cycle of VAX is equal to 0.65, which, according to Table 4.1, corresponds to 70 percent completion of the company curve. It also implies that the Alpha architecture will have a life cycle equal to less than 0.4, and therefore should be 50 percent replaced, by something else, around the year 2002. By that time DEC as a company will be at the 85 percent completion level of its overall curve.

Another example of nested S-curves can be found in the aviation industry. Wide-body aircraft constitute a family with about a dozen members, each having its own life cycle. Early members, such as the DC10 and Lockheed Tristar, were shorter-lived than the Boeing 747. However, the recent rapid appearance of the 767s, a number of Airbuses, MD11s, and 777s implies that these aircraft will have shorter life cycles than the 747s. As in the pattern of Fig. 4.1, the wide-body family of aircraft underwent successively the stages of: two short life cycles, one long, and again a number of short ones. We can thus conclude that the overall S-curve, describing the growth process of the wide-body family, is approaching a ceiling, with the 747 as the central long-lived product. In the future, we should expect little—if any—growth in the annual passenger-mile totals of wide-body aircraft. In fact, the average size of airliners on transatlantic flights has already shown signs of decline during the mid-1990s. In that light, the superjumbos planned by both Boeing and Airbus have no market. These aircraft, if ever commissioned, would have to steal market share from the wide bodies in use. Even then their sales would never reach the volume of 1400 units anticipated by Airbus managers, or the 500 units anticipated by Boeing managers.

We can zoom back and look at all of jet aviation as one family with two members. The first one—early jets—underwent a 15-year growth process. The second one—wide bodies—underwent a 30-year growth process. The picture