

# IMANAKA LAB.

## Toward Carbon-free Charging of Electric Vehicles



Department of Human and Social Systems  
Energy System Integration, Social Cooperation Program

Demand-side Power System Engineering

<http://www.ogimotolab.iis.u-tokyo.ac.jp/imanaka/index.html>

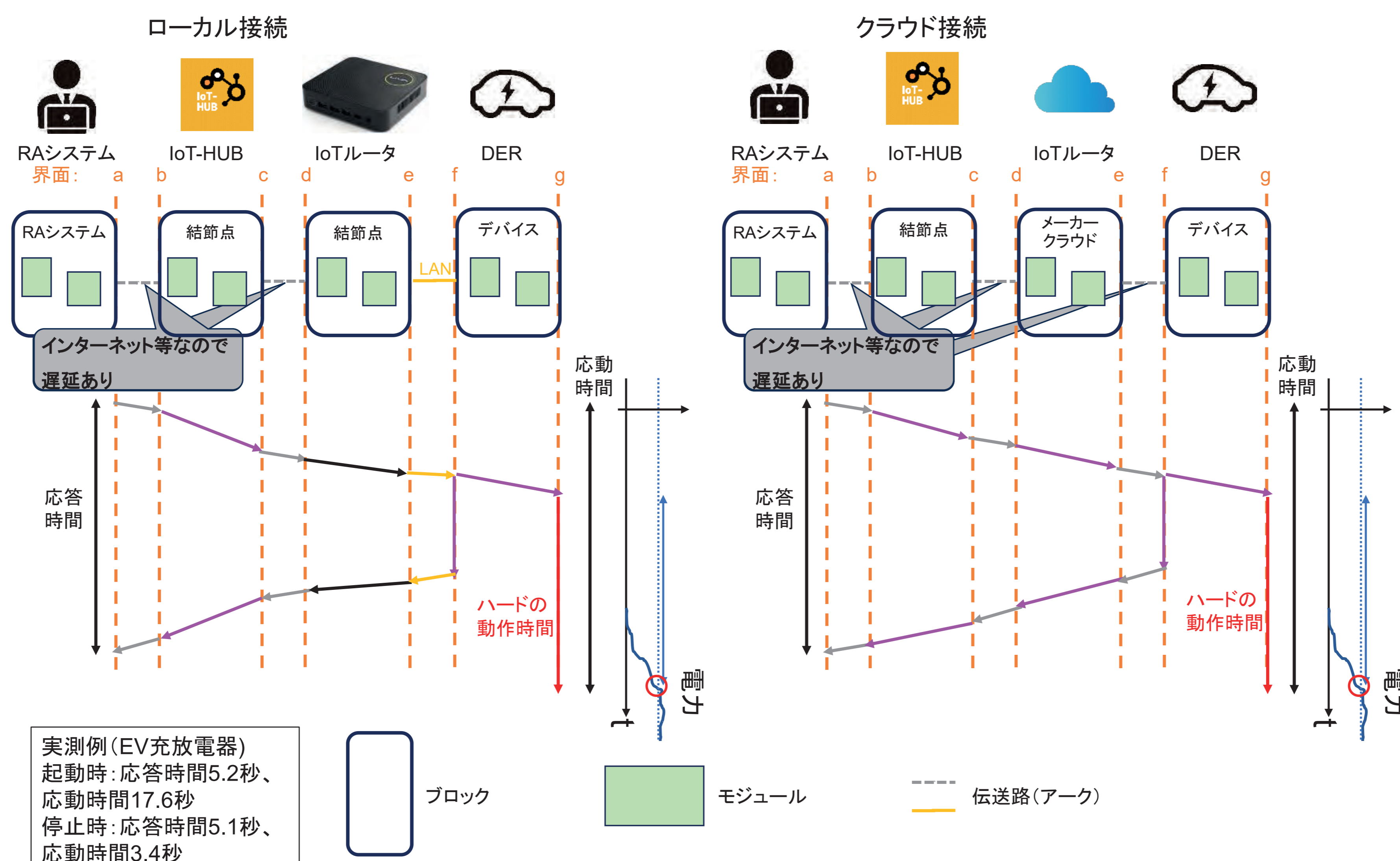
### Control EV charging according to power system condition with IoT

Electric vehicles (EV) need to be charged with renewable-rich electricity for decarbonization. Also, EV charging power should be reduced on power shortages. Our lab. researches and develops various EV charging services according to power system conditions using IoT-HUB. We constructed seamless system to deploy trial charging services to smart-phone app.. We also have made the reference model to describe both ICT and electrical delays of distributed energy resources (DERs).



EV charging testbed

App. for the seamless system



Model 0 of the reference model of DERs

