

The passport as the token in the future airport processes

“Passenger based” design
instead of
“Technology based” design

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- **Looking ahead to the future ...**
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 - Global trends that influence the development
 - The vision on mobile devices
- **The Key success factors ...**
 - Passenger based design
 - Learning curve & design principles
 - Slide show of how Schiphol develops the multi purpose ABC

The Goals for Schiphol airport

- Increase **Capacity**
 - Convenient and orderly process without line ups for 60 - 65 million passengers a year.
- Improve **Efficiency**
 - Manpower for exception handling instead of the regular passenger handling.
- Raise **Punctuality (Quality)**
 - Status of passenger and baggage is known by all stakeholders.
- **Preconditions: Legal regulations e.g.**
 - Schengen
 - Privacy laws

2005-ABC for e-MRTD's



de the man-trap,
ation in closed mantrap,
y tests in 2 years.

2006-semi ABC for all MRTD's

User interface border police

Smith
John
07 MAA/MAR 1954
Amsterdam
01 OKT/OCT 2006
52 jr/yrs 1.90m M/M

✓ Authenticatie NBD E-PASS
✓ Autorisatie OPS
GB NEXT

F1 [Portrait]
F2 [Portrait]
F3 [Portrait]
F4 [Portrait]
F5 [Portrait]



Screen for the BP-officer

- All data in same format
 - Name
 - DoB & place
 - Valid until ...
 - Age and length
- Analyse
 - Authenticity
 - Black-list
 - Validity
 - e-MRTD

The screenshot displays a user interface for a BP-officer. The main profile area shows the following information:

- Smith John**
- 07 MAA/MAR 1954**
- Amsterdam**
- 01 OKT/OCT 2006**
- 52 jr/yrs 1.90m M/M**

Below the profile, there are two rows of status indicators:

- Authenticatie** (checked) with buttons **NBD** and **E-PASS**
- Autorisatie** (checked) with buttons **OPS** and **GB**

At the bottom left of the main area is the logo for **Koninklijke Marechaussee**. On the right side, there is a vertical list of five officer portraits labeled **F1** through **F5**. F1, F2, F3, and F4 show portraits of different officers, while F5 is a grey placeholder.

Goal of the 2006-pilot

- Experience “full page” readers
 - Can passengers use it themselves?
 - Which instructions?
 - What is the best reader?
 - Experience with the kiosk?
 - Minimize the learning curve?
- Experience the new procedure
 - Expand the throughput?
 - 100% check, 100% authenticity
 - All information on 1 screen for the BP-officer
 - BP-officer verify to a blow-up picture



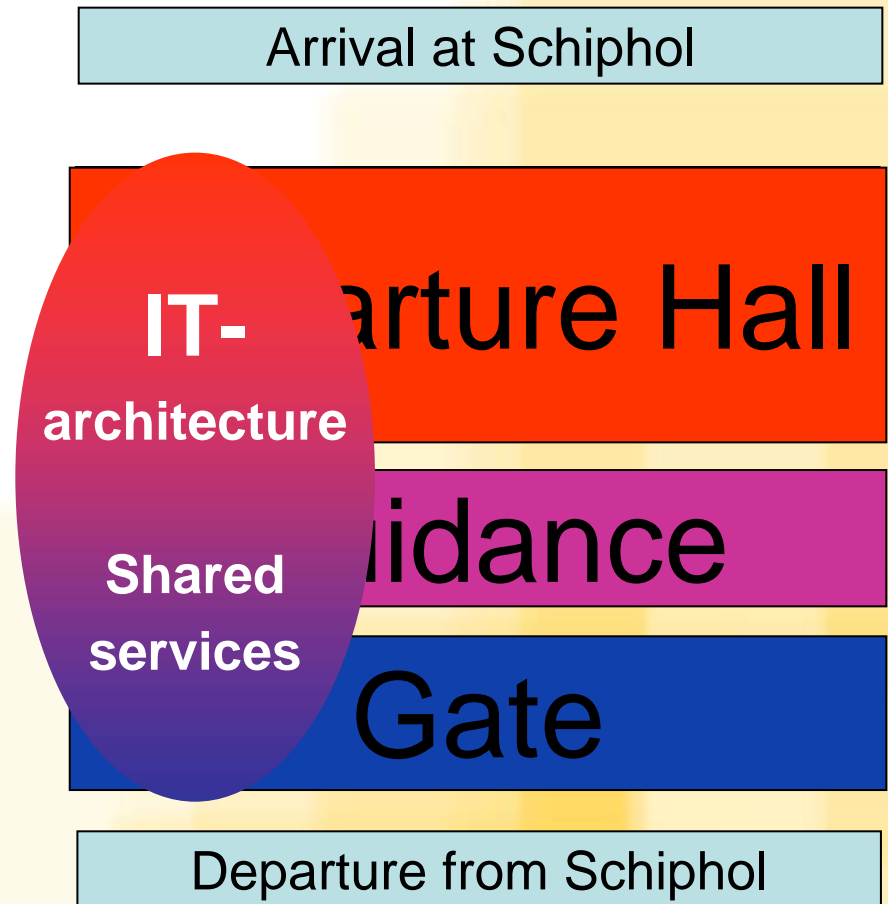
Evolution of this FP-kiosk

- MRTD's and non-MRTD's (2007 ->)
 - Use for all purposes (Check in, Bag-drop, Boarding)
 - All kind of travel documents MR and non-MR
 - Image enhancement (badly taken pictures)
 - Automated language selection
 - Name diversification
 - Uniform authenticity database
- e-MRTD's (2012 ->)
 - MUST: readout time less then 3 seconds
 - Automated verification unmanned (finger or iris)
 - Semi automated verification manned (face)



Looking ahead to the future

- Process steps are split up and create several bottle-neck's in the process.
- Checks and clearances should be done once (identity check).
- Integration of processes means integration of front-end functionality, and the use of one token!!!



2-step passport based airport process

- Move punctuality -> front process
 - Grow to 90 % self service for all processes,
 - Including payment with chip and pin,
 - Exceptions are manned (odd-size, cash payment),
 - Maximum service recovery time.
- Move security and identity -> aircraft
 - More process-throughput then going on board,
 - New technology and new procedures will give a higher output from Security process,
 - Small Restricted area's (plane, bridge, gate area),
 - Exceptions at this stage are “no-fly” issues.

Mobile devices in this vision

➤ Used as an information channel

- Reminder info to passenger: gate, seat, schedule,
- Dynamic info to passenger: changes,
- Location based info to passenger: walking time,
- Progress based info to passenger: Proc OK & to go,
- Info to handling parties: Check in, buy extra's,
- Measure the location of passenger (in- & outside).

➤ Not used as a token

- The process will be paperless in 2012 (no BC's),
- All processes are based on travel documents,
- Travel doc's has 100% coverage and with standards.

The way forward

Business approach

Manned desks ->
Assisted self-service ->
Self service

Dedication ->
Cluster use ->
Common use

Stand alone ->
Equipment integration ->
Process integration

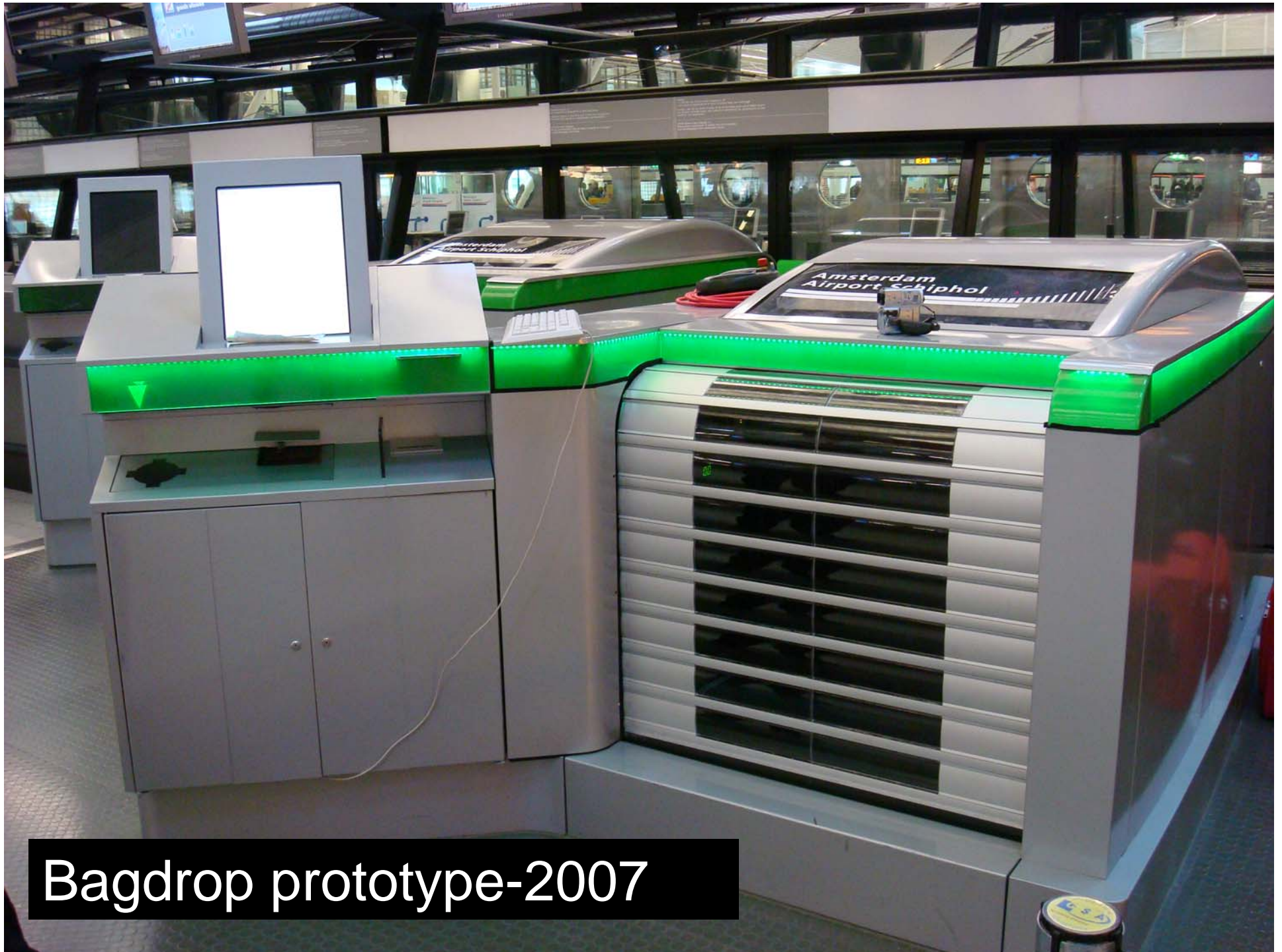
Technical approach

Proof of concept

Prototype 1-x

Operational pilot

Implementation



Bagdrop prototype-2007



Bagdrop pilot-2008

Success factors for development

- Passenger Acceptance is the key to success
- What's the incentive for the passenger
- Interaction language and Design Principle
 - Necessary for the Self Service line of products
- **Strive for intuitive usage**
 - **Learning curve = 0**
 - **Recognizable and uniform “Touch and Feel” during the whole passenger process**
 - **Repetitive usage of the same User Interface**
 - **Ergonomics for everyone**

Conclusion Airport facilitation of a “Self Service family”

1. The role of the airport is to deliver and maintain self service products for handler-, airline- government- and airport processes
2. Process-owners are partners in the redesign
3. The airport focus is to optimize processes for departing, arriving and transferring passengers and maximize the efficient use of the terminal building.



Thanks for your time and attention.

Marcel van Beek

Amsterdam Airport Schiphol

Phone: 0031-206013502

Mail: Beek_M1@Schiphol.nl