

CFL Modernises Onboard Ticketing with BIXOLON Mobile Printers



Founded in 1946, Chemins de Fer Luxembourgeois (CFL) is Luxembourg's national railway company and a key player in both national and cross-border transport. Majority-owned by the Grand Duchy of Luxembourg, CFL employs over 4,900 people and operates an extensive passenger and freight network across Luxembourg and into Europe. As one of the country's largest employers and economic drivers, the group is committed to sustainability, digital innovation, and enhancing the travel experience through modern, efficient rail solutions.

Challenge

CFL transitioned from an all-in-one industrial-type mobile system to a smartphone-based platform for onboard ticket control and sales, creating the need for a Bluetooth-enabled mobile printer capable of reliably printing on secure ticket paper while delivering high-speed, high-quality results. To meet operational demands, the printer also had to be reliable, robust, and equipped with strong battery life to withstand the fast-paced environment of daily onboard operations. The only significant challenge during deployment would be configuring each printer individually by assigning it a unique identifier.

Upfront, CFL's IT department conducted thorough checks to ensure the printer's compatibility with its current smartphone fleet, given their strict IT security policies. The chosen printer was required to pass all tests and would be approved as a potential standard across the group, should other entities require mobile printing solutions in the future.

Summary

Customer : CFL – Chemins de Fer Luxembourgeois

Integration Partner : Xantor Cool Electronics

Industry : Transport Industry

Challenge

CFL transitioned from an all-in-one industrial-type mobile system to a smartphone-based platform for onboard ticket control and sales. They required a mobile printing solution capable of reliably printing secure tickets while delivering high-speed, high-quality results.

Solution

- BIXOLON SPP-R310 (80mm) compact, direct thermal mobile receipt printer
- mobile handhelds devices

Results

- Successful modernisation of onboard ticketing operations
- Seamless pairing of robust mobile printing technology with a secure smartphone platform has improved efficiency, simplified workflows and enhanced the daily experience of CFL agents
- The new solution has proven performance and reliability, setting a strong foundation for future scalable mobile printing solutions across the group

Solution

To meet these requirements, CFL selected the BIXOLON SPP-R310 mobile printer for its proven reliability, speed, and user-friendly design. Printing is managed through a custom mobile application running on mobile handsets developed by one of CFL's suppliers, which communicates directly with the SPP-R310 via Bluetooth. This direct communication eliminates the need for additional middleware or drivers, keeping the process simple and efficient.

The day-to-day operation of the printer is straightforward. Agents simply ensure the device is powered on, select the ticket or certificate to print in the application, and, if the smartphone's Bluetooth is enabled, the printout is produced automatically without the need for any complex steps.

Results

Following a gradual roll out due to the dependencies of the ticketing and sales application; the adoption of BIXOLON's SPP-R310 printer has delivered measurable operational improvements across CFL's ticketing process with around 350 printers actively being used across CFL's onboard teams.

Supporting fast, reliable and consistent printing, the SPP-R310 ensures that daily onboard transactions run smoothly. The battery life has proven to be more than sufficient for agents' full shifts, eliminating concerns about downtime or frequent charging.

Integration with the custom mobile application has streamlined workflows, creating a seamless experience for agents who now spend less time managing equipment and more time assisting passengers. With the switch from heavier, all-in-one handheld devices to a lightweight, belt-mounted printer has also improved ergonomics for staff, making their work more comfortable and efficient throughout the day. This combination of advanced mobile printing and smart application design has allowed CFL to retire its old systems while delivering a modern, efficient, and scalable ticketing solution for its teams.

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The printer's ease of use and plug-and-play setup meant that, without the application timeline constraints, CFL could have executed a full-scale deployment in a much shorter time.

Marceau BERNARD,
Passenger traffic Technical and IT Systems Operations Engineer.

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It is really the combination of the smartphone app with the printer that has increased the efficiency and ease of use for our agents. We were able to retire our old, dedicated devices, significantly lightening the equipment carried by our staff. This improved the work ergonomics since the printer is now attached to the agents' belts instead of being handheld.

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