Copenhagen Metro Enjoys A Staggering 400% Increase In Ticket Control Efficiency With Zebra Enterprise Devices

Metroselskabet is responsible for the 24/7 operation and infrastructure of the Copenhagen Metro and the Copenhagen Light Rail system. It is a partnership, owned jointly by the City of Copenhagen (50%), the Danish Government (41.7%) and the City of Frederiksberg (8.3%). The 20.4-kilometre system opened between 2002 and 2007 and currently has two lines, M1 and M2, and 22 stations, of which 9 are underground. The driverless metro serves the capital and the municipalities of Frederiksberg and Tårnby; trains run every 3 minutes at peak times and carry over 60 million passengers every year. A further two lines are opening in the near future. The driverless light metro supplements the larger S-train rapid transit system and is integrated with DSB local trains and Movia buses.

Challenge

A key aim for Metroselskabet is to maintain fluid passenger movement. As such, the metro does not have ticket barriers, just a check-in and check-out booth for users to activate and register their cards or e-tickets; guards then conduct regular ticket controls on the trains or platforms, to check users have actually registered their tickets for that journey.

When Metroselskabet updated its ticket system to an e-ticketing system to include Mifare Rejsekorts (similar to London’s Oyster cards), it needed mobile devices to scan the tickets. It had previously deployed a selection of Zebra MC75A and MC67 Mobile Computers; however, these devices had to communicate with a Bluetooth reader, with subsequent issues with certificates and secure data transfer. When it came to refreshing this fleet, Metroselskabet saw the value of investing in a long-term, fully supported, future-proof Enterprise Android solution. It was looking for a single, ruggedised, touchscreen mobile computer with an integrated NFC (near-field communication) scanner and GPS. It also wanted a device it could remotely manage and which would offer very fast processing and scanning speeds, so guards could process tickets quickly, to ensure optimal passenger flow. Filip Dichmann from Metroselskabet explains the outcome of the selection process: “With all our requirements, Zebra’s TC56 Touch Computer was absolutely the obvious choice.”

Solution

Guards now use Zebra’s TC56 Touch Computers to make random, regular ticket inspections, scanning, checking and validating traveller’s cards via the Rejsekort MARK E-ticketing application. They can identify and register any fare evaders using the ID software and MobilePeople EKA inspection fee application, taking high resolution photos of proof of ID with the TC56’s
We have a reliable, robust system, which is excellently supported by Zebra, Diebold Nixdorf and Globeteam; I would especially like to mention Bo Snitkjær Nielsen for his amazing work ensuring a smooth deployment and integration. However, even more importantly, Zebra gives us phenomenal tools to ensure our solution is successful in the long term, guaranteeing a good return on investment. The mobile devices have a long life cycle too, and are really user-friendly and ergonomically designed, with the right accessories and human interface all being key; quite simply, we need our guards to love using the solution. They do; and a 400% increase in ticket scanning speeds speaks for itself. This efficiency improvement enables our guards to do what they enjoy: to focus on serving passengers. And the TC56s make all this possible. We are reaping all the benefits of having deployed a flexible, future-proof Enterprise solution. We are totally delighted.

Filip Dichmann, Project Consultant, Metroselskabet

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