Vedlegg 2.4

AutoPASS – Requirement specification

4.3 Appendix A – Transaction File AutoPASS Ferry

DOCUMENT STATUS

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Final	1.0	Part of the tender documents

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DOCUMENT REVISION HISTORY

Version	Date	Author	Main changes
1.0	06.07.2016	Per Einar Pedersli	New document

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Document Revision History

Version	Date	Author	Main changes
1.0	06.07.2016	Per Einar Pedersli	First edition

The objectives of this document

This document provides a specification of interface between ferry ticketing system and back office central system. The interface combine both autoPASS OBU transactions and autoPASS card transactions (manual system).

This document will be an appendix to the requirements in 4.3 - AutoPASS CPE Specification, Interface Road side-CS.

Definition

Toll Charger	The term used in EasyGo for an entity operating a toll domain (including RSE)
Toll Service Provider	The term used in EasyGo for an entity issuing OBE to Service Users
Sentral Tjenesteleverandør	Receiver of transactions file and operate all local customer agreements.
CP	Charging point (Roadside), used for OBU reading
TM	Ticket Machine, used for autoPASS Card reading. Might also be integrated with a mobile OBU reader

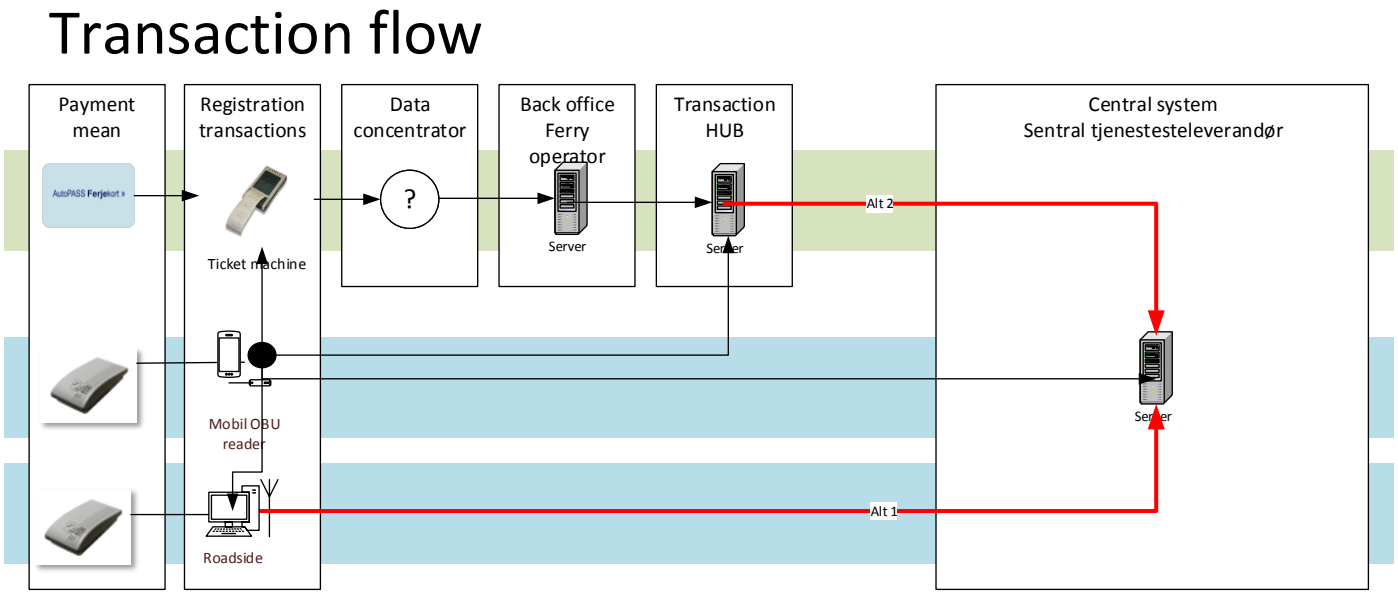
References

[1]	HBv821 XML transaksjonsformat for fergesektoren
[2]	Ferjekortspesifikasjon_profilerkoder og produkter ver 1 0

1 Introduction

NPRA will in large scale deploy AutoPASS system for use by the ferry operators. Due to a more complex tax system and integration with use of autoPASS card transactions there is need for a new definition of the transaction file. The purpose of a new transaction file is to combine traditional autoPASS system with manual transactions in such a way that all information needed to do the services is a part of the transaction. The roadside system must include information to make pricing possible. Both the manual system and autoPASS system will send information to the back office system operator for pricing , discount calculations, updating local agreements, exchange data to EasyGo and to the ferry companies (statistics). See chapter 2 for system overview.

2 System overview



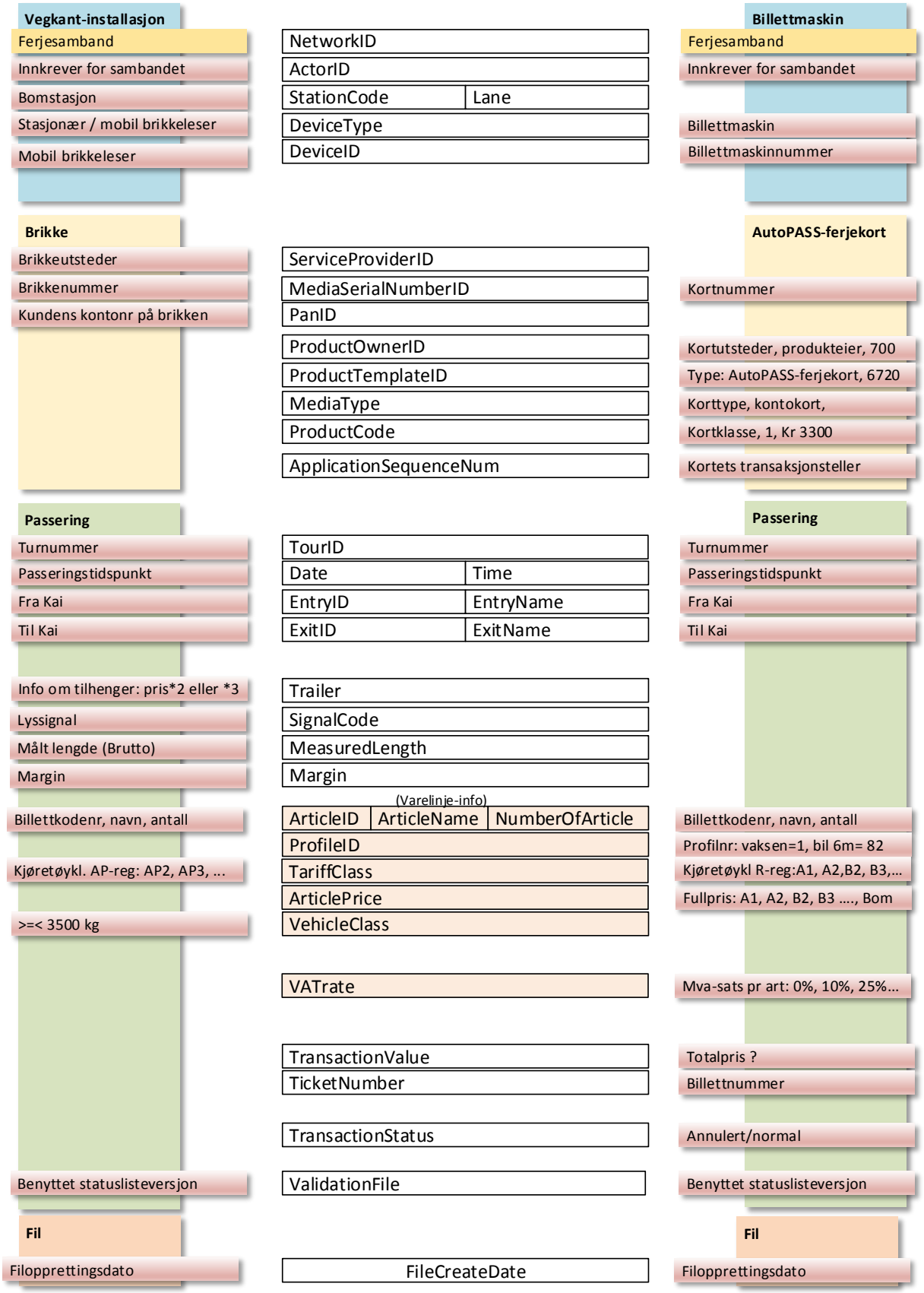
Transaction file defined in this document is generated at the Toll charger (Ferry company) by use of Ticket machine , Mobile OBU reader or Roadside OBU reader. Payment mean is either an OBU or an AutoPASS card. The files is sent to the back office system (Sentral Tjenesteleverandør, see red lines in figure above).

For OBU transactions there will be a pricing and charging process in the back office system. OBU transactions will charge the customers local agreement or sent to a foreign issuer, same procedures as autoPASS system for road Tolling. AutoPASS card transactions will charge the customers local agreement.

3 Transaction content

The new transaction file is a combination of information from autoPASS OBU passings and autoPASS Card passings.

All of this information is combined into one file structure, see table below.



3.1 Field description

XML-Field

Description: Describe the content of the fields

Origin: CP-Config : Data from ChargingPoint (Roadside). Same value for all passings.

CP: Data generated at Charging Point.

CP-StatusFile: Data for each OBU from status File.

TM-Config: Data from Ticket machine Same value for all passings.

TM: Data generated in Ticket machine, normally manually selected by an operator.

OBU: Data received from the EasyGo OBU.

Card: Data received from the AutoPASS Card.

Mandatory: OBU: Field must have a value for EasyGo OBU passing.

Card: Field must have a value for AutoPASS Card passing.

XML Field	Definition/Description	Origin	Mandatory
NetworkID	Number of network	CP-Config/TM	OBU/Card
ActorID	Toll charger	CP-Config/TM-Config	OBU/Card
StationCode	Number of station	CP-Config	OBU
Lane	ID for each lane at Roadside	CP	OBU
DeviceType	1=Fixed Roadside , 2=Mobile OBU Reader, 3 TicketMachine (AutoPASS Card)	CP-Config/TM-Config	OBU/Card
DeviceID	ID for each MobileOBUReader and TicketMachine.	TM-Config	Card
ServiceProviderId	OBU Issuer	OBU	OBU
MediaSerialNumberId	OBU Number: CountryCode, IssuerIdentifier and ServiceNumber CardNumber, see [1]	OBU/Card	OBU/Card
ProductOwnerID	Identify Card Issuer/productOwner of AutoPASS ferry card. Id= 700= Sentral tjenesteleverandør	Card	Card
ProductTemplateID	ProductTemplateID= 6720	Card	Card
MediaType	Identify type of card, AutoPASS ferry card = 1	Card	Card
ProductCode	Code = 1 , tariffclasses B2-B4 and motorcycles Code = 2 , tariffclasses B5-B8 Code = 3 , tariffclasses B9-B10	Card	Card
ApplicationSequenceNum	Transaction counter number in AutoPASS ferry card.	Card	Card
TourId	CP: predefined tourID's based on time of passing TicketMachine: Uploaded for each FerryTour	CP/TM	OBU/Card
Date	Format: yyyy-mm-dd	CP/TM	OBU/Card
Time	Format: Thh:mm:ss	CP/TM	OBU/Card
EntryID	National registry	CP-Config/TM	OBU/Card
EntryName	National registry	CP-Config/TM	OBU/Card
ExitID	National registry	CP-Config/TM	OBU/Card
ExitName	National registry	CP-Config/TM	OBU/Card
Trailer	0=No trailer 1= Trailer detected	CP	OBU

XML Field	Definition/Description	Origin	Mandatory
SignalCode	EasyGo OBU : From Status list, 02 or 10	CP-StatusFile	OBU
VehicleLenght	Length of vehicle (without trailer)	CP-StatusFile	OBU
MeasuredLenght	Total Length (incl. trailer)	CP	OBU
Margin	Margin for automatic length measurement, number of cm. MeasuredLenght-Margin -> TariffClass	CP-Config/CP	OBU
ArticleID	See [2]	TM	Card
ArticleName	See [2]	TM	Card
NumberOfArticle	See [2]	TM	Card
ProfileID	See [2]	TM	Card
TariffClass	AutoPASS Card: A1, A2,B2,B3,B4,B5,B6,B7,B8,B9,B10,EL,MC EasyGo OBU: AP1,AP2,AP3,AP4,AP5,AP6,AP7,AP8,AP9,EL	CP/TM	OBU/Card
Article Price	AutoPASS Card: Full price	TM	Card
VehicleClass	EasyGo OBU : From Status list, 01 <=3500kg, 02>=3501 kg	CP-StatusFile	OBU
VATrate	VAT rate for each Article	TM-Config	Card
TransactionValue	Total price	TM	Card
TicketNumber	Number from TM	TM	Card
TransactionStatus	Status from TM	TM	Card
ValidatonFile	OBU Statusfile, OBU Blacklist, CardBlacklist	CP/TM	OBU/Card
FileCreateDate	Format: yyyy-mm-dd	CP/TM	OBU/Card

4 Transaction File format

The process for defining the final file format:

- Sentral Tjenesteleverandør propose what standard and open format there will be used.
- NPRA check and confirm that the proposed standard is inside NPRA IT strategy for file convention.
- Sentral Tjenesteleverandør set up the xml scheme and develop the file structure
- NPRA check and verify that the file structure will fulfil the data needed for autoPASS ferry.

Both Sentral Tjenesteleverandør and NPRA might come with proposal of changes of file content if that will benefit the system functionality, but this shall be small changes from what is presented in chapter 2 and 3.