

Unified Train Control System

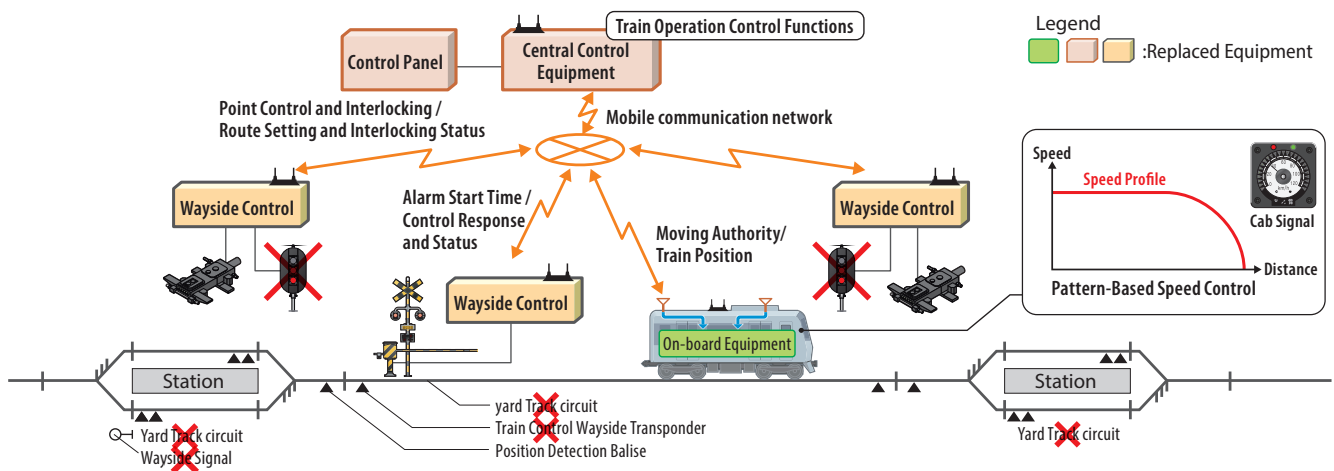
Next-generation train control system using GNSS* and cellular network

GNSS* : Global Navigation Satellite System

Partial Implementation Cases

Train Control Equipment Replacement

- On-board equipment provide self-positioning capability through GNSS and balise, eliminating track circuits and wayside signals.
- Wireless level crossing and warning control system eliminates the need for a separate control unit for the whole system.
- The train communicates with the control center to report its position and receive route clearance information using a mobile communication network, while providing real-time speed monitoring to ensure safe operation.



Centralized Traffic Control and Electronic Interlocking Replacement

- UTCS replaces existing CTC and station interlocking equipment with a centralized system.
- Interlocking functions are moved to central control and terminal units, allowing the entire line to be managed from one system.
- The new system integrates existing field and on-board equipment, minimizing infrastructure replacement and upgrade costs.

