



New Preventive Maintenance-Type Quality Control Service Using IoT

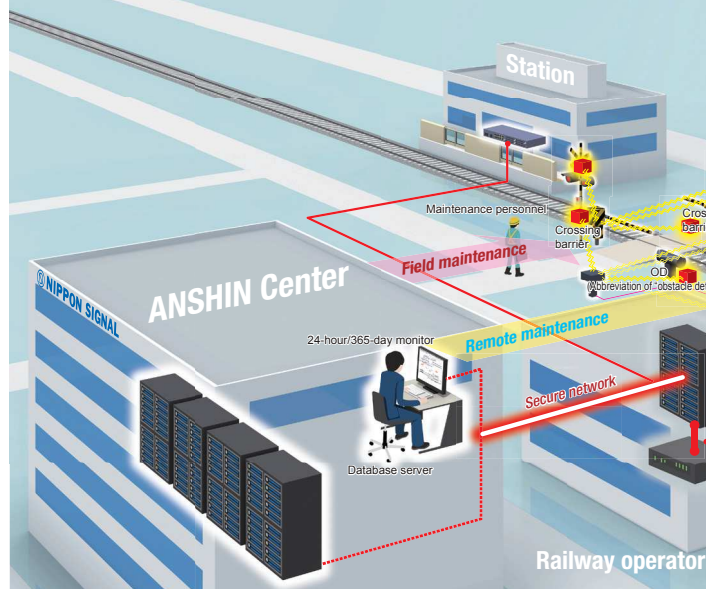
From maintenance based on “time” to maintenance style that constantly monitors “condition”
It realises a reduction of maintenance cost and downtime.



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Service that uses IoT to collect data from the field equipment and provides various supports for remote maintenance and field maintenance using AI-based data analysis



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Performs 24-hour/365-day remote monitor and predicts product failure by filtering and analyzing the collected data to achieve preventive type quality assurance.

Nippon Signal's Sensor Maintenance

Power-saving network that does not use the mobile line network for collecting the conditions of railroad wayside facilities such as crossing equipment and point machines. This can achieve maintenance based on the conditions of facilities (*CBM).

Example of effect resulting from change from TBM to CBM

*1 TBM (Time Based Maintenance): Time based maintenance *2 CBM (Condition Based Maintenance): Condition based maintenance and monitor
Changing from TBM*1 to CBM*2 Changing from TBM*1 to CBM*2 Specifying failure cause by remote monitor Consolidating maintenance bases by remote monitor

Improves reliability of facilities.

Reduces maintenance count.

Speeds up restoration.

Reduces maintenance and management cost.

IoT is used to ensure that all Nippon Signals products whose “conditions can be known by anyone anytime and anywhere” to achieve railroad system change (labor-saving maintenance).

- Service is provided to predict equipment failure by data analysis based on the characteristics of facilities and past cases and lead to reduction in downtime.

Applications that can be provided

Point machine monitor

Crossing barrier monitor

VAM monitor

Interlock memory monitor

Crossing controller monitor

Feeder cable monitor

2D obstacle detector monitor

Impedance bond monitor

Lock monitor cloud

MTD cloud

Formation number display tablet

