



monotch

SMART MOBILITY PLATFORMS

PBC-PRIORITY-DECISION-SYSTEM interface v1.1.0

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1 Versioning

This document is using a versioning scheme that indicates the version of this PBC interface and tracks the revisions of this document. This version scheme is <interface version major>.<interface version minor>.<document revision>. The first two version numbers (major and minor) indicate the version of the interface and only change when there is technical change in the described interface. Major version is only bumped when there is compatibility breaking change. Minor version is bumped on trivial, non breaking changes of the interface. The last version number indicates the revision of this document.

Version	Date	Author	Changes
1.0.0	02 Nov 2020	Leander Rijneveld	Initial interface specification
1.1.0	06 Nov 2020	Leander Rijneveld	Changed api-doc version to 1.0.6d due to the addition of the criterion type PUBLIC_TRANSPORT_LINE_NR Removed “Refresh token” as supported OAuth2 authentication flow

2 Referenced documents

ID	Reference	Version	Date
[1]	PBC-PRIORITY-RULES specification	1.1.0	06 Nov 2020
[2]	https://app.swaggerhub.com/apis-docs/monotch/PBC-PRIORITY-DECISION-SYSTEM/1.0.6d	1.0.6d	06 Nov 2020

3 Introduction

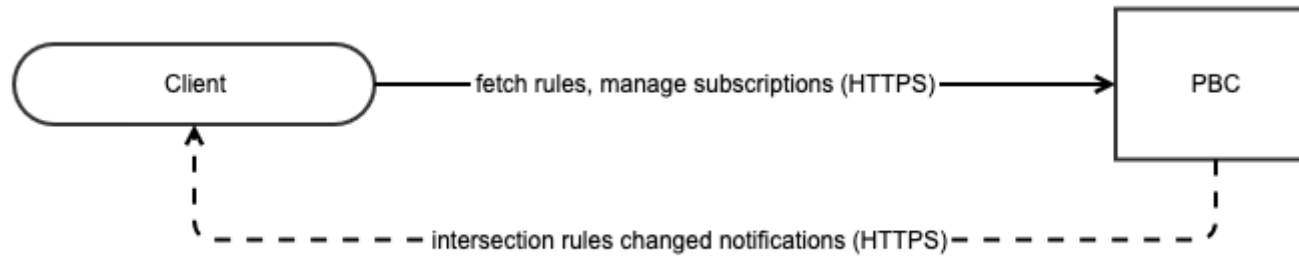
This document describes the technical interface with PBC for “Priority Decision Systems”. Using this interface, Priority Decision Systems can retrieve the priority rules which will need to be applied when deciding which level of priority to use in priority requests.

The primary goal of this document is to track/version the interface specification for this explicit context so that the impact of future PBC specification changes can be properly assessed.

4 Overview

Priority Decision Systems interface with PBC using a JSON-REST API. Using this API, broker systems are able to:

1. Fetch priority rules;
2. Subscribe for intersection priority rule change notifications.



5 API

5.1 Authentication and authorization

The authentication of the Client will be based on OAuth2 “Client Credentials Flow”.

5.2 Idempotency

All calls that would lead to a modification in the system are made idempotent by requiring a “X-Request-ID” header. We advise to use a Version 4 UUID to make each request unique.

5.3 Pagination

All “get multiple” calls return a paginated response by wrapping the array of entities with the following structure:

```
{
  "data": [
    ...
  ],
  "meta": {
    "continuationToken": null
  }
}
```

If the “continuationToken” contains a value (is not null), an additional “page” is available. Requesting the “next page” is done by repeating the call with the given “continuationToken”. The “final page” will have no “continuationToken” set.

5.4 Notification callback

The API allows for managing subscriptions. When a subscription exists, the registered notification URL is used to POST a notification when one or more priority rules of one or more intersections have changed. This allows the API client to request the new set of priority rules of the relevant intersection(s) as soon as a change notification is received.

```
{
  "intersectionUuids": [...],
  "changedSince": <ISO8601 datetime>
}
```

5.5 API endpoints

URI	Method	Description
/oauth/v1/token	POST	Create a new token
/subscriptions	POST	Creates a new subscription
/subscriptions	GET	Retrieves all subscriptions
/subscriptions/<uuid>	GET	Retrieves a subscription
/subscriptions/<uuid>	PUT	Updates a subscription
/subscriptions/<uuid>	DELETE	Deletes a subscription
/export/priority-rules	GET	Retrieves priority rules, can be filtered

 For further documentation on the definition and usage of priority rules, see “PBC-PRIORITY-RULES specification” document (reference [1]);
For further technical descriptions of the end points, see the online documentation (reference [2]).

