Automated Fare-collection Systems for Metro Transit Systems

Banking on their long-term partnership with Moxa, a metro rail company in Asia contacted Moxa for computing solutions to retrofit their automated fare collection (AFC) system for improving system flexibility and reliability at busy metro stations.

Transportation Automation

Why Moxa

- Proven expertise in deploying and integrating automated fare collection systems for the long term
- Enhanced system durability against frequent program/erase (P/E) cycles on the storage
- Product reliability and quality to withstand harsh operating temperatures

BXP-A100-E2 Series

Box computers with Intel Atom® X Series processor

- 18 COM, 2 LAN, and 6 USB ports
- -30 to 60°C operating temperature range
- Customization-friendly platform with preinstalled high-performance SSD to ensure system durability

Product Page

Solution Brochure

System Requirements

- Reliable computing solutions for automated gates (AG), token-vending system, and card-vending system
- Improved storage rewrite endurance to extend component lifespan
- Product reliability and quality for operational stability

Moxa's Solution

In line with customer's requirement for long-term solutions that can integrate more systems and payment options, Moxa proposed a comprehensive computing platform with 18 COM ports that can meet all their requirements instead of just selling them three different computing solutions.

A customized BXP-A100-E2 box computer provides 18 serial ports, enabling connection flexibility above and beyond the current requirement for automated gates, token issuing machines (TIMs), and card-vending and add-value machines (VAVMs), thereby simplifying spares inventory and management.

To deal with a high volume of passengers who swipe cards or tokens daily to enter and exit stations, the BXP-A100-E2 computer supports 100,000 program/erase (P/E) cycles on a high-performance built-in SSD, thereby enhancing the endurance capability of the storage.

To cope with diverse operating environments and conditions at the metro stations, the BXP-A100-E2 computer comes with a fanless and unique heat-dissipation design to support operations at temperatures -30 to 60°C for long-term stability and reduced maintenance costs.