

Regional/commuter airlines, which provide lift to the legacy carriers' hubs by flying shorter domestic passengers on spoke routes, typically operate on a **code-share** basis. In a code-share agreement, a regional/commuter airline does not sell its own tickets, but shares the same two-letter identification code of a major airline in the computer reservation system and usually paints its planes the same color.

The term *code* refers to the flight number that is used in flight schedules. Under a code-sharing agreement, participating airlines can present a common flight number for connecting flights. Although obviously and importantly this portrays a simple and seamless picture to the travel buyer, it is not the only benefit. Cooperating airlines also strive to synchronize their schedules, to maximize passenger transfers between connecting flights, and consolidate the cost of both airlines' flying the same route. Code sharing allows carriers who do not operate their own aircraft on a given route to gain exposure in the market through display of their flight numbers and the ability to offer those routes to their customer base.

Code-sharing agreements have also been established between airlines and rail lines. They involve some integration of both types of transport, for example, in finding the fastest connection, allowing exchange between an air ticket and a train ticket, or a step further, permitting an air ticket to be valid on the train, and so on. Examples of such code-sharing arrangements are Amtrak out of Newark Liberty International Airport in Newark, New Jersey; Deutsche Bahn out of Frankfurt International Airport in Frankfurt am Main, Germany (AIRail Service); and Swiss Rail out of Zurich International Airport in Zurich, Switzerland.

In theory, by utilizing the hub-and-spoke system, legacy carriers such as American and United are able to increase operating efficiency through scheduling arrivals and departures in **banks of flights**. Banking flights is the process of coordinating flight schedules to maximize the use of ground crews and equipment as waves of flights are scheduled to arrive and depart at very close to the same time. In addition, the shorter the period of time that an aircraft remains on the ground, the more time it can spend in the air earning money. Some regional/commuter airlines are able to turn their aircraft around or **push** them in 15 minutes or less, whereas major carriers may take as long as 45 minutes to do the same tasks.

Deregulation and the growth of passenger air service in general have created several potential problems. The hub-and-spoke system has created bottlenecks at hub airports and increased travel times. Traditionally, hub-and-spoke carriers would feed hub operations all at once during peak travel periods with short connect times so as to speed passengers to their final destinations. The management teams at airline companies are addressing these problems through the designation of secondary and **rolling hubs** and instituting more direct flights to pair cities. For example, rather than flying from Indianapolis to Chicago and then on to their final destination in St. Louis, passengers can fly directly from Indianapolis to St. Louis.

Service to secondary and feeder cities is improving as larger, more fuel-efficient regional jets (also called RJs) that can seat up to 110 passengers are being added to airline fleets. RJs are ideal for serving long, thin (limited number of passengers) routes from an airline's hub. Most of these smaller regional planes are being operated by code-share carriers.

With the addition of RJs to their fleets, many code-share carriers not only are flying routes to hubs, but also are flying more point-to-point routes in secondary markets. That means more service to cities that support small, 70- to 110-seat planes, not larger jets, as these smaller planes can operate at a much lower break-even point than larger planes that typically start with 170 seats.

Still, in order to maintain efficient operations and provide acceptable levels of customer service, viable airports must be able to support at least four departures a day with 100 seat plus capacity airplanes. Finding new efficiencies is critical to financial survival in an industry in which pricing has become transparent and consumer demand is driven by low price.