

# C-DOT-TSDSI Webinar Series

The National Standards for IoT  
Smart Cities Perspective

 5-8 July, 2021

 2:00PM to 4:00PM IST



# C-DOT-TSDSI Webinar Series: The National Standards for IoT – Smart Cities Perspective

## IoT Standards and Smart Cities: Global Perspective

### oneM2M in Korean Smart Cities

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# Table of Contents

- oneM2M frontier cities in Korea
- Commercial follow-ups
- Smart city integration
- Lessons learned

# oneM2M frontier cities in Korea

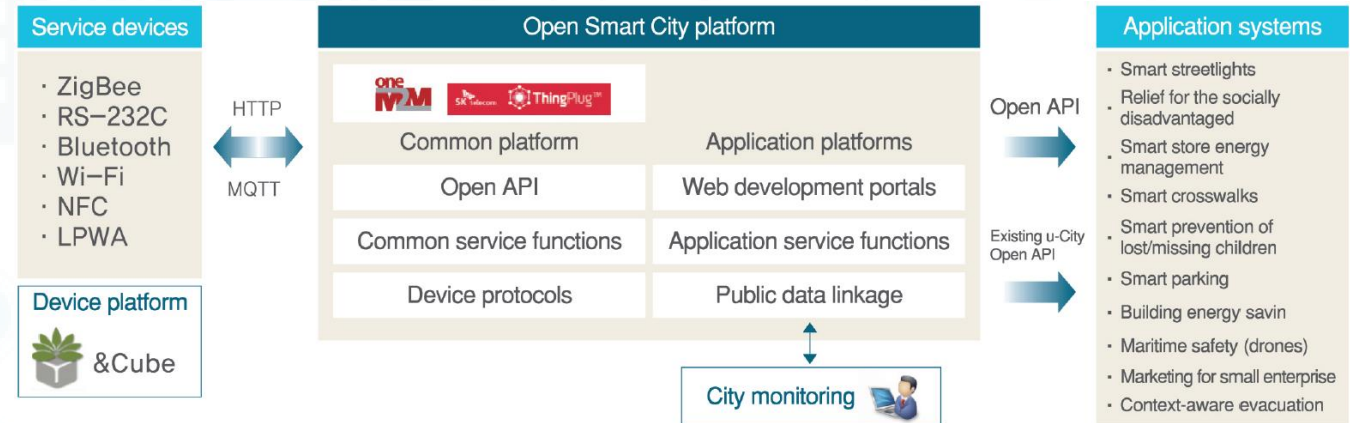
## Busan Global Smart City

- Type: Pilot Project
- Duration: '15.01 ~ '17.12
- Coordinator: SK Telecom
- Testbed: Haewoondae-gu (district)

Testing prospective city services (26 services)					
COMMUNITY SAFETY			TRAFFIC IMPROVEMENT	URBAN LIVING	ENERGY CONSERVATION
Smart streetlights	Relief services for the socially disadvantaged	Smart prevention services for lost/missing children	Smart crosswalks	Proximity beacons for small business location-based marketing services	Smart building energy conservation
Smart Maritime safety service (utilizing drones)	Situation-aware evacuation information system	Smart safety service for subway/LRT platforms	Smart parking	Mist-spraying at traditional markets	Smart store energy management
Smart subway ventilation management system	Trial of Smart City disaster prevention system	Smart traffic safety service in school zones	Pedestrian-responsive smart directional information signage service	Testing of situation-aware Smart Home service	Development of urban energy-self-sufficient smart farm service, linked with Smart City platform
Secure location management service based on smart LED streetlights	Smart City platform-based safety advisory service for wet road conditions	SDeveloping & testing 'soft' smart ship service platform for passenger safety & convenience, using wireless integrated IoT sensor technology	CCTV video analytics for traffic data collection & alternative route info	Social care services utilizing IoT smart mirrors	
Development of smart marine leisure services deploying IoT-based weather data collection devices			Enhanced image-based smart parking service	Visitor access control and monitoring system	



<https://k-smartcity.kr/english>

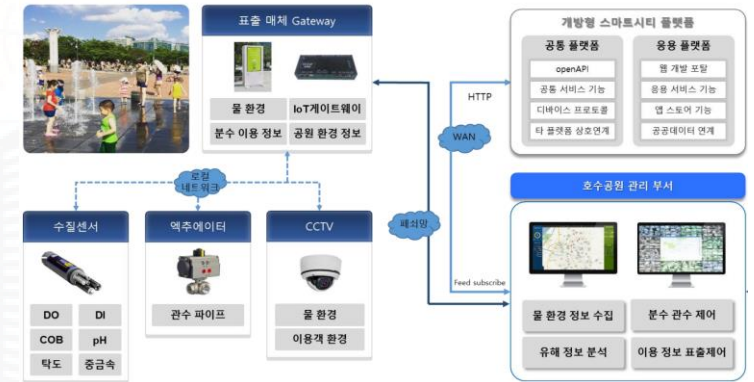




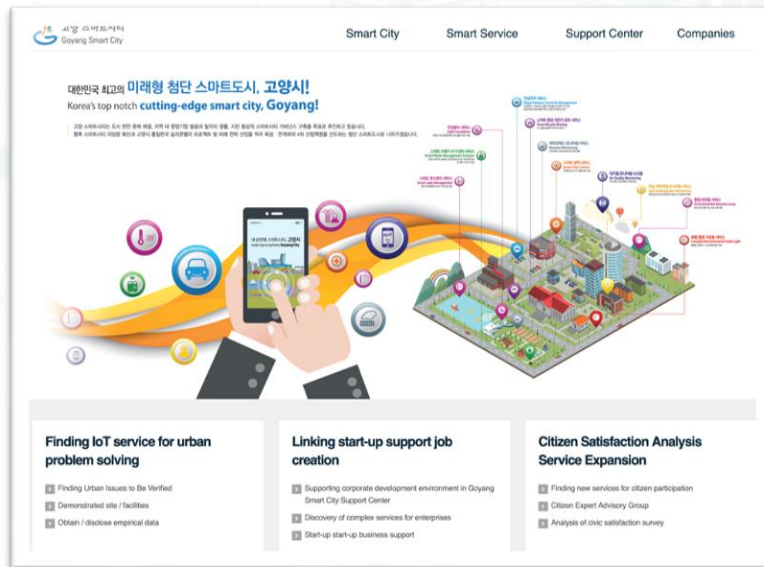
# oneM2M frontier cities in Korea

## Goyang – IoT Convergence Smart City

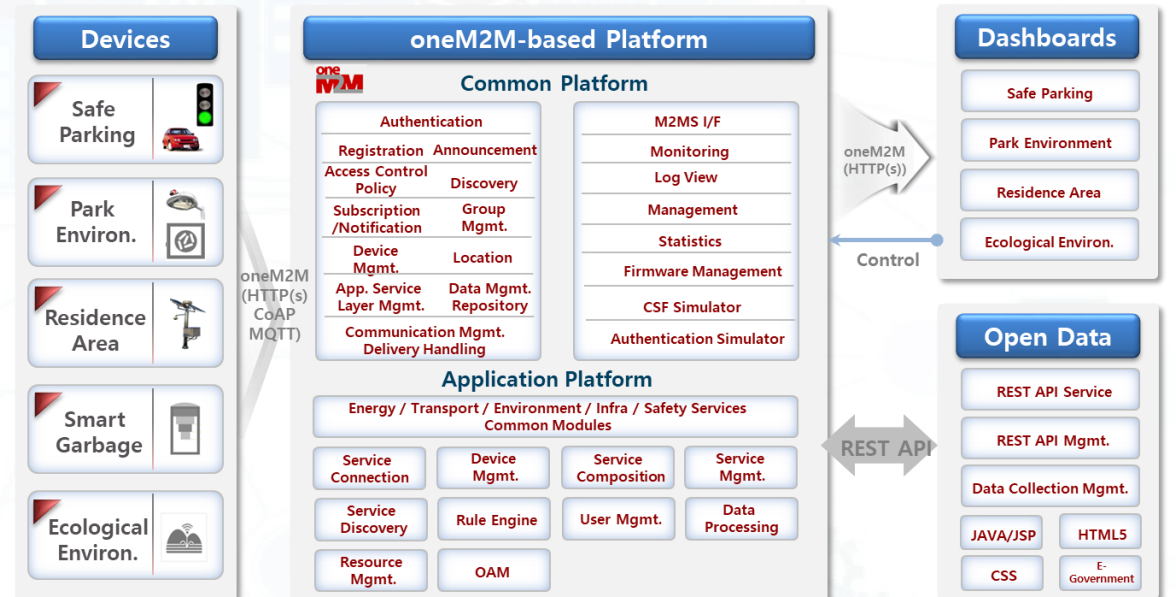
- Type: Pilot Project
- Duration: '16.01 ~ '17.12
- Coordinator: LG U+
- Environment-friendly Smart City Services



<Smart ECO City service>



<https://www.smartcitygoyang.kr/>

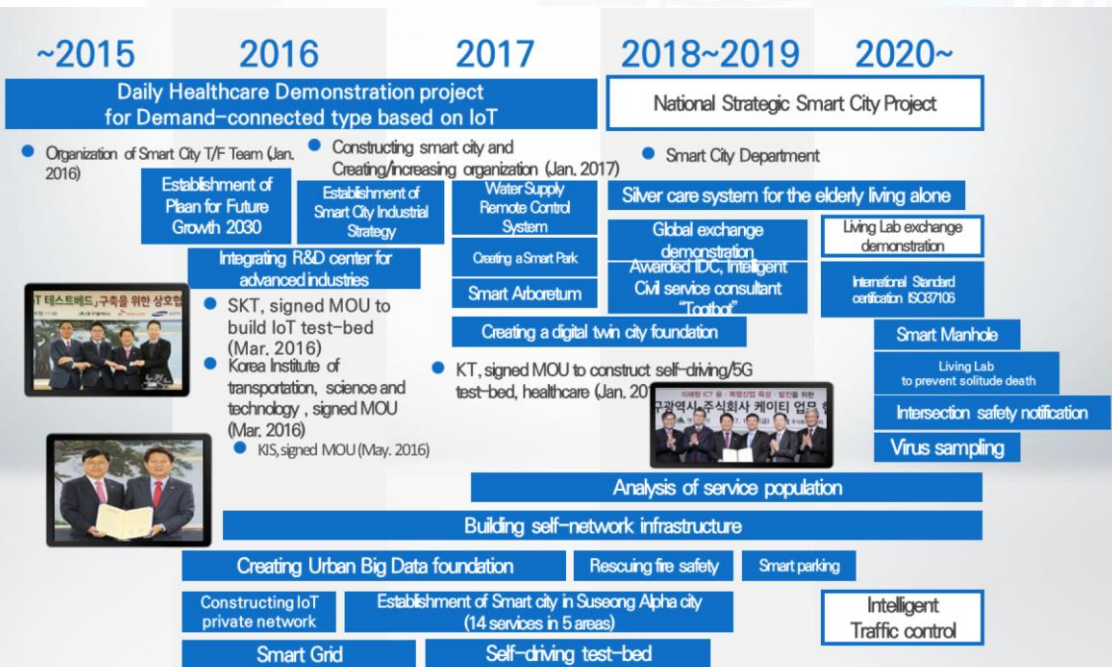


# Commercial follow-ups

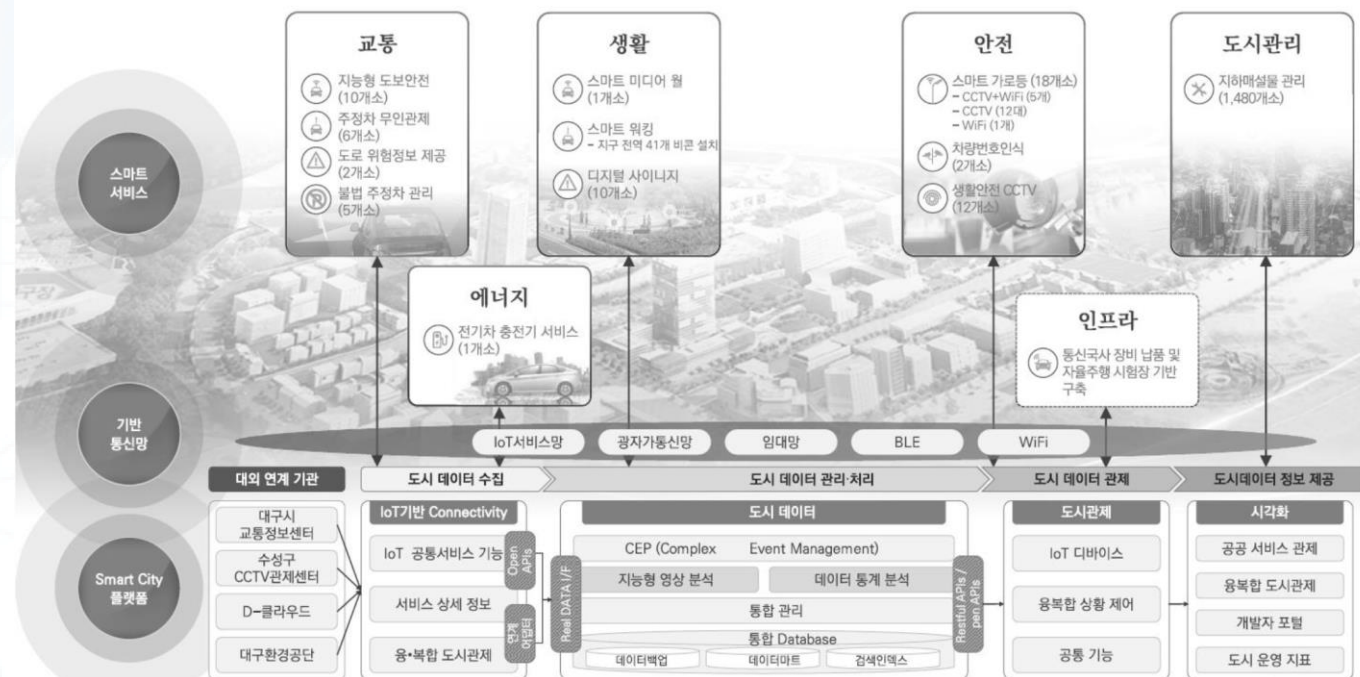
## Daegu Suseong Alpha City ('18)

- Strategies of Daegu: Testbed & PPP
- Smart city systems have been deployed w/ and w/o IoT standards
- Services: pedestrian safety, illegal parking mgmt., smart walking, EV charging, etc.

source: Daegu TechnoPark



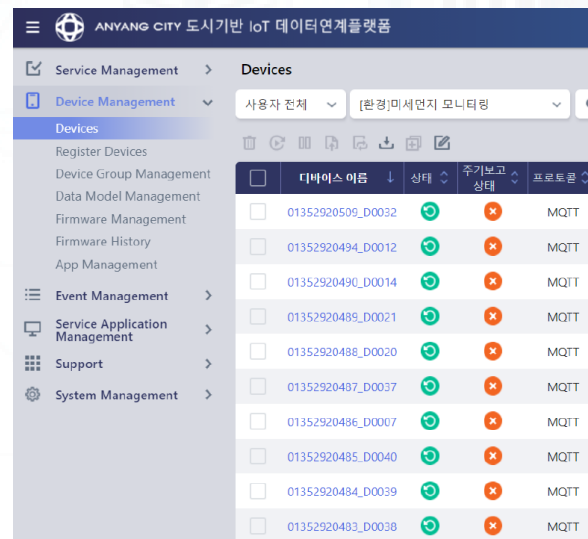
Daegu Smart City Roadmap



# Commercial follow-ups

## Anyang City ('21)

- Sensor data integration with oneM2M-based platform
- Platform features: service mgmt. device mgmt. event mgmt. application mgmt. system mgmt. (e.g. user, system resource)
- Services: smart street lights, water metering, fine dust monitoring, etc.
- PS-LTE and Cat. M1 networks



디바이스 이름	상태	주기보고 상태	프로토콜
01352920509_D0032	ON	ON	MQTT
01352920494_D0012	ON	ON	MQTT
01352920490_D0014	ON	ON	MQTT
01352920489_D0021	ON	ON	MQTT
01352920488_D0020	ON	ON	MQTT
01352920487_D0037	ON	ON	MQTT
01352920486_D0007	ON	ON	MQTT
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01352920484_D0039	ON	ON	MQTT
01352920483_D0038	ON	ON	MQTT

Management Portal

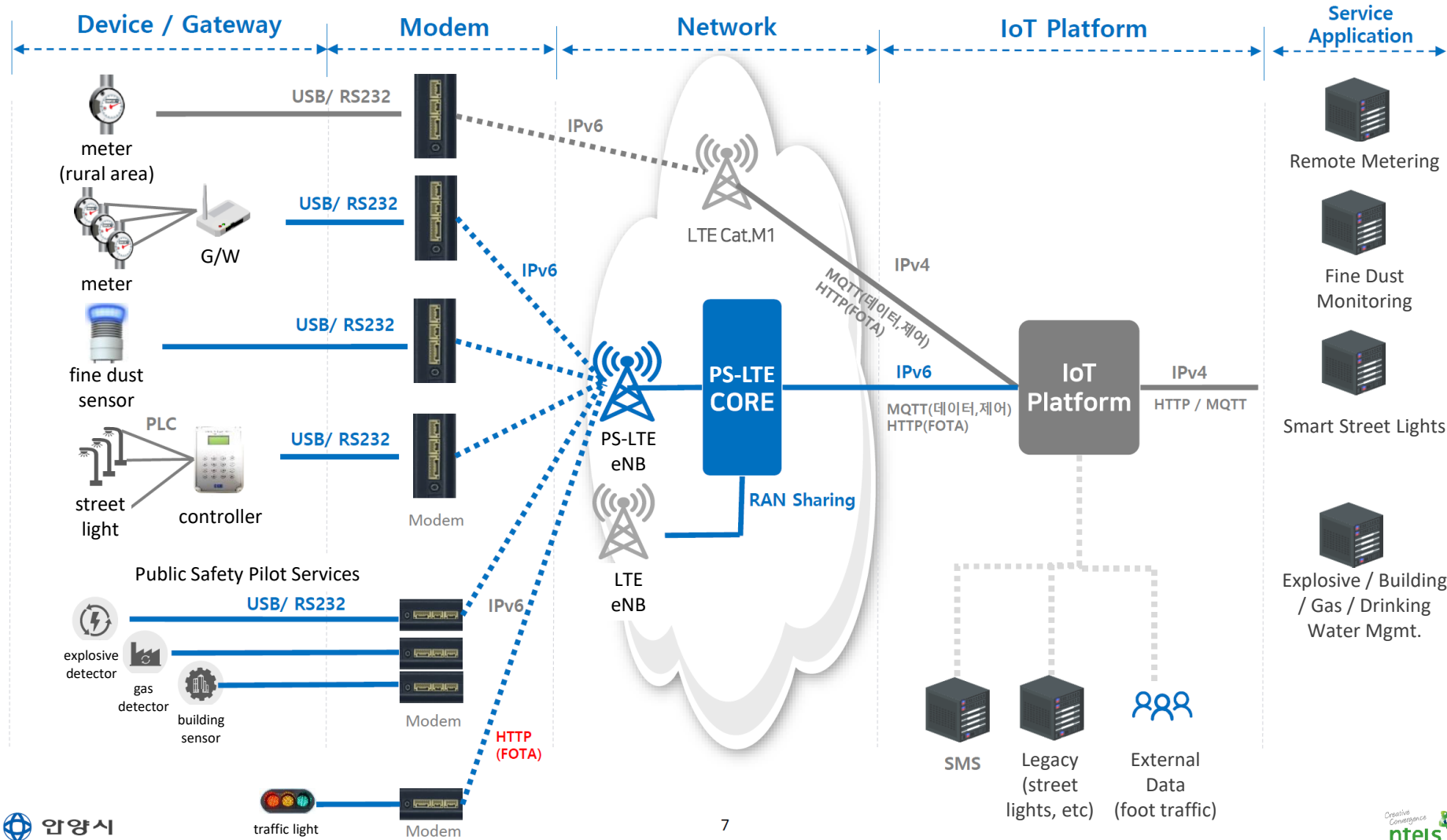


GIS Monitoring Application



# Commercial follow-ups

## Anyang City

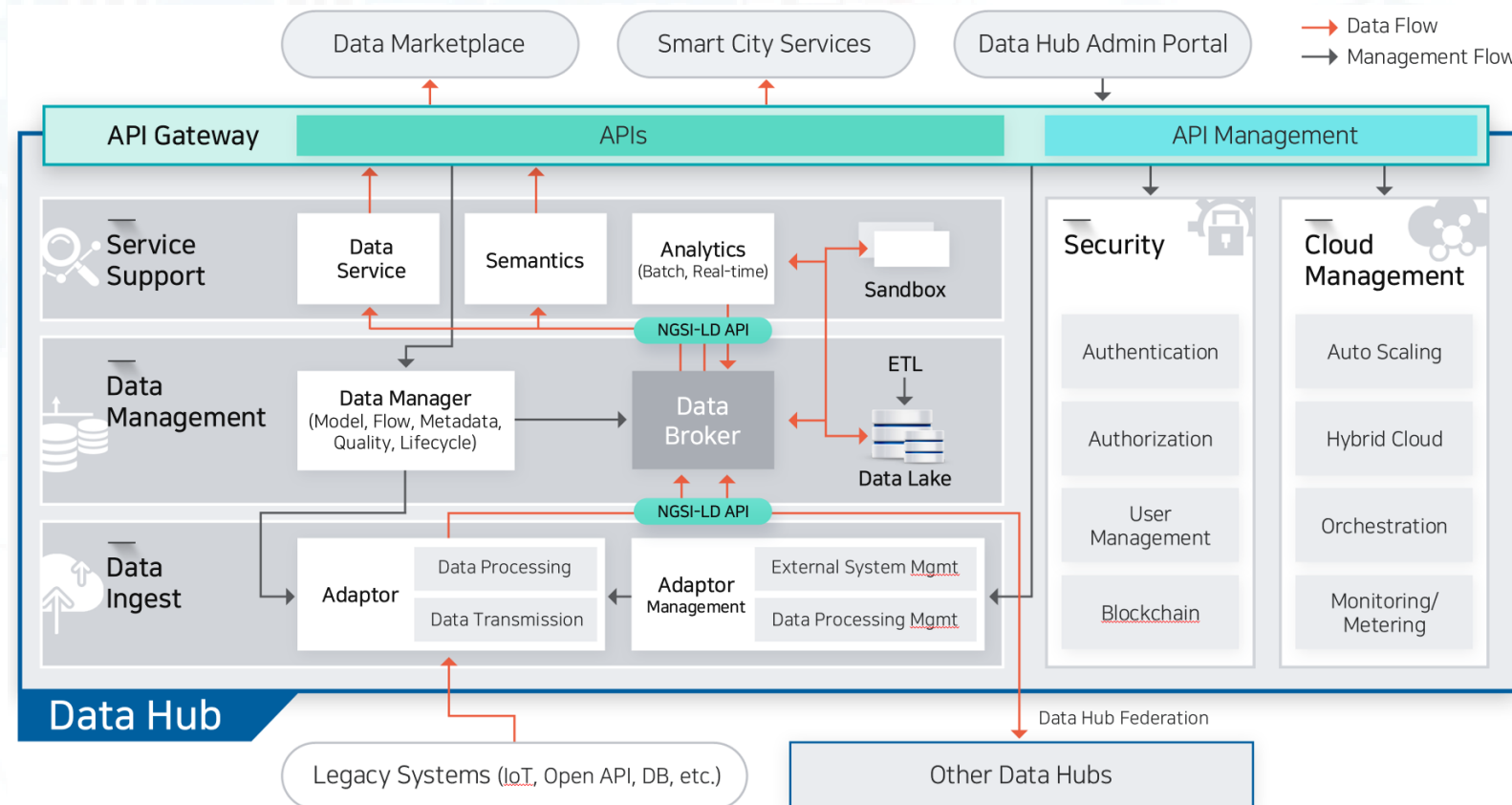




# Smart City Integration

## Smart City Data Hub

- National Strategic Smart City Program ('18 ~ '22)
- Data Hub collects data from external systems of city infrastructures
- oneM2M platforms provides standard APIs and Data Hub provides oneM2M adaptor
- Parking congestion prediction PoC with parking event data from oneM2M platform



# Lessons learned

- Device vendors easily interworked their devices to the oneM2M platform
  - Application vendors use data from the platform (no more silos)
- Cities prefer standard-based IoT solutions
  - Standard solutions help reducing time and cost
  - RFPs for commercial deployments require IoT standards

**Thank You**  
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