

Social and Public Sector Systems

1 Flexible Permissions Management Using Office Worker Service Platform

The emergence of a “new normal” along with the working style reforms of recent years have been accompanied by greater diversity in how office workers go about their work. Hitachi’s office worker service platform was developed to cope with the wider variety of ways in which offices and business applications are used.

The office worker service platform manages the identities (IDs) of employees and their associated attributes (place in organizational structure, qualifications, etc.) to provide the infrastructure for offices and the application services that companies provide. The platform also provides permissions management functions that can adapt flexibly to changes in employee attributes, taking account of things like internal transfers and where an employee is located, using these attributes as a basis for determining roles (what they are permitted to do). This addresses the increasingly diverse ways in which staff work, making the applications that use the platform more convenient by assigning appropriate permissions based on location and employee attributes, thereby helping to improve the services provided by office buildings and other workplaces.

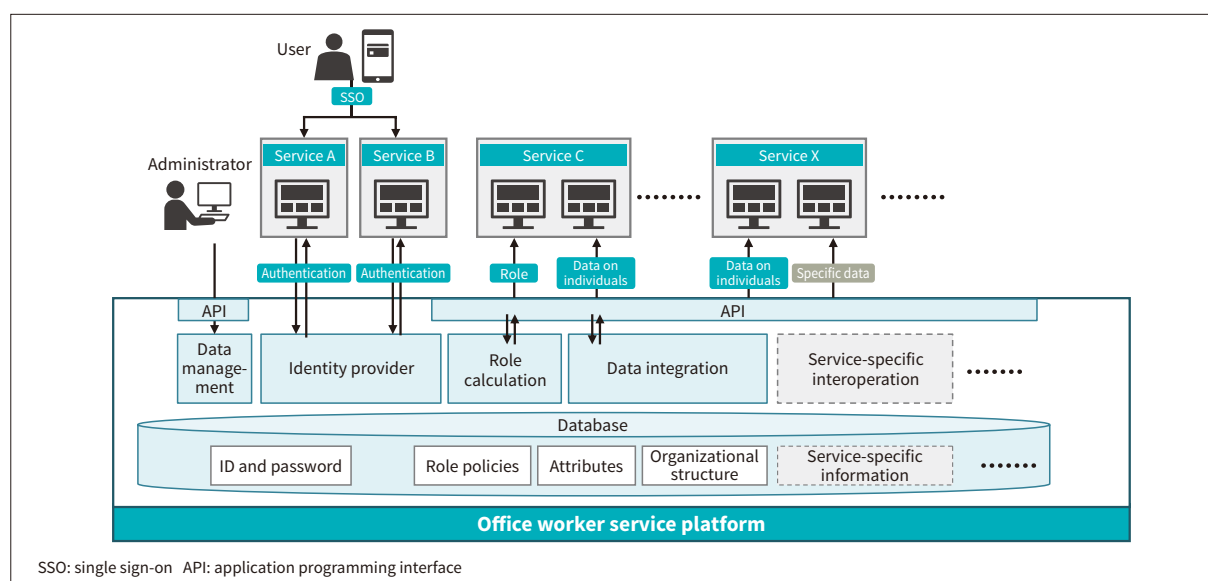
In the future, Hitachi intends to assist customer businesses by addressing user needs, extending use of the

platform beyond offices by expanding the range of applications with which it works.

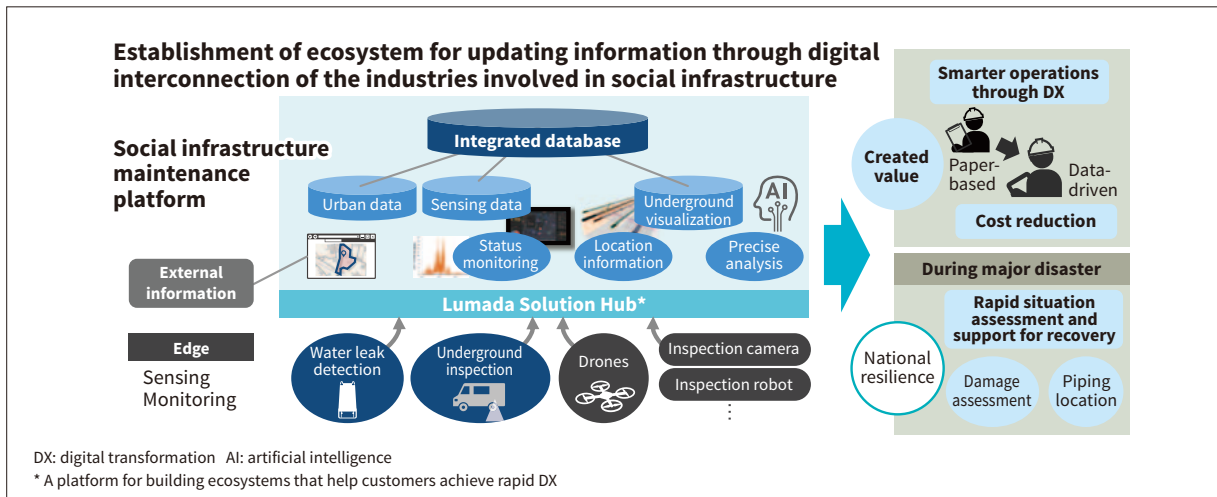
2 Development of Platform for Strategic Maintenance of Social Infrastructure

The public has an expectation that the social infrastructure that underpins its way of life will remain fully operational. Unfortunately, society is faced with the aging of both equipment and experienced maintenance staff, with the latter in short supply.

Hitachi has developed practical ways of addressing these challenges as it seeks to provide maintenance for social infrastructure that performs well in terms of both service level and cost. These include a water leak detection service (involving the automatic detection of water leak by means of a highly sensitive vibration sensor developed by Hitachi) and an underground visualization service (which uses artificial intelligence to analyze radar imaging and provide visual information about underground piping). These have been trialed at a variety of locations, with commercial services becoming available in FY2021. Along with the in-house development of solutions that help resolve societal challenges, Hitachi’s future plans also include the establishment of ecosystems for social



1 Block diagram of office worker service platform



2 Overview of social infrastructure maintenance platform

infrastructure by engaging with partners in collaborative creation and other forms of cooperation.

These solutions also have a part to play in policy areas such as national resilience, with rapid recovery from earthquakes or other disasters among their potential uses.

3 Hitachi's Plans for Digital Trust in the Public Arena

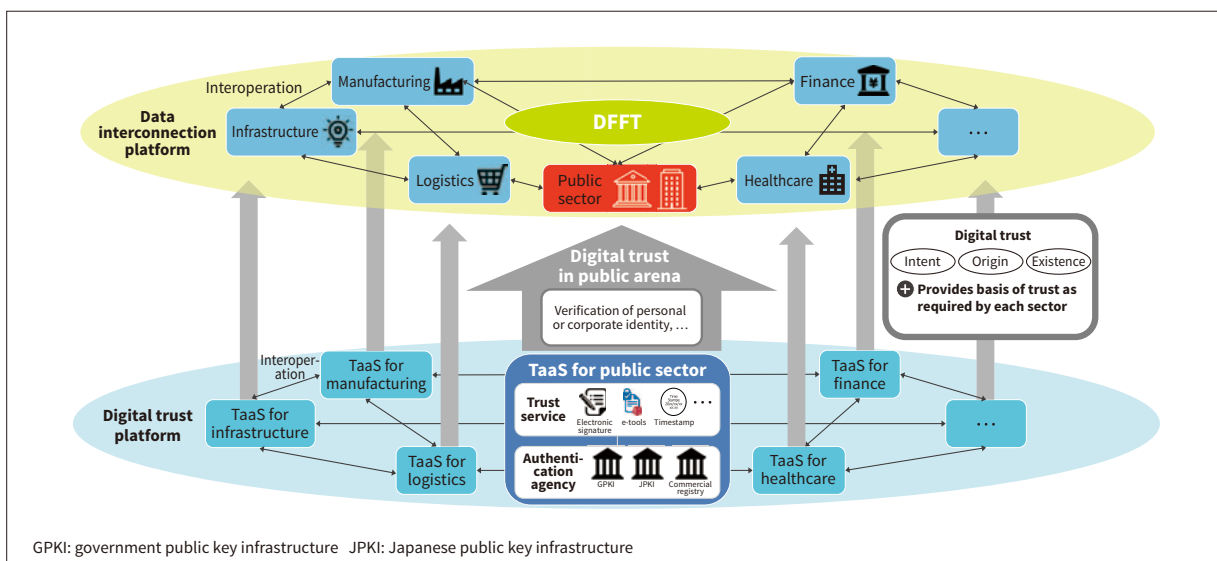
As announced at the 2019 World Economic Forum annual meeting in Davos, the Japanese government is seeking to implement the idea of “Data Free Flow with Trust” (DFFT). Meanwhile, the expansion of cyberspace has brought with it such social problems as privacy breaches and the spreading of fake news. This has led the government to recognize the need for digital trust, which it is pursuing through its Data Strategy Task Force.

Ensuring trust is crucial to achieving DFFT, with three factors in particular being the minimum prerequisites for digital trust. These are: proof of intent (such as electronic signatures), proof of origin (such as e-seals), and proof of existence (such as timestamps).

While they need to be handled in ways that are appropriate to the type of data concerned, what these three elements have in common is that, in terms of the proof they provide, digital trust in the public arena equates to a guarantee of authenticity based around authentication in the form of a proof of intent or a verification of personal identity, organization, or timing.

Digital trust is one of the key pillars supporting DFFT, and it can be implemented in the form of trust-as-a-service (TaaS)* that guarantees the integrity and authenticity of data.

* A general term for systems that facilitate digital trust on government-sponsored trust platforms. Hitachi is working on its own implementation of TaaS.



3 Use of TaaS for DFFT