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## THE PILOT

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# The Highest Peak

The most innovative and creative resources of *Sabre Airline Solutions*<sup>®</sup> are brought together in Project Denali — designing and developing the industry's foremost movement-control software.

■ By Phil Johnson | *Ascend* Staff

**E**fficient, cost-effective management of scheduling and daily operations is, obviously, critical to the wellbeing of any airline.

And during the past decade or so, various vendors have developed progressively better and more advanced software to help airlines get a firmer handle on their functions in these vital areas.

Still, the need to become even more skilled and proficient in operations and scheduling is an essential requirement that involves serious competitive factors for airlines of every size and shape the world over.

A couple of years ago, *Sabre Airline Solutions* — understanding the cost and competitive implications to its airline customers — embarked on an ambitious project to completely redesign and upgrade its movement management software with highly advanced functionality, usability, scalability and integration features to establish *Sabre® Movement Manager* as the ongoing industry standard.

Because of the mountain-climbing, quest-pursuing nature of the immense software development that would be required, *Sabre Airline Solutions* named the project after the highest peak in North America: Denali.

And while the work is not yet totally complete, extensive progress has been made — to the point that launch partner British Airways is now making day-to-day practical use of the advanced-version *Movement Manager*, even upgrading the airline's operational approach in ways designed to serve the airline well into future decades.

British Airways, in choosing to partner with *Sabre Airline Solutions* in the interim launch of *Movement Manager*, was looking ahead to furthering its traditional leadership role among world airlines, as well as its potential to take greater advantage of the new capacity and capabilities to accompany the opening of Terminal 5 at London's globally significant Heathrow Airport.

The carrier will implement a temporary version of *Movement Manager* while the advanced version is being finalized. As part of its movement management operations, British Airways will use the system to help precisely and accurately control and track each of the airline's assets that moves, including aircraft and every piece of equipment as well as logistical aspects such as scheduling and other operational factors that are required in both day-to-day and long-term airline business.

The *Sabre Airline Solutions*/British Airways connection makes a lot of business sense: a partnering of two industry leaders in extending and expanding the utility of the finest movement-control software tools in the world of aviation and global logistics.

*Sabre Airline Solutions* has designed the next-generation *Movement Manager* to provide functionality, usability, scalability and integration features second to none — fully suited to serve any airline in improving operational and scheduling efficiency and to help significantly lower an airline's overall cost structure.

The newest version of *Movement Manager* features improved and expanded



Photo courtesy of Airbus

As the launch partner for the next-generation *Movement Manager*, British Airways is making practical use of the solution in its day-to-day operations.



Photo courtesy of Airbus

British Airways will employ a transient form of *Movement Manager* while the advanced solution is being completed. The carrier will use the system to help accurately manage and monitor each of the airline's moving assets, including aircraft and every piece of equipment.

capabilities in critical areas such as tail assignment and aircraft attributes as well as a seamless capability to work in tandem with each of the other products in the extensive *Sabre Airline Solutions* portfolio.

Improvements to *Movement Manager* encompass a next-generation solution slated to meet business requirements that are fully expected to change and grow throughout the product's lifecycle.

Also, an important consideration in Project Denali involves upgrading the capabilities of *Movement Manager* to provide airlines the ability to configure applications to their own needs. *Movement Manager* conforms to business best practices, with the flexibility to fully support airlines as they transition toward more productive best practices in the future.

The newest version of *Movement Manager* is designed to provide a robust framework to enhance any airline's existing functionality — plus the capability to easily and routinely add new features and functions during the life of the product.

One *Project Denali* mandate has centered on strongly pushing the *Movement*

*Manager* technology envelope — and by so doing to deliver a product with a tangibly lower total cost of ownership through the advanced capabilities of the latest technology.

Developers working to significantly upgrade the system's capabilities and performance have focused on greatly improved product usability — essentially making *Movement Manager* much easier to train on and use day to day, thereby leading directly to increased productivity among airline employees, both new and experienced.

During the *Movement Manager* development process, usability has been positioned front and center, with the aim to reduce what's often been months-long training periods for analysts to learn to use new movement-control software in the airline industry (or for newly hired people to train on the software) down to a matter of three to four weeks — even, as a realistic objective, down to one to two weeks.

Such a low required training timeframe can save enormous investment by airlines, putting their people into productive mode

much quicker, with much more favorable bottom-line performance. The quick transition period from an older system to the new *Movement Manager* means much lower costs of initial installation.

Furthermore, a stated objective from day 1 of Project Denali has been to provide a *Movement Manager* framework for managing inevitable changes in the airline industry without requiring an entire rebuild of the software infrastructure. Rather, through open-systems technology, the newest-generation *Movement Manager* enables the easy addition of new features and functionality as they develop — an immediate reaping of the lower-cost rewards.

By working with both customers and usability specialists, the *Project Denali* team has consistently improved and enhanced usability features of *Movement Manager* during the development process — making the system easier, for example, to become comfortable with and to train on — and the project team will continue to do so as the next-generation product is further upgraded.

*Project Denali* has not consisted of a simple enhancement or slight improve-



ment of the former version of *Movement Manager*. It has involved a complete overhaul and redesign of the former system, to the extent that the next-generation *Movement Manager* essentially represents a new product, with technological capabilities that had not even been dreamed of when the original product was introduced a number of years ago — features such as full-solution compatibility as well as improved and expanded tail-assignment and aircraft-attribute capabilities.

*Movement Manager* is also designed to be fully and easily integrated with other solutions in the *Sabre Airline Solutions* portfolio to constitute a seamless system of applications throughout an airline's operations, scheduling and other activities. The ease of integration enables an airline to incorporate new technology as more products are upgraded and introduced to help bring greater efficiency and productivity to the airline's day-to-day as well as long-term business.

The idea behind the next-generation *Movement Manager* is to incorporate the best and latest technological tools and components — installed in an open architecture for a system that's easy to upgrade as further developments occur — to help enhance usability, make applications configurable, develop a repository of reusable

components to be leveraged across other *Sabre Airline Solutions* applications, and train on the latest technology.

In the context of 21st-century airline operations, this newest *Movement Manager* has built-in implementation capabilities, enabling it to be installed parallel to existing systems — be they some combination of an older version of *Movement Manager*, a system from a different vendor and/or a system designed by the airline itself.

Running systems parallel to one another serves to avoid lag time during installation, minimizing operational impact. Installation of the newest *Movement Manager* is specifically designed to occur with minimal interruption of current airline operations.

All of these factors, such as quicker training and adaptation characteristics, help make the transition period from any older system to the new *Movement Manager* remarkably short, for a very quick switchover including full integration with existing systems. And quick implementation capability translates to lower cost of installation.

By way of its total system redesign, *Movement Manager* now features what is known in the software industry as "n-tier" architecture, which effectively separates

various layers of software and helps make the entire system more cost effective through scalability and more efficient use of hardware.

And because the latest *Movement Manager* has been built from the ground up, it encompasses numerous integration advantages including what is fundamentally a platform-independent database structure, which allows the use of essentially any database, from IBM to Microsoft to Oracle.

Inspired by the legendary success of Toyota manufacturing procedures, which have incorporated "Test Driven Design" processes in the automotive world — basically enabling the testing of design practices before the final product is built — the *Project Denali* team has made ample use of Test Driven Design concepts in assuring that *Movement Manager* functionality meets rigid test criteria.

The result is that well-researched business-function requirements have defined the design of *Movement Manager*, meaning it is designed with its real-world requirements foremost in mind.

There are three primary *Movement Manager* components that enable airlines to realize significantly lower total cost of ownership.

In addition to the first component — the enhanced usability that reduces training time for employees — the system's functionality is closely attuned to what an airline actually needs in its day-to-day as well as long-term operations and scheduling. *Movement Manager* is designed to function the way the airline functions and is further customizable to the individual airline's specific functional requirements.

The third lower-cost characteristic of *Movement Manager* revolves around the fact that an airline is able to realize savings based on less hardware and software requirements for *Movement Manager* as a whole. So the airline can better manage its system costs.

Any airline that invests in the new-generation *Movement Manager* is fully expected to see immediate value — while *Sabre Airline Solutions* will continue to enhance the product to make it work even better and smarter over time.

And *Sabre Airline Solutions* will apply the advanced technological ideas, components and functions that have been developed for *Movement Manager* to upgrade and enhance other parts of the broader *Sabre Airline Solutions* portfolio, further benefiting airlines. **F**



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In selecting *Sabre Airline Solutions* for its movement management operations, British Airways sought to further benefit from the solution's new capacity and capabilities to accompany the opening of Terminal 5 at London's Heathrow Airport.

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