

August 28, 2024

## Subaru Installs Local 5G Network at Test Course, Begins Testing Cooperative Driving Automation

Tokyo, August 28, 2024 – Subaru Corporation has installed a local sub-6<sup>\*1</sup> 5G standalone (SA)<sup>\*2</sup> network covering the entire circuit at Bifuka Proving Ground in the Subaru R&E Center (Hokkaido, Japan), and begun trialing cooperative driving automation.



Test vehicles driving on the circuit

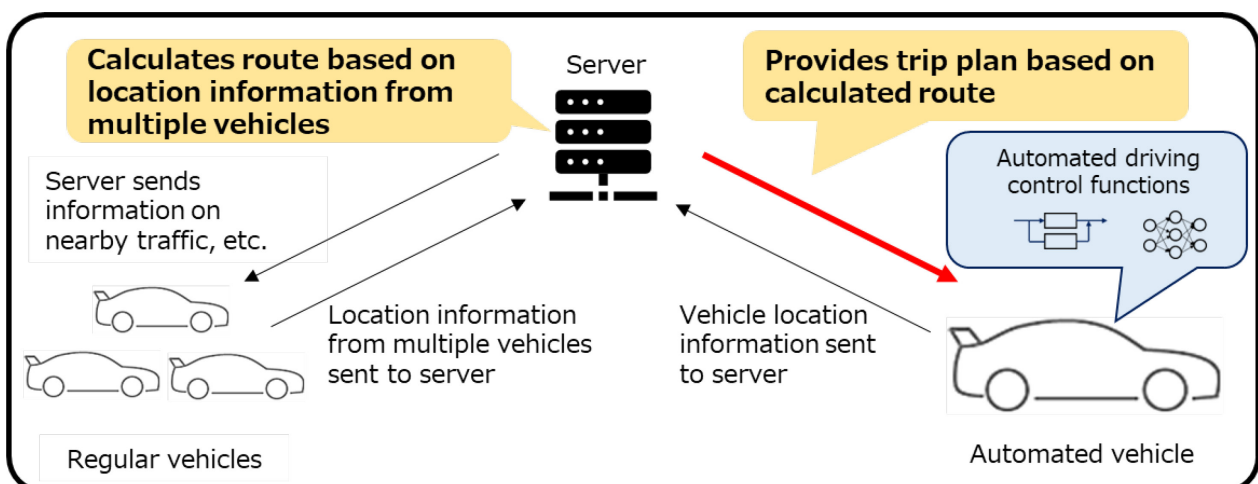


Local 5G equipment installed at the circuit

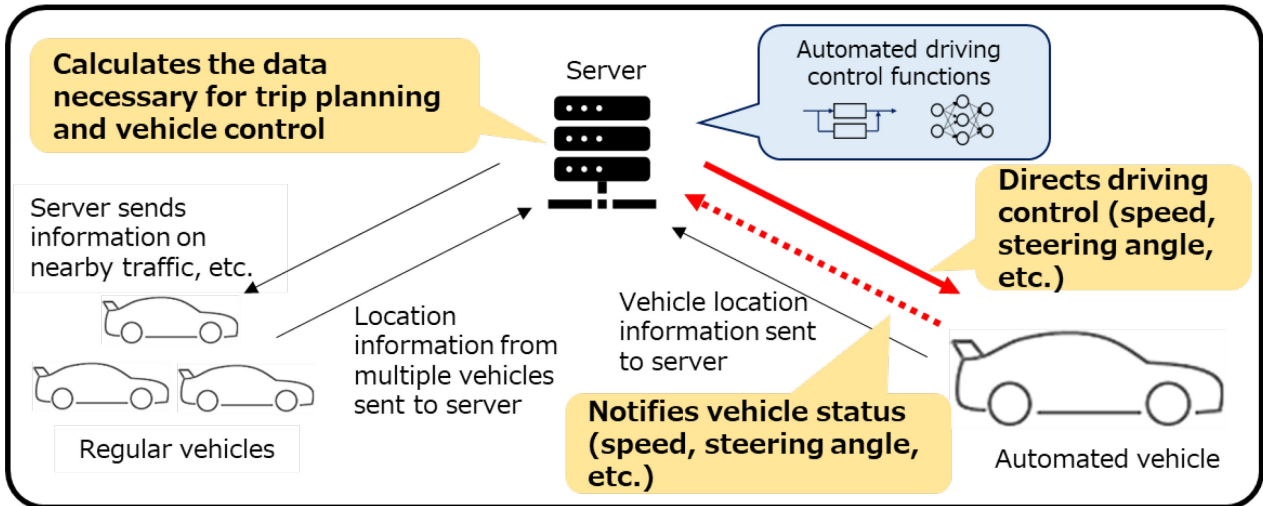
Chiefly tasked with overseeing advanced research, the Subaru R&E Center has previously worked on automated driving systems using mobile communications. This time, harnessing the high-speed, highly reliable connectivity environment provided by the local 5G SA network, the center has begun testing coordination control<sup>\*3</sup>, including merging and other maneuvers by multiple automated vehicles, and remote vehicle control<sup>\*4</sup>.

A total of seven sub-6 wireless base stations have been installed around the circuit course, enabling remote control for cooperative driving automation throughout the entire area. The equipment consists of the NOKIA Digital Automation Cloud (NDAC)<sup>\*5</sup> system from Nokia Solutions and Networks Japan G.K., with installation made possible by support from NS Solutions Corp. This is the first time a Japanese carmaker has set up a local 5G network at a test course.

Subaru will continue its R&D efforts to further reduce accidents and deliver “enjoyment and peace of mind” in the future mobility society.



Automated driving through coordination control



Automated driving through remote vehicle control

- \*1 : 5G infrastructure that uses spectrum below 6 GHz, offering greater coverage than mmWave with a single base station. High directivity and wide bandwidth enable high-speed, high-capacity data transmission.
- \*2 : 5G networks that can be set up and operated independently using only 5G, without requiring Mobile Network Operator (MNO) communication equipment or 4G for control signals.
- \*3 : The server calculates routes, etc., which are provided as trip plans to direct vehicles.
- \*4 : The server calculates the data necessary for trip planning and vehicle control, directing the vehicle's driving controls.
- \*5 : Local 5G standalone solutions offered by Nokia Solutions and Networks Japan G.K.

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