ADVANTECH

Enabling an Intelligent Planet

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Intelligent Transportation Systems

- Advantech Overview
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- Roadway & In-Vehicles Solutions
- Advantech Successful Cases
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- IEC 62443 fortified cybersecurity
- Ensure system integrity & reliability

IT/OT Convergence
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Mobility Innovation
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- Sustainable energy management

Partner Ecosystem
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- Joint design for future products

Edge Controllers & Data Acquisition

3U/6U CPCI Legacy & Serial

On-board Controllers

Wireless Gateways & Routers

Edge AI Inference Systems

Industrial Switches

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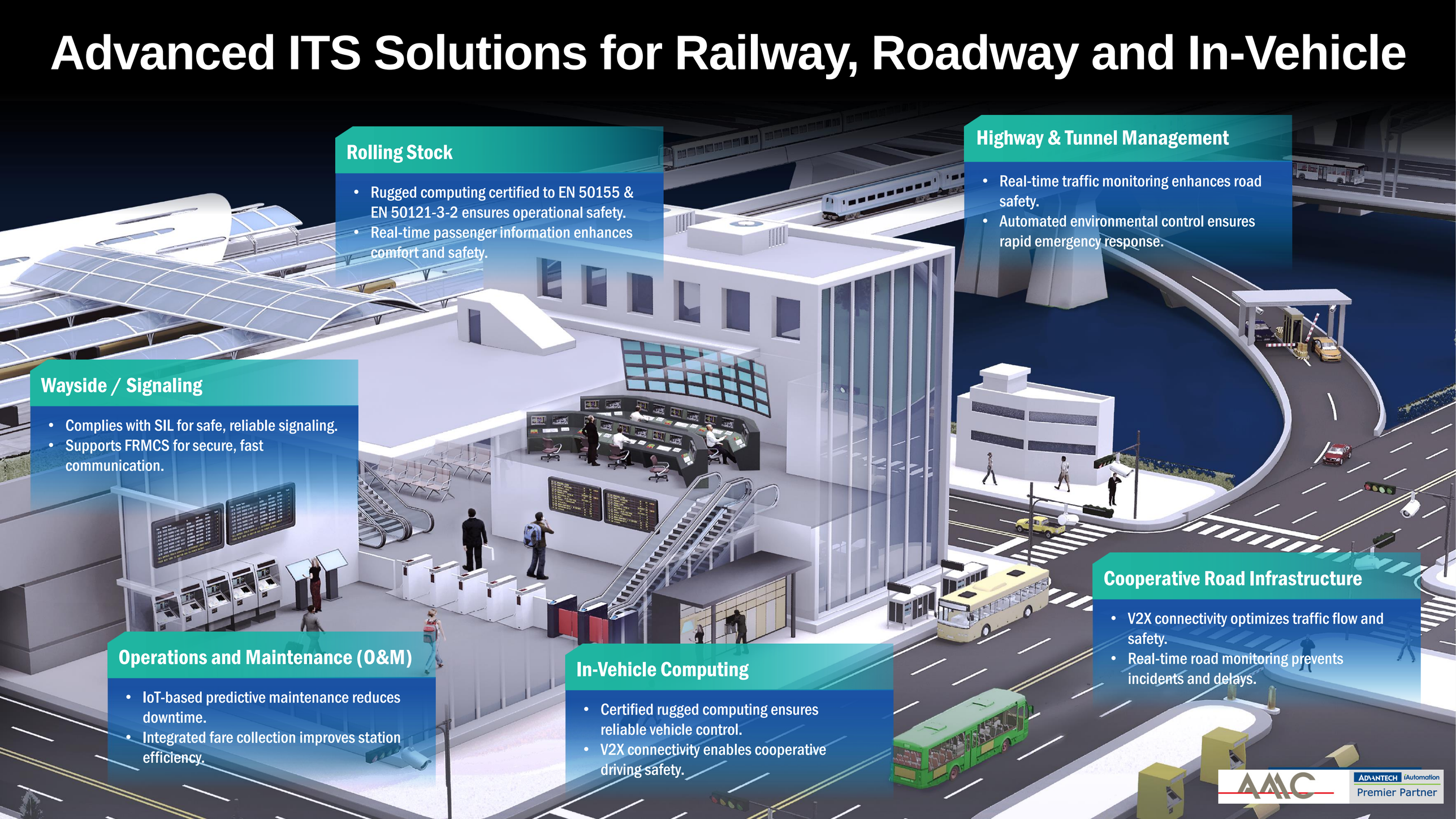
Advanced ITS Solutions for Railway, Roadway and In-Vehicle



Rolling Stock

- Rugged computing certified to EN 50155 & EN 50121-3-2 ensures operational safety.
- Real-time passenger information enhances comfort and safety.

Highway & Tunnel Management

- Real-time traffic monitoring enhances road safety.
- Automated environmental control ensures rapid emergency response.

Wayside / Signaling

- Complies with SIL for safe, reliable signaling.
- Supports FRMCS for secure, fast communication.

Cooperative Road Infrastructure

- V2X connectivity optimizes traffic flow and safety.
- Real-time road monitoring prevents incidents and delays.

Operations and Maintenance (O&M)

- IoT-based predictive maintenance reduces downtime.
- Integrated fare collection improves station efficiency.

In-Vehicle Computing

- Certified rugged computing ensures reliable vehicle control.
- V2X connectivity enables cooperative driving safety.

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Rolling Stock & Wayside

Advantech delivers integrated solutions that ensure precise railway operations, seamless passenger experiences, proactive maintenance, and optimized trackside management through robust computing, reliable communications, and smart monitoring technologies.

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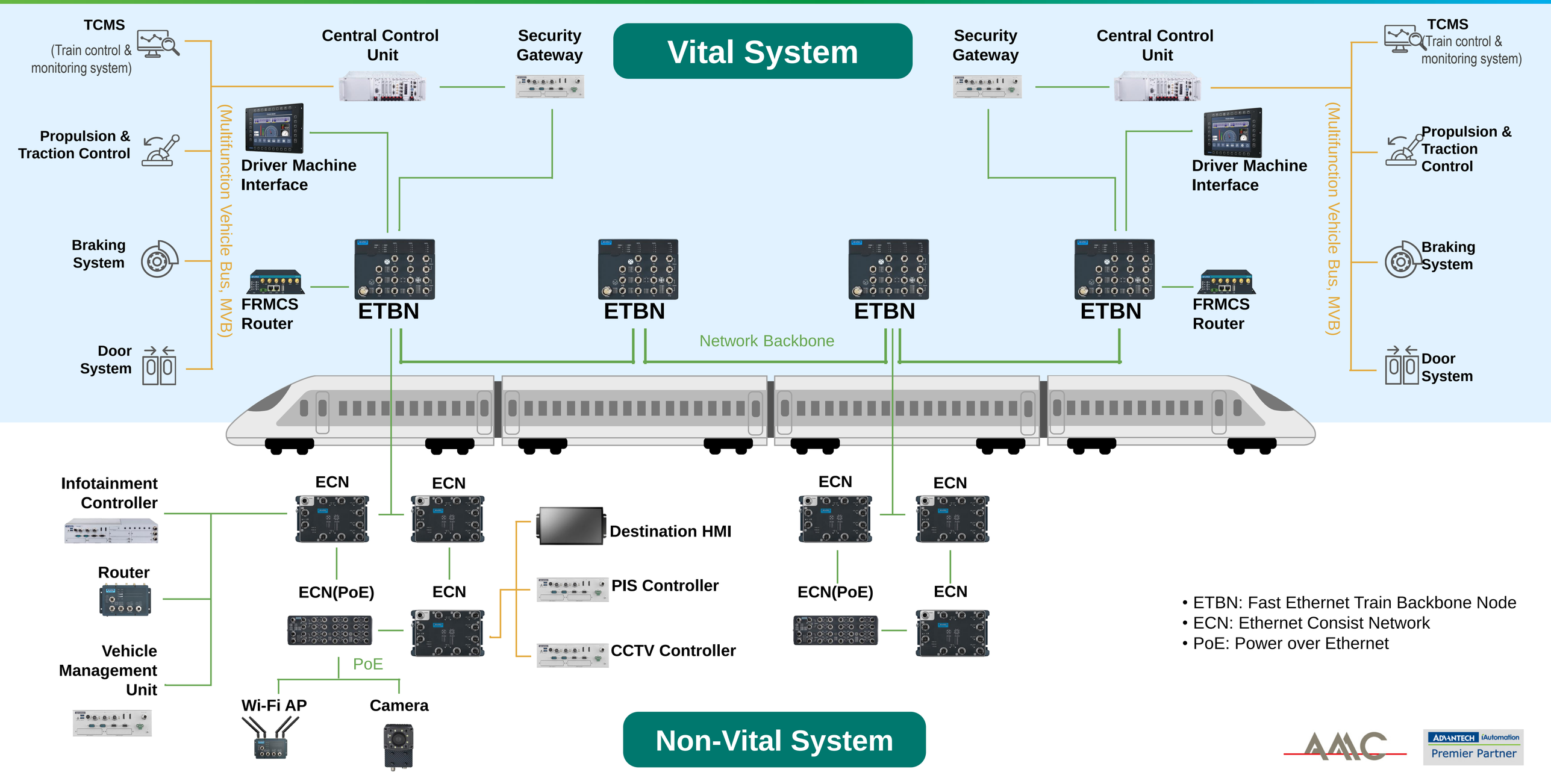
Modern Train Control Systems



- ETBN: Fast Ethernet Train Backbone Node
- ECN: Ethernet Consist Network
- PoE: Power over Ethernet

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Modern Train Control Systems for Critical Operations

Designed to ensure the safe, efficient, and reliable operation of rail vehicles by integrating advanced technologies that monitor, control, and optimize train performance.

Advantages

- **Reliable Communication for Train-to-Ground Connectivity**
  Advantech provides advanced wireless solutions like GSM-R, LTE-R, 4G/5G, and Wi-Fi, ensuring secure, real-time communication for train control, monitoring, and safety, even in challenging environments, while enhancing data transmission reliability.
- **Support for Autonomous Systems and ETCS Integration**
  Advantech's solutions integrate ETCS, autonomous systems, and GPS/GNSS, enabling precise location tracking and automated train operations, ensuring safety, efficiency, and seamless railway performance.

Recommend Products

- 10.4" & 12.1" touch panel
- UIC 612-01 keypad layout
- EN 50155 OT4: -40~70°C

ITA-8100
Driver Machine Interface (DMI)

- Microsoft Azure Certified (ESC) certification
- SuperCap-based power backup module

ITA-580
Train Security Gateway

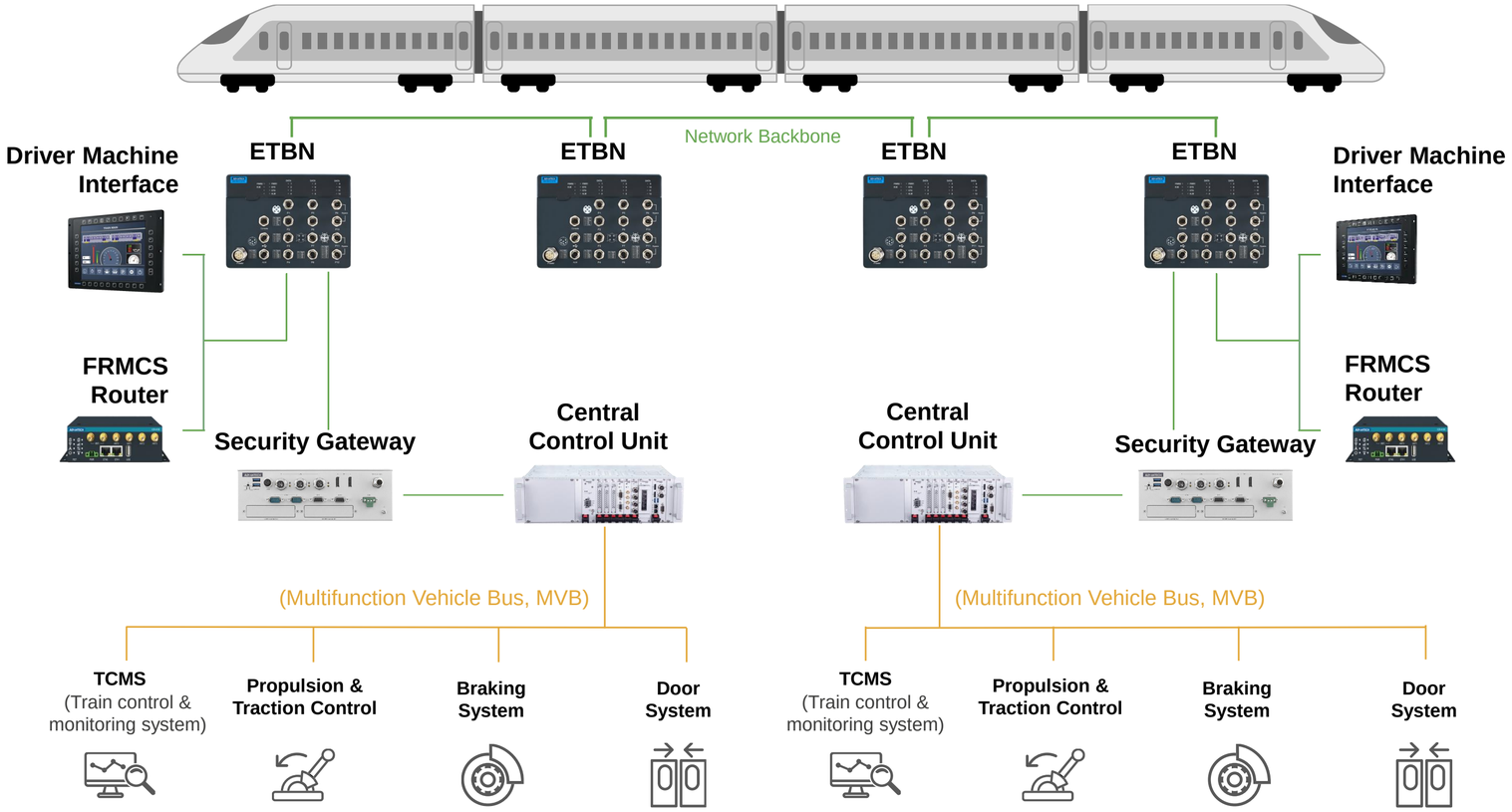
- Supports IEC 61375-2-3 (TRDP)
- IEC 61375-2-5 (TTDP)

EKI-9512-ETB
Fast Ethernet Train Backbone Node

- 3U CPCI-S 19" System
- x86 & ARM based single or multi platform integration

3U CPCI Series
Central Control Unit

System Architecture



- ETBN: Fast Ethernet Train Backbone Node

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Train Information & Infotainment Systems

Advantech offers solutions for real-time passenger updates, entertainment, and seamless connectivity, ensuring smooth operations and enriched passenger experiences through robust computing, communication, and display technologies.

Advantages

- **Real-Time Passenger Information Systems (PIS)**
  Advantech offers powerful computing and communication solutions for real-time passenger information. These solutions enable accurate, dynamic updates for schedules, delays, and station information, ensuring a seamless travel experience and efficient service management.
- **Advanced Infotainment Systems for Passenger Comfort**
  Advantech's solutions integrate high-definition displays, media servers, and Wi-Fi connectivity, delivering interactive infotainment experiences such as entertainment, news, and travel information, which enhance passenger comfort and engagement throughout the journey.

Recommend Products

- Design with dual radio modules
- Supports IEEE 802.11n MIMO 2T2R

EKI-6333AC-M12
On-board Wifi AP / Clint

- EN 50155, EN 50121, EN 45545-2 compliant
- X-Ring Pro for rapid and predictable convergence

EKI-9528E
Managed PoE Ethernet Switch

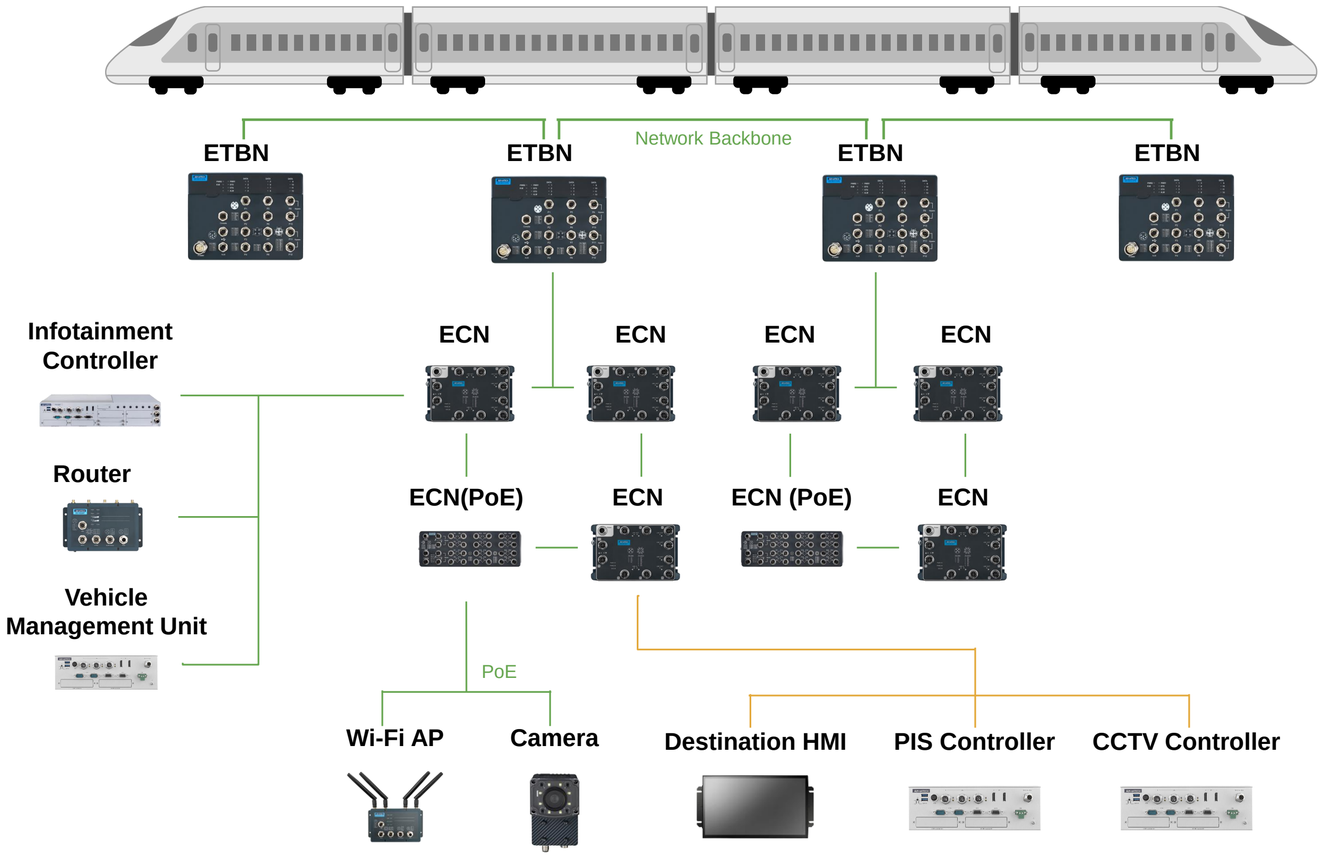
- 2U rack-mount EN 50155 fanless computer
- 3 x 2.5 GbE ports in M12 X-Coded; LAN bypass

ITA-520
Vehicle Management Unit

- 22" LCD panel, 1920 x 1080 pixels resolution
- 24 / 48 / 72 / 110VDC isolation power input

ITA-7220
Rolling Stock Panel PC

System Architecture



- ETBN: Fast Ethernet Train Backbone Node
- ECN: Ethernet Consist Network
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Intelligent Train & Infrastructure Inspection

Advantech provides comprehensive solutions for data sensing, acquisition, digitalization, and AI-driven analytics, enabling predictive maintenance and automated AI vision inspection to ensure railway safety and operational efficiency.

Advantages

- **End-to-End Data Intelligence for Predictive Maintenance**

  Advantech integrates sensor networks, data acquisition systems, and edge computing to collect and analyze real-time infrastructure and train health data. This enables intelligent operation, early fault detection, and predictive maintenance, reducing downtime and optimizing asset lifespan.

- **AI Vision for Automated Railway Inspection**

  With high-performance AI computing and machine vision technology, these solutions enable automated visual inspections of tracks, tunnels, and overhead lines, detecting defects with high precision, reducing manual labor, and ensuring railway infrastructure integrity.

Recommend Products

- SuperCap module for power backup
- Supports an MXM GPU module standards

ITA-580
Diagnostic Controller

- 8GE PoE + 2GE managed switch
- IP67 dust & waterproof design

EKI-9510G-MPW
On-board Ethernet Consist Network

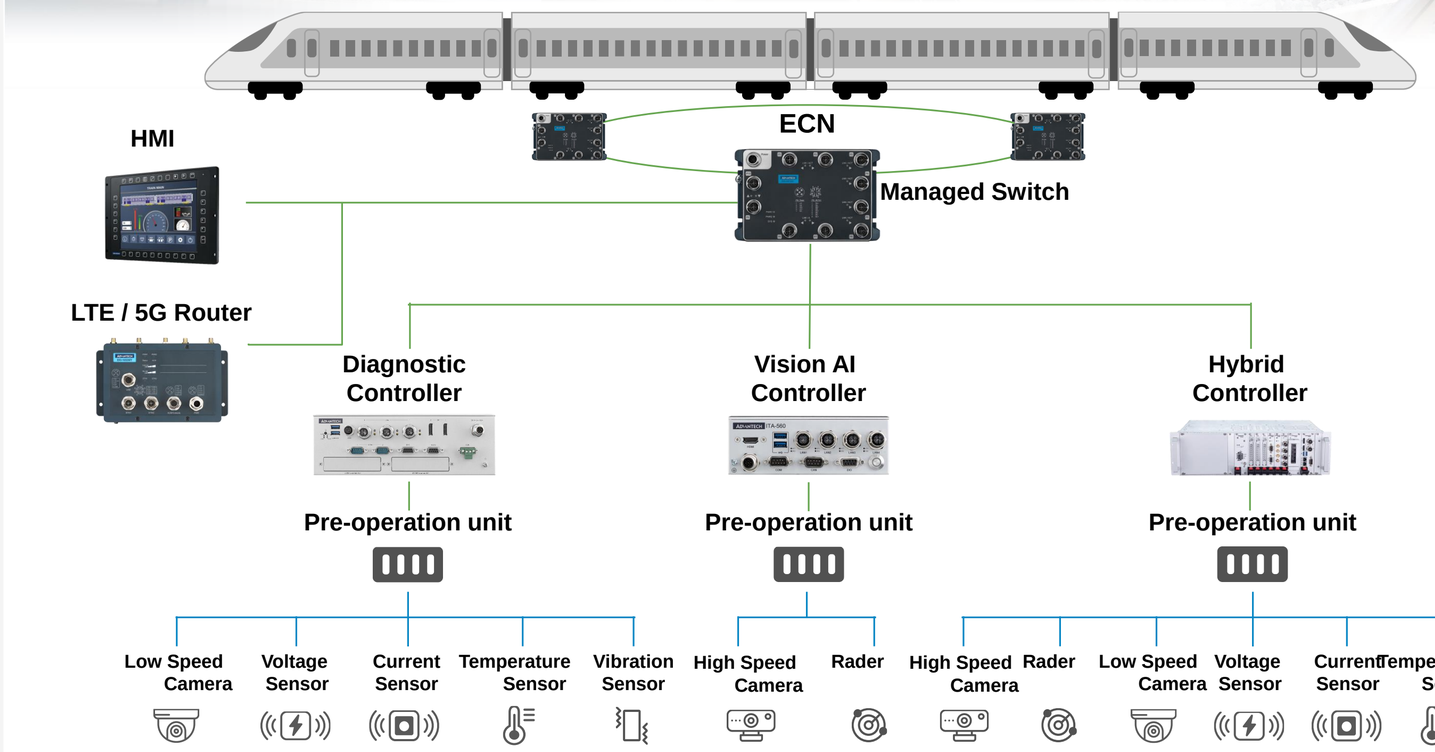
- 3U CPCI-S 19" System
- Supports x86 & ARM based single or multi platform integration

MIC-330 V2
Hybrid Controller

- Embedded NVIDIA® Jetson AGX Orin™/ Orin™ NX/ Orin™ Nano platform

ITA-560
Vision AI Controller

System Architecture



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Advanced Wayside Control Systems

Advantech enhances railway infrastructure through rugged computing and high-speed communication solutions to ensure reliable signaling, real-time monitoring, and seamless integration with central control systems—improving both safety and operational efficiency.

Advantages

- **Rugged Computing Solutions for Reliable Wayside Operations**
  Advantech's industrial-grade edge computers and servers deliver high-performance processing for railway signaling, condition monitoring, and fail-safe control, ensuring continuous and reliable operation in harsh trackside environments.
- **Future-Ready Connectivity for Seamless Railway Communication**
  With support for FRMCS, GSM-R, and LTE-R, our networking solutions enable secure, real-time data exchange between wayside infrastructure and central control systems, enhancing operational efficiency and system integration.

Recommend Products

ITA-2211 / 2231
Fanless front end processors for ISCS
**EN 50121-4*

EKI-7428G
24G+4G combo port L2 managed switch

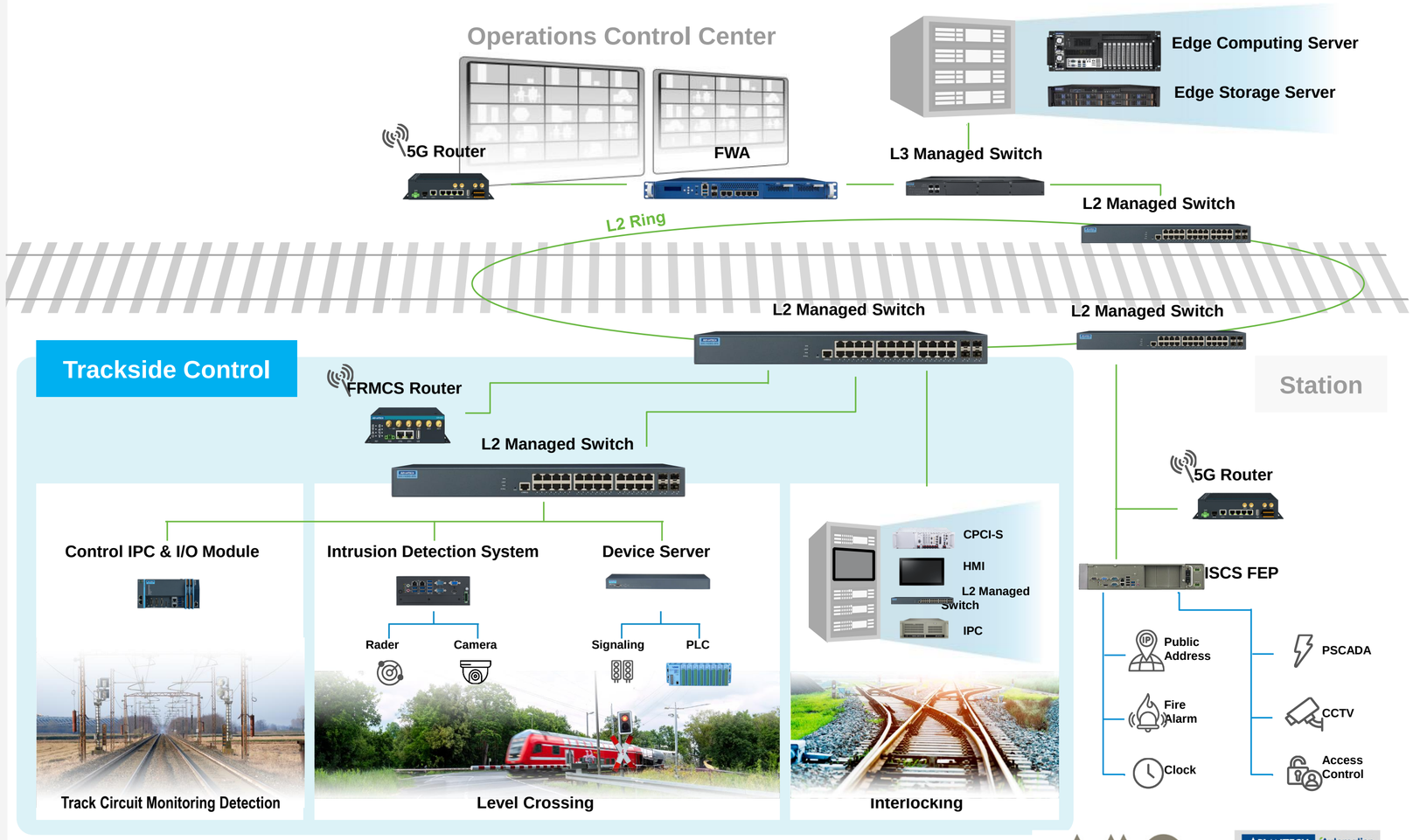
MIC-770 V3
Level crossing control unit

ICR-4461
5G & LTE advanced high speed router

PPC-315
HMI for railway interlocking system

AMAX-5580
Control IPC & IO/ module for track circuit monitoring

System Architecture



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Management Infrastructure

Advantech provides industrial-grade computing platforms designed to enhance passenger flow efficiency, streamline fare transactions, and ensure smooth operational control at transport facilities.

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Reliable Computing for Automated Ticketing

Our solutions for intelligent Automated Fare Collection (AFC) improve efficiency, enhance security, and elevate the passenger experience in smart stations. Leveraging rugged computing, IoT connectivity, and AI-driven analytics, they enable seamless ticketing, access control, and transaction management.

Advantages

- **Reliable Computing for Automated Ticketing & Access Control**

  Advantech's industrial-grade computing solutions power AGM and TCM, ensuring fast and secure ticket validation, passenger authentication, and seamless entry/exit operations even in high-traffic environments.

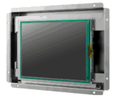
- **Smart Self-Service Systems for Hassle-Free Transactions**

  With high-performance edge computing and interactive display technology, Advantech enhances BOM and TVM, enabling fast ticket purchases, digital payments, and real-time fare updates, improving station efficiency and passenger convenience.

Recommend Products

- Rich I/O designs for USB, COM & displays
- Robust anti-vibration design for station gates

ITA-178
Station Self-Service Controller



- 6.5" VGA LCD panel with LED backlight
- Dual signal interface with VGA & DVI

IDS-3106
Industrial Open Frame Monitor

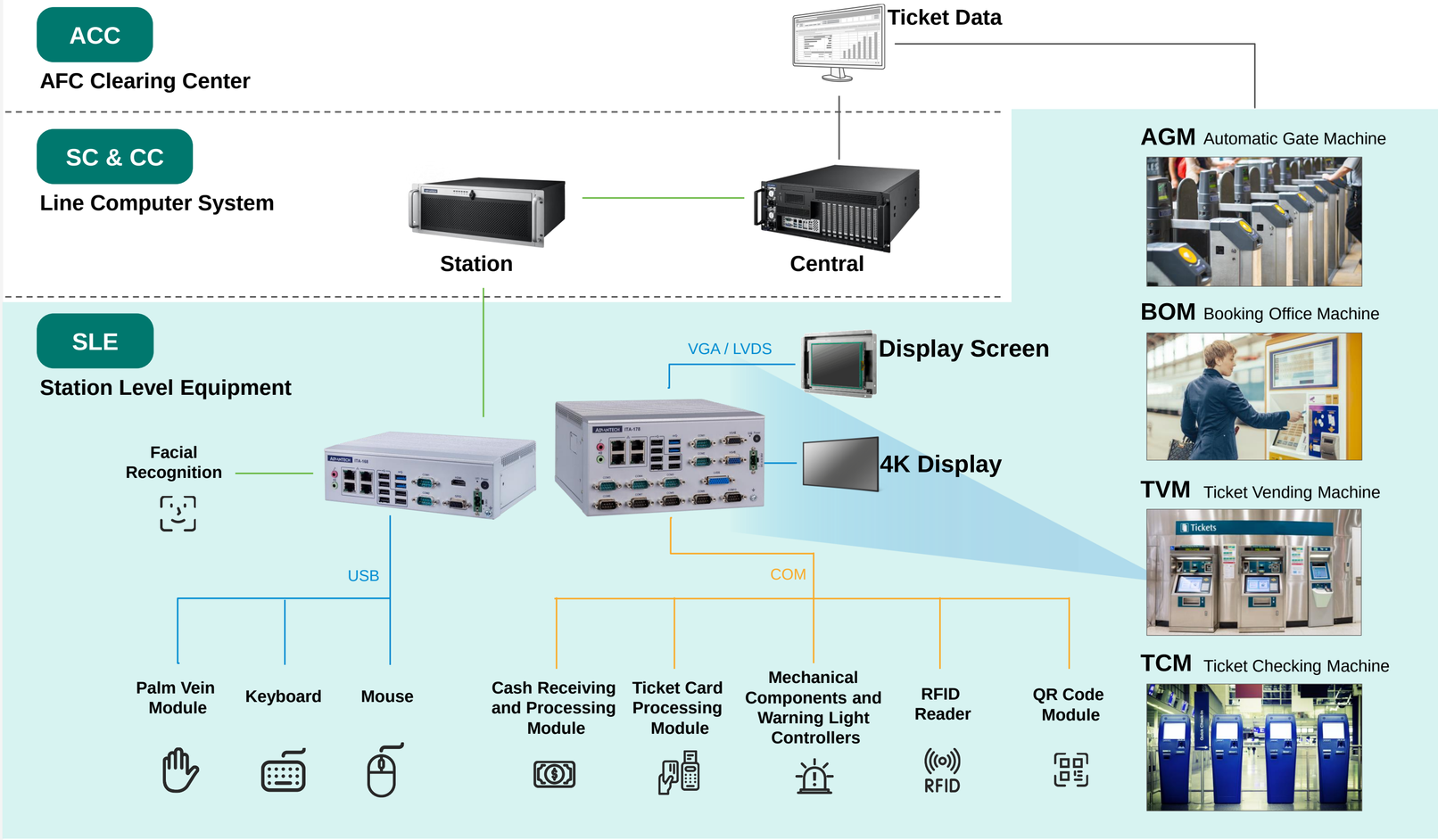
- High scalability with various motherboards
- Front-accessible design for easy maintenance

ACP-4340
IPC for Station Computer System

- 4U 18" short-depth Edge Accelerator Server
- Dual Intel® 4th Gen Xeon® scalable processors

HPC-7420+ASMB-977
Server for ICSC / Central Control

System Architecture



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Roadway & In-Vehicles

Advantech supports safer, greener, and more efficient road transportation and specialized vehicle operations with innovative computing and networking solutions that enable smarter management, real-time connectivity, and sustainability across diverse mobility sectors.

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Intelligent Highway Management

Advantech provides advanced computing, AI-driven analytics, and centralized network management, enabling real-time traffic monitoring, predictive analytics, and automated control systems. These technologies enhance road safety, traffic efficiency, and smart infrastructure management.

Advantages

- **Real-Time Traffic Monitoring and Intelligent Control**
  Advantech's edge computing, sensor-integrated solutions, and WebAccess/NMS enable real-time traffic data acquisition and centralized network management, supporting automated incident detection, congestion control, and smart traffic signaling to improve highway flow and safety.
- **Optimized Tolling and Infrastructure Management**
  With vision edge systems and cloud-based analytics, Advantech enhances toll collection, environmental monitoring, and predictive maintenance for highway infrastructures, ensuring efficient traffic operations and reduced maintenance costs.

Recommend Products

- Fanless design
- Rich I/O: SATA, USB, LAN, serial port, M.2
- Wide operating temperature

ITA-360
Edge AI for Traffic Management

- Cross-browser, cross-platform based on HTML5
- Google Maps and GPS location tracking

WebAccess/NMS
Browser-based NMS Software

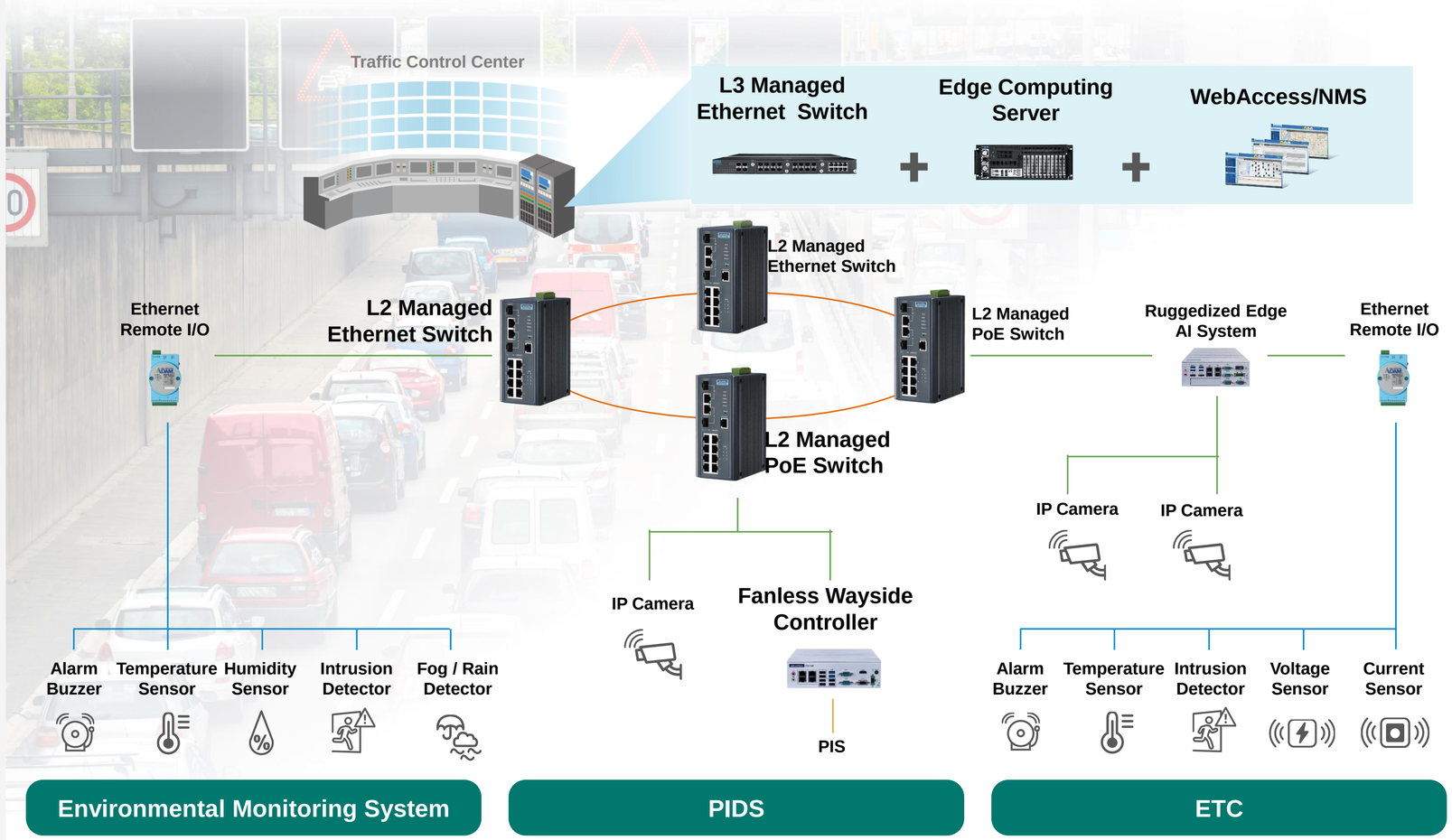
- 8 x Fast Ethernet ports + 4 SFP ports
- Redundancy: X-Ring Pro, RSTP/STP

EKI-7712E-4FI
L2 Managed Ethernet Switch

- 8 x Gigabit Ethernet ports + 4 x SFP ports
- Redundancy: X-Ring Pro, RSTP/STP

EKI-7712G-4FPI
L2 Managed PoE Switch

System Architecture



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Smart Tunnel Management

Advantech provides integrated computing and networking solutions designed specifically for tunnel management, ensuring reliable monitoring, proactive emergency responses, and optimal environmental control for safer, more efficient tunnel operations.

Advantages

- **Comprehensive Monitoring and Alert System**

  Our fanless roadside controllers and Ethernet remote I/O modules effectively acquire data from smoke, temperature, and air-quality sensors. These solutions trigger immediate alerts through sirens, lighting, and push-button alarms, enabling rapid emergency response and enhanced tunnel safety.

- **Integrated Surveillance and Environmental Control**

  Advantech's front-end processors, managed Ethernet switches, and PLCs deliver reliable video surveillance, vehicle detection, speed monitoring, and jet fan system control. These solutions optimize air circulation, traffic management, and security, significantly improving operational reliability and tunnel safety.

Recommend Products

HPC-8208

Fanless front end processors for ISCS

EKI-8528

24G+4G combo port L2 managed switch

ITA-260

Fanless wayside & roadside controller

*EN 50121-4

EKI-5708E-2FI

6FE + 2 x SFP port L2 managed Ethernet switch

ADAM-5000/TCP

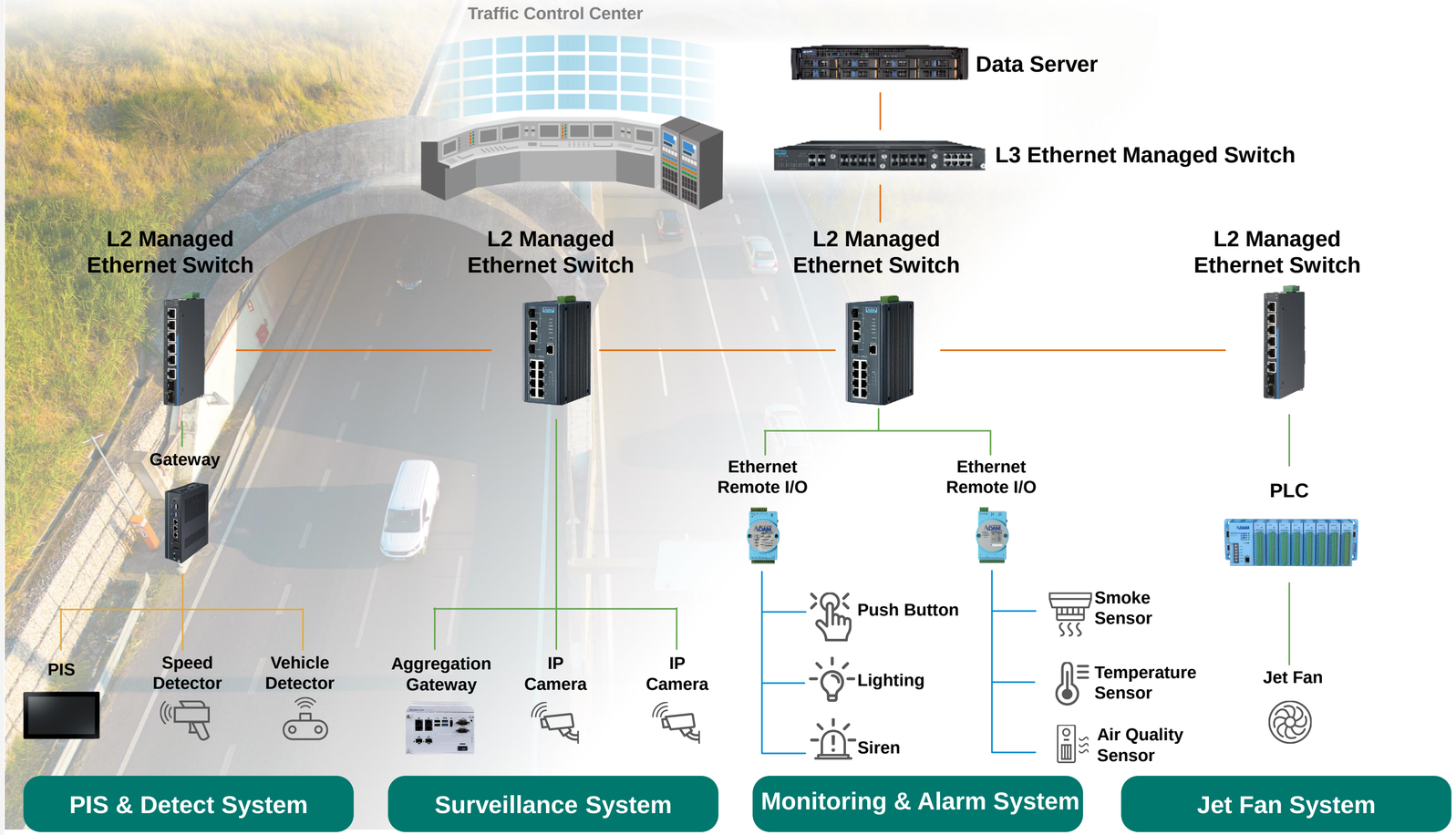
PLC for jet fan system operation

EKI-7710G-2CPI

8GE+2G Port Gigabit L2 managed redundant PoE Switch

*EN 50121-4

System Architecture



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Intelligent Bus Solutions for New Energy Vehicles

Optimize bus routes, predict equipment failures, enhance operational efficiency, reduce traffic violations, and increase revenue through advertisement broadcasting.

Advantages

- **Enhancing Public Transportation Safety with AI & Real-Time Data**
  TREK in-vehicle computers offer a variety of AI modules, cameras, and IoT sensors to monitor and detect the behavior of drivers, passengers, and pedestrians.
- **Seamless & Smart Passenger Experience**
  Aligned with ITxPT standards for frictionless integration, AIoV integration delivers real-time updates, seamless ticketing, enhanced safety measures, and Wi-Fi hotspot services to passengers, ensuring a more informed, connected, and secure travel experience.

Recommend Products

- Dual-system: Intel® & NVIDIA® Jetson Orin™
- 12V/24V E-Mark, ISO-7637-2, dual CANbus, ITxPT

TREK-60/60N
AI Fleet Management

- AI-based object detects passenger and vehicles
- Compliant with BSIS, UNECE R151, R158, R159

TREK-15X series
ADAS Camera

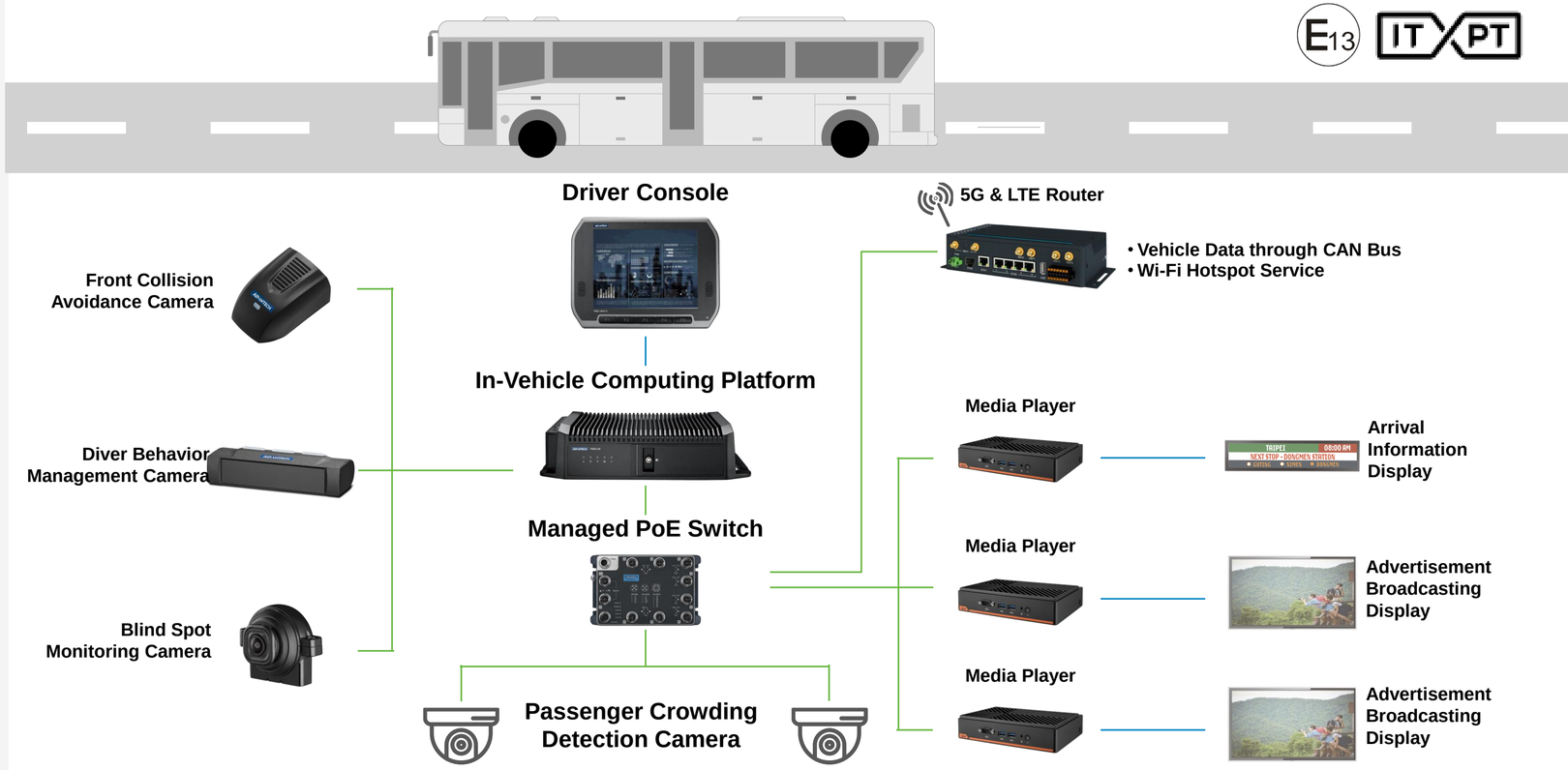
- Sunlight readable: 800 nits
- Wide viewing angle

DSD-5038
38" Signage Display

- 8GE PoE + 2GE managed switch
- IP67 / M12
- E-Mark / ITxPT

EKI-9510G-ST
Managed PoE Switch

System Architecture



Connected Airports & Sustainable Aviation

Airports now focus on enhancing the passenger experience by offering seamless intermodal connectivity, real-time data sharing, biometric systems, and automated processes.

Advantages

- **Streamlining Passenger Flow & Enhancing Security**

  Airports are increasingly adopting biometric systems for check-in, security, and boarding processes. Automated systems and advanced security measures improve operational efficiency, enhance safety, and boost overall passenger satisfaction.

- **Autonomous Solutions Boost Baggage Handling Efficiency**

  Airports are implementing autonomous vehicles for luggage transport and robotics for tasks such as cleaning and maintenance. These innovations enhance operational efficiency, reduce costs, and improve safety—creating a smoother, smarter baggage-handling process.

Recommend Products

- Modularized kiosk system
- incorporates UTC series with15”-42” display sizes

UTK Series
Self-Service Kiosk

- NUC-sized edge computer powered by Intel® Core™ Ultra 7
- Hailo-8 M.2 AI module

UBX-330
E-Gate HMI

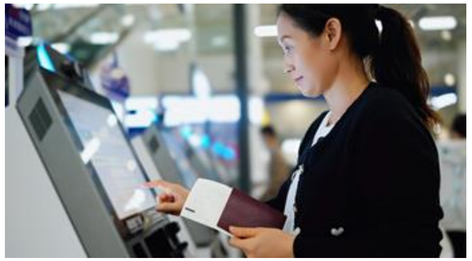
- 16:9 widescreen display (15”-42”)
- Front panel IP65-rated water resistance

UTC Series
Passenger Information System

- 7" all-in-one rugged vehicle HMI
- AI accelerator: Intel®, Coral by Google, or Hailo

TREK-773
Fleet Management System

Application

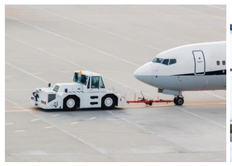


Self-Service Check-in & Automated Baggage Handling

- Self-check-in kiosks integrate displays, printers, scanners, payment systems, and multiple identification methods into a single system.
- Robotic systems, powered by NVIDIA vision technology, automate luggage sorting and transportation, reducing errors and delays.

Biometric E-Gate Immigration Clearance

- Edge devices use AI for facial recognition, fingerprint scanning, and iris scanning, cross-referencing central security databases to ensure passenger safety.
- Automated gates with clear HMI instructions allow passengers to complete the process independently, minimizing the need for staff intervention.



Autonomous Vehicles at Airports

- Self-driving shuttles and carts transport passengers—especially those with reduced mobility—between terminals and gates.
- Autonomous jet bridges use sensors and cameras to dock with aircraft doors without human operators.
- AGVs (Automated Guided Vehicles) perform cleaning tasks in terminals and conduct maintenance checks on equipment, ensuring a clean and safe environment.

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Intelligent Mining

Intelligent mining automation enhances safety, boosts efficiency, reduces costs, and minimizes environmental impact by optimizing resource use and reducing waste.

Advantages

- **Enhancing Mine Site Safety & Ensuring Regulatory Compliance**
  Advantech's vision monitoring solution integrates LiDAR, radar, cameras, and IoT environmental sensors. These technologies enhance safety measures, help prevent accidents, and safeguard the lives of miners.
- **24/7 Mining Operations for Efficiency & Productivity**
  TREK AI computers help enable autonomous mining operations by streamlining processes and improving equipment utilization. Additionally, by monitoring machinery and equipment conditions through sensors, Advantech's IoT solution can predict potential failures before they occur.

Recommend Products

- 13th Gen Intel® Core™
- V2X communication
- IP65 / 5M3

TREK-60 V2X
Autonomous Vehicle Server

- 10" & 12" PCT 4:3 display
- Windows 11 / Android 12
- IP66 / IK08 / 5M3

DLT-V73 HD
Fleet Dispatch System

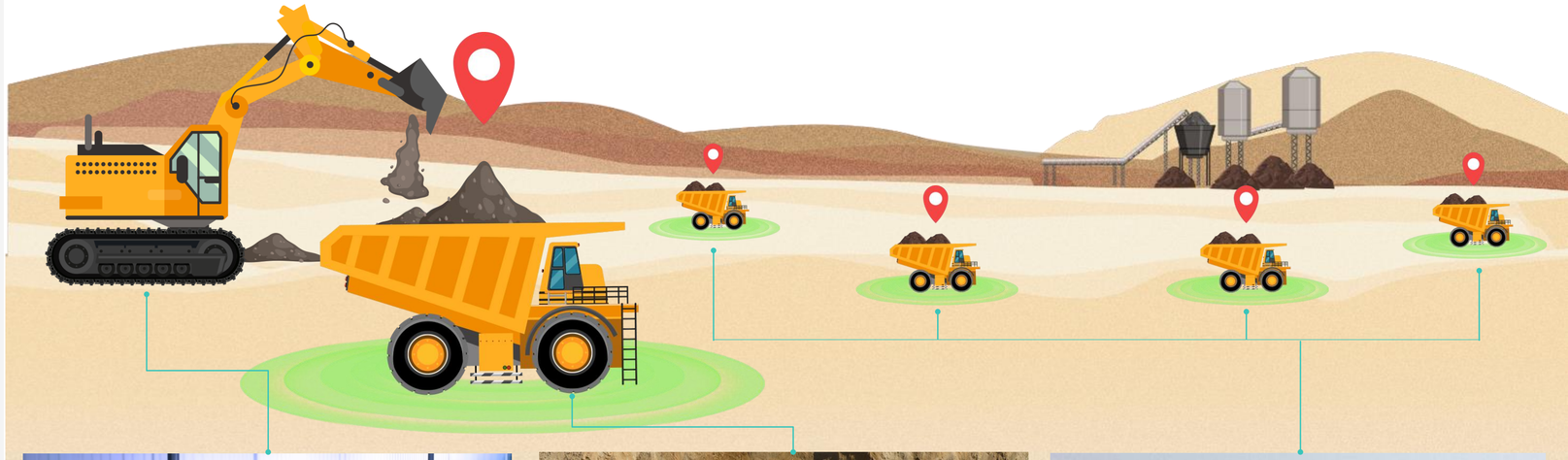
- NVIDIA® Jetson Orin™ NX
- 4-ch PoE (optional 4-ch GMSL2)
- IP67 / 5M3

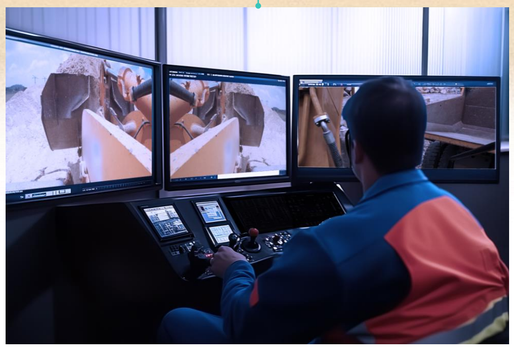
TREK-50N
Rugged Vehicle Control System

- 8GE PoE + 2GE unmanaged switch
- Wide voltage / Wide temperature
- IP67 / M12 / E-Mark

EKI-9510G
Network Communication

System Architecture





Remote Control / Autonomous Hauling System

Loading Control

Fleet Dispatch Management

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Application Cases & Product Matrix

- Advantech Successful Cases
- EN 50155 / E-Mark Compliant Systems
- Industrial IoT Solution & Offerings

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State-of-the-art Connectivity and Infotainment System for an Enhanced Digital and Travel Experience

Case Study 1

Location:
Europe

Company:
European Railway System Integrator

Interview with:
Sales Director

Overview

Most countries have recognized the need to upgrade their railway transportation systems, especially the countries with old railway infrastructure and equipment. As a result, they are striving to make considerable investment, specifically passenger carriages and infrastructure.

Challenges / Requirements:

- Customizable and replicable system that can be used across different countries.
- Flawless multi-system integration with an all-in-one solution.
- Enhanced passenger experience.
- New revenue streams through in-app marketing and personalized services

Solution:

- High-quality content yields on the entertainment system.
- In-train wireless service with low latency and high-quality streaming.
- Cellular communication systems comprising LTE and 5G networks.
- High-speed Ethernet network on trains.

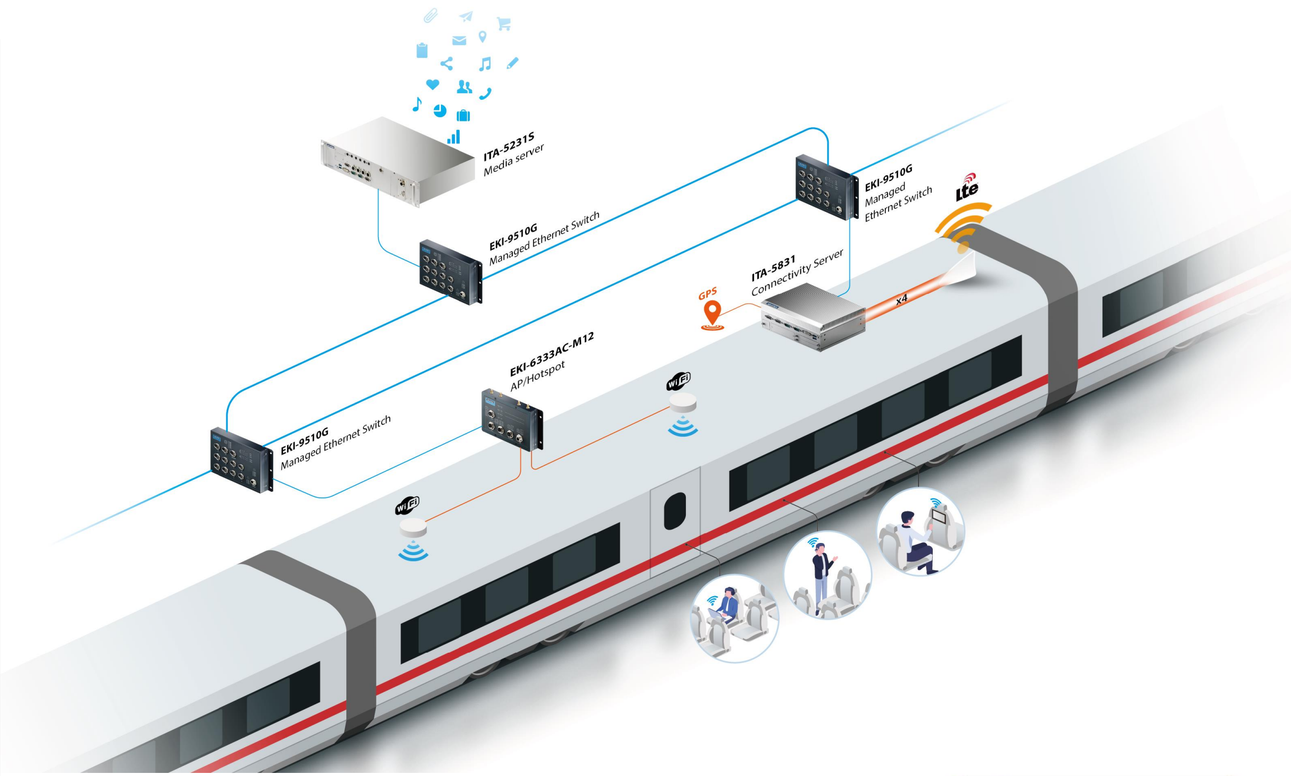
Benefits:

- Delivered a successful integration of the highest quality of manufactured products with existing systems.
- Resulted in a premium vehicle designed and delivered to the customer based on the customer's specific technical requirements

Advantech's railway solution benefits the railway operator through the ability to retrofit many old train vehicles across several countries and the creation of additional revenue streams through in-app marketing and personalized services."

Sales Director, from a railway system integrator in Europe

System Diagram



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Highly Accurate and Robust Smart Surveillance System Stops Illegal Fares

Location:
South Korea

Company:
VISIONIN

Interview with:
Dr. Hak Nam Kim,
the head of research institute,
VISIONIN

> ***"VISIONIN aims to provide services throughout the world. Our focus was not only on the equipment performance, but also on A/S and certifications".***
> **Dr. Hak Nam Kim, head of research institute, VISIONIN**

Overview

Public transportation can put a great strain on public finances and fare evasion is a real headache for authorities. Fare evasion includes illegal use of discount cards, fare-dodging, and ticket forgery. Cities in South Korea, have implemented methods to minimize, deter, and manage fare evasion.

Challenges / Requirements:

- Public transportation can be a great strain on public finances and fare evasion is a real headache for authorities causing revenue loss.
- You need a reliable, robust, scalable and high computing solution that can run accurate and quantifiable data analysis.

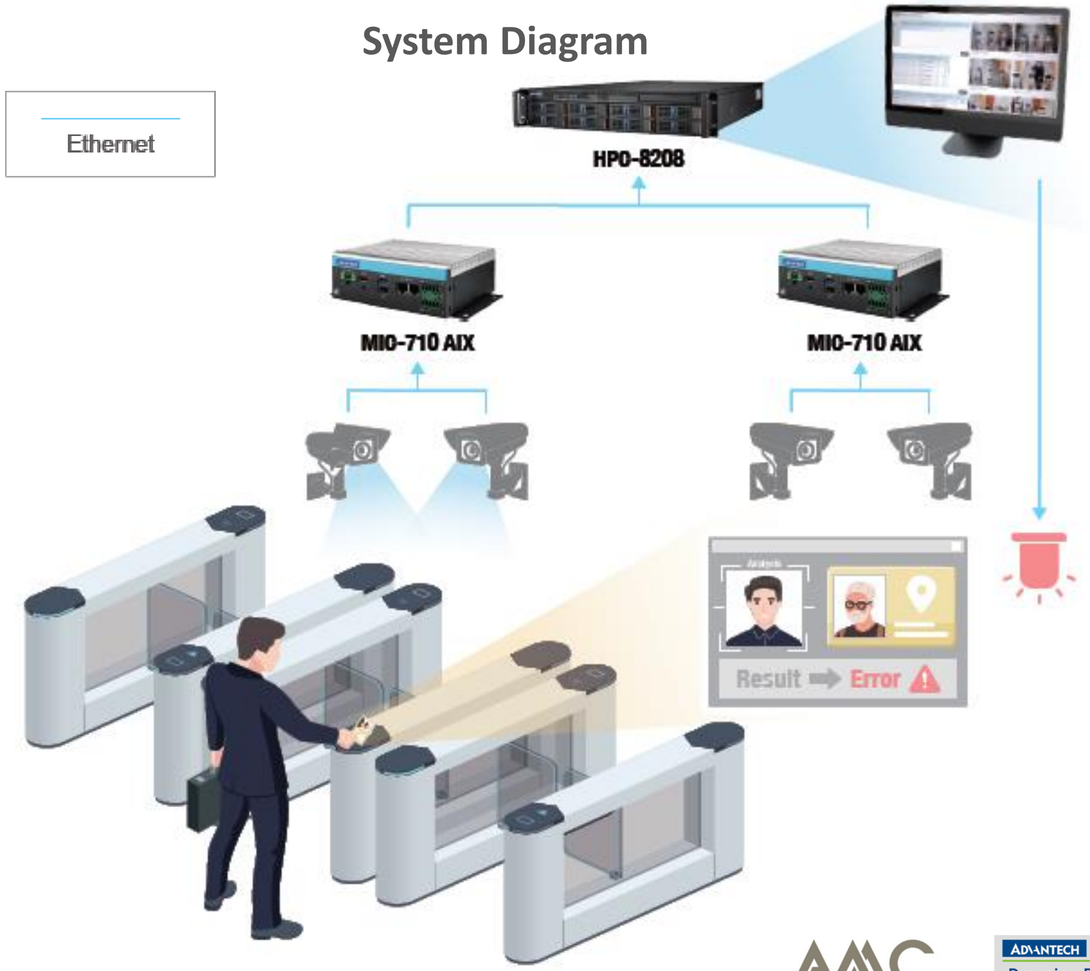
Solution:

- MIC-710AIX, MIC-720AI, and HPC-8208 Edge Inference
- CCTV, automatic alarms
- Age Inference and pose profile estimation

Benefits:

- The solutions delivered high accuracy, and minimized the risk of false recognition.
- This hardware solution provided high processing capabilities, which ensured functionalities during rush hour.

System Diagram



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Robust AI Edge Platform Safely Guards Railway Crossings

Case Study 3

Location:
Taiwan

Company:
IronYun USA Inc

IRONYUN

Overview

A railway operator sought to enhance safety at level crossings by implementing an automated monitoring system capable of real-time object, pedestrian, and vehicle motion detection, aiming for 99.9% accuracy without human intervention.

Challenges / Requirements:

The railway crossing solution needed reliable performance across varied weather conditions and terrains, integrating edge computing, AI analytics, and 5G for accurate real-time monitoring and hazard alerts.

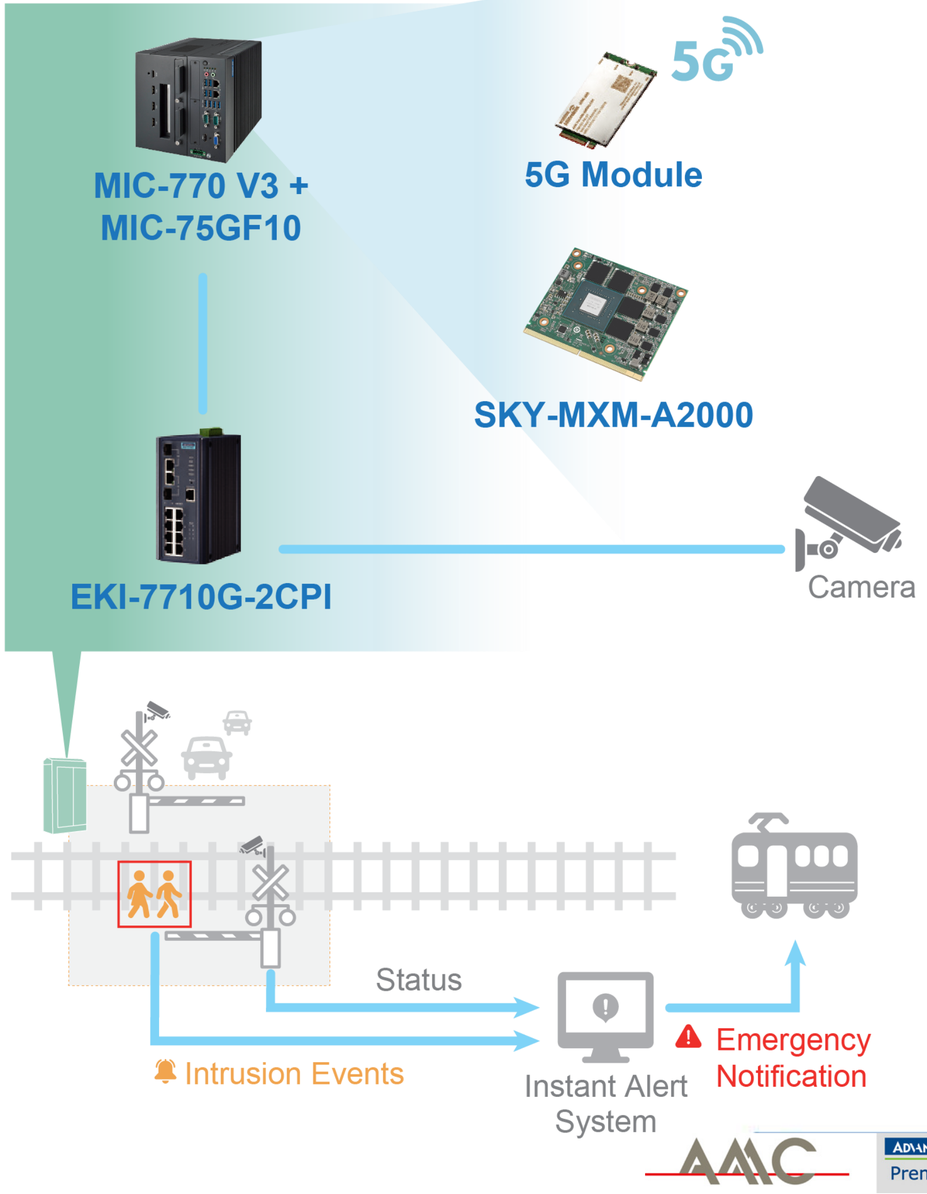
Solution:

Advantech collaborated with IronYun USA, leveraging their VAIDIO AI Vision platform alongside Advantech's industrial-grade edge AI platforms. This integration facilitated swift identification of objects, people, and vehicle movements, achieving continuous, automated monitoring of railway crossings with high accuracy.

Benefits:

- **Enhanced Safety:** Real-time monitoring and AI analytics address driver blind spots at railway crossings, rapidly identifying hazards and providing instant alerts to prevent accidents.
- **Operational Efficiency:** Reliable edge computing quickly processes camera feeds and sensor data, improving response times, reducing manual intervention, and increasing overall crossing management efficiency.

System Diagram



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Developing Cost-Effective Smart Solutions for the Transportation Industry

Location:
Thailand

Company:
IronYun USA Inc

Interview with:
Mr. Yongyuth Areerat, Managing Director, Sam Technology Support Co.,Ltd

Overview

Thailand's Ministry of Transportation needed a smart toll transportation solution with surveillance and classification of vehicles, to help improve traffic flow and face management challenges effectively.

Challenges / Requirements:

- The smart toll stations need industrial-grade computers to be resistant to climate conditions, easy to maintain, durable, cost-effective, and adaptable.
- It was important that industrial-grade technology continues to support legacy technologies such as ISA cards and various other options.

Solution:

- Advantech IPC-6606 wallmount chassis with ISA cards were installed at the toll stations to control the barriers and sensor systems of toll points.
- IMC-390 transmits and receives images via optical fiber in real-time by getting signals at the toll point through the EKI-9226G port.

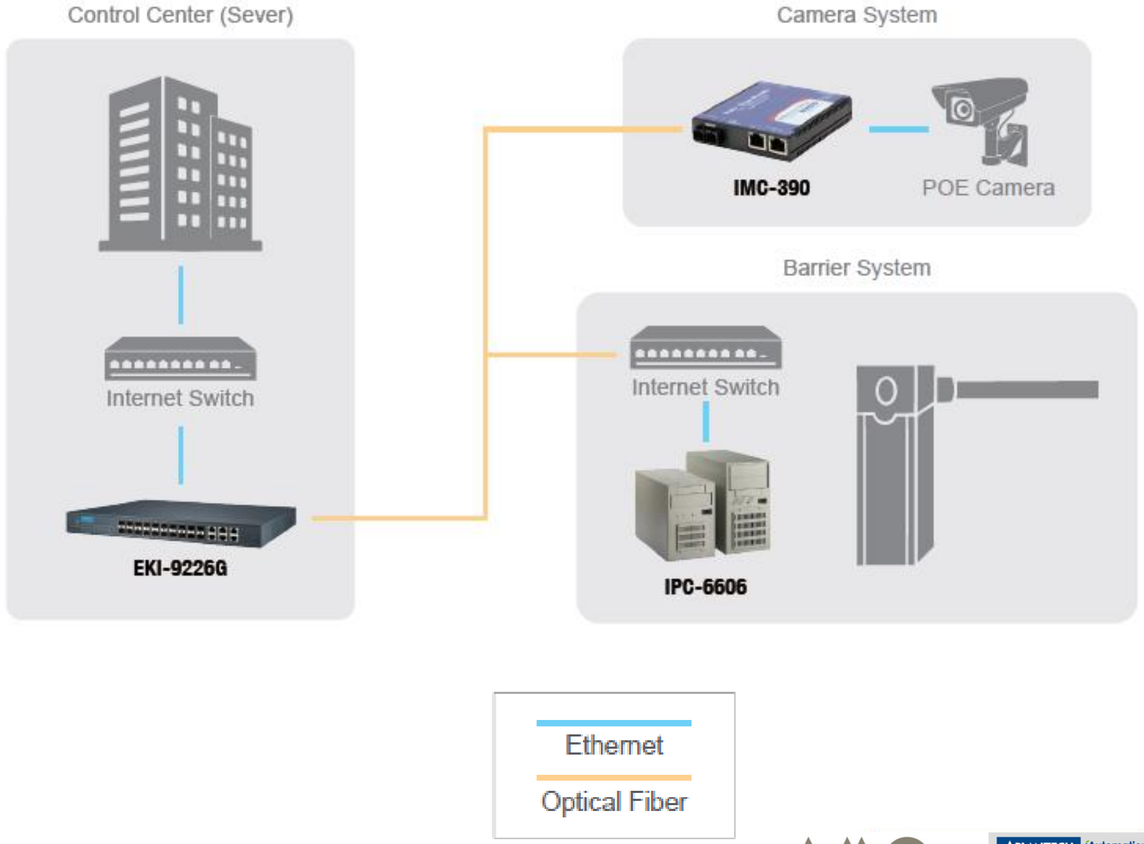
Benefits:

- The simple-to-maintain solution was compatible with existing technologies and the solution increased operating efficiency by 50%, leading to cost savings of 20% and a 30% improvement overall.

"Advantech provides diversified products and solutions that are resilient and adaptable to apply in various projects."

Mr. Yongyuth Areerat, Managing Director, Sam Technology

System Diagram



Premier Partner

Advantech Supports VinBus Intelligent Bus Solutions to Reduce Carbon Emissions

Overview

To support Vietnam's transition to greener urban transportation, a leading public transportation operator partnered with Advantech to implement an intelligent electric bus management system. The goal was to improve operational efficiency, reduce carbon emissions, and provide a safer, smarter commuting experience across major Vietnamese cities.

Challenges / Requirements:

- Analyze and record driver behavior and blind spot detection for better fleet management
- Overcome harsh conditions such as strong vibrations, high temperatures, and ensure voltage protection
- Integrate in-vehicle devices and transmit real-time data to support vehicle management

Solution:

Advantech's TREK-60 serves as a rugged in-vehicle hub that supports real-time GPS tracking, driver behavior analysis, and AI-powered ADAS integration using onboard cameras. Engineered for harsh conditions, it features wide-temperature operation, anti-vibration design, automotive power protection (ISO 7637-2 compliant), and IP-rated I/O ports. Its robust connectivity via 4G and Wi-Fi ensures seamless data transmission for effective fleet monitoring and vehicle management.

Benefits:

- Enhanced fleet efficiency through real-time tracking and centralized data management
- Improved driver safety with AI-based ADAS alerts and behavior monitoring
- Increased system durability thanks to automotive-grade rugged design
- Reduced maintenance and operational costs through predictive insights and remote diagnostics

System Diagram

AMC

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Enabling Autonomous Mining Solutions with Advantech Rugged In-Vehicle Solutions

Overview

Komatsu, a global leader in construction and mining, is advancing digital transformation through AIoT and autonomous technologies. Partnering with Advantech, the company integrated rugged edge computing and AI analytics into its equipment to enhance autonomy, boost operational efficiency, and improve safety—paving the way for smarter, more automated job sites.

Challenges / Requirements:

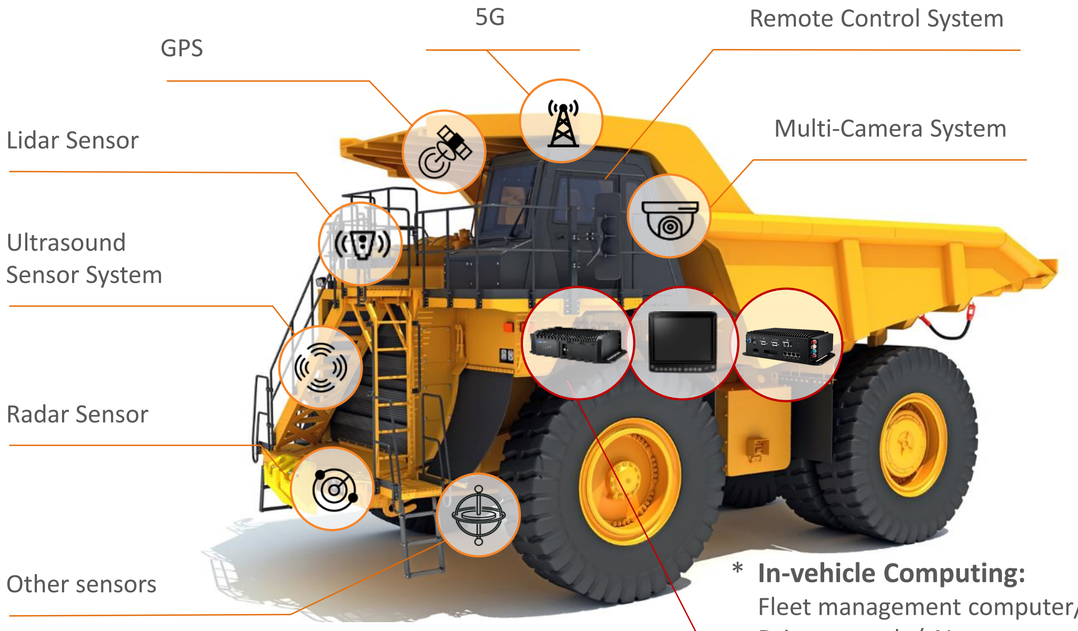
- Process large volumes of sensor and video data in real time
- Maintain stable system performance in harsh environments (dust, vibration, wide temperatures)
- Enable autonomous and remote operation of machinery
- Ensure compatibility across different vehicle models and systems
- Support long-term, reliable operation in remote areas

Solution:

Advantech provided a rugged TREK in-vehicle platform for Komatsu's semi-automated construction equipment to realize features such as 3D modeling manipulation and graphical user interfaces. Advantech also provided ultra-rugged DLT computers to Modular Mining, a Komatsu subsidiary providing operation optimization systems for the mining industry, and to Komatsu's Autonomous Haulage System, the world's first autonomous driving system for large mining dump trucks. Advantech's application-oriented middleware and software also enhances Komatsu's productivity. With the assistance of semi-automated equipment, management has been able to lower the investment criteria for operators.

Benefits:

- Enabled real-time data and AI analysis to support autonomous operation and enhance productivity
- Improved operational visibility for faster, data-driven decisions
- Reduced equipment downtime through predictive maintenance
- Extended system uptime through rugged hardware design and intelligent power management software (voltage protection and controlled startup/shutdown etc.)
- Enhanced site safety with intelligent monitoring systems



- Temperature
- Gravity / Gyro / Compass/ Accelerometer
- Proximity

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EN 50155 / E-Mark Compliant Systems

EN 50155 Rolling Stock Systems

EN50155

EN45545

ITA-560
Edge AI Inference Box Computer
(NVIDIA® Jetson™)

ITA-580
Edge Application Box Computer
(Intel® Core™)

ITA-580G
Edge AI Inference Box Computer
(Intel® Core™)

CPCI-S CPU Boards
Intel® Core™ / NVIDIA® Jetson™

ITA-510
Edge AI Inference 1U Rackmount
(NVIDIA® Jetson™)

ITA-520
Edge Application 2U Rackmount
(Intel® Core™)

ITA-520G
Edge AI Inference 2U Rackmount
(Intel® Core™)

MIC-330 V2
3U CPCI-Serial 19" System
(Intel® Core™)

ITA-8100
10.4” LCD Touch Panel PC
(Intel® Atom™)

ITA-7220
22” LCD 400 nits Brightness Panel PC
(Intel® Celeron™)

EKI-6333AC
IEEE 802.11 a/b/g/n/ac Wi-Fi AP/Client

EKI-1652WT
IEEE 802.11 a/b/g/n/ac, M12 Wi-Fi/LTE Router

EKI-9512E
12-Port Ethernet Train Backbone Router

EKI-9528
28-Port L2 Managed (PoE) Switch

EKI-9520H
20-Port L2 Managed (PoE) Switch w/10G

EKI-9510E/G
10-Port L2 Managed (PoE) Switch

E-Mark In-Vehicle Systems

E13

IT PT

EKI-9508G-ST
8-Port L2 Managed (PoE) Switch

TREK-60/60N
Modular Rugged AI System
(Intel® / NVIDIA® Jetson™ optional on 60N)

DLT-V73/V73A
10” / 12” Rugged Vehicle Mount Computer
(Intel® / Qualcomm®)

AIM-75S/68S
8” / 10” Tablet with Vehicle Docking
(Intel® / Qualcomm®)

EKI-2708G-PI
8 GE PoE Unmanaged Switch

TREK-50N
Rugged AI Computer
(NVIDIA® Jetson™)

TREK-773
7” Rugged Compact Computer
(Intel® Atom™)

TREK-20
Rugged Android Computer
(Qualcomm®)

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Comprehensive Industrial IoT Solution & Offerings

High Performance Computing

HPC-7420
Short-dept Rackmount Server with ATX/ EATX/ EE-ATX Server Board

HPC-8208
Edge Storage Server with ATX / EATX Motherboard

ACP-4340
4U Rackmount IPC with ATX / uATX Motherboard

IPC-7130
Desktop/Wallmount IPC with ATX / uATX Motherboard

GPU Accelerator & Edge AI

SKY-640 V2
4U Rackmount Scalable GPU Server
(Intel® Xeon®)

GPU Cards
Embedded GPUs
RTX GPUs
Data Center GPUs

MIC-733
Compact Fanless Edge GenAI System
(NVIDIA® Jetson™)

MIC-717
AI NVR Solution with NVIDIA Metropolis Microservices

Edge Computing

ITA-178
Compact Controller for Station Self-Service

**EN 50121-4*

ITA-260
Compact Controller for Wayside & Roadside

UNO-148 V2
Ultra-Compact DIN-rail PC-based Control Edge

MIC-770 V3
Modular IPC with Advantech i-Module MIC-75G20

HMI Edge

PPC-315
Fanless All-in-One Slim-Bezel Panel PC

TPC-115W
Web-Browser Terminal with Arm® SystemReady IR Certificate

FPM-221
ErP Certified Ruged Industrial Monitor

UTC Display
All-in-One Touch Computers & Kiosks

Connectivity

EKI-8528
19" Rackmount L3 Modular Managed Switch

EKI-7428
24G+4G Combo Port L2 Managed Switch

EKI-7710G
8G+2G Combo Port L2 Managed Switch

**IEC-62443-4-1 / IEC-62443-4 -2 / EN 50121-4*

ICR-4461
5G & LTE Advanced High Speed Router

I/O & Camera

AMAX-5580
Control IPC With EtherCAT Slice IO Expansion

ADAM-5000/TCP
PC-based Programmable Controller

ADAM-6217
Ethernet Remote I/O with Cloud Management

ICAM-540
High-End All-in-One Indusrial AI Camera

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Vertrieb durch AMC

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