Applying blockchain to facilitate cross-company data usage and launching a consortium to find new insights.

At a glance
Country: Japan
Industry: Real Estate
Founded: 1937
Website: www.mec.co.jp

Challenge
Mitsubishi Estate wanted to contribute towards society by redeveloping Tokyo’s Marunouchi area in the OMY district where its head office is located. Seeking to transform OMY into a business and innovation hub, the company wanted to establish partnerships across industries to help with urban renewal.

Solution
The project involved many organizations working together and Fujitsu provided a secure data environment as well as a cloud-based service platform to distribute and use data securely.

Benefits
- Participating companies can readily share data with each other
- Analyzing this data allows these companies to create new services and business models

“...to transform itself in response to changes in urban environments, we must collaborate with those in different industries to accelerate open innovation and generate new businesses. There are many things that we need to learn regarding ICT, and we expect Fujitsu, a company with strengths in this area, to teach us.”

Hiroshi Sano
General Manager, Open Innovation Promotion Office
Area Brand Management Department
Mitsubishi Estate Co., Ltd.
Customer

A comprehensive real estate developer, Mitsubishi Estate Co., Ltd. boasts the leading position in the Japanese market, operating a spectrum of businesses in diverse fields related to real estate, including an office building business centered on the Marunouchi district in central Tokyo, a retail property business, a residential business and a hotel business.

Products and Services

- FUJITSU Virtuora DX

Using the OMY district as an ‘open innovation field’ to promote urban development

By implementing attractive urban development projects, Mitsubishi Estate aims to contribute to society, while also redeveloping Tokyo’s Marunouchi area, where its head office is located.

Hirosi Sano, General Manager of Open Innovation Promotion Office explains, “Since the redevelopment of the Marunouchi Building in 2002, we have promoted the renewal in the Marunouchi area. We want it to become a district that is not only business-oriented, but also one that people are keen to visit.” He adds that his company’s business approach has evolved and now focuses on “creating urban environments that support modern lifestyles including shopping and sightseeing opportunities”.

After quickly noticing the changing needs toward this area, Mitsubishi Estate launched the field trial called ‘Marunouchi UrbanTech Voyager’ initiative in the OMY district in Tokyo in 2018. Seeking to transform OMY into a business and innovation hub, the company has established various facilities to promote interaction of people and companies across industries.

To transform the OMY area into an open innovation field, cutting-edge technology was required. Hiroyuki Okuyama, Senior Manager at Mitsubishi Estate’s Open Innovation Promotion Office, explains, “In the Marunouchi UrbanTech Voyager initiative, we identified three areas of focus: urban-development-friendly artificial intelligence (AI), IoT, and robotics. Together with our partners, we are now forging ahead with a proof of concept (PoC) aimed at resolving various societal issues.”

Using blockchain to make data sharing easy and to facilitate innovative collaborations

The OMY Data Utilization Project was launched in May 2018 as part of the Marunouchi UrbanTech Voyager initiative. The aim of this project is to use cross-company data from multiple industries to uncover new urban renewal ideas. At its inception, four entities were involved in the project. Mitsubishi Estate provided building’s power data and sales data of commercial facility regarding the OMY district. Softbank Corp., a leading mobile phone company and telecommunications service provider, supplied data on human movement behavior which Softbank Group Corporation holds.

The University of Tokyo’s Ohsawa Laboratory contributed its expertise related to analyzing the data collected. And Fujitsu offered an environment for sharing the data securely. The project identified three focal points which are energization of shops and commercial facilities, revitalization of tourism, and visualization and modeling of human movement behavior. The consortium then explored the possibility of data interchanges across multiple organizations. The information used in the PoC was actual historical data provided by the consortium members, with the data anonymized (personally identifiable information removed) prior to it being shared.

In addition, the project used Fujitsu’s Virtuora DX, based on blockchain technology, as a cloud-based service platform to distribute and use data securely. This enables to share information within the consortium members by incorporating mechanisms developed by the University of Tokyo’s Ohsawa Laboratory called a Data Jacket, generally encouraging data usage of different fields by sharing a summary of the information about the data and KeyGraph, visualizing the connections between data. These mechanisms help easily conceive new ideas through data usage.

Using cross-company and cross-industry data to co-create new businesses

The OMY Data Utilization Project started from the four project founders, and the number of the memberships finally enlarged to 12. Data Jacket information obtained by this project was shared among consortium members. During the PoC, some participants found it difficult to share data with other companies. Okuyama recalls, “It’s easy to assume that companies can readily exchange data among themselves. However, it proved to be difficult to analyze the raw data provided by each company. This was caused by differences in data granularity and data acquisition intervals. By enabling the data providers and data users to talk directly with each other, the participants gained insight into the contextual background and were able to use the data more effectively.”

Sano concludes, “To become a company capable of transforming itself in response to changes in urban environments, we must collaborate with those in different industries to accelerate open innovation and generate new businesses. There are many things that we need to learn regarding ICT, and we expect Fujitsu, a company with strengths in this area, to teach us.” Transcending the barriers between companies and industries, the consortium will continue sharing and using data to create new services and business models.

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