

Featured Articles

Future Outlook for Japan's ID Number System

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OVERVIEW: Japan's ID number system is a social platform that improves administrative efficiency, provides greater convenience for the public, and establishes a fairer and more just society. Issuing of individual and corporate ID numbers commenced in October 2015, marking the launch not only of support for ID numbers in tax and social security procedures and the associated internal processes of private businesses, but also the use of information by national and local government and new administrative services based around My Portal. This article describes what Hitachi is doing in relation to the ID number system and considers how the scope of application of the system will expand in the future.

INTRODUCTION

THE social security and tax number system [identification (ID) number system] is a social platform that improves administrative efficiency, provides greater convenience for the public, and establishes a fairer and more just society. The system was established in Japan by the 2013 “Act on the Use of Numbers to Identify a Specific Individual in the Administrative Procedure” (Number Use Act). Its implementation is broadly divided into three stages. Issuing of individual and corporate ID numbers began in October 2015; use of the individual ID numbers in taxation, social security, and disaster response is to be introduced progressively from January 2016; and use of information sharing within national and local government to improve the efficiency of administrative procedures and the introduction of convenient online services based on My Portal* are to commence from 2017⁽¹⁾.

In the My Number Subcommittee of the Expert Evaluation Committee for New Strategy of the IT Strategic Headquarters, the Government Chief Information Officer (CIO) plays a central role in investigations into expanding the scope of uses for individual ID numbers from the perspective of encouraging the use of information technology (IT), and debate on the implementation of My Portal with a view toward future public-private collaboration. Work is also proceeding at other government agencies on

things like conducting trials and investigating what forms systems should take.

With reference to these circumstances, this article describes what Hitachi is doing in relation to the ID number system and considers the various issues associated with how the system will develop in the future.

OVERVIEW OF ID NUMBER SYSTEM

The ID number system combines individual and corporate ID numbers with mechanisms for verifying identity and for sharing information between different agencies.

Mechanisms for Verifying Identity

The mechanisms for verifying identity include individual ID number cards and the Public Certification Service for Individuals. Individual ID number cards serve as documentary proof of a person's ID number and as a public means of verifying identity. The Public Certification Service for Individuals uses the electronic signature stored in the integrated circuit (IC) chip in each individual ID number card to enable administrative procedures to be conducted online as well as through private-sector online transactions such as Internet banking. This mechanism for verifying identity whether online or offline is part of the social infrastructure for both the public and private sectors.

Mechanism for Sharing Information between Different Agencies

This mechanism enables national and local government agencies to share information on income, for

* My Portal: A portal site open to public access. Its uses include viewing when and where government agencies have handled a person's personal information tagged with their ID number, checking for notifications, and viewing personal information held by government agencies.

example, over an information-sharing network system. It eliminates the need to supply supporting documentation such as the income certificates issued by government agencies that are required for administrative procedures.

Use of Individual ID Numbers

The use of individual ID numbers is restricted to certain administrative activities stipulated by law (taxation, social security, disaster response, and activities specified by local government bylaws). Private businesses collect individual ID numbers from employees, for example, and submit documents for taxation and social security with the ID numbers attached. While the initial launch in January 2016 will be limited to documents relating to withholding payments by retiring workers, it will be extended from January 2017 to also include procedures relating to employee pensions and health insurance. Private businesses are obligated to manage these individual ID numbers properly, with penalties for leaking information (up to four years' imprisonment or a fine of up to two million yen) applying to senior management as well as to the staff responsible for the leak. This makes it essential that private businesses implement appropriate security management for individual ID numbers.

HITACHI'S INVOLVEMENT

This section describes what Hitachi is doing in relation to the ID number system.

Work on Introducing the ID Number System

While private businesses are making progress on preparing for the launch of the ID number system from January 2016, a survey conducted in June 2015 found that approximately 70% of companies have yet to make preparations. The survey questioned applicants who attended the "Seminar for Companies on How to Administer the ID Number System" run jointly by the Japan Institute for Promotion of Digital Economy and Community (JIPDEC) and the Japan Chamber of Commerce and Industry⁽²⁾.

First of all, preparations by private businesses relate to the attachment of the individual ID numbers of employees and others to documents submitted to government agencies or health insurers for tax or social security procedures. Based on government-issued guidelines and other information, private businesses need to clarify requirements such as which procedures

need to have individual ID numbers attached and which staff will handle the work; clarify when new practices need to be introduced with reference to the timing of the requirement for individual ID numbers to be attached to documents; and investigate security management measures for individual ID numbers, specific personal information, and other data based on human resource, organizational, physical, and technological considerations. The main steps in the workflow are the collection and registration of individual ID numbers from employees and others; storage and management, including security management measures that also cover cancellation; preparation of documents with individual ID numbers attached at the same time as taxation or social security procedures; and submission of the documents to the government agency or other party. It is necessary to collate implementation plans that also specify how systems are to adapt to the changes in accordance with this workflow, and to proceed with the associated actions.

The potential ways in which systems can be adapted to the changes are: (1) upgrade payroll or other packages, (2) outsource work associated with the ID number system, and (3) install new secure systems for managing the ID number system. Private businesses need to decide which approach to adopt based on considerations such as security, workload, and cost. For the outsourcing option, Hitachi supplies business process outsourcing (BPO) services for handling ID numbers that cover the integrated management from ID number collection and registration to cancellation and the contract printing of statutory forms (see Fig. 1). This BPO service is available as an option in cases where it is difficult for a company to upgrade its own systems or establish its own dedicated administrative practices for dealing with individual ID numbers in a short timeframe. Hitachi anticipates it will often be selected for organizational or financial reasons.

Local government, meanwhile, will start issuing individual ID numbers from October 2015, start using individual and corporate ID numbers from January 2016, and start sharing information with national government agencies and other local governments from July 2017. For the various activities undertaken by prefectures, municipalities, and other local government entities, including the planning, system installation, and post-installation operation work associated with the adoption of the ID number system, Hitachi supplies total solutions that encompass various services and products such as its solution for local government.

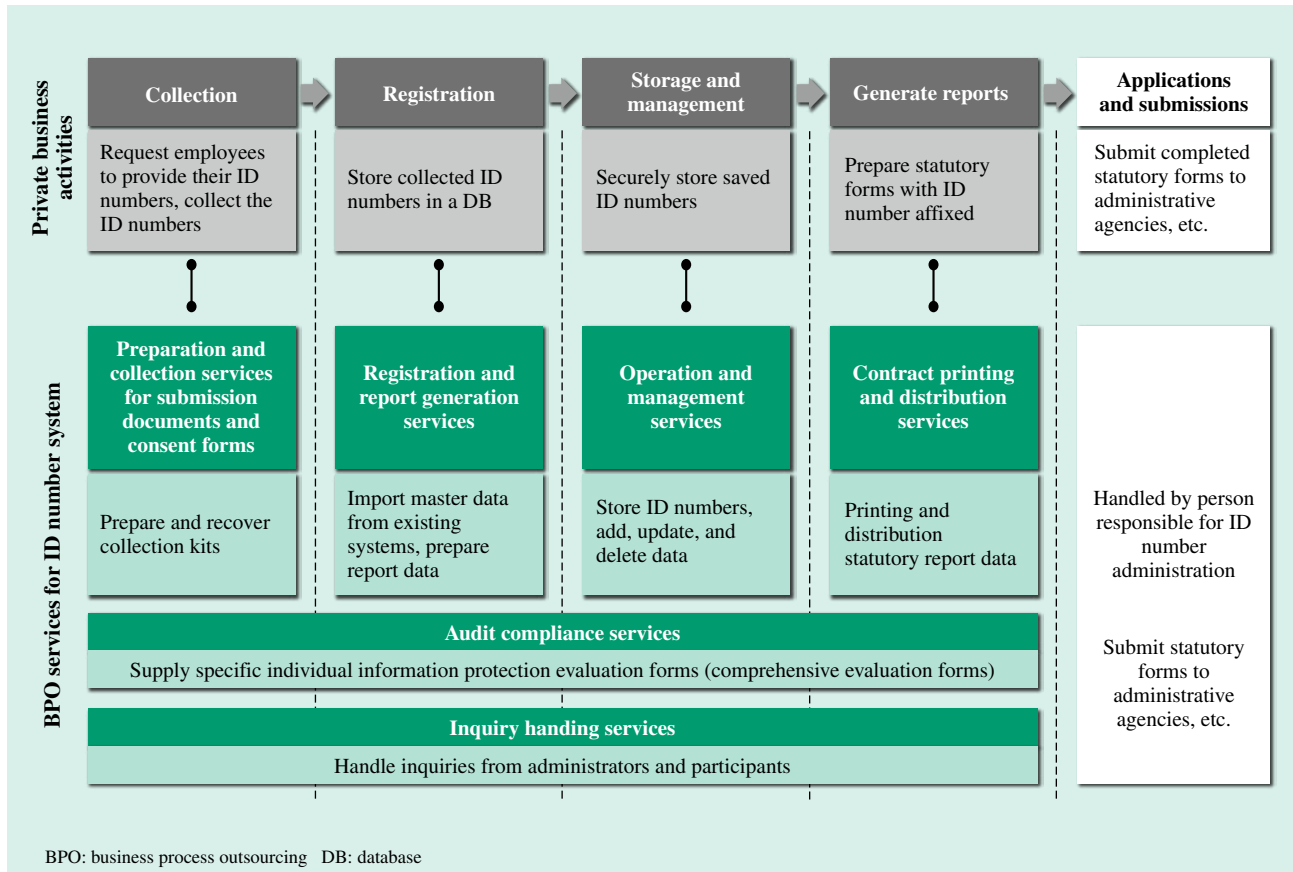


Fig. 1—Outline of BPO Services.
The figure shows an overview of BPO services for activities that private businesses are required to perform for the ID number system.

Work on Future Applications

The Ministry of Internal Affairs and Communications has established a working group and sub-working group for use of shared IDs⁽³⁾ to investigate matters such as how the Public Certification Service for Individuals (which is expected to become a widely used part of the shared infrastructure for private-sector services) could be used in telecommunications and broadcasting. Hitachi has participated in the investigation as a group member. The groups have been set up as sub-committees under the Conference on Promotion of Information and Communication Technology (ICT) Urban Development, which studies common platforms and other methods for urban development that make use of ICT. The use cases for the Public Certification Service for Individuals have been grouped under the headings, “personal identification,” “certification of qualifications,” and “certification of changes,” and the issues have been investigated based on technical aspects, rules, and operational considerations using as examples a variety of proposed applications, such as use in My Portal or use of cable television.

Along with conventional digital certificates for use as signatures, electronic certificates for user certification have also been established for the Public Certification Service for Individuals. Digital certificates for use as signatures provide a way for people and organizations to affix an electronic signature when making online applications or submissions to government agencies, private institutions, or other entities (applications or submissions, or in other words when uploading information). Electronic certificates for user certification provide a way for people and organizations to identify themselves electronically in situations such as when browsing online or accessing information that they have provided to government agencies or private institutions (browsing or access, or in other words when downloading information). The scope of services such as signature verification using the Public Certification Service for Individuals, which have been limited to administrative and other agencies, will be expanded to include private-sector businesses approved by the Minister of Internal Affairs and Communications. This will allow a larger number of public and private organizations to make use of

the Public Certification Service for Individuals and help improve the convenience of services that involve collaboration between the public and private sector. Hitachi will continue to participate in investigations aimed at the even wider use of the Public Certification Service for Individuals.

CONSIDERATIONS RELATING TO FUTURE USE

The government is studying the use of the ID number system from a variety of perspectives. The following section considers the issues being considered and the directions for the future.

Developments Facilitating Wider Use of Individual ID Numbers

As the Number Use Act uses a white list approach toward specifying permitted uses, which are specified in terms of uses (Number Use Act Attached Table 1) and sharing information (Number Use Act Attached Table 2), expanding the scope of applications for individual ID numbers will require changes to the law.

Proposed amendments to the Number Use Act (Draft Amendments to the Act on the Protection of Personal Information and the Act on the Use of Numbers to Identify a Specific Individual in the Administrative Procedure) were debated during the 189th ordinary session of the Diet (as of June 2015, the measure had passed the House of Representatives and was being debated in the House of Councillors). In addition to attaching the individual ID number to bank accounts, the proposed amendments include expanding applications for individual ID numbers to include their use by health insurers for insurance purposes, and permitting the sharing of information between local governments for purposes that local governments have mandated themselves through bylaws (see Fig. 2).

The My Number Subcommittee of the IT Strategic Headquarters, meanwhile, is deliberating on wider applications for individual ID numbers with the potential for additional benefits, including household registration, passports, and the management and sharing of medical, healthcare, and welfare information⁽⁴⁾. Similarly, the Fiscal System Subcommittee of the Ministry of Finance is undertaking investigations with a view to means testing in ways that take account of financial assets as well as income⁽⁵⁾.

These discussions can be divided into three stages. The first stage involves expanding the scope of uses

within the taxation, social security, and disaster response fields specified by the current law. The second stage involves expanding into other similar fields where public benefits can be anticipated. The third stage involves revising the current system based on the assumption that the scope of applications will be expanded. While it is anticipated that these discussions will lead to an acceleration of the investigations, an important factor is how well the benefits can be presented to the public in clearly intelligible terms.

Considerations Relating to Expansion of Applications for Using Individual ID Number Cards

The individual ID number cards will be progressively distributed to the public from January 2016, free of charge. The card functions are separated into those that involve use as a public form of personal identification with which people can identify themselves in person using the information on the card (the front of the card generally contains the person's name, address, date of birth, gender, and a photograph), those that use information that only applies to permitted uses for the individual ID number (the rear of the card contains the person's individual ID number), and multi-

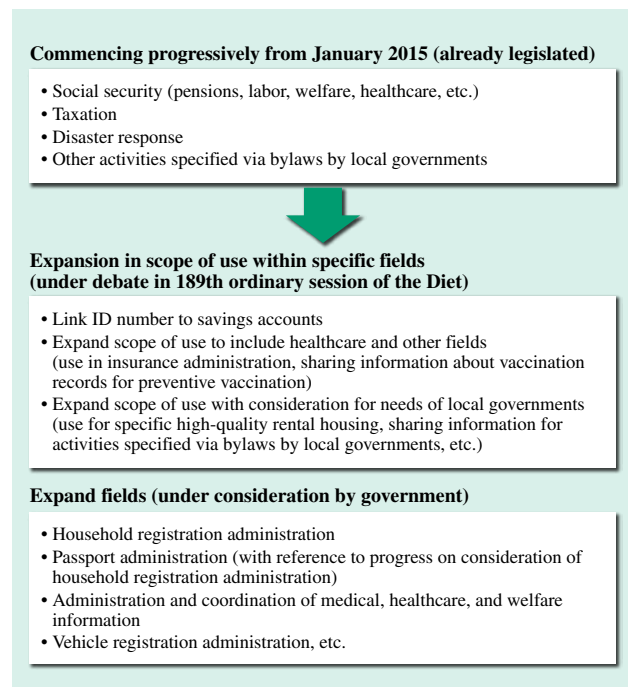


Fig. 2—Future Trends in Scope of Application of Individual ID Numbers.

The figure shows the matters being considered by the government with the aim of expanding the scope of application of individual ID numbers.

purpose services that use free space on the IC chip for things like library cards or providing certificates via convenience stores.

In the case of multi-purpose services, in particular, there are already services that use free space on the IC chips of basic resident registration cards. According to the Ministry of Internal Affairs and Communications' schedule of multi-purpose uses for basic resident registration cards (as of April 1, 2013), these include services provided by a wide variety of local governments, such as point services for shopping centers, reservation and availability-checking services for public facilities, services for requesting health checks or consultations and accessing the results, and community currency services⁽⁶⁾. As the uptake of basic resident registration cards is currently low, the distribution of individual ID number cards to all citizens means that they can be used by a larger number of people, and this will help members of the public, even those who have not benefitted from these services, to experience higher levels of convenience than in the past.

The government is also considering incorporating functions such as proof of health insurance or IDs for government officials. It is anticipated that cards issued by national or local government will be incorporated into the individual ID number card. However, because only so much space is available on the IC chip, services clearly need to be chosen by the public based on the available capacity.

Furthermore, it is anticipated that making the free space on the IC chip available to private-sector businesses in the future will reduce their card issuing costs, leading to the inclusion of functions such as credit cards, membership point cards, and company or school IDs. Because use by the private-sector for its own purposes is not currently permitted, it is considered desirable that applications be extended to include uses that are linked to private services by using the individual ID number card for personal identification through the Public Certification Service for Individuals referred to below.

Considerations Relating to Expansion of Applications for Public Certification Service for Individuals

As noted above, a key feature of the Public Certification Service for Individuals is that it extends verification that the person concerned created a document (such as the verification of digital certificates used as signatures), previously the preserve of administrative

agencies, to the private sector and enables both administrative agencies and the private sector to use online personal identification (electronic signatures for certifying users).

Administrative agencies can use the Public Certification Service for Individuals to implement services for the submission of online applications for administrative procedures and for browsing users' own personal information on My Portal. Private sector businesses can use the Public Certification Service for Individuals for personal identification in online transactions such as online banking, Internet shopping, ticket purchases, or opening insurance policies or bank accounts provided at places such as convenience stores, banks, supermarkets, or railway stations, which are closely tied to the public's daily lives. For private sector businesses, this helps reduce the cost associated with high-level electronic personal identification that they previously funded individually and also facilitates investment by the private sector in new service development. This use of the Public Certification Service for Individuals by both the public and private sector will lead to the creation of a variety of applications involving public-private collaboration. For example, it will lead to the development of one-stop public-private services in which these services work together, with documents prepared by the private sector being collected for use in government procedures or, alternately, using documents issued by government agencies in procedures directed at the private sector.

This service development has been studied in the "Study of Improvements to the Convenience of Pension Contributions and Taxation through Measures such as Use of the ID Number System" conducted by the Cabinet Secretariat, and service proposals have been considered. Specific examples that form part of an action program for improving the convenience of pension contributions and taxation through measures such as use of the ID number system include simplifying medical fee deductions using notifications of medical fees to My Portal and providing one-stop online services for things like taxation and pensions. In this way, work is proceeding on studying ways of using the ID number system and other mechanisms to improve things like convenience for the public and administrative efficiency⁽⁷⁾.

Meanwhile, one of the challenges associated with encouraging greater use of the Public Certification Service for Individuals is the shift to multi-channel interfaces. With the recent dramatic growth in the

use of smartphones, many web services are available from smart devices such as smartphones as well as on personal computers and mobile phones, with applications often provided through or used by smartphone apps. Accordingly, to implement electronic personal identification, it is desirable for this electronic personal identification also be implemented through the conversion of individual ID number cards to multi-channel formats.

CONCLUSIONS

The matters considered in this article have extended from the current state of the ID number system to the future expansion in its scope of applications, including the relevant trends. The ID number system constitutes a Social Innovation in the move toward a society that utilizes IT, with a role in Social Innovation and the administrative layer in relation to things like social progress and enhancing social value initiated by system innovation, as described earlier in this article. In the move toward a society that utilizes IT, the Draft Amendment to the Act on the Protection of Personal Information submitted in the 189th session of the Diet includes measures relating to uses of personal data that encourage economic revitalization utilizing big data, and it is anticipated that progress will be made in the future on Social Innovations in which the public and private sectors will work together to utilize things like open data and big data. Hitachi intends to

continue contributing to society through technology in relation to Social Innovations from the perspective of IT utilization.

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