The effective management of group traffic is required to minimize revenue dilution and enhance an airline’s market share. Group management is challenging from several perspectives — process, decision support and reservations system workflow for the management of group blocks.

Group traffic, which typically includes nine or more travelers, is an essential component of the total traffic in an airline network and varies significantly by geographic region and even by country.

As a percentage of total onboard traffic in an airline’s network, group demand is significant; processes need to be established to unlock hidden revenues by evaluating a request for a group reservation based on value as well as track the group reservation over the life of the flight. Some countries such as China and Japan frequently experience group traffic on flights that exceeds 50 percent of the total onboard traffic.

Groups fall into four distinct categories — ad hoc group requests, series group requests, allotments and convention groups — in increasing order of complexity for a sales agent or airline group desk that has to respond to a request for a quote. Processing each of these requests poses unique challenges. Processing ad hoc group requests is the simplest since it involves a single decision on block space for the requested origin and destination. In the series group, a request is made for a block of seats for specific days of week over a date range. The requests may originate from tour operators, travel agencies and airline group sales managers. For example, a cruise line operator may request block space from a gateway city to a departure port based on the sailing schedule. A variation of a series group is the request for an allotment. Allotments, prevalent in Pacific Rim countries, are group blocks removed from general inventory and managed by the travel agency. Convention and special event groups represent the fourth category that negotiates group rates with a preferred carrier to fly customers into a city where the convention is held. In this case, customers may originate from several origin points to a single destination and depart from the convention city to their respective destinations.

No two airlines are alike in how groups are processed. Broadly speaking, there are two distinct models for group management — centralized and decentralized. In a centralized environment, all group requests submitted by sales agents or organizations are processed by a central group desk at corporate headquarters. The second model functions in a decentralized mode where authority for accepting and rejecting groups falls to the sales office. Based on the inherent advantages and disadvantages of these two models, most airlines tend to follow a hybrid model for processing ad hoc group requests where only groups above a certain size are handled by the central desk.

The group negotiation process displays that the field has autonomy to respond directly to a group request based on the established rules for decentralized group processing. All other requests are routed to a centralized group desk for processing.

### Group Traffic by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent of total onboard traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Less than 10%</td>
</tr>
<tr>
<td>South and Central America</td>
<td>10% to 30%</td>
</tr>
<tr>
<td>Europe</td>
<td>10% to 30%</td>
</tr>
<tr>
<td>Pacific Rim</td>
<td>20% to 40%</td>
</tr>
<tr>
<td>Asia</td>
<td>Greater than 30%</td>
</tr>
</tbody>
</table>

Group traffic represents a significant portion of onboard traffic for airlines around the world. By employing effective processes and using advanced technology, these airlines can realize additional revenue generated by group traffic.
Effectively managing group traffic can help reduce revenue dilution as well as build market share. Capturing the hidden revenues from traveling groups can add 0.5 percent to 1 percent or more to an airline’s bottom line.

Several factors contribute to the unique challenges associated with the effective management of group demand:

- **Group volatility** — This occurs during the demand process and after the group has requested and received space on a specific route. The size of the group and the number of groups on a route contribute to demand volatility due to the intermittent and lumpy nature of this demand. The group retention rate, expressed as a percentage of the group block that will show up at departure, contributes to volatility in available seat capacity after a specific group has made a booking. Low retention rates can cause incremental spoilage on closed-out flights.

- **Group yield** — While group bookings may fill up empty seats on flights, they also have the potential to displace higher-paying individual passengers, diluting total revenue. Group yields are traditionally lower than individual passengers on a flight since groups negotiate fares several weeks and even months in advance of the actual departure date. Therefore, controlling groups is of critical importance to ensure revenue dilution caused by displacement of higher-valued passengers closer to departure is minimized when a group fare is negotiated.

- **Limited transparency and active compliance monitoring** — Group attrition plays a significant role in group performance. Visibility into the names of passengers within a group is a fundamental requirement for transparency and to forecast the expected group count at departure. Monitoring compliance of the booking from the point inventory is allocated to flight departure is essential to monitor the expected performance of the group, available capacity for higher-yielding individual passengers and the productivity of the travel agency that requested the group.

- **Sales and revenue management** — Capturing group traffic is an important part of fulfilling established targets for sales agents by region or city. Sales incentives are usually volume based and not based on the incremental contribution. This, coupled with the absence of visibility into the contribution of group traffic to network revenues, frequently results in conflict between revenue management and sales.

- **Business process adaptation** — Group handling varies from one airline to the next. While there is not a universally accepted best practice on group management, the challenge is to adapt a process that works well for the markets served by the airline. Effective and timely handling of group requests requires limited autonomy for field sales. For example, only groups classified as critical — based on pre-defined rules such as booked load factor, days to departure and requested fare — must be submitted to corporate in a group queue for approval.

- **Workflow automation for reservations** — Two main areas for automation of group processing include:
  - A mechanism to process group requests from a queue on the reservations system, requiring the group request data to be automatically processed by the group revenue management system to determine the minimum acceptable rate. Absence of this interface will cause users to input data manually into the group revenue management system, which could adversely impact productivity. Manual input may still be required when the request for block space is received by phone or facsimile.
  - A mechanism for the airline to create the group block and push the block to the travel agency or, conversely, for the agency to create a group block, requesting space from the airline. A best practice is ensuring visibility into the names associated with a group block, which enables the airline to manage its available inventory of seats for individual passengers effectively.

### Indifference Curve and Measuring Group Value

Group evaluation is the method of determining whether to accept or reject the group booking, accomplished by quoting a minimum acceptable fare for the requested itinerary after taking into consideration the expected displacement cost of individual passengers, projected group attrition forecast, size of the group, ancillary profit (revenue minus actual cost) offered and the number of complementary seats requested by the group. The minimum acceptable fare is the break-even fare, where the airline is indifferent if the group or individual passengers are accepted since measurement is based on value.

The group indifference curve in the Sabre® AirMax® Group Manager forms the foundation for accepting or rejecting requests for various group categories. It is based on the marginal value of an incremental seat in an idealized nesting structure, which guarantees marginal tradeoffs across all units, unlike traditional expected marginal seat revenue, as a function of the forecast demand and current...
bookings by booking class. For airlines that manage inventory by origin and destination, the minimum acceptable fare or break-even fare for the group considers upline and downline network effects to ensure an optimal network solution. The indifference curve illustrates the characteristics of profitable and unprofitable groups. If a group pays above the break-even fare, it represents incremental profit. The rejection region represents combinations of group fares and group sizes that are not profitable to accept. The minimum acceptable fare computed by a group revenue management system is typically used as a guideline to map the calculated value based on pre-defined business rules to the closest published fare or a Category 25 fare (fare by rule), if applicable, inclusive of taxes and surcharges. Certain fare rules such as ticketing time limits may be relaxed based on policy or during negotiation.

Estimating Retention Rates

Estimating the retention rate for every group block is an important input into the revenue management process to determine the optimal inventory controls for individual passengers. Assuming the group block negotiated with a group will have 100 percent fill rate is a bad assumption and will result in spoilage. When group demand materializes and a group block is created in the host reservations system, the expected retention rate is applied against the group block for a more refined estimate of available capacity for individual passengers.

The estimation of individual group retention rates at specific pre-departure points in time requires access to group passenger name record data. Some of the key causal factors that may contribute to group retention rates include:

- The group/sub-group type,
- Season,
- Booking region,
- Origin city/region,
- Destination city/region,
- Day of week,
- Global distribution system source,
- Payment status,
- Travel agency productivity,
- Number of named individuals against a group block,
- Days to flight departure.

Group retention rates can be predicted with a high degree of accuracy with a logistic regression model, wherein the dependent variable (retention rate) is based on the known values of the independent (causal) variables. Retention rates will typically improve closer to departure as the group firms up. In situations when a group PNR is split, the parent/child hierarchy needs to be preserved to determine group and agent productivity.

Reservations Workflow Automation

For group reservations agents and travel agencies, support is required for the automated creation of group blocks to enhance productivity and reduce manual processing of block space with phone and facsimile messages. The Sabre® global distribution system automates both the travel agency and airline group reservations agent-initiated requests for block space with the Sabre® Group Management Tool. This workflow integration already exists between the Group Management Tool and SabreSonic™ Res. For airlines not hosted in SabreSonic Res, the Group Management Tool can integrate with an airline’s host reservations system.

For the airline-initiated workflow, the airline can push the group PNR to a designated agency using specific indicators while creating the host block space group record.

Individual sales from the group are sold using associated PNRs that are linked to the group management record. Inventory sold is immediately decremented from the group management record and airline inventory. Passenger names and itinerary details including airline group locator are sent to the carrier during normal end transaction.

These workflows are powerful since they provide the capability for defined viewership based on role and security for the airline. An airline can authorize specific Sabre Connected™ subscribers and agencies to designate specific agents to create and sell from the block group with employee profile record keywords. The block inventory is also integrated into the Sabre GDS city pair availability displays with an appended indicator that informs subscribers of the existence of

Groups of nine or more people traveling together offer an opportunity for airlines to gain another source of revenue. However, deciding whether to accept a request for group travel must be carefully considered against the cost of displacing individual passengers.
block space. A secondary display shows specific block inventory information such as record locator, class and block available seats. A key benefit of the Group Management Tool is the transparency offered to predict retention rates since the names associated with the group block can be viewed by the airline.

### Alliance Group Revenue Management

With the participation of airlines in the three main global alliances (oneworld, Star and SkyTeam), there is a growing interest in joint revenue management capabilities among airlines in an alliance operating in a decentralized (by airline) environment. Examples of airline alliances where revenue management decisions are coordinated include Northwest Airlines/KLM and United Airlines/Lufthansa. For interline codeshare itineraries between airlines participating in joint revenue management decisions, a global decision can be made for an interline group request by requesting the minimum acceptable fare from the interline partner airline. In addition, it also protects the airline partner that is managing the group itinerary is known before the fare quote is provided.

### Sample Profile for a Group

A sample profile for a group illustrates changes that may occur to a group block once it is created in the reservations system. Changes to the group block are negotiated between the airline and the entity requesting the group space. Regardless of the group block, the true metric for the airline is the number of names that have been received against a group block, which provides an indication of the utilization rate of the group.

### Group Performance and Sales

Sales incentives are typically based on volume sales. However, the incremental contribution from the group multiplied by the total seats requested may be used as a more effective yardstick to reward incentives to sales managers than seats sold. An audit trail of group acceptance is required to determine the effectiveness of sales agents that negotiate group deals. For each deal that is negotiated, it is important to capture the minimum acceptable fare for the specific group request, the size of the group and the negotiated fare. With this information, the airline can compute the intrinsic value of the group reservation on the assumption that the minimum acceptable fare is the break-even or indifference fare.

### Sample Data

<table>
<thead>
<tr>
<th>Days to departure</th>
<th>Group block and group names activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
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<td>91</td>
<td>65</td>
</tr>
<tr>
<td>98</td>
<td>70</td>
</tr>
</tbody>
</table>

**Changes to the group block over time**

Total group names registered against the group PNR

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### Gross Value of Group

\[
\text{Gross Value of Group} = (\text{Actual Negotiated Fare} + \text{Ancillary Profit} - \text{Minimum Acceptable Fare}) \times \text{Group Size}
\]

### Net Value of Group

\[
\text{Net Value of Group} = (\text{Actual Fare} - \text{Ancillary Profit} - \text{Minimum Acceptable Fare}) \times \text{Effective Group Size}
\]

where

\[
\text{Ancillary Profit} = \text{Ancillary Revenue} - (\text{Cost} \times \text{Group Size} \times \text{Retention Rate})
\]

Unbundling fares and providing passengers the option to purchase add-on in-flight (pre-reserved seats, meals onboard) services and travel extras (access to the frequent flyer lounge, ground transportation) are selected at the time of booking. However, to eliminate bias in the decision-making process, ancillary profit should only be considered if the revenue management process for individual passengers forecasts demand for in-flight and travel extras when optimal inventory controls are determined.

This performance metric can be used to not only determine the effectiveness of an airline’s group management program, it can also be used to modify the incentive programs for sales. The sales organization is normally measured on seats sold and not on how profitable the group sale was to the airline. An alternative is to create a graded commission structure based on sales points per month. Sales points are simply the sum of the group value measures, the net profit negotiated by the sales agent per month.

\[
\text{Sales Points} = \sum \text{Net Value of Group}
\]

**Sales Points**

Such an approach, albeit radical from a salesperson’s point of view, will benefit the airline and sales agents who drive incremental revenues with each sale. It is also a mechanism to provide a budget for a salesperson to manage against.
The End-to-End Integrated Value Proposition

Measuring the value of group performance indicates that incremental revenues are significant and can range from 1½ percent to 1 percent or higher depending on group booking volumes and adds directly to the bottom line. Group Manager is an advanced Web-enabled open-systems decision-support environment that processes ad hoc and series group requests as well as quotes the minimum acceptable fare for a group after considering group retention rates and the expected value of individual demand that is yet to come. It is integrated with the Sabre® AirMax® Revenue Manager, enabling alliance group revenue management and also integrating to third-party revenue management systems. To enhance agent or user productivity, it also supports queue processing from SabreSonic Res and other airline host reservations systems for responding to group requests from the field. From a business process perspective, it supports centralized, decentralized and hybrid processing scenarios with a Web-enabled browser-based user interface that provides sales agents in the field easy access to evaluate group requests.

However, viewing group management in isolation from a revenue management perspective has its limitations since managing group demand from an end-to-end perspective plays a pivotal role in an airline’s business process and its efficiency in how groups are managed across the network. Group Manager addresses the management of groups from an end-to-end perspective by integrating the Group Management Tool that supports workflow automation for travel agencies and the airline group reservations desk. Besides serving as a productivity enhancement tool for managing groups, this integration eliminates the standard opaque group block managed by a travel agent and provides unparalleled transparency into group activity against a group block during the life of the flight for the airline. The negotiated group rate can also be sent to the Sabre® AirPrice™ Contract Composer, a workflow automation tool that manages off-tariff contracts, which in turn returns a contract identification that can be stored on the group PNR. Audit reporting on group performance against a contract provides a simple mechanism to monitor group compliance against the contract and also be used as input for future negotiations with the same group. For airlines hosted on SabreSonic Res, the enterprise data warehouse serves as the primary data source for access to group PNRS to estimate group retention rates.

An agency requests block space for a specific itinerary from an airline. The airline has the option to accept the request, reject the request or partially accept the request based on the demand profile for the requested itinerary. If the airline finds the group request acceptable after evaluating the request against anticipated individual demand in the future, the group passenger name record is created and an acknowledgement is sent to the travel agent.

As part of the airline-initiated group block creation process, the travel agent sends a telephone/facsimile request for block space to the airline. The airline can evaluate the request for block space against anticipated future individual demand and determine if the block space for the requested itinerary is acceptable. If deemed acceptable, the airline initiates the group transaction in the reservations system and communicates with the travel agent.

Ben Vinod is chief innovator for Sabre Airline Solutions. He can be contacted at ben.vinod@sabre.com.