

# TTF Smarter Parking Group

## Digital TROs and the relationship between DTRO and APDS

Linking regulations and on-street parking data

HBC

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## Let's recap

### Parking Data Standards

BPA with other stakeholder bodies established the Alliance for Parking Data Standards (APDS)

Non-for-profit

Creation of global parking data standards

The APDS Specifications distributed to 500+ organisations/individuals

And form the baseline for:  
ISO TS 5206-1  
CEN TS 16157-6 “DATEX II”



**Alliance for Parking Data Standards**

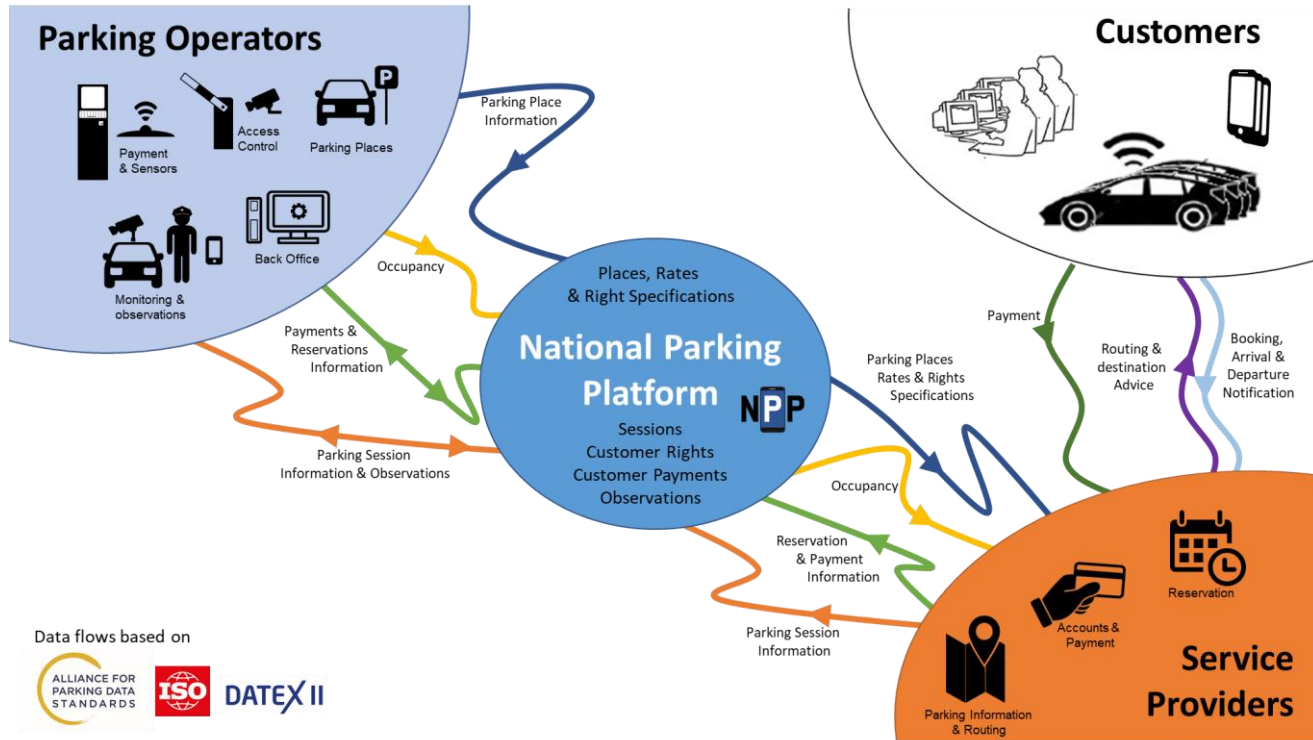
<https://allianceforparkingdatastandards.org>

**APDS Interface Specification**

<https://github.com/parkingdata/spec>

# The National Parking Platform

A publicly owned, national facility that enables Parking Operators (public and private) to communicate digitally with Service Providers.



The Platform is open to all Operators and Service Providers, enabling them to exchange the full range of parking information using APDS (ISO) standard interfaces.

Operators can:

- Describe the parking they offer (including rates, times, restrictions etc)
- Publicise occupancy in real time\*
- Accept payments and reservations\* from Service Providers without the need for a contract with each one
- Digitise compliance monitoring without the need for local digital infrastructure

Service Providers can:

- Offer their customers the ability to park in any participating Operator's facility
- Pay Operators for parking used by their Customers without the need for a contract with each one
- Negotiate rates and access with Operators for their Customers
- Reserve spaces in Operator's facilities\*
- Develop value added services (e.g. guidance to space, frictionless parking) based on standard, available information\*.

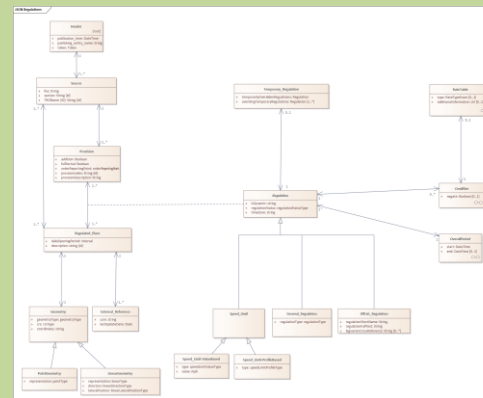
## Let's recap

## Digital Traffic Regulation Orders (DTRO)

Series of DfT projects progressing the concepts and specifications for future mandated publishing of digital TROs

## Data model validated by Local Authorities and service providers

Further technical and legislative work on-going, for a target national service implementation 2025?



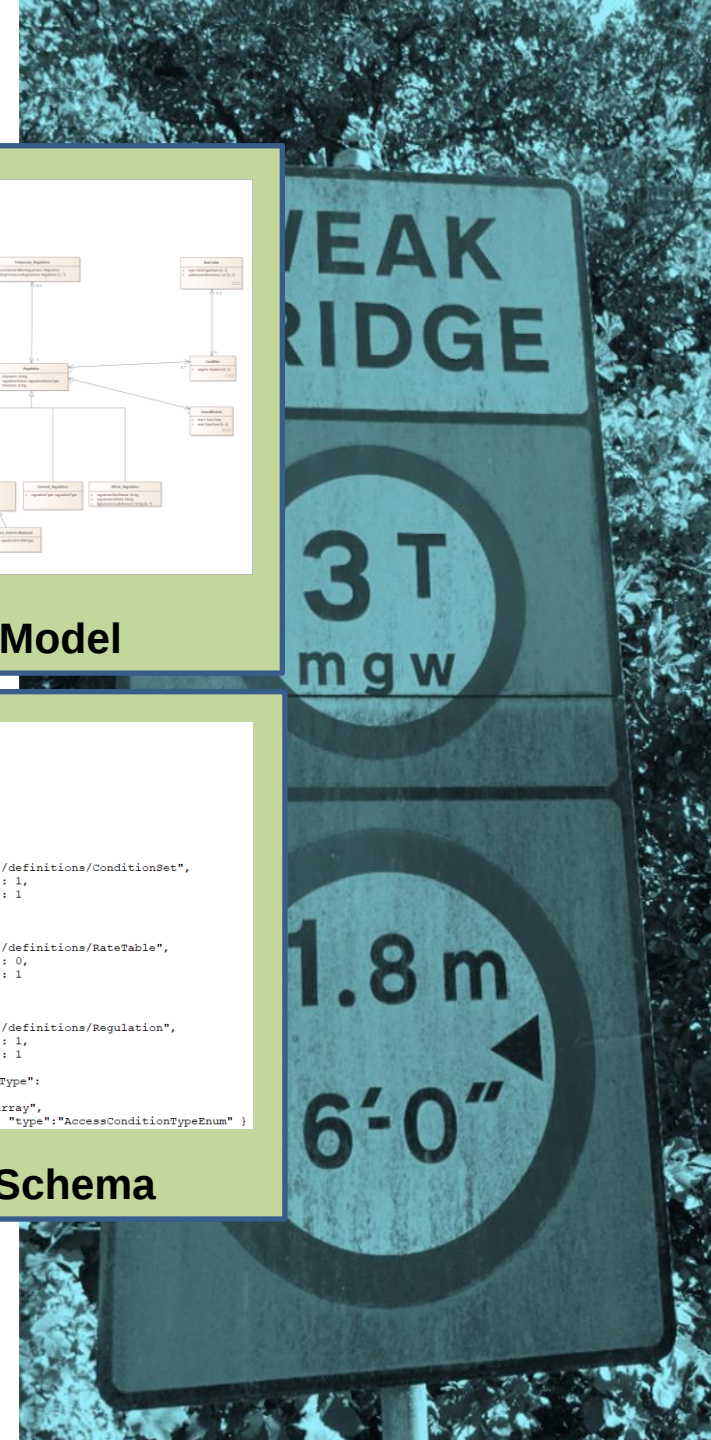
## Data Model

```

},
"definitions":
{
    "AccessCondition" :
    {
        "type": "object",
        "properties":
        {
            "ConditionSet":
            {
                "$ref": "#/definitions/ConditionSet",
                "minItems" : 1,
                "maxItems" : 1
            },
            "RateTable":
            {
                "$ref": "#/definitions/RateTable",
                "minItems" : 0,
                "maxItems" : 1
            },
            "Regulation":
            {
                "$ref": "#/definitions/Regulation",
                "minItems" : 1,
                "maxItems" : 1
            },
            "accessConditionType":
            {
                "type": "array",
                "items": { "type": "AccessConditionTypeEnum"
            }
        }
    }
}

```

## JSON Schema



# APDS and DTRO together

Different specifications by different stakeholder groups for different purposes

In NPP these work in tandem

- ❑ APDS primarily focussed off-street
- ❑ DTRO for on-street

Building on these experiences

(this) in the Alpha format as part of the TRO Data Digitisation pilot project.

Use the controls within this section to gain an insight into the data.

**Legend**

- Provision Type Defined
- Provision Type Null

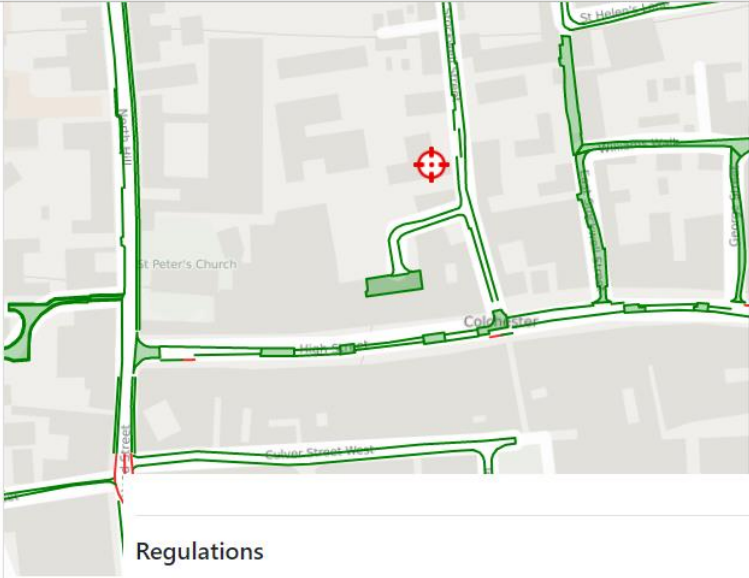
Find street, town and postcode

Output

- ☐ TROD - Alpha
- ☒ TROD - Alpha V2
- ☐ TROD - Discovery

Radius

550m



Regulations

API response:

```
{
  "geometryType": "linestring",
  "crstype": 27700,
  "coordinates": [
    [
      599635.5582,
      225444.7628
    ],
    [
      599636.2252,
      225444.4059
    ],
    [
      599638.2074,
      225441.7746
    ],
    [
      599639.2907,
      225441.7746
    ]
  ]
}
```



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## Harrod Booth Consulting Limited

Lead modeller APDS

Lead modeller DTRO

Convenor CEN TC 278 WG8 "DATEX II"

For More Details  
on the NPP:



**Alliance for Parking Data Standards**

<https://allianceforparkingdatastandards.org>

**APDS Interface Specification**

<https://github.com/parkingdata/spec>

<https://npp-uk.org>