Smart City IoT Convergence: Platform and Solutions
Convergence & Interoperability

SPANISH CITY MODEL PLATFORMS

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CURRENT SITUATION

• CHAOS OF PLATFORMS AND PROPRIETARY SYSTEMS
• CHAOS IN SEMANTIC
• VERTICALS WITHOUT HORIZONTALITY.
• SERVICE NEEDS GO AHEAD OF STANDARDIZATION

EVOLUCION

• OPEN AND STANDARDISED PLATFORMS
• SEMANTIC RULES
• STANDARDIZATION: UIT, ISO, ETSI, TM FORUM, ONEM2M...
MODEL OF PLATAFORM APPROVED IN SPAIN
Approved as ITU-T Recommendations Y 4200 & Y4201
APPROVED BY ITU: ITU-T Y.4200 (ex Y.SCP)
CREATING A SCP PLATFORM ITU-T Y.4200 (ex Y.SCP)
USE CASE: CITY CONNECTED TO PORT/AIRPORT

EXTERNAL PLATFORMS
Centralised Platform. Services in each zone.
DATA MODELS

• According to Sematic Rules
• Diagram of entities and attributes.

• Ej Parking Harmonized Data Models: Parking, museum, beach... linked

  • These data models are intended to model entities relevant for parking use cases in smart cities scenarios. When feasible these models reuse types, properties and enumerations from DATEX II version 2.3. A data dictionary for DATEX II terms can be found at http://datexbrowser.tamtamresearch.com/.
  
  • Nonetheless, these data models are intended to NGSI-based systems and many simplifications has been made with respect to DATEX II version 2.3.

  • The main entity types identified are:
    • OffStreetParking. An offstreet parking site with explicit entries and exits.
    • ParkingAccess. An access point to an off street parking site.
    • OnStreetParking. An on street, free entry (but might be metered) parking zone which contains at least one ore more adjacent parking spots.
    • ParkingGroup. A group of parking spots. Granularity level can vary. It can be an storey on a parking garage, an specific area belonging to a big parking lot etc or just a group of spots, differentiated for an specific purpose (usage, restrictions, etc.).
    • ParkingSpot. An individual, usually monitored, parking spot.
CONCLUSION

IF THE CITY PLATFORMS BECOMES:

OPEN AND STANDARDISED (ACCORDING TO ITU-T Y.4200)
WITH DATAMODELS ACCORDING TO SEMANTIC RULES

GOOD PLANS WITH INTELLIGENCE COULD BE DONE

Thanks for your attention