

A complex network diagram with various sized nodes (black, blue, grey) and connecting lines, set against a light grey background with faint circular patterns.

TICKETING AND SEAT RESERVATION SYSTEM

TB 201 Airline Business and Ticketing

WHAT ARE AIRLINE RESERVATION SYSTEM?

The airline reservation system is a web-based booking solution that helps in consolidating data from all airlines through the use of global distribution systems. The system provides inventory and rates in real time to customers as well as travel agents.

Lately, airline reservation system is being used not only to make flight reservation, but it's also being used to assist with different airline management tasks and to meet customers' needs from the initial booking all the way to completion of the flight.

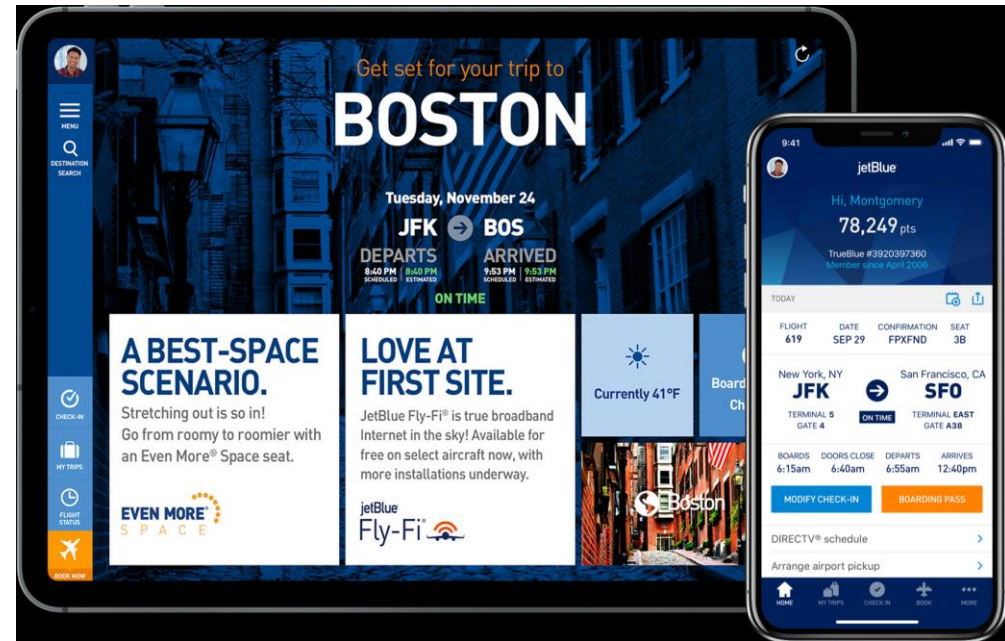
MOBILE BOOKING

There is a crop of modern travelers whose lives revolve around mobile gadgets. Travelers prefer to make their reservation online using their mobile gadgets, and as such it's essential to have your system integrated with mobile applications. It's imperative to ensure your mobile app have real-time updates regarding the availability of sits, departure time as well as the cost of the flight.



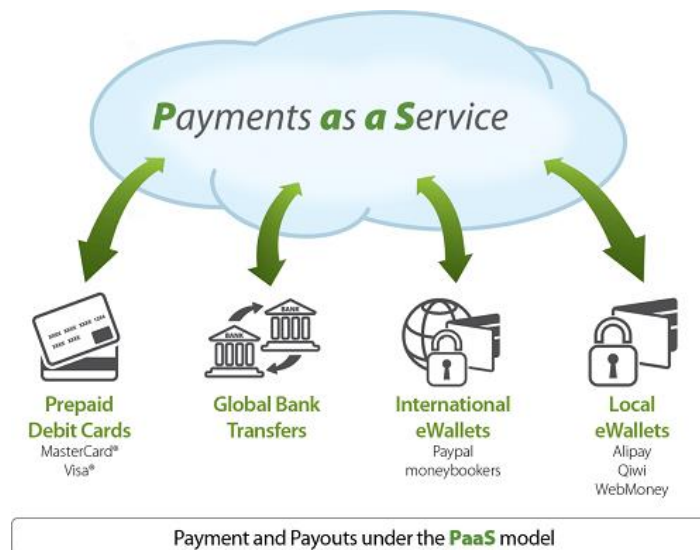
POST BOOKING MANAGEMENT

Sometimes travelers may want to make changes on their bookings. The feature allows one to add ancillary services, change seats or cancel their reservations or change flights. Having such services will not only attract more clients, but it will also lead to higher sales due to the flexibility involved.



PAYMENT OPTIONS

Airline reservation system should have multiple options for making payment ranging from credit/debit card, PayPal, mobile wallets among others. Having different payment options ensures every traveler preferences have been taken care of. It is also essential to ensure there is an automated card detail feature to avoid frustrating clients by making them enter their card details every time they are making a payment.



MULTI-LINGUAL SYSTEM

Airline reservation system deals with the global market where different clients use different native languages. Most customers are more comfortable while interacting with their native language rather than using a common language. Thus it is essential to have a feature which allows customers to select their preferred language while making their reservations.

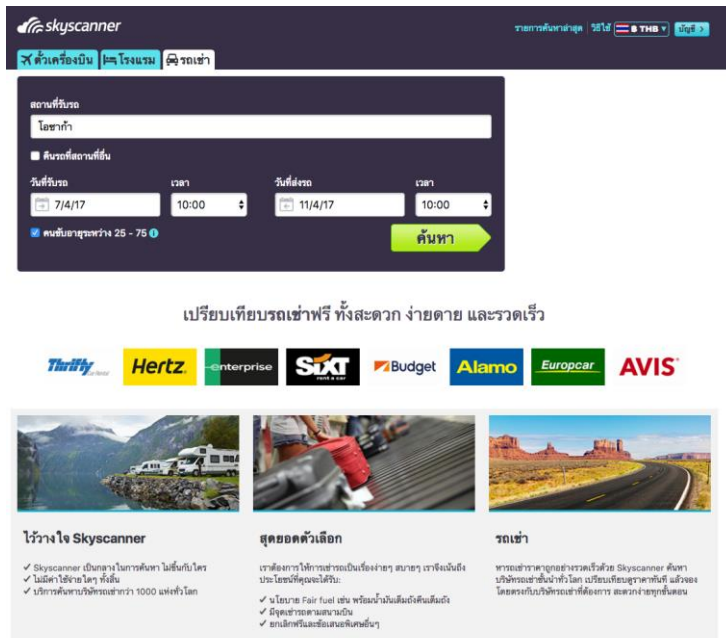


COMPUTERIZE RESERVATION SYSTEM: CRS

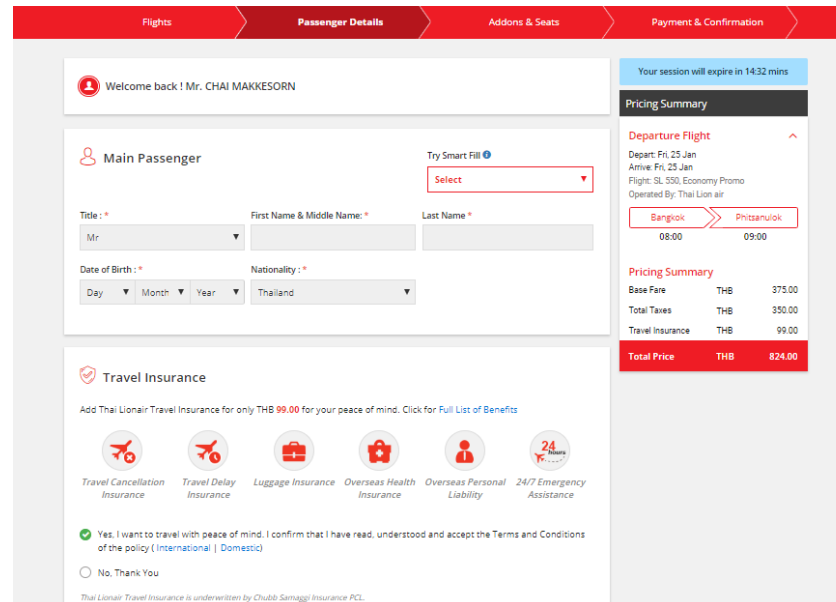
1. **Saber system** was established by American Airlines.
2. **Amadeus system** was established by Air France, Lufthansa, Iberia and SAS.
3. **Abacus system** was established by Asian airlines namely Cathay Pacific Airlines, Singapore Airlines and Malaysia Airlines.
4. **World Span system** was established by Delta Airlines, Northwest Airlines and Trans Airlines.
5. **Galileo system** was founded by British Airways and United Airlines.
6. **Tapaz system** was established by the Korean government.
7. **Axess system** was founded by Japan Airlines.
8. **Infini system** was established by All Nippon Airways.

FLIGHT BOOKING

Today, when a traveler or a travel agent books a flight, they have a choice: Use either an indirect or direct booking channel. The first one includes OTAs, like Expedia or Priceline, GDS, if an agent books for the traveler, or metasearch engines, like Kayak or Skyscanner. The second option is a direct booking from an airline website.



The screenshot shows the Skyscanner website's search interface. At the top, there's a navigation bar with the Skyscanner logo and a currency selector set to THB. Below that, there are buttons for 'ตั๋วเครื่องบิน' (Flights), 'โรงแรม' (Hotels), and 'รถเช่า' (Car Rental). The main search area is a dark-themed box with a search bar for 'ไปซำก่ำ' (Bangkok). Below the search bar, there are fields for 'วันที่ขึ้นเครื่อง' (Departure Date) set to 7/4/17, 'เวลา' (Time) set to 10:00, 'วันที่ลงเครื่อง' (Arrival Date) set to 11/4/17, and 'เวลา' (Time) set to 10:00. A green 'ค้นหา' (Search) button is at the bottom right. Below the search box, there's a banner for 'เปรียบเทียบรถเช่าฟรี ทั้งสะดวก ง่ายตาย และรวดเร็ว' (Compare car rental for free, both convenient, easy to die, and fast) with logos for various car rental companies like Hertz, Enterprise, Sixt, Budget, Alamo, Europcar, and Avis. At the bottom, there are three promotional cards: 'ไว้วางใจ Skyscanner' (Trust Skyscanner), 'สุดยอดตัวเลือก' (Best choice), and 'รถเช่า' (Car Rental).



The screenshot shows the Thai Lionair website's booking confirmation page. The top navigation bar has four tabs: 'Flights', 'Passenger Details', 'Addons & Seats', and 'Payment & Confirmation'. The main content area is divided into several sections. On the left, there's a 'Main Passenger' section with a 'Try Smart Fill' button and a 'Select' dropdown menu. Below that, there are fields for 'Title', 'First Name & Middle Name', 'Last Name', 'Date of Birth', and 'Nationality'. On the right, there's a 'Pricing Summary' section with a 'Departure Flight' section showing 'Depart: Fri, 25 Jan' and 'Arrive: Fri, 25 Jan'. Below that, there's a 'Pricing Summary' table with columns for 'Item', 'Unit', and 'Price'. The table shows 'Base Fare' (THB 375.00), 'Total Taxes' (THB 350.00), and 'Travel Insurance' (THB 99.00), with a 'Total Price' of THB 824.00. At the bottom, there's a 'Travel Insurance' section with a 'Yes, I want to travel with peace of mind' checkbox and a 'No, Thank You' option. The page also includes a '24/7 Emergency Assistance' icon and a 'Full List of Benefits' link.

FLIGHT BOOKING (CON)

1. Flight search

Indirect channel: OTA, GDS, metasearch engine. A user looks for the right flight via a flight booking engine on a third-party website or via a GDS terminal. As the flight is chosen, a third-party sends the request to the GDS, which accesses the airline's CRS.

Direct channel: Airline eCommerce website. If a traveler books directly from the provider, the process skips the whole GDS part and goes straight to the CRS.

FLIGHT BOOKING (CON)

2. Reservation management

CRS' basic functions are inventory and reservation management, passenger name record (PNR) generation, payment gateway integration, customer information management, booking and cancellation management, refund management, and email notification. While booking a flight, a customer can select a seat right away, but as a rule, airlines charge an additional price for this. Otherwise, the seat can be selected during online check-in or be randomly assigned. After a user pays for the ticket, a system generates a PNR – a personal code that contains a traveler's information and their itinerary. An airline uses a PNR to easily track the passenger's record and exchange information between different airlines. We will discuss its use a little bit later.

FLIGHT BOOKING (CON)

3. Choosing additional services

Ancillary services include an ability to reserve a particular seat, additional baggage, extra legroom, or in-flight meals. When a traveler adds ancillary services during the booking, a Merchandising System generates special service request number (SSR). It's a message to the supplier with a request for any ancillary service that's usually included in the ticket.

Besides selling extra services, Merchandising Systems are also responsible for dynamic pricing and discount offers. Some systems also include such services as changing the date and name on the ticket. An example of such a system is a Global Merchandising System by Amadeus. It can retrieve a traveler's PNR and amend it for a fee.

FLIGHT BOOKING (CON)

4. Using loyalty programs

Loyalty program operations are usually managed by airline merchandising systems, too. Being a member of a frequent-flyer or airline loyalty program, a passenger can use earned miles accumulated from each flight, or points for purchasing extra services from airlines. These points can be exchanged for discounts or benefits, like upgrading to business class. Depending on the airline, customers can either log in via their accounts while purchasing tickets directly from an airline website or get a loyalty program participant's number to use for booking from a third-party. Also, these systems keep a particular number of places for frequent flyers reserved in CRS.

FLIGHT BOOKING (CON)

5. Payment processing

A payment gateway is a third-party service that not only processes all financial operations between customer and merchant, it also ensures data safety. The main operations of a payment gateway are authorization (checking that a user has enough money to pay), capture (sending the funds to the merchant's account), sale (regular payment for purchases), a refund (money return), and void (a refund for not-captured funds). The advantage of this service is that a customer can book and pay in one place, but a big disadvantage is that all the processes like cancelation and refund are completed through the OTA side, not through the CRS. And one more disadvantage for travelers: When booking via OTAs, they pay an additional fee.

FLIGHT BOOKING (CON)

6. Personal name record (PNR) generation

Ticketing is a different concept from booking. Ticketing means that the seat is paid for, it won't be taken, and it belongs to a particular person. This is ensured by a PNR. It's a 6-digit code on an e-ticket that allows airlines to validate the booked seat. If it's a trip that consists of several flights by different airlines, an interline booking occurs. For such cases, airlines create an interline commercial agreement for codeshared flights. Regarding this agreement, different airlines issue a single ticket with one PNR, which is issued by one of the airlines as defined by an agreement.

PASSENGER AND TICKET INFORMATION

PASSENGER NAME **BINNORDDIN/NORHIZAMI** ← **Passenger name**
BOOKING REFERENCE **MZXTIF** ← **PNR**
E-TICKET NUMBER **176 2175501628**
ISSUED BY / DATE DUBAI / EMIRATES EZM
10SEP2013EKBOMP0

TRAVEL INFORMATION

FLIGHT	DEPART/ARRIVE	AIRPORT/TERMINAL	CHECK-IN OPENS	CLASS	COUPON VALIDITY
EK 345 CONFIRMED	13 OCT 13 1030	KUALA LUMPUR (KUL) TERMINAL 0	13 OCT 13 0730	ECONOMY 27 K	NOT AFTER 13 JUL 14
IATA code ↑	13 OCT 13 1330	DUBAI INTNL (DXB) TERMINAL 3		BAGGAGE ALLOWANCE 30KGS	

Schedule

FLIGHT	DEPART/ARRIVE	AIRPORT/TERMINAL	CHECK-IN OPENS	CLASS	COUPON VALIDITY
EK 923 CONFIRMED	13 OCT 13 1510	DUBAI INTNL (DXB) TERMINAL 3	13 OCT 13 1210	ECONOMY 24 A	NOT AFTER 13 JUL 14
	13 OCT 13 1700	CAIRO (CAI) TERMINAL 1		BAGGAGE ALLOWANCE 30KGS	

Class

FARE AND ADDITIONAL INFORMATION

FARE EGP3342.00
TAXES/FEES/CHARGES MYR2.0QH MYR47.0YR
PD100.0EG PD150.0XK
PD11.0XL PD137.0QH
PD7.0EQ PD50.0JK
PD148.0MY
TOTAL MYR49A
FORM OF PAYMENT CREDIT CARD

ADDITIONAL INFORMATION

* NONREF NON-END/SKYWARDS
SAVER/VLD ON EK/PENALTIES APPLY

← **Payment information**

AT CHECK-IN YOU MAY NEED TO PRESENT THE CREDIT CARD USED FOR PAYMENT OF THIS TICKET

FLIGHT BOOKING (CON)

7. Super PNR generation

Sometimes an airline issues a single PNR for a segmented flight known as a super PNR. In this case, the system generates several PNRs that are included in one. Each number in this code represents details of the seat: class, ancillaries included, etc. After the ticketing, the traveler receives a booking confirmation from the OTA or airline with their name, schedule, airport IATA codes, and the price of a ticket, as well as an e-ticket with a PNR reference from an airline. At the next stage, a traveler would need an e-ticket.

FLIGHT BOOKING (CON)

8. Check-in

During check-in, a traveler must provide their PNR and name so that the system can match it with existing ones in the CRS and assign a seat. This process slightly differs online and offline.

Online check-in. Online check-in usually becomes available 48 hours before the flight, but it depends upon the airline. A traveler enters details from an e-ticket at an airline website or an app and gets access to an aircraft seat map to choose a particular seat. If a user doesn't choose it, the system randomly assigns a free one and issues an electronic boarding pass. The same principle works for check-in kiosks.

Airport check-in. Checking-in at the airport, a person brings an e-ticket to the airport agent at the check-in counter, so that they can enter the details and reserve a seat, or several seats on different planes if it's a segmented flight, on a seat map and check the baggage in. As a result, an agent issues and prints a boarding pass.

FLIGHT BOOKING (CON)

9. Boarding pass issue

The boarding pass is a document that identifies a passenger and a flight, and gives permission to board a plane.

		GOTHAM AIRPORT HANDLING SERVICE		 GOTHAM AIRPORT HANDLING SERVICE	
NAME DOE/JANE				CLASS A	SEAT 01A
FLIGHT XX 1234	DATE 30FEB	AT 1315	CLASS A	SEAT 01A	DOE/JANE XX 1234
FROM METROPOLIS MET		TO GOTHAM GOT			FROM TO METROPOLIS/MET GOTHAM/GOT
SEQUENCE 0005	BOARDING TIME 12:45			30FEB 1315	
				SEQUENCE 0005	

FLIGHT BOOKING (CON)

10. Baggage tracking

Baggage management systems are integrated with airports and airlines via APIs. When the baggage is handled, it goes straight to the baggage handling system, where the code is scanned.

As soon as the baggage handling system scans it, the code appears in IATA's worldwide baggage tracking system WorldTracer. This system offers a number of modules for tracking and matching baggage, and every airline-member of WorldTracer Distribution Network (WTDN) gets access to them.

ONLINE BAGGAGE TRACING

Home – Information – Baggage Guide – Lost or Damaged Baggage – Online Baggage Tracing

You can check the progress of your baggage enquiry using the online World Tracer system. To use this service, all you need is your 10-character reference number, (for example: KBPPS45329), which you would have received from the Baggage Services office along with the copy of your Passenger Irregularity Report.

I hereby confirm the validity of all personal data herein and grant my consent* to the processing of this personal data for the purpose of providing a response to my request and improving the quality of service. I declare that I and all passengers whose personal data I am providing have been informed about the UIA's [Privacy Policy](#) and have accepted its conditions.

* If you refuse to grant your consent to storage of all personal data, we unfortunately will not be able to provide a response to your request or provide services of interest to you.

SUBMIT