

Trafikförvaltningen

PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)Handläggare
Charlotta Dorph
08-686 39 63
charlotta.dorph@sll.se

Request for information regarding EMV card supply for Stockholm Public transport

Stockholm Traffic Administration is planning to procure EMV (Europay, Mastercard, Visa) Cards to be used in public transport as replacement for the current card standard Mifare Plus

1 Introduction

Trafikförvaltningen ("TF"), The Stockholm Traffic Administration, is responsible for public transport in Stockholm County, through the brands SL, Waxholmsbolaget and Färdtjänst.

In order to travel by public transport, patrons must hold a valid ticket. The main carrier for tickets is the travel card.

As the current contract for card manufacture ends in March 2022, TF intends to procure a new contract for manufacturing of cards and wants to know more about what the market can offer.

2 Background

TF currently uses a smart card that keeps the ticket stored on the card.

The next generation of ticket system that is about to be introduced in Stockholm will use a travel card of EMV standard. The card will only act as a bearer with an ID pointing to the ticket. The ticket itself will reside in the backend of the system. It will be a closed loop EMV card, i.e. it can only be used in the Stockholm public transport for validation of tickets connected to the card. It cannot be used for payments.

Region Stockholm
Trafikförvaltningen
105 73 StockholmLeveransadress:
Lindhagensgatan 100
Godsmottagningen
112 51 StockholmTelefon: 08-686 16 00
Fax: 08-686 16 06
E-post: registrator.tf@sll.seSäte: Stockholm
Org.nr: 232100-0016
www.sll.se

Trafikförvaltningen
IT-avdelningen
Utveckling och digitalisering
Agil produktutveckling

PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)

Travel cards can be bought at sales agents, ticket booths and online using TFs e-commerce portal sl.se.

It is possible to just buy the card, however, that is not very common. Patrons usually buy their card when buying a ticket.

To enable TF to follow switches in card technology, the card will have a life span of six years. After that the card will need to be replaced.

3 Purpose and goal of the RFI

Since TF is an authority, the procurement will be carried out as a public tender. To make reasonable and relevant requirements in such procurement, TF wants to learn from the market and see what kind of solutions are offered. TF's intention is to have this request for information followed by a public tender in 2020 under the Act on Procurement in the Water, Energy, Transport and Postal Services Sectors (2016:1146).

4 Business functions required

- Manufacturing of EMV travel cards printed with design specified by TF. There will be at least five different designs that needs to be printed (SL, WÅAB, Färdtjänst, UL, X-trafik).
- The cards, including the print on the card, needs to have a life span of at least 6 years.
- The cards has to have a tactile identifier (a tactile notch).
- Supply of cards for delivery to sales agents, private e-commerce customers, e-commerce orders from companies and schools.
- Supply of merchandise and supply material to be delivered to our about 700 sales agents.
- Some cards needs to be individualized by printing the patron's photo and/or name on the card.
- At times a temporary card designs will be used, for example specific designs for campaigns. This can entail both larger and smaller editions.
- When delivering one card to one customer, the card is attached to a carrier. TF will specify the design of the carrier.
- TF would like to have the option to send cards without carriers.
- TF would like to have the option to be able to design carriers on demand.
- In the future we would like to offer provisioning of cards to mobile wallets.

Trafikförvaltningen
IT-avdelningen
Utveckling och digitalisering
Agil produktutveckling

PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)

5 Workflows

5.1 Introduction

In the following items, TF describes the current workflows. From these descriptions, TF are open to suggestions on

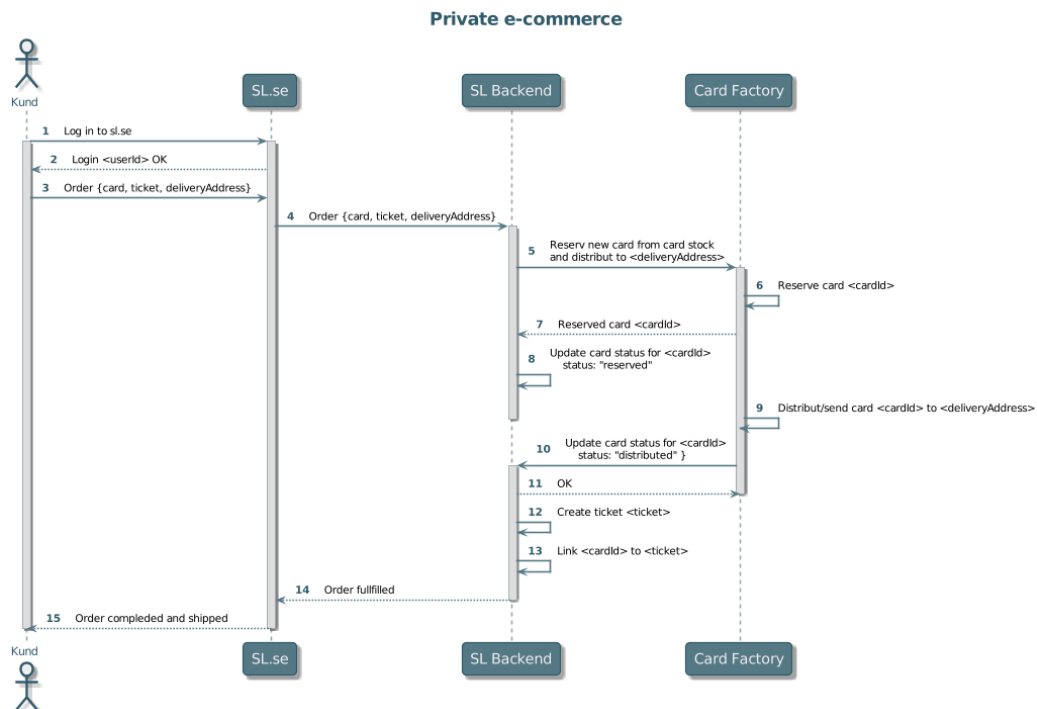
1. how TF can change its requirements to simplify the solution
2. what difficulties the supplier sees based on the desired requirements
3. if there are other opportunities or services that TF should consider
4. environmentally friendly materials for cards
5. how to distribute tickets and cards to school children, when there are children using existing cards and children that do not have a card
6. provisioning EMV cards to mobile wallets. What is the processes and requirements for that? If possible we also would like to know what costs are involved.

5.2 Examples of workflows

The workflows described as sequence diagrams are work in progress and not necessarily the final solution.

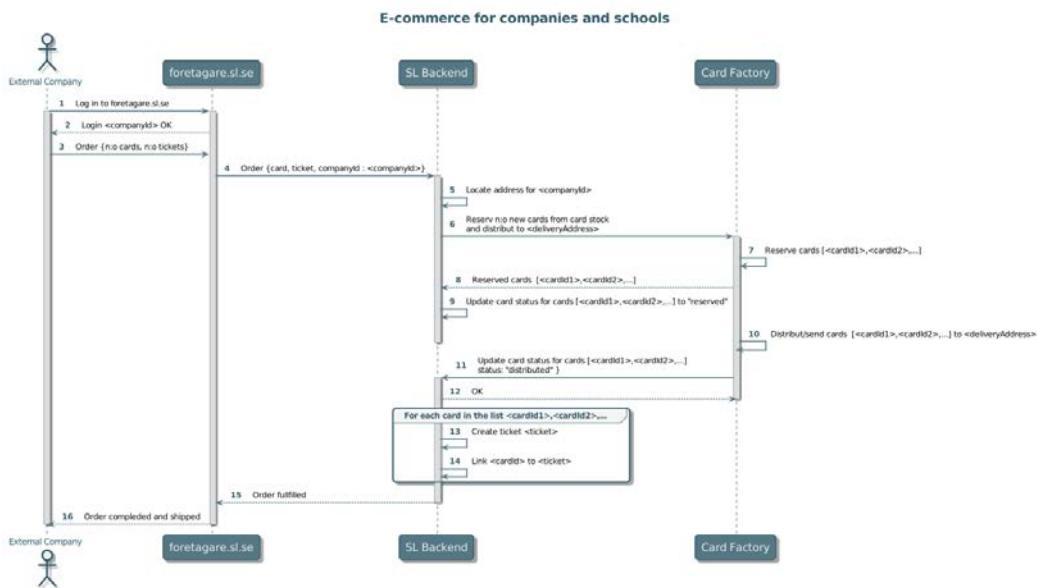
5.2.1 Private e-commerce

- Customer logs on to sl.se
- Customer places order for card and/or ticket
- Card factory manufactures card
- Ticket is connected to card (connection made by SL)
- Card factory sends card with order confirmation to customer



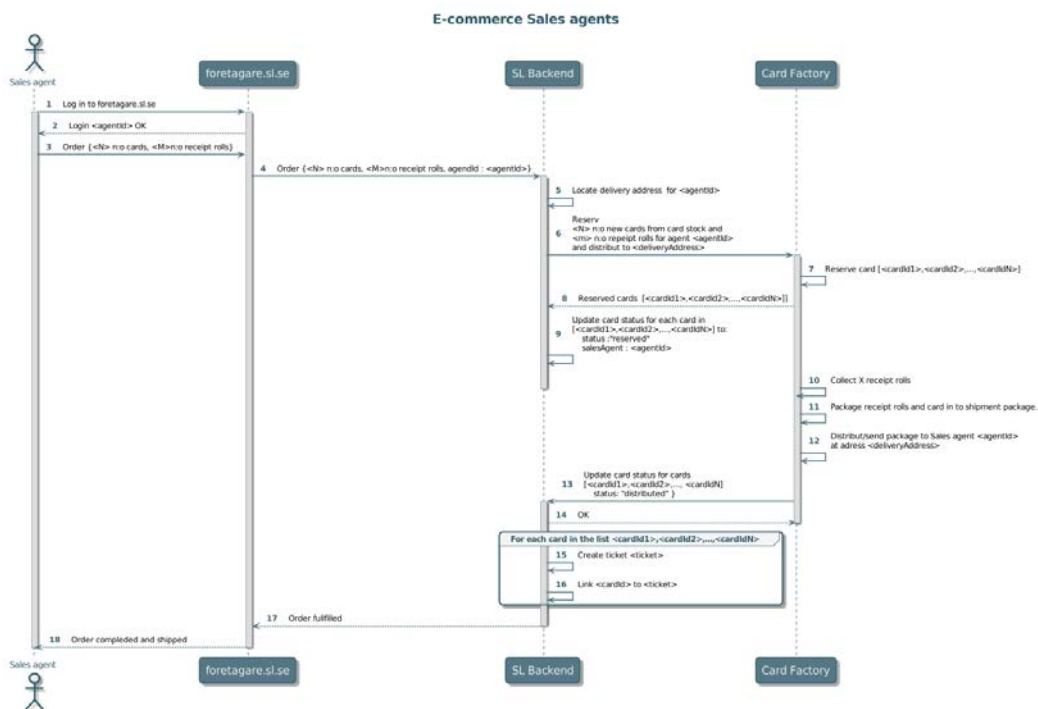
5.2.2 E-commerce for companies and schools

- Company/school administrator logs on to foretagare.sl.se
- Company administrator places order for cards and tickets
- Card factory manufactures card
- Tickets are connected to cards (connection made by SL)
- Card factory sends cards to company/school



5.2.3 E-commerce Sales agents

- Sales agent logs on to Foretagare.sl.se
- Sales agent places order for required amount of cards and/or receipt rolls/campaign material
- Card factory manufactures cards
- Card factory packs items according to order
- Card factory delivers order to sales agents



Trafikförvaltningen
IT-avdelningen
Utveckling och digitalisering
Agil produktutveckling

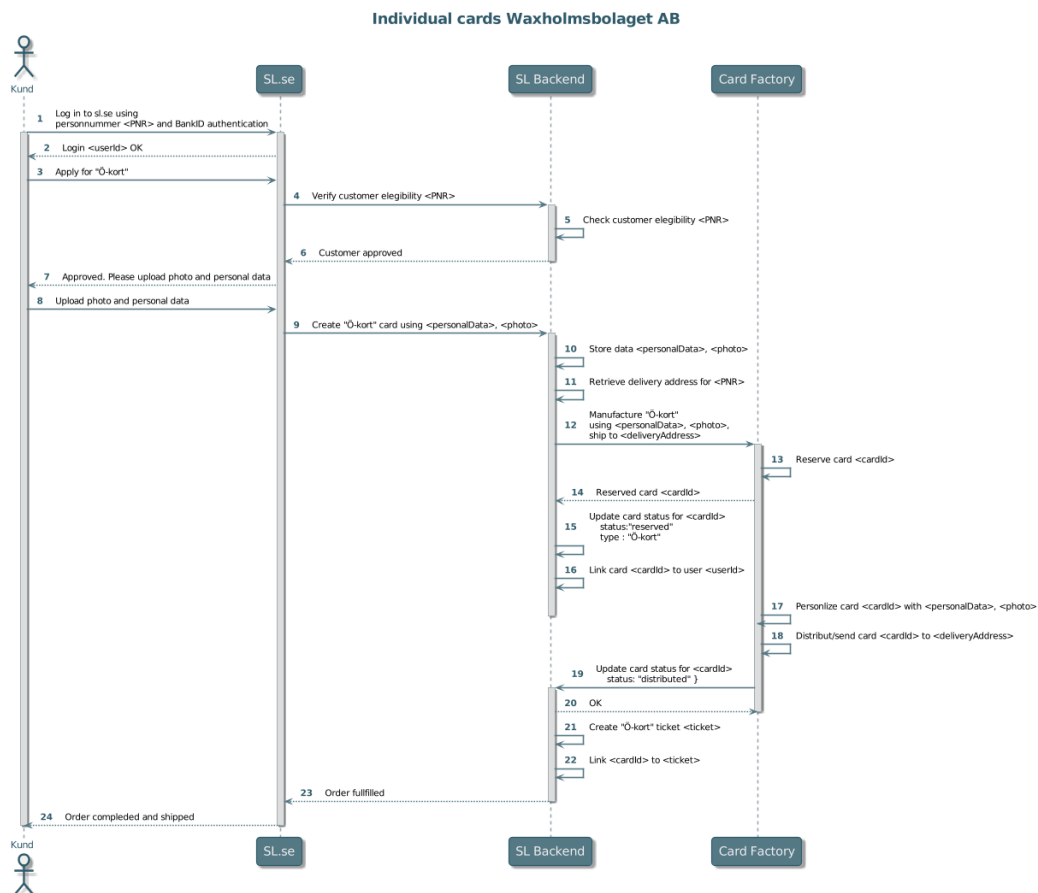
PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)

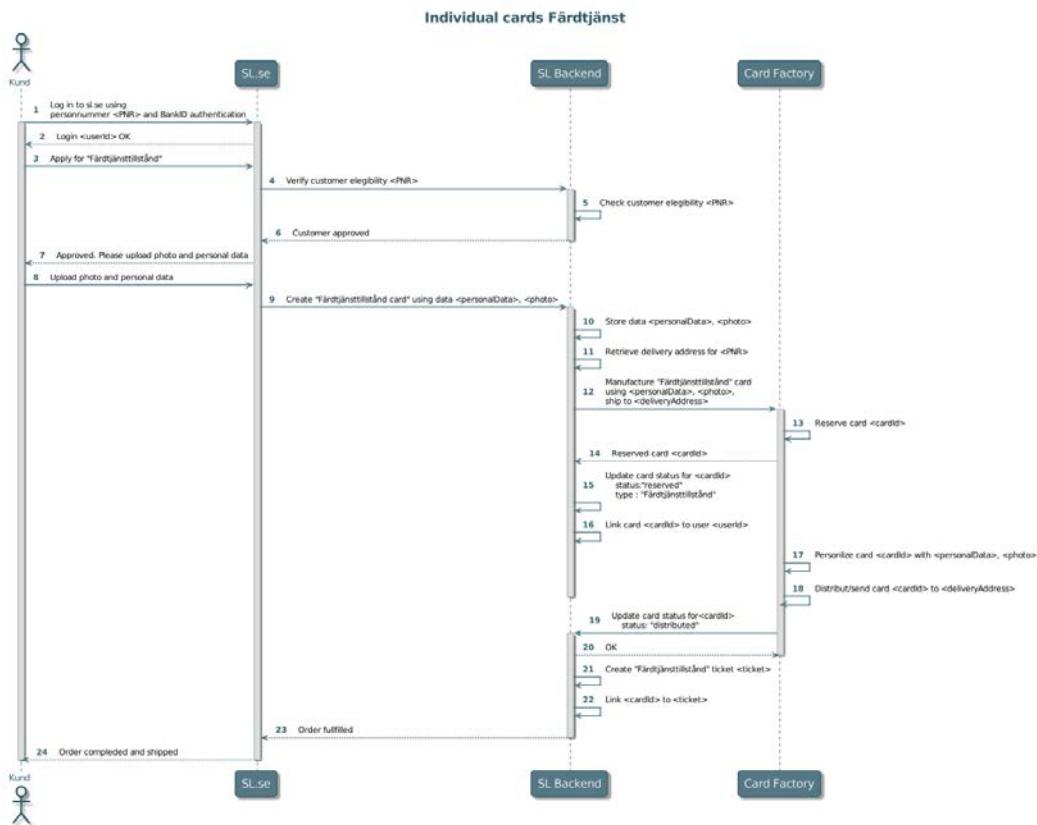
5.2.4 Individual cards Waxholmsbolaget AB

- Customer applies for “Ö-kort”
- SL approves/denies application
- If approved the customer is asked to upload a photo and personal details to a website.
- Information about individual (incl photo and name) is sent to card factory.
- Card factory manufactures cards according to order information.
- Ticket is connected to the card (connection made by SL).
- Card factory sends card to customer.



5.2.5 Individual cards Färdtjänst

- Customer applies for Färdtjänsttillstånd
- SL approves/denies application
- If approved the customer is asked to upload a photo and personal details to a website.
- Information about individual (incl photo and name) is sent to card factory.
- Card factory manufactures cards according to order information.
- Ticket is connected to the card (connection made by SL).
- Card factory sends card to customer.



Trafikförvaltningen
IT-avdelningen
Utveckling och digitalisering
Agil produktutveckling

PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)

5.3 Card supplier should be able to

- Host Certificate Authority (CA) on behalf of SL.
- Key and Certificate generation on behalf of SL.
- Be responsible for the full life cycle of the keys. The processes and procedures shall be implemented in accordance with the processes specified in the EMVco Security and Key Management specification (EMV 4.3 Book 2).
- Integrate with TF's ticket system using REST API or equivalent.
- Integrate with TF's CRM and sales platform using REST API or equivalent.
- Manufacture EMV-standard cards to be used for validation in public transport.
- Manufacture cards with several different designs specified by SL.
- Manufacture cards with company specific prints.
- Manufacture cards with personal information, for example name and/or photo of patron.
- Keep traceability for all processes.
- Keep a stock of cards.
- Store cards in a safe manner.
- Keep a stock of different supply materials (for example receipt rolls, campaign material) for distribution to sales agents according to order placed by them.
- Send cards attached to carriers and with order confirmation to private customers according to order made by customer using SLs CRM and e-commerce platform.
- Send cards to companies and schools according to order made by company/school using SLs CRM and e-commerce platform.
- Attach order confirmation to each order.
- Send cards with or without company specific print to a selection of patrons at which TF will supply the card factory with a list of addresses.
- Print different carriers on demand.

6 Q&A

If there are any questions regarding this RFI do not hesitate to contact us. Questions can be submitted through TendSign, e-mail or phone. Contact information is stated below.

Trafikförvaltningen
IT-avdelningen
Utveckling och digitalisering
Agil produktutveckling

PM
2020-03-26
Version

Ärende/Dok. id.

Infosäk. klass
K1 (Öppen)

7 Response to this RFI

Responses to this Request for information can be sent through TendSign or e-mail in Swedish or English to Tomas Anglevik and/or Charlotta Dorph. Contact information is stated below.

Solutions can be submitted in writing, presented during a meeting or both. Meetings can be arranged either online or at TFs premises at Lindhagensgatan 100 in Stockholm. Meetings can be held in Swedish or English.

TF would very much like to meet with potential suppliers and if the supplier wants to take advantage of this opportunity, let us know in the submitted reply.

This dialogue will take place during week 18-19 (2020) and includes the following suggested agenda:

- Project information (TF)
- Demo / review of the solution as is (Supplier)
- Discussion of possible design solutions (Supplier and TF)

Apart from the responses being sent in writing, there are no formal requirements for the answer.

The last date to submit a reply is 2020-04-24.

8 Contact information

Tomas Anglevik
tomas.anglevik@sll.se
+46 70 762 38 78

Charlotta Dorph
charlotta.dorph@sll.se
+46 70 786 39 63