

Brief background on the system What is a Computer Reservation System?An airline is under no such limitations for its own reservation system and will display availability and schedules for its own flights to the exclusion of competing services.The Technology and its main IT infrastructure components The IT infrastructure is a combined set of hardware, software, networks, facilities, (including all of the information technology related equipment) used to use by travel agencies and travel management companies to retrieve and conduct transactions related to air travel, hotels, car rental, or other activities The components of IT infrastructure 1– Hardware includes servers, datacenters, personal computers, routers, switches, and other equipment used for airlines and travel agencies 2– An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs 3– Data management is a critical component of any business strategy as companies of all struggle with data growth, data storage costs, data protection (through replication, snapshots or backups) and long-term data storage Keeping information helps make it easier to book in the next times because all customer information is preserved in the system 4– Networking: Interconnected network components enable network operations, management, and communication between internal and external systems 5– enterprise application software is large-scale software that is aimed to solve any problem related to the customer in cases of computer reservation 6– Internet platforms include hardware, software, and management services to support a firm's website, to make the booking process easier for the customer without facing any system related problems 7– Consulting and System Integration Services.The term CRS is not much used as it has become part of a bigger system known as the Passenger Service System (PSS) which comprises of CRS, an airline inventory system and the departure control system (DCS) History and Evolution of Computer Reservation System: Tourists had to rely on the information supplied by suppliers by printed brochures, flyers, and listings in local and regional travel guides prior to the creation of CRS.In 1976, they began to be used by travel companies and became a universal characteristic of the tourism industry The major players in this field are: Aircore an Airline PSS Powered by Microsoft Azure Avantik PSS Abacus ACCELaero Axess KIU MARS Radixx The Benefits of Travel Computer Reservation Systems o CRS determines fares automatically.For instance, there are very strict rules (federally mandated) specifying how the CRS may display flight availability, in order to give all airlines participating in the CRS equal access to potential customers, based upon the merits of their flights (departure, arrival, and elapsed time, stopovers, and origin and destination airports).Custom solutions for transferring data between your sales, operations, and accounting systems The Overall business processes CRS a computerized system has the advantage that it is capable of generating reports in a short period of time, take Airline as an example: Airline reservation system (ARS): is part of the so-called passenger service systems (PSS) which are applications supporting the direct contact with the passenger.A variety of partnerships, mergers, and acquisitions between service providers have resulted in the delivery of such information between consumers and intermediaries, and this booking system has since developed into what is commonly known as the global distribution system, also referred to as eMediaries.As a consequence, when the details needed to be updated regularly, the advertising materials became pricey, labor-intensive and knowledge remained stagnant.Operational managers need system that keep track of the elementary

activities and transactions of the organization, for example, the pricing and availability of seats on an airline flight. It was initially developed and used by airlines for flight ticket reservations, but CRS is now used either directly or by intermediaries to store and deliver information about tourism goods and facilities to the public, which also helps reservations to be made (Beaver 2005). These may include:

- Flight schedule information: Days and times for flights operated by the airline –
- Availability information: Seat availability on a flight by service class (i.e., Economy, business, first class) –
- Fare quotes: ?

Take another example: Hotel Reservation System Online hotel reservations are a popular method for booking hotel rooms. Travelers can book rooms on a computer by using online security to protect their privacy and financial information and by using several online travel agents to compare prices and ?facilities at different hotels. Basically, it is an electronic system used to facilitate purchases and provide knowledge about the availability, price, and booking of goods and services easily and reliably. Amadeus, Galileo, Sabre, and Worldspan are the major multinational distribution firms. The first CRS was implemented as an experiment in the 1960s by airlines to keep track of sold seats in order to promote a seamless and dynamic flow of information. In 1963, American Airlines launched SABRE (Semi-Automated Market Testing Environment), the first CRS in the world.

- Custom reporting offers The Management level in Computer Reservation System A computer Reservation System an example of The Transaction Processing Systems (TPS). The early attempts at travel agency automation preceded the development of the CRS and were simply terminals for the airline's system.
- Both customer details relevant to services, such as the Passenger Name Record (PNR) or Guest Name Record (GNR), is registered.
- Technology interfaces such as Amadeus, Travelport, and APIs/XMLs. The computer reservation system (CRS) is probably the most widely used technological tool in the tourism industry. CRS then became the main way of transmitting information about air transport and had a significant effect on competition within the airline industry.
- Provide additional direct distribution solutions to the end-user, reducing the need for staff.
- It is practical for invoicing, billing, consumer and quota control.
- Fare quote, ticketing, and creating process for voucher.
- A comprehensive admin console is included. The operations department use computer reservation system to performs and records the daily routine transactions necessary to conduct business. In the Computer Reservation System, tasks, resources, and goals are predefined and highly structured. A consolidated fare for an itinerary based on flight, day, time, service class and passenger types chosen. Generating and storing tickets ?
- Refunds and cancellations: ? Thus, the airline's own reservation system is a different application, even if it shares computer resources with a travel agency CRS.
- Enable the details to be summarized to see how many spots you have left and other data of interest.
- The system may also store information specific to consumers, such as all services offered to a certain customer, method of payment, information about the service, etc.
- CRS are web-based apps that save a lot of administration work time. The decision is made by a lower-level supervisor according to predefined criteria. CRS typically provides the business process. Cancellation of existing reservations These services are adapted for travel agency needs. While the airline's own reservation and ticket office operations require similar functions, they are not the same.
- In all CRS, the customer has direct access to important travel details and can find additional information.
- To maximize your profit, you may also examine past data.
- Suitable for the business models B2B and B2C. It also allows them to make

reservations and issue tickets automatically. –Reservation information: Seat bookings ? –Ticketing information: ?
o They have the advantage of easily updating results.