TMS Train Monitoring and diagnostic System

Kyosan designed Train Monitoring and diagnostic System (TMS) for Indian Railways main line as well as Dedicated Freight Corridor. Kyosan has experienced massive projects for Centralized traffic control (CTC) system and Automatic train supervision (ATS) system in Japan and other overseas countries.

TMS main functionalities

- Timetable management

TMS manages Basic, Planned, Operational and Actual Timetables. Controller can modify the Train mission data according to the current traffic situation. Central server records Actual Timetable based on the train movement.

- Crew & Loco management

TMS manages Crew and Loco information. According to the timetable, Crew schedule can be created and Crew assignment /Loco attachment can be performed by concerned Controllers/Terminals.

- Report generation

TMS manages all operation history and creates various report for railway operator based on the stored data such as Punctuality report.

- Train tracking

TMS traces running train movement continuously and indicates these current positions with Train ID on the Video Wall and the concern displays. Controller can perform Train ID operation manually.

- Equipment monitoring

TMS monitors and diagnoses equipment status, and indicates these status on the concern displays. If any equipment fails, TMS generates alarm to inform the failed status to the Controllers/Terminals.

Further expandability

- Remote route setting

- Automatic route setting

TMS system architecture **Operational Control Center** ■ Timetable operation ■ Train ID operation Video Wall Operator and controller **TMS Network Equipment monitoring** Signal engineer and Signal fault controller Servers Timetable planner and workstation **Backbone Network Station Network** Crew management interlocking Station master and ■ Train ID operation Crew manager and terminal terminal ■ Equipment monitoring **Crew lobby** Station side

