

Smart Railway

for improved safety and efficiency, and reduced environmental impact

Communication Systems and Automated Fare Collection

Challenge

NEC Corporation (NEC) embarked on a project to deliver Communication Systems and Automated Fare Collection (AFC) Systems on railway networks in the ASEAN region. This series of projects is expected to strengthen the traffic network in the different metropolitan areas and their connected regions, alleviate serious traffic congestion, and curb air pollution.

The development of the different systems is a major undertaking that requires extensive expertise in communication and the latest in fare collection technology, which NEC has been known worldwide for.

Solution

NEC was contracted to deliver customised comprehensive solutions that include network infrastructure, radio systems, passenger notifications and administration systems, and cybersecurity solutions. They have also provided a full suite of automated ticketing and software solutions for more efficient sales and management, as well as station equipment that includes ticket gates and ticket vending machines.

Benefits

The new communication and fare collection systems will provide several benefits for passengers and the wider community. These include:

- Increased safety and security from seamless communication systems
- Improved efficiency and convenience from automated ticketing and boarding/exit
- Reduced environmental impact due to a reduced reliance on private transportation

Towards the future

- **Rich experience and expertise:** With over 100 years of experience in technology solutions and 30 years in transit, NEC is proven to deliver reliable and effective solutions in the transport sector.
- **Global expertise with local support:** NEC provides unparalleled expertise with robust support
- **Strong partner ecosystem:** Robust network of partner products to power or link to NEC's solutions
- **Equity and inclusivity:** NEC's solutions are created to improve mobility for people with varied abilities, building a more inclusive transport system

A drive towards greater sustainability

01 Reduce traffic congestion and air pollution:
More people encouraged to use rail transport

02 Lower cost of living:
More businesses would consider choosing this lower-cost option to transport goods, which would translate to lower costs of living

03 More efficient rail travel:
An improved rail system will make travel more accessible to the general public

04 Easily scalable to other countries:
A future-proof mode of travel by rail is more sustainable than over-relying on road vehicles