

CBTC System Leveraging Cellular Networks



Wireless train control systems, offering many benefits, can be introduced to regional railways through mobile communication networks.

Challenges for railway operators

Declining
workforce

Reduce
maintenance costs

Improve safety

Sustaining
Train Services

Wireless Train Control Powered by Cellular Networks

CBTC System Leveraging Cellular Networks

Promote Equipment
Reduction, Workforce
Efficiency, and

Enhancing Safety and
Efficiency in Train Control

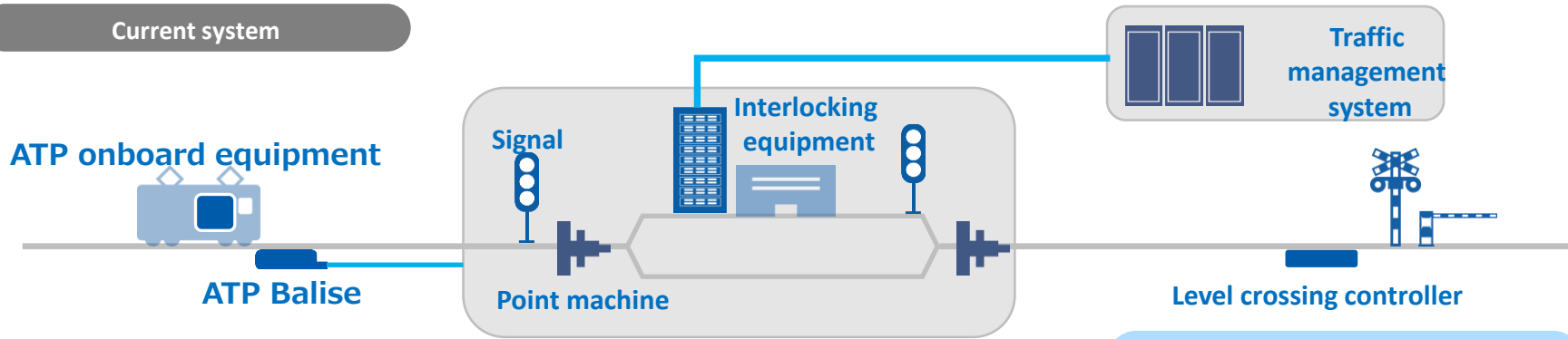
Enable Seamless
Automation and Tackle
Driver Shortages

CBTC System Leveraging Cellular Networks

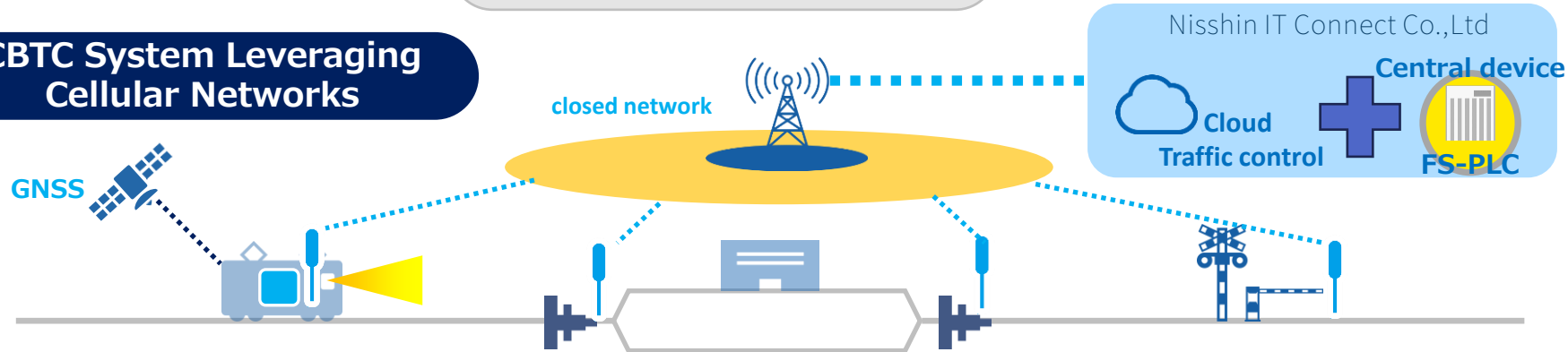
NIPPON SIGNAL

Connect Onboard and Ground Equipment via Cellular Networks to Realize CBTC

Current system



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NIPPON SIGNAL

Currently, we are conducting two demonstration experiments.

**Demonstration experiments at
Izu Hakone Railway**

**Creating CBTC Solutions for
Regional Railways**

Implemented Under MLIT Railway Technology
Development Program

**FY2025 (final year): Development
and testing of onboard signaling
using cellular networks.**

**Demonstration experiments at
Railway Operator A**

**Develop train protection
systems using cellular
networks.**

**Developing a System Incorporating
Company-Specific Requirements
(e.g., Train Splitting and Coupling
Operations)**