

I-4-1 National governmental organizations

Websites have been established to transmit information and to request and receive comments.

Most national bodies in Japan, such as ministries and agencies, now have websites where they offer a wide range of information. The "Report on the Progress of Administrative Informatization," published in April 1999 by the Government Information System Committee, revealed that by the end of fiscal 1998, of the 26 ministries and agencies, all but the Imperial Household Agency had opened websites. Also, there were 29 websites for internal bureaus that are part of ministries and agencies, 111 for their regional bureaus and branch offices and 325 for national universities and research institutes, totaling 465 sites (Refer to Appendix 3).

At the national level, there are also the websites for the House of Councilors and the House of Representatives that comprise the Diet, and for the National Diet Library, the Supreme Court and the Board of Audit. The Board of Audit, the Cabinet Legislation Bureau, the Fair Trade Commission and the National Personnel Authority, which do not

have individual domain names, have established websites within the Kasumigaseki WAN Maintenance Center under the ".admix.go.jp" domain name.

1. Internet access to the Diet

A joint Diet Session Record Search system using the Internet was started in January 1999 on a trial basis by the two houses of Diet and the National Diet Library. It enables searches to be made of the minutes of the main Diet sessions and the Standing Committee on the Budget, as well as public hearings, dating from January 1998. The system is to be brought into regular service from January 2000.

The House of Councilors opened a website in May 1998, followed by the House of Representatives in April 1999. A pilot scheme is being implemented to provide video and audio broadcasts using the Internet (the House of Councilors actually

Table Excerpts from the "Basic Plan for Promoting Administrative Informatization" concerning their provision of administrative information via the Internet

Chapter II Provision of Administrative Information

1 Promotion of administrative IT in keeping pace with social informatization

i. Provision of administrative information

- 1) As for administrative information provision to the public, including white papers, annual reports, survey and research reports as well as other materials, the ministries and agencies shall, by utilizing the websites, improve the content of their sites and promote the posting of up-to-the-minute content. The ministries and agencies will receive complaints, opinions and requests of the public with respect to administration through the Internet.
- 2) As for administrative information available to the public, including white papers, annual reports, survey and research reports as well as other materials, the ministries and agencies shall promote the use of electronic methods and media such as CD-ROM and the Internet, in order to provide people with all kinds of administrative information.
- 5) Based upon "On Unified Specifications for a Clearing System for the Social Application of Administrative Information" (approved June 18, 1996, by the Ministry Liaison Committee for the Government Information System), the Government will establish a comprehensive clearing system and individual clearing systems for each ministry and agency by the end of fiscal 1999, and improve the content of these systems and promote the posting of up-to-the-minute content. As part of the comprehensive clearing system, to enhance the benefit to the public, the Government will provide the general public with retrieval and clearing services for administrative information as provided by the ministries and agencies.

Related sites: "Report on the Progress of Administrative Informatization" (<http://www.somucho.go.jp/gyoukan/kanri/990513a.htm>); House of Representatives (<http://www.shugiin.go.jp/>); House of Councilors (<http://www.sangiin.go.jp/>); National Diet Library (<http://www.ndl.go.jp/>); Supreme Court (<http://www.courts.go.jp/>); Board of Audit (<http://www.jbaudit.admix.go.jp/>); Cabinet Legislation Bureau (<http://www.clb.admix.go.jp/>); Fair Trade Commission (<http://www.jftc.admix.go.jp/>); National Personnel Authority (<http://www.jinji.admix.go.jp/>); Diet Session Record Search system (<http://kokkai.ndl.go.jp/>)

started to provide the service from April 1999). These are currently provided to the Diet itself, to the Prime Minister's Official Residence and to ministries and agencies, as well as being freely available to broadcasting stations. However, the aim is to eventually provide the public with direct access to the material via the Internet.

At present, live broadcasts are available of the main sessions of both houses of Diet, as well as Committee sessions, on a maximum of nine channels for the House of Representatives and seven channels for the House of Councilors (the latter is set to increase to nine channels by autumn of 1999). In addition, from June 1999, videotaped material began to be stored of sessions at the House of Councilors, for playback by viewers at any time.

(Reference) The Diet Session Record Search System is part of the Diet Minutes of Proceedings Full-Text Database, jointly constructed by the House of Representatives, the House of Councilors and the National Diet Library.

2. Internet access to ministries and agencies

i) Provision of administrative information

In December 1997, the Cabinet released "Amendments of the basic plan for promoting administrative informatization," setting out the basis for promoting the use of information technology in government administration and the provision of information via the Internet (Table).

By the end of fiscal 1998, most of Japan's central ministries and agencies published press releases on their websites, and in the case of MPT, information is posted either on the same day as press conferences or within about five days afterwards. In addition, summaries of white papers and annual reports are provided, with access also being possible through a link from the Prime Minister's website. Furthermore, many ministries and agencies are implementing a clearing system for searching governmental information over the Internet.

There have also been moves to provide specific information over the Internet. The Ministry of Justice offers a "Renewal Information Mail Service" via its website, which sends information summaries upon request when the homepage information is updated, as well as a service through which Braille files can be downloaded. The Meteorological Agency provides a "Disaster Prevention Weather Information Service" that keeps track of changing weather conditions on a continually updated weather map. The National Police Agency provides information on "wanted" fugitives and suspects, including samples of their voices in some cases. In addition, the Ministry of Labor is trying out a system called the "Hello Work Internet Service," by which information from Hello Work centers (public employment security offices) in the 23-Cities of Tokyo can be searched and retrieved.

As regards MPT, in fiscal 1999, the ministry plans to use its website to disclose details of notifications or reports on telecommunications carriers' tariffs and contract conditions, financial information, data on service quality and other information. This will form a database called the "System for Disclosure about Telecommunications Services."

ii) Requests for comments and opinions

As well as by telephone or facsimile, comments from the public can now be sent to central ministries and agencies by e-mail (Refer to Appendix 3). In MPT's November 1996 "Call for Opinions on Internet Usage," 919 out of 926 opinions were submitted via e-mail (99.2%), and the August 1998 "Call for Opinions on the Report of the Study Group on the Youth and Broadcasting" received 90 out of 92 opinions by e-mail (97.8%). At the Economic Planning Agency, the Director-General's request for comments on the government's emergency economic measures was answered by 182 e-mails, or 53.1% of the total 343 opinions sent in.

Related sites: Live Webcasts of Diet sessions in the House of Councilors (<http://www.sangiin.go.jp/online/>); "On amendments of the basic plan for promoting administrative informatization" (<http://www.somucho.go.jp/gyoukan/kanri/kaitei9.htm>); Prime Minister's Official Residence (<http://www.kantei.go.jp/>); Ministry of Justice (<http://www.moj.go.jp/>); Meteorological Agency (<http://www.kishou.go.jp/>); National Police Agency (<http://www.npa.go.jp/>); Hello Work Internet Service (<http://www.hellowork.go.jp/>); Ministry of Posts and Telecommunications (<http://www.mpt.go.jp/>); Economic Planning Agency (<http://www.epa.go.jp/>)

I-4-2 Local government

(1) Usage environment

77.2% of personal computers are connected to the Internet, 9.2% of staff provided with e-mail address.

According to MPT's 1998 "Local Government Survey," 77.2% of local government offices around Japan were connected to the Internet. Among prefectural governments and government-designated cities, the rate was 100% (Fig. 1). However, in 74% of local governments, fewer than half their computers had Internet access (Fig. 2). In contrast, at central ministries and agencies, 92.6% of computers were connected to the Internet through a LAN, and there were 1.2 employees for each computer, according to the "1998 Basic Survey on Administrative Informatization." This illustrates how far lo-

cal government use of the Internet use is lagging behind that of central government. However, since 66.7% of all local governments currently not connected to the Internet are planning to do so (Fig. 3), there seems to be increasing recognition that the Internet is valuable in administrative work.

Meanwhile, only 9.2% of local governments have given each of their civil servants an e-mail address, and about 50% of prefectural governments and government-designated cities. This suggests that e-mail still has only a tenuous hold as a communications method among local governments (Fig. 4).

Fig. 1 Internet connection rate

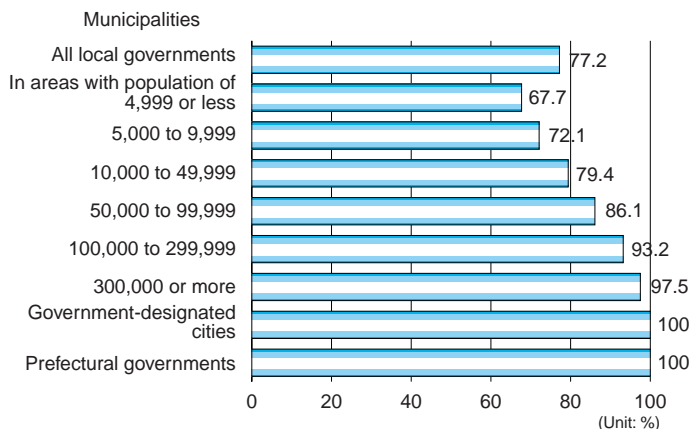


Fig. 2 Percentage of personal computers with Internet access

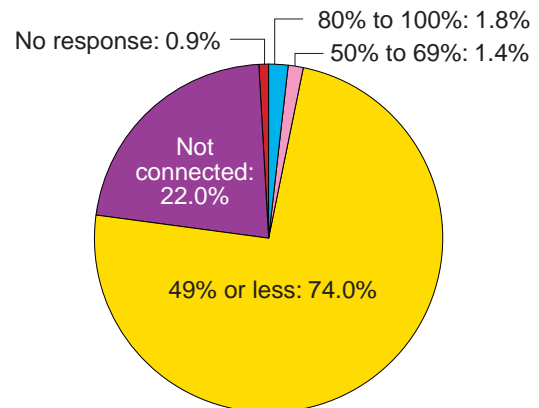


Fig. 3 Plans to connect to the Internet

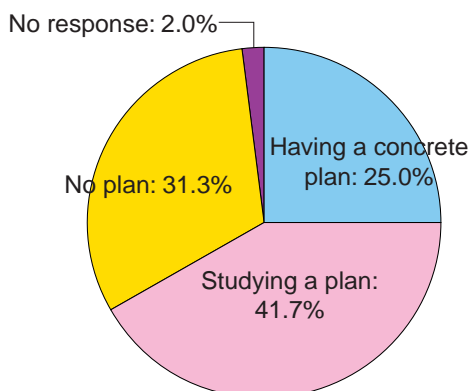
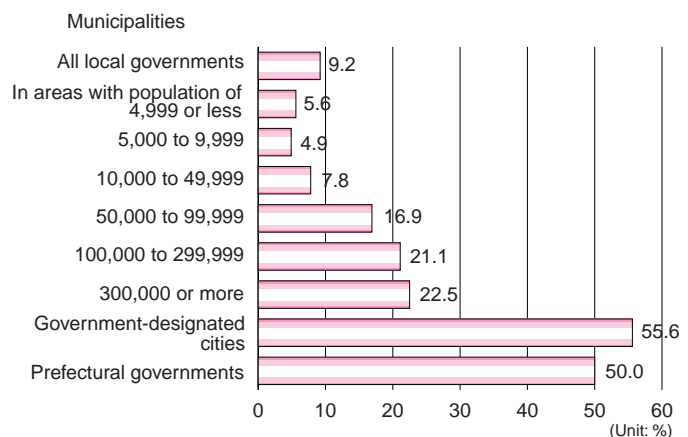


Fig. 4 Percentage of staff with own e-mail address



Source: "Local Government Survey," MPT

Related site: "1998 Basic Survey on Administrative Informatization" (<http://www.somucho.go.jp/gyoukan/kanri/gyou9800.htm>)

(2) Opening websites

The number of local government websites has expanded rapidly over the past two years, and is likely to keep growing.

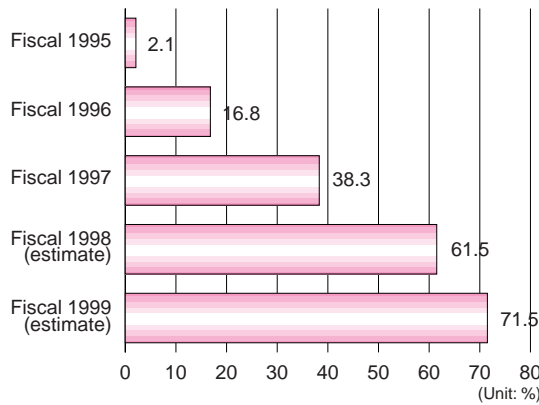
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According to MPT's "Survey of Local Governments and Public Bodies," by the end of fiscal 1998, among local governments and public bodies around Japan, 61.5% had opened Internet websites. This is the result of a rapid expansion over the past two years, and by the end of fiscal 1999, over 70% of local governments are expected to have websites (Fig. 1). Many have been motivated to inaugurate sites after seeing how neighboring local authorities have made use of the Internet to disseminate information (Fig. 2).

mation (Fig. 2).

Most local governments and public bodies that have websites record how often they are accessed. Counting several "hits" of different pages by one person as "one access," the access rate per month averaged between 10,000 and 50,000 for most prefectural governments and government-designated cities (Fig. 3), and up to 500 for municipalities with fewer than 5,000 inhabitants (Fig. 4).

Fig. 1 Number of local governments with websites



- Notes: 1. Figures for fiscal 1995 to 1997 are as of December each year.
 2. The figure for fiscal 1998 includes the number of websites already open in December 1998 and the number planned for opening in fiscal 1998.
 3. The figure for fiscal 1999 includes the fiscal 1998 figure and the number of websites planned for opening in fiscal 1999.

Fig. 2 Reasons for opening websites (multiple replies possible)

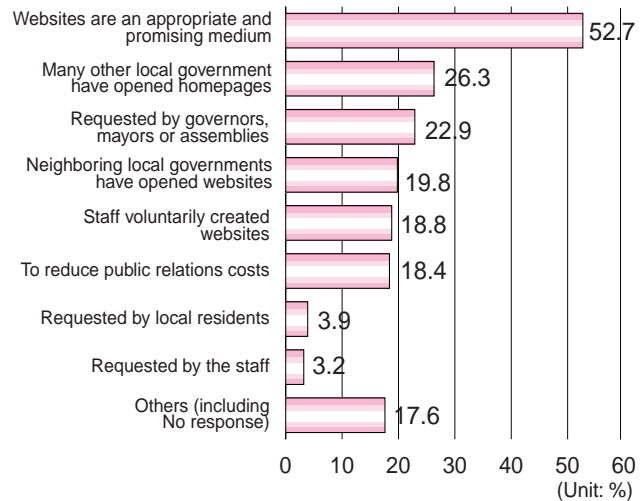


Fig. 3 Number of visitors per month to websites of prefectural governments and government-designated cities

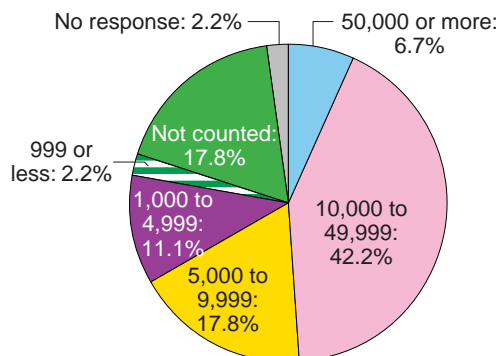
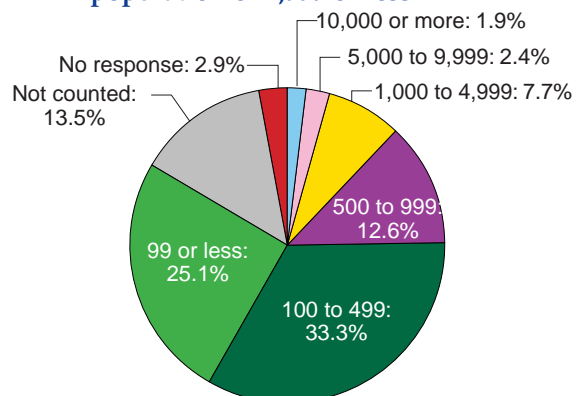


Fig. 4 Number of visitors per month to websites of municipalities with population of 4,999 or less



Source: "Local Governments/Public Bodies Survey," MPT

(3) Information disclosure/transmission

Information on tourism and local products is the most common item on local government websites.

According to MPT's "Survey of Local Governments and Public Bodies," nearly all (94.5%) posted information on "tourist sites and local products" on their websites (Fig. 1; Refer to Appendix 4). Other categories of information that are increasingly accessed, when available, included press releases and

details of news conferences, as well as information about moving to live in the area (Fig. 2; Refer to Appendix 4). Items that are difficult to categorize, such as information on local sports teams, are also becoming more frequently accessed ("Others" in Fig. 2).

Fig. 1 Types of information available on local authority websites (top 10 categories; multiple replies possible)

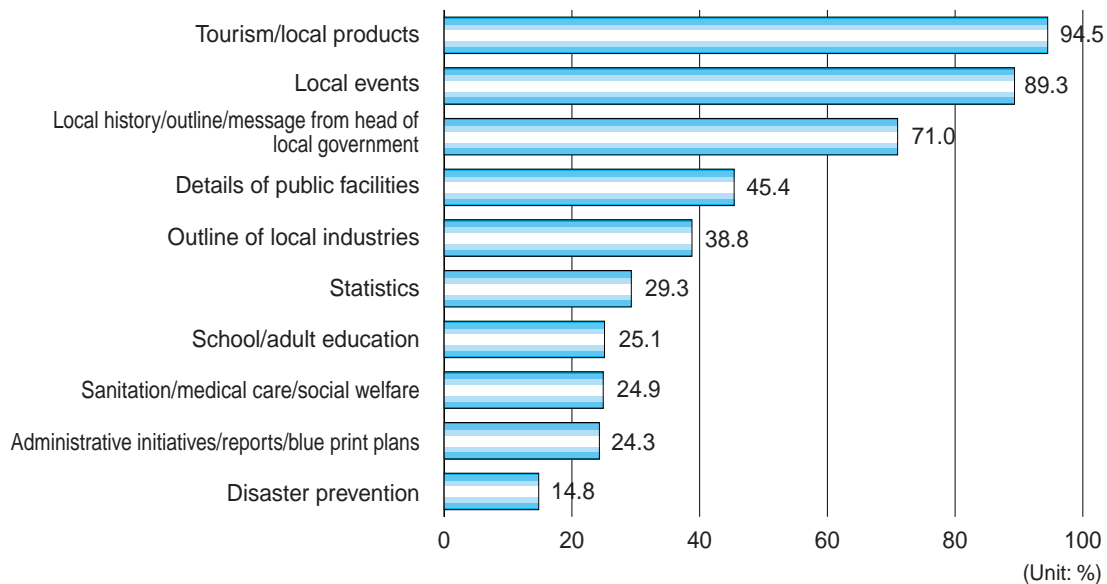
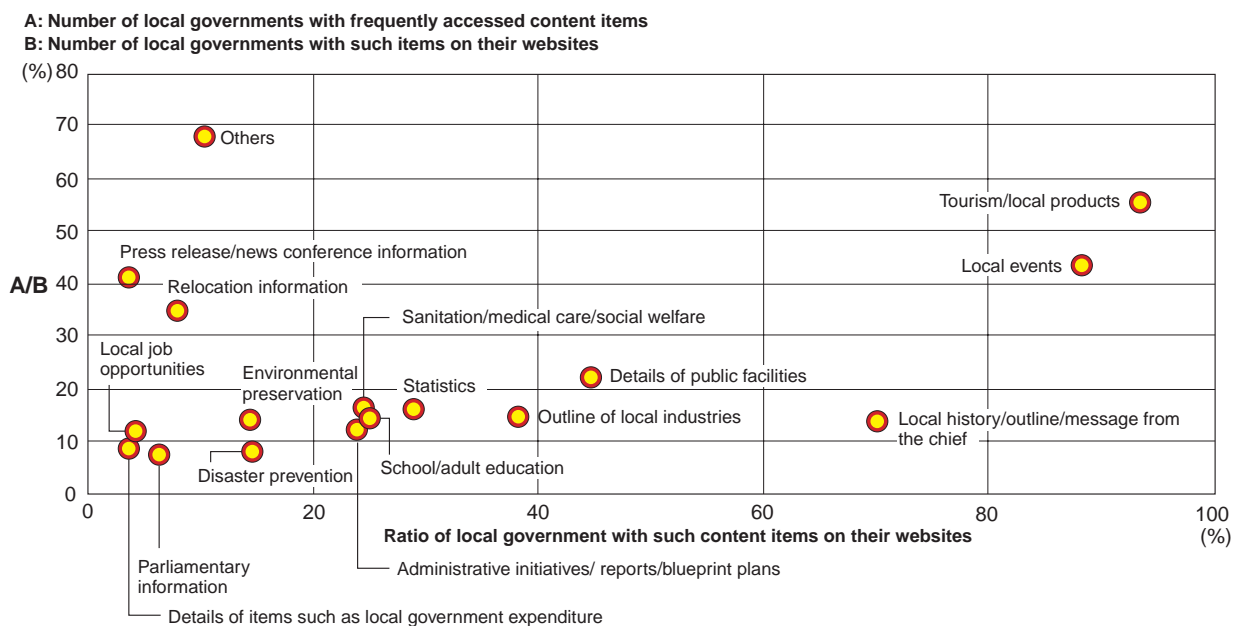


Fig. 2 Rate of access to items on local governments websites



Source: "Survey of Local Governments and Public Bodies," MPT

In October 1998, Saitama Prefecture was the first local authority to post press releases and information from news conferences on its website at the same time as offering it to the local press club. The survey revealed that 3.8% of local governments and public bodies now place such information on their websites, with 17% of these posting the information on the network almost at the same time as giving it directly to the press. The majority said that it was posted within three days of being offered to the press, and the rest said it was posted within a week at most (Fig. 3).

However, some local governments experience problems in maintaining up-to-date information on websites, thus reducing the sites' value. According to the "Survey of Local Governments and Public Bodies," 44.4% of respondents said that websites

were updated "once or twice a month," and 30.1% answered "a few times a year." Furthermore, 9.8% (mostly small, local public bodies) had not changed the information posted on their websites since their initial creation. These figures suggest that there are many websites that are not being well maintained (Fig. 4).

The survey also asked local governments for their views on the effects of disseminating information via their websites. In general, respondents said that the effect had been most noticeable in externally oriented matters, such as raising the local area's profile, providing tourist information and details of how to relocate businesses. The websites had much less effect in improving services for local residents or widening their understanding of administrative processes.

Fig. 3 Time of posting news on websites after press conferences or other public announcements

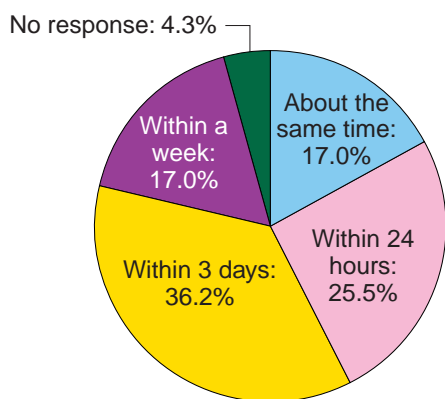


Fig. 4 Frequency of updating websites

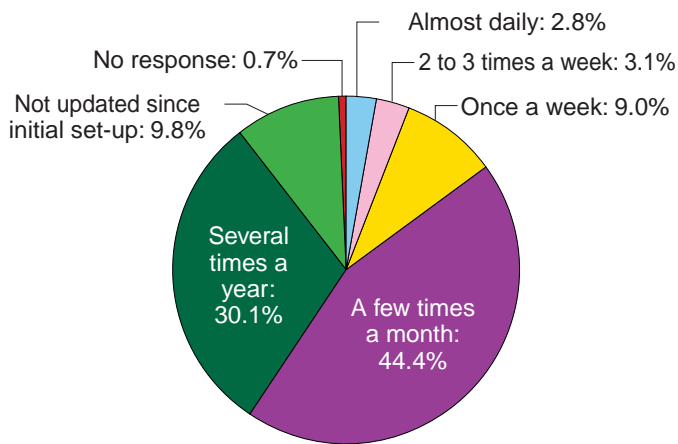
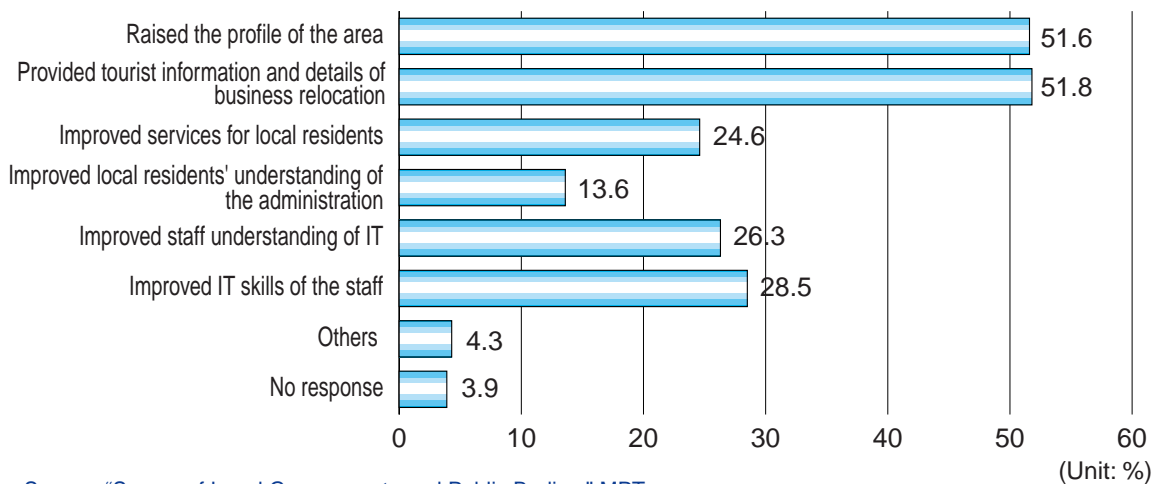


Fig. 5 Effects of opening websites



Source: "Survey of Local Governments and Public Bodies," MPT

(Unit: %)

Related site: Saitama Prefecture (<http://www.pref.saitama.jp/>)

(4) Administrative services

Most local authorities use websites for gathering residents' opinions, but seldom for administrative services.

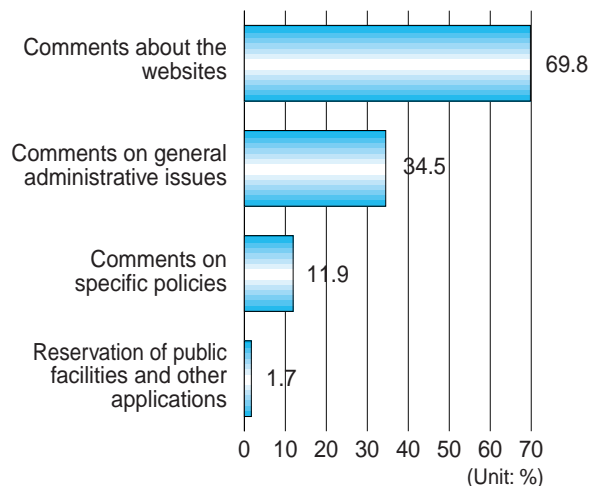
Local governments and public bodies have not only been using their websites to disseminate information, but also to gather it. According to MPT's "Survey of Local Governments and Public Bodies," 69.8% asked for online comments about their websites, while 34.5% requested opinions on general administrative issues. Prefectural governments and those of government-designated cities, or 11.9% of the total, have also set up methods of gathering comments on specific policies via their websites (Figs. 1, 2).

Meanwhile, however, a mere 1.7% of local authorities used their websites to accept reservations of public facilities and other application procedures. Thus, there appears to be very little use of the Internet to improve the delivery of administrative services to residents. However, since there are time constraints on these administrative services, it can

be said that the merit of the Internet cannot be fully used.

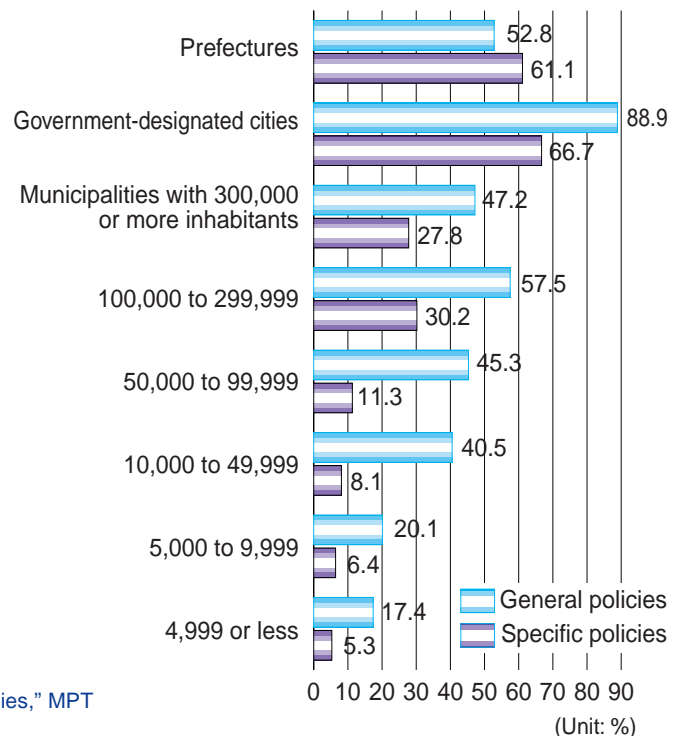
Nevertheless, there are examples of local governments making administrative use of the Internet in various ways. In May 1998, Mitaka City, in the Tokyo metropolitan area, began accepting online reservations, confirmations and cancellations for adult education courses offered by the city. It has also accepted online reservations for community halls since July 1998. For both services, prior registration is necessary, but once that is completed, reservations can be made at any time. In September 1998, Kamagaya City in Chiba Prefecture implemented a system that allows residents to make requests by e-mail for the collection of special types of refuse at specific dates and times. The city also offers an e-mail system for arranging health checks, such as cancer screening.

Fig. 1 Information accepted via websites (multiple replies possible)



Source: "Survey of Local Governments and Public Bodies," MPT

Fig. 2 Local governments accepting comments on general and specific administrative issues (multiple replies possible)



Related sites: Kamagaya City (<http://www.pref.saitama.jp/>); Mitaka City Life-long Learning System (<http://www.shougai.city.mitaka.tokyo.jp/>)

(5) Civic participation/Information exchange

Public discussion of civic issues is now possible in online conference rooms.

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With the growth of the Internet, many online communities have formed using such means as bulletin boards to exchange information and ideas on a wide variety of topics (Refer to I-3-2-(1)). According to MPT's "Survey of Local Governments and Public Bodies," 12.5% of respondents have websites with bulletin boards that allow free discussion among local residents, and some local authorities plan to establish systems to use such discussions in formulating policies.

1. Fujisawa City, Kanagawa Prefecture

In July 1997, Fujisawa City began a "Citizen Electronic Conference Room Experiment" to encourage citizens' participation in local government. The online conference room is divided into a "City Hall Area," dealing with municipal matters, and a "Citizens' Area" for other exchanges between participants. In "City Hall Area" discussions are held concerning civic matters, with municipal workers also participating to provide administrative information. In principle, and under certain rules, anyone who registers can take part and information transmission is free. The flow of discussion is encouraged through making earlier information readily available, thus allowing people who join in mid-debate to participate fully.

At suitable intervals, the results of discussions in the conference room are gathered by the committee running the experiment for eventual passing to

the mayor as citizens' proposals. As of February 1999, 1,784 citizens had participated in "City Hall Area" conference room activities, and, based on their discussions, the committee had submitted 20 proposals to the mayor.

2. Gifu Prefecture

Gifu Prefecture is currently implementing a program of "Five Reforms" in the fields of government administration, economy, education, society and daily living. Since December 1998, the prefecture has used a website to gather the opinions of residents and others concerning these reforms, and to enable citizens to take part in discussions online. The electronic conference room has been named the "Citizens' Prefectural Reform Conference Room" and been opened for generally free and public discussion using their real names to all those who register. Under certain rules, the participants can select themes for discussion concerning the reform program, with the prefectural government entering the debate when deemed necessary.

In addition, Gifu has also set up a "Reform Opinion Box," through which opinions and proposals concerning the Five Reforms can be submitted via e-mail, in addition to other avenues of communication. To facilitate this process, as well as the electronic conference facility, information on the prefecture's government is provided on its website, alongside information requested by citizens.

I-4-3 Education

(1) Elementary, upper and lower secondary schools

Use of the Internet is spreading from educational to administrative areas.

I-4

1. Minamisuna-Higashi Elementary School (Koto City, Tokyo)

The Minamisuna-Higashi Elementary School set up a computer room in September 1987 for educational purposes. In November 1996, it established access to the Internet through joining Konet Plan. In the teaching of older pupils, emphasis is placed on how to select information on the Internet, as well as improving skills in transmitting information, in addition to basic training on Internet usage.

The school's Internet-based teaching is characterized by a focus on environmental education and active exchanges with other schools. In fiscal 1998, it established a system to exchange views on the use of chemicals in rice cultivation with Nanao City Tokuda Elementary School in Ishikawa Prefecture and Tottori City Karo Elementary School in Tottori Prefecture. Each school set up a homepage with a bulletin board, as well as using a teleconferencing system to promote discussions.

As a result of such Internet activities, children have been able to build up contacts with regions that have different living conditions, encouraging them to develop more outward-looking and wider viewpoints.

2. Isawa Junior High School (Yamanashi Prefecture) and Yamanashi Koma High School

In fiscal 1996, Yamanashi Prefecture started a three-year international joint education program, the "Iowa Project," by connecting two lower secondary schools and three upper secondary schools in Yamanashi Prefecture with two lower secondary schools and three upper secondary schools in the U.S. state of Iowa, which is a sister state to Yamanashi Prefecture. At participating schools, teachers and students built computer networks connected with the Internet and, through e-mail, they began discussing methods of the project, as well as what themes it should cover.

At the beginning of the Iowa Project, Isawa Junior High School established a LAN linking 21 computers. By fiscal 1997, the school had exchanged e-mail with its counterpart school in Iowa on school rules, uniforms, television programs, food and gun control in the U.S. Ten students who were to visit Iowa at the end of school year exchanged e-mail with host families there prior to their visit.

Isawa Junir High School is also using the Internet to support students who have "school phobia."

Photo Minister of Posts and Telecommunications, Seiko Noda, with children at Minamisuna-Higashi Elementary School using the Internet and a TV-conferencing system



Related sites: Minamisuna-Higashi Elementary School (http://www4.justnet.ne.jp/~higashi_syo2/);
Konet Plan (<http://www.wnn.or.jp/wnn-s/konetplan/>);
Isawa Junior High School (<http://www.isawa-jhs.isawa.yamanashi.jp/>)

For children who attend school but cannot enter normal classes, it has created a special room where they can use computers to e-mail counselors and browse websites. The school hopes to show that the Internet can be a catalyst in gradually helping such students to return to the normal school routine.

From fiscal 1999, another participating school, Yamanashi Prefecture Koma High School, has been actively using the Internet to assist in the teaching of English. The school has 41 computers linked to the network, and it plans to also open these facilities to local residents as part of an adult education class on the Internet taught by the high school's teachers.

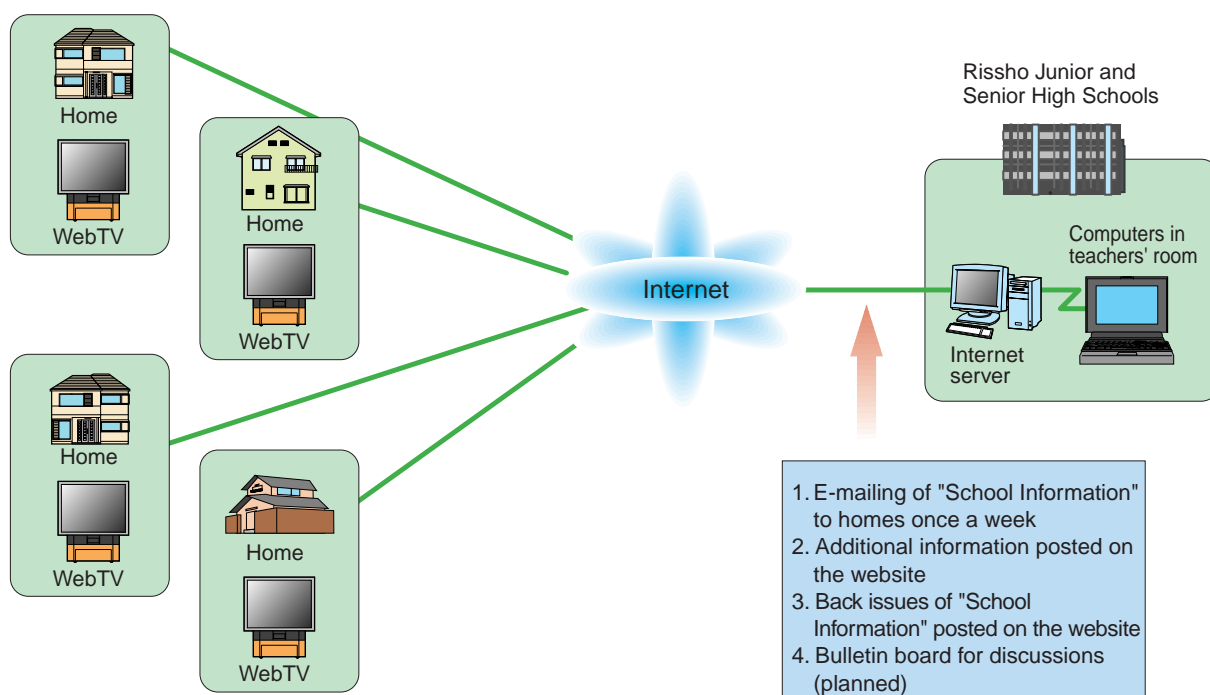
3. Rissho Junior and Senior High Schools (Tokyo)

Rissho Junior and Senior High Schools set up a wireless LAN in October 1996 to use the Internet for educational purposes. The schools provide ev-

ery student with a notebook computer for access to a news database to learn about current affairs. Also, in the computer rooms, there are 50 desktop computers linked to the Internet, which students can use freely.

The schools are also conducting a pilot study in using the network as a means of communicating between school and the home. Since November 1998, 30 homes have been using "WebTV" to access the Internet, enabling the publication "School Information" to be sent once a week by e-mail (Fig.). Previously, printed matter sometimes did not reach parents, but use of the Internet ensures that such information reaches parents, while also promoting communications among them. Especially for parents with e-mail addresses, the system has been seen favorably as a method of bringing their child's school closer. Thus, the schools are now considering setting up a permanent system for promoting e-mail communications between parents and teachers.

Fig. School-home communication system using the Internet



Related sites: Koma High School (<http://www.ypec.misaka.yamanashi.jp/koma/>);
Rissho Junior and Senior High Schools (<http://www.rissho-hs.ac.jp/>)

(2) Colleges and universities

The Internet promotes home-based study.

1. Tamagawa Gakuen Junior College for Women (Tokyo)

In April 1998, Tamagawa Gakuen Junior College for Women began using the Internet for online seminars in its American cultural history course. Most students taking the course use the Internet to access the college server from their home computers and download assignments and course materials, including images and voice data. The course features a virtual classroom that is used for students to post and discuss reports, and where assignments are returned after being marked by the tutor.

The reports submitted by the students are also posted on the course-room to allow discussions among students concerning these reports.

The associate professor who supervises the course has noted that its use of a seminar-type learning method, rather than conventional lectures, helps teachers in the increasingly important task of supporting keen and active students.

2. Osaka City University

Within the university, a citizen's course is offered on the Internet for a wide range of learners. The Internet course started at the university from fiscal 1996, and the fourth term is currently being held. The course allows anyone to access the course materials freely by clicking on mouse. On the other hand, those officially registered can use e-mail for Q&A with the lecturer, while attending the lectures physically for the required number of times. They also have to submit three reports during the school year, and if the lecturer evaluates them as having met a certain standard, the students are qualified for the course completion certificate. In fiscal 1998, seven courses were offered with 379 people in 28 prefectures and two foreign countries taking these courses (Table). The lecturers in charge henceforth note that there is a further need to use the Internet's interactive and realtime characteristics.

Table Outline of Osaka City University's "Internet Course 98"

Course title	University faculty	Number of registered students
Accounting approach to the global environmental problem	Faculty of Business	41
Libertarianism, socialism and Russia	Faculty of Economics	17
On labor law — from hiring to retirement —	Faculty of Law	41
Media/information/body — media theory —	Faculty of Literature	53
Learning C language by utilizing UNIX	Faculty of Engineering	49
Just childrearing, but nevertheless childrearing	Faculty of Human Life Science	53
The Internet	Computer Center	125

Source: Osaka City University

Related site: Osaka City University (<http://www.osaka-cu.ac.jp/>)

(3) Home-based learning

Gaining a U.S. high school diploma through home study in Japan

I-4

Use of the Internet in school, university and adult education not only helps to bring learning to more people and improve information literacy; it also allows unconventional content and methods to be used. For people who do not readily fit into normal educational systems, such as those who miss out on some of their school time because of “school phobia” or illness, or people who simply want to repeat or extend their studies, home-based learning over the Internet can prove very valuable.

The Kaze Internet High School operates a high school that offers online education at home, in an unconventional format and covering any area of interest. By obtaining credits for a certain number of educational units, it is possible to earn the equivalent of a high-school diploma from a private high school in the U.S. state of Michigan. The first four Japanese students obtained these diplomas in March 1999. Over 150 new students are enrolled for fiscal 1999, located in 28 prefectures as well as a location overseas.

The school does not have a fixed curriculum. Instead, each student’s program is individually tailored, and contact with the teacher takes place by e-mail. For example, reading a novel can count as a credit in studying English, or visiting art galleries can be credited in the art course. It is also possible to attend lectures in a classroom, but, since units can be earned entirely online and the hours

spent on learning and research via the Internet are counted to calculate credits, nearly half the students “attend school” exclusively within the home setting. At entry, nearly 80% of the students are inexperienced with computers and the Internet; however, the school provides introductory courses on how to use the technology.

On the Internet, social sciences-type, natural sciences-type, mental-type, physical-type and personal computer-related study categories are available; teachers, not only include the “support teachers” but also lawyers, framers, fishing professionals and other specialists, keeping in mind the learners’ perspectives. While using the Internet, the courses do not offer “virtual education”; the Internet just is a tool offering a thread to learning, with units being recognized as based upon individual filing in a home-based learning style -- the hours spent on learning and research on the Internet are counted to calculate the units given out.

In addition, information exchange among students via the Internet is available. At the specialized site on the Internet, those who wish can make public their profiles, etc. or participate freely on the BBS.

By becoming “acquaintances” through e-mail exchanges and meeting up at schooling sessions, it is not rare that new relationships are built.

Photo Kaze Internet High School homepage



Related site: Kaze Internet High School (<http://www.kaze.gr.jp/>)

I-4-4 Academic research

The Internet is used by 96.9% of research offices in Japan.

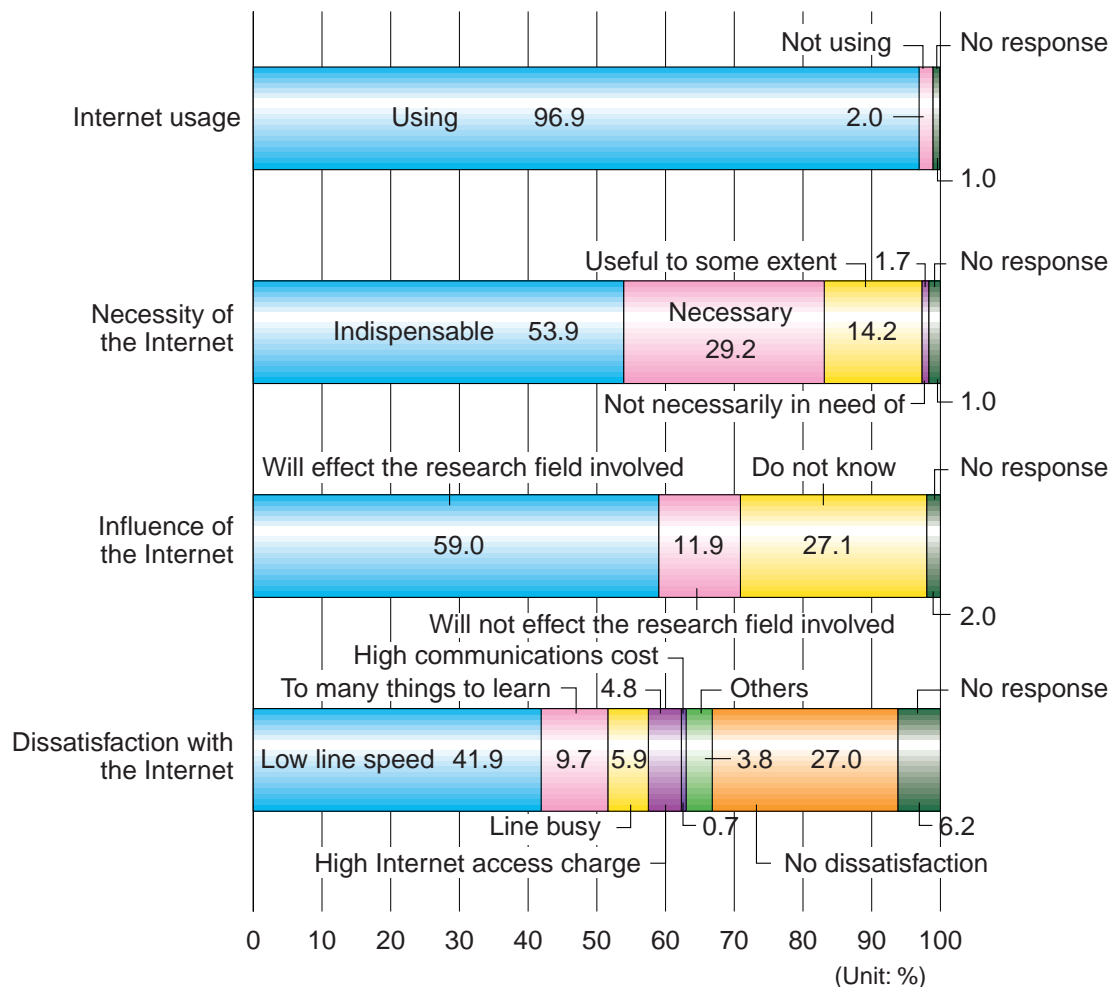
According to the "Survey on the Use of the Internet for Academic, Scientific and Technological Research" carried out in August 1998 by the Japan Network Information Center, 96.9% of all research offices replied that they use the Internet and 53.9% replied that it is indispensable to their work, followed by 29.2% saying that it was very useful.

Concerning the effect of the Internet on their research, 59% of respondents said that it definitely influenced their work, indicating the power of the network as more than simply a communication tool. As regards dissatisfaction with the Internet, most complaints concerned problems with low speeds of data transmission (Fig.).

I-4

The Internet in the public sector

Fig. Usage of the Internet at research offices



Source: "Survey on the Use of the Internet for Academic, Scientific and Technological Research," Japan Network Information Center, 1998

I-4-6 The Internet in natural disasters

Using the Internet to create a stable source of information

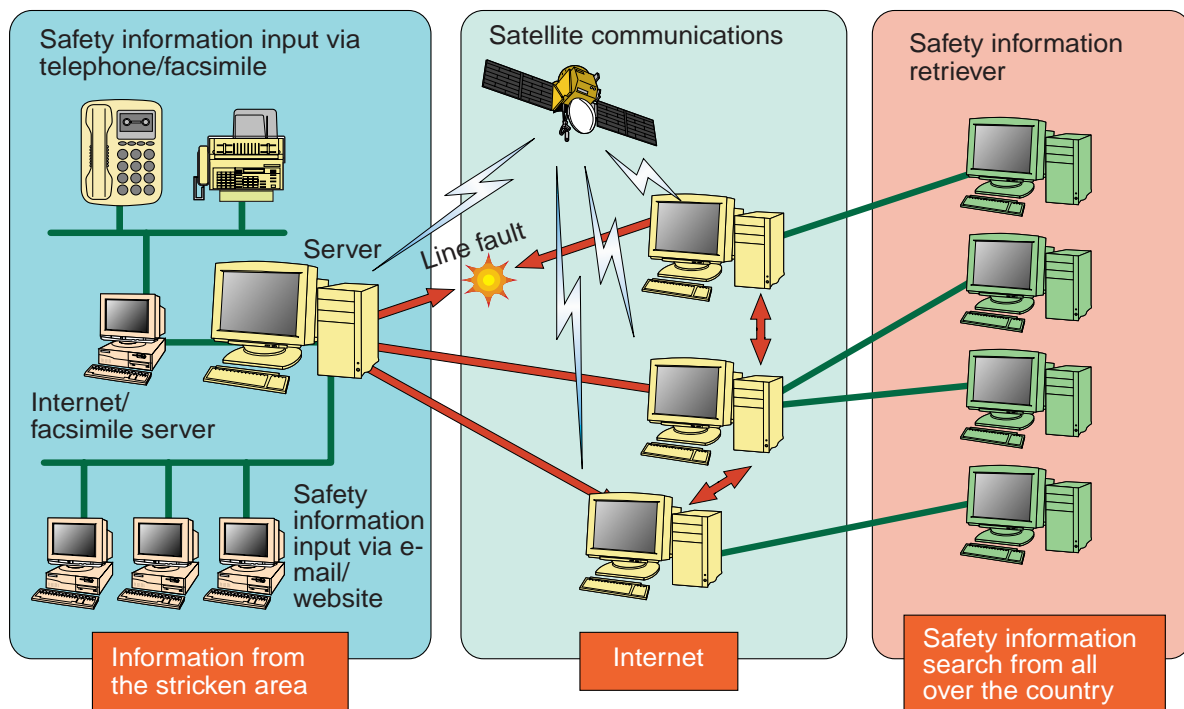
A system has been developed in Japan to use the Internet as information infrastructure in emergencies such as natural disasters. This has a number of advantages. For example, since the network has distributed management, even if part is damaged, other routes are likely to be available for transmitting information. Also, since information can be accessed at the same time by many people, the Internet is superior to telephone and other communication networks.

Immediately after the Great Hanshin-Awaji Earthquake of January 1995, some 300,000 telephone lines were cut off because of the severing of lines and the halting of exchanges due to loss of power. Moreover, it became very difficult to get through to the stricken area by telephone, because of the high concentration of attempted incoming calls from worried relatives and friends. In contrast, it was possible for information to be sent worldwide over the

Internet from Kobe.

This experience led to the setting up of the IAA project in the WIDE (Widely Integrated Distributed Environments) project in 1995, which is studying ways to exchange information on the wellbeing of victims following a disaster. A system has been established called the "I am alive database" (IAA-DB), to accept information from victims for posting on a website where it will be publicly available. For people who are not familiar with using a computer, information will also be accepted by phone or facsimile. As ground lines might be damaged, satellite and other means of communication are being considered to send data to servers around Japan, which will then share information to build up a comprehensive system that can be accessed by many people simultaneously. Since 1996, tests have been carried out every January and September to check and improve the system.

Fig. IAA-DB system



Related site: IAA Project (<http://www.iaa.wide.ad.jp/>)