

Let's talk about IT

For some time now I wanted to do a series of articles and interviews on the topic of airport IT systems. Smooth IT operations is part of the magic of great passenger experiences, but like all magic tricks it's damn complex and one needs a lot of practice to do it well. This is maybe the reason why I was postponing it for so long, but now it's time we talked about IT.

My first guest in "Let's talk about IT" is Yannick Beunardeau, Head of Sales & Marketing for Airport IT at Amadeus. Yannick joined Amadeus in 1996, but his aviation experience goes back to 1989 when he started working for Air France. With more than 20 years of experience in the industry he knows where all the bodies are buried and he opened my eyes to many of the industry issues and future trends. Here's an excerpt of the one hour long interview I had with him where we talk about Amadeus' new IT solutions for airports and how they improve the passenger experience at the airport.

5 ½ questions with Yannick Beunardeau, Head of Sales & Marketing for Airport IT, Amadeus



1. Amadeus has recently announced the launch of two new airport IT solutions - Amadeus Airport Sequence Manager & Amadeus Fixed Resource Optimiser. What is the status today?

We have reached an agreement with Munich and Copenhagen airports to jointly work on the development and implementation of these new solutions.

With Munich we work on the Sequence Manager and I can tell you that the software development phase is finished. Now we are testing and debugging it. We are going to implement it next month, but I cannot give you more information on this. All I can say is that this is mission critical software and it's extremely important to make it right, but we are used to that.

With Copenhagen airport we work with the Fixed Resource Optimiser solution and all is going as planned. We have started software development and will start testing in early 2014.

2. What is the “airport problem” you are solving with these two IT solutions?

In the past airports were mostly owned by governments, nowadays most airports are following a more commercial structure. As companies, they need to increase their ROI by maximising revenues and reducing cost. One way to reduce cost is to **optimise IT expenditure**. Some airports were developing software themselves, but this was too costly. Now they prefer to outsource IT. However, many airports still suffer from what we call “best of breed integration nightmare”. Airports choose the best solution for each process they need to perform, and they purchase from different suppliers. The result is that airports have put a lot of effort to make the software work in an orchestrated way. What Amadeus wants to develop is a

community system, which offers win-win-win data exchanges between airports, ground handlers and their customers - the airlines, like we did 13 years ago with Altéa for airlines.

Of course the airport is not just about IT. It is a brick and mortar facility and the infrastructure use needs to be optimised too. Investment in new infrastructure is costly and the questions many airports ask themselves today are “How do we get more airplanes departing from our runways without building new ones?” and “How can we get more passengers passing through our terminals without building a new terminal? Our first deliveries - the Airport Sequence Manager and the Airport Fixed Resource Optimiser are targeted exactly at optimising the available airport infrastructure. With these we **postpone infrastructure investments**. This is the airport problem we solve.

The real problem is that to build a new infrastructure, we need more space. And where do we have the luxury of more space in Europe? Not in Nice where I live and not in many other cities too. There are also issues like aircraft noise and CO2 emissions that prevent a third runway to be built at London Heathrow and Munich too. It's really difficult to build new infrastructure in Europe, so let's optimise what we have!

3. How does the Airport Sequence Manager work?

Let's have a look at Munich Airport (MUC) and London Heathrow (LHR). Today MUC serves 38M passengers with two runways, LHR serves 65M with the same number of runways. Why is LHR able to do this?

They are able to do this because they use every possible second of their runway by creating a waiting list for the aircraft that want to land and take off. I'm sure you've

had this experience when you flew to LHR - you probably waited in the air. We call this the hippodrome - the aircraft turns around until it's authorised to land. It's the same when you take off from LHR - there is a long line of aircraft, sometimes up to 15 or 20. The aircraft need to be ready to take off, with their engines started. So what does it mean? CO2!

The Sequence Manager that we are developing now helps to avoid this situation. We push the aircraft only when it's time to take off. We optimise flight departure planning, but we reduce the storage of aircraft ready to take off with engines on and thus we reduce CO2.

4. What about the Airport Fixed Resource Optimiser?

The Airport Fixed Resource Optimiser is a product that serves the airports as much as the airlines. Airlines want their customers to be better served, but currently it's not so easy because airports are completely blind about where the airline's passengers come from and where they are going. The idea is to tell the airport that in this A320 arriving at Copenhagen there are 50 passengers transferring to Moscow. Then the airport can allocate the Moscow flight to a nearby gate, which is only 20m away.

It's not about transferring personal passenger data, but information to the airport based on which it could take a decision that the airline's airplane is better positioned at Gate A13 than in Gate A27. We transform raw data into relevant decision making systems. To use a cooking analogy - to make a cake, one needs ingredients - flour, sugar, etc. At Amadeus we deliver the cake, not the individual ingredients.

5. And what does it all mean to the passenger?

When airports use the Sequence Manager, the aircraft does less taxiing, which means for the passenger **less waiting in the aircraft with the engines started.**

The Fixed Resource Optimiser will improve aircraft gate allocation and this will mean **less walking through the terminal for transfer passengers.**

But we have other solutions that improve the passenger experience and make passengers more welcome at the airport. Nowadays social media is the default interface between passengers and airports. This direct exchange between passenger and airport is happening when the passenger is at the airport, but with our systems the airport can receive relevant information about the passenger in advance. As a result **passengers will be “expected” at the airport and will receive better services corresponding to their profiles.**

As an example - we can tell the airport the exact number of passengers with reduced mobility, who will come to the airport. According to European regulation airlines have to send this information 48 hours in advance. We can send this as soon as it is reserved in Amadeus up to one year in advance, allowing the airport to prepare.

Self-service bag drop off is another area in which we work and that will see a big improvement! Nowadays when Singapore Airline’s passengers go to Frankfurt airport they see only the Lufthansa bag drop off machines. **In the future passengers will not have to look for the baggage drop of their airline, they will be able to use a common self-service bag drop machine.** I’m a big believer in the common bag drop machine supported by a community system.

5 1/2. You are indeed one of the fiercest believers in the community system for airlines and airports. What do you tell your opponents?

Let's take the example of the bag drop-off. The airlines have pushed hard for the self-service activities, first it was the self-service check-in and now we start to see self-service bag drop off machines. But at airports, like Munich or Charles de Gaulle, there are more than 150 airlines that operate there. They are not going to put 150 different bag drop off machines. There will be a community bag drop off system. Just like in the past we had proprietary self-service check-in and now we have a common self-service check-in.

In fact at LHR we already have the first community self-service bag drop off machine at Terminal 1, which is operational.

I'm absolutely confident that the community system for airlines, ground handlers and airports will happen. And for those who still doubt this today and say it's impossible, I just want to remind them that some people said the same thing about the airline community system 13 years ago.

This interview is the first one in a series on the topic of airport IT. If you have enjoyed it check later for more.

About myself: I have been working for the European Aviation Safety Agency for 6 years in the field of planning and performance. I am passionate about improving the passenger experience for the general travelling public and I have created two successful Flipboard magazines - The Airport Hub and Passenger eXperience. I am also a Design Thinking student at the Stanford d.school in Berlin, where we learn how to ideate and test for the successful implementation of innovative products, services and whole businesses.

Ideas in this article are my own. You can connect with me on LinkedIn or follow me on Twitter