



ProfitLine

The integrated solution for
revenue management and pricing

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Airline network planning and control

The success of an airline depends on the quality of its resource planning and control processes. These processes determine the product that the airline offers its customers and they therefore ultimately determine the airline's revenue potential.

Network planning is aimed at extracting the highest possible usage from the available resources. It is a challenging task. Profitability depends not only on filling seats and maximizing revenue per passenger, but also on slot utilization, turnaround times, codeshare arrangements and the mix of equipment and resources used. Airline network planning is based on a detailed analysis of passenger flows from an O&D-based point of view. Taking a long-term perspective the basic structure of the route network is adjusted in the optimum way to meet passenger demand. This includes the optimization of timings, connectivity and capacity assignment. Planning requires maximum flexibility in adapting all airline resources to make a compelling offer and satisfy demand in an intensely dynamic market – and thus maximize revenue. It also means anticipating change and putting strategies in place to quickly and effectively respond to competitors by improving cost and price structures to safeguard margins – and thus maximize profitability. In daily operations, quick and targeted responses to changes in demand and competitor activities can make or break an airline. The network structure and the assigned capacity must be continuously adapted to the situation at hand, and any change in resource availability requires an immediate, appropriate and coordinated reaction.

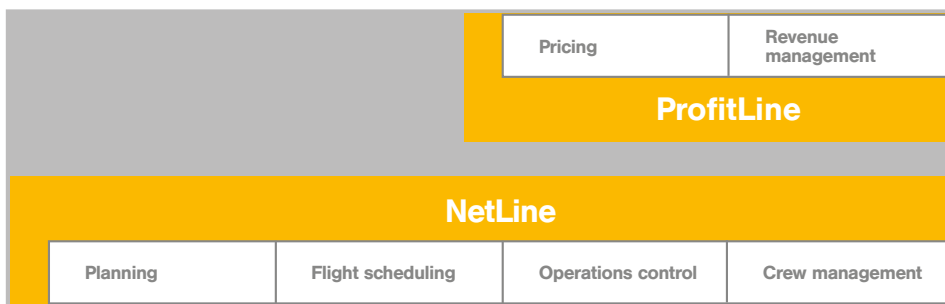
Keeping ahead in a market characterized by complexity and speed of change

Network planning and control is more complex than ever in today's airline business. Tougher competition as a result of deregulation and new competitors, increasingly complex airline partnerships, fading boundaries between

previously clearly segmented customer groups, wider fluctuations in demand and increasingly agile competitors – airlines face challenges on many fronts and profit margins are getting smaller. The ability to predict a competitor's reaction time correctly and to adapt quickly to changes in the market in order to maximize gains from new opportunities is the key to an airline's success.

The need for an integrated approach

In no other industry are the factors governing supply and demand so closely intertwined. Small changes have instant and far-reaching ramifications. An integrated platform for network planning and control captures all the facets of the big picture while enabling an airline to identify the area on which to focus for smoother and more profitable operations – and take quick, decisive and effective action. Network planning and control is where airline revenue management and pricing, strategic network planning, flight scheduling, operations control and crew management all come together to provide the basis for mastering the complexities of an airline's operations and tailoring them to its particular market and customer structure.



The bottom line

Lufthansa Systems takes the expertise resulting from many years of airline operations to provide solutions that

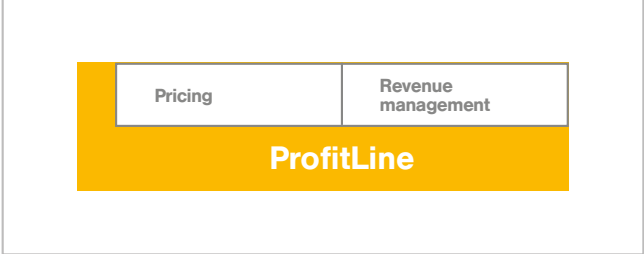
- automate complex processes
- relieve the user of routine tasks
- quantify decision outcomes, both in economic and operational terms
- allow for an integrated approach to optimizing all the elements of planning and control

Airlines need the tools to expand and improve revenue streams as well as to increase operational flexibility while reducing costs. We meet this need with qualified systems and service solutions that cover all aspects of airline network planning and control, such as strategic planning, network planning, resource allocation, revenue management and pricing. Our specialists not only support every phase of the solution implementation. With outstanding business experience, they also contribute to the optimization of processes and IT systems to meet tomorrow's business demands and achieve long-term customer satisfaction.

Extensive experience, profound process knowledge, state-of-the-art technological resources and the trust earned as an able partner to the airline industry: these are the defining strengths of Lufthansa Systems. Let us put them to work for you.

Revenue management and pricing

Never has such a variety of different air fares existed in the airline business as today. The ability to react instantly to market changes and to offer market-driven prices has become the core element in maximizing revenue per seat. And that trend is here to stay, even as new distribution channels and new business models emerge.



Today's airline business is evolving into a two-tier industry: global alliances are reaching worldwide coverage and no-frills carriers are gaining market share with a low-fare, point-to-point product. Yet both sides recognize revenue management and pricing as cornerstones of their commercial strategy. Here, technological advances have brought significant improvements to available systems in recent years: true O&D systems are no longer affordable just for larger carriers. As for pricing, it has become clear that the complexity of available fares in most markets is no longer manageable by means of manual fare control, while at the same time dynamic pricing approaches become more and more popular. Sophisticated systems have been designed which optimally support these processes.

The future will see a closer integration of revenue management and pricing systems. Imagine the benefit of forecasts that trigger automatic fare changes or deploy price-elasticity models to maximize revenue automatically within specific segments. The future is ProfitLine.





ProfitLine	
Pricing	Revenue management
ProfitLine/Price	ProfitLine/Yield
<i>Competitor Analyzer</i>	<i>Demand Forecaster</i>
<i>Fare Distribution</i>	<i>Network Optimizer</i>
<i>Automatching</i>	<i>Network Intelligence Manager</i>
<i>NetNet Calculator</i>	<i>Group Manager</i>
<i>Pricing Simulation</i>	<i>PNR No-Show Forecaster</i>
	<i>Demand Forecaster Plus</i>
	<i>Network Optimizer Plus</i>
	<i>Dynamic Price Engine</i>
	<i>Dynamic Price Engine Plus</i>
	<i>Rembrandt</i>

ProfitLine – the integrated solution for revenue management and pricing

ProfitLine is the leading software solution for revenue management and pricing in terms of method and technology. The integrated and modular product line maximizes revenue and secures the market position of airlines throughout the world.

ProfitLine is based on highly developed analysis, forecast and optimization methods and is the result of many years of experience in the field of revenue management and pricing. The system is a sophisticated and innovative solution for the demand-oriented optimization of capacity utilization as well as for quantifying and simulating the influences of changes in the market and competitive conditions.

ProfitLine automates complex airline processes, making them manageable, and creates the flexibility necessary to control these processes actively. As a result, airlines can react quickly, flexibly and discriminatingly to the market and competitors and manifestly increase their revenue.

ProfitLine stands for high-quality and future-proof software as well as for established industry know-how along with comprehensive, professional service.



ProfitLine Services

Successful revenue management depends not only on the right tools and applying them effectively, but also on the solid control and optimization of upstream and downstream processes.

Speed and accuracy in fare data collection for reservation systems can, for instance, have a significant impact on net results, and early warning of faulty bookings can help increase occupancy rates. At the same time, keeping up to speed with ever-increasing fare and price diversity as well as the various system environments involved in Global Distribution Systems (GDSs) requires extensive resources with specialized pricing and systems expertise – time and cost-intensive resources that could be used more profitably in developing creative strategies for revenue management and pricing models.

Lufthansa Systems realizes the strategic significance of these processes and offers a complete package for revenue and pricing management.

Pricing	Revenue management
ProfitLine/Services	
<i>Price Distribution</i>	<i>Flight Screening</i>
<i>Reactive Pricing</i>	<i>Queue Handling</i>
<i>Quality Assurance</i>	<i>Ticket Control Auditing</i>
<i>Reporting</i>	

ProfitLine/Services

In addition to comprehensive user initiation, ProfitLine/Services comes with:

- **Price Distribution**
 ensures worldwide distribution of fare and price data to GDSs via ATPCO or directly in Amadeus.
- **Reactive Pricing**
 tracks and analyzes the pricing behavior of selected competitors in selected markets.
- **Quality Assurance**
 checks rates and prices for accuracy and completeness in the GDSs.
- **Flight Screening**
 takes care of cancelling multiple bookings (dupe checks) as well as unused reservations (no-shows) in the GDSs and frees seats for onward sales.
- **Queue Handling**
 ensures conflict-free booking processes, e.g. in processing reject messages or confirming waiting lists and group reservations.
- **Ticket Control Auditing**
 validates rates for sold ticket stubs.
- **Reporting**
 evaluates and reconciles complex data with business intelligence solutions.



Pricing

Establishing competitive rates requires a profound understanding of international price trends and underlying fare structures.

At the same time, quick response to market change with individualized price structures is key in today's dynamic and aggressive environment, especially with the fallout of deregulation and the significant increase in competitors in the global and local arenas. As airlines can simply no longer afford not to monitor competitor fares around the world, compare these with their own offering and adjust fare structures accordingly, immediate and accurate information on a global basis translates into a competitive advantage.

Of all the parameters affecting airline planning and control, the ticket price has the most direct impact on total revenue. Therefore, not only competitiveness, but also the full exploitation of the revenue potential is indispensable for every airline. The quantification of the benefits a pricing decision support tool can bring leads to an estimated 0.5% to 2% increase in total revenue.

Pricing	Revenue management
ProfitLine/Price	
<i>Competitor Analyzer</i>	<p>ProfitLine/Price</p> <p>ProfitLine/Price is the most comprehensive pricing solution available today. It covers all core processes in reactive as well as proactive pricing for published and market fares. Besides shorter reaction times for counteraction, the system provides powerful analysis tools for developing effective pricing strategies. Its integrated pricing simulation model goes one step further by forecasting revenue changes based on fare modifications.</p> <ul style="list-style-type: none"> <p>■ Competitor Analyzer</p> <p>monitors competitor fares and fare rules, identifies fare structures and pricing strategies, combines various data sources.</p> <p>■ Fare Distribution</p> <p>comes with a toolset of comprehensive editors for defining fare products which also includes editing of rules and footnotes. Public and private fares such as net fares are fully integrated and supported in one standard workflow including multi-level approvals. Changes are sent automatically from the local database to ATPCO or various other channels, such as proprietary airline web portals and Deal Fare Sheets, or they are distributed to consolidators (STADAF).</p> <p>■ Automatching</p> <p>automatically matches competitor fare modifications based on a defined set of rules, triggering a reactive pricing process – and taking it off the analyst's desk.</p> <p>■ NetNet Calculator</p> <p>calculates average fare levels per booking class, determines booking class values, minimum acceptance values and availability request for classical revenue management as well as bid-price/O&D control.</p> <p>■ Pricing Simulation</p> <p>provides decision support in qualifying the impact of fare changes on market share, passenger demand and revenue versus original situation.</p>
<i>Fare Distribution</i>	
<i>Automatching</i>	
<i>NetNet Calculator</i>	
<i>Pricing Simulation</i>	

Revenue management



As market segmentation patterns in the airline business evolve, an intelligent revenue management system for forecasting demand and managing capacities is the key to maximizing revenue.

Major airlines, tour operators, hotel chains and car rental companies around the world are already achieving significant additional earnings with revenue management systems. The key element here is forecast quality. Continuous advances in the technologies and techniques applied are increasing the power of effective market modeling.

Forecasting demand and managing capacities accordingly is still the core method of maximizing total revenue. Since traditional patterns of market segmentation in the airline world became less and less valid, methods have been enhanced to cope with the new market conditions. Lufthansa Systems and its products support airlines in this challenging and changing environment. Forecasting techniques have been refined and are able to deliver significantly improved forecast quality. Moreover, forecast values are supplied in more detail than ever before while at the same time including the price and product sensitivity of the passenger. Whereas improved forecast quality has a direct impact on revenue through improved optimization, the availability of additional forecast detail leads to unparalleled possibilities in evaluating market opportunities. The positive effect on revenue management related areas such as marketing, pricing and sales is immense. Point-of-sale and cancellation information, for instance, can lead to precisely targeted marketing action for certain passenger segments. Dynamic Pricing provides a new way of calculating very detailed and individual prices and distributing them to the passenger real-time.

Migrating to O&D control

The introduction of true PNR-based O&D revenue management systems is a major step toward tapping the vast potential of meaningful forecast information. O&D systems point to revenue increases that can add up to an additional 2-3% of total earnings over sophisticated leg/segment based approaches and offer insights into true traffic flows within the network for invaluable support in strategic and operational decisions. Furthermore, this 'next generation' O&D system supports many processes of flight inventory control in an innovative way. Events, seasonal parameters and other demand drivers can be modeled by different types of user influences – and become part of a stored reference set for future forecasting.

The challenge in upgrading to O&D control lies not only in the system architecture, but also in aligning the associated revenue management business processes. The introduction of network revenue management or the upgrade from leg or segment to network control must be mastered even by experienced revenue management organizations.

Migrating to O&D is about redefining revenue management, and Lufthansa Systems is there to help you make it happen.



Pricing

Revenue management

partner

ProfitLine/Yield

<i>Demand Forecaster</i>
<i>Network Optimizer</i>
<i>Network Intelligence Manager</i>
<i>Group Manager</i>
<i>PNR No-Show Forecaster</i>
<i>Demand Forecaster Plus</i>
<i>Network Optimizer Plus</i>
<i>Dynamic Price Engine</i>
<i>Dynamic Price Engine Plus</i>
<i>Rembrandt</i>

ProfitLine/Yield

ProfitLine/Yield is the most advanced solution in revenue management available today. Its unique design supports seamless migration from leg control using class level booking figures to true PNR-based O&D control. The design of the solution also allows it to be tailored to the requirements of medium-sized and large airlines.

- **Demand Forecaster** offers true PNR-based O&D forecasting at the most detailed information level for traditional markets.

■ **Demand Forecaster Plus** includes buy-up and buy-across effects into forecasting by considering price and product sensitivity of the passenger.
- **Network Optimizer** enables true network optimization based on the O&D forecasts.

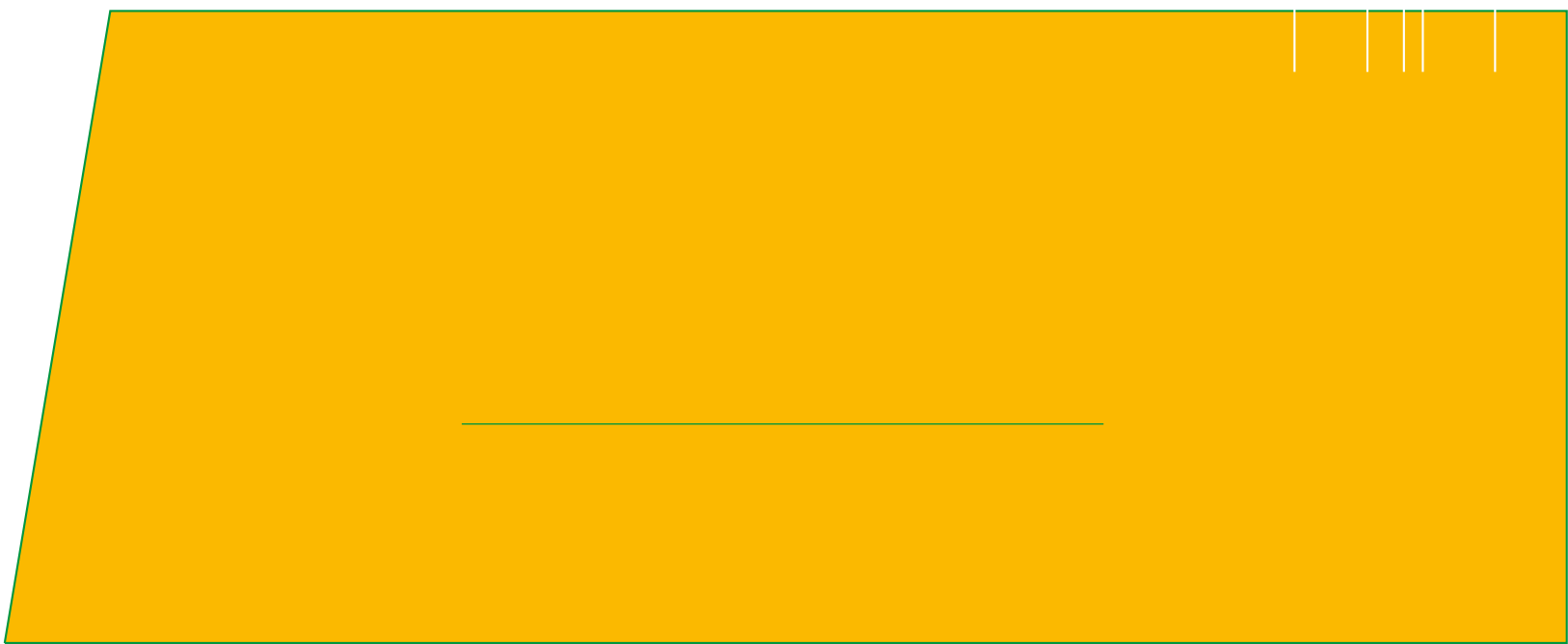
■ **Network Optimizer Plus** optimizes mixed traffic flows when both low-fare and traditional fare structures are applied across the network.
- **Network Intelligence Manager** evaluates network performance and provides O&D availability reports.

■ **Dynamic Price Engine** enables determination of prices and network optimal availabilities real-time.
- **Group Manager** analyzes group requests applying state-of-the-art group acceptance and evaluation criteria.

■ **Dynamic Price Engine Plus** handles the communication of seamless availability requests with the various distribution channels.
- **PNR No-Show Forecaster** provides extremely accurate no-show forecasting based on a set of specific attributes contained in the PNRs.

■ **Rembrandt** generates revenue-optimizing solutions for small to medium-sized airlines and low-cost carriers.







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Lufthansa Systems AG
Marketing Communications
Am Weiher 24
65451 Kelsterbach
Germany

Tel. +49(0)69-696 90000
Fax +49(0)69-696 95959
marketing@LHsystems.com
www.LHsystems.com