#B21

#Safety & Security #Accessibility

Achieving both real-time data transmission and cost-efficient transfer of high-volume data

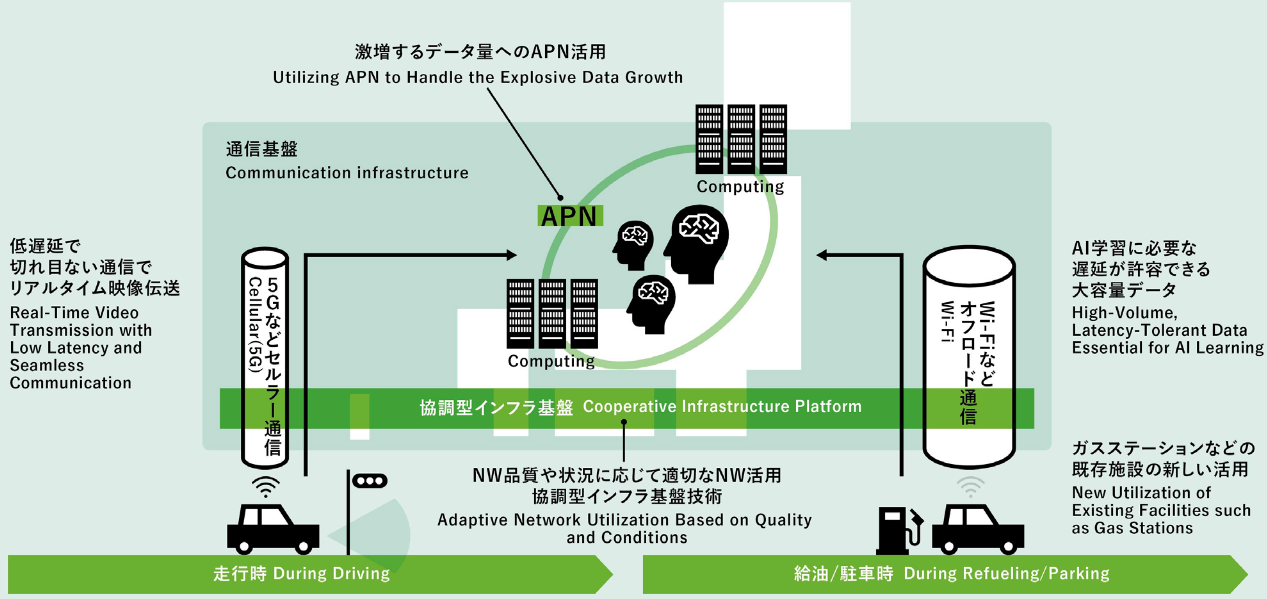
Communications infrastructures to supports mobility AI

Background and Technical Challenges

Advancing autonomous driving requires extensive collection and processing of vehicle big data. However, relying solely on conventional cellular networks poses challenges in accommodating data with varying latency requirements due to bandwidth limitations and congestion-induced delays.

モビリティAIを支える通信基盤

Communications Infrastructures to Supports Mobility AI



激増するデータ量へのAPN活用
Utilizing APN to Handle the Explosive Data Growth

通信基盤
Communication infrastructure

APN

Computing

Computing

低遅延で
切れ目ない通信で
リアルタイム映像伝送
Real-Time Video Transmission with Low Latency and Seamless Communication

5Gなどセルラー通信
Cellular (5G)

Wi-Fiなどオフロード通信
Wi-Fi

AI学習に必要な
遅延が許容できる
大容量データ
High-Volume, Latency-Tolerant Data Essential for AI Learning

協調型インフラ基盤 Cooperative Infrastructure Platform

NW品質や状況に応じて適切なNW活用
協調型インフラ基盤技術
Adaptive Network Utilization Based on Quality and Conditions

ガスステーションなどの
既存施設の新しい活用
New Utilization of Existing Facilities such as Gas Stations

走行時 During Driving

給油/駐車時 During Refueling/Parking

R&D Goals and Outcomes

By leveraging Cooperative Infrastructure Platform and implementing multipath and QoS control that integrates multiple wireless networks, we establish a communication platform that efficiently collects vehicle big data and supports mobility AI.

Key Technologies

01 Core Technologies

Multipath and QoS control across cellular and Wi-Fi networks optimizes data transmission based on vehicle data characteristics and link quality, enabling efficient collection of both low-latency and high-volume data.

02 Key Differentiators

Achieving both real-time data transmission and cost-efficient transfer of high-volume data through dynamic multipath control and QoS management.

Use Cases Mobility & Transportation

R&D phase Business

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NTT IOWN Integrated Innovation Center

【Contact】
NTT IOWN Product Design Center

【Co-exhibitors】
AECC（Automotive Edge Computing Consortium）

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