

Netherlands Railways



Weathers the unpredictability of passenger traffic with advanced modeling tools

The Need:

One of the busiest national railway systems in Europe, Netherlands Railways transports over a million passengers each day, and passenger volumes are expected only to increase. Keeping pace with this growth, however, was proving difficult because the organization had to manage thousands of railcars and a 2,800 km rail network. And, with only manual scheduling processes, it could not easily model future requirements.

The Solution:

Netherlands Railways worked with IBM Software to deploy a dynamic timetable and railcar management solution that can accommodate fluctuations in passenger traffic. The solution, built with IBM ILOG software, can account for more than 56,000 variables and 32,000 constraints to generate optimized train schedules. And the solution's advanced modeling capabilities enable the organization to better prepare for unexpected changes.

What Makes It Smarter:

- Cuts annual costs by US\$30 million with more accurate modeling processes that help better predict traffic patterns and streamline operations
- Improves asset utilization, enabling Netherlands Railways to increase the frequency of routes, without investing in new railcars
- Produces more accurate weekly schedules, improving on-time train performance by more than two percent and increasing customer satisfaction

“ILOG’s optimization technology helped us to achieve our primary goal of improving service but has also had a significant impact on our bottom line in terms of operational cost savings.”

— Wim Fabries, head of logistics,
Netherlands Railways

Solution components:

- IBM Software Consulting Services
- IBM ILOG CPLEX
- IBM ILOG OPL Development Studio

