



## Report of results after 10 TOMP-API working group meetings

16<sup>th</sup> October 2019

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### *What is the goal of this working group?*

To specify a Transport Operator to Mobility Provider Application Programming Interface (TOMP-API) that allows Mobility (or MaaS) Service Providers (MSPs) to access information on Transport Operators' (TOs) services and assets in a standardized and automated way. The first working version of this API needs to be implemented by January 1<sup>st</sup> 2020, when the first MaaS-pilots of the Ministry of Infrastructure and Water Management in the Netherlands will launch.

### *Who is collaborating to develop this?*

The following people and organizations (in no particular order) are involved. Where no name has been listed, the people involved have asked only the organization to be mentioned.

Organization	Name
Ministry of Infrastructure and Water Management	Edoardo Felici
Radiuz	Jef Heyse and Himanshu Gautam
Nazza	Rob Verkerk and Gerke Henkes
Paxx	Robert Baart
Intraffic	Pim van der Toolen
Cargoroo	Ross Curzon-Butler
University of Twente	Steven Haveman and J. Roberto Reyes García
Stapp.in	Reinald Bronkhorst
Stichting OpenGeo	Stefan de Konink
Mobiliteitsfabriek	Martijn van der Linden
Taxistop	Tjalle Groen
Skedgo	Tim Cooper
PON (Next Urban Mobility, Shuttel, Dockr)	Marijn Roverts
DAT Mobility	
Urbee	
Mobike	
RET	
HTM	
NS	
Cityway	
Accept Institute	
Innovactory	

### *What has been done so far?*

The Blueprint for a Transport Operator to Mobility Provider API V1.0 was published on 3<sup>rd</sup> June 2019. Work on version 1.1 started after publication. Collaboration has been set up through GitHub:

<https://github.com/efel85/TOMP-API/>

On this page, issues and updates to v1.0 of the API have been discussed, solved and approved to create a new OpenAPI3.0 specification, made available on Swaggerhub:

<https://app.swaggerhub.com/apis-docs/efel85/TOMP/1.1#>

Also, a WIKI-page has been set up as a quick start guide for developers interested in using the TOMP-API:

<https://github.com/efel85/TOMP-API/wiki>

To continue the documentation of the development, version 1.1 of the Blueprint for an Transport Operator to MaaS Provider API has been updated. The latest version of the Blueprint is available at

<https://github.com/efel85/TOMP-API/tree/master/documents> or through [dutchmobilityinnovations.com](http://dutchmobilityinnovations.com).

### *Which themes have been addressed?*

The main discussions points regarded the logic and semantics surrounding the booking process and different booking states. As TO, business- and operating models can vary greatly (station based/fixed timetable, free-floating, back-to-one, back-to-many, on-demand etc. etc.), the bookings process should incorporate and successfully represent all possible varieties.

Version 1.1 has been updated after an in-depth analysis of the functionalities presented in the previous version and their possible implementation limitations. To improve the capabilities of the TOMP-API, the major changes presented in version 1.1 are:

- Update of the planning phase, including time-to-live for the availability of assets.
- Update of booking phase, including the definition of booking states and temporary reservation of assets.
- Update of Trip Execution (TE) phase, including the definition of TE states and the allocation of specific assets for specific trips.
- The API specification has been adjusted to a consistent and uniform REST format.
  - All API calls for the planning, booking, and trip execution phases have been defined and/or updated.

A clear indication of the endpoints for Transport Operators (TOs) and Mobility Providers (MPs) within the TOMP-API has been made

### *Which milestones have been defined?*

Version 1.1 of the Blueprint includes the work done after 10 working group meetings, and will be published on 16<sup>th</sup> October 2019. This version allows stakeholders to build and test the API with functions for retrieving operator information, planning, booking and trip execution. Feedback from these tests will be included in version 1.2, to be published in January 2020.

For more information and to join this working group, please contact Edoardo Felici - [edoardo.felici@minienw.nl](mailto:edoardo.felici@minienw.nl)