In Real-Time ... Every Time

Innovating Analyst Productivity Through Real-time Data

By Sam Chamberlain

The airline industry is dynamic. Business challenges continue to evolve for airlines; customer demands and expectations continue to increase; and competition to acquire the right passenger is intense. Not only do these factors affect the success (or failure) of an airline, they are also the reason particular functional areas within an airline have become even more essential to achieve success. Revenue management is clearly one area of strategic and tactical importance.

Revenue-management systems were created so airlines could make smarter decisions about what to sell, when to sell, to whom to sell and for which price to sell. While most revenue-management solutions are able to predict the best mix of passengers to maximize revenue, certain challenges still persist, most notably, the latency of the data in the system.

Real-time Capabilities

We live in a hyper-connected world where people are able to instantly consume the latest news stories, check bank accounts, get groceries delivered at home or stream a favorite television show directly on their pocket computers, whenever they want, wherever they want, at a moment's notice. This wasn't always the case. Advances in technology enabled these impressive capabilities, and we've transformed the way we go about these daily tasks as a result.

A similar transformation is happening in the workplace as well. It is unreasonable to expect any analyst using any decision-support system to make decisions based on stale data. Therefore, revenue-management analysts need access to real-time capabilities that help alleviate data lag, as well as gather data into one system and present it in an easy-to-use format. These capabilities will boost analysts' confidence in the data collected and arm them with the necessary information to make educated decisions in a fraction of the time it takes with traditional systems.

Next-generation revenue-management technology can produce a fast response to any type of marketplace changes, which will forever change the revenue-management landscape and give airlines the benefit of realizing every possible revenue source.

As airlines strive for increased efficiency of their analytical and business processes, they need to move beyond a batch-processing paradigm for their data. Currently, throughout a flight's selling window, an airline focuses on three key areas: demand, capacity and time. Some factors may only change once or twice a month, while others may vary thousands of times per minute.

To work around this barrier and provide a consistent view of an airline's network, a traditional revenue-management system performs a batch process to collect data on a nightly basis. The data is used to optimize the price of the flight on average 30 to 60 times during the selling horizon of the flight. The data collected ranges from schedules and bookings to fares, availability and competitive landscape.

ANALYSTS CAN COMFORTABLY ALLOW A NEXT-GENERATION REVENUE-MANAGEMENT SYSTEM TO OPERATE ON AUTOPILOT, ENABLING THEM TO SPEND MORE TIME FOCUSING ON STRATEGIC ANALYSIS OF THE DATA.

A NEXT-GENERATION REVENUE-MANAGEMENT SYSTEM WITH THE ABILITY TO PRODUCE A FAST RESPONSE TO ALL FORMS OF CHANGES IN THE MARKETPLACE – LARGE, SMALL, INTERNAL AND EXTERNAL – WITH REAL-TIME DATA IS A PROBABLE GAME CHANGER FOR THE AIRLINE INDUSTRY.

The baseline assumption of a batch process assumes that the data remains reasonably static throughout the course of the day; therefore, airlines are expected to trust the recommendations from the revenue-management system without any concern that the data is fluid. However, the market situation and, hence, the relevant data is not constant, so by the time a decision is made, it is already outdated and perhaps significantly sub-optimal.

Converting from today's batch-based paradigm to one that is event-driven and provides near real-time data collection, presentation and assimilation will not only improve market response times, but it will drive measurable revenue gains.

Big Data

An airline cannot only focus on the frequency of data. It must also think about the volume of data the system can process. Big Data is characterized by the four Vs: volume, velocity, variety and veracity. The volume of data that can be collected has increased immensely during the last 10 years. The velocity in which we receive data is accelerating; the data collected has a wider variety than ever before; and the veracity, or credibility, of the data is a necessity.

Before long, today's revenue-management systems will not be equipped to handle this evolution of Big Data. Therefore, airlines will need a revenue-management system that is equipped to manage more complex data. With the technological improvements during the last several years, there are scalable platforms available to fit this need. Using such platforms, revenue-management leaders can expect improved productivity from analysts because the time to review flights will decrease and the time spent on strategic initiatives will increase.

With a real-time revenue-management system, the increased clarity and transparency of data will create a more accurate picture of market dynamics at any point throughout the day. Analysts can operate the revenue-management system on autopilot so they can focus on strategic analysis of the data. Furthermore, the real-time data is stored and used for historical analysis, offering a clear, powerful understanding of market and passenger behaviors.

Real-time Revenue Management

An ideal revenue-management system gives airline the power to make decisions based on current rather than outdated data, leading to opportunities to increase revenues and gain a competitive advantage. Initial studies conducted by Sabre conservatively estimate about a 0.3 percent increase in total revenue associated with the real-time aspects of revenue-management systems.

The airline industry is changing and the technology to support it is evolving. A next-generation revenue-management system that incorporates advanced technology and provides airlines with more accurate and real-time information in an easy-to-consume and simple-to-interpret format is the ideal solution for the future. ASCEND

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