# ZULU AIRLINE SYSTEMS

## Business Case Value of a Modern Integrated System

### Risk of Older Scheduling Systems

What is the true cost of a sub-optimal schedule for an airline?  It is most noticeable when you experience revenue opportunities missed, suboptimal aircraft allocation issues, the impact of costly operational problems, or the painful work of manually dealing with the multiple constraints and integrations to other systems.

### Potential Value of using Zulu's Integrated Scheduling System

Most airlines have found that solving the pain points of their old system with Zulu has a value in the range of 10 to 20 times the cost each year compared to their old system.  In other words, Zulu generates a huge return by switching from Excel or one of the older generation systems to Zulu. One of Zulu's customers has called it a "game-changer" for their scheduling team.

Zulu was designed to meet the core criteria airlines have for a scheduling system:
1. Maximize profitability by quickly capturing opportunities and allocating the right fleet,
2. Minimize resources required with use of automation and integration of data,
3. Optimize reliability by managing all operational and airport constraints,
4. Ensure synchronization of data with other systems, partners, and airports.

For a team of schedulers to balance all these requirements without a proper scheduling system is a daunting task with a significant risk or error and suboptimal solutions.  With Zulu, avoiding errors and optimizing the schedule has resulted in at least a 10X return on cost by transitioning to a fully integrated, modern scheduling system.  Asking customers about the value they have realized; they mention that the main benefits include:

- System of Reference for all Integrated Systems
- Avoiding Lost Slots or Slot Errors
- Avoiding Errors or Lost Opportunities
- Minimizing Scheduling Errors or Missed Opportunities
- Handling Schedule Seasonality
- Making Last Minute Changes Quickly and Easily
- Having Expert Support whenever they need it

### System of Reference Benefit

The scheduling system acts as the system of reference (one source of truth) for the schedule. Then, the scheduling system updates all the downline systems to ensure they are all in sync. Without one source of truth, the airline relies on multiple different sources that take enormous time and resources ensuring all are in sync.  If they are out of sync, there is no way of knowing

what the true schedule was meant to be.  This leads to confusion and ultimately scheduling errors that can cause delays, misconnections, lost revenue, and canceled flights.

The confusion is often compounded by the fact that the schedulers must update 1 or more systems manually, adding to the risk of errors.  This is a waste of valuable time but also greatly increases the chance for errors.  To avoid errors, it can take several people to cross-check the information, which is a drain on resources.

**Avoiding Lost Slots or Slot Errors**
One airline adopted Zulu after losing their key slots at a valuable airport.  Avoiding that mistake would have paid for Zulu many times over.  However, there are consistently many other smaller errors that compound over time.  First, nearly all airlines sending and receiving slot messages manually report numerous errors.  Again, this is an unnecessary waste of time.  But, more importantly, it often leads to lost slots or scheduling delays–resulting in a sub-optimal schedule.

Many airport slot coordinators have thanked our airline customers after they started using Zulu for slot management.  They report significantly fewer errors and need for re-work, saving them time and headaches.  On the airline side, they have said that the coordinators are much more helpful in working through challenging slot issues now that the airline is "doing things properly."

**Minimizing Scheduling Errors or Missed Opportunities due to System Rigidity**
The number of parameters that schedulers must manage manually often either overwhelms the scheduler.  This can cause errors or force the airline to simplify tasks, leading to lost revenue and higher costs.  We often see airline SSIMs missing flights or having a different aircraft departing than the one that arrived, with last-minute cancellations and lost revenue.

Much more often, the airline must simplify the schedule and constraints to create a sub-optimal schedule because the various parameters are far too complicated to manage manually.  This contributes to both higher costs and lower revenue.

**Handling Schedule Seasonality**
Every airline sees fluctuations in demand throughout the IATA season.  Airlines with scheduling systems can adapt the schedule to match these changes and find better uses for the aircraft during off-peak periods.  Airlines without a scheduling system do not have the flexibility to adapt the schedule to these peaks & troughs.  As such, they often lose far more money than necessary during the off-peak periods.  If they attempt it with a rigid system, the level of complexity can overwhelm the users, miss deadlines or create errors and the resulting costs.

**Making Last Minute Changes Quickly and Easily**
Zulu provides many tools to enable the user to make changes quickly, make informed decisions using booking data, and validate the schedule against all the operational parameters.  This is impossible to do correctly in a short period of time without automation.  As such, often last-minute changes are done in the easiest but least effective way. This rarely maximizes revenue and can cost much more than the cost of Zulu's system.

**Using Resources most Efficiently**
When airlines have been forced to trim resources, Zulu's system can help a smaller team do the work of the much larger teams that are required for manual tools or older systems. The saved time adds the most value by focusing on higher value work, e.g. building better, higher value schedules. With Zulu, they can create multiple scenarios to compare, include constraints to minimize airport resources, or maximize revenue with better passenger connectivity and network patterns. From a work culture perspective, schedulers using Zulu report much higher job satisfaction.

**Zulu's Core Capabilities**
Zulu provides a full set of integrated capabilities to enable the planning team to build far more profitable schedules. These capabilities include:
1. **Automation**
   a. Schedule rotations
   b. Schedule validation
   c. Slot matching and messaging
   d. Publication and export
   e. Codeshare assignment
   f. Schedule compare
2. **Reporting & analysis**
   a. Standard reports to quickly evaluate the schedule
   b. Management reports for better decision making
   c. Passenger connectivity
   d. Competitor and industry analysis
3. **Decision-making**
   a. Booking data for minimizing passenger impact
   b. Multiple scenarios and evaluation
   c. Slot monitoring the meet 80/20 rule
4. **Optimisation**
   a. Fleet assignment to optimize profitability
   b. Minimizing ground staff and gate usage
   c. Maximizing probability of receiving desired slots
5. **Customer Success**
   a. Fast, smooth transition with hands-on training
   b. Expert support from Zulu's customer team
   c. Customer-driven upgrades and enhancements

**Summary**
Zulu provides the sophisticated capabilities an airline can use to make the scheduling team into a value-adding group at an annual cost that is a fraction of the increase in value. The key to the business case for a change is the difference in the value of the schedule, the efficiency of the team, and the reduction of risk for the airline. Our customers have shown that the value they realize is 10-20 times the difference in cost from their old system.