

A MAGAZINE FOR AIRLINE EXECUTIVES

OCTOBER 2003

ascend

Taking your airline to new heights

EXTREME AIRLINE MANAGEMENT

A conversation with ...

**David
Siegel,
CEO,
US Airways**

INSIDE

Traditional carriers launch
low-fare subsidiaries

How airlines weathered
"the perfect storm"

Cathay Pacific Airways'
crisis management process

Just Right: The Resource Management Systems

Through the use of Sabre Airline Solutions' integrated resource management tools, airlines can yield labor savings up to 25 percent by ensuring that the right people are in the right place at the right time.

■ By Kamal J. Qatato | Ascend Contributor

Gate agents are in place right on time to handle check-in for a flight. An airplane is refueled, serviced and ready to push back for an on-time departure. Baggage has been transferred from the terminal to the airplane and loaded without delay. A fresh flight crew is in position ready for takeoff.

For an airline, the optimal use of employees is not only essential to improving performance and customer service, but it also saves money.

Having the right people in the right place, however, is not always as easy as it sounds. The effective management of ground handling and passenger services staff is a complex, yet critical, aspect of an airline's operations. Flight delays, cancelled services, holidays, labor actions and absenteeism — to name a few — arise on a daily basis and can have a tremendous impact if not managed optimally.

In addition to the unpredictable nature of the industry, airlines also now must address heightened security provisions and increased competition, all of which are forcing changes in how resources are planned, administered and managed in real time.

Although complex, efficient staffing

is not impossible. By breaking down the process into phases, and automating each phase, airlines can make the best possible use of their resources.

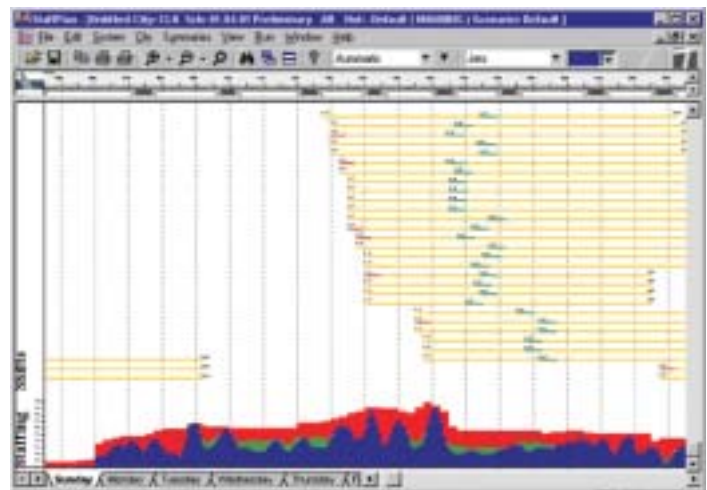
The three main phases of the resource management process are planning, administration and day-of-operations.

Planning

During the planning phase, usually six months to one year out, airlines determine the work requirements generated from their planned flight schedule.

Using the Sabre® StaffPlan™ staff forecasting and planning system, airlines can employ automated decision support to produce optimized forecasts and plans for staffing levels required by a given flight schedule.

Determining the optimal staffing



The StaffPlan system, left, and the StaffAdmin system, center, help airline schedulers build work requirements and assign adequate personnel at airport locations. The StaffManager system, right,

levels using the StaffPlan system includes three steps:

- The system uses industry-leading algorithms to determine the work demand required for a flight schedule, work parameters, engagement standards, historical and forecast loads, and quality targets.
- Once the work demand is produced, the system's patent-pending shift scheduler algorithm determines



optimal shifts/rosters to ensure adequate coverage to perform the required work, yielding labor savings of up to 25 percent.

- Once the system has determined the optimal coverage level to perform the required work, the final step is to allocate tasks to those schedules/rosters. This is performed by the Task Assignment module, which takes into consideration the drive and walk times between job functions.

Through the use of linear programming, integer programming and constraint-theory mathematics, the *StaffPlan* system develops the best possible solution — one that cannot be

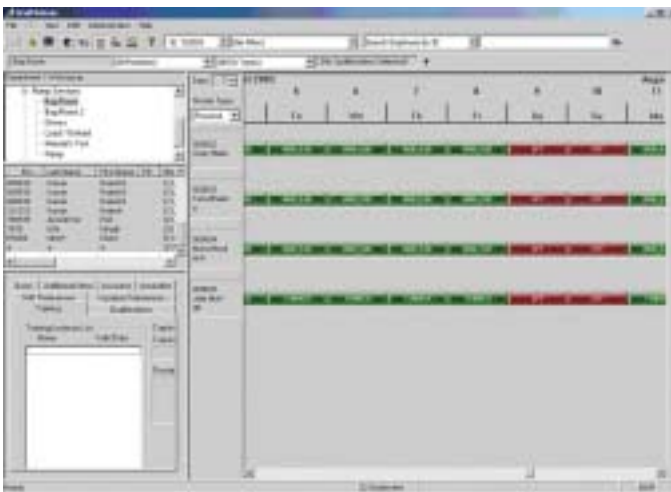
lysts to perform “what-if” analysis to evaluate multiple operational scenarios and determine the impacts to the business prior to the implementation of any new staffing strategies. Some of the key benefits of the *StaffPlan* system include:

- Improved ability to achieve consistent staffing levels,
- Ability to identify and explain seasonal variations in staffing levels,
- Reduced time required to identify and plan staffing,
- Ability to set proper staffing levels.

Administration

During the administrative phase, usually six months up to the day of

In addition, using the *StaffAdmin* system helps airport resource administrators more efficiently handle schedule preparation, vacation and overtime planning, and shift coverage. It also reduces the time spent on attendance tracking and administering training updates, freeing administrators to perform other additional job functions and improving their overall utilization. The entire employee administrative process is streamlined, providing decision support for workforce planning and scheduling in a paperless environment. It is designed to ensure that airlines optimally manage administrative tasks for their employees. Airlines commonly achieve up to a 20 percent



takes real-time flight movement data and maximizes the deployment of resources, yielding up to 15 percent improvement in overtime labor costs. The three systems are integrated to provide airlines optimal resource management capabilities.

matched by an analyst alone. Without such optimization, it is difficult, if not impossible, to measure how close a proposed staff schedule is to the ideal solution. The *StaffPlan* system also enables an airline to make intelligent trade-offs between conflicting objectives such as determining whether to use part-time employees versus full-timers in terms of cost and shift coverage.

The *StaffPlan* system enables ana-

operations when planning occurs for the next season, an airline takes the forecasted staff plan and determines daily staffing needs based on resource availability.

The *Sabre® StaffAdmin™* employee tracking and assignment system creates and stores work and attendance rules. It helps administrators assign the appropriate personnel to the work-level requirements established in the *StaffPlan* system.

improvement in administrative staff utilization through paperwork reduction and increased employee involvement in data entry. Cost reductions of up to 15 percent associated with errors in the reconciliation process related to payroll and time and attendance can also be realized.

The Internet has provided a powerful means for employees to proactively manage their own schedules and work assignments. The *StaffAdmin* system

incorporates an employee self-service kiosk, enabling employees to complete paperless transactions related to shift trades and schedule checks as well as over-time and vacation requests over the Web from home or another remote location.

Benefits of implementing the *StaffAdmin* system include:

- Producing rosters and daily staffing sheets,
- Vacation planning and administration,
- Tracking employee accrual accounts,
- Providing employee access via a self-service kiosk,
- Tracking employee training and qualification information,
- Importing and exporting data to human resources systems,
- Open report writing,
- Incorporating a time and attendance interface.

Day-of-Operations

The day-of-operations phase considers real-time operational requirements and resource availability for deployment in the field.

The *Sabre*® *StaffManager*™ automated staff allocation system helps an airline respond in real time to events that may disrupt the schedule. Even on a seemingly ideal day, there will likely be changes to flight schedules and times that require staffing adjustments. The *StaffManager* system takes real-time flight movement data and maximizes the deployment of resources based on their availability, location in the airport and qualifications. The *StaffManager* system dramatically improves the fluidity and movement of resources during an operation by giving an analyst specific areas to concentrate on — proactively managing the exceptions in the operations rather than

spending precious time identifying where those operational exceptions are. Airlines using the *StaffManager* system have yielded up to 15 percent improvement in overtime labor costs by being able to identify areas in which resources can be more effectively utilized prior to aircraft arrival and departure.

The *StaffManager* system is seamlessly integrated with both the *StaffAdmin* and *StaffPlan* systems. It takes daily staffing employee schedules from the *StaffAdmin* system on a real-time basis, including any anomalies to the planned rosters, eliminating the need for face-to-face employee roll call. Most importantly, to complete the resource management business process cycle, airlines are now able to use real-time historical data as an input to the planning process, namely the *StaffPlan* system, to identify trends against the previous operational


windows is configurable to the business unit or workgroup for which the analyst is responsible, ensuring complete focus on that business area.

The key benefits of the *StaffManager* system include:

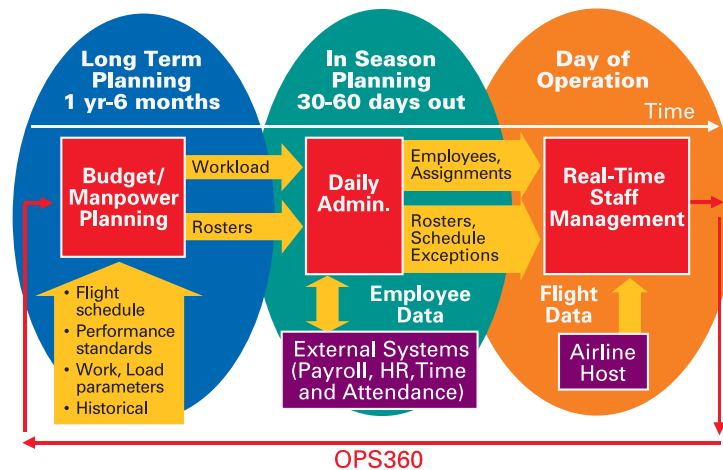
- Maximized productivity,
- Early problem identification,
- Measured and tracked employee performance,
- 72-hour moving window of flights and tasks,
- Views for flight, task and alert information,
- Secured access through various security levels,
- Link to time and attendance badge-in data.

It's All About Efficiencies

With modern decision-support tools, airlines no longer must rely on using past staffing plans as a basis for future schedules. Relying on past plans can result in a repeat of previous shortcomings. Having the right people, in the right place, at the right time is key to successful resource management. Scheduling several different functional areas to service aircraft while on the ground is a complex business process that undoubtedly challenges airlines to develop

cost-effective ways to manage their resources. Without a suite of tools to guide the planning, administrative and real-time business processes in resource management, airlines will never achieve operational efficiencies that will yield tremendous cost savings yet maximize customer service. 

Kamal Qatato is director of the resource management and passenger processing product suites at Sabre Airline Solutions.



Integrated resource management tools help airlines coordinate staffing needs through the long-term planning, in-season planning and day-of-operation phases, reducing costs and improving staff utilization.

plan to improve future plans.

The *StaffManager* system has a simple-to-navigate graphical user interface that provides detailed flight, resource and operational alert information. All data in each of three viewable

THE *Right* *Tool* IN TOUGH TIMES

History has proven the truth of the axiom that "extreme times call for extreme measures."

During the most extreme time in the history of the aviation industry, the weeks and months following the events of Sept. 11, 2001, airlines were forced to take drastic action to stay afloat. One of those measures involved making painful staffing cuts and furloughing employees.

During this time, many airlines — including Northwest Airlines, America West Airlines and Continental Airlines — relied on their resource management tools from Sabre Airline Solutions to help determine the best course of action, identify the areas to cut and to make the optimum use of the remaining personnel.

Continental Airlines used the Sabre® *StaffPlan*™ staff forecasting and planning system to help adjust its staffing levels to match the dramatic reduction in the demand for travel.

Using the system, Continental's resource planning team quickly evaluated its manpower needs, matching changes to its flight schedule at little cost to the airline.

Patrick O'Neill, senior manager, resource planning and field engineering for Continental, said the *StaffPlan* system:

- Enabled Continental to analyze the financial impact of modifying staffing without compromising clean, safe and reliable service. The program parameters allowed the airline to cross-utilize workgroups and adjust targeted service goals.
- Performed financial analysis of multiple staffing scenarios, allowing the executive management team to make accurate and timely decisions.

"We continue to utilize the *StaffPlan* system to efficiently manage more than 85 percent of our domestic agents in our airport services division," O'Neill said.

Northwest Airlines also benefited from the *StaffPlan* system in the aftermath of 9/11.

"We knew our customers would be very slow to come back to flying after the terrorist attacks, and we had to reduce our flight schedule and resources accordingly," said Jeff Benjamin, manager of staffing and planning for Northwest. "It was impor-

tant to quickly determine the correct staffing levels for ground operations to support the new flight schedule. Additionally, we faced unknown load factors and the requirement to do new shift bids to make sure we had the appropriate staff on each shift to meet our performance requirements.

"The *StaffPlan* system was the right tool," he added. "We were able to pull in a new flight schedule, run it with multiple load factor assumptions and get a shift bid output that would assist our operational managers to efficiently re-allocate a smaller staff to reduced flight activity. We presented this analysis to our executive team within the aggressive timeframe committed, and they were able to make informed decisions regarding staffing risks associated with a variety of load factor assumptions. The *StaffPlan* system allowed us to turn this analysis around in a few days, which would have been impossible otherwise."

Kevin Bauerle, manager of customer service finance at America West, said the benefits of using the decision-support tools from Sabre Airline Solutions came in two stages.

"Immediately after 9/11, we were able to electronically receive the new schedule with the new level of operations and quickly run the *StaffPlan* system to determine the appropriate full-time employees," he said. "In conjunction with receiving the schedule, our capacity planning group provided us with new forecasted load factors to account for additional reductions in flying.

"In the months after 9/11, we ran a number of scenarios using adjusted arrival curves and contact ratios to attempt to model the impact of the security directives implemented by the Transportation Security Administration." 