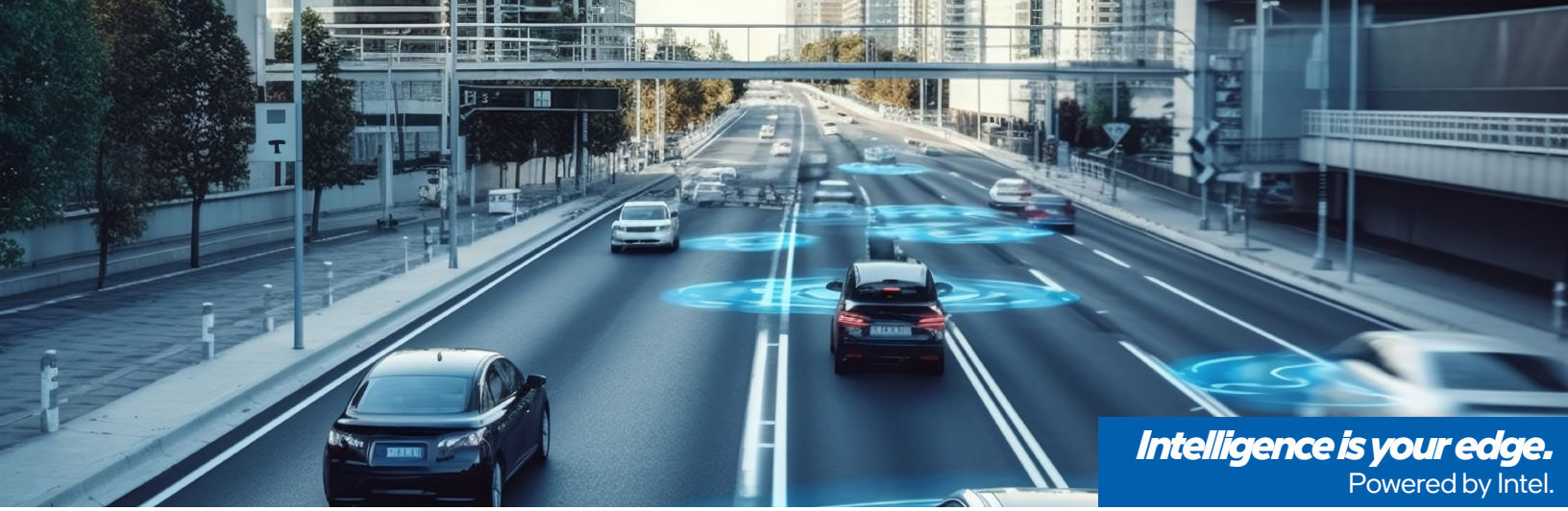


JHCTECH x intel®

Future-Ready Intersections for Smarter Mobility

Written by JHC Tech Team

Smarter Roads Start at the Edge

How do you enable real-time traffic intelligence in one of China's most advanced autonomous driving testbeds? In a major smart mobility pilot zone located in Shanghai, the answer lies at the edge. By integrating advanced AI computing directly into roadside cabinets across 50 intersections, JHCTECH helped a leading local implementation agency push the boundaries of intelligent transportation — one intersection at a time.

How JHCTECH Powered Shanghai's Holographic Intersections with Edge AI

A national-level demonstration zone for smart mobility was established in Shanghai to support the development and testing of autonomous driving technologies. Designed to integrate closed-track testing with 5G+MEC+V2X open-road deployment, the initiative includes plans for 50 "holographic intersections." The project required a rugged, real-time edge computing platform capable of handling multi-sensor fusion in harsh outdoor environments.

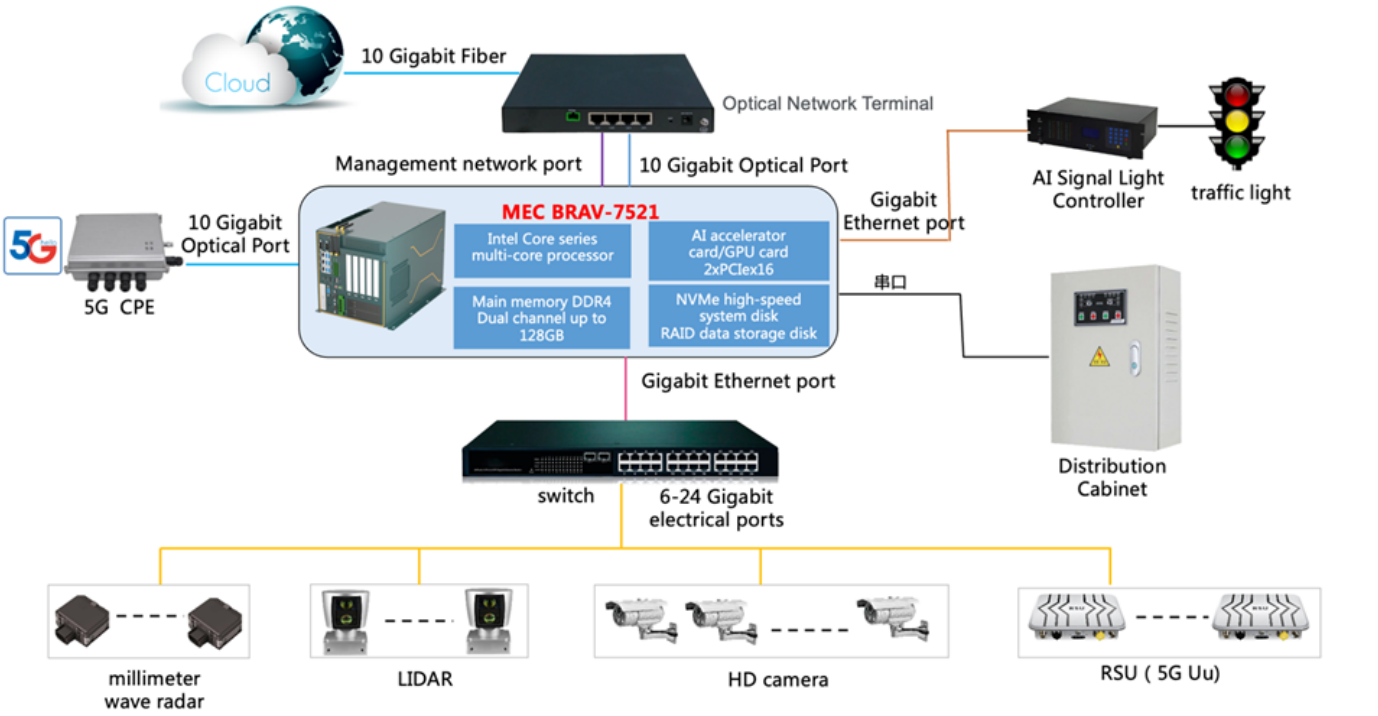
Challenges

- High-performance edge computing required for fusing camera, LiDAR, and radar data in real time.
- Harsh deployment conditions with wide temperature variation and environmental interference.
- Stable and low-latency communication required via 5G CPE and 10GbE fiber.
- Flexible AI support for structured analysis, point cloud processing, and sensor fusion.

Solution: BRAV-7521/S001 Edge AI Computing Platform

JHCTECH deployed its rugged, high-performance edge computing system — BRAV-7521/S001 MEC Unit — across all 50 holographic intersections. Powered by Intel® Xeon® E processors or 9th/8th Gen Intel® Core™ processors, the system provides real-time inference and computing with:

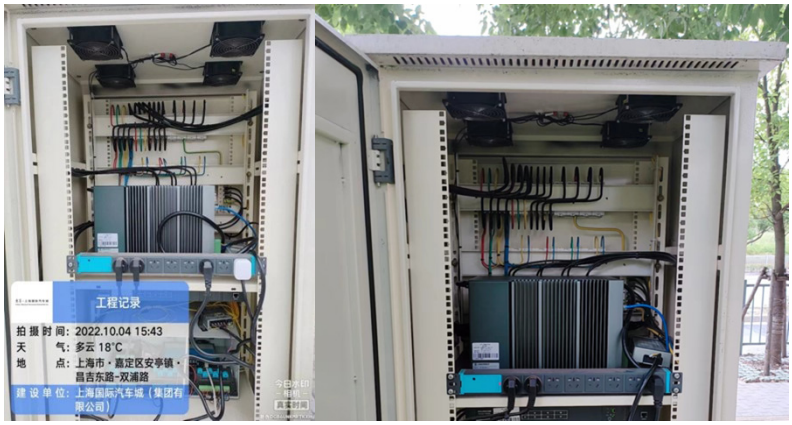
- 8-core / 16-thread CPU + 64GB DDR4 RAM
- Up to 238 TOPS AI acceleration performance
- 10GbE fiber ports for high-speed data transfer
- Connectivity to LiDAR, mmWave radar, and HD cameras
- Fanless CPU and actively cooled AI/GPU modules for industrial wide-temperature operation



MEC Architecture diagram of JHCTECH holographic intersection

This robust MEC solution supports AI-powered structured data analysis, point cloud processing, sensor fusion, and reliable communication with the 5G CPE base stations at each intersection.

Deployment Results and Scalability



- Successfully deployed across 50 holographic intersections in a major smart mobility pilot zone in Shanghai.
- Enhanced urban traffic monitoring, event detection, and system responsiveness.
- Proven deployment in other national pilot zones including Wuxi, Beijing Shunyi, Guangzhou Bio Island, Tianjin Xiqing, and the 'Four-Cross' national-scale V2X interoperability tests.
- Demonstrated maturity of domestic edge AI in smart transportation applications.

Conclusion

By deploying the BRAV-7521/S001 edge platform, JHCTECH enabled real-time perception and processing at each intersection, enhancing traffic efficiency and safety. This deployment not only serves as a cornerstone for autonomous driving but also proves the scalability and reliability of edge computing in intelligent transportation systems.

Visit Us

Want to learn how JHCTECH can support your smart transportation initiatives? Visit our website or contact our team to explore edge AI computing tailored to your project.

Partner Name

JHCTECH

Learn More

BRAV-7521
AI Computing System

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