



HOLLYSYS RAIL



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INTELLIGENCE FOR EXCELLENCE



THE WORLD LEADING PROVIDER FOR RAIL SIGNALLING SOLUTIONS

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COMPANY OVERVIEW

ABOUT US

As the world leading provider of rail signalling solutions, HollySys has delivered signalling, intelligent control, and intelligent operation and maintenance solutions for mainline railways, suburban railways, and urban rail transit. Beyond our extensive portfolio, we have won many awards or honors from national and provincial authorities, as well as national industry associations, and have presided over or participated in dozens of major scientific research projects. Committed to independent innovation, HollySys ensures the safety, reliability, and efficiency of global rail transit by delivering cutting-edge solutions, safe and reliable products, and full life-cycle services.

To date, more than 3,400 on-board train control systems supplied by HollySys have been installed on various types of EMUs, while over 1,300 trackside train control systems have been commissioned on 83 mainline railways, covering a total operating distance of more than 16,000 kilometers. Our high-speed railway signalling systems have also been applied to domestic and international projects, including Hong Kong SAR, South Africa, and Türkiye. For urban rail transit, our intelligent metro control solutions are now in operation on more than 60 lines across Beijing, Shenzhen, Guangzhou, Hong Kong SAR, Singapore, and Malaysia.

40,000⁺

Customers Served

5 Continents

Global Reach

4 Major Bases

Beijing, Xi'an, Hangzhou and Singapore

90,000⁺

Projects Delivered

60⁺

Countries Served

70⁺

Regional Service Centers

5,500⁺

Employees Worldwide

1,500⁺

R&D Professionals

2,800⁺

Intellectual Property Assets



DEVELOPMENT HISTORY

FOCUSED ON CORE TECHNOLOGIES DRIVEN BY INDEPENDENT INNOVATION

With Intelligence for Excellence at our core, HollySys is dedicated to safer, more reliable, and more efficient solutions and services.

We uphold our duty to protect every journey, using intelligence to power excellence and technology to create a better tomorrow.



GLOBAL PROJECT EXPERIENCE

China

3,400+ Sets of On-board Units
Nearly 50% Market Share in China

1,300+ Sets of Trackside Train Control Systems
Applied to 83 Mainline Railways, with an Operating
Mileage of More Than 16,000 km
Nearly 30% Market Share in China

Serving 60+ Metro Lines Across 17 Cities Worldwide

USA

FRA-certified PTC System
for LVRR Line

Türkiye

ETCS-2 On-board System

Singapore

SCADA System for Singapore
Thomson-East Coast Line

South Africa

ETCS-2 Train Control System for PRASA's
KwaZulu-Natal Service Region

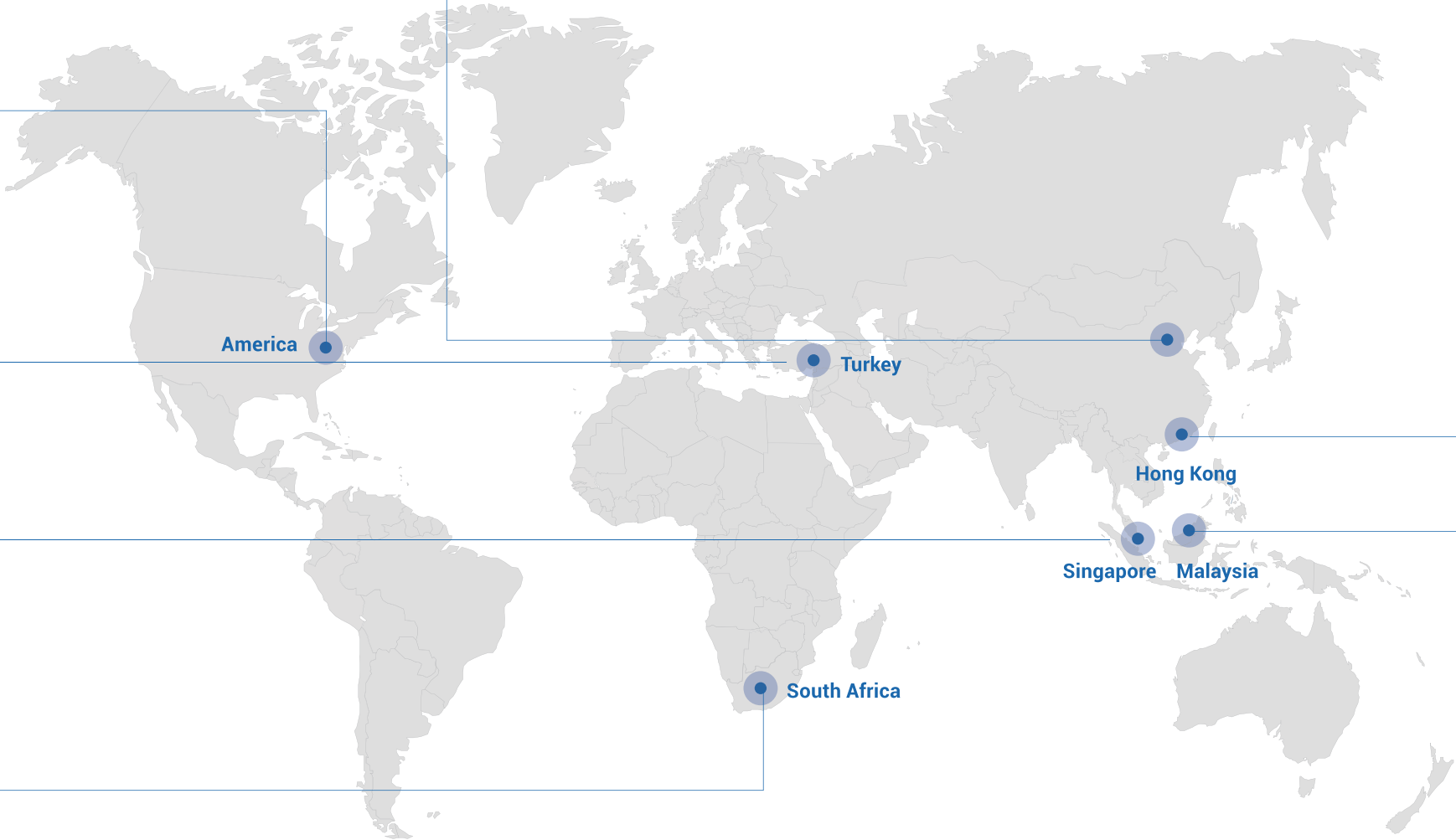
SUCCESSFUL DELIVERIES WORLDWIDE
SPREAD SAFETY AND RELIABILITY
ACROSS BORDERS

Hong Kong

Signalling System, MCS and Maintenance Service for Hong Kong HSR
MCS for New Extension Projects
Replacement of Power Remote Control System RTU on URL

Malaysia

MCS Software and PLC Project for
the First Autonomous Rapid Transit (ART) Line in Sarawak



TECHNOLOGICAL INNOVATION

10% of annual operating revenue is invested in technological innovation.

Talent Profile

35%

R&D personnel

91%

Employees holding a bachelor's degree or above

37%

Employees holding a master's degree or above

Intellectual Property Achievements

244

Patents

342

Software Copyrights

National R&D projects

8

Total Projects Undertaken

44 Standards Developed

10

National Standards

34

Enterprise and Industry Standards

NATIONAL RECOGNITIONS AND HONORS



↑ Industrialization Base for the National High-Tech Research and Development Program Achievements



↑ National Outstanding Postdoctoral Research Workstation



↑ National High-Tech Industrialization Demonstration Project



↑ Ten-Year Achievement Award for National High-Tech Industrialization



↑ National Innovative Enterprise



↑ National Intelligent Manufacturing Pilot Demonstration Project (Intelligent Control Systems)



↑ Best Practices in Digitalized Quality Management Processes by Beijing HollySys Co., Ltd., (2015)



↑ Nationally Recognized Enterprise Technology Center



↑ National Technology Innovation Demonstration Enterprise

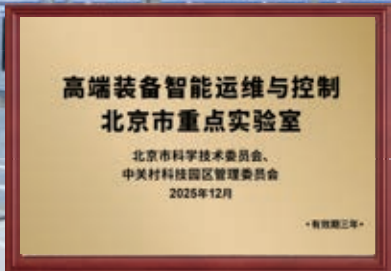
MANAGEMENT SYSTEM CERTIFICATIONS

- ISO 9001
- ISO 14001
- ISO 45001
- ISO/IEC 27001
- ISO/IEC 20000
- CMMI 3
- ISO/TS 22163





↑ Beijing Key Laboratory of High-Speed Railway Signalling System



↑ Beijing Key Laboratory of Intelligent Operation, Maintenance and Control for Cutting-Edge Equipment

RESEARCH, TESTING AND ENGINEERING APPLICATION LABORATORIES

Rail Transit Comprehensive Test Center

HollySys' self-developed large-scale comprehensive test center covers a usable area of approximately 4,200 square meters and is designated as a Beijing Key Laboratory. It is mainly used for the verification and validation of products including railway signalling, intelligent operation and maintenance, and intelligent control systems.

Integrating software testing, hardware testing, and system integration testing, the test center provides comprehensive technical and testing environment support to ensure quality throughout the entire product lifecycle and every stage of project implementation.

There're more than 10 specialized test centers, including Reliability Test Center, Railway Signalling System Integration Test Center, Basic Signalling System Test Center, Intelligent O&M and Simulation Test Center, Smart Control Experience Laboratory, and other dedicated testing facilities.

Research and Innovation Hub

First-of-its-Kind Equipment

As one of China's pioneers in the R&D, simulation validation, and field application testing of the CTCS-2 Train Control System, HollySys delivered the nation's first core equipment for TCC and ATP (200H) systems.

Fully Self-Developed Equipment

Over ten types of domestically-developed equipment, including fully self-developed and self-applied domestic CTCS-3 train control systems (ATP/RBC), ETCS train control system equipment (ATP/RBC/EI, etc.), and urban rail transit CBTC+FAO signalling system equipment (VOBC/ZC/CI/ATS/DSU), have passed comprehensive and complete laboratory verification procedures and been successfully delivered for on-site engineering deployment.

Advanced Research and National Key Projects

The hub supports R&D testing and experimental validation for numerous national key scientific research programs, including Indigenous Train Control Systems, Next-Generation Train Control Systems, Sichuan-Tibet Railway and other national key scientific research projects.



↑ HollySys Reliability Test Center



↑ Stepping Cyclic Damp Heat Test



↑ Device Screening and Aging Test



↑ Temperature Shock and Temperature Variation Test



↑ Electromagnetic Compatibility Test



↑ Electric Vibration Test

PRODUCT AND SYSTEM DELIVERY QUALITY ASSURANCE

Testing Resources and Simulation Capabilities

Testing Infrastructure and Delivery Capacity

Our test centers are equipped with more than 200 sets of actual trackside and on-board train control equipment, along with comprehensive simulation platforms and testing tools, enabling them to simultaneously support engineering application testing for over 20 railway lines and dynamic integration testing for over 30 trains.

Verification Capability and Quality Assurance

Comprehensive Simulation Testing Environment

Our test centers provide a complete testing environment covering product hardware testing, system software testing, system integration testing, and engineering application testing from module level to full system level, while supporting interoperability and compatibility testing among various on-board and trackside equipment.

60,000+ Test Cases

Our test centers deliver comprehensive simulation testing that covers the full spectrum of train control system operational scenarios.

ADVANCED MANUFACTURING

HollySys has established a modern intelligent manufacturing network spanning North China, East China, and Northwest China, with specialized production bases in Beijing, Hangzhou, Xuzhou, and Xi'an. We have built an integrated industrial value chain covering printed circuit boards, electronic modules, functional units, complete systems, instruments, and control valves.

4+

Manufacturing Bases: Beijing, Hangzhou, Xuzhou and Xi'an

11+

Automated SMT and THT Production Lines

1.9 Million+

Modules per Year

Among China's First Batch

National Smart Manufacturing Pilot Demonstration Enterprise (Intelligent Control Systems) Listed in the Recommended Catalog of Intelligent Manufacturing System Solution Providers

Comprehensive Capabilities in Complete Equipment Supply and System Integration

Awarded the Railway Transport Basic Equipment Manufacturing Enterprise License by the National Railway Administration for Safety-Critical Product Manufacturing



↑ In-Plant Automated Logistics System

↑ Digital Intelligent Manufacturing Production Line

↑ Digital Intelligent Manufacturing Workshop



↑ Automated Welding System

↑ Intelligent Warehousing System

↑ Digital Intelligent Manufacturing Workshop



Green Factory



National Intelligent Manufacturing Pilot Demonstration (Intelligent Control Systems)



Beijing Benchmark Enterprise for Smart Manufacturing (Digital Workshop)



Excellence-Level Smart Factory (Agile Intelligent Factory for High-Safety Industrial Control Products)

ENGINEERING SERVICES

Strategic Presence

Headquartered in Beijing, with 7 regional offices and 18 local liaison offices nationwide

Branch offices/subsidiaries in Hong Kong, Singapore, and South Africa for overseas engineering services

Response Capability

A nationwide service network delivering localized technical support and operation and maintenance services

Team Structure

Professional engineering delivery and localized service support teams

HollySys offers end-to-end O&M and performance optimization services covering the entire lifecycle of systems and engineering projects, with over **20** service bases established around the world.



Responsive

24/7 Customer Service Hotline

On-Site Support from Local Technical Teams



Professional

Extensive Experience in Project Delivery and Technical Services

Highly Skilled Engineering Expert Team



Standardized

Three-Tier Service Response Mechanism

Well-Established Service Procedures



BUSINESS PANORAMA

Driven by the mission of intelligence for excellence, HollySys focuses on China's national railway network and metropolitan rail transit systems, with deep expertise in intelligent operation and maintenance and intelligent control technologies. Through continuous technology integration and innovation, we empower our customers to achieve safer, more efficient, and smarter operations, striving to become a globally recognized provider of intelligent solutions for the transportation industry.



RAIL SIGNALLING

A WORLD LEADING PROVIDER FOR
RAIL SIGNALLING



SCADA

AN EXPERT IN URBAN RAIL SCADA
TAILORED TO DIVERSE NEEDS



INTELLIGENT O&M

A PIONEER IN AI-DRIVEN INTELLIGENT DIGITAL OPERATIONS
AND MAINTENANCE FOR RAILWAY SIGNALLING



ETCS

Highest Safety Level

The self-developed train control system and complete set of core equipment comply with ETCS TSI standards. All core devices are SIL4-certified and adopt a 2x2oo2 redundant architecture to guarantee absolute operational safety and availability.

ETCS Interoperability

ETCS TSI Baseline 3.6.0 ready. Generic product platform ready for TSI. Baseline 4 upgrade and ATO add-on.

Real-Time Reliability

Powered by a preemptive RTOS, it achieves microsecond-level task switching and interrupt latency, with a minimum response time in milliseconds—ensuring deterministic system performance.

Compact and Easy Deployment

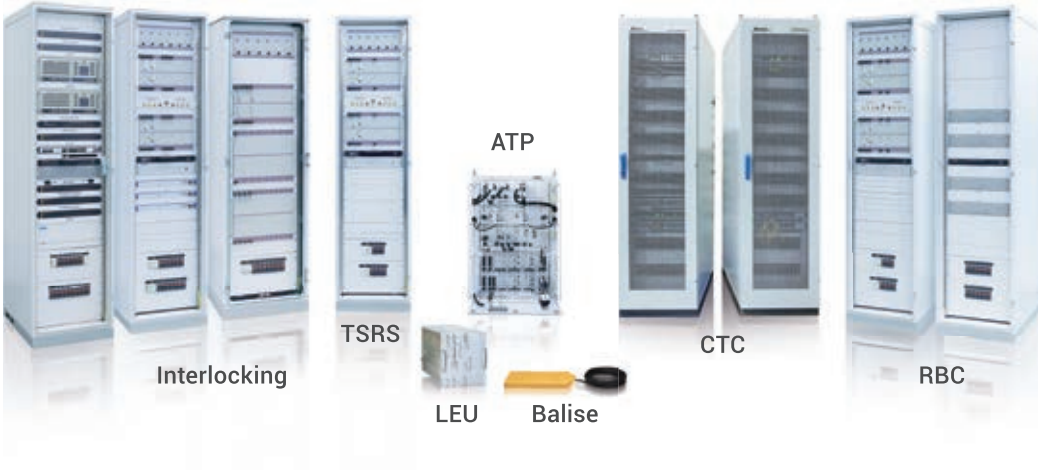
The modular integrated design enables flexible installation across multiple train types, including high-speed, regional, and suburban rail vehicles.

Seamless Interface Compatibility

Equipped with flexible interfaces that are backward-compatible with ETCS 1/2, the system ensures smooth integration and straightforward upgrades.

Versatile Configuration for Diverse Scenarios

With built-in support for satellite positioning and ATO, it adapts effortlessly to the varied operational needs of high-speed, regional, and metropolitan lines.



↑ Awarded the ETCS-2 trackside train control system upgrade project for the PRASA's KwaZulu-Natal service region in South Africa.



↑ Secured a contract to supply ETCS-2 on-board train control systems for nine high-speed trains manufactured by the TÜRASAŞ in Türkiye.

ETCS ON-BOARD EQUIPMENT

Safety

- SIL4 Certified VC, BTM; SIL2 Certified DMI
- 2x2oo2 Redundancy Structure ensures safety and reliability

Real-time

- Preemptive RTOS: Real-time and deterministic for high reliability
- Task Switch Latency $\leq 60\mu s$, Interrupt Latency $\leq 50\mu s$ Minimum, Response Time $\leq 2ms$

Compatibility

- Flexible interfaces for high compatibility
- Backward-compatible hardware architecture for ETCS L1/L2

Interoperability

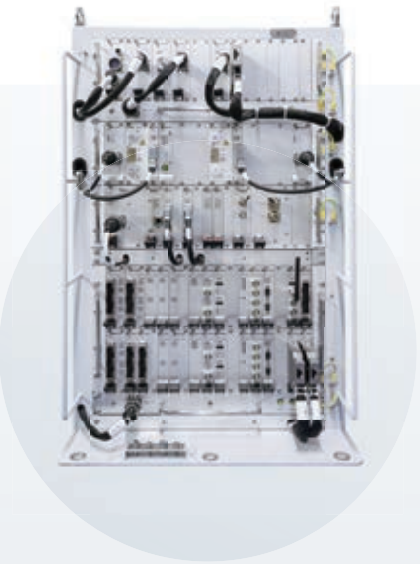
- TSI Certified for ERTMS ETCS Level 1 and Level 2
- Ongoing development and certification for ETCS TSI Baseline 4 and ATO

Flexibility

- Modular design, compact, integrated
- Flexible to install, easy to deploy, applicable to various train types

Configurability

- Support satellite positioning and ATO
- Ready for diverse operating scenarios: high-speed railways, regional railways, and commuter lines



ETCS-HS

RBC

- Autonomous and Controllable, 2×2oo2 Safety Architecture, SIL4 Safety Certified

- Support Core Functions Including Movement Authority, Level Transition and Handover

- Offline Configuration and Verification for Complex Hubs and Long/Short Routes

- Fully Redundant Interfaces for Interoperability with Existing Equipment

- Built-in Maintenance Terminal with Visualized Display for Easy Maintenance and Diagnostics

- Nearly 50 Systems Deployed on 26 Mainline Railways, Covering Over 6,000 km in Total



RBC-HS

CTC

System Function

- Operational timetable management
- Dispatching management
- Real-time monitoring
- Train identification and tracking
- Automatic route setting
- Automatic adjustment for the train operation plan
- Train operation report

Replace interlocking operation station

- Reduce equipment cost
- Reduce equipment maintenance work
- Control interlocking in the center to facilitate global scheduling

Reduce workload of operator

- Automatic train identification
- Automatic route setting

Automatic adjustment for the train operation plan

- Reduce the overall delay
- Improve the transportation service level



CTC System

INTERLOCKING

Safety

- 2x2oo2 redundancy structure ensures safety

Compatibility

- Support standard Ethernet interface, RS422 interface, CAN interface, Profi-DP interface
- The electronic executive module supports interfacing with multiple trackside devices
- Compatible with third-party systems including full-electronic interlocking, CBL, RBC and CTC

Reliability

- The electromagnetic compatibility and lightningprotection performance comply with widely used international railway standards (including EN standards)

Applicability

- Support station operations of high-speed railways,conventional railways, metro lines and freight applications
- Support the centralized interlocking control of stations (yards) and zone interlocking control methods

Deliverability

- Mature configuration tools
- Complete simulation testing platform to shorten the project delivery cycle

Accessibility

- Support multi-language configuration, remote operation and users' centralized monitoring requirements



HCI-1000 Interlocking

LEU

- This safety-critical train control trackside device interfaces with the Train Control Center and interlocking system via active balises, receiving and securely processing data for transmission to the balises.
- It is available in both transparent transmission and pre-stored message versions to suit a wide range of applications.
- It features a 2oo2 safety architecture certified to SIL4, with redundant dual Ethernet ports, support for cable runs up to 2.5 km, and integrated open-/short-circuit detection.

- Nearly 4,500 units are now in service across China's railway network, covering key high-speed lines such as the Beijing–Guangzhou, Zhengzhou–Xi'an, Guiyang–Guangzhou, Datong–Xi'an, Lanzhou–Xinjiang, and Fuzhou–Xiamen High-Speed Railways.
- LEUW-H Outdoor System: dual-LEU redundancy, dual-unit hot standby, remote switchover and restart, fiber-optic communication, with more than 200 systems already in service.



LEU



LEUW-H Outdoor System

BALISE

- Leveraging magnetic induction technology to receive energy from the on-board BTM and transmit data back, the device offers excellent EMI resistance, SIL4 safety integrity, and IP67-rated protection.
- It features full compatibility with standard interfaces and dimensions for direct replacement of equivalent equipment, and it is CRCC-certified, SIL 4-compliant and TSI-qualified to serve high-speed, conventional, intercity and suburban rail lines.
- The fixed balise transmits fixed telegrams, while the controlled balise connects to the LEU for real-time data transmission. In the event of communication interruption, it automatically transmits pre-stored telegrams, ensuring fail-safe operation and convenient maintenance.
- It has been applied in more than 10 projects, including the Harbin–Yichun High-Speed Railway, Zhengzhou–Kaifeng Intercity Railway, Chongqing East Ring Railway, BYD SkyRail, the U.S. PTC system, and the Durban rail project in South Africa.



LKY-hs Balise

CBTC

International Standards

- Compliant with IEEE, IEC, CENELEC standards and national standards

High Safety and Reliability

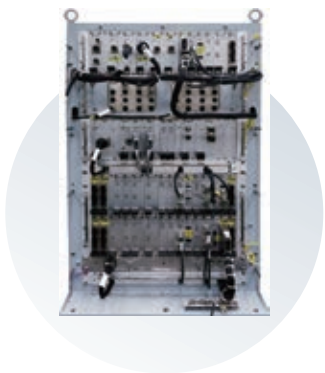
- Developed based on proven trackside safety platform and general on-board safety platform which are both SIL4 certified
- All core subsystems are SIL4 certificated in GA/SA level
- The system has been verified in domestic and overseas subway projects

Multi Levels and Scenarios

- Support Interlocking mode, intermittent mode, continous train supervision and control mode
- Applicable to train control requirements of subway / LRT / APM / Mono Rail / Low Speed Maglev
- Support operational requirements from GoA2 up to GoA4
- Easy deployment and maintenance for both Greenfield and Brown field projects

Efficient Maintainability

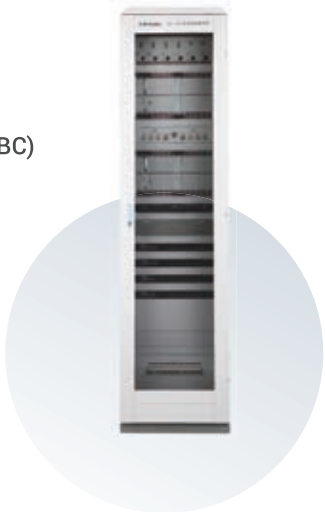
- Lower maintenance cost
- Higher maintenance efficiency
- Expansibility
- Platform and modular design
- Tolerant and redundancy design



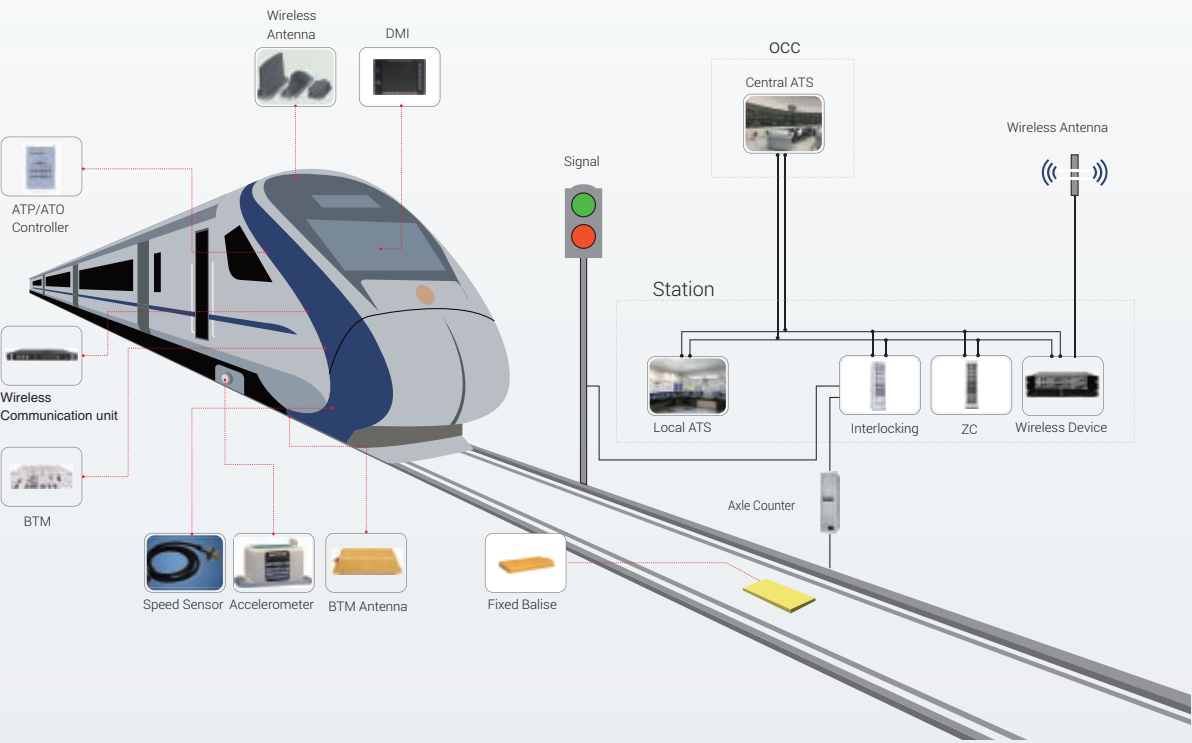
Vehicle On-Board Controller (VOBC)



Automatic Train Supervision (ATS) System



Zone Controller (ZC)



↑ As the system integrator, HollySys undertook the signalling system project for the Kunming Airport Automated People Mover (APM), the first airport transit line in China to adopt a CBTC system.



↑ A fully self-developed GoA4 grade Fully Automatic Operation (FAO) system has been deployed in the signalling system project for the Chongqing Airport Automated People Mover (APM).

PTC SYSTEM SOLUTION

BUILT ON COMMUNICATION-BASED DISTRIBUTED TECHNOLOGY, THE SYSTEM DELIVERS SAFE, RELIABLE, PRECISE, AND HIGHLY EFFICIENT PERFORMANCE.

Space-Saving Compact Design

The modular and space-optimized design flexibly adapts to a wide range of rolling stock types.

Lower Infrastructure Cost

Satellite positioning reduces trackside equipment requirements, while distributed interlocking deployment minimizes optical cable and power cable usage.

Future-Ready Scalability

Adopting moving block technology, the system is ready to support future capacity upgrades.

Uninterrupted Operational Reliability

A dual-redundant architecture ensures continuous and stable system operation.

Convenient and Low-Effort Maintenance

Its online remote diagnostics significantly reduce the need for on-site maintenance interventions.



↑ The FRA-certified PTC system is already in service on the LVRR line in the United States.

TRAM TRANSIT SOLUTION

SIGNAL SYSTEM DEVELOPED FOR LOW-CAPACITY RAIL TRANSIT BASED ON MATURE TECHNOLOGIES

Highest Safety Integrity Level

Core equipment are SIL4-certified, ensuring the highest level of operational safety.

Compact and Space-Saving

The modular design minimizes installation footprint and facilitates system integration.

Intelligent and Efficient

Equipped with junction priority, automatic driving control and other functions, it boosts operational efficiency.

Easy Maintenance

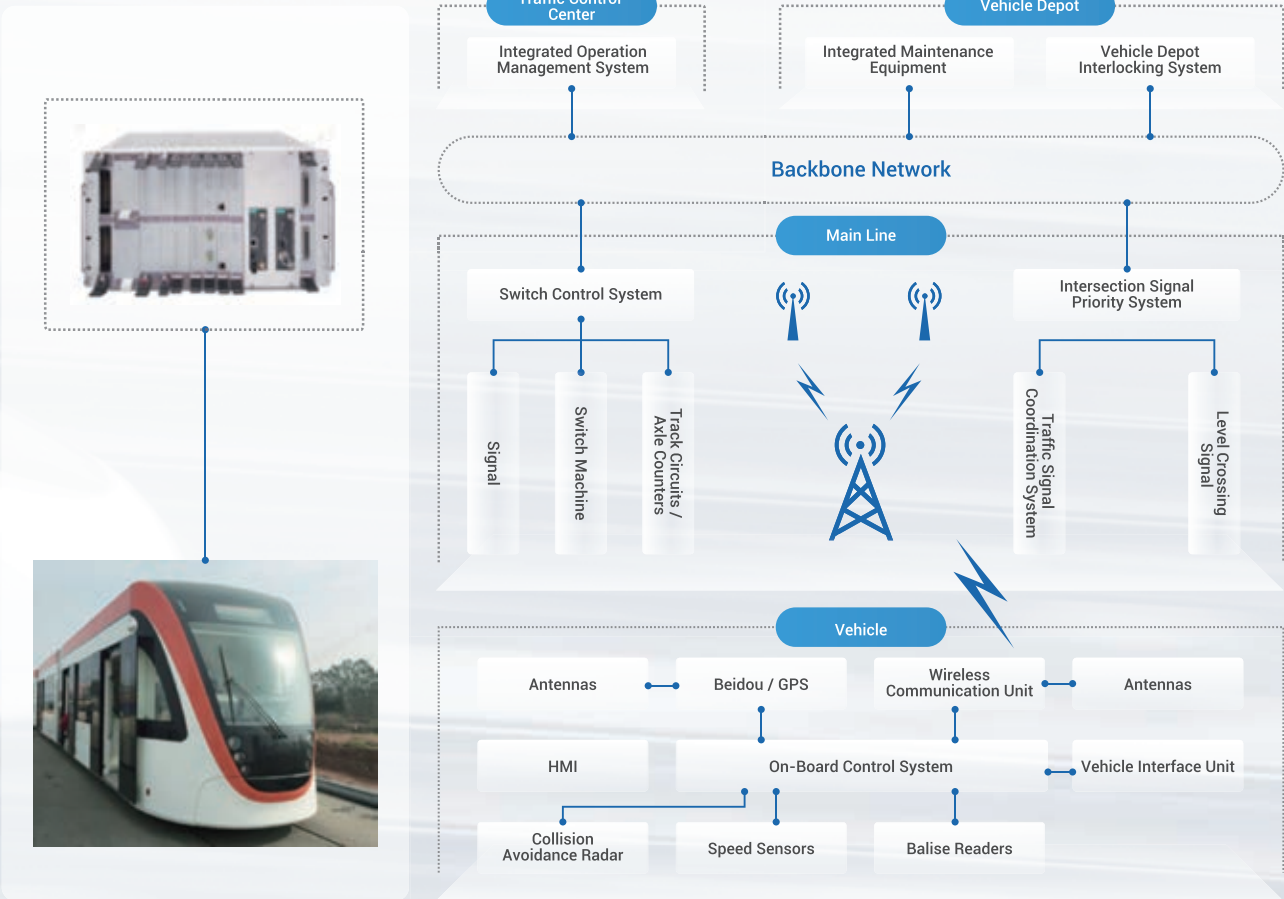
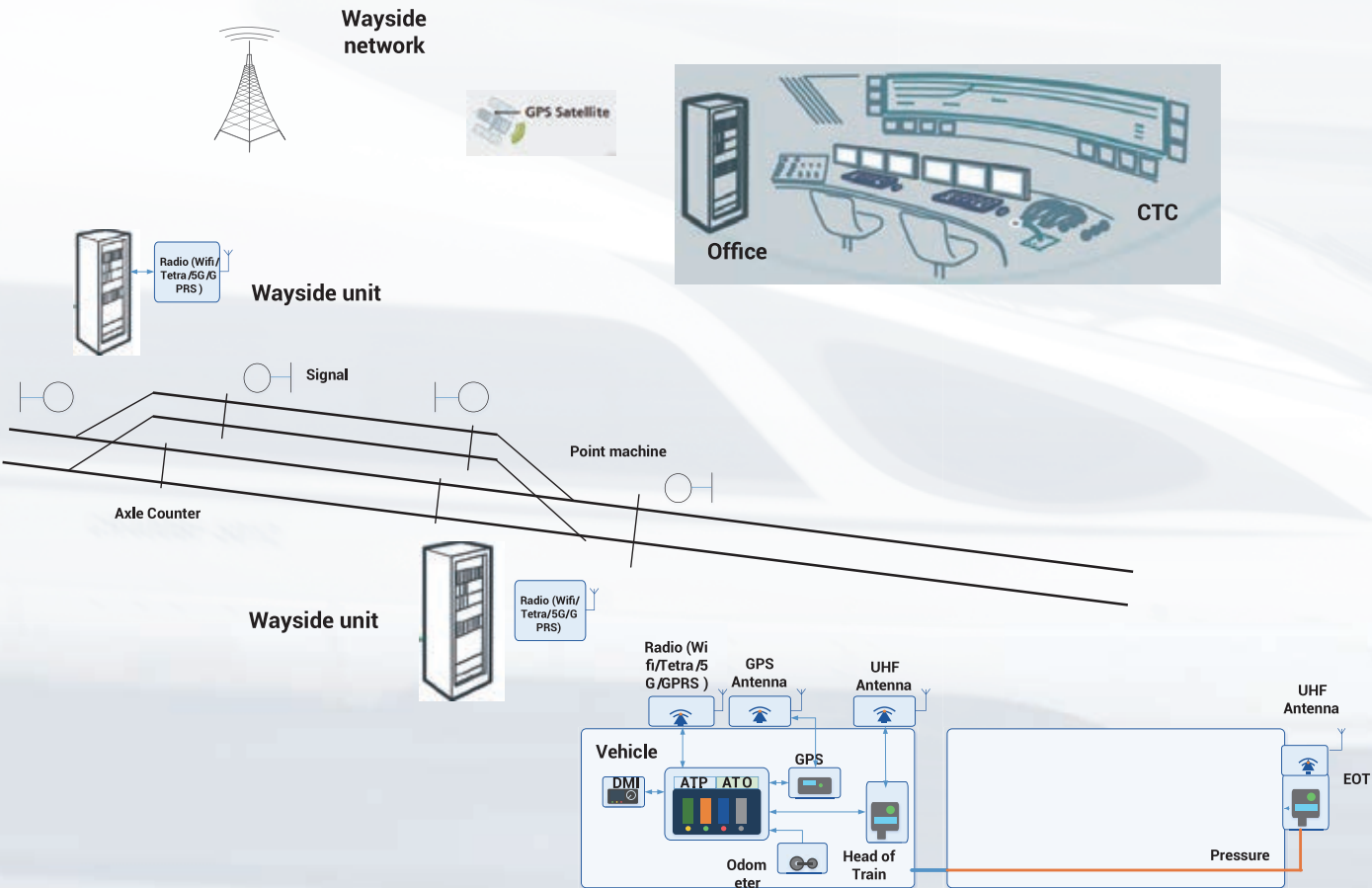
Online remote diagnostics reduce on-site maintenance workload.

Low Lifecycle Cost

Integrated architecture cuts both upfront construction costs and long-term maintenance expenses.

Flexible Scalability

Compatible with multiple vehicle models and third-party systems to accommodate future expansion requirements.



SCADA SYSTEM

Proven Global Projects

Serves 17 cities worldwide with over 60 urban rail projects.

Comprehensive SCADA Solutions

MCS, Low-Capacity Rail Transit, ISCS, Cloud SCADA, TIAS

Zero-Downtime Upgrade

By adopting a non-disruptive renovation strategy of "graded, zoned, and phased" replacement—referred to as "changing the head and feet".

Certified & Secure

SIL2 certified; compliant with IEC 62443-3-3 SL3.

Completely Autonomous and Controllable

Provides end-to-end, homegrown, and secure solutions spanning chips, control system hardware, and software platforms.

AI+ Intelligent Application

An intelligent, industry-savvy, high-performance, and ever-evolving foundation
Intelligent Operation and Maintenance System
Intelligent Station System



↑ MACS-SCADA, China's first ISCS platform software, applied to Beijing Metro Line 13. Pioneering Train Integrated Automation System (TIAS), applied to China's first fully automatic driverless metro line - the Yanfang Line. LK large scale PLC, applied to the full-line BAS system of Beijing Metro Line 14.



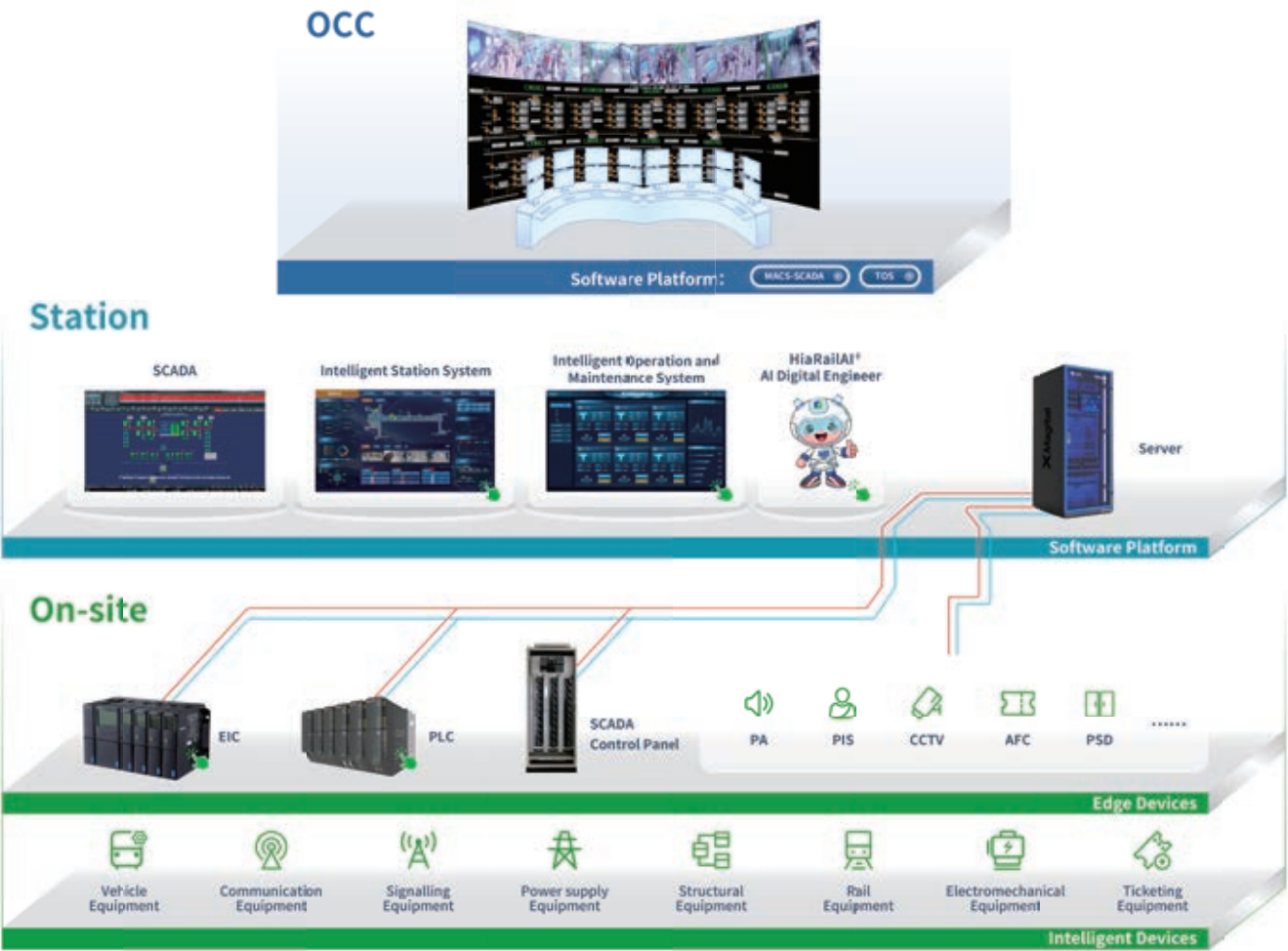
↑ Commissioned the MCS (Contract 1259) for Hong Kong East Rail Line, Tuen Ma Line, and Tung Chung Line Extension.



↑ Commissioned the ISCS for Singapore's Thomson-East Coast Line—the first domestically developed supervisory control system exported overseas.



↑ Commissioned the MCS software and PLC for the first ART line in Sarawak, Malaysia.



INTELLIGENT TRACKSIDE SIGNALLING WORKSHOP

DIGITAL AND INTELLIGENT OPERATION AND MAINTENANCE MANAGEMENT FOR ENHANCED SAFETY AND EFFICIENCY

Remote Intelligent Monitoring and Diagnostic System for Trackside Train Control Equipment

Leveraging one-way secure data transmission to acquire data from trackside train control equipment, and integrating big data governance with an expert knowledge base for train control fault diagnosis, the system enables comprehensive online condition monitoring and precise fault localization of trackside train control equipment. It breaks the limitations of time and space in station-area operation and maintenance, driving the transformation of train control equipment maintenance from on-site emergency repair to remote prediction and centralized management.

Intelligent Machine Room Inspection System

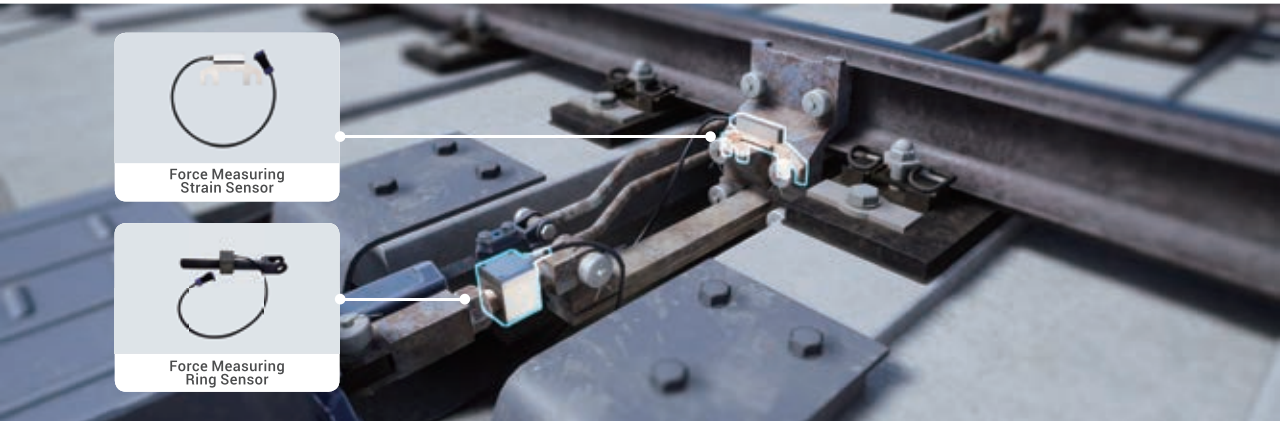
With robotics and image recognition at its core, the system automates routine inspections, security monitoring, and environmental regulation at relay stations—paving the way for unattended mechanical rooms. This ensures greater safety, reliability, and consistency in inspection results.

Comprehensive Switch Monitoring and Intelligent Diagnostic Analysis System

By integrating high-precision dynamic and static mechanical sensing, multi-source full-domain data acquisition, and intelligent algorithms powered by rail transit industry large models, the system delivers end-to-end digital characterization of switch operation across all working conditions. This enables precise fault tracing, quantitative health assessment, and medium-to-long-term degradation trend prediction. It further establishes a full-lifecycle intelligent predictive maintenance framework for railway switches, and delivers digital, proactive, and intelligent safety control for railway signalling equipment.

RBC Interface Monitoring System

It fully reproduces message interaction between RBC and ATP, visually displays train-ground information, and lays a foundation for train-ground fault alarming and intelligent diagnosis.



INTELLIGENT ON-BOARD EQUIPMENT WORKSHOP

COST REDUCTION AND EFFICIENCY IMPROVEMENT VIA FULL-LIFECYCLE MANAGEMENT

Remote Intelligent Diagnosis System for ATP

It acquires real-time data via TWDM and transmits it over GSM-R, automatically matching fault information and generating diagnostic reports. This enables remote data downloading and intelligent diagnosis.

Accurate Analysis of CTCS-3 Wireless Timeout

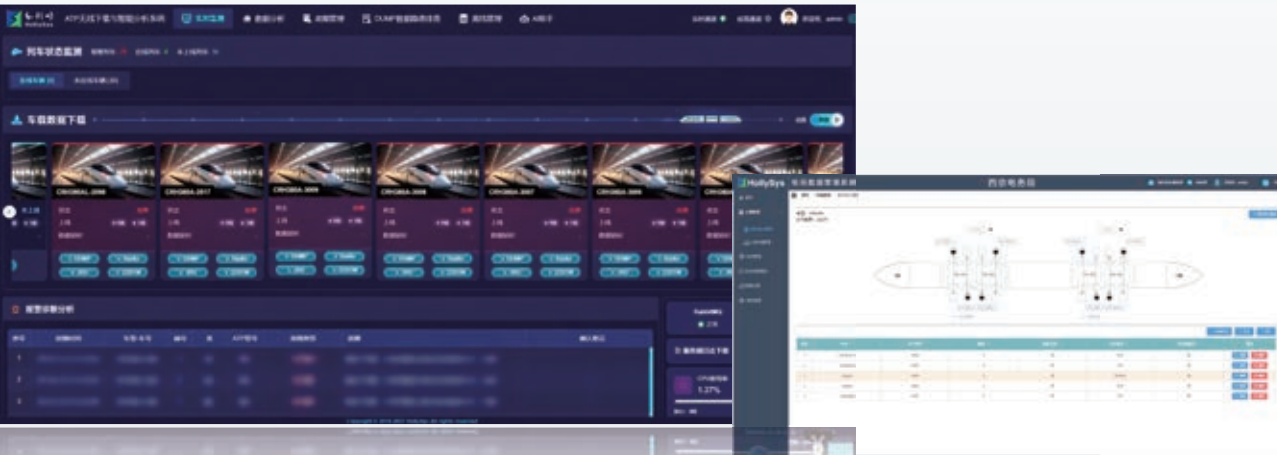
It monitors data from on-board RIM, GSM-R interfaces and trackside RBC. By integrating multi-dimensional information with fault models, it accurately pinpoints the root causes of wireless timeouts and enhances troubleshooting capabilities for complex failure scenarios.

Automatic Inspection at Intelligent Testing Station

Leveraging image recognition, RFID, and IoT technologies, it automatically inspects on-board equipment appearance, antenna performance, and ATP status. It also generates trend reports to support predictive condition-based maintenance.

Intelligent Management and Control for Wheel Diameter Calibration Operations

It provides end-to-end control over wheel diameter modification operations. One-click flash programming and intelligent verification eliminate manual errors, improving both traceability and accuracy.



INTELLIGENT OVERHAUL BASE

FULL-PROCESS EQUIPMENT TRACKING WITH PRECISE CONTROL

Intelligent Full-Lifecycle Management

Built on the intelligent overhaul base management system, the platform tracks equipment throughout the entire process—covering inspection, maintenance, repair, storage, and application—while establishing a closed-loop data flow between the base and on-site workshops. This enables real-time visibility into the location, status, and in-transit information of all materials.

Portable On-Site Rapid Diagnosis

A range of dedicated portable instruments is available to support rapid on-site equipment inspection and data interfacing, enabling real-time status tracking and fast fault localization.

Collaborative Operation of Multi-Functional Zones

It comprises dedicated overhaul zones for switch machines, relays, general equipment, and metering calibration, each equipped with intelligent testing devices and automated production lines. This accommodates diverse process requirements and meets a wide range of overhaul needs.

Intelligent Overhaul Operations

By integrating intelligent test benches, AGV robots, automated conveying lines, and intelligent warehousing systems, it automates equipment inspection, transport, and storage. Test data is uploaded in real time, and the entire overhaul process can be executed with one-click operation, significantly improving both efficiency and quality.

Eco-Friendly Surface Treatment and Cleaning

Equipped with automatic spraying, shot blasting and ultrasonic cleaning equipment, the facility enables housing refurbishment and component cleaning for switch machines, fully complying with environmental protection and technical process standards.



General Workshop

Intelligent warehousing realizes zoned storage of all types of general signalling equipment. Combined with intelligent test benches and portable inspection instruments, it fully covers overhaul and calibration work for all kinds of equipment.



Relay Workshop

Equipped with intelligent warehousing, fully automatic testing equipment and AGV transportation systems, it realizes intelligent conveyance and intensive storage throughout the whole process including relay incoming overhaul, finished product warehousing and outbound circulation.



Switch Machine Workshop

Supported by the site's intelligent management platform and fitted with automated storage systems, automated surface treatment machinery and specialized intelligent test rigs, the workshop streamlines the entire overhaul workflow of switch machines in a single station: incoming handover, overhaul and reassembly, surface finishing, record filing and dispatch.



Operation Process

Equipment Admission

Storage in Pending Repair Warehouse

Outbound Dispatch

Equipment Overhaul

Acceptance Check

Storage in Finished Product Warehouse

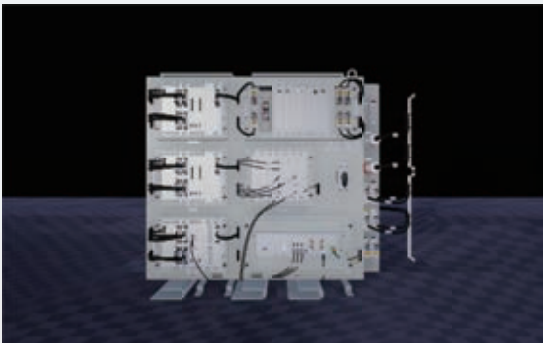
Registered Departure from Base

EQUIPMENT TRAINING BASE

INTEGRATED VIRTUAL-PHYSICAL TRAINING FOR WORKFORCE EMPOWERMENT



On-Board Equipment Training System



Virtual Simulation Training System for On-Board Equipment

Training Base Development

We provide railway administrations with comprehensive solutions for building communication and signalling as well as locomotive maintenance training bases, transforming advanced enterprise applications into practical teaching platforms that better align workforce skills with job requirements.

Signalling Professional Skills Training

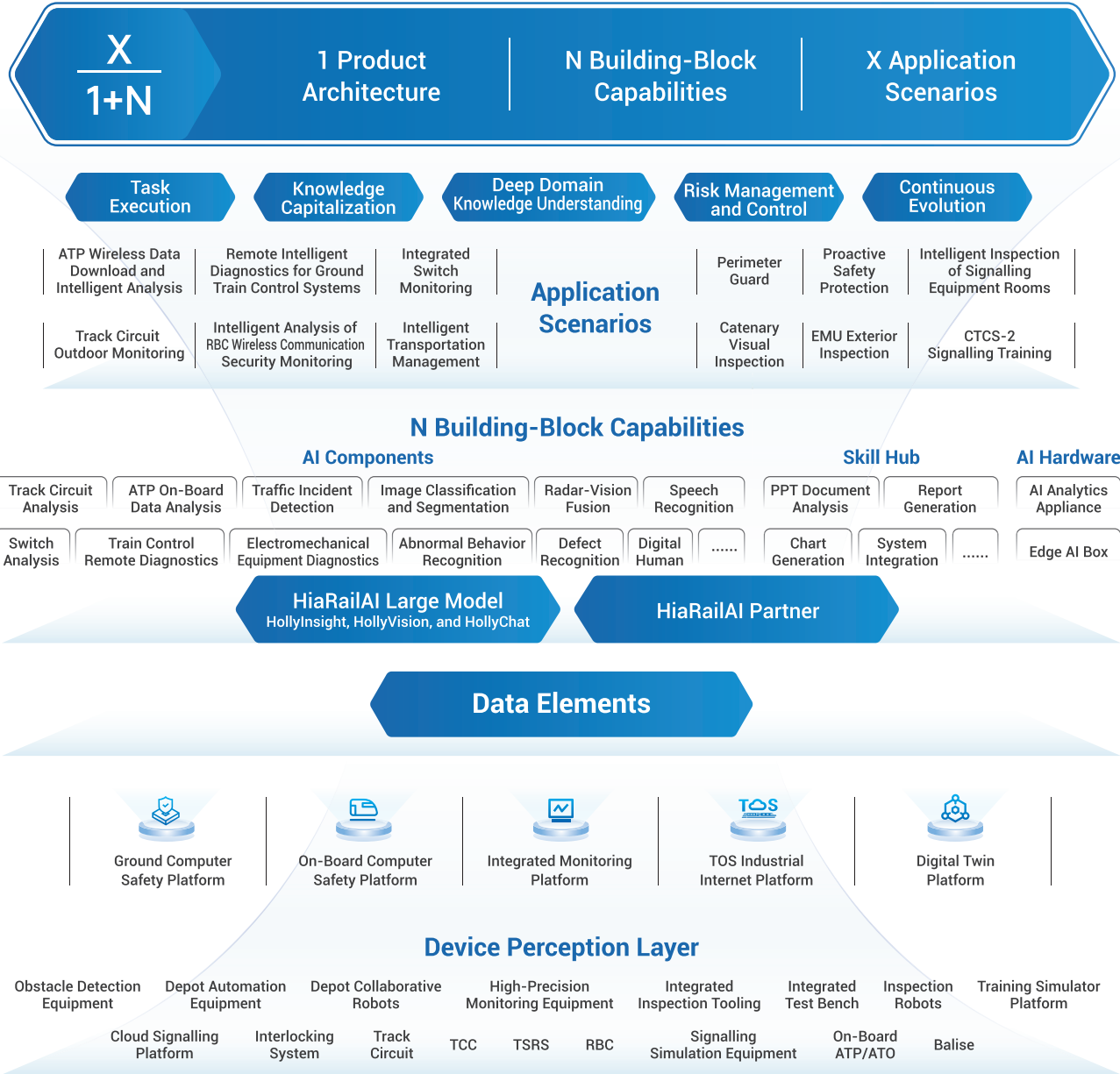
We have provided professional skills training for more than 5,000 personnel, covering the operation of training benches for basic signalling equipment and systems. Industrial standards and practical capabilities are integrated into teaching to foster skilled technicians.

Simulated Driving Training System

We offer high-speed railway and locomotive simulated driving systems that accurately replicate real driving environments and operational workflows, meeting the needs of locomotive crews for professional, standardized hands-on training.



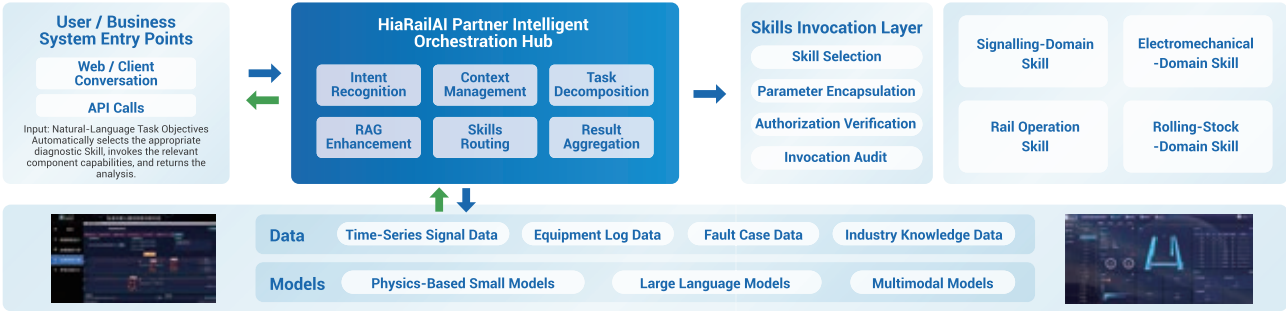
AI-POWERED PERFORMANCE



HIARAILAI® LARGE MODEL — EYES FOR CONDITION PERCEPTION, BRAIN OF A SIGNALLING EXPERT, HANDS FOR O&M EXECUTION

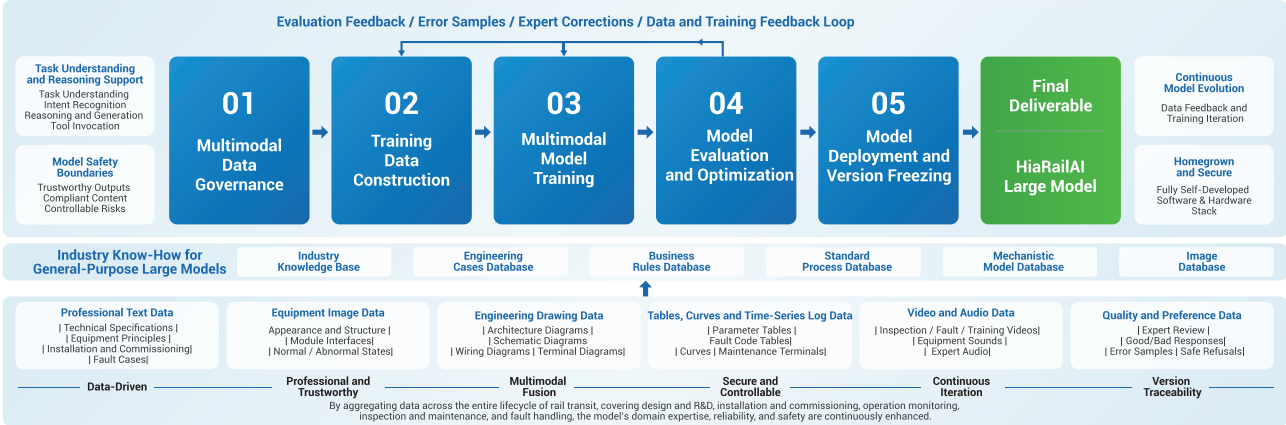
» HiaRailAI Partner A Field-Ready, Skill-Activated, Task-Driven Digital Signalling Engineer

On the front lines of railway operations, engineers grapple with fragmented systems, siloed data, cumbersome workflows, heavy reliance on domain expertise, and endless repetitive documentation. HiaRailAI Partner changes the game by putting natural language at the user's fingertips—simply converse with it to access professional capabilities and execute complex tasks. This is not just another Q&A bot. It transforms AI from a suggestion engine into a doer—every action it takes is executable, traceable, and reusable. For every rail professional, HiaRailAI Partner is an AI assistant that possesses professional expertise, delivers practical outcomes, and gets real work done. It moves intelligence from the boardroom demo to the front-line workbench, and does so through a single unified gateway—no more switching between a dozen systems to drive a task from kick-off to completion.



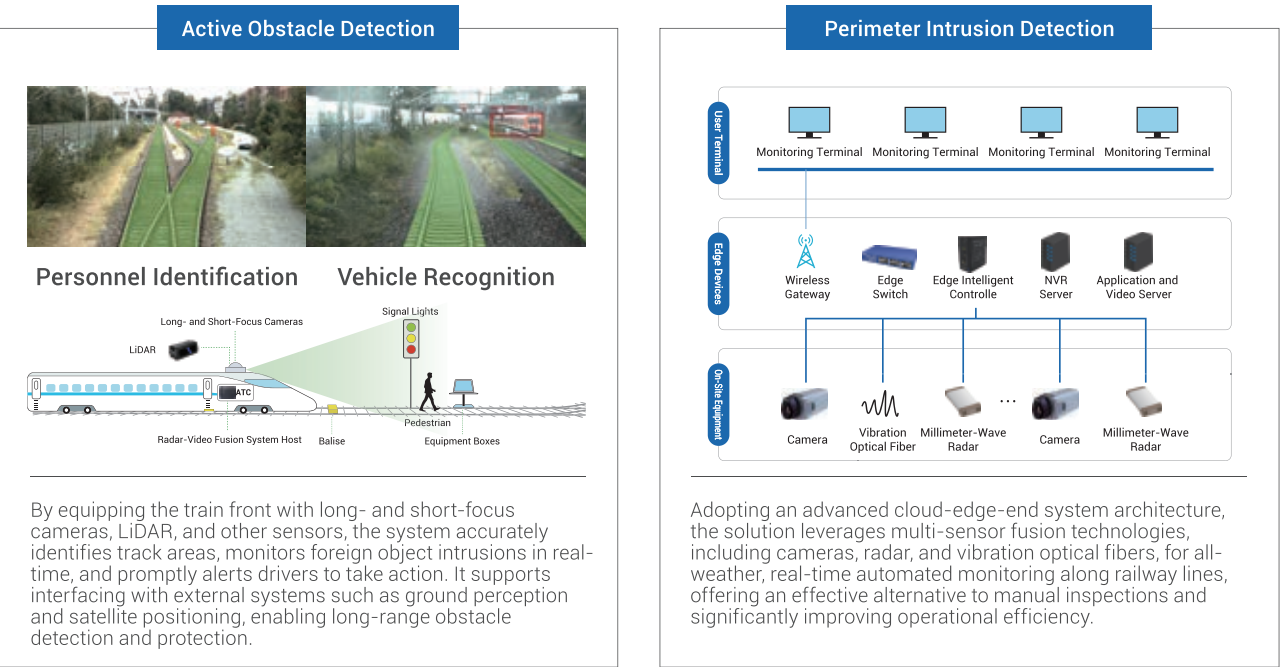
» HiaRailAI Large Model An Intelligent, Industry-Savvy, High-Performance, and Ever-Evolving Foundation

This model is the intelligence foundation that powers rail transit's intelligent transformation. Downward, it captures and codifies industry knowledge into lasting, reusable assets. Upward, it equips applications like HiaRailAI Partner with core model capabilities, including task understanding, intent recognition, reasoning and generation, and tool invocation. Adopting the AI-enhanced expert system paradigm, it delivers efficient and accurate intelligent decision-making support for railway signalling maintenance, facilitating the digital transformation of the industry.



TRAIN SAFETY ASSURANCE

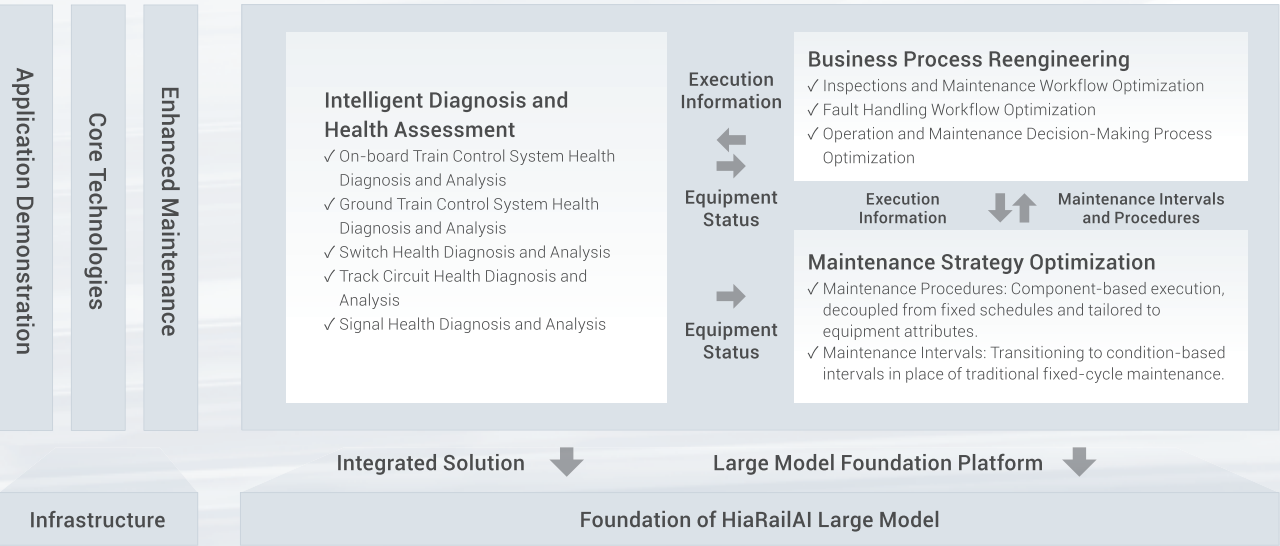
AI-POWERED VISION – SHARPER, BROADER AND EASIER



RAILWAY SIGNALLING FAULT DIAGNOSIS

DIGITALIZED, INTELLIGENT, AND EFFICIENT

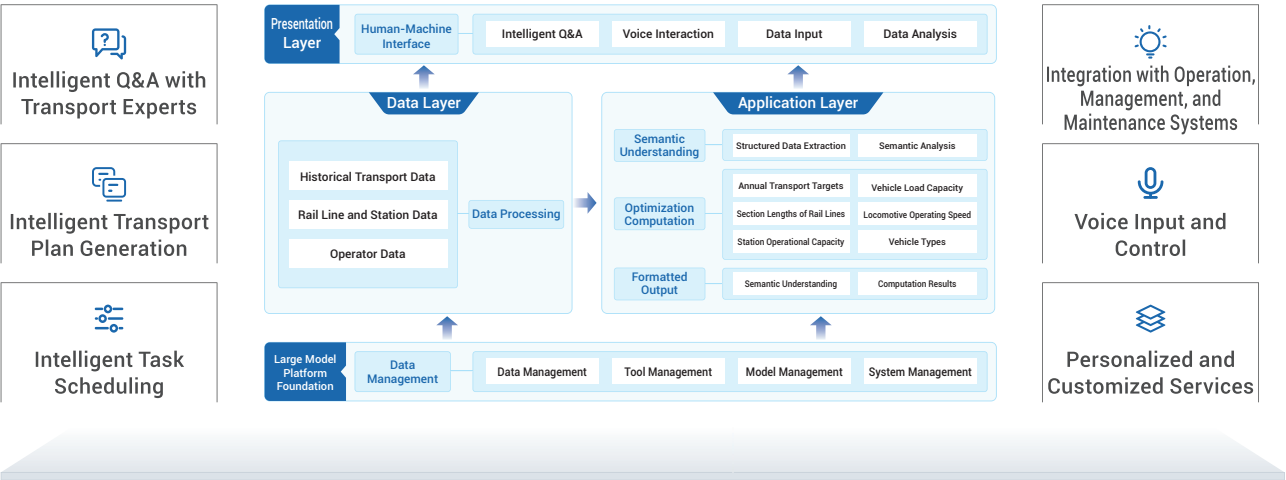
The intelligent railway operation and maintenance solution encompasses intelligent maintenance systems, diagnostic platforms, unmanned inspection systems, smart maintenance bases, and safety protection solutions, aiming to safeguard equipment, streamline management, and enhance operational efficiency through advanced technologies.



TRANSPORTATION ORGANIZATION LARGE MODEL

SMART PLANNING FOR LEAN TRANSPORTATION

The Transportation Organization Large Model Decision Support System is a comprehensive intelligent transport management platform built around a suite of core functional modules. It employs autonomous data processing and decision-support algorithms to dynamically generate, adjust, and optimize transport schemes by accounting for multiple operational constraints and variables. This ensures robust system performance in terms of efficiency, safety, and dependability. Moreover, it supports on-premises deployment, ensuring full data isolation and security for enterprise users, and facilitates a transition toward more intelligent, fine-grained transport management.



APPLICATION CASES

HollySys has secured the project “Research and Development of an Independently Controllable Heavy-Haul Transportation Large Model System” in collaboration with Shuohuang Railway Development Co., LTD under China Energy. Leveraging the AI large model, the system optimizes transportation organization plans, cuts operation and maintenance costs and boosts transportation efficiency. The HiaRailAI Large Model has been further applied to the ATP wireless downloading large model project of China Railway Kunming Group Co., Ltd. and the basic signalling large model project of China Railway Nanning Group Co., Ltd., verifying its universality and replicability in the rail transit industry.

AUTHORITATIVE CERTIFICATIONS

- **National Compliance Certification**
 - Official Filing: The generative AI service has successfully completed filing with the Cyberspace Administration of China, earning authoritative recognition for its security and compliance performance.
- **Industrial Innovation and Competition Honors**
 - National Competition Award: Won a Second Prize in the Transportation Sector of the Information Technology Application Innovation Track in the Digital China Innovation Contest
 - Advanced Industrial Achievement: Selected into the 2025 Advanced Achievements in the Software and Information Technology Service Industry issued by China Software Industry Association.
- **Inclusion in Authoritative Standards and Blue Books**
 - Technology Application Benchmark: Selected for the China Railway Society's 2025 Blue Book on AI Large Model-Driven Intelligent Railway Development.
 - Industrial Development Achievement: Selected for the achievement collection of the 2025 Blue Book on China's Software Industry Development by China Software Industry Association.



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MIND WITH SINCERITY

