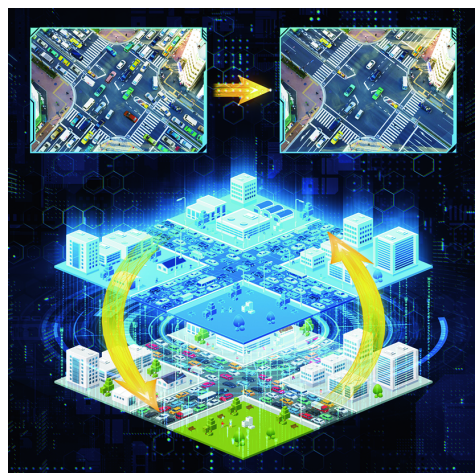


New traffic management with 4D digital platform

IOWN Evolution Smart City that Enables Overall Optimization



Background

As one of the key elements of Digital Twin Computing, a part of NTT's Innovative Optical and Wireless Network (IOWN) initiative, we intend to develop 4D digital platform which integrates various sensing data in real time and enables future predictions.

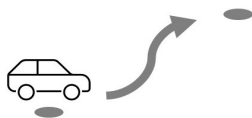
Summary

Aiming to apply 4D digital platform to the transportation domain, we are studying the realization of a new transportation management system using digital technology (it is also considering trials at the Osaka-Kansai Expo in 2025 and other events).

Digital Twin Computing for Transportation

- Simulate real-time traffic flows by Multi-Agent Simulation.
- Evaluate transportation management policies and optimize that.

Forecasting transportation demand reflecting recent traffic trends



Forecast **urban-scale transportation demand** considered sensor data for the last few days and similar days.

Adjustment based on real-time traffic data

Sensors Car Probe



Adjust simulation results based on real-time traffic data (= **Data Assimilation**).

Implementation of optimal transportation policies



Simulate the result of transportation policies and optimize that. Provide users with **behavior recommendations that suit each user**.

Features

- Origin - destination demand estimation based on people's location and schedule information
- Traffic flow reproduction based on origin - destination demand
- Behavior modification based on individual attribute information and origin - destination tendencies

Future_benefits

Realization of new traffic management that emphasizes both the diverse mobility needs of individuals and the rectification of urban road traffic.

Exhibiting Company

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