# TPT Commuter API

# Note:

This documentation applies to server version 0.4.4

# General API Notes

All server endpoints only accept and return JSON Objects. One or more of the following HTTP Header entries should be added to every request:

```
Accept: application/json
Authorization: Bearer <secret_token>
Content-type:application/json
```

For unauthorized requests, the *Authorization* header may be ommitted. If a request requires authorization, then the *Authorization* header is mandatory, the is obtained from the server maintainer.

The Content-type header must be omitted from requests that do not carry a payload (e.g. all GET and DELETE requests).

Every endpoint response is delivered in a JSON object along with the status of the request (either success or error). Sample responses for a successful request failed request:

{'status': 'success', 'data': <JSON Object or value>}

{'status': 'error', hint='email', 'message': 'a hint may be provided'}

Failed requests also return a proper HTTP status code (e.g. 400, 401, 403, 404, 500, etc).

- 400: The server received a malformed request. Commonly seen when the JSON payload was incomplete, had unexpected entries or is simply malformed
- **401:** Returned by requests that require authorization if no secret token was provided or the provided token is invalid.
- 403: Returned by requests that require authorization if the provided secret token does not have access to the requested resources.
- 404: Returned when the requested resources are not found (never existed or have been deleted in the mean time)
- **409:** Returned when the requested action violates a database integrity constrain: e.g. uniqueness, bad foreign key references etc. The value of the hint en the offending entry from the POST payload.
- 422: Returned when the requested change violates some semantic data check or soft correlation between entities.
- **500:** Returned when a server error has occurred.

Successful requests will return the following HTTP status codes:

- **200:** The request was successful.
- 201: Returned by POST requests when a new record was successfully persisted. The *Location* response header is also set and contains a reference to the created record.
- **304:** Returned when the server record has not been modified after the timestamp the client provided in the request.

**Timestamps** follow the ISO 8601 format without timezone specification. The API assumes that all received timestamps are in UTC and will always returnin UTC. Examples:

 Correct:
 2016-01-05 09:00:00.00

 Incorrect:
 2016-01-05 09:00:00.00+02:00

 Incorrect:
 2016-01-05 09:00:00.00+02

 Incorrect:
 2016-01-05 09:00:00.00+00:00

It is advised that downstream clients also work with UTC timestamps and convert to localtime only when displaying inforation to the user.

**Data synchronization** is supported using the **from** query argument accepted by most bulk endpoints (e.g. endpoints that return lists of records). Note that synchronizing clients will also have to use the **start** and **count** query parameters because all bulk endpoints will only return at most 100 records per reque

# Places, Routes and RouteSteps

#### GET /v1/ttt/routes

Retrieves Routes in a list. No authorization required.

#### **Query parameters:**

count:	(optional, integer) includes in the returned list only this many records (max. 100).
start:	(optional, integer) skips this many records and only includes in the result records after this value.
from:	(optional, timestamp) includes in the returned list only items that have been modified after this date.
returns:	records in insertion order (FIFO)

Sample Route list:

```
[
{
  "route_id": 87654321,
  "created": "2017-01-05 09:00:00.00",
  "modified": "2017-01-05 09:00:00.00",
  "deleted": null,
  "route_name": "Tramvai 6 to Piața Traian",
"vehicle_kind": "tram"
  "ext": {
    "ratt_id": "4231",
    // route ids from external/upstream data provider (if any)
  },
  "attrib": {
    "square name": "6",
    // other misc route attributes ...
  }
},
{
  "route_id": 17654321,
  "created": "2017-01-05 09:10:00.00",
  "modified": "2017-01-05 09:10:00.00",
  "deleted": null,
  "route name": "Tramvai 6 to Piata Sf. Maria",
  "vehicle_kind": "tram"
  "ext": {
    "ratt id": "4231",
    // route ids from external/upstream data provider (if any)
  },
   'attrib": {
    "square_name": "6",
    // other misc route attributes ...
  }
},
{
  "route_id": 43218765,
"created": "2017-01-05 19:00:00.00",
"modified": "2017-01-05 19:00:00.00",
  "deleted": null,
  "route_name": "Autobuz 33 to Pod Cl. Șagului",
  "vehicle_kind": "bus"
  "ext": {
     "ratt id": "4237",
    // route ids from external/upstream data provider (if any)
  },
  "attrib": {
    "square_name": "33",
    // other misc route attributes ...
  }
},
{
  "route_id": 87654321,
  "created": "2017-01-05 19:00:10.00",
"modified": "2017-01-05 19:00:10.00",
  "deleted": null,
  "route_name": "Autobuz 33 to Catedrala Mitropolitană",
  "vehicle kind": "bus"
  "ext": {
     "ratt_id": "5231",
    // route ids from external/upstream data provider (if any)
  },
   'attrib": {
    "square name": "33",
    // other misc route attributes ...
  }
},
// ... and so on for every route in the list
```

#### **GET** /v1/ttt/routes/(route\_id)

Retrieves the Route object referenced by the given route\_id. No authorization required.

Sample Route object:

```
{
    "route_id": 87654321,
    "created": "2017-01-05 09:00:00.00",
    "modified": "2017-01-05 09:00:00.00",
```

```
"deleted": null,
"route name": "Tramvai 6 to Piata Traian",
"vehicle kind": "bus|tram|trolley|express|metro|river"
"ext": {
  "ratt_id": "4231",
 // route ids from external/upstream data provider (if any)
},
"attrib": {
 "square_name": "6|E8|22|11",
"short_name": "6|E8|M22|11",
  "heading": "Piața Traian",
 "from": "Piața Śf. Maria"
 // other misc route attributes ...
}
"route_steps": [
  {
    "step_id": 1234321,
    "step_order": 0,
    "is stop": true, "is enabled": true,
    "place": {
      "place_id": 12345678,
      "place name": "Piata Sf. Maria",
      "timezone": "+02:00",
"latitude": "45.754123",
      "longitude": "21.2123",
      "ext": {
        "ratt id": "4312",
        "ratt_crypto_name": "garble garble",
"ratt_fancy_name": "lorem ipsum"
         // place ids from external/upstream data provider
      },
      "attrib": {
        "poi": "shopping",
        // other misc place attributes ...
     }
   },
    "ext": {},
    "attrib": {
      "loading_side": "right"
     // other misc route step attributes ...
   }
 },
  {
    "step_id": 2224321,
    "step_order": 1,
    "is_stop": true, "is_enabled": true,
    "place": {
      "place_id": 32345678,
      "place name": "Catedrala Mitropolitana",
      "timezone": "+02:00",
      "latitude": "45.754741",
      "longitude": "21.2337",
      "ext": {
        // place ids from external/upstream data provider
      }.
       "attrib": {
       // other misc place attributes ...
      }
    },
    "ext": {},
    "attrib": {
     "loading_side": "right"
// other misc route step attributes ...
    }
 },
  {
    "step_id": 444321,
    "step_order": 2,
    "is_stop": true, "is_enabled": true,
    "place": {
       "place_id": 52345678,
      "place_name": "Catedrala Mitropolitana",
      "timezone": "+02:00",
      "latitude": "45.754741",
      "longitude": "21.2337",
      "ext": {
        // place ids from external/upstream data provider
      }.
       "attrib": {
       // other misc place attributes ...
      ŀ
```

```
},
  "ext": {},
  "attrib": {
    "loading_side": "right"
    // other misc route step attributes ...
    }
    },
    // and so on until the end of the route travel path
  ]
}
```

# POST /v1/ttt/routes

Creates a new route step from the POSTed RouteStep object. Returns the UUID and creation timestamp of the newly created object. Returns admin p

Sample *RouteStep* object:

```
{
  "route_name": "Tramvai 6 to Piața Traian",
  "vehicle_kind": "bus|tram|trolley|express|metro|river"
  "ext": {
     "ratt_id": "4231",
    "ratt crypto name": "Tv6a|E8|M22|Tb11",
    "ratt_fancy_name": "6|E8|M22|11"
    // ids from external/upstream data provider (if any)
  },
  "attrib": {
     "renovated": true,
    "square_name": "6|E8|22|11",
"short_name": "6|E8|M22|11",
    "heading": "Piața Traian",
"from": "Piața Sf. Maria"
    // other misc attributes ...
  }
}
```

### POST /v1/ttt/places

Creates a new place from the POSTed Place object. Returns the UUID and creation timestamp of the newly created object. Requres admin permission

Sample *Place* object:

```
{
    "place_name": "Catedrala Mitropolitana",
    "timezone": "+02:00",
    "latitude": "45.754741",
    "longitude": "21.2337",
    "ext": {
        "ratt_id": "4312",
        "ratt_crypto_name": "Badea Cartan 2tb",
        "ratt_fancy_name": "Piața Badea Cârțan"
        // ids from external/upstream data provider
    },
    "attrib": {
        "poi": "religious",
        // other misc attributes ...
    }
}
```

#### POST /v1/ttt/route\_steps

Creates a new route step from the POSTed RouteStep object. Returns the UUID and creation timestamp of the newly created object. Returns admin p

Sample RouteStep object:

```
{
    "route_id": 87654321,
    "place_id": 12345678,
    "step_order": 3,
    "is_stop": true,
    "is_enabled": true,
    "ext": {
        // ids from external/upstream data provider (if any)
    },
    "attrib": {
        "loading_side": "right"
        // other misc attributes ...
    }
}
```

Deletes all routes returning the number of removed records. Requres admin permission.

# DELETE /v1/ttt/places

Deletes all places returning the number of removed records. Requres admin permission.

# DELETE /v1/ttt/route\_steps

Deletes all route steps returning the number of removed records. Requres admin permission.