

CBTC-Rx

- CBTC System Leveraging Cellular Networks -



Radio Communication-based train control system, offering many benefits, can be introduced to regional railways using cellular networks.

Challenges for railway operators

Address declining workforce

Reduce maintenance costs

Improve safety

Sustain train operations

Build a radio communication-based train control system using Cellular Networks

CBTC System Leveraging Cellular Networks

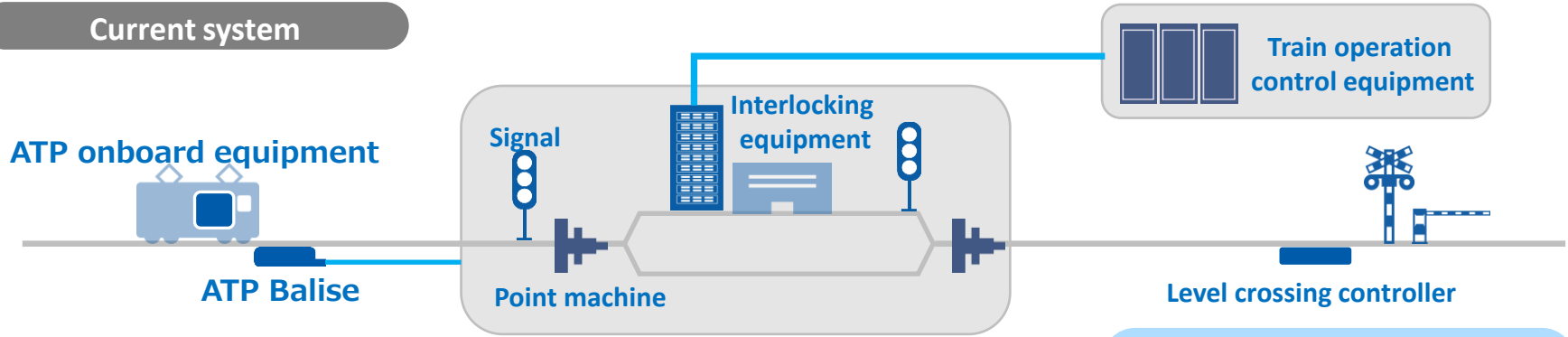
Simplified equipment, optimized workforce, and improved labor efficiency

Enhanced Safety and Train control efficiency

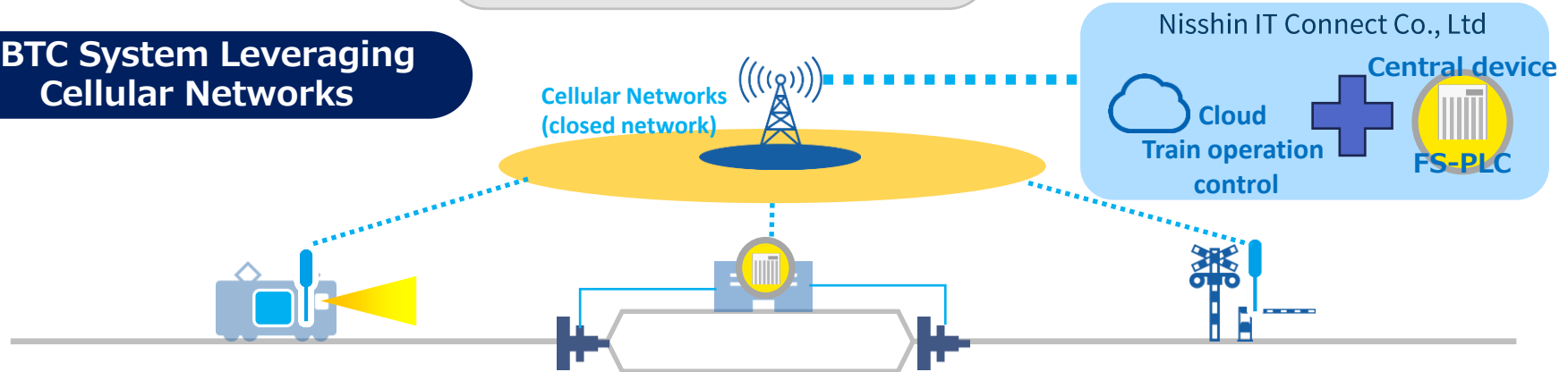
Seamless automation and reduced Driver Shortages

Connect Onboard and Wayside Equipment using Cellular Networks to Realize CBTC

Current system



CBTC System Leveraging Cellular Networks



Currently, we are conducting two demonstration experiments.

**Demonstration experiments at
Izuhakone Railway**

**Develop CBTC Solutions for
Regional Railways**

Implemented Under MLIT Railway Technology
Development Program

**Cellular Network Utilization and
Onboard Signaling Development &
Testing Completed in FY2025**

**Demonstration experiments at
Kyushu Railway Company**

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

**Developing a System That Incorporates
Train-Specific Requirements
(e.g., Support for Train Splitting and
Combining Operations)**