Report of results after 5 TOMP-API working group meetings

1st August 2019

What is the goal of this working group?

To specify a Transport Operator to MaaS service Provider Application Programming Interface (TOMP-API) that allows 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 1st 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
DAT Mobility	
Urbee	
Mobike	
RET	
HTM	
NS	
Cityway	
Accept Institute	
Innovactory	

What has been done so far?

Collaboration has been set up through GitHub: https://github.com/efel85/TOMP-API/
As a starting point for the development, version 1.0 of the Blueprint for an Transport Operator to MaaS Provider API has been used (available through www.dutchmobilityinnovations.com). This document, a collaborative effort with feedback from a number of bike sharing, car sharing, MaaS Service Providers and public transport operators, lays the functional foundation for the TOMP-API. The working group is now going through the specification to make sure it is ready to be developed and tested accordingly.

The following statistics apply to the first five meetings (held from 29th May to 24th July 2019):

Meetings:	
# of meetings:	5 (once every two weeks)
lowest attendance in meeting	7 (meeting no. 2, 12th June)
highest attendance in meeting	12 (meeting no. 4, 10th July)
Github:	
# of issues listed	38
# of pull requests made	9
# of commits to the repository	106
# of active contributors to the repository	6
# unique visitors	17
# of views	300

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.

TOs should set up two API-endpoints: one for so-called 'static information', which in line with GBFS (General Bikeshare Feed Specification), provides MSPs with generic system and station information, including travel conditions and areas & times of operation. This information is provided with a time-to-live to determine how long the information will remain relevant. The second endpoint provides 'dynamic information', relating to real-time availability of assets and on-the-go notifications.

The proposal to incorporate webhooks for individual asset updates into the specification has been made, allowing MSPs to subscribe to and TOs to provide real-time status information on availability or on-trip notifications about specific assets. This greatly increases reliability and specificity of the information and services provided to the end users.

Which milestones have been defined?

Version 1.1 of the Blueprint will include the work done after 10 working group meetings, and will be published in October 2019. This version should allow 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