Future Issues Facing Municipalities and Future Outlooks for Hitachi Municipality Solutions

As the underpinnings of the social infrastructure in their communities, municipalities in Japan are being called on to respond promptly to a variety of issues, including introducing the ID number system and providing administrative services that can adapt flexibly to a changing social environment that includes an aging population, a low birth rate, and advances in IT platforms. Hitachi municipality solutions utilize IT and draw on the knowledge of Hitachi to overcome these issues facing municipalities. This article considers the future issues facing municipalities and Hitachi’s plans for its municipality solutions.

INTRODUCTION

THIS article looks at what will be required of future municipalities from the perspectives of their residents and of social infrastructure, and describes the future directions and plans for municipality solutions, particularly Hitachi municipality solutions, so that they can contribute to next-generation town planning.

RESIDENT PERSPECTIVES

Improving Convenience and Maintaining Security

Among the things sought by residents are improvements in security and in the convenience of administrative services. In the past, residents wanting to make any kind of application or undertake some other administrative procedure have had to visit a town hall or branch office. The rise of information technology (IT) platforms in recent years, however, means that requests for official documents such as a certificate of residence, certificate of official registration of a seal, or family registers can now be handled more conveniently at places such as a railway station or convenience store. On the other hand, there is also demand for further improvements in convenience by making it possible for residents to perform procedures using devices such as smartphones or tablets, or to complete them without needing to present official documents. Furthermore, in addition to convenience, there is also a need to maintain security, including ensuring a high level of confidentiality for resident and other personal information when processing applications.

Protection of Personal Information

The top priority for residents is that their personal information be protected. To achieve this, measures for preventing leaks of personal information include having municipalities operate closed networks (such as the use of an intranet or leased lines), and using a dedicated network for communications between national government and municipalities (such as the network used for the residents’ register). Individual municipality entities also implement security measures, with an increasing number adopting finger vein and other forms of biometric authentication to verify the identity of staff when they access administrative systems.

Disaster and Other Emergency Response

There is a very high level of awareness among residents of the direct impact on life and wellbeing that results from the shortages of essential goods that occur during natural disasters such as typhoons, heavy rains, earthquakes, or tsunamis. Accordingly, municipalities are expected to respond appropriately to such emergencies. For example, municipalities can call on “disaster management radio communications,” smartphones, digital signage, and other such measures to provide residents with prompt, accurate, and detailed information. Work on municipality clouds and data centers is also progressing as part of business continuity planning (BCP).

SOCIAL INFRASTRUCTURE CONSIDERATIONS

Coordinating Information across Sectors

Along with municipalities being called on to encourage the adoption of the social security and tax number system [identification (ID) number system] in Japan, the use of information through interaction
between the public and private sectors is also essential. There is also a need to coordinate information through the use of IT with social infrastructure such as energy, transportation, and water in order to make communities better places to live.

Regional Revitalization
To get people working together in the local community, including local companies and volunteers as well as residents, there is a need to energize communities to facilitate activities that make them easy to live in.

WHAT IS REQUIRED OF MUNICIPALITIES
The demands being placed on future municipalities in terms of residents’ expectations and social infrastructure can be summarized by the following three points.

1. Improve the convenience and security of administrative services
2. Disaster prevention measures and BCP
3. Dealing with social infrastructure

The following chapters describe Hitachi’s plans for municipality solutions with reference to these points.

HITACHI MUNICIPALITY SOLUTIONS
Hitachi municipality solutions are a suite of IT products and services that Hitachi supplies to municipalities to deal with the diverse issues they face (see Fig. 1).

Through Hitachi municipality solutions, Hitachi draws on its comprehensive capabilities to contribute to municipalities based on the concept of an evolving solution that links people and communities to the future. Hitachi municipality solutions deliver value in the following three ways:

1. Flexible support for improving resident services and municipality management
2. Systems designed to be easy for residents and staff to use
3. Trustworthy security measures and a comprehensive support system

Hitachi municipality solutions support a wide range of municipality activities, including making official documents available through convenience stores, or issuing them automatically through core business systems for resident information, financial management, and long-term care insurance. It also supports the ID number system that was introduced this fiscal year. In addition to security products such as finger vein authentication, Hitachi is also deploying products such as a centralized system for disseminating disaster information and the maintenance management solution for working with the private sector on social infrastructure such as roads and bridges.

FUTURE OUTLOOKS FOR MUNICIPALITY SOLUTIONS
With regard to the matters discussed above, Hitachi believes that future municipality solutions will need to include the following three points.

1. Solutions that consider convenience and security
2. Assisting in providing dependable administrative services
3. Solutions that enable interoperation with social infrastructure

While it can be difficult to achieve both convenience and security at the same time, Hitachi intends to work with its research and design groups...
and those divisions that deal with social infrastructure systems for things like transportation and finance to implement solutions and services for creating towns and cities that residents will find comfortable and secure (1).

To provide dependable administrative services, Hitachi will support the creation of mechanisms for collecting information in realtime during emergencies and for providing residents with prompt, accurate and detailed information. To achieve this, Hitachi will utilize familiar IT devices such as smartphones and televisions to enhance solutions that take account of matters such as coordinating disaster prevention and the elderly (2).

The enabling of interoperation with social infrastructure needs to be undertaken in parallel with the use of IT, involving collaboration with the private sector on things like integrated community care and open data, and coordination with the social infrastructure platforms used for essential services such as electric power, water, and gas. Something else that needs to be put in place in the future are mechanisms for establishing the plan, do, check, act (PDCA) cycle for identifying potential improvements and taking steps to deal with them based on the results of the implementation of various policies by municipalities (3).

In addition to the use of IT, Hitachi also intends to contribute to overcoming the various issues facing municipalities by drawing on its business know-how and consulting capabilities in a wide variety of industries.

CONCLUSIONS

As the population ages further and the birth rate continues to decline, municipalities will be expected to provide administrative services that are more efficient and fine-grained. Based on the underlying concept of an evolving solution that links people and communities to the future, Hitachi intends to contribute to the creation of communities that are easy to live in and in which people will feel secure by acting as a partner to municipalities, not only by responding promptly to various different institutional systems, but also by providing solutions and services that incorporate convenience and security.

REFERENCE


ABOUT THE AUTHORS

Tsuyoshi Matsushima
Municipal Application Development Department 2 Group 1, Regional Systems Operation 3, Government & Public Corporation Information Systems Division, Information & Telecommunication Systems Company, Hitachi, Ltd. He is currently engaged in planning business for municipality solutions.

Ken Kawamura
Customer Relations Center, Government & Public Corporation Information Systems Sales Management Division, Information & Telecommunication Systems Company, Hitachi, Ltd. He is currently engaged in public relations and promotion design.

Minoru Goto
Public Solutions Planning Office, Public Solutions Group, Hitachi Systems, Ltd. He is currently engaged in business planning for the public sector.

Shintaro Hara
Solution Division 2, Hitachi Government & Public Sector Systems, Ltd. He is currently engaged in business planning for the public sector. Mr. Hara is a member of The Society of Project Management.