

Follow up Questions - Questions and answers

Date 23.05.2016

Location Ruter's customer centre, Jernbanetorget 1, meeting room Bjørvika

Suppliers:

Indra, Init, Making Waves, Mikroelektronika, Parkeon, Scheidt & Bachmann, Thales, Xerox

Supplier conference TVM - questions and answers

The suppliers attending the Supplier conference TVM were asked to answer some follow up questions in writing and send it to Ruter not later than the 13th June.

There were some additional questions send to Ruter due to clarify the follow up questions, see below.

Question 1:

Date: June 9th

I have one small question. In your e-mail is stated that answers should be send "in writing before the 13th of June"

I just would like to confirm with you that to send it on Monday 13.6. is sufficient.

Answer 1:

Date: June 9th

It is sufficient to send the answer on Monday the 13th of June.

Question 2:

Date: June 6th

Would it be possible to have some clarification about the architecture and how the TVMs will be connected to the rest of the existing ticketing system.

- a) What type of interface we could envisage between the new TVM and the existing backend system (Web services or middleware for translation)
- b) Can we connect to an existing Bank Server or is there any particular specifications for Ruter
- c) Are there any specific needs for the TVM management server
- d) What type of data format can we envisage for the contactless card reader.

Answer 2:

Date: June 8th

- a) We are using web services (Rest API) for the communication to our backoffice. The TVM will send the raw data of the travel card to the backoffice, and the backoffice will return all the information needed by the TVM (e.g. what products it can sell, what the prices are, etc). The backoffice will also send the APDU commands that the card readers should write to the card.
- b) You can use an existing bank server.



- c) Please specify what you mean by management server. We need ways to handle monitoring, asset management and software updates/configurations.
- d) The backoffice will handle the writing to the card media (through APDU commands)

Question 3:

Date: May 30th

In your short description, Ruter described that the desired TVM shall:

- 3. Issue tickets on already existing travel cards (Mifare Desfire)

Could you please clarify. Does it mean that:

A. The TVM issues (distributes) a travel contactless card

In this case, the TVM has to have a stock of cards

What type of contactless card? Is it a contactless plastic cards or /and contactless tickets?

B. The TVM recharge the travel card only

In this case, the TVM does not stock any cards and therefore does not distribute them

The TVM allows users to recharge their contactless cards or tickets.

Answer 3:

Date: May 31th

What we are looking for is a TVM that can recharge already existing travel cards and print paper tickets with a QR code.

There is no need for a stack with new travel cards in the TVM, since the TVM will only offer recharging services on existing travel cards and paper based tickets.