Social Systems

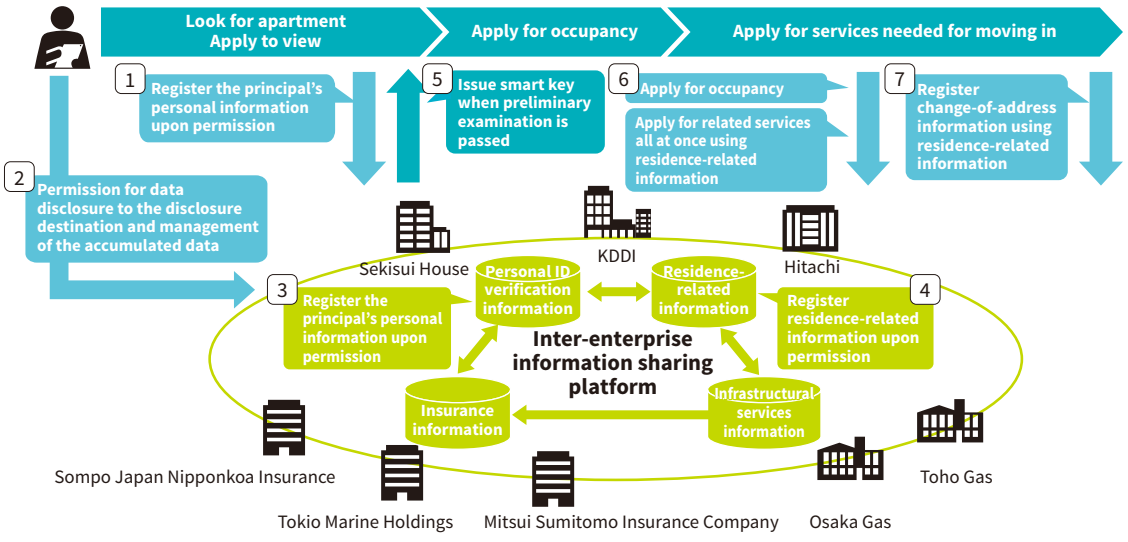
1 Blockchain-based Inter-enterprise Information Sharing of Real Estate Rental Contracts

With the aim of delivering enhanced new benefits and enhanced convenience for users, the Society 5.0 vision being promoted by the Japanese government calls for the establishment of platforms that utilize digital technology and data to enable the coordination of services and for data from one industry to be complemented by that from another through the sharing of information between companies.

Sekisui House, Ltd., KDDI Corporation, and Hitachi have since April 2019 been working on building an information sharing platform that operates as an intermediary between companies. The platform uses blockchain technology that, because of its characteristics of high availability and being difficult to tamper with, is well suited to the secure sharing of information between companies.

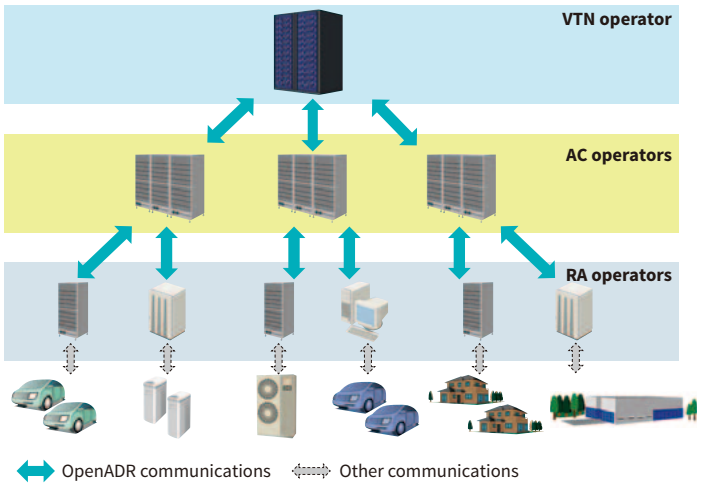
Working in partnership with Sompo Japan Nipponkoa Insurance Inc., Tokio Marine Holdings, Inc., Mitsui Sumitomo Insurance Company, Ltd., Osaka Gas Co., Ltd., and Toho Gas Co., Ltd., who joined the project in October 2019, a study was launched into lease contract simplification involving an inter-enterprise information sharing platform that includes simplifying such procedures as applications for new products or services; the commencement, suspension, or termination of such arrangements; and the notification of changes of address by using the identity verification information that has been passed on from preliminary examination (vetting) to the signing of the lease contract and linking it (with the consent of the person concerned) to administrative procedures for fire and earthquake insurance and energy infrastructure.

Further collaborative creation between the companies involved is planned in preparation for the inter-enterprise information sharing platform for real estate leasing entering commercial operation in 2020. The aim is to establish a consortium of companies in 2020 with the aim of recruiting further companies and organizations into the scheme to create an ecosystem that has value for both ordinary consumers and companies and to accelerate open innovation.



ID: identification

1 Overview of inter-enterprise information sharing platform



Hitachi Virtual Power Plant Solution users

- Package supply
  Supplied to 13 companies
- Supplied as SaaS (VTN service)
  Supplied to one company

(as of 2019)

2 Users of Hitachi Virtual Power Plant Solution

2 Joint Solution Service for VPPs Aimed at Electricity Companies, and Aggregation Coordinators

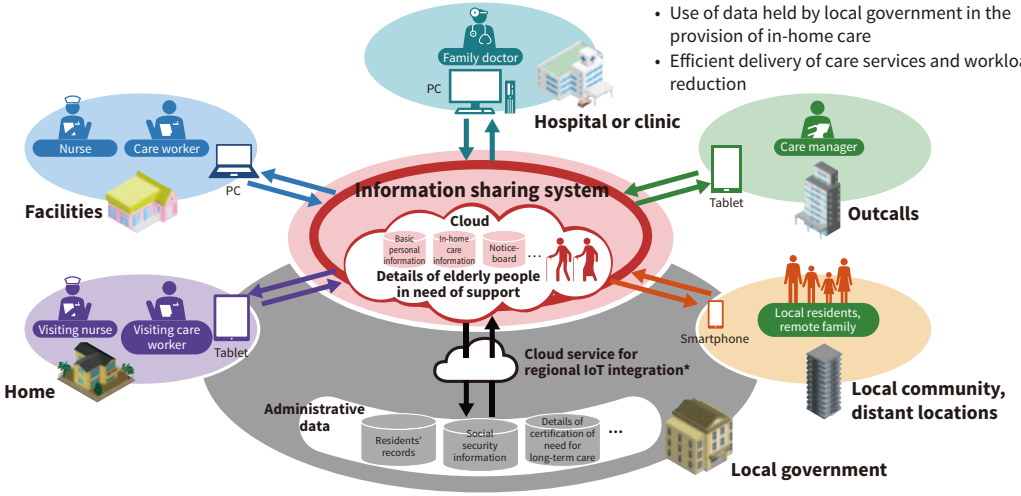
Virtual power plants (VPPs) are a way of using information and communication technology (ICT) to control and utilize distributed energy sources such as batteries and photovoltaic power generation as if they were a traditional power generation plant. A trial of their use to balance the supply and demand for electric power is already underway in Japan in the form of the Virtual Power Plant Construction Demonstration Project of the Ministry of Economy, Trade and Industry.

In 2017, Hitachi developed Hitachi Virtual Power Plant Solution as a joint solution package for VPPs that provides the core functions of a demand response automation server (DRAS), including communications using OpenADR, an international protocol for automated demand response (ADR). In the above demonstration project and elsewhere, Hitachi Virtual Power Plant Solution is used in the DRASs of the companies that operate as virtual top nodes (VTNs), aggregation coordinators (ACs), and resource aggregator (RAs). A software-as-a-service (SaaS) based on the package was also made available in 2019 and is being used in the DRAS of a VTN company.

3 ICT Solution for the Community-based Integrated Care System

Japan is confronting a variety of challenges associated with the simultaneous shrinking and aging

- Real-time sharing between different professions of information on elderly
- Use of data held by local government in the provision of in-home care
- Efficient delivery of care services and workload reduction



IoT: Internet of Things
* A service that provides access to cloud services from local government business systems on the Local Government Wide Area Network (LGWAN)

3 Overview of information sharing system, an ICT solution for a community-based integrated care system

of its population, including rising health care and nursing care costs and a shortage of support staff. In response, the government is encouraging the local and regional government entities that act as social security providers to establish a community-based integrated care system that suits the characteristics of their communities on the basis of local autonomy and initiative.

To provide ICT support for the development of this system, work is being done on providing an ICT solution for the community-based integrated care system that uses analysis to highlight community issues, strengthens coordination between different professions (including care managers, care workers, and family doctors) through information sharing, and encourages use of information held by local government in providing care. An information sharing system was launched in March 2019 in the form of an application for local governments and is being marketed widely.

There has been interest from a wide range of industries in the community-based integrated care system and ways of solving community issues. It is believed that greater use of new technologies such as artificial intelligence (AI) and the provision of services through cross-industry collaboration will contribute to new ways of providing places to live that push the boundaries at a time when people routinely live to 100 years of age.