

Papers on the Local Governance System and its Implementation
in Selected Fields in Japan No.6

Japanese Local Governments and ICT

Yoshinori ISHIKAWA

Executive Director

Mutual Aid Association of Prefectural Government Personnel

Council of Local Authorities for International Relations (CLAIR)

Institute for Comparative Studies in Local Governance (COSLOG)

National Graduate Institute for Policy Studies (GRIPS)

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Contact:

Council of Local Authorities for International Relations (CLAIR)
(International Information Division)

Sogo Hanzomon Building, 1-7 Kojimachi, Chiyoda-ku, Tokyo 102-0083 Japan

TEL: 03 - 5213 - 1724 FAX: 03 - 5213 - 1742

Email: webmaster@clair.or.jp

Institute for Comparative Studies in Local Governance (COSLOG)

National Graduate Institute for Policy Studies (GRIPS)

7-22-1 Roppongi, Minato-ku, Tokyo 106-8677 Japan

TEL: 03 - 6439 - 6333 FAX: 03 - 6439 - 6010

Email: localgov@grips.ac.jp

Foreword

The Council of Local Authorities for International Relations (CLAIR) and the National Graduate Institute for Policy Studies (GRIPS) have been working since 2005 on a “Project on the overseas dissemination of information on the local governance system of Japan and its operation”. On the basis of the recognition that the dissemination to overseas countries of information on the Japanese local governance system and its operation was insufficient, the objective of this project was defined as the pursuit of comparative studies on local governance by means of compiling in foreign languages materials on the Japanese local governance system and its implementation as well as by accumulating literature and reference materials on local governance in Japan and foreign countries.

In 2007, as a continuation of projects which were begun in 2005, we continued to compile “Statistics on Local Governance (Japanese/English)” and to conduct a search for literature and reference materials concerned with local governance in Japan and overseas to be stored in the Institute for Comparative Studies in Local Governance (COSLOG). We also compiled a “Glossary on Local Governance Used in Japanese Official Gazettes (Japanese/English) (FY 2007 Edition)”. In addition, continuing from the previous year, we finished compiling “Up-to-date Documents on Local Autonomy in Japan” on two themes and “Papers on the Local Governance System and its Implementation in Selected Fields in Japan”, for which we took up 6 themes.

This project is to be continued in 2008, and we aim to improve the materials so that they will be of real use and benefit to those who are working in the field of local governance.

If you have any comments, suggestions or inquiries regarding our project, please feel free to contact the Council of Local Authorities for International Relations (CLAIR) or the Institute for Comparative Studies in Local Governance (COSLOG) of the National Graduate Institute for Policy Studies (GRIPS).

October 2008

Michihiro Kayama
Chairman of the Board of Directors
Council of Local Authorities for International Relations (CLAIR)
Tatsuo Hatta
President
National Graduate Institute for Policy Studies

Preface

This booklet is one of the results of research activities conducted by the Institute for Comparative Studies in Local Governance (COSLOG) in collaboration with the Council of Local Authorities for International Relations (CLAIR) in FY 2007. This is part of a 5-year project that started in 2005 entitled "Project on the overseas dissemination of information on the local governance system of Japan and its operation". For the purpose of implementing this project, a "Research committee for the project on the overseas dissemination of information on the local governance system of Japan and its operation" has been set up, and a chief and deputy chiefs with responsibility for the project have been designated from among the members concerned with each research subject.

"Papers on the Local Governance System and its Implementation in Selected Fields in Japan" (Volumes 5-10) were written under the responsibility of the following six members (The official positions are as of March 2008).

(Chief)

Satoru Ohsugi, Professor, Graduate School of Social Science, Tokyo Metropolitan University

(Deputy Chief)

Yoshinori Ishikawa, Executive Director of the Mutual Aid Association of Prefectural Government Personnel

Toshinori Ogata, Professor, Graduate School of Management, Kagawa University

Yoshihiko Kawato, Associate Professor, Faculty of Regional Policy, Takasaki City University of Economics

Nagaki Koyama, Associate Professor, Graduate School of Library, Information and Media Studies, University of Tsukuba

Kenichiro Harada, Associate Professor, School of Law, Tohoku University

This booklet, the sixth volume in the series, is about Japanese local governments and ICT, and was written by Mr. Ishikawa.

The installation of an infrastructure for ICT including such measures as a broadband environment has progressed with great speed in Japan.

As a basis precondition for such a development, local governments are tackling ways of utilizing ICT and raising the level of service to their citizens as well as reforming business operational areas.

This booklet will introduce the historical development and the current state of ICT utilization in local governments in Japan, and at the same time, give an overview of a number of areas related to ICT, including the promotion of outsourcing resulting from the common use of ICT in operational areas in local governments, the establishment of a common ICT platform, the training of human resources able to use ICT in operational areas, and the utilization of ICT as a means of community revitalization.

We will continue to take up new topics, and add to the series.

Finally, I would like to express my appreciation to Mr. Ishikawa, and also to other members of the research committee for their expert opinions and advice.

October 2008

Hiroshi Ikawa

Chairperson

Research committee for the project on the overseas dissemination of information
on the local governance system of Japan and its operation

Professor

National Graduate Institute for Policy Studies

Japanese Local Governments and ICT

Yoshinori ISHIKAWA

Executive Director

Mutual Aid Association of Prefectural Government Personnel

1. The background to the situation of local governments in Japan

1-1 The social environment

Since fiscal 2000, there has been a very rapid spread of broadband technology combined with a lowering of communication costs and improvements in communication speeds in Japan, and the result has been to put Japan at the top of the world league in terms of putting a broadband environment in place. However, there are still areas in Japan where disadvantageous conditions make it difficult to anticipate investment by private firms (Note 1). It was in this situation that Japanese central government took the decision to set up an IT Strategy Headquarters within the Cabinet, with the Prime Minister as its Chief; in 2006, the Headquarters decided on an “IT New Reform Strategy in 2006-2010”, which had the aim of eliminating by 2010 all areas in Japan with zero broadband access. A further policy announced in 2006 was the “Next Generation Broadband Concept 2010”, which set as its target under the leadership of the Ministry of Internal Affairs and Communications ultra-high-speed broadband coverage for 90% or more of all households in Japan. With regard to cell phones, third generation cell phones which can handle high-speed data transmission (Note 2) are being rapidly disseminated, and are now possessed by a large majority of cell phone owners; there are also many cell phones that are equipped with sophisticated functions such as a GPS function. In December 2003, terrestrial digital TV began to be broadcast, and is being rapidly disseminated; analog broadcasting is due to be discontinued in 2011.

Additional to the context of the environment as outlined above, in recent years, a new form of ICT or model that utilizes information communications, symbolized by the term “Web 2.0” (Note 3) has been attracting much attention as a new service model of ICT.

1-2 Cash-strapped finances of local governments

Local governments in Japan continue to be in a serious condition with a high level of debts, and at the same time, they are grappling with administrative reform, within which the promotion of electronic government is an important strategy. It should also be noted that for some years past in Japan, the merger of municipalities (i.e. cities, towns and villages) all over Japan has been strongly promoted, and in the context of

that process, differences in information systems between one municipality and another have clearly emerged as a barrier to mergers, so that at the same as the processing of mergers has been continuing, there has also been a widespread re-evaluation of such systems.

1-3 Administrative issues in local government

A characteristic of ICT policies in Japanese local governments is that in every part of Japan, citizens should receive the same service on the basis of the results achieved by ICT. With this aim in mind, there are many cases of co-operation between prefectures, as local governments covering a wide area, and municipalities, as the basic units of local government, in terms of tackling the establishment of an information infrastructure.

Given Japan's location in an earthquake-prone part of the world and the fact that it suffers frequent damage from typhoons and floods, there is also potential for making positive use of ICT in implementing measures for dealing with disasters.

There are also movements urging the use of ICT in citizen participation and citizen co-operation. Until now, it could not be said that local community activities in Japan were necessarily vibrant, but thanks to measures such as local Social Networking Services SNS (see Section 5-2-2 below), signs of great change can be seen.

1-4 Issues specific to local e-government in Japan

In Japan, the standard of demands for accuracy in business operations is set at a very high level. For this reason, there is a tendency for information systems too to become complicated. Even when low-cost packaged software was used, the number of cases in which local governments as the users requested the software companies to customize the software was significant, so that there was a tendency for costs to rise. It is against this background that in the context of taking forward local e-government, the ability, through the standardization of business operations as a major pillar of administrative reform, to liaise with other local governments and carry out duties in common, thereby achieving cost reductions, has become a major issue.

2. Historical development

2-1 Use of computers

The use of computers by local governments in Japan began in the 1960s. In line with the high-level economic growth of this period, the administrative demands of local governments also expanded, while on the other hand, there were demands for the rationalization of clerical procedures. In this situation, local governments enthusiastically promoted the use of computers, focusing mainly on their ability to handle large amounts of data and fixed procedures in such areas of back office work as

processing different kinds of statistics, tax-related tasks and salary calculations. In addition, there was also an expansion in the use of the computer in over-the-counter tasks such as the digitalization of residents' records.

Since the late 1980s, accompanying the great leap forward in the development of ICT, the structure for processing administrative tasks in local government bodies became linked to an information communications network (LAN within the local government headquarters), and in addition to this, local computerization policies that made use of such devices as satellite transmissions (Note 4), CATV and IC cards were also taken forward.

2-2 Website construction and use of the internet

In terms of contact between local governments and the outside world, accompanying the dissemination of the internet, local government Websites became increasingly popular, with information about daily life services and policies being provided for residents and tourist information displayed for use by people both within and outside the local government area. Websites were used for the open presentation of information, and instances could also be found of local governments getting to grips with Web conferences through the use of electronic bulletin boards. The aim of having every employee equipped with a personal computer was realized, and local intranet networks aimed at the electronic provision of information within a specific locality or region also advanced rapidly.

2-3 The concept and practicalities of central e-government and local e-governments

In January 2001, the Japanese government set up a goal (IT Strategy Headquarters decision) its aim to make Japan the world's most advanced IT nation within 5 years. With this strategy as a base, the e-Japan Priority Policy Program 2002 aimed "to accelerate the use of ICT in the digitization of administration and the application of IT in other public areas". In short, the realization of e-government at central and local level became an issue of the highest importance.

Compared to other advanced countries, Japan was a little behind in terms of starting to get to grips with this issue. One reason for this can be found in the very strict requirements for individual privacy and information security. A further reason is that there were a large number of information communications firms implementing the development of information systems, and fierce competition to acquire clients developed, making it very difficult to co-ordinate efforts to move toward the realization of e-government.

On another issue, a manifestation of the very strict demands for individual privacy and information security can be seen in the efforts to construct reliable

authentication systems for the confirmation of individual identity. In a number of foreign countries, there are many cases of ID cards or passwords issued by public bodies to the general populace being used to verify individual identities. In Japan too, a system of green cards (Note 5) was started for users of small savings bearing tax-free interest, but it encountered strong public opposition making cancellation of the scheme inevitable. In terms of an ID number issued to all Japanese citizens by government bodies, in recent years, systems comprising a basic resident register (hereafter, BRR) number and a basic pension number have at last been established, but use by the private sector is forbidden, and legal restrictions are also imposed on procedures for using them in electronic government. As a result, 2 methods are adopted, a system that is simple to use in terms of administrative procedures and makes use of an ID issued by individual government bodies and a password, and a system for which a high level of security is demanded that makes use of a BRR card as well as a publicly verifiable individual certificate (see Section 2-5-4 below).

2-4 Examples of advanced local e-governments

Looking more closely at the local government sector in Japan, there are local governments which have tackled the implementation of ICT more positively than other organizations. Examples are Gifu Prefecture, which was very fast off the mark in tackling the realization of local e-government, Hokkaido, which is making efforts to establish an information network infrastructure linking municipalities across the prefecture (see 4-1-4 below), and Nagasaki Prefecture, which is enthusiastically re-assessing IT procurement aimed at training IT human resources.

At municipal level, examples that can be quoted are Ichikawa City (see 3-6), which has tackled ICT as one element in administrative reform, Mitaka City, Yokosuka City, and Fujisawa City, which have tackled electronic local government in co-operation with the citizens of their respective cities (see 3-6), and Nishinomiya City, where the city government employees have developed a variety of systems on their own initiative.

Background factors which have influenced local governments that have taken a positive attitude to tackling electronic government can be found in the presence of universities and firms related to information technology and telecommunications which have co-operated with and supported local governments in the development of the local area in question. A further important factor is the will of the chief executive officer as the top manager. It is also possible to identify subordinate staff with many years of experience in information-processing work.

And for its part, central government is encouraging and pushing forward advanced examples of tackling the realization of local e-government on the part of individual

local governments by such means as the implementation of model projects.

2-5 Central government involvement and liaison between central government and local governments

2-5-1 The infrastructure of e-government

The significance of “e-government and local e-government” within the e-Japan strategy is that in this way it will be possible to receive administrative services in one’s home or workplace through the medium of a personal computer and the internet. On the basis of this kind of premise, the Japanese government, in addition to promoting the provision of administrative information (laws and regulations, government announcements, statistical data, and so on), has tackled the issue of how to make it possible for almost all administrative services to be implemented electronically through the use of the internet.

2-5-2 Central and local government organizations responsible for promoting local e-government

The central government ministry with responsibility for promoting local e-government is the Ministry of Internal Affairs and Communications. Within the Ministry, promotion of local e-government is carried on by the Local Administration Bureau, which is responsible for the computerization of administration, and by the Information and Communication Policy Bureau.

The body established within local governments to promote local e-governments is a Special Committee on Computerization Promotion Policy set up within the National Governors’ Association. Furthermore, looking at other administrative bodies, two bodies and their broad areas of responsibility are the Local Government Network Management Council, which is concerned with the Local Government Wide Area Network (LGWAN), and the BRR Network System Council, which is concerned with the BRR network. Both these Councils, the constituent membership of which is provided by local government, are managed as autonomous bodies.

Within the Local Authorities Systems Development Center (hereafter, LASDIC), which is the body that implements joint involvement on the part of local governments, there is also the Association for the Promotion of Public Local Information and Communication (hereafter, APPLIC).

As well as the above, almost all prefectures have established Electronic Local Government Promotion Councils, with the participation of municipalities, in their respective areas.

2-5-3 Legal and regulatory structures

In December 2002, the Three Online Administrative Procedure laws were passed

with the aim of enabling administrative procedures to be carried out on line as a result of progress in taking forward e-government. Specifically, legal systems were put in place enabling around 52,000 administrative procedures to be handled on line as well as in written form.

2-5-4 National network base

In terms of national network base structures, LGWAN, the BRR Network, Local Government Public Key Infrastructure (LGPKI) have been put in place, and the Public Individual Certification Service System is being implemented.

(1) Basic Resident Register (BRR) Network

As a system common to all local governments, the BRR Network system aims to transform into an online network the BRR (Note 6), which certifies residential status on line. The system makes it possible, by the use of 4 items of data (name, date of birth, sex, address) to confirm the identity of any person in a way that is common to the whole of Japan. By means of a revision made in 1999 to the Basic Resident Register Law, a code was newly added to the data on the register, and on the basis of this code, it is possible for an individual to provide an administrative organ with confirmatory evidence of identity or to process tasks concerned with the BRR beyond the area of the municipality in question. As a result, because the system is used in common by local governments, the aim has been to connect the BRR data in the form of a network. Until now, in cases where a resident contacted an administrative organ either by post or by going to the office in person, the person concerned had to provide a photocopy of the residents' certificate in order to give proof of identity. But when using the internet to make an application or present documents to an administrative organ, it is possible, because of the existence of the BRR network, to make an application or submission to an administrative organ by entering the 4 items of data comprised in the Residents' Certificate (name, date of birth, sex, address) plus the BRR code and any changes in the information, and in this way, the administrative transaction can be processed smoothly without having to submit a photocopy of the Residents' Certificate.

(2) BRR card

One of the secondary services of the BRR network is that since August 2003, a BRR Card has been issued to those requesting it by the office of the municipality in which they live. The card is an IC card with a high level of security based on the system adopted over the country as a whole, and it is so designed that independent of the space reserved on the card for the use of the BRR network system, there is separate space which a local government can use to offer various kinds of services to residents. In order that this can be done, it is necessary for the local government concerned to

enact, on the basis of the BRR Law, a bylaw concerned with the usage procedures and purpose of use of the BRR card.

(3) Public Individual Certification Service

When digital writing is produced for transmission via the internet, a problem arises in that it is difficult to know who has authored a particular piece of writing and that it is easy to revise and amend it without leaving any trace. For these reasons, requirements for using the internet for a submission or an application are that it is possible to clarify who has composed a digital message and to confirm that it has not been amended in the course of transmission, in other words, there needs to be a security confirmation device that can confirm an individual's identity.

In Japan, a Public Individual Certification Service in the form of a security confirmation device (digital signature) able to authenticate the identity of an individual and available at a low price to be used by anyone wherever they are living in Japan, was created and launched in 2004. With specific regard to a Public Individual Certification Service derived from the BRR network system, the possibility has now been realized, through the provision of any information which has changed (change in the name or address, or information arising out of the decease of a person who is in receipt of a public resident registration service), of accurately confirming the identity of the person concerned. The electronic key and electronic certificate which are required in order to be able to receive the Public Individual Certification Service, can be electronically imprinted on the BRR IC card on application to the municipality of residence.

There are many different kinds of electronic application and submission procedures, including at national level, filing a tax return, or making a real estate or automobile registration, and at local government level, a very wide range of applications and submissions. In every case, it is possible to use the Public Individual Certification Service in addition to the private-sector identity authentication service. The scope of the recognized procedures is being steadily expanded.

(4) LGWAN (Local Government Wide Area Network)

LGWAN is a specially earmarked administrative network that allows local governments to connect with one another. By the use of this internal network linking local government bodies, LGWAN offers the possibility of high-level transmission of information, facilitating smooth communication between one local government and another. With the objective of facilitating high-level information usage through the sharing of information, the system began to be partially implemented in 2001, and all municipalities were connected to it by 2003. Connection to Kasumigaseki WAN (Note

7) was implemented from fiscal 2002, so that smooth information exchange between central government ministries and agencies became possible.

As a special security feature, LGWAN makes use of a device known as PKI (Public Key Infrastructure). An inherent characteristic of LGWAN is mutual co-operation among local governments, and the LGWAN Council was set up with the aim of achieving smooth administration and management; the running costs are borne by the participating prefectures. Through the medium of LGWAN, secure information can be collected, exchanged, provided in such forms as the exchange of electronic documents, bulletin boards and so on. The public identity authentication service is also implemented by means of LGWAN. In addition, central government, local government and private-sector firms provide application services through LGWAN in the form of ASP (Application Service Provider) (Note 8).

2-5-5 Guidelines for the Promotion of Local e-Government

In August 2003, the Ministry of Internal Affairs and Communications established “Guidelines for the Promotion of Local e-Government” (partially revised in 2006), and in March 2007, and in March 2007 issued these in a totally revised form under the title “New Guidelines for the Promotion of Local e-Government”. Specifically, 3 points are set out as targets to be realized within the framework of electronic government, namely upgrading of administrative services, simplifying and increasing the efficiency of administration, and finding solutions to local problems.

Within priority items to be tackled, the following are concerned with putting administrative procedures on line.

(1) Taking forward the process of putting administrative procedures on line

(Target) To put administrative procedures on line in all local governments by 2010.

96% of application and deposition procedures vis-à-vis central government administrative organs can now be processed on line. On the other hand, putting procedures on line in municipalities has only been partially achieved. This is why efficient methods such as joint outsourcing are now being taken forward.

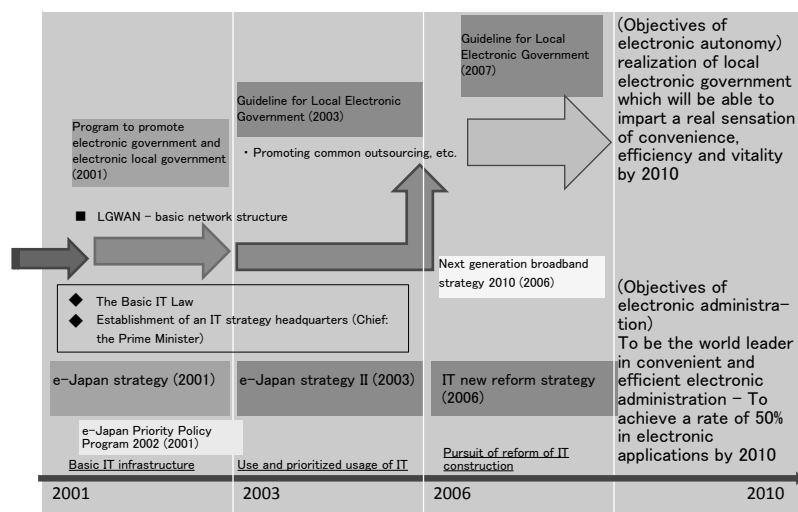
(2) Accelerating the pace of online usage of administrative procedures

(Target) To raise the percentage of online usage to more than 50% by fiscal 2010

With this target (included in the 2006 IT Reform Strategy) in mind, 21 kinds of procedures estimated as being most likely to raise the level of convenience for residents or bring about an increase in the efficiency of carrying out the tasks concerned were specified as “target procedures for accelerating online usage”.

(the percentage of target procedures carried out on line in fiscal 2005 was 11.3%)

【The development of IT strategy and Local e-government in Japan】



Source: Compiled on the basis of a diagram in “An Overview of IT Management in Local Government 2007”

3. National trends in local governments and examples of progressive local governments

3-1 Plans for the promotion of local e-government

According to the Overview of IT Management in Local Government (September 2007), hereafter abbreviated to “2007 IT Management Overview”, local governments that have formulated plans for the promotion of local e-government amount to 45 (95.7%) at prefectural level, and 678 (37.1%) at municipal level.

In the case of prefectures, most plans for the promotion of IT are formulated on a very broad scale, analogous to national plans. For example, the Miyagi Prefecture IT Strategy for fiscal years 2006-2008 lists 80 projects, including the following: promotion of increased use of IT in people’s daily lives; establishment of 6 priority areas covering such things as wealth creation and the revitalization of local economies through IT; utilization of a comprehensive prefectural disaster information system; installation of a temporary medical staff information system in Miyagi Prefecture; dissemination of strategic tourist information via the internet; and online processing of e-bidding and procurement procedures.

At municipal level on the other hand, plans are relatively close to the daily lives of citizens, including plans to promote citizen participation and co-operation, and information sharing among citizens, as well as encouragement to place tenders and procure goods via the internet, and plans to strengthen administrative information systems and utilize electronic applications. For example, in the Second Plan for the

Realization of e-Government in Tachikawa City 2005-2009, the 2 main pillars of the plan specified as “visions” are as follows: reform of internal administrative processes through the use of IT; provision of online services and implementation of disclosure via the internet; and the realization, through the utilization of IT, of a form of e-government which engenders fruitful and happy feelings. Other projects listed include the promotion of BPR (Business Process Re-Engineering) (Note 9), strengthening the use of the internet as an access point, increasing the level of sophistication of administrative tasks through the use of GIS (see 3-5) (multi-purpose use of map-based information), strengthening and expanding the city’s website, and encouraging the use of IC cards in citizens’ daily lives.

3-2 Home pages, call centers / contact centers and clients / residents

In Japan, all prefectures have opened their own websites, as have almost all municipalities. In municipalities with large populations, call centers or contact centers have also been established.

3-2-1 The content of websites

According to the 2007 IT Management Overview, all the prefectural websites and the vast majority (89.6%) of municipal websites have provided space for citizens to express their opinions and their hopes with regard to the local government concerned. In addition, on almost all the prefectural, and on many of the municipal websites (69.1%), local bylaws and regulations are made public, and through websites which publish the results of policy evaluations or through such means as electronic bulletin boards, exchanges of opinion can take place between local governments and residents.

3-2-2 Devising means of making websites more effective

According to the 2007 IT Management Overview, all prefectural, and many municipal websites offer a downloading service enabling citizens to obtain the forms necessary to make an application, file a report and so on, and information search systems are also installed on the websites concerned. In addition, in the case of all prefectures and 49.1% of municipalities, there is a facility to link with a cell phone, while all prefectures and 31.2% of municipalities have published versions of their websites in a foreign language.

3-2-3 Providing information through electronic media other than home pages

According to the 2007 IT Management Overview, information devices that provide information by means of electronic media other than home pages include mail magazines, use of an electronic monitoring system, and terrestrial digital TV broadcasts that transmit data.

3-2-4 Call centers / contact centers

The first local government call center to be opened in Japan was in the city of Sapporo in Hokkaido, and according to the 2007 IT Management Overview, there were 3 prefectures (6.4%) and 31 municipalities (1.7%) that had opened call centers at that time. There were also a further 3 prefectures (6.4%) and 32 municipalities (1.8%) which planned to open call centers after the 2007 fiscal year.

According to a survey carried out by a group of research students at the Local Autonomy College in 2006, a population of half a million was the turning point in a decision to establish a call center; with a population above that figure, there was merit in it, but with a population below that figure, the low cost/effectiveness ration would be a hurdle in the way of its introduction.” It is against this background that movements can be seen among prefectures and municipalities to establish a joint call center. Moreover, even in local governments which have set up a call center, the level of knowledge about this compared to making a call to a switchboard as in the past is low, and the number of calls continues to stagnate. In this kind of situation, some local governments are transferring to a call center those calls that come into an ordinary switchboard and trying as far as possible to implement the service of having answers given by the call center.

There are also local governments where calls stating an opinion, expressing a hope or making a complaint are received by a call center. In local governments where calls are received in this way, the opinions, hopes and complaints are put onto a data base, known as CRM (Customer Relationship Management), and in this way, the local government tries to enhance the level of service offered to residents and to tourists.

3-3 Making an application or filing a report (including making a reservation at a public facility) and processing business operations.

3-3-1 General-purpose acceptance system

An effective way of enabling an application to be made or a report filed electronically is to introduce a general-purpose acceptance system. According to the 2007 Information Administration Overview, almost all prefectures had already introduced such a general-purpose acceptance system, and over half of the total number of municipalities had either already introduced such a system or intended to do so in the future.

3-3-2 Case studies of the electronic application and filing system

(1) Filing a tax return and paying tax

In the case of the electronic procedures for filing a tax return (known as e-tax) for income tax, which is a national tax, the public identity authentication service is used as a validation system. Until now, the rate of usage has remained very low, but a

number of special measures have been devised for use from 2008 in the case of filing an income tax return, so a more rapid dissemination of the system is expected.

Turning to the electronic procedures for filing a tax return in respect of local tax, all 47 Japanese prefectures plus 19 large cities, making a total of 66 local governments in all, participate in the Council of e-Local Tax, which manages a tax portal system shared by all local governments. The Council was launched in 2003 as a voluntary body, and became an incorporated body in 2006. Initially, “eL Tax”, which denotes the system used by the Council, offered only services concerned with the procedures for filing a return, but from 2008, there are plans to steadily expand the tax headings to which the service is applicable, and offer services in respect of additional procedures such as “filing a report and making a deposition” and “making a tax payment”, For more detailed information see: Harada, Kenichiro, (2008), Local Taxation in Japan, a booklet published in the same series as this booklet (for publication details, see References at the end of this booklet).

(2) Library information search system

Public libraries, established by local governments in Japan, represent a library service frequently used by local residents. According to the 2007 IT Management Overview, an internet-based library search service and book loan reservation service is now available in all prefectural libraries, and in more than half of all municipal libraries, a percentage which is expected to increase to two-thirds within the space of a few years.

(3) E-bidding for procurement

Local governments in Japan are vigorously engaged in strengthening the infrastructure of Japanese society, and in the course of this process, many orders for public works have to be placed. As a method of placing such orders, in recent years, there has been a rapid increase in the weight placed on general competitive tendering from the perspective of efficiency and fairness. According to the 2007 IT Management Overview, at the time the overview was compiled, 87.2% of all prefectures had introduced a system of electronic tendering into the process of placing orders for public works, and it was anticipated that the figure would reach 100% within a few years. For municipalities, the figure was still low, at 11.9%, but it is expected to rise to 28% within a few years. There are also many municipalities which have formed joint management systems in collaboration with prefectures or with other municipalities, for the purpose of implementing electronic bidding.

3-4 Smart card and automatic delivery device

The experimental use of smart cards has been implemented by a number of local

governments with the support of several central government ministries. There are also places where the existing plastic seal registration certificate (Note 10) has been exchanged for an IC card. Since the introduction of the BRR card, there have also been attempts to use this as the main basis.

As of March 31, 2007, a total of 1.41 million BRR cards have been issued. There are 127 local governments (as of March 2007), which are promoting the multi-purpose use BRR cards, while individual local governments have added a variety of different uses as follows: automatic certificate issuance system (97 local governments), personal seal registration certificate (61), library service (27), automatic application preparation (18), reservation of public facilities (15), etc. Municipalities which have issued particularly large numbers of cards with added functions include Miyazaki City, Nanto City, Izumo City and Edogawa Ward in Tokyo.

There are also municipalities in which automatic delivery machines can be used with individual IC cards as well with BRR cards.

3-5 Geographic Information System (GIS) and Integrated GIS

3-5-1 Overview of GIS

In Japanese local governments, particularly in municipalities (cities, wards, towns and villages), large numbers of maps are used for many different purposes such as the administration of roads, parks, schools, neighborhood public halls and other facilities, or wooded conservation areas, for city planning tasks, the assessment of fixed assets tax, etc., and these various maps are kept as map-based data". The function of GIS is to put this map-based information into electronic form, so that it can be used for a wide range of different purposes, including the development of administrative tasks, heightening the efficiency of the tasks referred to above, supporting tourism, disaster prevention planning, formulating policies for use when disasters occur, etc.

Among the digitized maps held by local governments, there are maps that are used internally by the local government concerned, such as road maps, city planning maps, or maps showing land and houses within the geographical area of the local government, and there are also maps which are freely accessible to local residents.

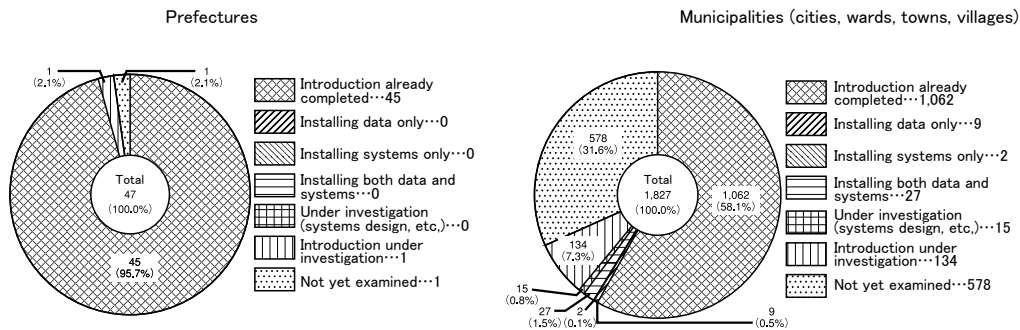
GIS in the form of a device or structure which links different kinds of GIS is known as "integrated GIS". It is able to use on a common-use basis the data in multiple map-based information systems, and in this way, a cost reduction is achieved in comparison with using different individual systems. In such cases, use is made of networks such as LAN, and the spatial data with its comparatively high level of universal usability can be strengthened and administered in a uniform fashion as "common-use spatial data", as well as being made available within set parameters to

local residents, and used to brush up the information by means of data registered by local residents. It is expected that as well as putting an end to duplication of investment aimed at strengthening map-based data, and to raising the level of internal efficiency by means of use of the data, the system will also help to revitalize local communities.

3-5-2 Level of utilization of GIS

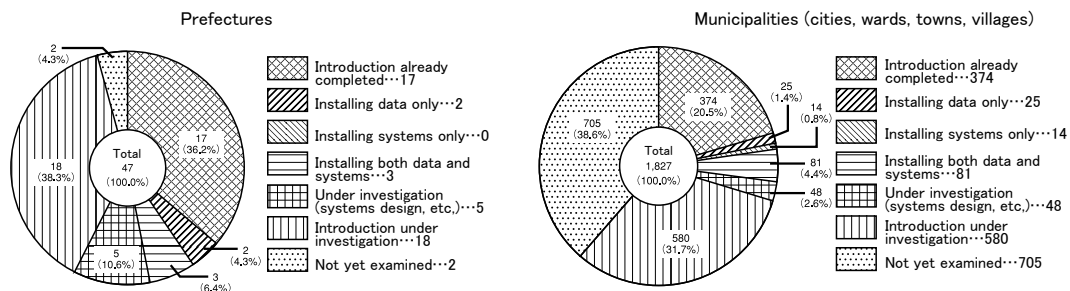
According to the 2007 IT Management Overview, the number of local governments which had finished installing GIS comprised 45 prefectures (95.7%) and 1,062 municipalities (58.1%).

【Tackling the installation of non-integrated GIS】



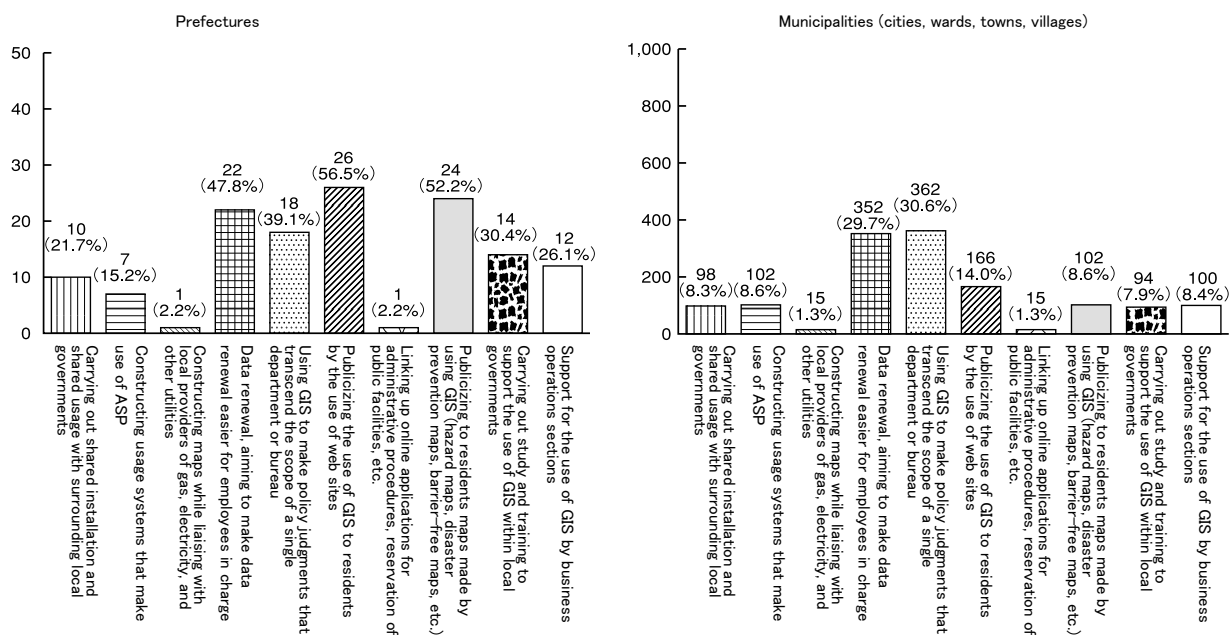
Using the same reference source, the number of local governments that had completed installation of comprehensive-type GIS amounted to 17 prefectures (36.2%) and 374 municipalities (20.5%).

【Tackling the installation of integrated GIS】



With regard to methods of using or of broadening the range of use of GIS, according to the 2007 IT Management Overview, a significant number of local governments used it to make broad policy judgments that transcended the scope of a single department or bureau, or to make information publicly available through the website.

【Type of GIS installation and implementation techniques (multiple answers)】



3-6 Web conference room and e-neighborhood association

Many local governments offered web conference facilities to enable local citizens to take part in meetings (in 2004, there were more than 900 local governments in the country as a whole which offered such a facility on their website). However, with a limited number of people participating, it was a case of: “We’re open, but not doing any business”. There were also many cases where sites were forced to close because of a series of vicious comments or outside interference. There are said to have been only a very few cases where things went successfully, like the example of Fujisawa City, where the organizers kept in close contact with local residents and exercised detailed managerial supervision.

One can also find cases of movements to treat a local neighborhood association as a separate unit, having its own home page and bulletin board. Examples are Okayama City with its own electronic neighborhood association, or Ichikawa City with its electronic assembly.

In recent years, there have been moves to use local SNS in place of web conferences (see 5-2-3 for more details on local SNS).

4. Management resources and ICT

4-1 Increased running costs and attempts at sharing; improvement of governmental procurement concerning information systems

Given as a basic assumption that local governments have limited human resources and administrative budgets, it is necessary to respond accurately to the widely

diversified needs of residents. According to the 2007 IT Management Overview, the number of officials responsible for the implementation of local e-government was 1,457 in the case of prefectures, and 16,015 in the case of municipalities. In addition to such designated staff, persons from outside (persons entrusted with tasks in local government by external commissioning and dispatched to local government offices by private-sector firms) numbered 462 in respect of prefectures, and 2,157 in respect of municipalities, making a grand total of 20,091 persons. And the cost in fiscal 2007 for prefectures and municipalities combined for the implementation of local e-government was 410.8 billion yen.

In the past, each local government operated information systems on an independent basis, and there was almost no joint use of facilities. However, given the large cost of strengthening information systems from now on, it is hoped that these costs can be reduced through joint shared use.

In 2005, the Ministry of Internal Affairs and Communications and the Local Authorities Systems Development Center conducted a nationwide survey with regard to investment in IT.

4-1-1 Results of an analysis of local government IT investment

The results of a “Survey on the Initial Cost and Maintenance Cost of Computer Hardware, Network and Business Applications in Municipalities in Fiscal 2005”.

(1) Current situation regarding IT investment by business operational fields and by the scale of the municipality.

Systems in the following areas have been computerized in almost all local governments: taxation, national health insurance, welfare, finance and accounting, and staff salaries. However, in small municipalities, the rate of introduction in other areas is low.

If business operational fields are categorized into basic operational fields, fields concerned with internal administration, and fields concerned with services to residents, the rate of introduction for each of these in the order given is 70%, 40% and 20%.

The per capita rate of expenses of operational field systems becomes relatively higher, the smaller the population of the local government concerned. Also, comparing 2 municipalities, even where the operational field is the same and the scale of the municipality is the same, there are large differences in the level of expenses.

(2) The pattern of introducing business applications

Business application systems for residents are relatively new, so many local governments are constructing web-based systems. Machines for universal usage are

found in a relatively high percentage of basic operational fields, are rather infrequent in fields concerned with internal administration, and are barely used at all in fields concerned with services to residents.

As mentioned, in terms of computerized systems for basic operational fields, the usage percentage of universal machines is high. On the other hand, in the case of relatively newly computerized systems, web-type applications are prevalent. Furthermore, over 60% of municipalities (cities, wards, towns and villages) use packaged software supplied by a vendor. In particular, the more recent the operating period, the higher the utilization rate of packaged software.

(3) Changes to the computer system due to changes in the law, etc.

Reflecting the influence exerted by high costs, changes in computer systems due to revised systems of working can be identified. Such computer system changes are especially prevalent in the following areas: taxation, national health insurance, welfare, and staff salary payments.

(4) Cost down measures and the present state of joint outsourcing

Joint outsourcing is widespread, but the type of work or tasks thus disposed of is heavily biased toward front-end systems, and such joint outsourcing is hardly implemented at all in terms of back-office systems.

4-1-2 Promotion of joint outsourcing

Following the lead given by the Ministry of Internal Affairs and Communications, since fiscal 2003, prefectures, and the municipalities within their respective jurisdictions, have been promoting joint outsourcing of information processing.

The Ministry of Internal Affairs and Communications also carried out in fiscal 2003 the development of several systems, and engaged in practical trials with several local governments. Subsequently, LASDEC carried out developments in the field with several local governments. The results were registered in LASDEC's software library, where they can be used at no charge by local governments. The "Survey on the Initial Cost and Maintenance Cost of Computer Hardware, Network and Business Applications in Municipalities in Fiscal 2005" (see 4-1-1) yielded results proving that large cost reductions could be obtained if the information processing needs of local governments were carried out on a co-operative or shared basis.

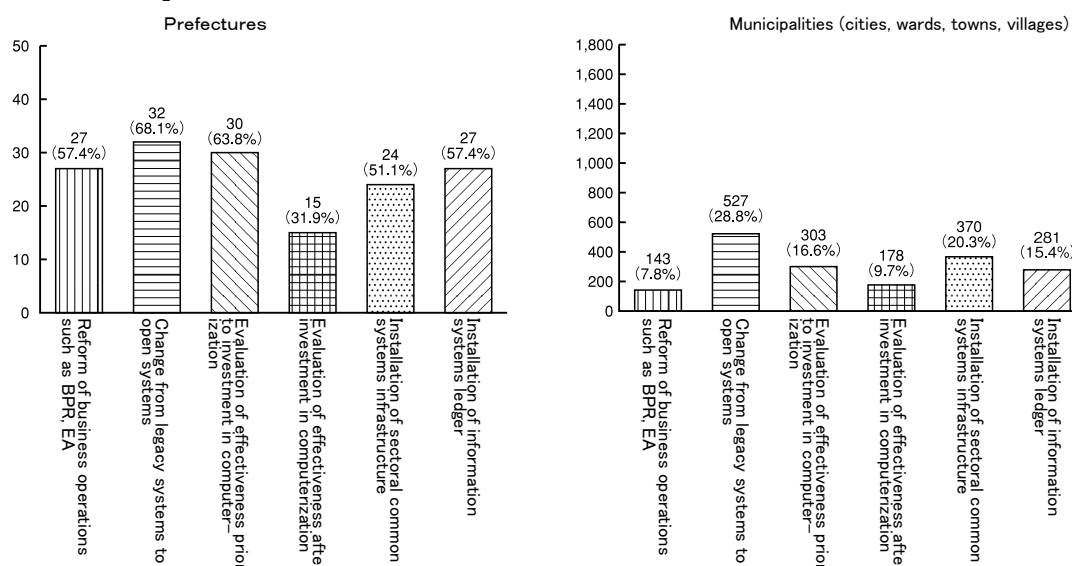
4-1-3 Reform of administrative operations and taking forward re-evaluation of EA (Enterprise Architecture) projects in local governments

(1) Getting information systems to a state of maximum suitability; the present position

(i) National trends

According to the 2007 IT Management Overview, with regard to policies aimed at effecting improvements to local government information systems and putting them into a state of maximum suitability, 68.1% of prefectures and 28.8% of municipalities are tackling the process of change from legacy systems (Note 11) to open systems (downsizing from universal machines to servers). Furthermore, 57.4% of prefectural governments are tackling computer system reform issues such as BPR (Business Process Re-Engineering) (Note 9) and EA (Note 12), but the number of municipal governments tackling these issues is still lagging behind at 7.8%.

【Devices constructed to serve the optimization of information systems (multiple answers)】



(ii) Outsourcing general affairs issues through the utilization of ICT

There are many cases of duties categorized as general affairs being outsourced through the utilization of ICT. It used to be the case that in each local government, there was a general affairs department or bureau, or someone in each section charged with handling general affairs, but with Osaka Prefecture taking the lead, what is happening in an increasing number of prefectures is that staff responsible for general affairs in individually separate departments have been withdrawn, and at the same time, general affairs centers are established under one roof. By means of outsourcing using ICT, general affairs issues are then dealt with in a concentrated way.

(2) EA projects in local governments

EA (Note 12), as a design method that aims to achieve optimum suitability in all systems throughout an entire computer structure, was first used in the public sector in

central government ministries (decision to aim at optimum suitability taken in 2005 on the basis of the 2003 plan to construct electronic government), and the Ministry of Internal Affairs and Communications, which had responsibility for promoting efforts in local governments, launched the Local Government EA Project in 2005. In EA as hitherto understood, there has been a tendency for efforts to achieve optimum suitability to be limited to information systems, but as an example of efforts to tackle administrative reform of all business operational areas, for the 2 years of 2005 and 2006, the Ministry of Internal Affairs and Communications implemented field trials in Kawaguchi City and a number of other local governments, and produced guidelines which brought together ways of strengthening policy systems and business operational systems as well as data structures, the formulation of a reference model, and methods of introducing EA to local governments.

In addition to such efforts by central government, the introduction of EA was tackled in a variety of ways by local governments, working on their own initiative.

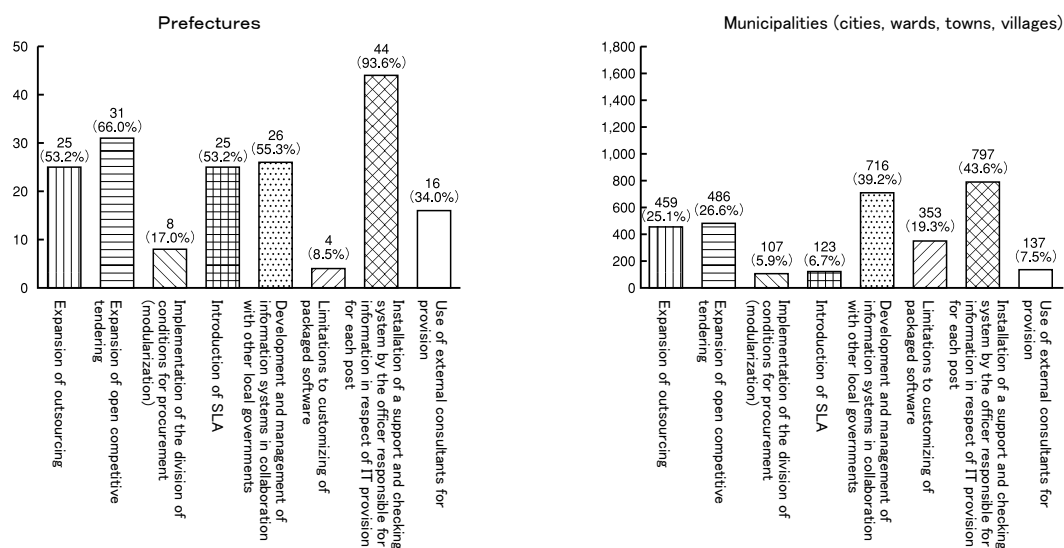
(3) Data standardization

We can find many cases of the mutual exchange of data through information systems both at central government and local government level, and in the context of such exchanges, the standardization of data became an issue, leading the Ministry of Internal Affairs and Communications to get to grips with this issue. At the initial stage, within the context of systems that linked central government and local governments by means of utilizing Kasumigaseki WAN and LGWAN, enquiry systems were constructed, and efforts are being made to take forward the establishment of a bridgehead leading to data standardization.

(4) Improvement of governmental procurement concerning information systems

Against the background of a severe financial situation, re-evaluating IT provision has become an important issue. According to the 2007 IT Management Overview, efforts were being made by 44 prefectures (93.6%) and 797 municipalities (43.6%) to “put in place a system of checking and support by the Information Department in respect of IT procurement in each department”. In addition, efforts were also being made by 26 prefectures (53.2%) and 716 municipalities (39.2%) to tackle the “development and management of information systems in co-operation with other local governments”. Many cases can also be found of local governments tackling “the expansion of competitive tendering” and “the expansion of external contracting”, as well as many cases of prefectures tackling the “introduction of SLA” (Note 13).

【Policies formulated in support of the optimization of IT provision (multiple answers)】



4-1-4 Regional information platform for local e-government (a system that uses SOA (Note 14) as a base)

Because computerization was carried out on an individual basis by operational area, there are differences in the vendor, and differences in the technology used because IT was provided at different periods, hence compatibility with other operational areas is difficult. And even when liaison does take place, the costs arising from reform projects that exert influence on multiple systems are high. In a case where a single vendor develops the entire range of systems, problems of this kind do not occur, but in such a case, the systems become dependent on the unique characteristics of the vendor concerned, it becomes impossible to construct a competitive environment, and the final result may well be that costs in fact rise.

In this sort of environment, attempts to construct a common infrastructure are being taken forward in every local government in parallel with attempts to tackle joint outsourcing. Hokkaido, Fukuoka Prefecture and Miyagi Prefecture can be cited as examples. Furthermore, at central government level too, the Ministry of Internal Affairs and Communications is coordinating a common base for an information platform for local e-government on the basis of the movements outlined above.

(1) The Hokkaido Electronic Government Platform: HARP (Harmonized Applications Relational Platform)

Taking the goal in Hokkaido as the construction of future electronic government systems, the construction of HARP is being promoted with the aim of being able to

construct efficiently high-quality systems that also have a high level of convenience for residents and firms. At the same time as incorporating the latest internet technology, HARP is able, by unifying the rules for system interfacing, to carry out easily interfacing between very diverse systems. By using a platform (common infrastructure) constructed for shared use by municipalities (cities, wards, towns and villages) and equipped with the functions found in common in all the kinds of systems necessary for the realization of electronic government, HARP can be seen as a common-use, outsourcing model that aims to take electronic government forward efficiently and effectively. In 2004, as well as the establishment of a limited company in Hokkaido to which the Hokkaido government and firms in Hokkaido contributed, the Hokkaido Electronic Government Joint Management Council, consisting of representatives of the prefectural government and municipal governments, was also established.

Its characteristics are that it concentrates efforts toward the platform of system-based, common-use functions, and has the merit of common-use outsourcing in the form of reduced costs for maintenance and administration. In addition, the systems are modularized as far as possible, thus expanding opportunities for participation by local IT firms.

(2) Regional information platforms of the Ministry of Internal Affairs and Communications

Through its promotion of regional information platforms, the Ministry of Internal Affairs and Communications is aiming at the construction of a system that uses SOA as a base. Over a three-year period from 2005 to 2007, the National Institute of Information and Communications Technology (independent administrative corporation) constructed a model in the form of a platform that was commonly applicable to several public fields. The intention, while giving due consideration to existing local government EA projects and to the results achieved by the common-use platform in Hokkaido and Fukuoka Prefecture, is to tackle, from 2008 onward, the construction of a full-scale platform.

4-2 Organization and human resource training (IT staff and the training of IT Human resources)

4-2-1 History

Until now, many prefectures and a number of municipalities have proceeded by employing specialist information technicians. Moreover, the methods adopted have been ones whereby prefectures, acting independently, establish specialist information processing organizations in the form of non-profit corporations or joint-third sector

bodies and entrust them, on a co-operative basis, with development and management tasks. However, on the one hand, in line with the development of information technology, there was an expansion in such areas as the continuing spread of information technology into the regions, and expanded encouragement of the development of regional information industries, while on the other hand, the number of local governments that entrusted systems development and management tasks to private-sector firms increased, leading to a situation where almost no local governments undertook systems development and management independently.

4-2-2 The Information Processing Section, the Chief Information Officer (CIO), and the Program Management Office (PMO)

In local governments hitherto, it has been the practice to establish an Information Processing Section to assume jurisdiction over information processing and the growth of computerization in the local area concerned. Furthermore, as local governments have become able to construct electronic government, it has become the practice, in consideration of the importance of having someone with responsibility for the unification of information, to establish the post of Chief Information Officer (CIO) (Note 15). There are many cases where the CIO also has responsibility in parallel for finance and organization; according to the 2007 IT Management Overview, in 4 prefectures, a specialist was appointed from outside, while in 2 prefectures and 3 municipalities, the CIO has full-time responsibility. As well as participating in the preparation of the budget for information systems, the post-holder participates in administrative reform.

It has already been noted above that the development of information systems by local governments acting independently has almost disappeared, but in the light of the importance of providing IT and of the necessity to reduce costs, what has happened is that a Program Management Office (PMO) (Note 16) has been established with control over IT projects. According to the 2007 Information Administration Overview, 1 prefecture and 11 municipalities have established a full-time separate PMO structure, while in 11 prefectures and 472 municipalities, the Information Processing Section also carries out PMO responsibilities.

4-2-3 Human resource training of IT staff

Hitherto, the training of IT staff has been implemented in the form of information processing study and training in study and training institutions throughout the country such as training facilities in each local government, the Local Autonomy College, or municipal academies, or in the form of specialist study in LASDEC, in such ways as staff exchanges between information sections and business operational

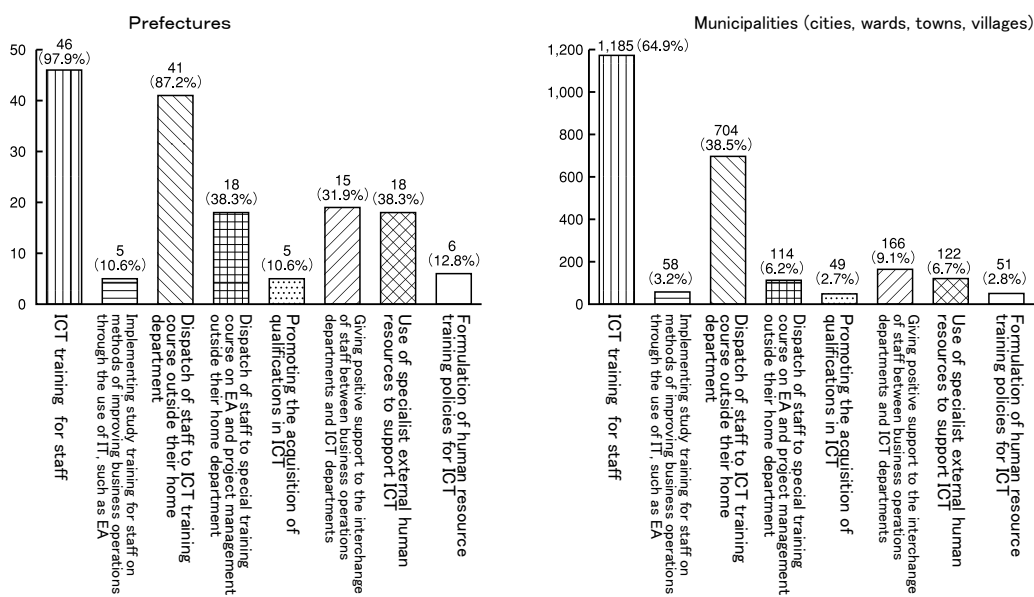
sections, or in study aimed at obtaining qualifications in computerization-related fields.

In recent years, the training of staff who have the potential to become CIOs in local governments has become a matter of urgency.

Furthermore, in line with the importance of information security policies and the provision of IT, raising the level of IT knowledge among general staff has become an issue.

According to the 2007 IT Management Overview, if we look at how local governments are tackling these issues, we can find many cases of people implementing study programs on their own initiative and of people being sent to other departments for study and training.

【Conditions of implementation of the education and study training of staff in computerization matters(multiple answers)】



The following case studies can be seen as examples of external study training programs

(1) Training of local government CIOs (Place: Local Autonomy College)

On this course, which is targeted at general employees of local governments, students learn to understand what is expected from the post of CIO and what shape the system that supports a CIO should take. They also deepen their understanding of points such as how to take computerization forward and the kind of perspective required to make judgments. The course also aims to constitute a forum where personal networks can be formed between students after the periods of formal study

are over and where they can get to grips with special areas of study. Courses have been implemented since 2005, and in 2007, the following 3 courses were held.

(i) Study training to develop local government CIOs (IT governance).

Sponsored by the Information and Communication Policy Bureau of the Ministry of Internal Affairs and Communications.

(ii) Study training to develop local government CIOs (management administration)

Sponsored jointly by The Association for the Promotion of Public Local Information and Communication and the Local Autonomy College.

(iii) Study training to develop local government CIOs (legacy reform).

Sponsored jointly by The Association for the Promotion of Public Local Information and Communication and the Local Autonomy College.

(2) Study training in information processing

In JAMP (Japan Academy for Municipal Personnel) constituting study training institutions for municipal employees located all over the country, study training courses on information policy targeting such employees are held every year. In fiscal 2007, 5 classes were held on 4 subjects, including a course on handling information policy aimed mainly at senior executive staff, a course on information technology aimed at staff with responsibility for this area, and a study training course aimed at general employees on spreadsheet and database software.

In the same way, in the Japan Intercultural Academy of Municipalities (JIAM), an institution serving the needs of municipalities from all over Japan, study training courses held in fiscal 2007 on information technology matters comprised 2 classes, one on construction of a home page, and one on security and the use of ICT,

(3) Study training in information security by means of e-learning in LASDEC

(i) Study training in information security by means of e-learning

Within the broad conceptual framework of electronic government, it is necessary for many staff, not just information supervisory staff, to have basic knowledge of information security measures in relation to individual use of a personal computer. With this situation in mind, LASDEC implements “information study training by means of e-learning”, targeted at local government employees with the aim of enabling them to acquire specialist knowledge concerned with the latest security technology and the handling of individual information.

In fiscal 2007, 3 courses were held, namely a basic course, an applied course, and an advanced course.

(ii) General information security study training

In addition to the courses outlined in (i) above, LASDEC arranges study training

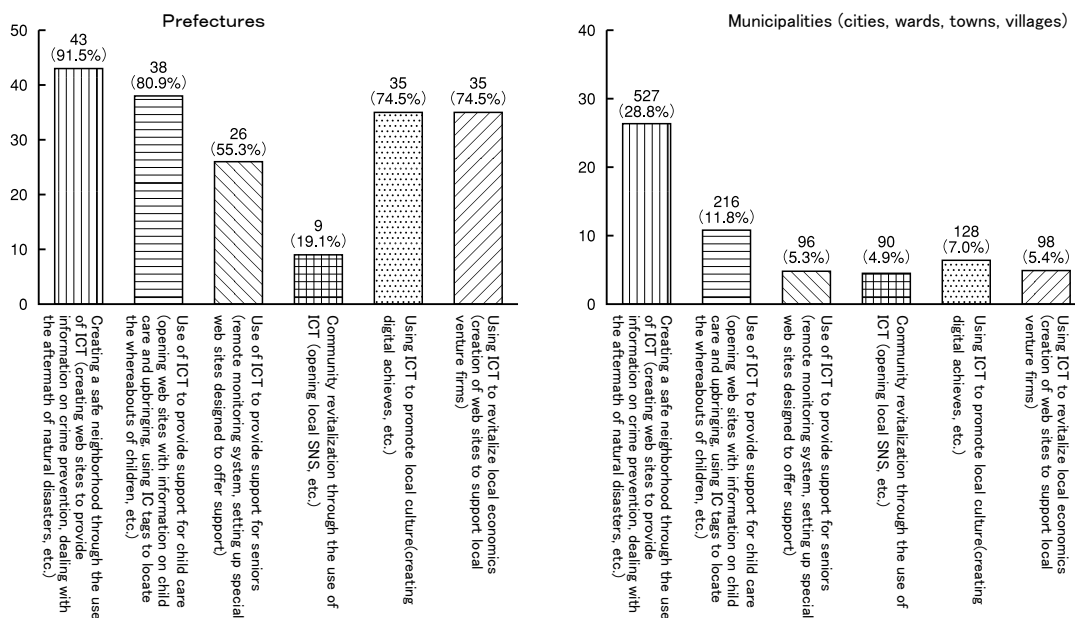
meetings in all parts of the country.

5. Administrative issues and ICT

5-1 Applied ICT fields

Local governments are trying to find solutions to a wide variety of administrative issues through the use of ICT. According to the 2007 Information Administration Overview, the issue which is most frequently tackled through the use of ICT is the creation of a safe community (91.5% of prefectures, 28.8% of municipalities), and this is followed by support for bringing up children (80.9% of prefectures, 11.8% of municipalities). Other issues at prefectural level are the revitalization of regional economies and the promotion of regional culture; efforts to tackle community revitalization can also be found.

【Tackling the solution to local issues through the use of ICT (multiple answers)】



5-2 A new method of achieving community revitalization

5-2-1 Sharing information about community security and safety

With the aim of creating an area or a community that is safe and secure, on the basis of a number of pioneering projects undertaken by local governments, LASDEC developed a system aimed at achieving safety and security through the shared use of information, and a model has been implemented in several municipalities. At the present time, many municipalities are getting to grips with the issue of how to create a safe and secure community by using this system, but the system itself has been developed and applied in a number of different ways in different municipalities.

In a system where information about local safety and security is shared,

information concerning safety and security as provided by residents, the police, the fire service etc, is made available to users by means of electronic bulletin boards, digital maps and e-mail. In such cases, by using a cell phone that is able to read a two-dimensional code or is equipped with a GPS function, it is possible to identify the source of information or to add a picture to written information. In addition, the system can be used for such purposes as providing an electronic bulletin board for the exclusive use of a particular group such as members of an autonomous local body or pupils of an elementary or junior high school, enabling a group management function by means of a digital map, public validation of individual identity, or providing confirmation of individual identity by confirming the use of a cell phone with a particular machine number.

5-2-2 Local SNS

A means unique to Japan of compensating for the defects in web conferencing through electronic bulletin boards is local SNS. In local SNS, the hurdles in the way of information transmission, compared to electronic conferencing, are low, while on the other hand, participation is by invitation, so that the numbers are limited, and at the same time, it is easy to restrict access to suit the circumstances of the other party or parties, feelings of being secure or reassured are higher than in the case of blogs.

This system was first introduced in Japan in 2004 in Yatsushiro City, Kumamoto Prefecture, under the title “Gorottoyatchiro” (In Yatsushiro, you can really relax). In the year following this initial attempt, in 2005, the Ministry of Internal Affairs and Communications implemented 2 experimental trials, one in Chiyoda Ward, Tokyo, under the title “Choppi” [a humorous abbreviation of Chiyoda], and one in Nagaoka City, Niigata Prefecture, under the title, “Ococonagohka” (Hi Nagaoka!”. Subsequently, it became possible to register systems with LASDEC, and systems were offered at no charge to local government, NPOs and others. There were also cases where systems were developed independently. As an example of a lively and vigorous SNS, one can cite the example of “Hyocom” (Hyogo + Communications) in Hyogo Prefecture, which has over 3,000 registered users.

In general, one can say that local governments have a relaxed relationship with local SNS. The role of local governments is to provide information about administrative matter and events, and there are also cases where they listen to opinions on a specific theme. They also carry out specialized information transmissions at times of natural disasters.

Taking up the topic of “local SNS” in more specific detail, it is usual for them to put up a bulletin board under the title “Community” on a specific theme, and anyone

who would like to participate is free to express their opinions and exchange opinions with others. Diaries and photographs can also be put on the board, and local information can be placed on a map of the area. Real-life exchanges are also implemented when people who have become acquainted on a local SNS come together in the form of “off-line meetings”, and one plus point of local SNS is being easily able to implement actual exchanges of this kind.

5-3 Promotion of local culture

With the promotion of local culture in mind, examples can be found of intangible products such as traditional arts and crafts being stored in digital archives and, at the same time, being transmitted via websites for general use.

Many examples of the introduction of cultural assets can be seen on prefectural websites, and digitized images are making an increasing appearance by the side of words and photographs.

In terms of efforts covering the whole country, one can cite the digital contents transmission project carried out by the Japan Foundation for Regional Art-Activities (hereafter: JAFRA). Specifically, visual records (video clips) are made of cultural assets (ceremonial rituals, traditional arts, and so on) belonging to municipalities in every part of the country, are brought together (300 records were assembled in the 3 years from 2005 through 2007) to be digitized and transmitted over the internet through the JAFRA portal (<http://bunkashisan.ne.jp/>). English, Chinese and Korean versions are also available.

(Notes)

1. If we look at regions or local areas which are disadvantageous for the dissemination of broadband technology, we find according to the 2007 Annual Report on ICT, that, taking the FTTH service as representative of super high-speed broadband services, almost all the residents in cities with a population exceeding 100,000 could access the service, but on the other hand, in municipalities with a population of less than 10,000, the possibility of access had risen no higher than 20%.

2. Third generation network for cell phones, abbreviated to 3G, denotes cell phones of a digital type, which conform to the standards determined by the International Telecommunications Union (ITU). With these phones, there is no need to change the telephone number when going overseas, because international roaming is possible, and high-speed data transmission, TV phones, and all kinds of multi-media services have become possible.

3. There is no precise definition of Web 2.0, but in general, it indicates a concept that can be defined as the construction of a new web world that makes effective use of the characteristics resulting from the dissemination and expansion of the internet, and has qualitatively evolved from devices previously used. As examples of the services offered, one can cite user-centered information provision services such as blogs and

Social Networking Service (SNS), which provide added value through high-speed internet usage and the realization of mutual linking and communication. In particular, SNS, unlike the conventional web site, is configured in such a way that people are invited to join by other people who are already members, and has become a web community composed of members who have links to real society.

4. Examples of policies that make use of satellite transmissions to develop computerization in local areas are disaster countermeasures that make use of the communications network of the Local Authorities Satellite Communications Organization, or nationwide transmissions of local information. At the time of the Great Hanshin-Awaji Earthquake in 1995, almost all the public telephone lines were paralyzed, and use was made of the Hyogo Prefectural satellite communications network for transmitting information between public bodies in the prefecture, thus providing proof of the strength of the system at times of disasters. Use is also made of the satellite network, using live feeds and video material, to inform and invite participation in such events as local expositions and festivals.

5. A system of cards for users of small savings, enabling them to get an accurate grasp of interest and income from their savings, was legally authorized in 1980, and was scheduled to be introduced from 1983, but it met with strong public opposition, so that it was decided to delay its introduction, and the scheme was cancelled in 1985.

6. The Basic Resident Register (BRR) designates a system that constitutes the foundation for dealing with such matters as validating a person's address, compiling the register of electors, and so on. In every municipality, a certificate of residence is compiled for each household, and as the basis for many kinds of services carried out by the municipality, including compilation of the electoral register, proof of eligibility to receive national health insurance or a national pension, or compilation of a register of school age children, it serves the purpose of rationalizing administrative processes and promoting the convenience of citizens.

7. Kasumigaseki WAN is an inter-government Wide Area Network (WAN), which connects up governmental LAN (Local Area Networks) installed within each government building. It was started in 1997 and currently links up 28 government institutions.

8. ASP (Application Service Provider) designates an enterprise which provides rental services of business-use application software to clients through the internet.

9. BPR (Business Process Re-engineering) denotes the process of radically re-examining existing organizations and rules, redesigning and restructuring business duties, business operational flow, supervisory structures and information systems.

10. A Personal Seal Registration Certificate designates a certificate in the form of a plastic card which is issued by municipalities to residents who register their personal seal with the municipal office. In Japan, there are many cases where impressing a personal seal takes the place of a signature, and registration of the impressed seal is a way of authenticating an individual or corporation, the legal basis of the system being provided by a municipal seal registration bylaw. In order to enable a comparison to be made between a seal impressed on a document and the registered seal, use is made of a seal registration attestation document; this is issued by the municipality with which the seal is registered, and it bears, in addition to the impressed seal, the name and address of the person or corporation responsible for the registration. If the individual or corporate representative in whose name the Seal Registration Certificate is issued, takes this Certificate to the local government office, they will issue a seal registration

attestation document.

11. Legacy systems denote systems which are old and out of date, and in contrast to client server type systems or web type systems which are used by mainstream personal computers and server computers today, are systems found in office computers or universal-use computers which have acquired independent Operating Systems.

12. EA (Enterprise Architecture) is a design method which aims at optimum systems or tasks through the medium of the entire structure, and can be categorized into 4 levels of systems, i.e. BA (Basic Architecture), DA (Data Architecture), AA (Applied Architecture) and TA (Technical Architecture). The aim is to transform a system, by means of modeling, from its current state (As Is) to an ideal state (To Be), whereby an entire government building or structure can share information. This system was first introduced by the U.S. federal government, and at Japanese central government level too, a requirement was inserted into the 2003 electronic government construction plan, obliging government ministries to formulate by 2006 a “Business Operations and Systems Optimization Plan (EA)”.

13. The introduction of the concept of SLA (Service Level Agreement) denotes agreement to clarifying afresh, at the time of implementing a contract, the requirements (level to be achieved) in terms of the content and scope of the services and the quality of the goods provided by a contractor.]

14. SOA (Service-oriented architecture) is a service-oriented design method; more specifically, it denotes a method for standardizing rules for identifying and making available fragmented software and for constructing systems for putting packages together.

15. The CIO (Chief Information Officer) is the most senior officer responsible for information administration, and as well as being responsible for drafting plans and implementing computerization strategy as a part of general management strategy, the CIO also carries out the role of optimizing the provision and administration of software and hardware, the organization of IT human resources, and the reform of structures that utilize information technology and business operations processes.

16. The PMO (Program Management Office) is a project management administrative structure, organized on cross-sectional lines which has the objective of providing support to ensure that individual projects are smoothly implemented.

References

1. Soumushou [Ministry of Internal Affairs and Communications (March, 2007), Shin denshi-jichitai suishin shikei, [Guideline for the promotion of new electronic government].
2. Soumushou [Ministry of Internal Affairs and Communications] (Sept., 2007), Chihou-jitai jouhou kanri gaiyou ~ denshi-jitai no suishin joukyou ~, [Overview of IT Management in Local Government 2007.
3. Denshi jichitai kenkyuu-kai, hen [Research group on electronic local government, ed.] (July 2006), ICT de kawaru jichitai keiei senryaku, [Local government management strategy changing through ICT], Gyosei Publishing Co.

4. Soumushou [Ministry of Internal Affairs and Communications] (March, 2007), Jichitai EA – gyomu · shisutemu sasshin-ka no tebiki – (kaikei-ban), [Local government EA – handbook for a complete renewal of computerization and renewal].
5. Soumushou [Ministry of Internal Affairs and Communications] (March, 2007), ICT wo katsuyou shita juumin sankaku no arikata ni-kansuru chousa kenkyuu jigyou, [A research survey project on the ideal form of citizen participation achieved through the use of ICT].
6. Soumushou [Ministry of Internal Affairs and Communications] (July, 2007), Heisei 19-nen-ban jouhou-tsuushin hakusho, [2007 Annual Report on Information Communications].
7. Soumushou [Ministry of Internal Affairs and Communications] and Chihou jichi jouhou senntaa [Local Authorities Systems Development Center], (March, 2005), Heisei 17-nendo shi-chou-son no gyomu shisutemu no dounyuu oyobi unyou ni kansuru keihi nado no chousa, [An investigation into the costs of introducing and managing computerized systems in municipalities in fiscal 2005].
8. Kokusai CIO gakkai [International Academy of CIO], (March, 2007), Kokusai CIO gaakai jaanaru 2007-nen dai-1-gou, [International Academy of CIO Journal, No. 1, 2007].
9. Harada, Kenichiro (2008), Local Taxation in Japan, Papers on the Local Governance System and its Implementation in Selected Fields in Japan No.10, Council of Local Authorities for International Relations (CLAIR)/Institute for Comparative Studies in Local Governance (COSLOG)/ National Graduate Institute for Policy Studies (GRIPS)
10. Uchida, Miyuki; Okazaki, Akira; Saito, Tatsumi; Todoroki, Fusazo, Dec. 2006 ~ Feb. 2007), Jichitai senntaa kara miete kuru minkan keiei shuhou dounyuu ni yoru koukyou saabisu no arikata, [An evaluation of the desired pattern of public service to be achieved by the introduction of private-sector management methods found in local government call centers[, in 3 volumes, Nos. 630,631 and 632 of the monthly journal, Chihou Zaimu, [Local Finance].
11. Home pages of the following administrative institutions, local governments and public corporations:
 Ministry of Internal Affairs and Communications; Local Autonomy College; National Tax Agency; National Governors' Association; Hokkaido Prefecture; Miyazaki Prefecture; Gifu Prefecture; Osaka Prefecture; Hyogo Prefecture; Nagasaki Prefecture; Sapporo City; Nagaoka City; Ichikawa City; Chiyoda Ward, Tokyo; Edogawa Ward, Tokyo; Tachikawa City; Fujisawa City; Yokosuka City; Nanto City; Nishinomiya City; Izumo City; Okayama City; Yatsushiro City; Miyasaki City; National Institute of

Information and Communications Technology; Local Authorities Systems Development Center; Local Authorities Satellite Communications Organization; The Association for the Promotion of Public Local Information and Communication; eL Tax Portal; Japan Academy for Municipal Personnel; Japan Intercultural Academy of Municipalities; Japan Foundation for Regional Art Activities.

English reference sources:

“Basic IT Strategy”, an overview of IT strategy issued by the IT Strategy of Japan and available on the website of the Cabinet of Japan:

http://www.kantei.go.jp/foreign/it/council/basic_it.html

“New IT Reform Strategy”, issued in 2006, is also available on the Cabinet website:

<http://www.kantei.go.jp/foreign/policy/it/ITstrategy2006.pdf>

Under the heading “Best practices in e-local government”, LASDEC shows how BRR cards are used in one town in Japan:

<http://www.lasdec.nippon-net.ne.jp/its/bestpractice/english/original/f3.html>