

# Workspace Solutions that Deliver a Better Experience for Office Workers

The national movement toward work style reform and the growth of working from home are adding to the diversity of ways and places in which people go about their work. This is also placing new demands on office buildings. As a result, commercial real estate companies are looking beyond merely ensuring that their buildings are appropriately equipped (hardware), also taking an interest in services that are tailored to needs of individual office workers (software). Hitachi, meanwhile, has set out to help enhance the QoL of office workers by generating new experience value in the workspace through solutions that are delivered to those office workers via commercial real estate companies. This article presents Hitachi's vision for such solutions and describes the work being done to develop this business, including a pilot project being undertaken in partnership with Hitachi Real Estate Partners, Ltd.

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## 1. Introduction

The growing diversity of ways and places in which people work has, over recent years, brought changes to the operating environment for commercial property (office buildings), including increased opportunities for working outside fixed offices. Moreover, it is anticipated that this diversity will continue to grow in the future, driven by factors such as the national movement toward work style reform in Japan and the nationwide growth of working from home as a means of preventing the spread of infection.

As the major providers of office buildings, each commercial real estate company is seeking to go beyond their traditional role of providing fully equipped buildings (hardware) to also offer enhanced services (software). One example is how such companies have taken an interest in services tailored to the people who work in their buildings, including

plans for services that seek to help individual office workers with convenience and productivity.

Meanwhile, Hitachi's 2021 Mid-term Management Plan identified the provision of services to office workers through intermediaries such as commercial real estate companies as a key focus for its building systems business, with the elevator/escalator and services businesses working in tandem to achieve this through the creation of new services that take advantage of digitalization.

## 2. Changing Environment for Office Buildings

### 2.1

#### Strong Market for Redevelopment

A series of major redevelopments are being planned to address the demand for office space in Japan, especially in the commercial districts of city centers, as reflected by the

record low vacancy levels across major cities as of the fourth quarter of 2019 (October to December). Factors underpinning this demand include: (1) Relocation and expansion prompted by corporate financial performance, (2) Efforts to improve corporate image to attract talent, (3) Ongoing work style reform, and (4) The establishment of shared offices and other co-working spaces.

Commercial real estate companies, meanwhile, have responded to this increase in available floor space not only by improving attractiveness of “hardware” features such as building facilities and convenience of location but also through increasing involvement in initiatives for enhancing “software” services aimed at providing spaces that support people in how they want to live and work.

## 2.2

### Changes in How People Work

The Act on the Arrangement of Related Acts to Promote Work Style Reform was promulgated in 2018 and led to reforms taking place at a historically unprecedented pace, including comprehensive and ongoing measures for reforming working practices nationwide. The following are three of the main fronts on which these reforms are taking place.

#### (1) Employment practices

The nature of employment itself has already started changing, including a rise in freelance employment and a removal of prohibitions on secondary employment. This contrasts with the lifetime employment and seniority-based salaries that have been a distinctive feature of Japanese companies.

#### (2) Working hours

Companies have given their support to flexible working practices that can adapt to suit employee lifestyles, with many adopting flex-time and other arrangements for discretionary working hours.

#### (3) Workspace locations

Along with the increasing diversity of employment practices and working hours, people are also being given greater choice over where they work. This is making work outside the office a more common experience, including the growth of working from home, the spread of new services such as shared offices and other co-working spaces, and the emergence of “workcations,” meaning to engage in work while staying at a holiday resort.

Changes are also occurring in what people want from their offices. While offices in the past have mainly been a place to get work done, to hold internal company meetings, and to receive visitors, they also have an increasingly important role as a venue for communication in ways that transcend the boundaries between companies in order to foster innovation and build ecosystems.

## 2.3

### Likely Future Trends

It is anticipated that the operating environment for office buildings will continue to undergo major changes. The spread of 5th-generation (5G) telecommunications, which began its roll out in March 2020, is likely to bring the real and cyber realms ever closer together, giving further impetus to the ability to work regardless of location. Even the need to go into the office to work will likely be called into question by the nationwide shift to working from home in order to help prevent the spread of COVID-19. Accordingly, the trend in future employment is expected to be toward greater diversity in when and how people work.

Meanwhile, strengthening the factors that determine the choice of building and its neighborhood is also likely to be critical. This means that commercial real estate companies are under more pressure than ever to adopt measures that will motivate people who are able to work wherever they want and to deliver greater value from working in an office.

## 3. Hitachi's Vision for Workspace Solutions

### 3.1

#### IT for Conventional Office Buildings

To help recruit and retain tenants, commercial real estate companies are introducing IT services such as reception systems, access control, digital signage, and meeting room booking system as a way of adding value to their office buildings. Unfortunately, because these services are only available to such building tenants or are based on the use of a card issued by the building (such as the identification cards used for access control), they do not provide the direct contact needed to offer new added-value services to individual office workers.

Moreover, because these are provided on a building-by-building basis, other problems include the tendency for services, once installed, to become obsolete over time or to result in the duplication of investment by commercial real estate companies as they develop services for individual buildings.

Given the growing diversity of where and how people work, two ways in which commercial real estate companies can add value to office buildings in response to these issues are: (1) The provision of services that are tailored to the needs of individual office workers, and (2) The provision of services that span multiple buildings managed by the company.

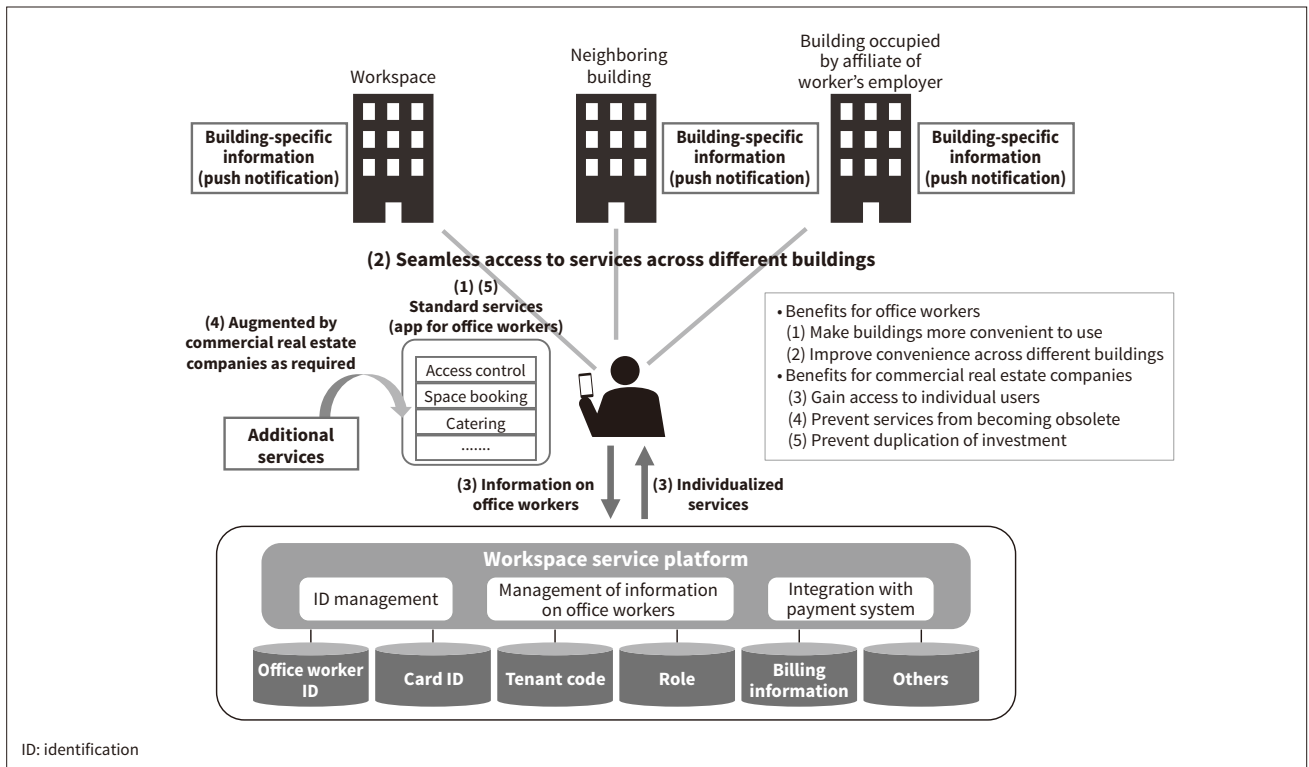
### 3.2

#### Hitachi's Vision for Workspace Services

To overcome the issues identified above, Hitachi is seeking to commercialize solutions that can provide commercial real estate companies with the infrastructure they need to:

**Figure 1 – Vision for Workspace Service Platform**

Through the provision of workspace service platforms, Hitachi aims to improve both convenience for office workers and revenue for commercial real estate companies.



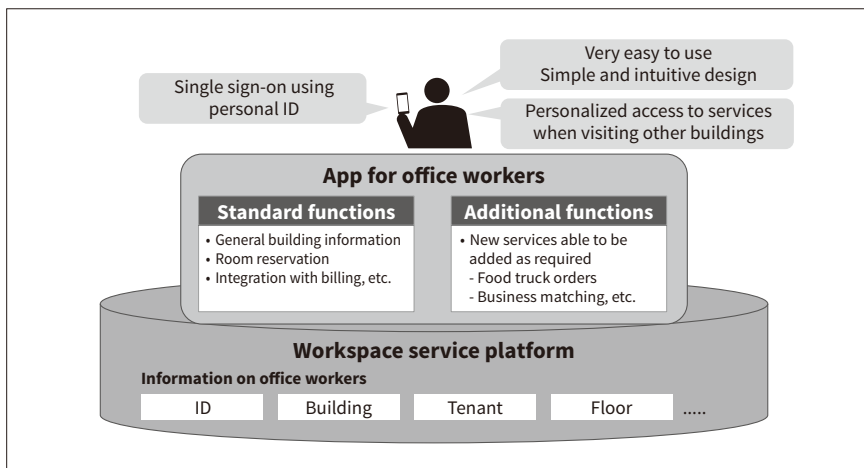
(1) Provide an environment for new services that have added value and relationship with individual office workers, and (2) Deliver services across multiple office buildings. For the office workers themselves, this involves utilizing technologies such as smartphones or web browsers to provide an environment in which they can enjoy seamless access to more attractive services in a way that, unlike in the past, enables new services to be introduced as needed and accessed across different buildings. Along with enhancing experience value and quality of life (QoL) for users, these solutions are also intended to increase commercial real estate companies' revenues. **Figure 1** shows how Hitachi envisages this working.

The target market for these solutions is not limited to only the commercial real estate companies that primarily manage office buildings. Hitachi is also looking to expand the scope of the solutions by offering them to other building owners and users such as railway companies.

3.3

**Overview of Workspace Solutions**

Hitachi's solutions for implementing the type of services described above include: (1) An app that provides enhanced experience value to office workers, and (2) A workspace service platform that facilitates service delivery in ways that are tailored to individual users. **Figure 2** shows an overview

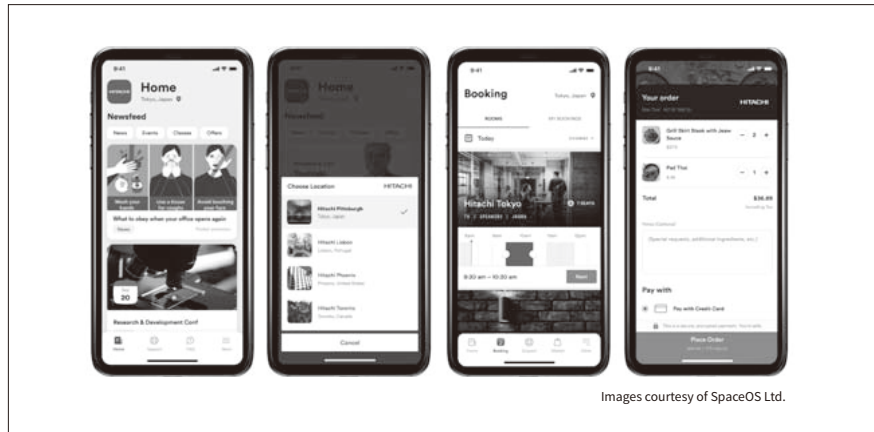


**Figure 2 – Service Overview**

Services can be delivered in ways that suit individual office workers by using an app in combination with a platform for managing user information.

**Figure 3 — Example App Screenshots**

The app features a user interface that is very easy to use.



Images courtesy of SpaceOS Ltd.

of the services.

(1) App providing enhanced experience value to office workers

The term “tenant experience” has risen in prominence in recent years, especially in Europe and America where use of shared offices and other co-working spaces is commonplace. This involves the enabling of new styles of working by providing services that use apps with excellent usability to forge communities among the people who work in office buildings, provide the means of booking spaces that users can use on a routine basis, and also to arrange catering. **Figure 3** shows example app screenshots.

**Table 1** lists the core functions that Hitachi anticipates will be incorporated into its app for office workers. It is intended that standard features in the app will deliver value by providing office workers with an environment in which they are able to access office building facilities more easily than they could in the past, improving the convenience of nearby hospitality businesses, and raising morale by holding events where people with similar interests can get together. This takes the form of a smartphone app that enhances experience value for office workers, with standard features being augmented with add-ons that make the building and its neighborhood more attractive.

(2) Workspace service platform that facilitates service delivery in ways that are tailored to individual users

Hitachi has experience with the implementation of a variety of different platforms, including those for public sector systems and social infrastructure. This experience

is now being put to use to provide a platform for the consolidated management of data on office workers to support the delivery of services to them via the smartphone app. By consolidating data that in the past has been managed in separate applications, this makes app functions available in an integrated manner while also supporting the delivery of new added-value services made possible by the centralized management of data on office workers (which floor and building they work in, the company they work for, and other relevant details). In particular, the aim is to provide greater convenience in ways that include giving people seamless access to a range of services through a single sign-on, enabling them to utilize services that are tailored to their particular needs while also managing authentication and authorities in accordance with the complex organizational hierarchies that are characteristic of Japanese companies.

### 3. 4

#### Work Toward Commercialization

In the lead up to commercialization of its workspace solutions, Hitachi is undertaking a pilot project in collaboration with Hitachi Real Estate Partners, Ltd., a group company that works in the real estate industry. Hitachi Real Estate Partners is engaged in creating leading-edge offices that promote work style reform and where the focus is on collaborative creation, innovation, and diversity. The pilot project is looking at two applications likely to be used on a daily basis: (1) Use of the event and communication functions of the smartphone app for interaction with other office workers,

**Table 1 — Typical Standard Functions**

The table lists some of the functions likely to be standard on the app.

Function	Description
Distribution of news and notices	Distribution and push notification of general building information and news
Event details and registration	Information about events and the ability to register through the app
Retail and service information	Details of shopping, hospitality, and other services in or near the building
Space and equipment reservation	Search for and reserve meeting rooms or equipment available for rent in the building
Catering orders and delivery arrangements	Food and drink delivery can be ordered from vendors in or near the building
Communications	Features such as chat between office workers or reporting equipment faults to the maintenance company

and (2) Use of the purchasing function at nearby restaurants.

Hitachi also intends to look at how well a news distribution function works for conveying information, such as in a scenario where an office building manager has information they need to get out to office workers. Hitachi companies will work together to identify the service delivery issues that arise for office workers, property managers, and service providers as they make use of the workspace solution on a daily basis, and also to make improvements to the services that people working in leading-edge offices expect. The plan is to utilize the knowledge and feedback obtained from this pilot project to roll out a commercial service during FY2020.

3.5

**Forging Ecosystems Through Cooperation with Other Stakeholders**

In terms of access to associated services, a steady stream of new services is becoming availability, including IT-based prop tech<sup>(1),\*1</sup> and smartphone apps for use in different areas of business. Rather than seeking to expand its workspace solutions on their own, Hitachi is looking at forging ecosystems with relevant stakeholders in order to incorporate different viewpoints.

Offering open solutions that allow for the creation of an ecosystem not only makes useful services available to both commercial real estate companies and office workers, it also means that other stakeholders can utilize the

\*1 The use of technology to generate value and provide ways of transforming existing real estate practices and addressing industry issues.

Hitachi platform to gain access to large numbers of users. For Hitachi itself, meanwhile, the participation of a large number of stakeholders on the platform has the potential to form a virtuous circle through the attendant network effects.

By adopting an open architecture for the solution, Hitachi hopes to expand the range of available services through active cooperation with other stakeholders.

**4. Creation of Services with High Added-value Through Facilities Integration**

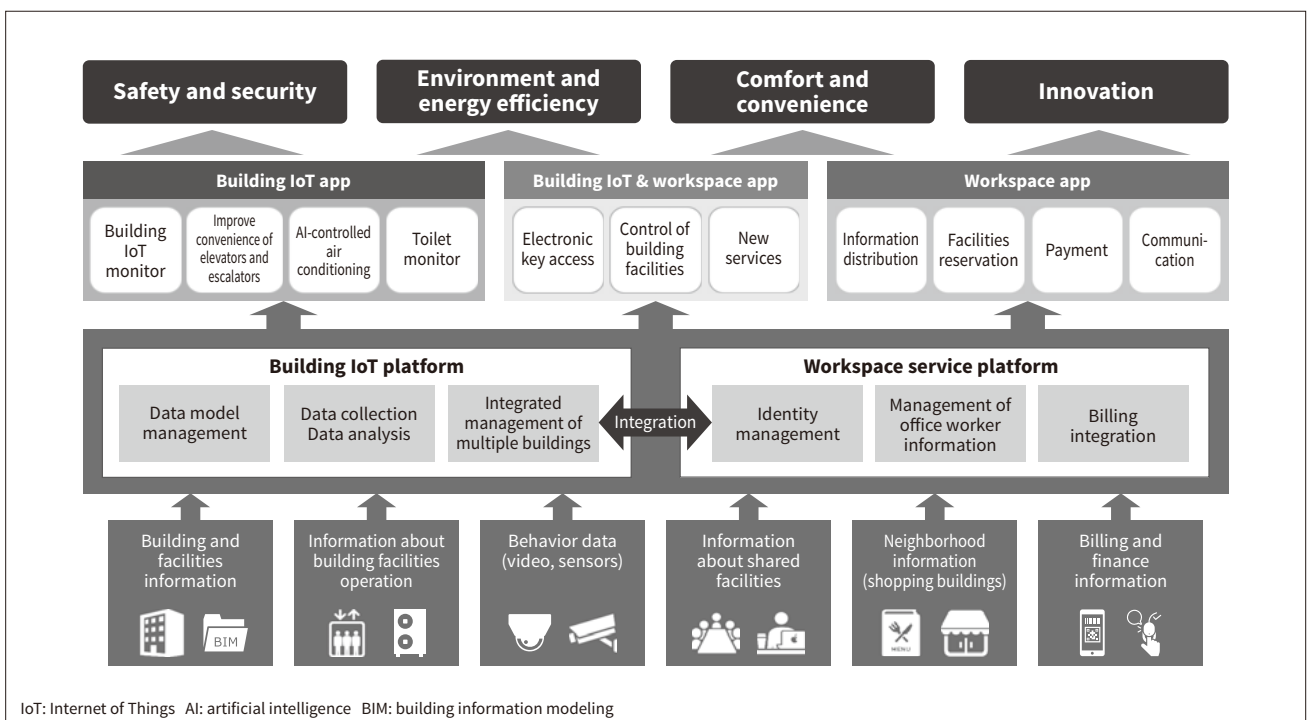
While this article has so far focused on solutions for office workers, another major trend in this sector is for the application of Internet of Things (IoT) solutions to entire buildings. In parallel with the rollout of its workspace solutions, Hitachi is also working on the development of building IoT solutions made up of a building IoT platform and the applications that run on it. These solutions are intended to interconnect with building facilities and can make use of a wide variety of IoT data. Integrating workspace and building IoT solutions enables the provision of services that are tailored to individuals, combining all of the equipment and spaces in the building (see Figure 4).

Such services are already becoming available. Examples include allowing office workers to control lighting or air conditioning from an app and the use of an app QR code<sup>\*2</sup>

\*2 QR Code is a registered trademark of Denso Wave Inc. in Japan and other countries.

**Figure 4 — Integration of Building IoT Platform with Workspace Service Platform**

Services that combine all of the equipment and spaces in a building and are tailored to individuals can be delivered by integrating the workspace service platform with the building facility interfaces and related information provided by the building IoT platform.



IoT: Internet of Things AI: artificial intelligence BIM: building information modeling



to unlock meeting rooms or other facilities based on reservations and payment details. It should also be possible to make office buildings touch-less and cash-less by combining building security systems that use facial recognition and hold information about users with other systems such as the billing and payment mechanisms used by retailers and vending machines. By utilizing location and other information about office workers, these solutions also have the potential to expand into a wide range of other areas in the future such as the use of robots.

## 5. Conclusions

Along with the government's promotion of its Society 5.0 vision for creating a "Super Smart Society," Japan is currently seeing considerable interest in the convergence of the cyber and physical worlds. This is also an area of considerable interest among large commercial real estate companies, with innovation and the active use of advanced technologies having been identified as management objectives.

Hitachi is seeking to improve the QoL of people who work in office buildings through the use of workspace solutions to generate new experience value. By combining IT solutions for the workspace and building IoT with its expertise in operational technology (OT) for building facilities built up over many years, Hitachi is also continually striving to create services with greater added value that are tailored to the needs of individuals.

While the impact of COVID-19 on the market was still unclear at the time of writing, major changes are anticipated in the circumstances surrounding office buildings and the people who work in them. Hitachi intends to do its utmost to improve social value while also responding with flexibility to this changing environment.

### Reference

- 1) Real Estate Tech Association for Japan, "Real Estate Tech: Chaos Map" in Japanese, <https://retechjapan.org/retech-map/>

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