



SNCF Réseau and Capgemini set up a surveillance and supervision program for the rail network

Capgemini and SNCF Réseau collaborate to improve the maintenance and infrastructure of the national rail network in France

Improving train maintenance across France

As part of the larger SNCF group, SNCF Réseau is responsible for managing railway traffic while performing maintenance on a network of 30,000 km of tracks. Over a period of multiple years, the organization has attempted to modernize the infrastructure of the French rail system. It has continued to expand its mobility offerings and support the launch of a domestic passenger service. SNCF Réseau wanted to improve the overall performance of the railways in order to increase traffic and ensure the highest degree of safety for all of its travelers.

The existing maintenance centers relied on aging applications and technology and struggled to keep up with the modern pace of maintenance requests and expectations. Recognizing this, SNCF Réseau decided to consolidate its various systems into a single, standardized approach. This would provide a more effective set of tools to draw data and inform engineers and maintenance workers of impending upkeep requirements. In order to accomplish this vision, the business collaborated with Capgemini to manage a surveillance and supervision program that would deliver on the original objectives of improved railway performance and safety while simultaneously optimizing costs.

Data-driven, real-time rail upkeep

The project, titled Supervision Nouvelle Génération, focused on exploiting existing and new data sources by relying on information that had not previously been transmitted. By doing so, SNCF Réseau and Capgemini enabled better anticipation and control of railway installations, thereby increasing their availability while

Overview

Client : SNCF Réseau

Sector : Transportation & Distribution

Region : France

Client Challenge:

SNCF Réseau wanted to use digital technology to more effectively predict the need for maintenance to ensure the undisturbed operation of its railway network across France

Solution :

Working collaboratively with Capgemini, SNCF Réseau developed a unique system to drive surveillance and maintenance efforts using data and an application to monitor the railways in real time

Benefits :

- Improved responsiveness and anticipation of breakdowns to reduce response time and limit emergency maintenance
- Improved quality of service based on more precise information and effective communication
- Greater knowledge of railway status and more effective distribution of engineer support
- Optimized processes and reduced operation and maintenance costs





simultaneously enhancing the punctuality of trains and optimizing maintenance costs. Meanwhile, by introducing real-time maintenance intervention, the partners improved engineers' responsiveness to maintenance requests, ensuring that potential issues are now handled quickly. This has also enabled SNCF Réseau to inform passengers about disruptions and the overall state of traffic.

Through the Supervision NG project, the business can now collect and centralize all of its field data. The solution manages alarms while offering a real-time visualization of the entire monitored area for both supervisors and maintenance managers. This team management structure enables supervision centers to more effectively assign tasks to the appropriate engineers via mobile tablets. The application also provides precise guidance for on-site maintenance and allows communication with the supervision centers to provide an extra degree of information and estimate maintenance timelines. Finally, SNCF Réseau can now digitally process maintenance reports via the same application.

In addition, the project has introduced a "data historian," which has allowed for on-the-spot analysis using the substantial amount of stored data. This system draws from a wide variety of surveillance sources. This has enabled SNCF Réseau to better anticipate potential incidents and avoid downtime on high-speed lines. Since the launch of the project, there have been no delays associated with equipment breakdowns.

Railway customers travel more reliably

The Supervision NG solution was built collaboratively using agile methodology and with particular focus placed upon the end users' needs. Since the program's launch, SNCF Réseau and Capgemini have designed and deployed a number of digital solutions. As the work has continued, the partners have maintained a vision of business transformation and a fluid user experience. With this project, SNCF Réseau has demonstrated a commitment to innovative digital transformation in to ensure that French railways continue to function smoothly. As a result, travelers today have greater confidence than ever before in the safety and certainty of their trips. Together, the partners will continue to identify new opportunities to utilize new tools and technology to deliver optimal services.

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