



## → Railway

### 1. CTC system for High-speed Railway (Beijing-Tianjin)

#### (1) System Structure

Beijing-Tianjin high-speed railway is a pilot project of China High-speed Railway. The railway is designed for a top speed of 350 kilometers per hour for the majority of the distance and 300 kilometers per hour in the preliminary operation stage. The full line is about 116 kilometers from Beijing South Station to Tianjin Station, and is expected to go into operation before the Beijing Olympic Games in 2008.

Signaling subsystem CTC is a technology and tool for the dispatching center to control signal equipment in a centralized way as well as command and manage train operation directly. CTC, Centralized Traffic Control, takes train operation adjustment control as its main task and also pays attention to shunting operation.

The CTC system consists of a dispatching center subsystem, station subsystem and networking subsystem between the dispatching center and stations.

#### (2) Network Requirements

- Dual Ethernet ring topology is employed, the redundant dual ring network ensures the security and reliability of the system.
- Complies with IEC61000 level 4.
- Recovery time of redundancy less than 50ms.

#### (3) Product Application

Industrial Ethernet switch SICOM6248 in mechanical room.

Industrial Ethernet switch SICOM3048 in equipment room.

Industrial Ethernet switch SICOM3024 respectively in stations of Beijing South, Yizhuang, Yongle, Wuqing, Tianjin, equipment room and electrical control room.



(4) Network Diagram

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