REAL WORLD CASE 2

Lufthansa: Taking Mobile Computing to the Skies While Keeping the Mobile Workforce Connected

How do you keep 3,500 highly mobile airline pilots trained on the latest technology and procedures; plugged into the corporate infrastructure; and informed about schedules, weather events, and other facts that affect their jobs throughout the world? What's more, how do you accomplish this while controlling costs?

In 2001, Lufthansa launched the "Lufthansa Mobile Initiative," which aimed to provide all pilots with notebook computers. Lufthansa knew that the benefits of mobile computers would translate into major gains for the company as a whole.

The Lufthansa Mobile Initiative is yielding significant productivity and efficiency improvements, while keeping costs manageable.

The successes being realized today were not without significant challenges. Lufthansa had strict parameters that notebook PCs needed to meet before the pilots' union would sign off on the plan. Chief among the requirements were: The notebooks had to have enough performance capability to run key software applications used by the pilots, the notebooks had to weigh less than 2 kilograms (about 4.4 pounds), their screens had be at least 12 inches diagonally as well as be bright and easy to read due to lighting conditions in the cockpit, and battery life had to be at least five hours for long airplane trips.

For the early tests of the project in 1998, Lufthansa decided to purchase mobile systems based on the low-voltage Mobile Intel® Pentium® III Processor–M operating at 600MHz, with 128MB of RAM and a 20GB hard drive.

Today, Lufthansa pilots enjoy state-of-the-art notebook PCs with several times the power and performance of the early Pentium III platforms while weighing in at less than 3.5 pounds.

So far, the payoff from mobile computing at Lufthansa has been significant. Giving notebooks to pilots provided the company with several key tangible and intangible benefits:

- Pilots are more productive because they can access updated data electronically.
- They are more productive because they can work in a variety of locations including airplanes, airports, hotels, and other remote locations.
- Pilots appreciate the convenience of not having to carry heavy manuals and documentation to multiple locations.
- Pilots can take their required training on their laptops during downtime in any airport.

In fact, now that all of Lufthansa's pilots have laptops, Lufthansa no longer conducts classroom training. "Such training used to mean preparing training centers, arranging a time when pilots could attend the sessions, and actually getting the pilots to the training location," recalls Rolf Mueller, project manager for the Lufthansa Mobile Initiative. "Now pilots use their notebooks for computer-based training whether they are learning about new aircraft or things like specific hydraulic systems." Lufthansa also plans to phase out the desktop computers that it had previously deployed in airports, thereby streamlining its infrastructure and cutting even more costs.

Helping Lufthansa even further is the fact that the total cost of ownership for notebooks has decreased significantly over the last several years. Capital costs are lower. End user operations and technical support costs are decreasing due to improved manageability and stability. "We've been quite happy with Windows XP," says Grabbe. "Not only is it stable, but it's flexible and gives us an environment that is easy to update and keep current. Overall, the total cost of ownership is quite low because of our system of browser-based components and a sophisticated update network."

Mobile computing is catching on throughout the Lufthansa Group. Rolf Mueller says that in addition to Lufthansa Cargo, he has been talking to Lufthansa CityLine, the company's short-haul passenger line that serves Europe. "We're really leading the way in using mobile computers. Lufthansa CityLine will end up with 800 of its own notebooks for flight captains."

And the Mobile Initiative at Lufthansa extends beyond the company's crew. Lufthansa understands fully the needs of mobile workers, including its own customers. The airline is testing a new FlyNet project that will give passengers in-flight access to the Internet.

As it moves forward, Lufthansa can point to a litany of benefits when describing its mobile computer program. "Most of all, pilots work when they can," says Rolf Mueller. "Whether they are on their way to the airport, waiting during a layover, or away from work."

Lufthansa regards their mobile computing initiative to be extremely successful based on their high return on investment (ROI). By deploying mobile PCs to all their pilots they have realized significant productivity benefits while effectively managing costs.

Case Study Questions

1. Are many of Lufthansa's challenges identified in the case similar to those being experienced by other businesses in today's global economy? Explain and provide some examples.
2. What other tangible and intangible benefits, beyond those identified by Lufthansa, might a mobile workforce enjoy as a result of deploying mobile technologies? Explain.
3. Lufthansa was clearly taking a big risk with their decision to deploy notebook computers to their pilots. What steps did they take to manage that risk and what others might be needed in today's business environment? Provide some examples.

Source: Adapted from Intel Corporation, "Lufthansa Mobile Computing Case Study, 2002." © Intel Corporation, 2002.