FJELLINJEN

Request for Proposal

AutoPASS Toll Collector solution

SSA-T, Appendix 1 Annex 7

Functional Unit - Distribution of configuration

Sign. Customer   Sign. Contractor

Version log

Version	Initials	Date	Comments/amendments
0.9	GB	06.03.2018	Preliminary RFP to Bidders

Version log

Sign. Customer   Sign. Contractor

Contents

SIGN. CUSTOMER   SIGN. CONTRACTOR

1 CONFIGURATION MAINTENANCE

All configuration necessary for the AutoPASS interoperability is mastered in the AutoPASS IP, this means that all structures such as toll stations, lanes, agreement types, pricing rules and all codes and types, are maintained in AutoPASS IP and distributed to other components.

All configuration is done through a GUI in AutoPass IP. The configuration is then send through AutoPass HUB to roadside, TC, TSP, EasyGo and ACFC.

The GUI will be used by a limited number of people; one to two per RBPS. In addition to the GUI an upload and download functionality should be possible to use during creation of large amounts of configuration.

1.1 Configuration of a new Toll project

When a new toll project has been approved it has to be configured in AutoPASS IP. The information needed to configure a toll project will at least be all relevant information about the toll charger, toll stations and usage of the pricing rules.

How the toll project is to be configured will be described during the implementation project and the description will be referred to here. For each new configured toll project there will be a "Site accepted test" to verify that the toll project has been configured correctly.

1.2 Configuration of a new Toll station (Toll station table)

When a new toll station has been approved it has to be configured in AutoPASS IP. The information needed to configure a toll station will at least be the content of the Toll station table as described in the Data formats document.

The toll station table contains information about every toll station: Actor ID, Actor name, the name of the toll stations, number of the toll stations lanes, inbound/outbound, lane type.

It should also contain information about who provides service & maintenance of the toll station, when the toll station was built and planned duration. Every toll station should also contain a grid reference and information about which operator operates the toll station.

Any changes made in the "global" TST shall result in deleting of the outdated TST.

Toll station config. is generated based on new or changed information, and send as a message through the AutoPass HUB.

How the toll station is to be configured will be described during the implementation project and the description will be referred to here.

1.3 Modifying Toll project

It must be possible to change the configuration of a toll project. These changes must be done in a GUI in AutoPass IP. Examples of changes are:

- Some Toll station in a project will no longer be operative and therefore must be removed from the toll project
- New toll stations have been added to the toll project.

- New rules for pricing the passages in the toll project.
- Etc.

1.4   Configuration of a new AutoPASS price rule

When a new price rule is decided upon, it has to be configured in AutoPASS IP. The information needed to configure a price rule will always be done in a GUI

How the price rule is to be configured will be described during the implementation project and the description will be referred to here.

1.4.1   Price file

The price file contains information about the prices relevant for the signs on the roadside, relevant to Customers and systems containing information regarding prices and prices rules for toll stations such as NVDB (Norsk Veidatabank). The price file is sent out to the roadside so that the variable message sign can show the correct price at the correct time. The price file is described in the Data format document.

The price file is generated based on, for example new prices or activation of a price rule. The price file shall be available for the roadside so that the variable message sign always displays the correct prices, and is therefore sent as a message through the AutoPass HUB.

1.5   Removing configuration for a paid Toll project

When a toll project has been paid, and is being closed the following configuration needs to be set to a status which means it can no longer be used, but remain as reference until deleted.

This applies to all information in AutoPASS IP about toll projects and toll stations.

2 CONFIGURATION OF A NEW TOLL SERVICE PROVIDER

When a new toll service provider has been approved, it must be configured in AutoPASS IP. The information needed to configure a toll service provider will be at least the content of the Actor table as described in the Data formats document.

Examples of information in the actor table are: Actor ID, Actor name, address, telephone number, VAT number, IBAN/BIC, debtor and creditor information.

The Actor table is generated based on new or changed information, and send as a message through the AutoPass HUB.

Verifying and technical approval of a new Toll service provider will be a project in itself, and all the necessary steps will be part of the approval project. The technical steps to set up and verify a new Toll service provider will be part of the system documentation and functional unit for a new Toll service provider.

3 CONFIGURATION OF TYPES, CODES AND VALUES

All tables containing types, codes and other values described in the Data format document shall be possible to maintain in AutoPass IP through a GUI. Some of these are described in some detail below. During the implementation of the new solutions this chapter will be completely updated, based on the different solutions.

All passages have signal codes and a passage flag. Signal codes and passage flags are information set on the roadside and must be visible for TC and TSP. A passage has only one signal code, but can have one or more passage flags. Signal codes and passage flags tell the TC and TSP why a passage is priced the way it is, and if there are images connected to the passage.

3.1 Signal codes

Every passage has one and only one signal code. It`s used to describe which type of passage it is, and how the passage took place.

Example of signal codes are:

Signal code 2. Valid passage in AutoPASS lane.

Signal code 22. Passage in AutoPASS lane without detected OBU or EFC Mark not approved.

Signal code 42. Passage in lane without charging equipment. (Often used for passages in an opposed lane)

A complete list can be found in table 2, document 4.3 charging point equipment.

Notes:
1. Where there is a passage with signal code 8, there will also be a passage with signal code 22. The passage with signal code 22 must therefore never be seen as a duplicate.
2. The following signal code generates pictures: Signal code 2, 10, 20, 22, 23, 24, 25, 28, 42, 50, 51, 54, 60, 61, 62, 64 and 99.

3.2   Passage flag

A passage flag is the sum of one or many flags. Information regarding passage flag are information that comes from the transaction file.

Here is a list over the passage flags. The passage flags must be visible for the TC and TSP.

1. Legal passage
4. Battery low
8. Passage with video image taken.
16384. Tag has been tampered

Complete list can be found in table 8 in document 4.3 charging point equipment.

3.3   Flag set by AutoPass IP.

The AutoPass IP must have a set of flags to show the pricing calculation every passage. For example, the AutoPass IP must set a flag for every exemption rule, free passages because of time or because of passage count.

These flags set by AutoPass IP must be visible for the TC and TSP. Every passage can have one or many flags.