LUFTHANSA CARGO TAKES OFF WITH IN-FLIGHT DIGITAL WORKSPACE BUILT ON VMWARE

To improve in-flight operations, Lufthansa Cargo turned to VMWare for faster access and delivery of the in-flight information pilots and crew need to do their jobs. Previously, the company relied on a complex, in-house designed electronic flight bag (EFB) system which was slow to launch and operate, and which added 40 kilograms to the cockpit. With VMware digital workspace solutions, Lufthansa’s EFB system was reimagined using commercially-proven technology accessed over lightweight iPads.

These benefits included dramatically cutting system weight, which resulted in substantial fuel cost savings every year; decreased IT maintenance costs; and cutting the time for aviation authorities to validate and approve system changes. Most significantly, however, Lufthansa improved its logistical performance and safety, since pilots and crew can now get vital information when and where they need it, without diverting valuable time to managing the system itself.

Lufthansa Cargo was founded in 1994 and is a wholly owned subsidiary of Deutsche Lufthansa AG. The company employs more than 450 crew members, and services 45 destinations worldwide.

The Challenge
People and businesses around the world rely on Lufthansa Cargo to deliver goods to the right place, at the right time. Efficiency and productivity are vital to the company’s business performance – more so given the complexity and scale of its worldwide freight and logistics operations, encompassing 19 of its own cargo planes as well as the storage capacities of some 350 Lufthansa passenger aircraft.

To achieve on-time performance, Lufthansa’s pilots and flight crew rely on critical electronic information such as aeronautical charts, airport and route data and weather reports to travel safely and efficiently among 45 destinations around the world, thereby providing the service freight customers expect from one of the world’s great airlines.

In recent years, however, the reliability and accessibility of flight information had become impaired by Lufthansa’s in-house-designed EFB. Built as a proprietary system running custom software, the EFB was slow and complex to operate. It was also heavy, adding 40 kilograms to the cockpit of each plane. Activating the system before every flight was a lengthy process, and sometimes it refused to work. “Defective applications could make the entire system unusable,” said Sven Gartz, captain and EFB administrator of Lufthansa Cargo. “This also restricted the use of third-party applications.”
“Since implementing AirWatch and the use of iPads, our operating costs have reduced significantly and we were also able to reduce lengthy approval cycles with the aviation authorities.”

OLIVER GRYCHTA
TEAM LEAD FOR FLIGHT OPERATIONS SUPPORT AND CREW CONTROL
LUFTHANSA CARGO

VMWARE FOOTPRINT
- VMware AirWatch

Lufthansa’s in-house-developed tools and applications resulted in long and complicated certification processes with aviation authorities, and its proprietary design restricted innovation: the incompatibility of third-party applications meant that wider technology trends and developments could not be easily adopted.

Faced with a long-term risk to operating performance, Lufthansa Cargo embraced digital transformation. It envisioned a new, tablet-based EFB built using commercially proven technology. This would help ensure stability and reliability while allowing better quality and more complete information to be delivered to pilots and crew. Meanwhile, the system’s standardized design would reduce both IT maintenance costs and certification time.

The Solution
To realize its vision, Lufthansa Cargo selected VMWare. VMWare AirWatch enabled Lufthansa Cargo to address digital transformation and the consumerization of technology, where an increasingly modern workforce is conditioned to expect high-quality mobile experiences. This new generation of employees believe in collaborative work and the freedom to work easily anywhere. IT solutions should incorporate straightforward apps that leverage mobile and cloud for maximum flexibility.

Lufthansa Cargo opted for lightweight iPads running the Apple iOS operating system. This represented a revolution in terms of how critical flight information was presented and managed. Replacing the old system freed space and weight in favor of a tablet-based, consumer-simple experience. For the first time, data could be accessed easily on the move, from any part of the plane.

At the same time, the AirWatch compliance engine was deployed to help ensure that any application used on the new system met compatibility requirements and was fully functional on every device. This platform also allows Lufthansa administrators to see which applications are in use at any time.

Training was the final step. Because the EFB’s iPad and iOS foundations were familiar to many employees, the induction process was accomplished quickly and easily. For those less familiar with Apple products, more in-depth training was provided. Additionally, the changeover from the old to the new system was relatively seamless, taking place alongside normal flight operations.

Business Results & Benefits
By creating a digital workspace, Lufthansa has shed 40 kilograms-worth of proprietary hardware from each cargo plane, saving thousands of dollars per-flight and significantly reducing IT maintenance costs. Standards-based technology frees Lufthansa to innovate and be nimbler and more competitive.

Now that pilots and flight crew have higher-quality information in an easier-to-digest format – for example, the data required to calculate fuel requirements – they can make better decisions that minimize flight delays. As Gartz notes, fewer delays mean less cost. He says: “There is a cost for every minute a pilot is on duty, especially when replacement crews have to be deployed because of delays.”
VMware digital workspace solutions help ensure the new EFB’s applications run smoothly and reliably. Gartz said: “We need to ensure air traffic is operational and that applications don’t cause EFB outages.” Lufthansa Cargo reports that its employees find the new system quick and uncomplicated, and that they appreciate its thoughtful, lightweight mobile packaging.

Looking Ahead
Building on the EFB improvements, Lufthansa Cargo is now working to digitally archive its flight data to better inform future flight operations. Flight performance and charting data are particularly critical as the company provides pilots with up-to-date information about routes and weather conditions that result in better operational performance.