Case Study—Schneider National Keeps on Trucking with Communications Technology

Schneider National is far-and-away the largest trucking firm in the United States, with about 19,000 employees and a fleet of nearly 15,000 trucks (cabs) and 43,000 trailers. The company is so large that it is $1 billion larger than the next two largest trucking firms combined. Headquartered in Green Bay, Wisconsin, Schneider National services two-thirds of the Fortune 500 corporations, including such major clients as General Motors, Wal-Mart, Kimberly-Clark, Procter & Gamble, Chrysler, Sears Roebuck, and Staples. The company is privately owned and had annual sales in 2000 of about $3.1 billion, a growth of nearly 11 percent from the previous year.

Schneider National was a major trucking firm with Don Schneider as its CEO when, in the 1980s, the federal government deregulated the trucking industry, revolutionizing the business environment of the industry overnight. Interstate trucking firms no longer had to follow the rules of a regulatory bureaucracy about what kinds of freight to carry and where to take it. These rules had made it difficult for customers to change carriers because only certain trucking firms could meet these regulations. Competition for customers heated up. Schneider National responded to these demands with a multipronged strategy based on the use of information technology, so that computer systems were now playing a powerful role in Schneider National's operations. Moreover, the company also began treating its employees differently, a major step toward democratizing the company. The company made a paradigm shift. Several other competitors responded to deregulation by merely lowering rates. They went bankrupt.

CEO Don Schneider's business philosophy emphasizes IT. Basic to his philosophy is Schneider National's communications with its customers. In its giant headquarters building, the ground floor contains its call center, a full acre in size, where 600 customer service representatives work. Using computers, they have easy access to any customer's history, enabling each customer service representative to answer customers' questions. The result is that the customer is satisfied and the jobs of Schneider National reps are eased. New customer service reps are given 4 to 6 weeks of training, much of it on the use of both the company's computer systems and the Web.

In 2000, 50 percent of Schneider National's customer orders were received either on the Web or on its electronic data interchange (EDI) system. Through the use of these electronic connections, the order automatically arrives in Schneider National's computer system, resulting in improved ordering accuracy and higher productivity, thus lowering the cost of the whole ordering operation. Moreover, within 15 to 30 minutes of sending an order electronically, customers know what truck will arrive and when. The system also includes electronic invoicing. The reason electronic orders encompass only 50 percent of the total orders received is because the Web system is new whereas EDI is an older technology, dating from the 1960s; that is very expensive, so the small companies cannot afford it. However, the Web is very inexpensive and easy to use, and Schneider is trying to get all of its customers to use the Web ordering system. In fact the goal for 2001 is to have 60 percent of Schneider orders arrive electronically, with the gain being through the Web.

Schneider's Web site was created by Schneider Logistics, a company spun off from Schneider to provide information technology and supply chain management services to Schneider and other companies. Its concept is for the transactions to be completely paperless. Ultimately, it will enable customers to enter their orders, check the status of their shipments—what truck or railroad car their goods are on, where they are now, and when they are scheduled to arrive—as well as check proof-of-delivery. All future services will be built to execute within a Web browser.

To make available the information that its customers require, and to plan its pickups, deliveries, and routes, Schneider National must gather a great deal of information about the trucks, both cabs and trailers. "Trucking companies are asset-intensive businesses," explained Donald Broughton, a senior transportation analyst at A. G. Edwards & Sons. He emphasized how crucial the use of the cabs and trailers can be when he added, "The guy who has the higher rate of asset utilization wins."

In 1998 Schneider National became the first fleet trucking company to use OmniTracs. OmniTracs is a satellite-based communications and positioning system produced by Qualcomm, the San Diego-based wireless communications company. Schneider National worked with Qualcomm in the development of the product. For it to operate, each tractor has a radio frequency identification tag, a computer with keyboard in the cab, and a satellite antenna with a GPS (global positioning system) on the back of the tractor. Using this system, the company knows where every truck is within 300 feet at all times. The driver and headquarters communicate as often as required. The dispatchers can send information to the driver on how to get to the delivery spot (if there is a problem), the location of the next pickup (usually from someplace nearby), directions to the pickup spot, the necessary papers (if any are required), and even traffic and road problems. The driver can respond with approval and raise any questions about the instructions, the truck, or the road. Schneider National sends and receives about four million messages per month.

The cost of OmniTracs system was $30 million. Schneider thought the drivers' response to the system might be negative, but he was wrong. "We thought drivers wouldn't know how to use it or want to use it," he said. "What we found was exactly the opposite," because they were frustrated at having to stop along the road and call headquarters at telephone booths every few hours. In fact the system has been such a success that by 2001 more than 1,250 fleet trucking companies had started using it.

Schneider National worked with Qualcomm again to develop SensorTracs in order to collect engine data, such as speed, RPMs, and oil pressure, via satellite. The data not only contribute to better maintenance of the engines but also help drivers to drive more safely and to take better care of the vehicles. The system can even increase the drivers' incomes. One element of a driver's monthly bonus is based on staying within certain key factor ranges when operating the vehicle.