



KLM Royal Dutch Airlines MRO Solution Drives Maintenance Productivity

Summary

KLM found that delivering the critical information (maintenance manuals, service bulletins, parts catalogs) maintenance technicians need to properly maintain aircraft was inefficient and costly. Enigma's Aircraft Maintenance Solution integrates this information, provides real-time updates and delivers it to the technician in a single application. KLM has seen a five percent increase in maintenance productivity since deploying Enigma's solution.

Challenges: Effectively Deliver Current, Accurate Maintenance Information to Mechanics

KLM needed to move away from a costly and time-consuming MRO (Maintenance, Repair and Overhaul) publication management process. The airline delivers 15 GBs of data, pulled from technical manuals, illustrated parts catalogs and engineering orders that come from both Boeing and KLM to its overhaul and line-maintenance mechanics. This information needs to be current and accurate to ensure planes are safe and reliable for flight.

"KLM has built its reputation on reliability, and, to ensure that we remain the industry leader on this point, we must have highly effective maintenance and repair processes in place," said Rutger Pannekoek, IT Project Manager of KLM.

Solution: A Single Application Provides All Required Service and Parts Information

Enigma's [Aircraft Maintenance Solution](#) based on the [Enigma 3C® Platform](#) integrates critical repair and service information and delivers real-time access to this data for the 3,500 engineers and mechanics that maintain KLM's fleet.

The solution is deployed via the web, with cd-rom as a backup, and supplies all the necessary technical information to fuel MRO operations at KLM.

Mechanics have direct access to integrated maintenance and parts information in a single application that is highly searchable and easily navigable. Dynamic updates to this information provide mechanics and engineers the most current information available to ensure a safe, efficient and productive MRO process.

Enigma 3C® was self-implemented by KLM and is integrated with the airline's Documentum-based content management system.

KLM has now started a project to introduce digital service bulletins and component maintenance manuals and to replace all remaining microfilms with a digital alternative. The goal is to use Enigma 3C to present all the necessary information to service and maintain KLM's fleet in one uniform application.

"Enigma's 3C platform is the only commercial off-the-shelf solution that can properly deliver all of the complex content that our mechanics demand. The key is Enigma's ability to manage the volume and diversity of information required to keep our fleet running smoothly and make it fast and easy for those making repairs to get the specific data they need, at the moment they need it," said Pannekoek.

Benefits: Increased Maintenance Productivity and Aircraft Uptime

KLM has documented a five percent increase in maintenance department productivity since deploying Enigma's solution.

Having all maintenance information in a single, unified application increased MRO productivity by reducing the time mechanics spend finding relevant information and leaving them more time to perform actual maintenance.

By driving down the time and cost of aircraft maintenance and repair helps KLM to get its airplanes out of the hanger and back in the air in less time.

Working with the most current, accurate data available, drives down the time and cost of aircraft maintenance and repair and boosts the overall efficiency of their MRO operations.

"Enigma 3C allowed us to quickly introduce digital manuals across the KLM organization, providing a more efficient means of consultation and reduced distribution requirements. The complex process of providing 'up-to-date' information to our end users has been made a lot easier to control by going all digital using Enigma 3C," said Michel Labordus, project manager of KLM.