PRIM functional documentation

The Regional Mobility Information Platform

Getting started with the Île-de-France Mobilités Calculator APIs

Île de France mobilités

Contents

Preamble

The role of Île-de-France Mobilités

Île-de-France Mobilités is the Organizing Authority for Sustainable Mobility (AOMD) in the Ile-de-France region.

It designs, organizes and finances public transportation for all Ile-de-France residents.

The Organization **also guarantees the quality of the passenger information (transport offer, timetables, pricing and disruption information).**

IDF Mobilités currently has an Information System dedicated to collecting, storing and distributing public transport data. This consists of about **fifteen interfaced applications**, which ultimately offering:

- A range of services for passengers through websites and mobile applications.

- Data and APIs for developers/re-users through the site prim.iledefrance-mobilites.fr
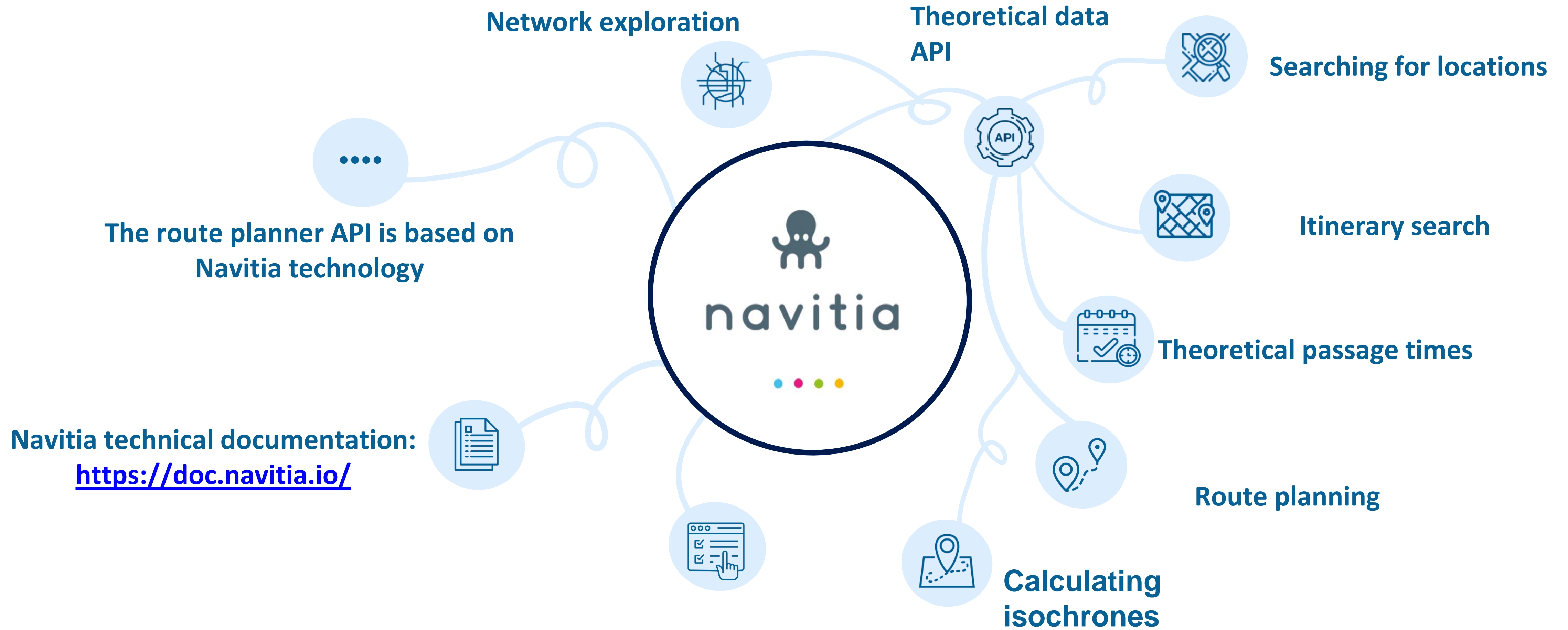
The passenger information business target must register in a **global trajectory** towards **MaaS (Mobility-as-a-Service)**. This essential step consists of **creating a Regional Mobility Information Platform (PRIM)** that:

- Aggregates the entire passenger information offering in terms of services and data;

- Feeds several Front Offices dedicated to different audiences, primarily those of Ile-de-France Mobilités, but possibly also to other customer Front Offices

Getting started with APIs

Île-de-France Mobilités calculator - Generic access (Navitia)

Ile-de-France Mobilités calculator - Generic access (Navitia)

Network exploration

Theoretical data API

Searching for locations

Itinerary search

The route planner API is based on Navitia technology

Theoretical passage times

Navitia technical documentation: https://doc.navitia.io/

Route planning

Calculating isochrones

Data quality

Data is updated **daily.**
Data covers the **next three weeks.**

All RER A and B timetables are provided by **SNCF.**

SNCF t**imetables include adaptations made during planned works**, as well as substitutions made by bus (e.g.: a bus journey will be offered if a section is cut off due to works).
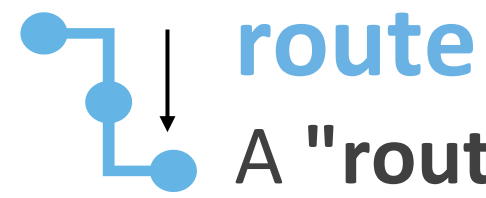
As a general rule, **RATP timetables do not include** adaptations made during planned works.

(e.g. closure of a metro station).

Contrary to GTFS files, **API data takes into account the Local Traffic Bans** that sometimes exist on certain OPTILE bus lines.
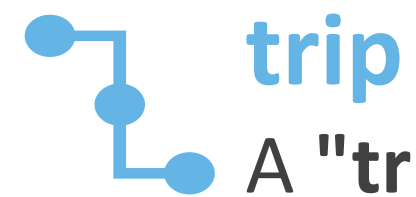
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Call settings

route
A **"route"** is a set of itineraries grouped under the same name. This object refers to the line identifier available in the line repository.
Ex: IDFM:C01371 (Métro 1)

trip
A **"trip"** is a structured sequence of stops on a given line.
IDFM:RATP:9541-C01371-10_3736592_955496 (Métro 1 - la Défense Direction)

service
A "service" trip is the variation of a route at a given time. A trip assigns a passage time to each stop on the route.
On a given day, a trip is unique: two vehicles in the same line each perform a different trip.
Ex: IDFM:100071 (Métro 1 - a trip that runs only on Saturdays from August 21, 2021, to August 28, 2021)
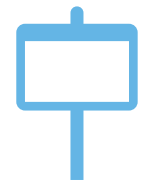
Call settings

agency

An **"agency"** is a commercial transport network
Ex : IDFM:Operator_100 (RATP)

"Stop_point" is non-permanent data for the bus.
It is likely to be changed each week when the GTFS is published.
The **"stop _points"** are stable for the rail network.
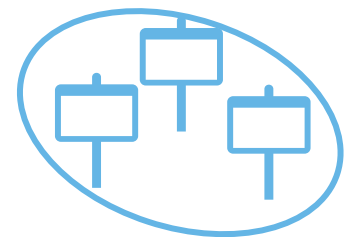
stop

A **"stop"** is an object that describes a type of stop.
1/ A single transporter's stop point. In this case, it takes the following forms: StopPoint Ferré (RER,Transilien): "IDFM:[ID ZdA] ".
- StopPoint Ferré (RER,Transilien): "IDFM:[ID ZdA] "
- StopPoint (rest): "IDFM:[ID ArR] ".
Ex : IDFM:3640 (Jean de La Fontaine)

2/ A "stop_area" is a grouping of physical stops with the same name, also known as a commercial stop.
- StopArea : "IDFM:[ID ZdC]"
Ex : IDFM:70604 (Porte de choisy)

Use {URI} parameter in Navitia generic API

The {URI} parameter means that the call parameters are integrated into the query URL and are not, as is usually the case, at the end of the query URL.

Example

Objective :
Retrieve all stop_points on metro line 1 (line:IDFM:C01373)
We use the method: v2/navitia/{uri}/stop_points/{id}
With call parameter in place of {id}: lines%**2F**line:IDFM:C01373

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Getting started with APIs

Île-de-France Mobilités Calculator – Traffic Messages (Navitia)

Optimize your queries to the Navitia Traffic Messages API

Reminder :

The number of elements returned for a query **cannot exceed 100**. If you request more, the API will return the first 100 results, and you'll have to paginate using the *start_page* parameter to obtain the next 100.

We recommend that you add some of the available parameters to your queries in order to get more precise responses that really fit your needs.

Some examples of queries with the {URI} parameter to refine your searches (method: /v2/navitia/{uri}/line_reports)

1- Objective : Retrieve traffic information for all stop_points on a line.
Sample query for RER C (line:IDFM:C01727): https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/line_reports/lines/line%3AIDFM%3AC01727/line_reports?count=100

2- Objective : Retrieve traffic information for a specific mode of transport
Sample query for "metro" mode: https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/line_reports/physical_modes/physical_mode%3AMetro/line_reports?count=100

3- Objective : Retrieve all traffic information with an exception:
Sample query for all traffic information except bus: https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/line_reports/line_reports?count=100&forbidden_uris%5B%5D=physical_mode%3ABus

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Decommissioning of "fr-idf" coverage to new coverage

The Île-de-France Mobilités Calculator APIs (Navitia) are changing coverage from mid-January 2024

Query structure - calling routes

Old route (decommissioning end of February 2024)

New route from January 11, 2024

Ile-de-France Mobilités Calculator - Generic access
https://prim.iledefrance-mobilites.fr/marketplace/navitia/coverage/fr-idf/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/navitia/coverage/fr-idf/places?q=bastille

Ile-de-France Mobilités Calculator - Generic access (v2)
https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/places?q=bastille

Ile-de-France Mobilités Calculator - Trafic messages
https://prim.iledefrance-mobilites.fr/marketplace/navitia/line_reports/coverage/fr-idf/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/navitia/line_reports/coverage/fr-idf/line_reports?count=1000

Ile-de-France Mobilités Calculator - Trafic messages (v2)
https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/line_reports/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/line_reports/line_reports?count=1000

Ile-de-France Mobilités Calculator - Isochrones
https://prim.iledefrance-mobilites.fr/marketplace/navitia/isochrones/coverage/fr-idf/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/navitia/isochrones/coverage/fr-idf/isochrones?from=stop_area:IDFM:71264&max_duration=1800&

Ile-de-France Mobilités Calculator - Isochrones (v2)
https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/isochrones/...
Example : https://prim.iledefrance-mobilites.fr/marketplace/v2/navitia/isochrones/isochrones?from=stop_area:IDFM:71264&max_duration=1800&

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Support & Documentation

Support & Documentation

The PRIM Support team will help you use these services through the various documentations provided.
Support can be reached by e-mail or through the "Slack" instant discussion forum.

Do you have a question?
A suggestion for improvement?
Don't hesitate to contact us via our
support e-mail: **contact-prim@iledefrance-mobilites.fr**

↓   Prim platform presentation (PDF)

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