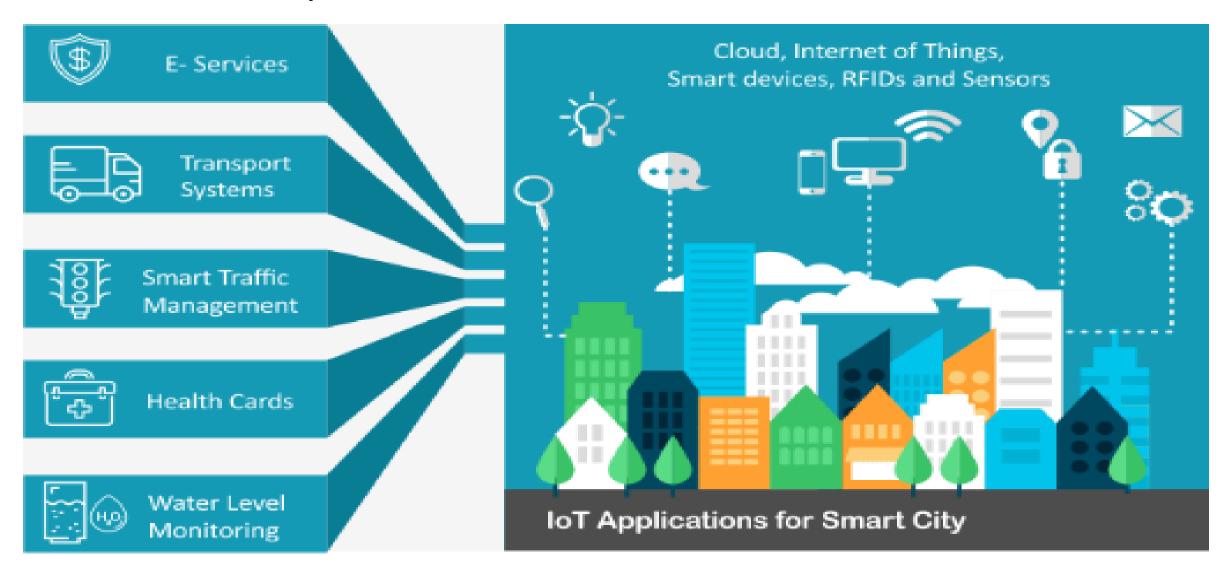




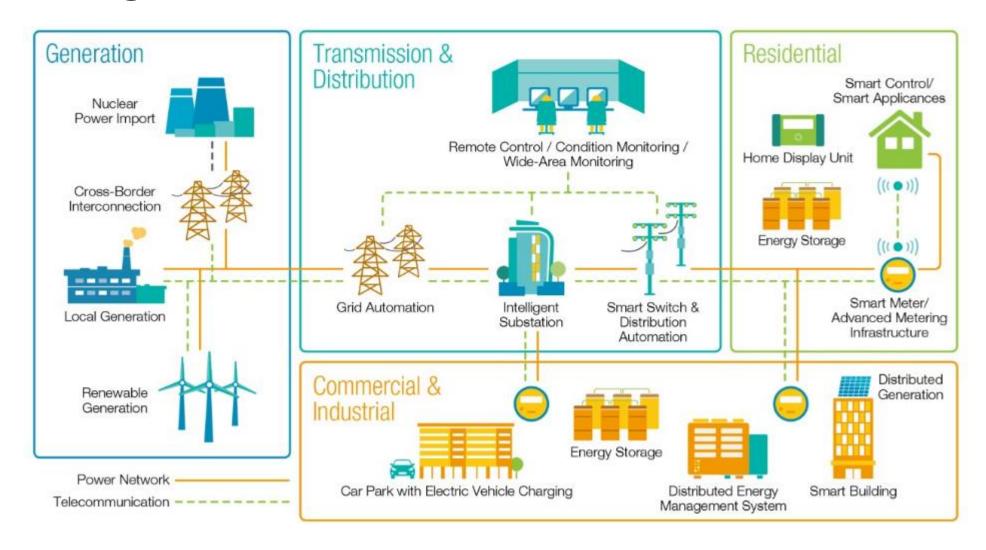
- The most visible consumer oriented IoT devices
 - Activity & sleep trackers: Fitbit, Nike Fuel band, Garmin, Withings go, etc.
 - Smart-watch: Apple, Motorola, Samsung, Pebble, Wittings, etc.
 - Connected jewelery and accessories
 - Smart glasses, contact lens : Google, Microsoft
 - Clothing



Smart city



Smart grid



Industrial



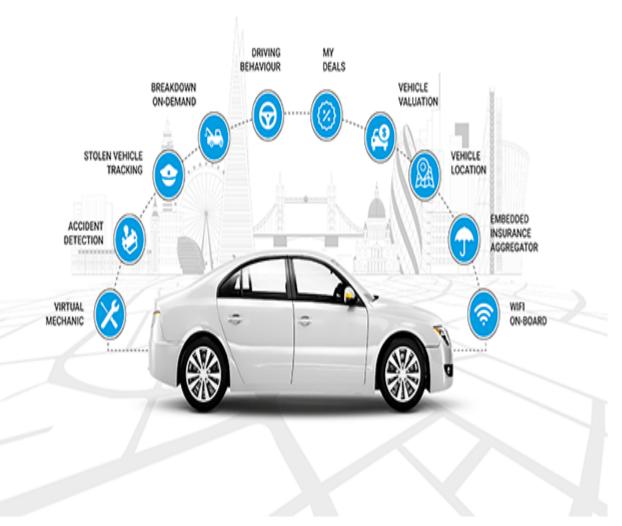
 Improve operational efficiency □ Exploration: improve data acquisition (sensors & robots), processing and interpretation □ Reduce downtime: predictive maintenance vs. preventive maintenance □ Very high cost maintenance: a single pump failure can cost \$100,000 to \$300,000 a day in lost production □ Reduce site visits: remote monitoring □ Increase productivity and reduce accident frequency with real time monitoring of assets 	
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	☐Reduce site visits: remote monitoring

Smart Transportation

- Another sector that IoT is going to 'disrupt'!
- Connected cars
- Connected infrastructure
- Traffic Data
- Autonomous vehicles

Connected car





Body. Area. Network

