

Report Market Consultation Self Service Boarding

1.1 Introduction

In 2017 SNBV has conducted a closed market consultation. Purpose of this market consultation was to assess the capabilities of possible suppliers of Self Service Boarding gates. In this market consultation 7 suppliers were sent a document with information and questions. Consecutively these 7 suppliers have answered these questions in a presentation at SNBV.

As a result of this market consultation, SNBV concluded that the supplier market for SSB's has grown and matured, thus making it possible for SNBV to start a European tender with the purpose of acquiring a framework agreement for the delivery, installation, implementation and maintenance of Self Service Boarding Gates.

1.2 Results

The market consultation supplied SNBV with the following insights:

1. A number of Suppliers has been contacted (or has contacted SNBV) in the preparation of this Market Consultation. In the end, 7 suppliers were sent a question list (Appendix I);
2. Possible suppliers are capable of producing SSB's and delivering the SSB;s in combination with the required gate management software;
3. The question of being able to install and integrate the SSB's in the SNBV IT landscape was answered positive;
4. Suppliers all acknowledged that future SSB developments will have a large biometric component;
5. All suppliers have an installed base of SSB's worldwide;

Appendx 1: Questions market consultation Self Service Boarding

Royal Schiphol Group is an aviation company with an important social mission. Our airports, including Eindhoven Airport, Rotterdam-The Hague airport and Lelystad Airport, create value for society and the economy. We offer high-quality air traffic facilities and ensure our airports are optimally accessible. To achieve this, we have clustered our core activities around four business areas. Together they implement our joint strategy and determine the success of Royal Schiphol Group.

Exploiting Amsterdam Airport Schiphol is one of the most important activities of the Royal Schiphol Group. In 2016, Schiphol was the third airport of Europe in terms of passengers, third passengers in cargo volume and first in number of flight movements. In total, 63.6 million passengers travelled from and to Schiphol by 478.864 flight movements to 322 destinations in 96 countries. Furthermore, almost 1.7 million tons of cargo was transported. Schiphol has five runways. We are the home carrier of KLM and one of the two hubs of the SkyTeam alliance around Air-France-KLM.

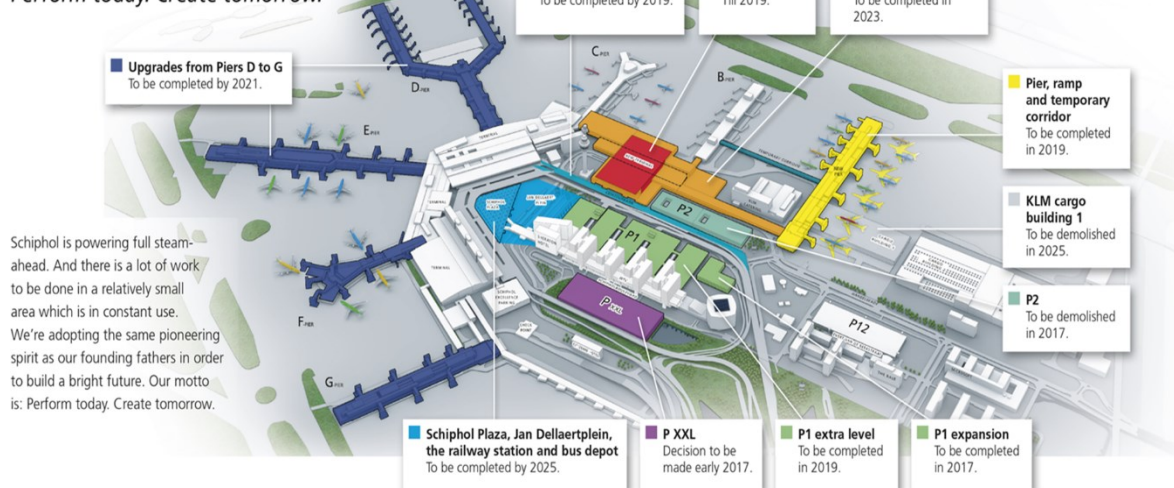
We keep developing Schiphol as a location that is more than a point of departure, arrival or transit. Therefore, we aim to be 'Europe's Preferred Airport', not only for passengers, but also for airlines and logistic service providers. We aim to distinguish ourselves in fluid processes and an appealing supply of shops and catering facilities for passengers who depart, arrive and transit. We strive for positive experience of passengers, hoping they will choose for Schiphol for their next flight as well. In everything we do, we carefully balance the factors of people, planet and profit. We only allow our organisation and airports to grow in harmony with our environment.

1.2 Capital Programme

As the number of passengers and flights via Schiphol is growing, we need additional space in order to handle all these passengers effectively and nicely in the future. Therefore, we will substantially build and rebuild various locations in the upcoming years, in order to extend the capacity on the airport both on landside and airside. One of the major projects involve a new (seventh) pier and additional terminal. As Schiphol lacks sufficient space, this implies many adjustments and using the square meters on Schiphol in the most optimal sense. This also implies modifying roads, traffic signs and parking spaces. All necessary work up to 2025 is visualised below.

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1.3 Digital Airport Programme & Seamless Flow

Creating more space as the result of the Capital Programme is one thing, but is expected not to be enough. Maximising the effects of various digital opportunities for the passenger flow at Schiphol

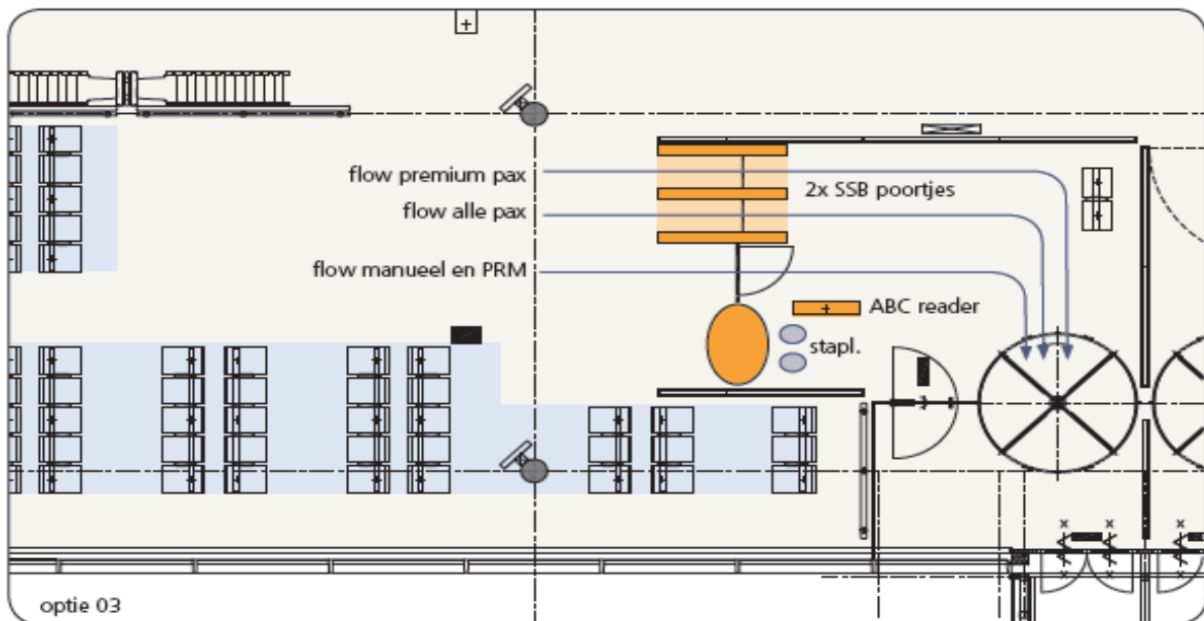
without having to increase the number of square meters is the scope of the Digital Airport Programme (DAP). An essential concept that is being developed within DAP is “Seamless Flow”.

The seamless flow concept aims to increase the efficiency for the aviation parties at the airport, and to make the whole passenger process easier and more comfortable for the passengers. A crucial element of the seamless flow is the use of biometrics. The vision of seamless flow is that passengers enrol biometrically at the beginning of their journey. Then, based on their biometric characteristics, they will be automatically recognized at all obligatory steps in the passenger journey, such as check-in, baggage drop off, entrance to the security-check, border control and boarding the aircraft. Within Seamless Flow, Schiphol works together with Royal Netherlands Marechaussee, the Ministry of Security and Justice, Customs and KLM and suppliers Vision-Box and Scarabee. Since the boarding process is supported by the SSBs, it is crucial to integrate SBB and seamless flow.

1.4 SSBs & process description

In 2015, the first initiative was started to implement SSBs, also addressed as eGates, on Schiphol. This resulted in a delivery by DormaKaba, involving 76 SSBs that were placed at the B and C-pier (dedicated Schengen areas).

As can be shown in the picture below, two SSB gates are placed near the boarding desk per gate. At the boarding desk the automatic Boarding Gate (BGR) reader is used for manually boarding passengers by an employee. At Schiphol, this is widely known as the Automatic Boarding Card (ABC) reader. Passengers that cannot use the SSB gates for any reason, are redirected to the boarding desk for assistance. After passing this boarding process, the passengers directly walk on through the gate door into the aircraft.



Boarding via the ABC reader is still the most widely equipped at Schiphol, as this is still used in the Schengen area of the D-pier and the Non-Schengen areas of the D-, E-, F- and G-pier. For the construction of the A-pier, the Capital Programme organisation requires Self-Service Boarding (SSB) gates at the 13 gates of the A-pier. As there are three SSBs foreseen per wide body gate and 2 SSBs per narrow body gate, resulting in 26 SSBs. that have to be procured via a (European) tender procedure. We want to initiate a framework agreement, so Schiphol can use the agreement to deploy more SSBs across the various piers of Schiphol in the future. This also means incorporating Non-Schengen areas. The wider scope will ensure more consistency among the delivery of SSBs across Schiphol.

1.5 Project scope

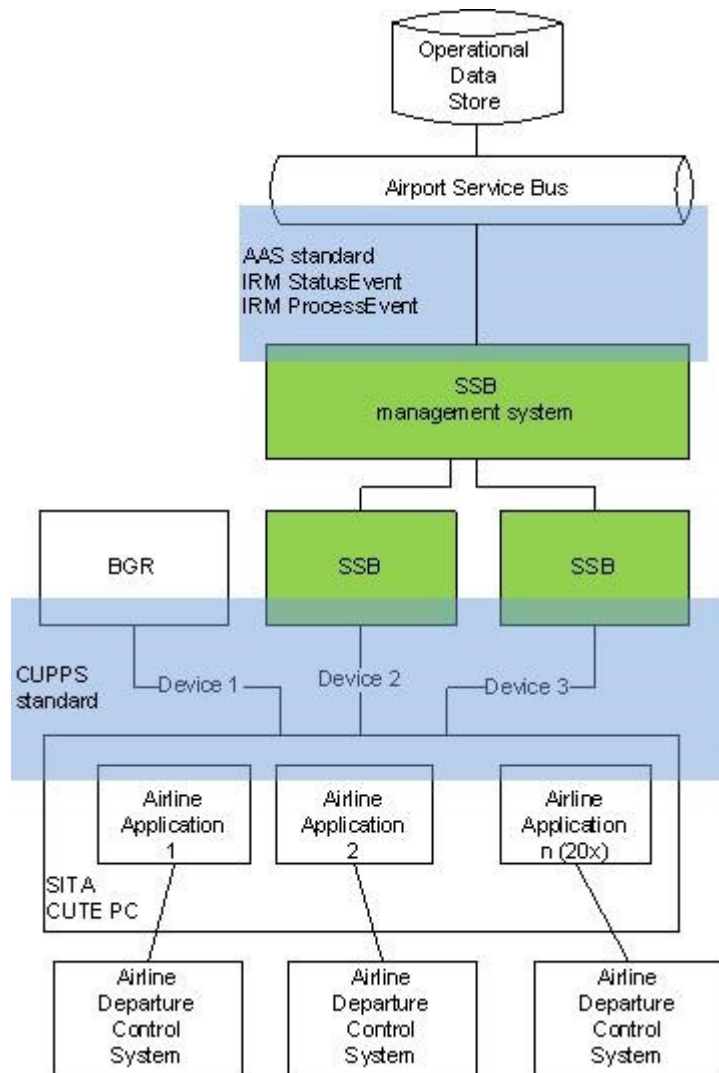
On a more global level, the minimal scope of the project is as follows:

- Close a framework agreement for Self-Service Boarding at Schiphol
- Deliver and install 26 Self-Service Boarding gates in the new A-pier
- Realise necessary interfaces with SITA en the Airport Service Bus of Schiphol
- Ensure full integration with biometric applications and biometric backbone, either or not through collaboration between suppliers
- Provide a full functional SSB including monitoring and management systems
- Arrange 3rd line support for the SSBs in the A-pier
- A proof of concept will be part of the project and predictable for the contract.

2. Application landscape

2.1 Application landscape

The visualisation below shows the existing SSB system architecture connected to the surrounding systems.



The architecture consists of the following components:

- SSB Management System:

The SSB Management System is the system used to manage and monitor the workings of the SSBs, consolidates all SSB events and offers a central connection to the Airport Service Bus (ASB).

- eGate/SSB:

The physical gate used for Self Service Boarding (SSB) which of various functionalities contains an integrated boarding card reader and a seat ticked printer. The SSB gate opens after a check of the name on the boarding pass with the name in the DCS of the airline and provides feedback to the DCS if the passenger has walked through the SSB (and thus in principle has boarded the aircraft). Through the management system, the SSBs can be configured to support various ways of boarding, also in combination with the separate ABC reader (see below).

- ABC/BGR reader:

Automatic Boarding Card (ABC) reader that manually checks if the passenger has a valid boarding pass for the flight that will depart from this gate. The ABC reader has to be manually operated by the airline crew.

- SITA CUTE PC/SITA CUTE Workstation:

SITA CUTE PC is a workstation for the gate crew to board the passengers, by connecting to the Departure Control Systems of the airlines. The workstation hosts the additional application for airline personnel to manually operate the eGates.

3. Questions to interested parties

Management related questions:

1. References

Do you have references at other airports? If so what kind of references do you have considering the delivery of Self-Service Boarding gates at other airports? What type of airports have you delivered to (e.g. size) and how many SSBs?

2. SSB build-up

In what way do you purchase SSBs, or specific elements, from other suppliers? If applicable, which suppliers do you use? Could Schiphol have an input to the build-up of the SSB in terms of design (dimensions, look and feel) and quality of equipment?

3. Delivery

Please describe your process from order to delivery, bearing in mind that Schiphol intends to conduct a Proof of Concept before the full quantity of gates are ordered. Also please provide information on your lead and delivery times for the SSBs.

4. In general, how much passengers can the SSB process per minute?

5. What is the expected lifetime, and mean time between failure?

Content related questions:

6. Integrations

Are you able to deliver SSBs that are:

- CUTE/CUPPS certified (most recent)
- SITA certified (most recent)
- SITA Airport Connect certified (most recent)
- IATA compliant (most recent)
- AEA compliant (most recent)

7. Developments

What are the developments and innovative solutions you are working on? Please shed light on your vision of the self-service boarding concept, specifically in relation to biometrics. Where will the SSB concept stand in 5 years from now?

8. Biometric application

The integration with seamless flow plays an essential role in the deployment of new SSBs. This implies a solid integration with the concept of a third party. The biometric platform and the specification of its interfaces are however under development. Can you ensure a future solid integration with this platform? Is collaboration with a third party a possible option?

9. Full functioning SSB

What do you normally deliver to provide a complete functioning SSB concept, including hardware and software?

10. Maintenance

How do you consider the management and maintenance aspects of the SSB? And how do you make sure it will keep functioning, also from distance and by inserting preventive maintenance? How do you tend to work together with the maintenance parties on Schiphol? In the current situation, SITA provides 1st line of support, where Scarabee acts as an integrator. Please provide your ideas on the future.

11. Error resistant and feedback

How does your solution deal with irregularities and unusual behaviour of passengers? For example, tailgating or passengers that walk back through the SSB? Do you have proven results that the number of the passengers boarding corresponds with the data of the SSB? Has this been tested?

12. User friendliness

Please share your thoughts on the user friendliness of the SSB to the passenger. How do you provide signals/feedback to the passenger in order to regulate/manage the flow as effective as possible?

13. Environment

The piers at Schiphol have to deal with a large amount of natural and artificial light. This may cause problems with the functioning of the sensors and readers. Do you have thoughts of how to manage the light exposure in relation to the sensors and readers in the SSB? In what way will too much (or not enough) natural or artificial light cause a problem for the functionality of the SSB?

14. Boarding Schengen vs Non-Schengen

An SSB should be able to support the boarding process for Schengen and Non-Schengen destinations. In your opinion, does the SSB need to have additional functionalities to support both processes? If yes, what would those functionalities be?

Procurement-related questions:

15. Pricing

Please provide an indicative pricing of your SSBs. We are also interested in the pricing of the different components of the SSBs (also the options that you think are of importance to Schiphol). Furthermore we would like to have an insight in all other related costs of the gates regarding installation, project management, maintenance and support.

N.B. This pricing is purely indicative and will not be used to perform any evaluation of your solution

16. Delivery time

Please provide an estimated lead and delivery time of the SSBs after order by Schiphol Group, assuming an order is placed in January 2019.

4. Procedure

Schiphol intends to launch an European tender for the acquisition of self-service boarding gates. To get a better understanding and more knowledge of the market, Schiphol conducts a (closed) market consultation. You are invited to participate in a knowledge session that lasts up to 2 hours. At this knowledge session, Schiphol will be represented by the project team preparing this tender. You are invited to attend here with a maximum of 3 persons. We kindly ask you to prepare a presentation that answers (most of) the questions stated in this document.

Commercial information such as pricing, which will be shared, will be treated in a confidential way by Schiphol. Schiphol will, however, describe a selection of results of this market consultation in the tender documents. You cannot derive any rights from participating in this market consultation. Any costs that you will make in participating in this consultation will not be refunded by Schiphol. The communication relating to this market consultation only takes place through the responsible buyer, Mr. John Jonkhout. It is not allowed to approach any procurement team members (in)directly.