THE REAL CHALLENGE IN THE SKIES IS ON THE GROUND
How to deliver a great passenger experience and keep employees happy
One of the biggest challenges in aviation is making sure that both passengers, and employees are satisfied while keeping costs low. Passengers don’t want to spend their time at an airport waiting in long queues and employees would like to see their shift preferences taken care of — or at the very least, given serious consideration. This balancing act also happens to take place in an industry that is constantly battling with tight budgets and narrow margins.

How long passengers have to wait significantly affects their overall experience. No one wants to spend their time at the airport waiting in line. They’d rather shop, dine and enjoy themselves instead of being stuck in a queue.
Planning for the right passenger experience involves looking at passenger arrivals over the entire day. A typical day at a typical airport would see passengers arriving throughout the day, with the peak hours predominantly in the morning and in the afternoon.

Say that we have 90 passengers arriving at a check-in point. According to service standards, it takes an average of four minutes to serve a passenger at check-in, which means that an agent can serve a maximum of 15 passengers per hour. If 90 passengers are queuing up, the math would come up to six agents handling six check-in desks.

But this assumption would only work as long as passengers arrive at exactly four-minute intervals. That is never the case. Every new day in the aviation industry is a new planning puzzle waiting to happen. Schedules can change at a moment’s notice, flights can get canceled, passenger loads may differ and the amount and weight of baggage changes from passenger to passenger. Even without these variations, there would still be the ever-present problem of passengers constantly arriving at different times.
In airport planning, change is the only constant

In theory, you may only need six check-in counters, but this disregards how long people may be waiting in line. Logically, we can decrease the average waiting time by increasing the number of check-in desks. In practice we would actually need eight check-in counters to serve the required people and make sure that we meet the target waiting time.

Based on the target waiting time and the maximum threshold, we can quantify the impact your planning has on passenger waiting times — and on the overall passenger experience.
Of course, passenger check-in is just one aspect of the total passenger experience at an airport. But poor passenger experience at check-in can bleed into other sections of the airport. Long waiting times at check-in will impact passenger arrival times at security control.

If the security check takes too long, passengers spend less time shopping and dining because they’re rushing to get to the boarding gate. This ends up causing a two-tiered effect: It puts a dent on airport revenue and negatively influences the on-time performance of airlines.

Delivering a great passenger experience requires having a complete overview of the flow and relationships between these different aspects of airport operations. For that, you need an integrated platform that can manage all of these areas together.

An integrated platform views the airport as a whole system, giving planners constant and real-time information on the level of resources versus service levels. This allows you to make decisions on the allocation of important resources and its effect on the overall passenger experience.

Planners can monitor the passenger flow — from check-in to boarding, and from deplaning to arrival — in real time and get a complete picture of its impact on the passenger experience as well as individual KPIs such as average waiting time, employee overtime hours, rule violations and employee preferences.

A no-compromise passenger experience
The aviation industry is a tough environment for everyone involved, but more so for its employees. Their work might need them to begin their shifts in the middle of the night. Perhaps they are required to transport heavy baggage through the rain — or the cold — onto the airfield. Finding a work-life balance is important. The peace of mind in knowing that they have a level of flexibility to arrange their work schedule without compromising their private life can be the catalyst to a highly motivating work experience — which then translates to a high level of customer service.

How can you cater for employee happiness without compromising your business goals?

What are your employees thinking about?
The two extremes of rostering

There’s no single solution to a happy workforce. Planners often have to maintain a balancing act between taking care of employee preferences, ensuring the smooth operations of an airport and making sure that none of the rules and constraints in place are violated. This balancing act can quickly become overwhelming.

**Cyclic rostering approach**
All employees rotate through the same schedule, but placed at different positions. The idea here is that they’re all doing the same work. It’s fair and predictable — there is a regular pattern and employees know well in advance of their off days and shift allocations. Unfortunately, this planning approach is inflexible to the needs of individual employees and the overall operation.

**Clean slate approach**
Planners start with a clean roster — no shifts or off days assigned in advance. Employee preferences are used to create the roster and the system will try to match the shift preferences with the rostering requirements. Despite having an approach that is flexible to employee needs, it can also result in rosters that are unfair — some will try to find loopholes to get schedules that work in their favor while others without strong preferences end up with an irregular roster full of ‘leftover’ shifts.

It’s impossible to fulfill everybody’s needs at the same time. Things can — and will — go wrong. There needs to be a middle ground between these two extremes in rostering. That middle ground is possible with DELMIA Quintiq. This is what you can achieve:

**The DELMIA Quintiq approach**

- **Apply work pattern**
  Planners can begin by applying a standard work pattern to everyone’s roster, ensuring a standardized foundation to work with.

- **Submit preferences**
  Before building the roster, planners allow employees to log on to the employee portal (via desktop browser or mobile app) and submit their shift preferences.

- **Reassign shifts**
  The system will then try to reassign shifts based on preferences — implementing large-scale shift swaps automatically without affecting coverage; no manual input needed from planners.

- **Publish roster**
  Once the shift swaps are implemented, the roster is published. All preferences are taken into consideration.
Skip the balancing act. You don’t have to compromise — you can have happy employees and an optimum passenger experience. To find out how you can manage one of the biggest challenges in aviation, visit our website.
Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.