ALLIANCE FOR PARKING DATA STANDARDS

INTEGRATION, COMPATIBILITY, COMMUNICATION

Who we are…

British Parking Association

The BPA is a not for profit organisation, representing, promoting and influencing the parking and traffic management profession throughout the UK and Europe. As the leading UK authority in the sector we represent around 700 organisations

European Parking Association

The EPA is the umbrella organisation for European parking associations. The national member associations represent the parking sector which is consists of private companies and public bodies that are operating and managing on-and off-street parking structures and services

International Parking Institute

The IPI is the world's largest and leading association of professionals in parking. Members include everyone from garage owners and operators to architects to city managers to government agencies, health care centres, universities, airports, and convention centres.

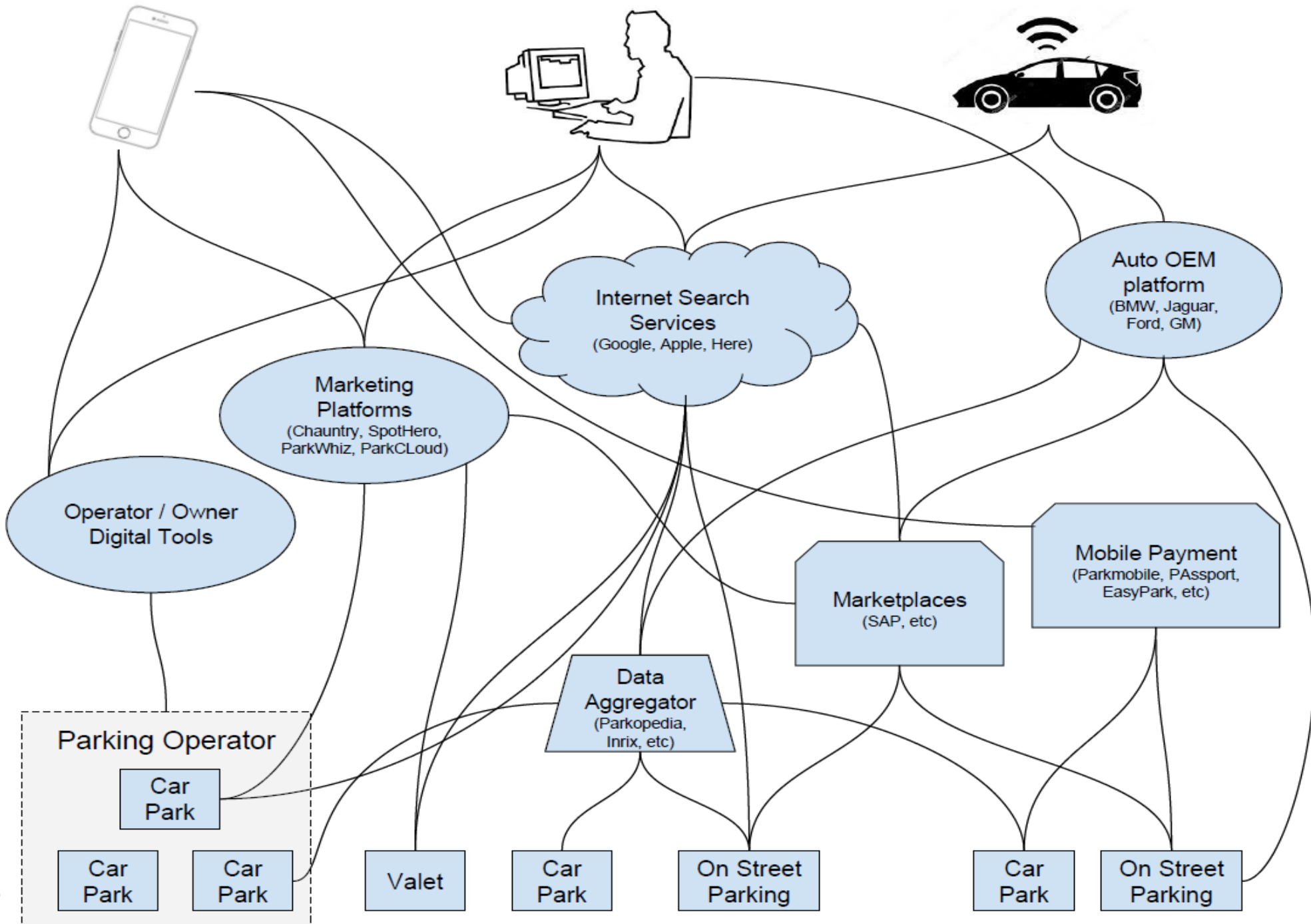INTEGRATION, COMPATIBILITY, COMMUNICATION

Our Alliance…

- Is a not for profit organisation

- Aims to create a consensus-built international standard that will establish a common language for data elements and definitions in the parking, transportation and mobility sector.

- Is creating data standards that will cover the full range of parking data elements, including location information and transactions, occupancy and utilization, pricing and payment.

INTEGRATION, COMPATIBILITY, COMMUNICATION
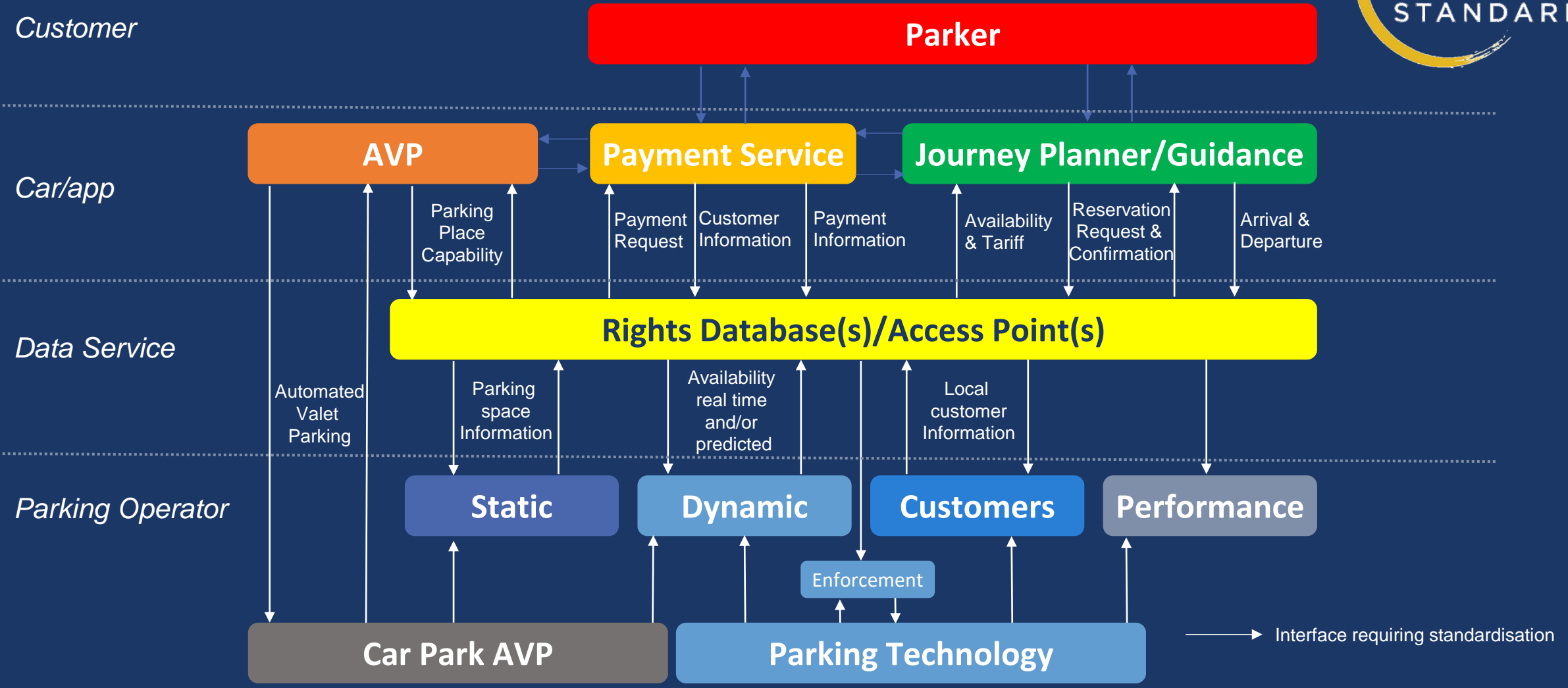
Our Mission…

Facilitating seamless integration, compatibility and communication between

- Parking entities,
- The automotive industry,
- ITS stakeholders,
- IT developers,
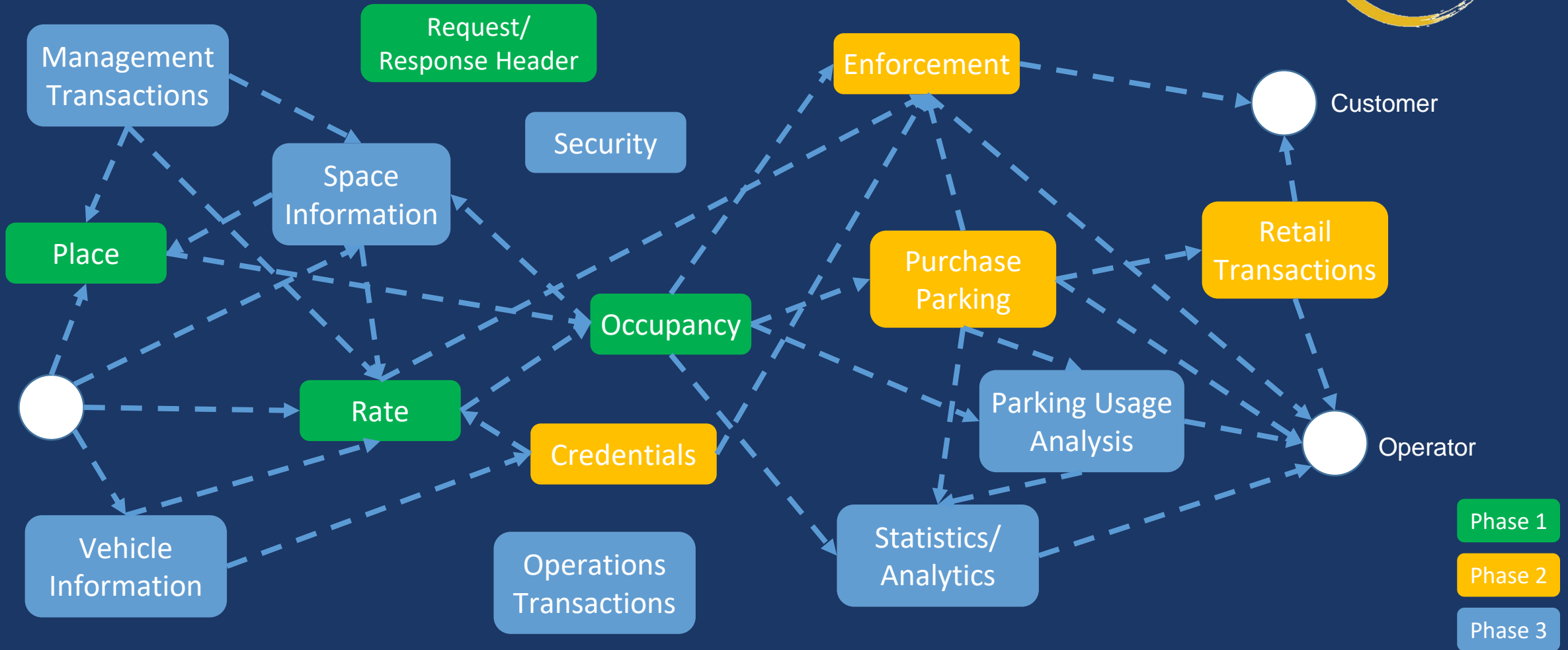- Services, map and app providers,

…as well as other stakeholders

ALLIANCE FOR PARKING DATA STANDARDS

INTEGRATION, COMPATIBILITY, COMMUNICATION

Digital Parking Domain

ALLIANCE FOR PARKING DATA STANDARDS

Customer

Parker

Car/app

AVP | **Payment Service** | **Journey Planner/Guidance**

Parking Place Capability

Payment Request | Customer Information | Payment Information

Availability & Tariff | Reservation Request & Confirmation | Arrival & Departure

Data Service

Rights Database(s)/Access Point(s)

Automated Valet Parking

Parking space Information

Availability real time and/or predicted

Local customer Information

Parking Operator

Static | **Dynamic** | **Customers** | **Performance**

Enforcement

Car Park AVP | **Parking Technology**

→ Interface requiring standardisation

6

INTEGRATION, COMPATIBILITY, COMMUNICATION

Business Process

ALLIANCE FOR PARKING DATA STANDARDS

Management Transactions

Request/ Response Header

Enforcement

Customer

Space Information

Security

Place

Purchase Parking

Retail Transactions

Occupancy

Rate

Credentials

Parking Usage Analysis

Operator

Vehicle Information

Operations Transactions

Statistics/ Analytics

Phase 1
Phase 2
Phase 3

INTEGRATION, COMPATIBILITY, COMMUNICATION

Parking Data Standards

- MDA modelling using UML and tool support for schema generation

- Using the DATEX II modelling framework (CEN 16157-1:2018)

- Tooled in Enterprise Architect v13

- Phase I defined Place, Rates and Occupancy

- Concepts to support parking industry view of the domain model, but lots of reuse of useful constructs from existing standards:

    - DATEX II Parking – CEN/TS16157-6:2014

    - TPEG-2 PKI – ISO 21219-14

    - Some linkage to traffic management approaches UK:UTMC; DE-OCIT

INTEGRATION, COMPATIBILITY, COMMUNICATION

Parking Data Standards

- Phase 1 available at the start of June, released at the US IPI Congress (c 3,000 attendees)

- Further phase releases later in 2018

- Active dialogue with automotive industry concerning extension for Automated Valet Parking

- Alliance Parking Data Model expected as a strong input into the revision of the DATEX II Parking publications model this summer – already presented to CEN/TC278 & ISO/TC204

INTEGRATION, COMPATIBILITY, COMMUNICATION

ALLIANCE FOR PARKING DATA STANDARDS