FastPass is gaining momentum

The FastPass project has been going for sixteen months and the stream of results broadens. In the past months a number of deliverables w ere published by the partners that document the w ork done so far.

The *user and stakeholder interaction group* delivered documents to the EU that take a closer look at ABC from usability, acceptance as w ell as the privacy perspective. Further w ork has been done to identify socio-ethical, legal, political and privacy problems.

The *group responsible for the travel document observations* produced three deliverables. To decouple the passport readers from the gate and increase interoperability a background adapter w as created. Additional w ork w as done to access, check and verify data stored on travel documents and interact w ith existing databases. To improve traveler identification and monitoring tw o prototypes as w ell as their documentation w ere developed over the last 15 months. This includes a first version of the modules used to identify travelers at the gate. Additional w ork w as done to implement the modules necessary to prevent illegal crossing of borders.

A first prototype w as developed in the *workgroup responsible for the border guard assistance and gate usability*. While FastPass is developing a harmonized solution for ABC, a special challenge lies in designing a user interface that allow s border guards to utilize all available functionality in a user friendly w ay.

Since all these modules need to be combined in a smart w ay for FastPass to prosper the *system design group* drafted a first version of a flexible and robust framew ork to incorporate the developed components. To achieve the goal to optimize and harmonize ABC throughout Europe, not only the hardw are needs improving. Therefore, the *process border management group* drafted their version of a unified process.

Based on these documents FastPass has started to develop prototypes for the three border types (land, air and sea). These concepts w ill be introduced in the coming new sletters.

Visiting Moravita: apprehending the challenges of a land border crossing point

Approaching the Moravita border crossing point from the Serbian side. ©FastPass consortium

In January 2014, fourteen members of the FastPass Consortium headed out to Timisoara, Romania. Members of the Romanian Border Police warmly welcomed the group, which consisted both of researchers and ABC hardware specialists. The meeting had two distinct goals: (1) to identify specific land border requirements; (2) to evaluate whether the border checkpoint in Moravita would be suitable to test the FastPass land border solution

Located at a 70-kilometer distance from Timisoara, Moravita is the border crossing-point between Serbia and Romania. Both countries are out of the Schengen area, but Romania (EU-Member) is candidate to enter it. With this objective in mind, it is conducting the border control processes according to the Schengen regulations: traveler entering Romania should then comply with the Schengen rules. Therefore, Moravita gathers all the necessary criteria to host a FastPass demonstration site.

The border crossing point has six inbound and six outbound lanes and can be passed by car, bike, bus, train or even by foot. Most travelers are locals visiting the market and people studying at the University in Timisoara.

The Romanian Border Police presented information about the border crossing point and showed the infrastructure at Moravita. This site visit sparked an important discussion about specific land border requirements. Further discussions revolved around the possibility of using the Moravita site for the demonstration and testing of the FastPass ABC land border solution.

Altogether, the meeting was very valuable for FastPass as many new land border requirements have been identified and a suitable land border demonstration site has been found.

ABC standardisation key to improving usability

This summer FastPass partners from the University of Oxford and the Fraunhofer Institute will present their work at the *Interfaces and Human Computer Interaction* (IHCI) 2014 conference in Lisbon.

One task of the FastPass project is to study actual automated border control (ABC) systems and investigate how their usability and take-up can be improved. Although e-gates have been in use for years, they are still underutilized by travellers. This paper presents a usability analysis of ABC e-gates at two large North-European international airports and compares their ease of use.

Our observations show that the man-machine interface of e-gates is still under development. One important lesson to learn is that continued usability testing with real users *after* implementation is very important and will further enhance the system. The strong emphasis at one of the airports on usability and its ongoing testing means that the system is continuously being improved. As a respondent (from border management) remarked: *"What we could not test of course was the passenger behaviour. You only notice it when you're operating the gates. Things come up that we have not thought of, or that we see 'that could be better'"*.

A large proportion of (potential) e-gate users are infrequent travellers, therefore major component differences make it difficult for users to know how to interact with unfamiliar and dissimilar e-gates. Standardisation will be key to improve the usability for travellers and will raise user confidence. Positive experiences of users are vital as they lead to repeated use, and can have a favourable impact on the uptake of the technology by current non-users through word-of-mouth endorsement.

Oostveen A.M, Kaufmann M., Krempel E. and Grasemann G. (2014) Automated Border Control: A Comparative Usability Study at Two European Airports. Interfaces and Human Computer Interaction (IHCI) 2014 Conference 15 - 17 July, Lisbon, Portugal.

What do passengers want?

By Chris Hurrey, member of the FastPass Consortium, subject matter expert "border controls" at Intrepid Minds (UK), former Assistant Director of the UK Boder Guard Agency

Of all the groups involved in border control and its related technology, passengers are often the last people to be asked – or even told – what is going to happen at Europe's borders. Very few of them even ask or express an opinion. They wait in a queue, show documents when asked, but ultimately want to get on their ship or plane, or just get their bags and get home. If you would ask them directly, the answers are likely to be along the lines of: 'No queues', 'no hold ups' and 'no inconvenience'.

Automated Border Control (ABC) is based on the self-service principle. The self-service devices wait patiently for passengers to use them and you can have as many machines as space and budget allow. But they can really only make 'yes or no' decisions based on logic. Humans are better at the 'analogue', shades-of-grey decisions.

Since EU citizens and legal residents are the vast majority of travelers in and out of Europe – and they have an

almost absolute right to enter and exit without hindrance, we ought to ask ourselves how we can take advantage of this. The larger chains of supermarkets and main street shops in UK are moving to self-service checkouts to get more people through their stores and to cut queues – and guess what, to reduce dependence on staff.

It is probably the same with border control. Identity and entitlement are easily established for most people by their ICAO standard travel documents. So why not install more ABC devices to deal with these people and put as many in as are necessary to meet peak demand? Anyone who is a problem or who does not qualify to use them can be dealt with by less-stressed human border guards. How about doing away with the narrow channels, massive gates that trap roll-behind baggage, awkward, wrist-bending document readers, and confusing feedback messages?

Am I right about all this? Let's ask the passengers.

Meet the Consortium !

The FastPass project will be represented at the European Day for Border Guards on 22 -23 May 2014.

The FastPass Consortium will be present at the SDW 2014. The Coordinator Markus Clabian will hold a presentation on16th June on the topic "FastPass – Maximising the use of ABC within Europe".

Our archived newsletters are available here !