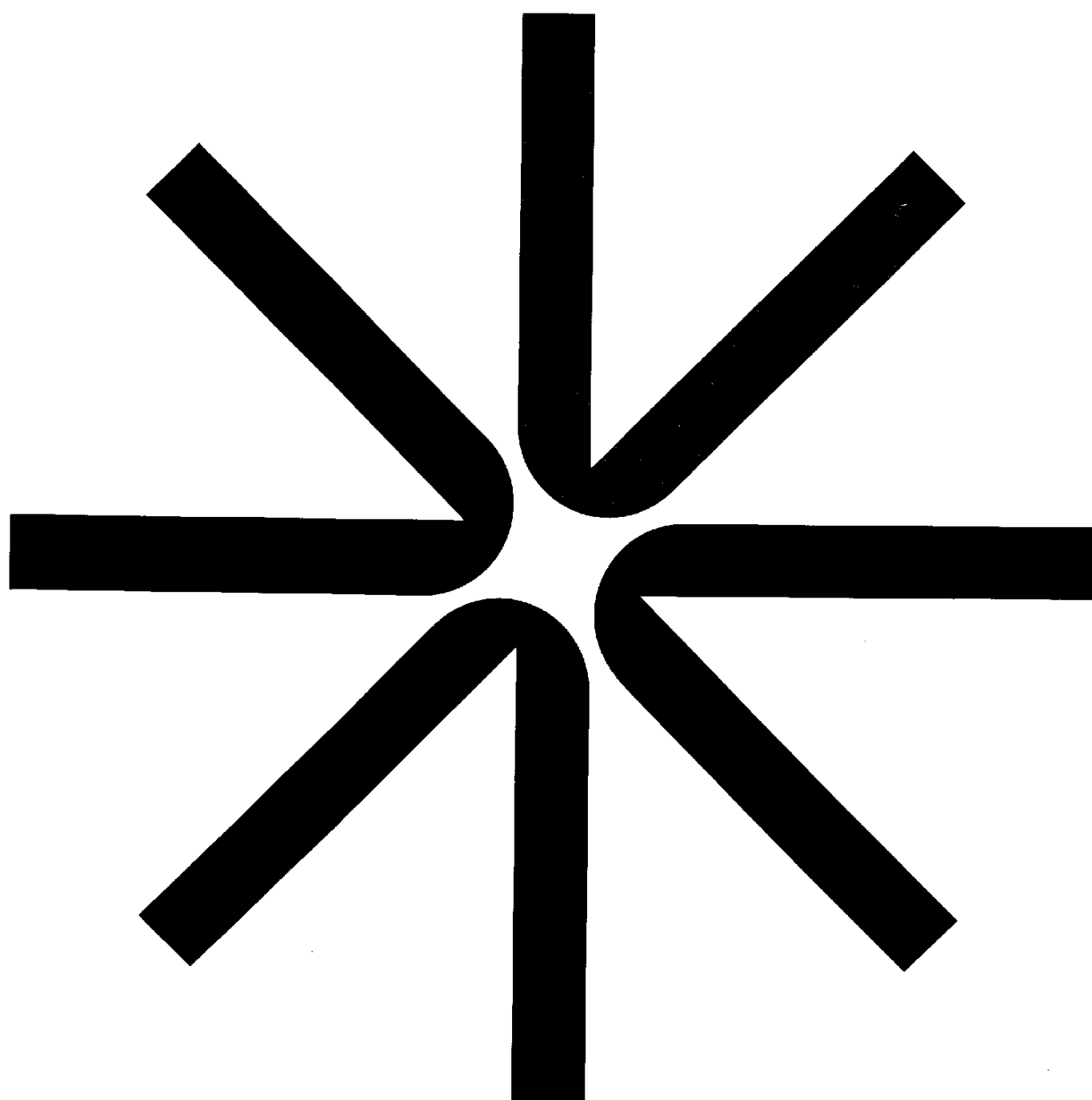


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Database Promotion Center, Japan

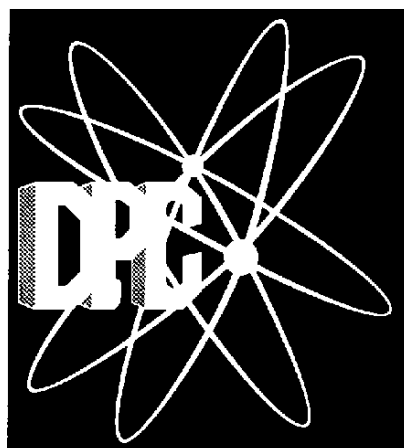
Database Promotion Center, Japan (DPC) was established in 1984 with the information suppliers, users and related industrial circles approved by the government. DPC is a non-profit organization aimed at the promotion, research, production and dissemination of database services worldwide.

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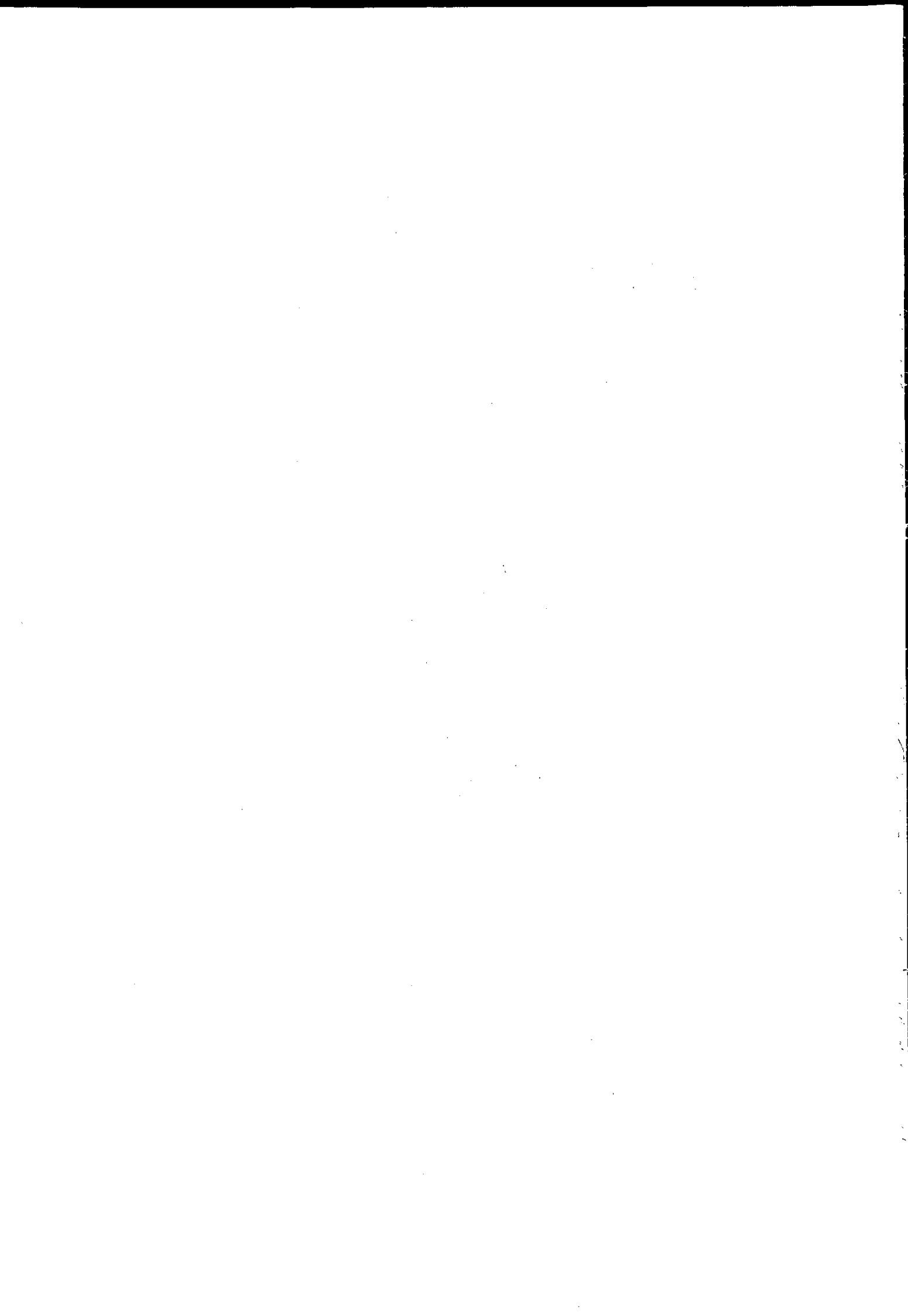


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I. Present State of Databases

1. Supply Status of Commercial Databases

1.1 Supply Status of Database Services

Accompanying the appearance of the Internet on the scene, the contents of information on database services have undergone a considerable change since the time databases initially came into existence. In addition to multimedia, Karaoke and other forms of music data, electronic publishing and various other items have joined the list of database components.

Although varying according to the particular definition of databases, the majority of so-called digital contents distributed on the Internet are divided into databases in the broad sense. Many of these are provided free of charge in the form of a single menu at a specific site. Thus, the number is still limited when restricting only to commercial services. Moreover, since there are no statistics with definitive standards for the database service industries, there are very few ways of determining the status of commercial databases other than usual government survey statistics in the form of the "Survey of Selected Service Industries" conducted by the Ministry of International Trade and Industry (MITI).

According to this survey, sales of the database industry in 1996 totaled ¥235.4 billion. This figure represents considerable growth, corresponding to an increase of ¥38.1 billion, or 19.3%, over the previous year. In actuality, however, since the companies surveyed in 1996 was under review, the increase of 19.3% over the previous year is presumed to be excessive. In the case of using numbers that are suitable for a comparison basis, actual growth is expected to be only on the single digit level. In 1997, perhaps due to the effects of the business recession, the growth rate is reportedly to have again entered a period of sluggishness, with statistics indicating considerable fluctuation. When compared with the growth rate of 21.3% of the North American market over the same period, the rate of expansion of the domestic market ends up being terribly inferior. As is described in Chapter II, the size of the market is still roughly only one-tenth that of North America, and the difference in size is growing larger each year.

According to the "1996 Database Directory" published in September 1997 by MITI, the number of commercial databases accessible in Japan in 1996 was 3,350, representing a slight increase of 42 databases, or 1.3%, over the previous year. These databases consisted of 1,165 domestic databases and 2,185 overseas databases. Although the number of domestic databases increased by 3.6% from the previous year, the number of overseas remained essentially unchanged.

Judging from these figures, although the number itself of published databases distributed in

Japan has increased slightly, it cannot necessarily be said that the increase in databases is coming to a halt. This is because those databases that are registered in the "Database Directory" are those which have clearly been constructed on the premise of commercially service that are provided over a broad range in a general manner. Experimental contents oriented towards being provided for a fee on the Internet, or contents provided free of charge when securing income through advertising and so forth, are not included in the directory.

1.2 Utilization Status of Database Services

When looking at database users in terms of the monetary amount of utilization, corporate users account for nearly all users. General users (individuals) only account for 3.16% of the total. In looking at these users in terms of industry type, the majority of the monetary amount of usage among corporations in 1996 was composed of the financial and insurance industries. Thus, although there is no change in the financial and insurance industries being the largest users, their proportion of all industries is tending to decrease (1996 Survey of Selected Service Industries). These were followed by the other service industry, the mining and manufacturing industry and the construction and real estate industry.

According to the "Survey of Japanese Database Services" conducted by Database Promotion Center (DPC) in the fall of 1997, those commercial databases having the largest monetary amounts of usage consisted of Nikkei Telecom, JOIS, PATOLIS, DIALOG and Nifty-Serve in that order.

The "Survey of the State of Individual and Home Database Utilization" targeted at Internet users is used a reference with respect to the status of database utilization by individuals. According to this survey, 31.6% of the subjects replied that they had used databases in the past. When considering that this percentage was 55.4% in a survey of NIFTY users conducted at the same time in the previous year, although the proportion itself is lower, it also means that there is quite a large number of database users who have used database services in view of the present situation in which the number of commercial databases provided on the Internet is relatively low, and it is common to provide Home Page and other information free of charge.

Database users using databases as a part of their jobs constitute 55.9% of all users. There is therefore no change as before in this surpassing the percentage of personal use at 38.4%.

68.4% of the survey subjects, or about two-thirds, indicated that they had never used a database despite being Internet users. Major reasons for this consisted of "no need to use", "high usage fees" and "do not know which database to use". This is considered to be an important issue for the database service industry.

Although impressions relating to the Internet included "convenient and useful", opinions continue to remain firmly rooted that strongly call for lowering of telephone rates and other communication charges.

2. New Database Trends

2.1 New Trends of Commercial Services

(i) Growing Accommodation of the Internet

In addition to providing a wider range of services, database services are continuously evolving together with technological progress and a growing number of supplied media. The Internet has had a particularly large impact. What once began initially as simply a communication path is rapidly taking on the characteristics of a form of mass media along with the increase in the number of simultaneous participants.

In addition to this, numerous community plaza services are appearing that share common areas of interest while simultaneously being provided with bi-directional characteristics.

Starting in 1997 in particular, some typical domestic database service providers began to provide the databases by the Internet as an access route. Typical examples of such services include "Nikkei Telecom 21" and "G-Search Multimedia DB Service". More and more of these and other companies are shifting the fulcrum of their service expansion to the Internet.

In addition, although having a strongly experimental nature, companies like Mitsubishi Research Institute are beginning to supply reports of research findings on the Internet using a membership system. At the same time, their subsidiary, MRI Data Network, has equipped with their service with an originally developed verification system, and has begun database services on the Internet in the form of connecting with the service of Sony Communication Network.

The Japan Patent Information Organization has also begun providing services relating to patent information on the Internet.

(ii) Services Targeted at Specific Markets

As services progress that advantage of the Internet as a growing form of mass media, on the other hand, services focusing on specific markets are also active. One example of these are services focusing on community activities.

In the U.S., where community trends constitute an important position in the daily lives of residents, this trend is particularly conspicuous in information services as well. City Search, AOL (America Online), Ticket Master and other firms engaged in providing community information online are showing signs of local newspapers and other members of the mass media making inroads as providers of community information.

There is also considerable activity in services oriented towards specific specialized fields. One example considered to be a typical example of specialized information in a certain sense is

genetic information. While research results are successively published on the Internet free of charge in the manner of the human genome project, services like the Kazusa DNA Research Institute provide human gene information for a fee.

(iii) Evolving Media and Databases

On the other hand, some services are promoting the selection of supplied information according to the characteristics of the supply medium or have begun offering multimedia services by combining multiple kinds of media.

In the field of "financial information services", where it is critical to provide information on a second's notice using a digital feed and so on, Bloomberg and other information service companies have formed tie-ups with cable television companies to use divided screens to simultaneously provide stock news and commentary along with news coverage provided by a newscaster.

In Japan, Fuji Television Network formed a tie-up with the PC network firm, People World. The objective is to provide a viewer participation type of service that links the Internet with PC network services. This is a typical example of a cooperation between a broadcast company and communications company.

Companies providing database services for PDAs (personal digital assistants) and other mobile computing terminals are also on the increase.

G-Search has newly developed and commenced operation of a service menu for PDA using the Internet.

In the past, PC network companies characterized by services for member users under contract have begun offering joint services with the Internet. BIGLOBE, NIFTY, People and other leading PC network companies in Japan have rearranged their services across the board. While trying to attract the growing number of Internet users on the one hand, they are also striving to retain existing contracted users, using the sales point of allowing the contents that they have offered in the past to be accessed by either means. Another characteristic is that these companies are also concentrating their efforts on the construction of multimedia databases that take advantage of the characteristics of the Internet.

With respect to database producers, companies are starting to appear that making skillful use of evolving media corresponding to their own supplied information.

In addition to offering its "Data Pal" in print, Shogakukan is also proceeding with expansion of its sales routes with electronic books, CD-ROM and the Internet.

Databases supplied on CD-ROM can be said to be the best example of offline media. Multimedia transformation of these databases is continuing to accelerate by adding sound and illustrations to picture books. There is also a growing tendency to supply various types of dictionaries and encyclopedias by recording onto a single CD-ROM.

(iv) Progressing Selection of Contents

Starting in 1998, entertainment-based sites, which were considered to be the typical example of contents supplied by PC networks, began to demonstrate a strong decline in the U.S., In general, entertainment information has increased the opportunities to access networks free of charge. More recently, there has been a remarkable trend towards a demand for practical information, and namely information directly linked to business. Consequently, there are trends in the EC to aggressively accommodate this demand, indicating a shift in the emphasis of service towards ticket reservations, book sales and purchases and other so-called transactions.

2.2 Database Utilization among Industries, Corporations and in the Field of Domestic Culture

(i) Information Sharing and Database Utilization Between Industries or Corporations

As one form of commercial database utilization, various steps are being actively taken such as the promotion of information utilization within the organizations of private enterprises focusing primarily on corporations, and particularly with respect to the construction of shared databases oriented towards information sharing.

In the steel industry, an experiment has been conducted since 1996 in the form of a two year project involving the application of CALS for steel equipment management and the use of EC for distribution of products. The CALS experiment is being participated in by major steel makers and equipment computer manufacturers. Policies are being developed that will pave the way for external processing of equipment management operations based on information sharing through, for example, the production of a database for equipment drawings. In the EC experiment, major users in the form of electrical machinery manufacturers, trading houses and steel companies have joined for the purpose of lowering steel material transaction costs. Experiments have been conducted to determine the extent to which efforts can be made to share inventory information.

Nissan's group intranet (Communication Square) was constructed for the purpose of achieving a revolution in business tie-ups between in-house departments and group corporations. This is a typical example of efforts to achieve information sharing. What is particularly characteristic about Nissan's system is that, instead of dividing information generated and retained in each department in department units, information is systematically organized from the viewpoint of the time of use in accordance with the information contents. At the same time, the system also emphasizes that information does not belong to the department that created it, but rather is a shared asset of all related personnel. Consequently, considerations for ensuring the success of information sharing have not been forgotten, such carefully defining each piece of information. The major types of information supplied are composed of incoming order and registration

updates, customer opinions, headlines from 28 newspapers, technical standard documents (PDF format) and various questionnaires.

In the food industry, investments are continuing to be made in information utilization for the purpose of streamlining distribution. Asahi Breweries completed an information system using Extranet with four can manufacturers in October 1996 followed by the start of online order management and inventory control. Also in the food industry, Kirin Brewery put into operation a new product distribution system starting in January 1997.

With respect to industries other than those related to beer, Kagome connected its headquarters with six domestic factories in April 1997, commencing the operation of an information system that performs total management of all operation processes from production to distribution.

Even in the liquor sales industry where product coding and other forms of standardization have lagged behind, steps have been taken to add JAN codes to products and construct product databases. These systems are scheduled to be distributed on the Internet by the end of 1999 after the product databases are completed.

There is also a growing trend towards information sharing through the use of networks in the distribution industry led primarily by major distribution companies.

Seven-Eleven Japan began operation of an information system that uses satellite communication in November 1997. This system connects 7,000 of its stores in Japan, creating animated images of product information and sales techniques that are transmitted to stores throughout the country.

The Daiei has also developed an EDI for use on the Internet (WEB-EDI). This system will make it possible to access vendor product information and receive and place orders from terminals with the majority of its vendors by the end of 1998.

Mitsubishi Corp. has introduced a information sharing system using the Internet. This system, which is known as a "Production Process Progress Management System", was introduced for production and distribution management operations involving consumer goods.

(ii) Informatization and Database in the Field of Fine Arts

Recently, a conspicuously large number of art galleries and museums have begun cataloging their exhibits in databases. According to a survey conducted by the Digital Archives Promotion Association in 1997 targeted at art galleries and museums throughout Japan, roughly 30% of the respondents indicated that they had either begun cataloging their exhibits in databases or were planning to in the future.

The Agency for Cultural Affairs is planning to construct its "Cultural Asset Information System and Common Index System" in order to allow searching for cultural properties scattered throughout the country using a network.

The "Kyoto Prefecture Porcelain Virtual Art Gallery", which the prefecture first opened in

1988, is a new attempt in the sense that it catalogs numerous cultural properties on a database and provides that information to a wide range of users. This system involves containing Kiyomizu pottery and Kyo pottery in a high-definition, three-dimensional database, describing with VRML, and allowing three-dimensional viewing.

3. New Technology Creating New Services

Nearly 10 years have passed since electronic news boards began running news updates from the tops of buildings at intersections, in the offices of securities companies and on the Shinkansen. JR's Yamanote line in Tokyo has been running advertisements along with the days most important news flashes on liquid crystal screens installed in some of the cars.

Push technology, such as the so-called Pointcast, offers contrivances that allow this information to be accessed from office PC's screens. This service is characterized by creating the feeling of being at the forefront of an incessantly changing world by being in contact with a continuous flow of news.

Daiwa Institute of Research began a service that provides stock price information using push technology. Similar services are being successively incorporated by search services such as Yahoo.

New ideas are also being realized in the area of car multimedia, considered to be an advance form of mobile communications. Nissan Motor has started a car multimedia service that delivers news and weather forecasts on a real-time basis to vehicles in transit through a tie-up with Zenrin and Hitachi. This can be said to be one part of a policy to provide added value in the form of using automobiles as sophisticated information transmission and reception bases. Toyota Motor promptly began a similar service in November 1997.

The size of the market for CD-ROM programs, excluding home entertainment and adult software, is roughly ¥30 billion. This is roughly only one-tenth the size of the market in the U.S. New types of services are beginning to appear, however, that will stimulate this market.

The so-called "hybrid" system mutually complements offline media such as CD-ROM, for which renewal of their contents tends to be delayed even though they have a large storage capacity, with the timely nature of online services. This system involves providing CD-ROM with a function to access PC networks and the Internet and allowing a portion of their contents to be updated from an online service. This hybrid service is becoming the main form of service in the case of horse racing games and other entertainment software as well as encyclopedias such as "My-pedia" and "Encarta". The main factor behind the proliferation of the "Encarta" electronic encyclopedia, developed by Microsoft and for which 8 million have been sold throughout the world, is said to be the contents updating service in the form of news and so forth provided each day.

A new type of music CD referred to as "CD Extra" is growing in popularity. This CD allows

viewing of characters and images as well while listening to the music. They can also be played back on a PC. Finally, there are some CDs only whose owners are able to access specific Internet information.

Macromedia Corporation, an image processing software development company, has developed a function that allows CD-ROM data to be incorporated and updated from a server. This makes it possible to access the Internet from a CD-ROM without using a browser.

Companies planning on offering services which distribute Karaoke selections on the Internet are also starting to appear. Although music data had conventionally been transmitted by PC networks, music data have begun to be supplied by the Internet. The service allows access to more than 6,000 selections at a cost of ¥120 per selection. Ascii also started a similar service going by the name of "MIDI POT CLUB".

Several companies have appeared that intend to provide not only Karaoke selections, but MIDI music itself. A typical example of such a company is Music.co.jp. (MCJ). Although problems over copyrights remain to be solved, this service represents the realization of network direct music sales.

In the field of medical information, attempts have begun to provide information services using various types of media.

Japan Barrier Free has begun an experimental service that provided medical information using character multiplex broadcasts that use the gaps between FM broadcasts. In addition, services have also begun that use cable television as well as services that provide information by connecting a PC to a telephone line.

Moreover, a so-called "IP Multicast" project has begun to take shape that provides multicast services for corporations by using a "Satellite Internet Connection Service".

This applies similarly to experimental operation of "Intertext (IT)". This is a so-called bi-directional television broadcasting format service that allows the providing of program listings and information relating to programs using the waves present in the gaps of television broadcasts. Bi-directional service is secured through the use of a telephone line and so forth, and is ideal for cable television.

"Image Mall Japan" is a contents distribution service that operates on a network which was started through the collaboration of Toppan Printing and Hitachi. This service stores works of art, photographs and so forth on a database, and provides those articles on a proxy basis to publishing companies in place of the holder of copyrights. The companies have reportedly received inquiries from the descendants of famous artists who have continued to protect the great cultural treasures left behind from generation to generation.

4. Internet Proliferation and Database Services

4.1 Internet Proliferation

The Internet continued to grow in 1997. In looking at the size of the Internet on a global scale, 19.54 million host computers were connected to the Internet as of July 1997 (source: public documentation released by Network Wizards, <http://www.nw.com>). The number of Internet users was estimated at 110 million as of January 1998 (determined by NUA Co., Ltd. by totaling the values announced by survey organizations in countries throughout the world. http://www.nua.ie/surveys/how_many_online/index.html).

In Japan, the number of assigned JP domains was 33,789 as of December 1997, representing an increase of 124% from 1996 (source: public documentation released by the Japan Network Information Center, <http://www.nic.ad.jp/jpnic/info/is.html>). Although the number of Internet users varies according to the results of the particular survey, the growth rate is nearly the same. The number of users is reliably predicted to surpass the 10 million mark early in 1998.

While the Internet continues to grow favorably, shipments of PCs, which are the main form of connection equipment for the Internet, fell below the level of the previous year in the first half of the 1997 fiscal year. The personal computer general proliferation rate and network connection rate are both growing, however (Fig. I-1). In addition, various new types of Personal Digital Assistants (PDA), which have different standards than conventional personal computers, as well as cellular telephones and PHS equipped with electronic mail receiving functions have been released, indicating that the Internet utilization environment by means other than personal computers is expanding. In addition, technology is also being developed for using the Internet in the form of cable television, satellite broadcasting and data communications. Services are expected to appear in the future in accommodation of these new forms of use.

Table I-1 Personal Computer Proliferation Rates

| | Sept. 1997 | Mar. 1997 |
|-------------------------------|------------|-----------|
| General proliferation rate *1 | 33.0% | 27.9% |
| Personal usage rate *2 | 17.0% | 14.2% |
| Network connection rate | 34.6% | 31.7% |

Source: Nomura Research Institute "Survey on Telecommunication Users' Trend"

*1 Percentage of individuals having a PC in their homes

*2 Percentage of individuals having a PC in their homes that they themselves use

4.2 Internet and Databases

On the Internet, which is itself referred to as a "decentralized multimedia database", databases are widely used in various forms to store, organize and search through the vast amount of information available on the Internet.

For example, search services such as search engines search out information from accumulated data based on an arbitrary key word. These systems are probably the most common form of database utilization. Recently, even in the field of database services provided on the Internet, in addition to information conventionally provided by PC networks and so on such as corporate information, newspaper articles and patent information, information covering a truly diverse range of information fields is available from databases for public access, including employment information, restaurant information and dictionaries. Moreover, by taking advantage of the multimedia characteristics of home pages handling various data in the form of images, voice and so on, map image databases and Karaoke and other types of music databases are also being realized.

In addition, data is accumulated in databases for tabulation surveyed on homepages, electronic billboards and electronic conference rooms such that databases are used without users being aware of their use.

There are very few database services provided on the Internet that are profitable at the present time, regardless of whether they are provided free of charge or for a fee. However, these database services have considerable potential for actively functioning as a business in 1998.

To begin with, services that provide databases free of charge in the form of search engines and so forth and obtain income through advertising are expected to further move into full swing. In the Internet advertising market, numerous Internet advertising agencies have appeared in recent years, such as Double Click and Cyber Communications, and competition is intensifying. The existence of these advertising agencies promotes activation of the entire Internet advertising market as well as growth of market size.

On the other hand, with respect to charged database services, as was previously introduced in this chapter, there have been successes in some fields. Many more successful businesses are expected to be born this year. Charged database services are likely to function more effectively as businesses by greater specification of information in successful fields.

Establishing a successful contents business on the Internet was initially considered to be difficult. However, if the pace continues to accelerate together with advertising businesses and fee charging businesses, contents business will finally move into full swing, leading to expectations of the coming of an "age of contents".

5. Database-Related Administrative Trends

5.1 Revision of the "Plan for Promoting Administrative Informatization"

Government informatization is being promoted in the form of a five-year project that began in 1995 based on the "Plan for Promoting Administrative Informatization" in an attachment of "Current Policies for Promotion of Government Reform" (cabinet approval date: December 25, 1994).

Based on this project, in addition to establishing an infrastructure consisting of a network (LAN) within each ministry and agency and the Kasumigaseki WAN for connecting those ministries and agencies, personal computer operators have been rapidly deployed. As a result, the initial goal will be able to be achieved earlier than expected. Personal computers and networks have already become indispensable in conducting government work. In addition, electronic applications and electronic voting are being introduced on a trial basis in some ministries and agencies.

As this administrative informatization proceeds, in addition to the building of networks in corporations and the sharing and utilization of information by the Internet proceeding throughout society in general, these systems are evolving into larger systems as a result of using the Internet. These changes in the environment and growing sophistication of information technology are causing changes to take place in the demands on administrative informatization. Since this has resulted in the need for even greater promotion of administrative informatization aiming at increased sophistication of clerical work, improved efficiency, improved levels of public services, the "Plan for Promoting Administrative Informatization" has been revised, and approved by the Diet on December 20, 1997.

The new project is in the form of a five-year project starting in the 1998 fiscal year. In addition to promoting reforms in government clerical work, projects and organizations through administrative informatization, a switch will be made from managing information using paper to management of electronic information by taking advantage of networks while taking care to ensure security. The project is attempting to realize a highly information-oriented government, or "electronic government", by the start of the 21st century. In addition, in order to promote administrative informatization both comprehensively and uniformly, in addition to aggressively promoting the collaboration and cooperation of regional public bodies, special organizations and approved organizations, regional public organizations will be requested to promote administrative informatization.

The basic policy for implementing the promotion of administrative informatization is composed of the following three components:

-
- * promotion of administrative informatization in accommodation of the progress of social informatization;
 - * simplification and greater efficiency of clerical work and projects along with sophistication government administration through the utilization of data communication technology; and,
 - * establishment of an infrastructure for promotion of administrative informatization.

5.2 Clearing of Administrative Information

In the "Plan for Promoting Administrative Informatization" (cabinet approval date: December 20, 1997), with respect to location guidance of government information that can be provided to the public, in addition to establishing a general guidance clearing system and individual clearing systems for government ministries and agencies by the 1999 fiscal year based on "Uniform Usage of a Clearing System for Social Utilization of Government Information" (approved in correspondence meetings of each ministry and agency of the government information system on June 18, 1996), expansion of system contents and the carrying of timely information will be promoted.

Target information will cover the range of location guidance information that can be provided to the public, including information stored on magnetic tape, CD-ROM, floppy disks and other electronic media, as well as printed matter such as documents, reports and reference literature.

5.3 Legislation Trends of the Law on Publicity Administrative Information

The disclosure of administrative information is an important topic that is promoted from the viewpoint of realizing fair and democratic government administration and securing the trust of the public in the government. Consequently, the government is promoting the disclosure of administrative information by establishing document viewing centers in each ministry and agency.

With respect to laws for disclosure of administrative information, namely the so-called "Law on Publicity Administrative Information", surveys and deliberations were conducted by the government reform committee (established on December 19, 1994), the results of which were reported by the same committee to the Prime Minister in the form of "Opinions Regarding Establishment of Information Disclosure Legislation" on December 16, 1996.

The government placed the utmost importance on this report. And a draft of the "Law on Publicity Administrative Information" was completed and the required bill was submitted to the National Diet in March 1997.

II. Trends in the Database Service Market

1. Size of the Database Market

1.1 Database Sales

Examples of businesses in the information service industry include "software development and programming", "on-line and off-line data processing services", "system management services" along with "database services".

According to the 1996 edition of the "Survey of Selected Service Industries", sales for the entire information service industry totaled ¥7.1435 trillion, an increase of 12.3% from the previous year. Although sales had been decreasing through 1994 after peaking in 1992, they have now returned to the level of 1992. Although the information service industry temporarily felt the effects of the bursting of the bubble economy, it has recovered to the level of 1992 after four years and is now showing signs of a becoming leading industry for economic recovery.

In looking at individual types of services, "software development and programming", the mainstream information service area, demonstrated sales of ¥4.2591 trillion, up 15.2% from the previous year and closely approaching the level of ¥4.2959 trillion recorded in 1992.

In looking at the composite sales ratios for individual types of services in the information service industry in comparison with the previous year, "software development and programming" expanded further to 59.6%, increasing by 1.5 points from 58.1%. "On-line and off-line data processing" decreased by 0.7 points from 15.4% to 14.7%, while "machine time sales" and "database services" increased by 0.1 points and 0.2 points, respectively. The ratios of other services decreased, although only slightly (Fig. II-1).

The leading service of the information service industry is "software development and programming". This service has accounted for 50-60% of the entire industry over the past 10 years. Conversely, "on-line and off-line data processing" is on the decrease, and this trend has been particularly remarkable over the past 4 years. On the other hand, other services have been growing during this period despite the information service industry as a whole demonstrating negative growth. Although sales of database services have decreased for 4 consecutive years after peaking at ¥216.0 billion in 1991, sales of ¥235.4 billion (corresponding to an increase of 19.3% from the previous year) were registered in the most recent survey, surpassing the level of 1991 in a single move. Although the growth rate of nearly 20% in comparison with the previous year is due in large part to a review (increase) of surveyed corporations, in the case of using the same number of surveyed corporations as last year, the growth rate is estimated to be in the range of 5-7%. In any case, the recording of an expanding information service market is a good sign for database services (Fig. II-1).

Table II-2 shows the changes in on-line and off-line sales within database services. Although not reaching the level of ¥67.8 billion in 1991, off-line database service sales increased by 17.5% over the previous year to ¥56.5 billion. On-line sales also demonstrated a considerable increase, reaching the highest level ever (¥1.789 billion corresponding to an increase of 19.9% from the previous year).

Table II-1 Annual Sales by Various Information Service Sectors

| Classification | 1995 | | | 1996 | | |
|--------------------------------------|-----------------------------------|----------|-----------------------------------------|-----------------------------------|----------|-----------------------------------------|
| | Annual sales (¥100 million) | Ratio(%) | Change from the previous year (%) | Annual sales (¥100 million) | Ratio(%) | Change from the previous year (%) |
| Total | 63,622 | 100.0 | 3.0 | 71,435 | 100.0 | 12.3 |
| On-line and off-line data processing | 9,764 | 15.4 | 1.1 | 10,520 | 14.7 | 7.7 |
| Software development and programming | 36,971 | 58.1 | 6.1 | 42,591 | 59.6 | 15.2 |
| Key punching and data entry | 1,775 | 2.8 | -3.7 | 1,887 | 2.6 | 6.3 |
| Machine time sales | 348 | 0.5 | 4.8 | 437 | 0.6 | 25.6 |
| Facility management services | 3,563 | 5.6 | -0.6 | 3,960 | 5.6 | 11.1 |
| Database services | 1,973 | 3.1 | -0.8 | 2,354 | 3.3 | 19.3 |
| Various types of research | 2,395 | 3.8 | -3.3 | 2,490 | 3.5 | 4.0 |
| Miscellaneous services | 6,831 | 10.7 | -2.8 | 7,195 | 10.1 | 5.3 |

Source: "Report of the Survey of Selected Service Industries," MITI

Table II-2 Changes in Sales of Database Services by On-line and Off-line

(¥1 million)

| Year | Total | On-line | Off-line |
|------|------------------|------------------|-----------------|
| 1996 | 235,439 (378) | 178,939 (252) | 56,500 (218) |
| 1995 | 197,291 (336) | 149,190 (215) | 48,101 (199) |
| 1994 | 198,839 (377) | 150,671 (242) | 48,168 (228) |
| 1993 | 211,508 (379) | 164,370 (234) | 47,138 (231) |
| 1992 | 214,064 (383) | 164,199 (239) | 49,865 (233) |
| 1991 | 215,980 (459) | 148,135 (227) | 67,845 (232) |
| 1990 | 188,619 (372) | 129,009 (219) | 59,610 (229) |

Note: Figures in parentheses are the numbers of businesses

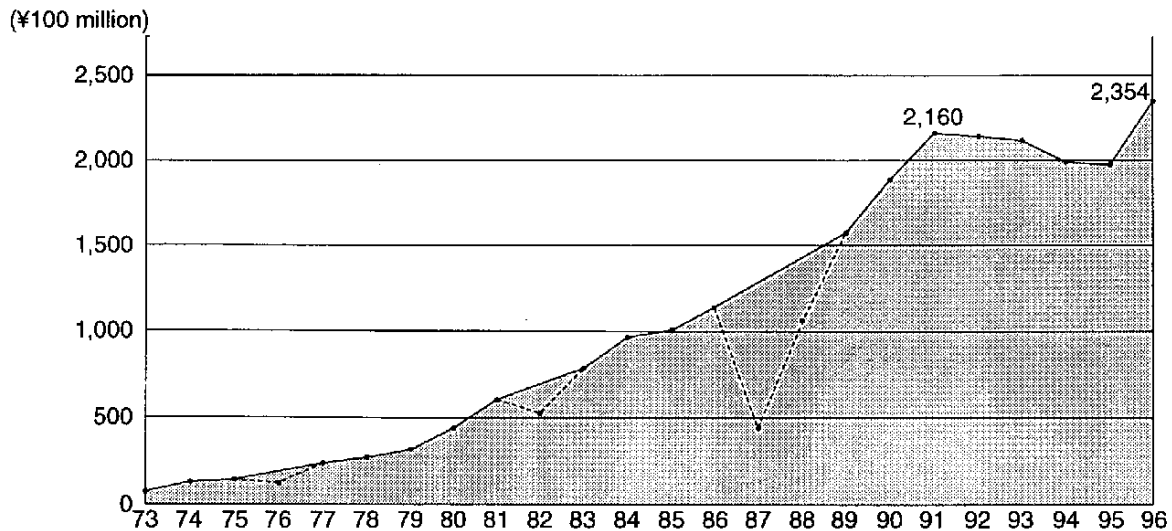


Figure II-1 Changes in Annual Sales of the Database Service Industry

Source: "Report of the Survey of Selected Service Industries," MITI

2. Distribution of Commercial Databases

2.1 Numbers of Accessible Databases and Companies Implementing Database Services

The "Database Directory" has been published by MITI once a year since 1982. It is a directory of commercial databases accessible in Japan, and is provided with an index according to category, supply form, vendor and so on.

Information contained in the directory is obtained as a result of vendors reporting their results for the year. Although the directory contained 176 vendors in the 1996 edition, this number has decreased since peaking in 1992. According to a breakdown of these companies by the type of business, producers/distributors (53), agencies (35) and producers (28) account for two-thirds of the reporting firms, indicating a large number of companies engaged in multiple businesses.

The actual number of commercial databases accessible in Japan is 3,350, up 1.3% from the previous year. Their distribution according to category is as shown in Table II-3.

Fig. II-2 illustrates the changes in the numbers of databases accessible in Japan for overseas and domestic databases. Domestic databases exceeded the 1,000 mark in terms of actual databases supplied for the first time in 1993. Since that time, their number has increased gradually, reaching 1,165 in the current survey. However, their composite ratio relative to overseas databases exceeded 30% in 1989, and has only increased slightly at the rate of 3-4% over the past 7 years.

2.2 Distribution Status by Category

Accessible databases are broken down by category as (1) General, 1,001 (29.9%), (2) Natural Science and Technology, 985 (29.4%), (3) Social Science and Humanities, 107 (3.2%), (4) Business, 1,203 (35.9%) and (5) Other, 54 (1.6%) (Table II-3). When their composite ratios are compared with the previous survey, the General category has decreased, while the Natural Science and Technology and Business categories have increased.

The following lists some of the characteristics of each category.

1) The composite ratio of the General category decreased by 1.2 points as compared with the results of the previous survey. In looking at subcategories however, "Government administration" increased by 9.3% to 59 and "Health and sports" increased by 6.1% to 35.

2) The Natural Science and Technology category increased by 4.8%, giving it the highest growth rate. Increases of 22.3% recorded for "Patents" at 137, and 10.2% recorded for "Medicine, pharmaceuticals, biotechnology, biology" at 216 were particularly large.

3) Although the number of databases in the "Social Science and Humanities" category increased by 1.9%, the category that demonstrated a particularly high growth rate was "Vital statistics", increasing by 7.5% to 43.

4) The Business category increased by 2.5%. Increases of 16.7% by "Finance, securities and foreign exchange" at 196, and 12.4% by "General business/industry" at 118 were particularly large. The number of "Finance, securities and foreign exchange" databases in particular exhibited a conspicuous increase, growing by 28 databases.

Furthermore, those subcategories for which 100 or more databases are distributed consist of the following 9 subcategories, the same number as in the previous survey.

- (1) Newspapers, journals and news (444)
- (2) Corporate profiles and finance (overseas) (257)
- (3) Medicine, pharmaceuticals, biotechnology and biology (216)
- (4) Finance, securities and foreign exchange (196)
- (5) Markets and products (139)
- (6) Electricity, electronics and information (138)
- (7) Patents (137)
- (8) Chemistry (121)
- (9) General business/industry (118)

In addition, in consideration of the fact that business use constitutes a large part of "Newspapers, journals and news" and "Who's who/organizations" in the General category, there is a viewpoint to include those subcategories in the Business category. If the figures were revised in this manner, the Business category would account for 51.6% of the total.

Table II-3 Distribution by Category of Databases Accessible in Japan
(Based on Actual Numbers)

(continued on next page)

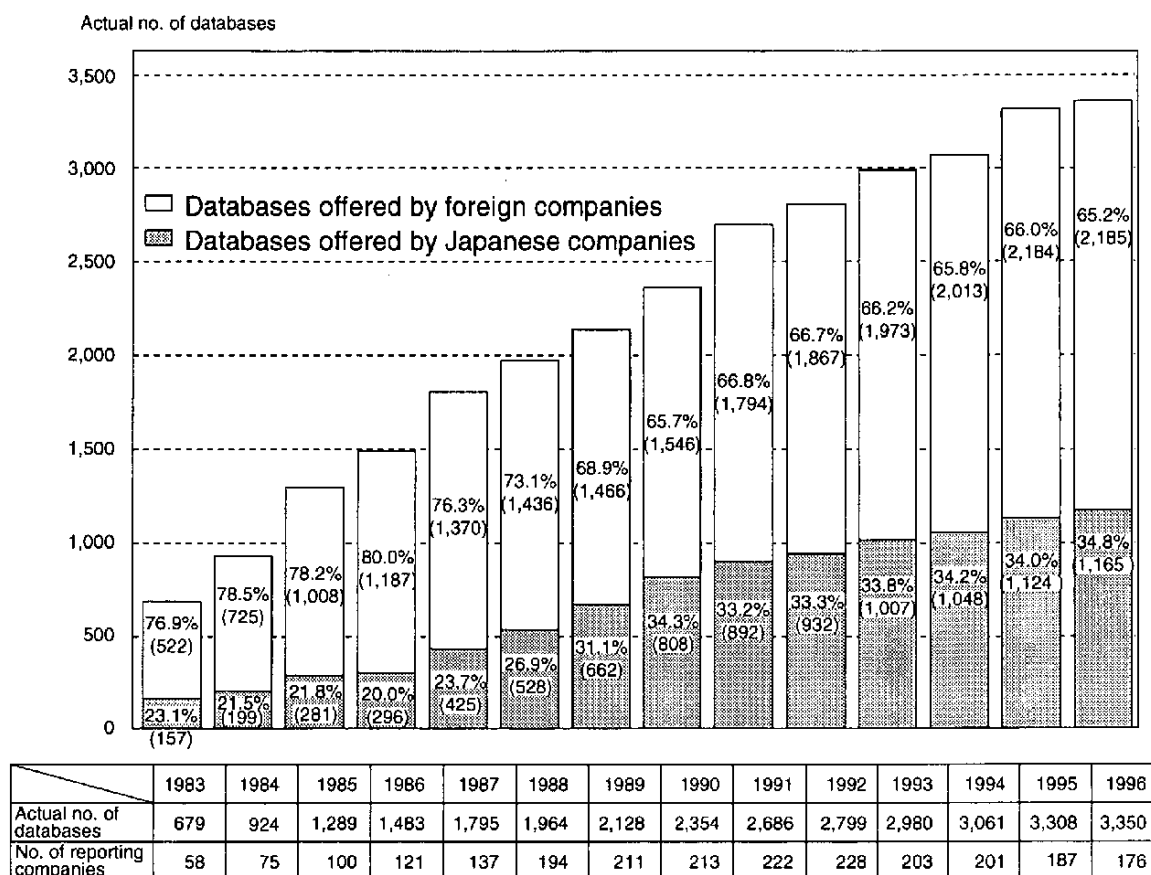
| | Subcategory | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|--------------------------------|---------------------------------------------------|------------|------------|------------|------------|------------|------------|--------------|--------------|
| General | General | 62 | 66 | 70 | 69 | 69 | 75 | 82 | 78 |
| | Newspapers, journals and news | 192 | 231 | 287 | 322 | 373 | 412 | 469 | 444 |
| | Who's who / Organizations | 58 | 62 | 72 | 68 | 75 | 73 | 82 | 80 |
| | Government administration | 26 | 30 | 39 | 38 | 46 | 48 | 54 | 59 |
| | Laws | 65 | 67 | 56 | 63 | 67 | 80 | 76 | 77 |
| | Politics | 22 | 32 | 40 | 43 | 46 | 40 | 36 | 34 |
| | Health and sports | 10 | 9 | 14 | 15 | 27 | 27 | 33 | 35 |
| | Travel and scheduling | 6 | 8 | 7 | 8 | 9 | 8 | 8 | 8 |
| | Recreation and leisure facilities guides | 19 | 31 | 37 | 39 | 49 | 52 | 63 | 64 |
| | Domestic culture and home life | 7 | 10 | 9 | 12 | 20 | 24 | 29 | 31 |
| | Dictionary and supplementary files | 23 | 25 | 31 | 33 | 26 | 30 | 29 | 28 |
| | Place names, maps and addresses | 10 | 13 | 12 | 11 | 7 | 5 | 5 | 8 |
| | Other | 29 | 37 | 47 | 42 | 57 | 53 | 62 | 55 |
| | Subtotals | 529 | 621 | 721 | 763 | 871 | 927 | 1,028 | 1,001 |
| Natural science and technology | General science and technology | 60 | 73 | 74 | 73 | 61 | 58 | 68 | 68 |
| | Patents | 65 | 75 | 79 | 82 | 93 | 95 | 112 | 137 |
| | Medicine, pharmaceuticals, biotechnology, biology | 129 | 140 | 164 | 164 | 178 | 152 | 196 | 216 |
| | Chemistry | 94 | 97 | 111 | 101 | 106 | 106 | 121 | 121 |
| | Physics | 3 | 6 | 6 | 6 | 7 | 7 | 7 | 7 |
| | Mathematics | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 |
| | Electricity, electronics and information | 81 | 115 | 114 | 130 | 128 | 128 | 134 | 138 |
| | Machinery | 11 | 14 | 16 | 18 | 15 | 19 | 21 | 22 |
| | Construction (civil engineering, architecture) | 13 | 18 | 17 | 18 | 19 | 18 | 22 | 24 |
| | Space, earth and marine | 20 | 21 | 22 | 28 | 31 | 32 | 35 | 32 |
| | Atomic power | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 7 |
| | Environment and pollution | 45 | 50 | 46 | 48 | 55 | 51 | 55 | 53 |
| | Energy and resources | 24 | 26 | 33 | 41 | 48 | 61 | 62 | 61 |
| | Agriculture | 12 | 13 | 12 | 13 | 12 | 14 | 14 | 14 |
| | Meteorology | 13 | 13 | 12 | 12 | 12 | 5 | 4 | 5 |
| | Metals and materials | 20 | 32 | 39 | 38 | 38 | 33 | 38 | 38 |
| | Food | 8 | 9 | 9 | 8 | 12 | 12 | 15 | 13 |
| | Fibers, lumber and pulp | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 |
| | Other | 22 | 24 | 28 | 23 | 19 | 17 | 21 | 22 |
| | Subtotals | 631 | 738 | 795 | 816 | 845 | 819 | 940 | 985 |

Source: Prepared from the "Database Directory", MITI

Table II-3 Distribution by Category of Databases Accessible in Japan
(Based on Actual Numbers)

| Subcategory | | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|-------------------------------|-------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Social Science and Humanities | General | 10 | 11 | 8 | 9 | 10 | 6 | 12 | 13 |
| | Education | 17 | 15 | 12 | 12 | 12 | 10 | 11 | 9 |
| | Sociology | 6 | 8 | 11 | 7 | 7 | 6 | 6 | 7 |
| | Vital statistics | 20 | 26 | 28 | 32 | 34 | 39 | 40 | 43 |
| | Law | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 |
| | History and political science | 2 | 2 | 2 | 2 | 4 | 5 | 5 | 6 |
| | Arts (movies, music) | 7 | 5 | 9 | 8 | 10 | 8 | 11 | 10 |
| | Psychology | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 |
| | Linguistics | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 |
| | Philosophy | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Religion | 9 | 9 | 8 | 8 | 8 | 7 | 6 | 6 |
| | Other | 2 | 6 | 6 | 6 | 5 | 7 | 8 | 7 |
| | Subtotals | 81 | 89 | 93 | 90 | 97 | 94 | 105 | 107 |
| Business | General business/industry | 62 | 77 | 95 | 93 | 109 | 110 | 105 | 118 |
| | Marketing and products | 102 | 109 | 130 | 132 | 120 | 121 | 133 | 139 |
| | Economy (overseas) | 108 | 71 | 86 | 73 | 71 | 68 | 71 | 70 |
| | Economy (Japan) | 76 | 82 | 86 | 89 | 87 | 92 | 84 | 79 |
| | Corporate finance and profiles (overseas) | 149 | 204 | 238 | 235 | 256 | 267 | 257 | 257 |
| | Corporate finance and profiles (Japan) | 66 | 72 | 78 | 88 | 88 | 92 | 82 | 79 |
| | Accounting and management | 10 | 10 | 13 | 15 | 16 | 17 | 31 | 29 |
| | Finance, securities and foreign exchange | 140 | 134 | 156 | 156 | 154 | 161 | 168 | 196 |
| | Energy industry | 38 | 8 | 8 | 15 | 15 | 13 | 17 | 19 |
| | Communications and broadcasting | 32 | 27 | 33 | 28 | 38 | 53 | 65 | 62 |
| | Agriculture, forestry and fisheries | 7 | 10 | 9 | 9 | 5 | 4 | 4 | 4 |
| | Chemical industry | 9 | 9 | 10 | 10 | 15 | 13 | 12 | 12 |
| | Labor | 8 | 6 | 7 | 6 | 9 | 13 | 13 | 17 |
| | Architecture and construction | 5 | 5 | 6 | 6 | 5 | 5 | 8 | 7 |
| | Transportation | 23 | 16 | 22 | 23 | 27 | 27 | 27 | 26 |
| | Sales and services | 7 | 7 | 15 | 15 | 15 | 16 | 15 | 13 |
| | Distribution and real estate | 8 | 10 | 9 | 9 | 7 | 5 | 4 | 5 |
| | Other | 31 | 39 | 61 | 57 | 69 | 83 | 78 | 71 |
| | Subtotals | 881 | 896 | 1,062 | 1,059 | 1,106 | 1,160 | 1,174 | 1,203 |
| Other | | 6 | 10 | 15 | 71 | 61 | 61 | 61 | 54 |
| Grand totals | | 2,128 | 2,354 | 2,686 | 2,799 | 2,980 | 3,061 | 3,308 | 3,350 |

Source: Prepared from the "Database Directory", MITI



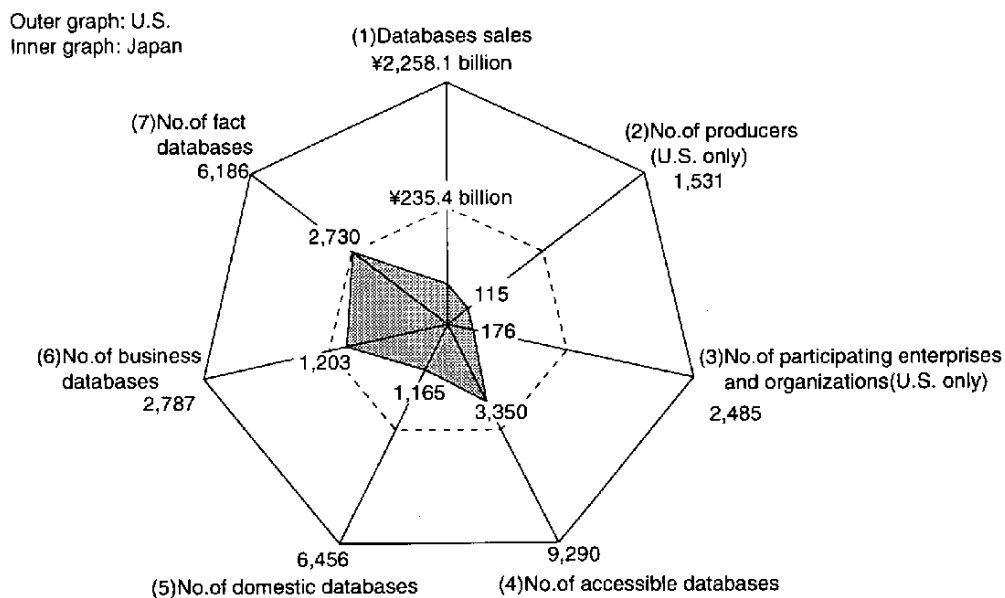
Source: Prepared from the "Database Directory," MITI

Figure II-2 Changes in the Number of Databases Accessible in Japan
 (Based on Actual Numbers)

3. Comparison of Database Conditions in the United States and Japan

This section takes a look at a comparison of the database industries in the U.S. and Japan. Since the sizes of the database industries in the U.S. and Japan are different, an overall image is shown in Fig. II-3. The U.S. is shown in the outside, while Japan is shown on the inside. Furthermore, comparison was made based on the seven parameters listed below.

- (1) Database sales
- (2) No. of producers
- (3) No. of participating enterprises and organizations
- (4) No. of accessible databases
- (5) No. of domestic databases
- (6) No. of business databases
- (7) No. of fact databases



Note 1: Database sales for the United States indicate approximate figures calculated at the rate of \108.8 to the dollar based on data from COWLES/SIMBA Information Inc. (including the Internet and CD-ROM), and represent worldwide sales of information service businesses based in the United States. Consequently, sales generated by Reuters, Reed Elsevier and so forth are excluded. Data for Japan was taken from the "Survey of Selected Service Industries" (1996 edition).

Note 2: Items (2) through (7) for the United States were compiled based on the paper by Martha E. Williams, excerpted from the January 1997 edition of Vol. 1 (On-line) and Vol. 2 (CD-ROM, etc.) of the "Gale Directory of Databases". Data for Japan was taken from the "Database Directory" (1996 edition).

Note 3: Actual numbers are shown for items (4) through (7).

Fig. II-3 Graphical Comparison of Database Conditions in the United States and Japan (1996)

Items (1) through (3) relate to the actual state of the database service industry, and are considered to be indicators of the strength of the database service industry. Items (4) through (7) indicate the distribution status in the respective countries (Table II-4).

Table II-4 Strength of the U.S. Database Industry Relative to Japan (1996)
(Assigning a value of 1 to Japan)

| Criteria | 1996 U.S. | 1995 U.S. |
|--------------------------------------------------------|-----------|-----------|
| (1) Database sales | 9.6 | 7.1 |
| (2) No. of producers | 13.3 | 9.7 |
| (3) No. of participating enterprises and organizations | 14.1 | 10.9 |
| (4) No. of accessible databases | 2.8 | 2.6 |
| (5) No. of domestic databases | 5.5 | 5.3 |
| (6) No. of business databases | 2.3 | 2.3 |
| (7) No. of fact databases | 2.3 | 2.1 |

Note: Sources and calculation methods are the same as indicated in Fig. II-3.

3.1 Comparison of Database Industry Strength

When the strength of the database industry is compared between the U.S. and Japan, the overwhelming superiority of the U.S. database industry remains unchanged as is indicated by the numbers. What is more, that difference is becoming larger each year. The U.S. database industry is 9.6 times larger than Japan with respect to database sales, and more than 10 times larger with respect to the number of participating organizations and number of producers. Compared to the U.S. where the foundation of the database industry has been firmly established for a long time, in the Japanese database industry, it is clearly difficult to establish a business by dealing exclusively in database services, as is clearly indicated by the large number of companies engaged in more than one business. Although a direct comparison cannot be made due to differences in the usage environment, including the balance between investment costs and demand and differences in communication costs, the fact that the difference between the two countries is not growing smaller is of the greatest interest.

Since the database industry in the U.S. is constantly growing at a rate that exceeds that of Japan, and a growing difference in contents fields is resulting in a difference in the ability to use information, further promotion of databases in Japan is necessary.

3.2 Comparison of the Status of Database Distribution

Although the difference with respect to distribution status is not as large as that relating to industry strength, the differences between the U.S. and Japan for both have increased, although only slightly, in comparison with the previous year. In the case of item (4) dealing with the number of accessible databases, since U.S. databases can be accessed in Japan, the difference is only 2.8-fold. When this is limited to domestic databases, however, the difference increases to 5.5-fold. In addition, the differences with respect to the numbers of business databases and fact databases both exceeds two-fold.

III. Trends in the Database Service Industry

This chapter provides an introduction to the actual state of the database service industry in Japan based on tabulation of the "Survey of Japanese Database Services (Vendor Edition)" (October 1997) conducted each year by the Database Promotion Center (DPC).

1. Industry Types of Services

The business types of corporations providing database services in the current survey consisted of "Information processing and supply businesses" at 46.3% followed by "Public services" at 21.3%. Survey and research organizations are included in "Public services". Although low in number, replies were also obtained for "Commercial businesses" at 4.6%. Thus, these results show that various business types comprise the database service industry.

According to the Database Directory, many of the businesses of the database service industry of Japan are combination producers and distributors (30.1%). It appears that these firms are engaged in the entire series of operations, from database production to processing, operation and supply, all deployed on an in-house basis.

When businesses functioning as producers only, which account for 15.9%, are added to the above amount, the total becomes just under 50%. In addition, companies providing services as agencies are ranked second, accounting for 19.9% of the total. This illustrates the demand for searcher functions that extract information from numerous databases and are able to precisely respond to user needs for the purpose of providing meaningful search results.

2. Positioning of Database Services

Database service companies covering multiple business types were questioned about the positioning of their database businesses within their companies. 49.5% of those companies replied that it is currently their major business. On the other hand, 53.3% replied that it would be their major business in the future. Thus, only a slight increase is expected as compared with the current situation. According to the results of the previous survey (October 1996), when considering that 60.2% replied that they intended to make their database business their major business in the future as opposed to 48.5% indicating that it was currently their major business, the likelihood of making the database business a major business in the future has decreased. It is important to notice whether this is simply due to the idea of sticking with the current strategy due to difficulty in visualizing a bright outlook for the future in socioeconomic terms, or due to an inherent factor of the database service industry itself (Fig. III-1).

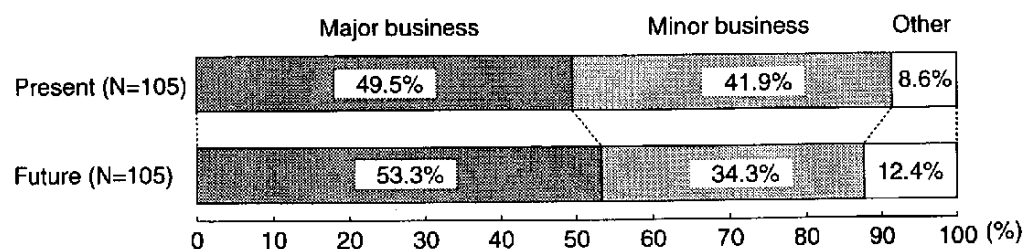


Figure III-1 Positioning of Database Services

3. Sales of Database Services

According to the "Survey of Selected Service Industries", sales of the database service industry of Japan in 1996 (November 1995 to October 1996) totaled ¥235.4 billion (up 19.3% from the previous year).

Here, an analysis is provided of the trends in the database service industry and the future outlook for the next five years from a viewpoint different from that of actual sales figures according to the statistics described above. That viewpoint is based on the six indicators listed below.

- (1) Ratio of database sales to replying company gross sales
- (2) Ratio of domestic database sales and overseas database sales to total database sales
- (3) Ratio of database sales by database supply form (on-line, CD-ROM, MT-MO, other)
- (4) Year-on-year growth rates of database sales
- (5) Estimated average annual growth rates of database sales over the next five years (corporate level)
- (6) Estimated average annual growth rates of database sales over the next five years (industry level)

3.1 Ratio of Database Sales to Company Gross Sales

The overall average of ratio of the database sales to company gross sales was 31.4%, representing a slight increase over the results of the previous survey (30.5%). In addition, in looking at the distribution of database sales ratios, the most common reply was "1-5%" given by 20.8% of the replying companies. This was followed by "15-50%" at 18.2% and "Less than 1%" at 15.6%. The total number of companies that replied that the database sales ratio was less than 10% of gross sales accounted for 42.9% of all replying companies, indicating a decrease of 2.7points from the previous survey. Although only slightly, the ratio of database sales to gross sales is increasing (Fig. III-2).

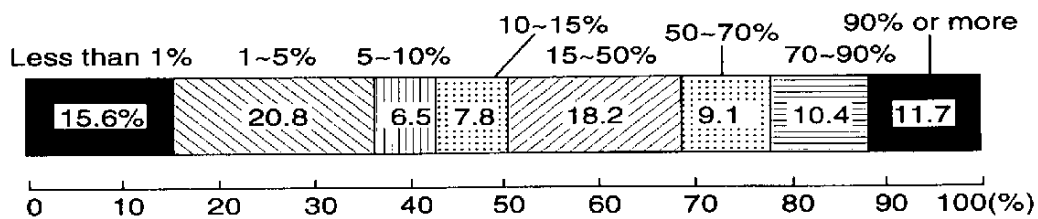


Figure III-2 Distribution of the Ratio of Database Sales to Company Gross Sales

3.2 Ratios of Domestic and Overseas Database Sales to Total Sales

The ratio of domestic database sales to total sales was 87.8% (94 replying companies). Although the mean for overseas databases to total sales was 12.2%, a large number of companies replied that sales accounted for less than 10% of total sales (73.4%), indicating that considerable sales are generated by a limited number of companies. Ever since the survey was started in 1988, the proportion of sales generated by domestic databases has maintained a level of 85% or higher. Thus, there is no change in the fact that domestic database sales are the major source of sales for those companies recorded in the "Database Directory". Separate from the demand for overseas databases, the demand for domestic databases is basically growing, and can be said to contain considerable latent demand depending on the appeal of the service menu.

In looking at the ratio of domestic database sales by business type, naturally the ratio for producers is 100%. The ratio of domestic database sales for producers/distributors was 98.4%, that for producers/distributors/agents was 87.5% and that for agents was 70.5%.

3.3 Database Sales Ratio by Supply Form

This section takes a look at the ratio of database sales by each type of supply form.

The largest database sales ratio was exhibited by on-line databases for both domestic and overseas databases at better than 50%. Although the decreasing trend of the ratio of on-line domestic database sales had continued through the previous survey, in the current survey it rebounded to 52.1% as compared with 49.0% in the previous survey. In addition, the sales ratio of CD-ROM databases continued to demonstrate an increasing trend in the same manner as the previous survey. In the current survey, the ratio increased by 8.6points to 20.8%. This is the result of market expansion due as a result of supplying a diverse range of CD-ROM products. MT-MO are considered to have felt the effects of this, with their sales ratio decreasing for both domestic and overseas databases (domestic: 14.2 to 9.6%, overseas: 2.0 to 0.7%).

Although the database sales ratio of on-line overseas databases tended to decrease through the previous survey, it increased in the current survey by 7.3points to 61.5%, while the sales ratio of CD-ROM overseas databases increased in the same manner as that of domestic databases (Fig. III-3).

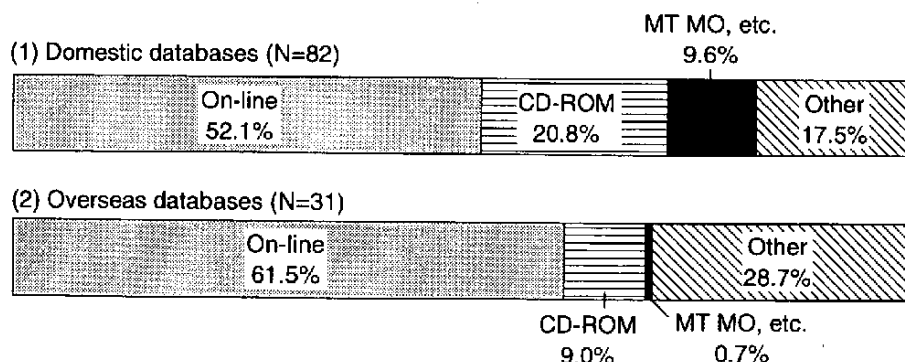


Figure III-3 Ratio of Database Sales by Form

3.4 Year-on-Year Changes of Database Sales

The average growth rate of database sales as compared with the previous year among 79 replying companies was 14.6%. This represents a 5.4points decreased from the results of the previous survey of 20.0%. A decreasing trend in growth rate has continued for the past several years. Those companies that indicated "negative growth" as compared with the previous year accounted for 7.6% of the total, which is not that high a level. What is particularly noteworthy is that 21.5%, or about 1 in 5 firms, indicated that database sales had not changed from the previous year. In addition, those companies that replied that the growth rate for database sales was "Less than 10%" as compared with the previous year also accounted for a large percentage at 30.4%. Combining these companies with those that replied "10% to less than 20%" accounts for 77.2% of all the replying companies. On the other hand, 8.9% of the replying companies indicated that database sales had increased dramatically over the previous year at "70% or more", thus indicating a considerable difference in growth rates between companies (Fig. III-4).

In looking at the growth rates for those business types for which there were 10 or more replying companies, the growth rate for "Producers/distributors" was 13.1%, that for "Agents" was 13.6% and that for "Producers" was 10.6%, with all of these exhibiting growth rates below the overall average, thereby pulling the overall growth rate down.

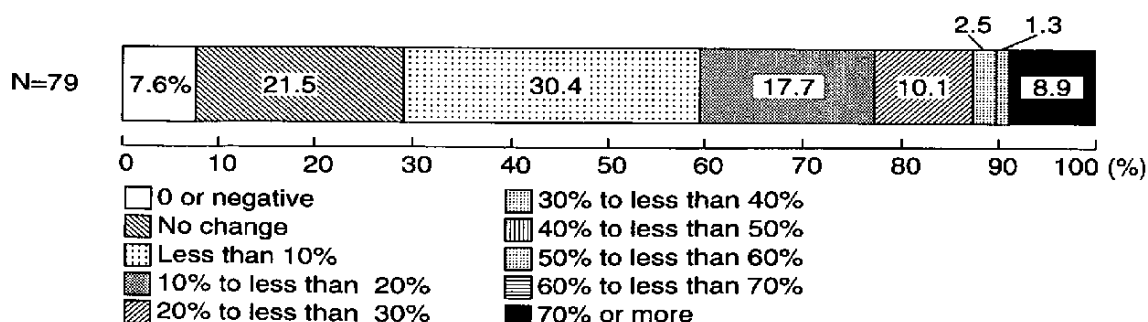


Fig. III-4 Distribution of Year-on-Year Changes in Database Sales

3.5 Estimated Average Annual Growth Rate of Database Sales for the Next 5 Years (Company Level)

When companies were asked to estimate the extent of database sales growth over the next five years, the average for 87 replying companies was an annual rate of 8.1%. Since the result of the previous survey was 13.6%, this represents a decrease of 5.5points. What is more, the results of this year's survey decreased about 15points from two years ago. The total number of companies that replied "No change", "Less than 10%" and "10% to less than 20%" accounted for 89.6% of the replying companies, reaching nearly 90%. When considering that those companies that replied "No change" accounted for nearly 20% of that number, the bleak business outlook and severity of the economic environment can be said to be reflected in the estimates of future database sales. In the case of individual corporations, the majority are proceeding with caution and are believed to set their estimates on the low side for that reason (Fig. III-5).

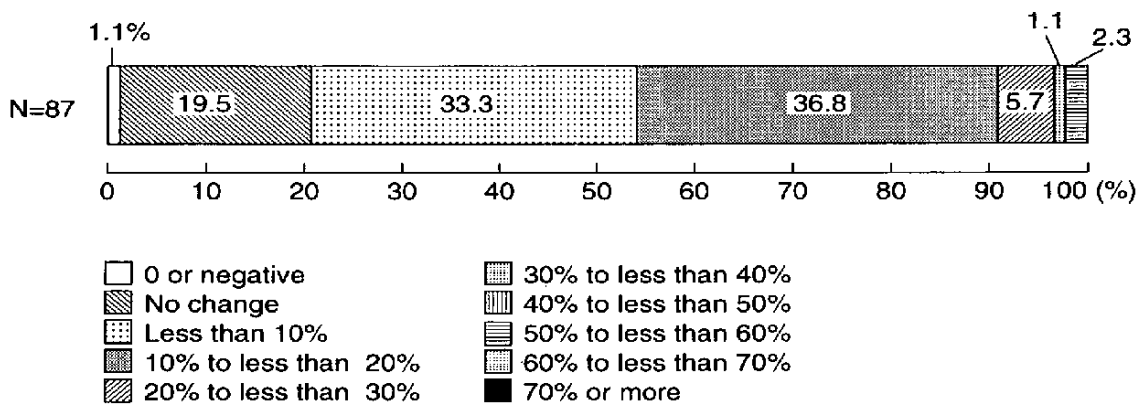


Fig. III-5 Distribution of Estimated Average Growth Rates of Database Sales Over the Next 5 Years (Company Level)

3.6 Estimated Average Annual Growth Rate of Database Sales for the Next 5 Years (Industry Level)

In this part of the survey, companies were asked to estimate database sales for the entire industry. The average of 82 replying companies was 14.0%, indicating a 6.7points decrease from the results of the previous survey. Although this figure is somewhat brighter than the average for the company level as described in the previous section, it was again confirmed that circumstances are such that the future is essentially unknown for the industry as a whole.

In looking at the results of individual business types, the estimate given by "Producers" was 20.2%, that given by "Agents" was 12.2%, while that given by "Producers/distributors" was 10.5%. Although "Producers" foresee a bright future since there are no factors suggesting a decrease in demand for databases themselves, distributors, who are responsible for distribution, have been forced to confront the severity of changes in information distribution routes caused by the rapid proliferation of the Internet over the past few years. Consequently, the figures are

considered to represent the conservative view held by distributors for the overall industry (Fig. III-6).

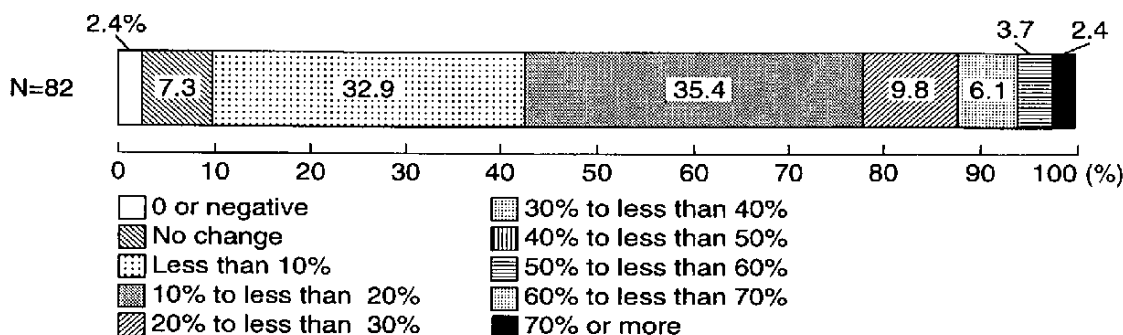


Fig. III-6 Distribution of Estimated Average Growth Rates of Database Sales Over the Next 5 Years (Industry Level)

4. Media with the Highest Expectations

This section describes three forms of media by which databases are supplied that are expected to exhibit the largest growth over the next five years. The results of replies relating to their growth rates are also analyzed.

4.1 Media with the Highest Expectations

The database supply medium which is expected to exhibit the largest growth as indicated by 101 replying companies is the "Internet", which has demonstrated rapid growth over the past several years. 96.0% of the replying companies indicated the "Internet" as having the highest expectations, which surpasses even the level of the previous survey (86.0%). This was followed by "CD-ROM" at 41.6%. However, since this only accounted for less than half the number given for the "Internet", the expectations being placed on the "Internet" are far above any other supply medium. Other media that were indicated included "Magnetooptical disks (MO)/DVD" (31.7%) and "Database use by PC network services" (30.7%) (Fig. III-7).

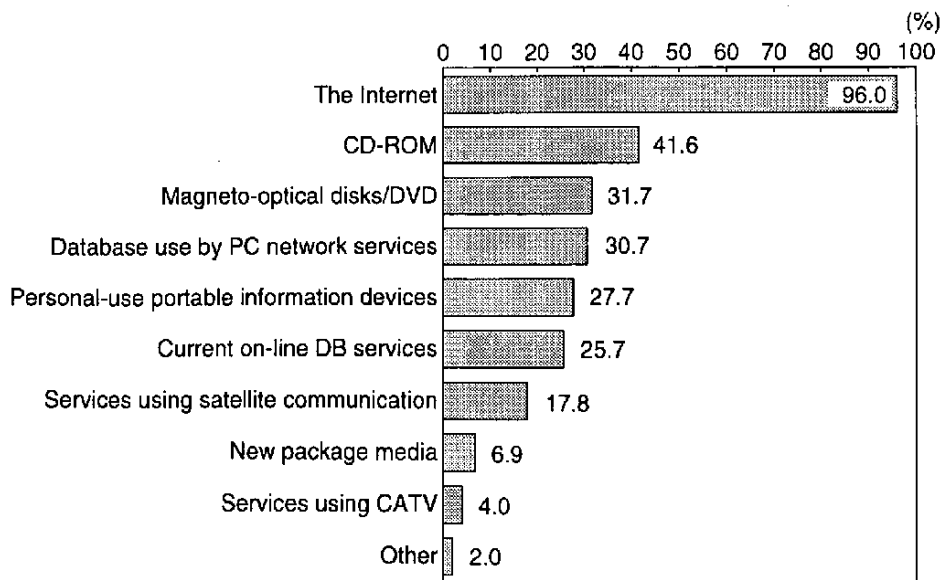


Fig. III-7 Media with the Highest Expectations for Growth Over the Next Five Years
(N=101, multiple replies)

4.2 Predicted Growth Rates

In looking at estimates of the average annual growth rates of media having the highest expectations, the "Internet" was indicated by 44.9% of the replying companies. This was followed by "Services using CATV" at 42.5% and "Personal-use portable information devices" at 40.0%. These results can be said to be in reflection of today's growing popularity of cellular telephones and mobile computers along with the information-oriented environment in today's society. In addition, this is also considered to be related to the high expectations being placed on database supply media in view of changes in employment forms such as the growing rates of at-home employment and SOHO in the future along with the proliferation of information devices in the personal and home-use fields. In view of these circumstances, the absence of any replies for "FAX services" or "MT (magnetic tape)" can be easily understood. In addition, although "CD-ROM" (19.6%) and "Database use by PC network services" (15.9%) were given high expectations in the previous section, their results are not particularly high as growth rates. This is most likely because these services have already infiltrated the market to a considerable extent, thereby making further rapid growth unlikely. Conversely, even though there was little expectations placed on "Services using CATV" in the previous section (4.0%), in terms of growth rate, it has moved up considerably as described above, which reflects its positioning as a medium with high potential for the future (Fig. III-8).

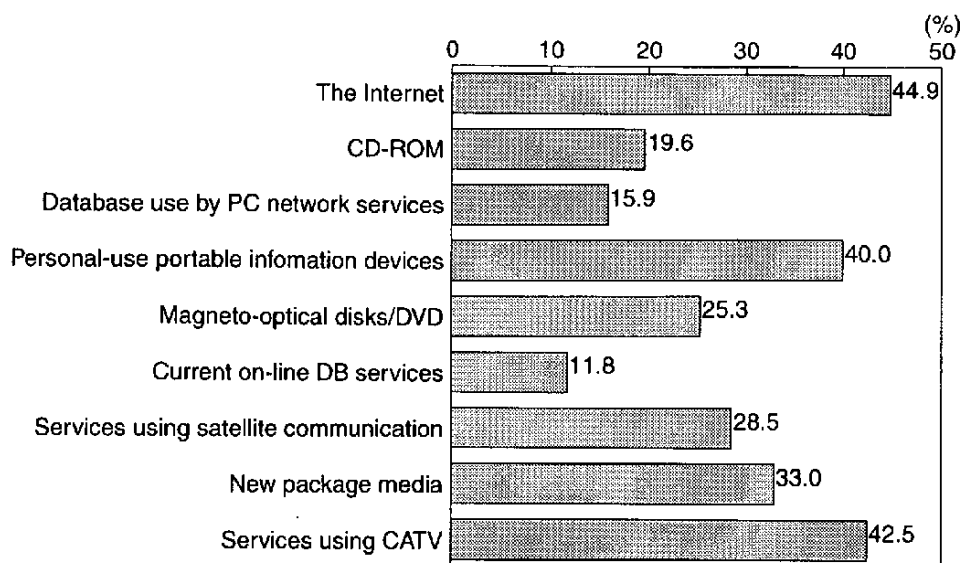


Figure III-8 Estimated Annual Average Growth Rates of Media Expected to Demonstrate the Highest Growth over the Next Five Years (Forecast)

4.3 Promising Supply Types of Data

Although there were only 33 replying companies, "Image" was indicated by a large number of companies as the data type which is considered to have potential as a database service of the future. This was followed by "Numerical data".

Examples of replies indicating specific examples of promising services is described below.

Services in which images are used included "TV news and programming", "Product data" and "Newspaper and magazine image data". The contents of services using numerical data included such as "Government statistical data" and "Corporate settlement and financial data". Examples of applications of character data included "Government-issued white paper and report data" and "Corporate news". Examples of contents using multimedia included "CD-ROM books (character and voice)" and "Information distribution using the Internet".

4.4 Future Areas of Apprehension and Concern

The reply given most frequently by the 98 replying companies was "Concern over protection of database copyrights (intellectual property rights)" at 61.2%. The next most common replies consisted of "Uncertainty over future development of the Internet" and "Negative effects on individual providers of charged services due to the appearance of businesses providing service free of charge by adding similar services as their leading services (as in the case of Internet providers)". Both of these replies were given by 43.9% of the replying companies. As is clear from these results, the main advantage of the Internet, namely "allowing information to be obtained easily by anyone and anywhere" presents a threat to firms providing databases for a

charge. Thus, the more popular the Internet becomes, the greater the apprehension over infringement of intellectual property rights. As a result, it appears that the database industry is having difficulties in determining the direction of its business development with respect to the manner in which services should be deployed in the future.

5. Distribution of Databases

There are generally two ways in which databases are distributed; namely, the case in which producers construct and distribute their own databases, and the case in which producers outsource distribution to other companies. The former are referred to as "producers/distributors".

In this survey, 82.1% of the 67 replying companies supply databases on their own, while 47.8% are outsourcing distribution to other companies. In comparison with the results of the previous survey, although the number of companies outsourcing distribution to other companies increased by 7 points, there is also a strong tendency in Japan for many producers to also function as distributors.

The average number of companies to which distribution is outsourced was 5.2. In looking closer at these figures, although the average was 5.2, the most common reply of only outsourcing to one company accounted for 24.1% of the replying companies. In contrast, although the number of companies that replied that they are outsourcing distribution to 20 or more firms was low, the number is still noteworthy at 6.9%. Since the average number of companies to which distribution was outsourced was 4.0 in the previous survey, although this indicates that the number of companies that are outsourcing distribution to other companies has increased, it also indicates that the number of outsourcing is also on the rise.

6. Problems in Database Construction

There is a strong awareness of costs involved in the construction of databases. The top four replies were all related to cost. In this survey, a new selection was added in the form of "Difficulty in foreseeing income and expenditures". This reply was ranked 4th at 25.8%. Thus, high costs at the time of database construction and difficulties in recovering investments and gaining an understanding of the outlook for income and expenditures are major management issues. In addition, the 11.2points increase in "Anxiety for security measures" is considered to be a reflection of the growing awareness of safety in the information utilization environment with respect to infiltration by computer viruses, the frequency occurrence of unauthorized access and so on. It is also worth noting that "Shortage of efficient database management systems and other software" decreased by 8points, while "Shortage of personnel for data production such as indexers" decreased by 3.8points (Fig. III-9).

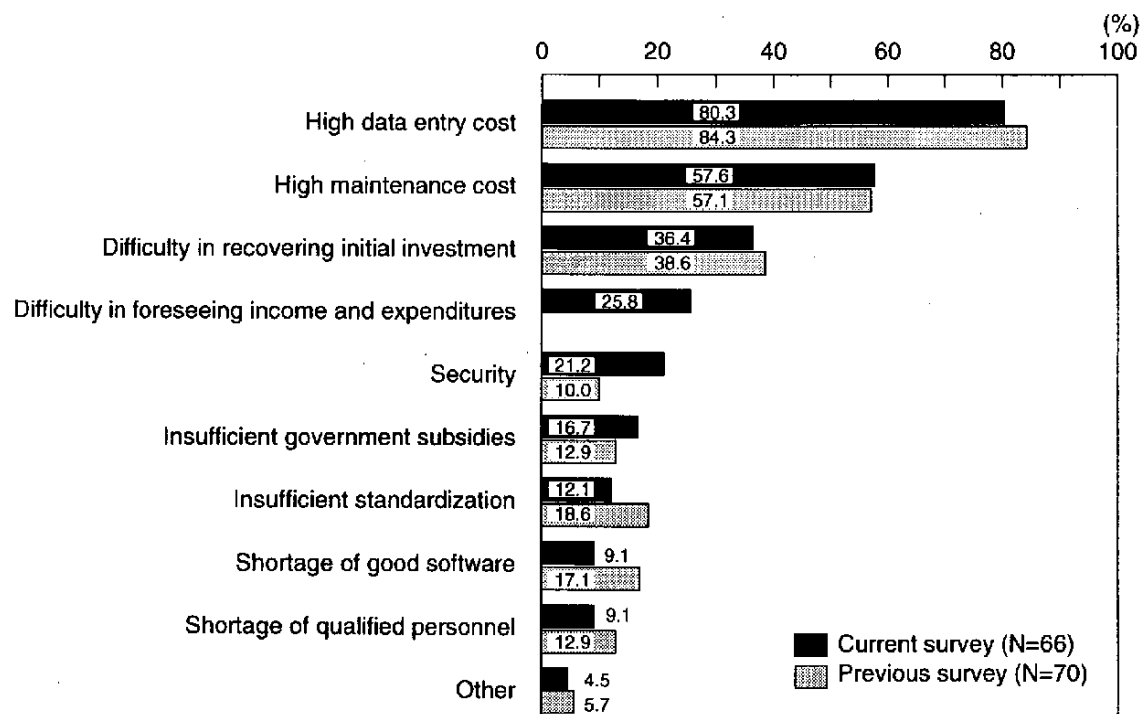


Fig. III-9 Awareness of Problems in Database Construction (multiple replies)

7. Utilization of Public Data

Public data refers to statistical data and documentary information (white papers, council reports, laws and ordinances, etc.) produced and published by government agencies and other public organizations. This data is also highly reliable since it is produced by public organizations. 39 of the 68 replying companies, or 57.4%, are using public data as source data. 62.5% of the 32 producers/distributors indicated that they are using public data as source data, indicating quite a large number. In addition, 18 producers who are engaged in database production as their major business indicated that they are not using public data, accounting for 66.7% of the total.

The top reason for using public data was "Updated annually or regularly", indicating by 51.4% of the replying companies. This followed by "Reliability of data" and "Difficulty in personal acquisition of data due to size of surveyed target, etc." both at 48.6%. For companies producing and supplying databases, data can be used without apprehension if the data is updated regularly, covers a large survey range, and is reliable. It should also be noted that the number of companies that replied "High demand" decreased 20points from the previous survey. This is considered to be the directly result of the effects of growing activity of services providing public data by the Internet. On the other hand, "Low usage fee" increased 5.7points from the previous survey. This indicates that, although user demand is decreasing, due to low usage fees, firms intend to use public data as source data as well as continue to provide that service.

With respect to the type of public data being used, character data that was used relatively often consisted of "government reports" and "patent information" (both at 22.2%). Frequently used types of numerical data consisted of "General business/industry" (27.8%) and "Population, employment and labor" (25.0%) (Figs. III-10 and III-11).

Data that is not being used now but for which there is a desire to use in the future was indicated most frequently, in the case of character data, for "Government white papers and related documents", "Government press report documents", "Government reports" and "Patent information", all at 37.5%. All of these percentages are higher than current levels. In the case of numerical data, the most frequently indicated types of data consisted of "Corporations" (37.5%), "Economy, business climate and finance" and "International trade and accounts" (both at 25.0%). With the exception of "General business/industry", these figures are all higher than current levels. With respect to "Corporations" in particular, the percentage of companies how intend to use this data in the future is much higher than the current level of 13.9%. This indicates a latent demand for industrial information issued by public organizations, such as accumulation and disclosure of

stock information and so forth.

With respect to problems encountered when using public data, the two most common replies were "Supply form of public data used is on paper and not digitized" and "Late announcement and supply of data (data is old)" at 52.9% each, indicated by more than half the replying companies. Although public data is updated regularly, there is a delay in the disclosure and supply of that data, thereby causing the data to lack a timely nature. In addition, much of the public data available is only provided on paper media despite the current proliferation of paper-less media and CD-ROM. This results in the bother of having to digitize the data. In addition, other factors causing difficulty in using public data include "Data must be obtained from a large number of ministries and agencies and is not centralized" (38.2%), thereby creating problems relating to information gathering and data compatibility.

The most common reason for not using public data by far was "Desired data is not available" (57.7%). This suggests that current public data contains aspects that cannot be adequately supplemented in order to offer a service menu that results in differentiation from other corporations in response to user needs calling for specialized information instead of macro data as well as individual and detailed data. Additional replies consisted of "Supply medium is not digitized" (23.1%) and "Data is old" (15.4%), which are similar to the replies given in response to problems in terms of use.

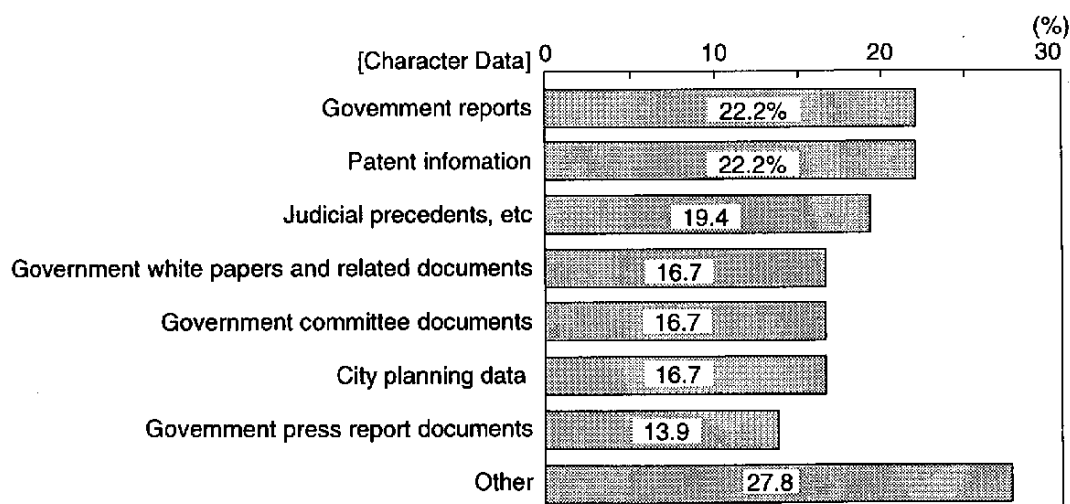


Fig. III-10 Currently Used Public Data (N=36: multiple replies)

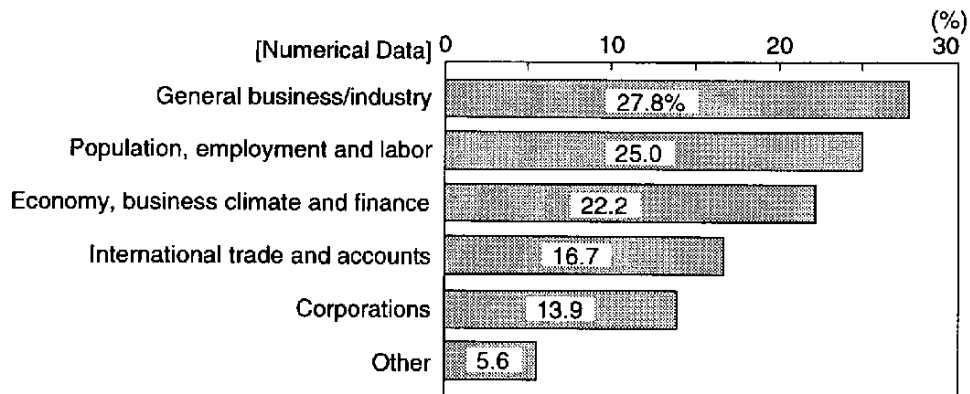


Figure III-11 Currently Used Public Data (N=36: multiple replies)

8. Types of Data Supplied in Databases

8.1 Data Currently Being Supplied

The overwhelming most common type of data currently being supplied on-line is "Text" data (92.7%). This is followed by "Numerical" data (45.5%) and "Image (still pictures, photographs, etc.)" data (36.4%). Although the selections for this question are slightly different from the previous survey, the overall trend remained the same, with many replying companies indicating that they are supplying data in the form of "Text" and "Numerical" data. The number of replying companies supplying data in the form of "Voice" data decreased (by 1.7points).

The results were similar for data supplied off-line. The most common replies were, in order, "Text" (76.9%), "Numerical" (48.1%) and "Image (still pictures, photographs, etc.)" (42.3%). Although "Voice" data again demonstrated a decrease of 5points, "Video (animation)" increased by 2.5points. As possible causes of this, in addition to improved technical requirements in the manner of greater processing capacity and higher speeds for better quality images and faster processing due to progress made in the field of hardware technology, the establishment of a user environment in the form of an increase in the number of personal computers in use cannot be overlooked. The selection, "Multimedia" was used for the first time in this year's survey. It was selected by 5.5% of the replying companies in the case of on-line use, and by 5.8% in the case of off-line use. In the future, however, data supplied in the form of "Video (animation)" and "Multimedia" is expected to increase while exhibiting a shift from off-line use to on-line use (Fig. III-12).

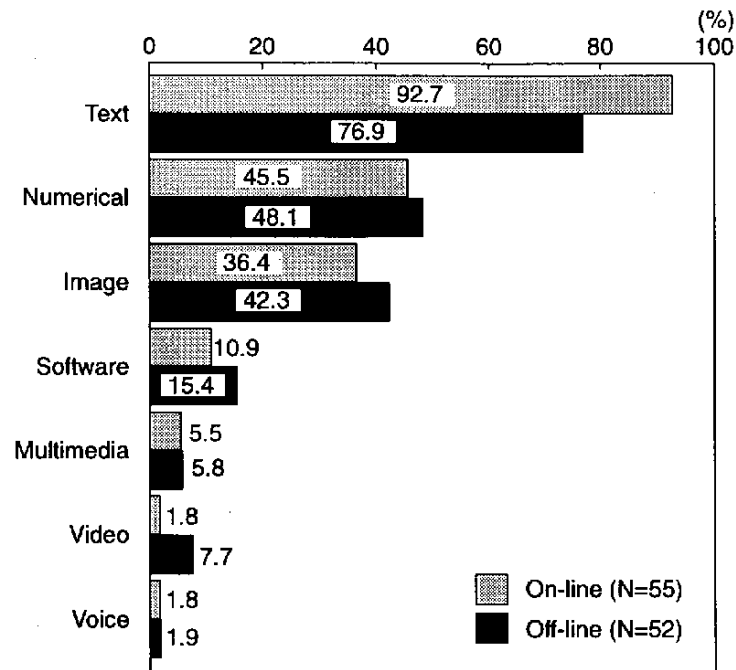


Figure III-12 Types of Data Currently Supplied On-line (multiple replies)

8.2 Data Scheduled to be Supplied in the Future

Data desired to be supplied in the future or desired to be increased in the future consisted of "Image (still pictures, photographs, etc.)" (68.3%), "Text" (61.0%), "Numerical" and "Multimedia" (31.7% each) in the case of supplying data on-line. The order was the same in the case of supplying data off-line. The number of replies indicating "Multimedia" data for both on-line and off-line supply was conspicuous, especially when considering it was added for the first time in this year's survey. As was previously mentioned, it is also clear that this type of data will continue to increase in the future as well. It is also interesting to note that "Software (search software, viewers, etc.)" was selected by 24.1% of the replying companies as data desired to be supplied in the future. Although the development of package software is accelerating in Japan as well, the supplying of a high-quality software product that effectively responds to needs shared by numerous users is becoming an indispensable item for the future business deployment of members of the database industry.

8.3 Positioning of Multimedia

When companies were asked about the positioning of multimedia services, 54.5% of the 11 replying companies replied that it was their "Main service". In the previous survey, the top reply was "Partial service" at 55.9%, while those companies replying that it was their "Main service" accounted for only 11.8%. In view of these results, database service companies are rapidly changing over to a philosophy that places greater emphasis on multimedia services. It is also believed that there are some aspects of multimedia services that will develop in the form of a multimedia industry (Fig. III-13).

Those companies currently supplying multimedia data were asked about their intentions for the future. The leading reply was "Not considering at present" at 47.4%. This is about the same level as the previous survey.

On the other hand, the replies of "Scheduled to develop and supply within 1 year" and "Considering developing and supplying within about 3 years" decreased by 10.4points from the previous survey. Thus, while those companies that perceive multimedia to be their main business is increasing, there are also companies that intend to continue to supply conventional types of services, thereby exhibiting a clear trend towards bipolarization. Alternatively, these results may also indicate that companies are adopting a careful attitude in consideration of the cost effectiveness of new services (Fig. III-14).

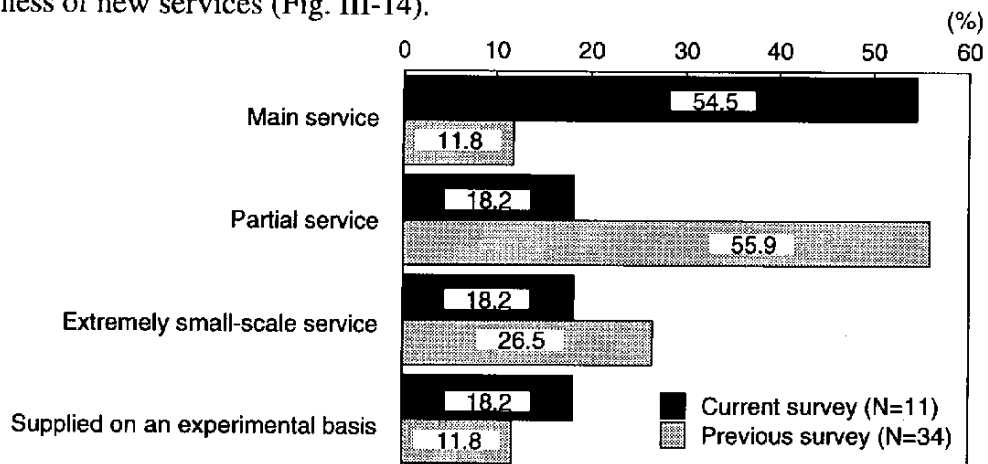


Fig. III-13 Positioning of Multimedia Service (multiple replies)

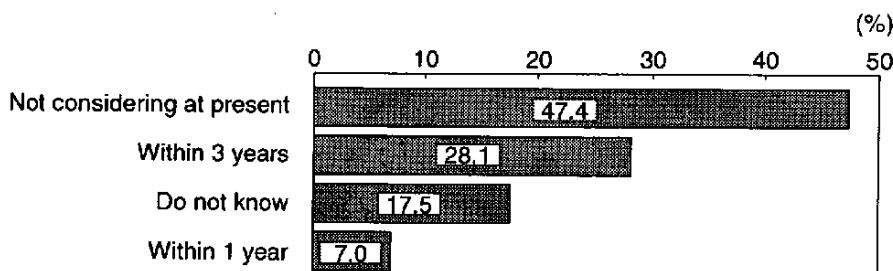


Fig. III-14 Timing of Future Supply of Multimedia Services (N=57)

9. Database Supply by CD-ROM

9.1 Status of CD-ROM Supply

Those companies currently supplying databases by CD-ROM accounted for 56.8% of the replying companies, exceeding 50% for the first time this year after continuing to rise steadily each year since the survey was first conducted. In looking at a comparison with the results of the previous survey, this represents an increase of 10 points. In looking at the results by business type, 50.0% of the 32 replying producers/distributors and 70.6% of the 17 replying producers are supplying databases by CD-ROM. Fueled by increasing user needs for multimedia data, it can be predicted the demand for CD-ROM will continue to increase as a result of being able to supply vast amounts of information in a compact form (Fig. III-15).

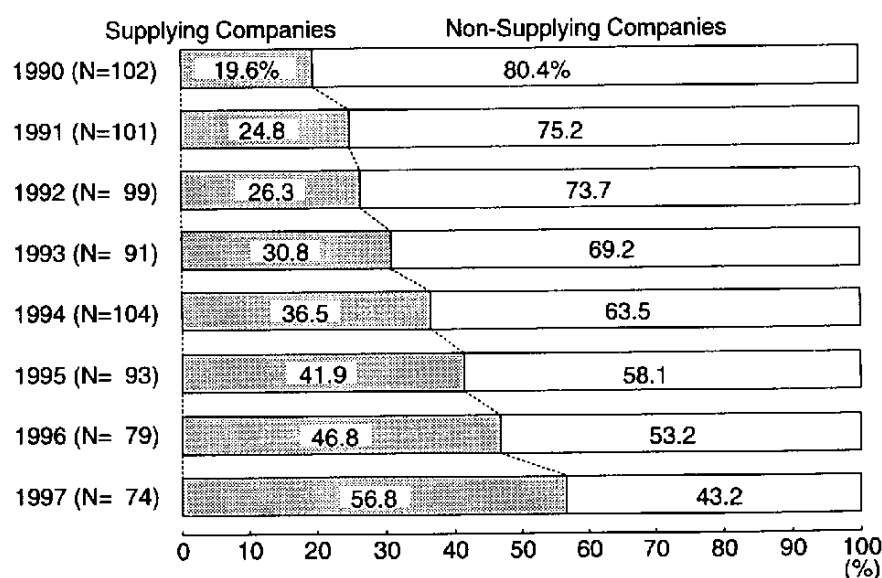


Figure III-15 Types of Data Desired to Supply (or Desired to Expand) Off-line

9.2 Categories of CD-ROM Databases

Companies supplying CD-ROM databases can be broadly classified as "Business", containing 19 companies, "General" containing 18 companies, "Natural science and technology" containing 17 companies and "Humanities" containing 3 companies. In the previous survey, there were 20 companies in the "General" category, 17 in the "Business" category and 14 in the "Natural science and technology" category, indicating that the "General" category decreased by two companies.

However, in looking at the breakdown of subcategories, the subcategory with the largest number of companies was "Newspapers, journals and news" with 8 companies, followed by "Medicine, pharmaceuticals, biotechnology and chemistry " with 6 companies and "Magazine, book and periodical information" with 5 companies (Table III-1).

A total of 259 titles are being supplied. The subcategories with the largest numbers of titles consisted of "Science, technology and patents" with 53 titles and "Newspapers, journals and news" with 44 titles. In looking at a comparison with the previous survey, the number of titles decreased overall. What is particular conspicuous is the decrease by 114 titles in the subcategory of "Medicine, pharmaceuticals, biotechnology and chemistry", and the decrease by 71 titles in the subcategory of "Economics and business".

10. Internet Utilization

Among a total of 78 replying companies, 42.3% replied that they were "Providing" database services via the Internet. This is an increase of 14.5points over the level of 27.8% of the previous survey. When this figure is combined with the 21.8% of the companies who indicated that they "Plan to provide" database services via the Internet, it means that nearly 2/3 of all replying companies will be using the Internet. 29.5% of the replying companies also indicated that they "Would like to consider in the future". In addition, 6.4% of the replying companies replied that they are "Not considering", down 11.3points from the previous survey. It is inevitable that using the Internet as a means of supplying databases will continue to increase in the future along with the growing popularity of information utilization, and the superiority of inferiority of service contents and supply form that take advantage of the characteristics of the Internet will be a pivotal aspect of future market competition (Fig. III-16).

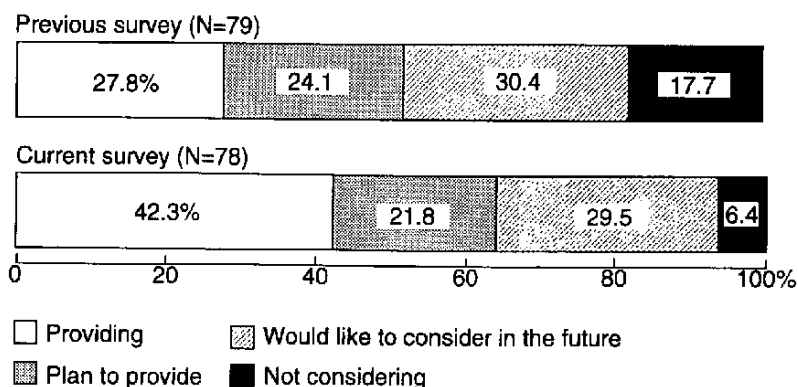


Fig. III-16 Implementation Status of Database Services via the Internet

Table III-1 Supply Status of CD-ROM Databases (No. of companies)

| | Currently supplied (N=42) | Scheduled to be supplied in the future (N=18) |
|--------------------------------------------------------------|------------------------------|--------------------------------------------------|
| [General] | [18] | [7] |
| Audio-visual, games, entertainment | 1 | 1 |
| Dictionary, encyclopedia and document guides | 3 | 1 |
| Service guides and information | — | — |
| Magazine, book and periodical information | 5 | 2 |
| Who's who | 1 | 1 |
| Newspapers, journals and news | 8 | 2 |
| CAI | — | — |
| Desktop | — | — |
| Navigation | — | — |
| [Business] | [19] | [10] |
| Finance, securities, foreign exchange and market information | 1 | 1 |
| Standards | — | — |
| Products and product information | 2 | — |
| Corporate finance and profiles | 3 | 1 |
| Economics and business | 2 | 2 |
| Maps and mapping, telephone numbers and address codes | 3 | 1 |
| Statistics and populations | 3 | 4 |
| Laws, regulations, precedents, taxes and tax information | 4 | 1 |
| Parts catalogs | 1 | — |
| Real estates | — | — |
| [Natural Science and Technology] | [17] | [5] |
| Medicine, pharmaceuticals, biotechnology and chemistry | 6 | 1 |
| Science, technology and patents | 4 | 1 |
| Computers and software | 1 | 1 |
| Architecture and construction | 1 | — |
| Materials and components | 4 | 1 |
| Space, earth, marine and fisheries | — | — |
| Weather, climates | — | — |
| Mathematics, agriculture | — | — |
| Energy, natural resources, environments | 1 | 1 |
| [Humanities] | [3] | [1] |
| Arts, culture, literature and history | — | — |
| Language and words | 1 | — |
| Social science and psychology | — | — |
| Libraries and information science | — | — |
| Maps and geography | — | 1 |
| Education and religion | 2 | — |
| Other | [4] | [2] |
| Totals | 61 | 25 |

In the case of the contents of database services via the Internet, 90.9%, or nearly all, of the 33 replying companies are implementing "Character, numerical and still picture information service on the WWW". Although this was also the most popular reply in the previous survey, it further increased by 4.5points in this year's survey. Although the second most popular reply was "Data search service on the WWW, Telnet, etc." at 30.3%, this decreased dramatically from the level of 37.9points in the previous survey. Although data search services are required to have a high hit rate and speed, this can probably be said to require further examination with respect to the present state of functions and efficiency (Fig. III-17).

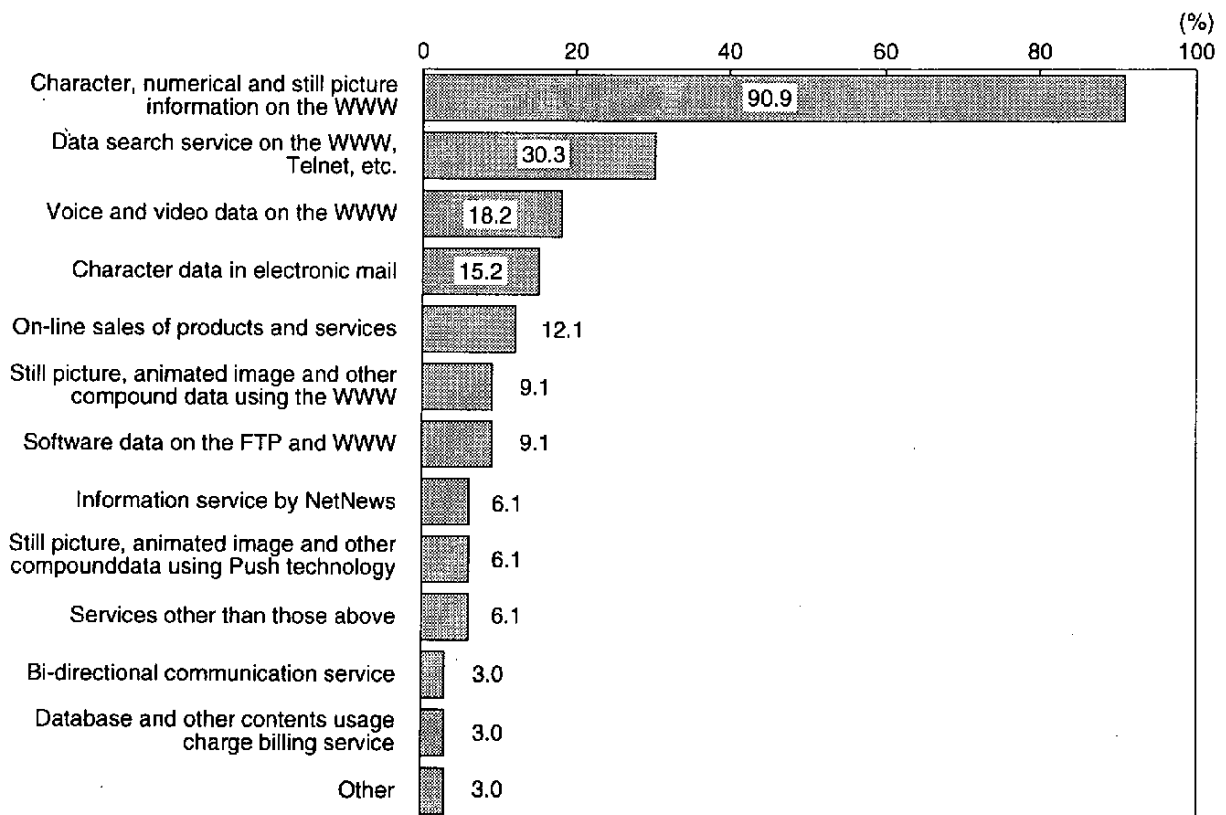


Fig. III-17 Database Services Provided via the Internet (N=33: multiple replies)

One of the major problems confronted particularly when supplying a database on the Internet is the billing system. Among 33 replying companies, the largest number of companies replied that "Services are charged on the basis of the conventional charging method targeting specific users" at 60.6%. This is about the same level as the previous survey. This was followed by "Users make access via the Internet, and conventional systems are employed for invoicing and settlement" and "Services are free" at 24.2% each. "Credit cards" was in 4th place at 15.2%. The order is the same for those companies currently supplying databases and those who are considering or planning supplying databases in the future with respect to the top four replies. However, the current situation is such that, although companies may have already started service via the Internet, there are many that are still searching for a billing system, and 28.6% of the companies considering or planning service via the Internet have still not decided on a specific billing system. In addition, amidst the urgent need for practical application of electronic transactions, 6.1% of the replying corporations are employing "New means of electronic settlement such as digital cash", and 18.8% are planning to use such means. It is likely that the use of these means will increase accompanying the establishment of electronic billing systems in the future (Fig. III-18).

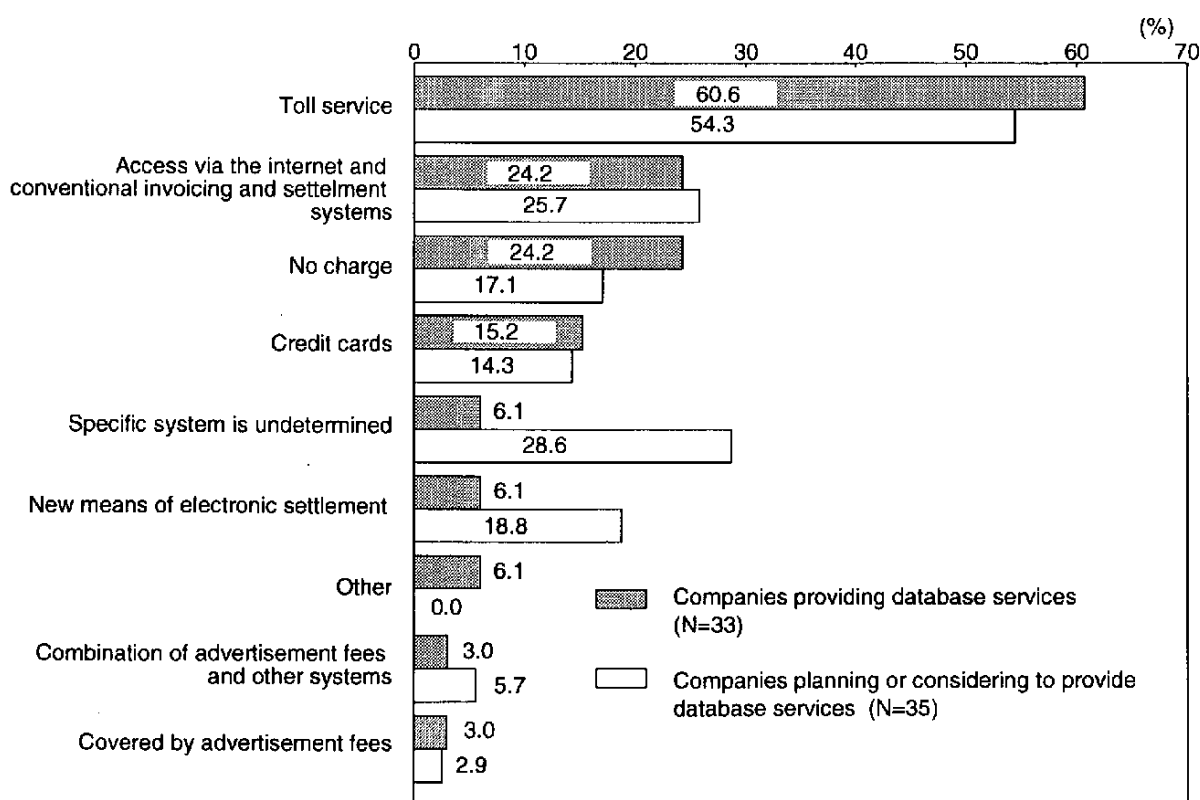


Figure III-18 Database Services Provided via the Internet (multiple replies)

As has been described above, although services via the Internet will undoubtedly expand, there are also concerns and problems inherent to the Internet. Among 31 companies already providing database services via the Internet, the top concern was "Apprehension over security such as infiltration from the outside" indicated by 58.1% of the replying companies. Accompanying the proliferation of the Internet, concern over security, considered to be the most significant shortcoming of the Internet, is increasing. In the previous survey, although the most common reply was "Charging is bothersome" (59.1%), this increased considerably by 16.1% in the current survey. However, it was still the top reply among companies considering or planning database services via the Internet at 44.7%. Since charging methods are not considered to present a serious problem once services via the Internet get underway, the complexity of the settlement process can be said to be a problem. In addition, this year's survey contained the new item of "Lack of establishment of a system for protecting copyrights". This item was selected by 51.6% (2nd place) of those companies currently providing services via the Internet, and by 39.5% of those considering or planning such services, thus indicating it to be an important issue. The large difference observed with respect to this question between companies already providing database services via the Internet and those that are still considering such services for the future is noteworthy (Fig. III-19).

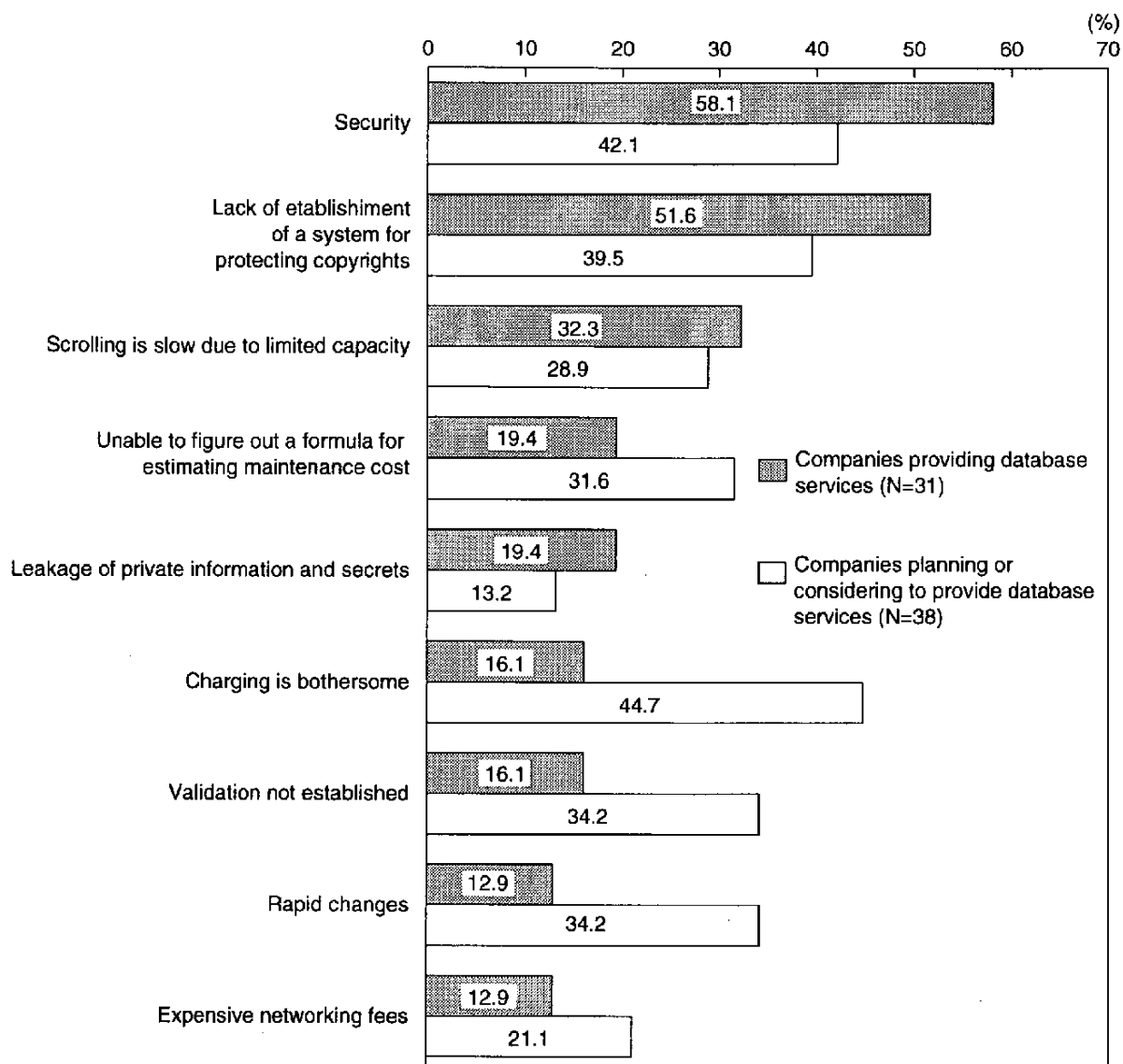


Figure III-19 Charging System for Database Services via the Internet (multiple replies)

11. Present State of Overseas Database Supply

The Japan Database Industry Association (DINA) was commissioned by DPC in July 1997 to conduct their 11th survey targeted at DINA members, DPC supporting members and other organizations involved in database services. Survey forms were sent to 475 organizations, replies to which were obtained from 179 (response rate: 37.7%).

61 of the respondents were providing or planning to provide databases to overseas parties. The number of databases being supplied overseas from Japan has continued to increase over the past ten years, and, as of July 1997, there were 739 types of databases being supplied overseas, representing an increase of 71.9% from the previous year (Table III-2, Fig. III-20).

Table III-2 Number of Domestic Databases being Supplied Overseas

| <div>Time of Survey</div> <div>Item</div> | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| No. of databases and | 83 | 104 | 155 | 226 | 290 | 306 | 353 | 374 | 430 | 739 |
| proportion supplied (%) | (19.5) | (19.7) | (23.4) | (28.0) | (32.5) | (32.8) | (35.1) | (36.0) | (38.3) | (63.4) |

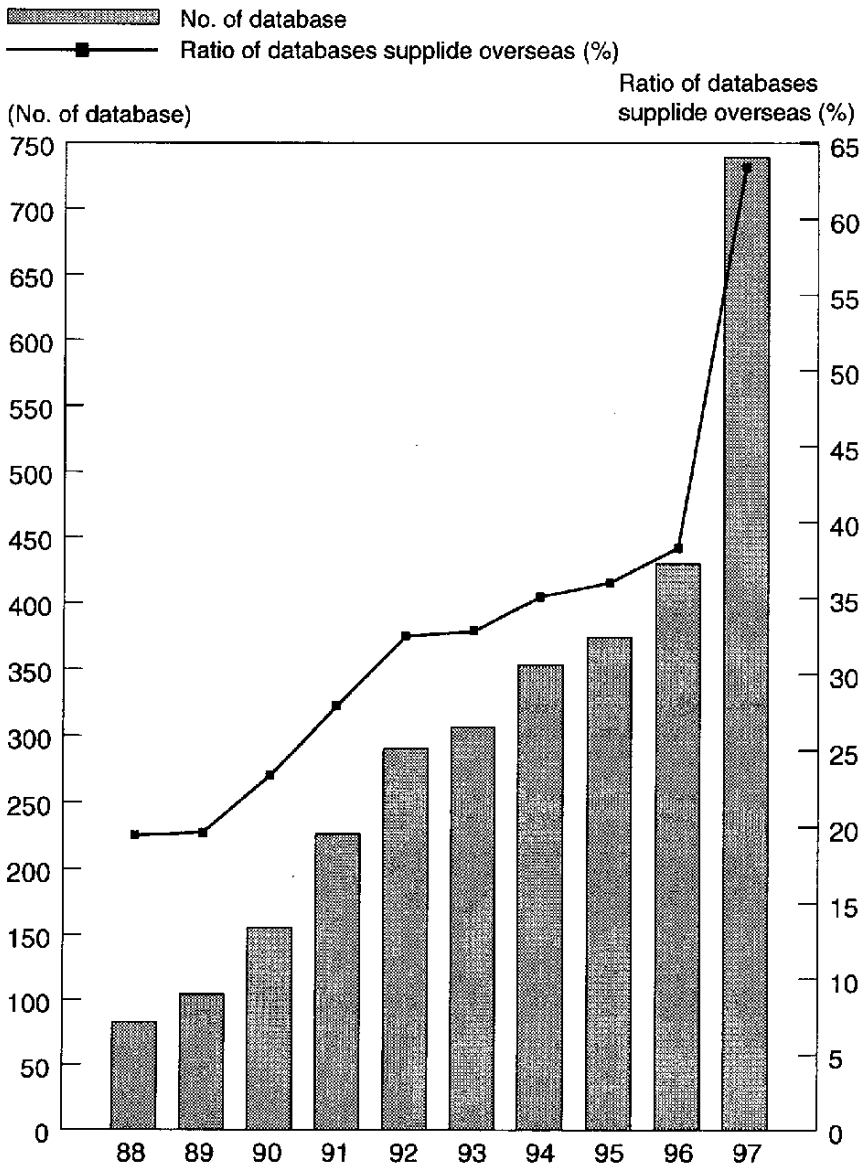


Fig. III-20 Growth of the Number of Databases Supplied Overseas

The distribution of these 739 databases by category consists of 126 in the "Science and technology" category (17.1%), 212 in the "Economics, business and finance" category (28.7%), 379 in the "General" category (51.3%), 17 in the "Economics, business and finance" and "General" categories (2.3%), 3 in the "Science and technology" and "Economics, business and finance" categories (0.4%), and 2 in the "Science and technology" and "General" categories (0.3%).

In addition, in looking at the distribution of these databases according to language, there are 544 types in "Japanese" (73.6%), 108 in "English" (14.6%), one in "Other" languages (0.1%), 74 in "Japanese" and "English" (10.0%), 3 in "Japanese", "English" and "Other" languages (0.4%), 4 in "Japanese" and "Other" languages (0.5%), and 5 in "English" and "Other" languages (0.7%).

With respect to supply form, 644 databases are supplied "On-line" (87.1%), 31 by "MT (magnetic tape)" (4.2%), 10 by "CD-ROM/CD-I" (1.4%), 28 "On-line" and by "MT (magnetic tape)" (3.8%), 6 "On-line" and by "CD-ROM/CD-I" (0.8%), 18 "On-line", by "MT (magnetic tape)" and by "CD-ROM/CD-I" (2.4%) and 2 by "MT (magnetic tape)" and "CD-ROM/CD-I" (0.3%).

IV. Present State of Use of Commercial Databases

This chapter provides an introduction to the state of use of commercial databases and the awareness of their use on the part of users based on the results of the "Survey of Japanese Database Services (User Edition)" conducted by DPC in October 1997. This survey was conducted using a questionnaire format targeted at approximately 2,800 companies. Responses were obtained from 609 companies for a response rate of 22.0%.

In tabulating and analyzing the results, classification standards for company size and industrial category were established in the manner shown below.

- (1) Classification standards by company size according to the number of employees (Table IV-1)
- (2) Classification standards by industrial category (Table IV-2)

Table IV-1 Classification Standards by Company Size According

| Industrial Category | Medium/Small-Size Companies | Large Corporations | Public Services |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|-----------------|
| Mining, manufacturing, transportation and other business types (construction, pharmaceutical production, electrical machinery, chemicals, iron and steel, etc.) | 300 or less | More than 300 | |
| Retailers, service industry, (banks, securities, insurance, real estate, electrical power, gas, data processing services, etc.) | 50 or less | More than 50 | |
| Wholesalers | 100 or less | More than 100 | |
| Public services (schools and other educational institutions, research facilities, unions and various organizations, central and regional governments, etc.) | | | |

Table IV-2 Classification Standards by Industrial Category

| Industrial Category | |
|---------------------|-------------------------------------------------------------|
| Secondary Industry | 1.Construction industry |
| | 2.Oil and chemical industries |
| | 3.Iron and steel, nonferrous metal and metal manufacturing |
| | 4.Electrical, general and transport machinery manufacturers |
| | 5.Other manufacturers |
| Tertiary Industry | 6.Commerce |
| | 7.Finance and insurance |
| | 8.Information processing and information supply service |
| | 9.Other business services |
| 10.Public service | |
| 11.Other | |

1. Usage Results and Forecasts

1.1 Annual Spending on Commercial Database Usage

65.4% of the replying companies indicated that they are using commercial databases. 3.3% had used commercial databases in the past, while 31.4% had never used commercial databases. These are similar to the percentages found in the previous survey (conducted in September 1996).

The average annual amount spent on database usage per database user company was ¥31.530 million. Although in the past only responses containing the amounts broken down for domestic and overseas databases were used to calculate the amount spent on database use, since it has become difficult in recent years to accurately determine this breakdown due to diversification of utilization routes due to the use of PC network services and use via the Internet, etc., the amount spent was calculated while including those companies that only indicated the total amount spent in the same manner as the previous survey.

In looking at the amount spent on database usage by company size, small and medium-sized businesses spent ¥3.592 million per company, large companies spent ¥49.659 million per company, while public services spent ¥7.130 million per company. Although the amount spent per company by large corporations reached the ¥50 million level in the previous survey, it fell below that level in the current survey. Although the overall average decreased by 2.6%, usage by small and medium-sized businesses as well as public services increased significantly from the previous year. In the case of public services in particular, the amount spent increased more than three-fold. However, since the amount spent on commercial database usage is proportional to

company size, the decrease of 2.7% by large companies led directly to a decrease in the overall average. In addition, the decrease in the number of replies from large companies in this survey also had a significant effect on the decrease in the amount spent (188 companies in the current survey as compared with 212 companies in the previous survey).

Furthermore, the amount spent of database usage was also found to have decreased when tabulated by extracting only those companies from which replies were obtained in both the previous and current surveys. Moreover, when the same amount was calculated by extracting those companies that spent ¥20 million or more on database usage, a gradual decreasing trend was observed from the actual results for 1995 and forecast for 1996 to the actual results for 1996 and forecast for 1997 for 14 companies that submitted replies in both the previous and current surveys. On the other hand, even though the number of companies that did not submit the same replies in the previous and current surveys decreased, the amount spent increased. In view of these findings, although previous usage by large-volume users appears to have peaked, usage by new users appears to be on the rise (Table IV-3).

In looking at the results by industrial category, although usage by the "Finance and insurance" industries far outdistanced the rest at ¥398.833 million, the amount decreased by more than ¥100 million in comparison with the results of the previous survey. This was followed by "Other manufacturers" at ¥42.943 million, representing a slight increase over the previous year.

Table IV-3 Comparison of Annual Average Spending on Commercial Database Usage with

| | Previous Survey | | (unit: ¥10,000) | |
|-------------------------------------------------------------------------------------|------------------------|---------------|-----------------------|---------------|
| | Previous Survey (N=37) | | Current Survey (N=33) | |
| | 1995 Results | 1996 Forecast | 1996 Results | 1997 Forecast |
| Companies Giving Same Reply (N=14) | 895,168 | 891,302 | 807,609 | 787,168 |
| Average | 63,940.6 | 63,664.4 | 57,686.4 | 56,226.3 |
| Companies Giving Different Replies (Previous survey: N=23, Current survey: N=19) | 106,653 | 135,078 | 110,273 | 115,647 |
| Average | 4,637.1 | 5,873.0 | 5,803.8 | 6,086.7 |
| Overall Total | 1,001,821 | 1,026,380 | 917,882 | 902,815 |
| Average | 27,076.2 | 27,740.0 | 27,814.6 | 27,358.0 |

Note: Calculated by extracting only those companies that spent ¥20 million or more on database usage.

1.2 Usage Status by Division

When the rates of database usage by division on a monetary basis were examined in terms of the total usage for all industrial categories (Table IV-4), those divisions with the highest rates of usage consisted of the "Survey division" (21.8%), "Research division" (20.8%), "Sales division" (14.0%) and "Patent division" (13.1%). The ranks and percentages were the same as in the previous survey.

Table IV-4 Usage Divisions by Industrial Category

| | Total |
|---------------------------------|-------|
| No. of replies | 337 |
| Planning division (%) | 8.8 |
| Survey division (%) | 21.8 |
| Research division (%) | 20.8 |
| Patent division (%) | 13.1 |
| System development division (%) | 3.1 |
| Production division (%) | 2.2 |
| Sales division (%) | 14.0 |
| General affairs division (%) | 3.2 |
| Other divisions (%) | 12.9 |

2. Types and Contents of Frequently Used Commercial Databases

2.1 Frequently Used Systems and Databases

The top five service systems in terms of the amount spent on usage along with the top five most frequently used databases are as described below (Table IV-5).

Table IV-5 Frequently Used Systems on a Monetary Basis in Order of the Number of Replies
(N=378: multiple replies)

| Rank | Name of service system | No. of replies | Reply ratio(%) |
|------|------------------------|----------------|----------------|
| 1 | Nikkei Telecom | 190 | 50.3 |
| 2 | JOIS | 178 | 47.1 |
| 3 | PATOLIS | 135 | 35.7 |
| 4 | DIALOG | 128 | 33.9 |
| 5 | NIFTY-Serve | 95 | 25.1 |
| 6 | G-Search | 83 | 22.0 |
| 7 | STN International | 73 | 19.3 |
| 8 | COSMOS | 60 | 15.9 |
| 9 | ELNET | 43 | 11.4 |
| 10 | TSR | 40 | 10.6 |
| 11 | NACSIS-IR | 29 | 7.7 |
| 12 | NICHIGAI-ASSIST | 28 | 7.4 |
| 13 | BRANDY | 18 | 4.8 |
| 14 | QUICK | 17 | 4.5 |
| 15 | DIALINE | 15 | 4.0 |
| . | . | . | . |

The most frequently used service systems consisted of Nikkei Telecom (190 replies, 50.3%), JOIS (178 replies, 47.1%), PATOLIS (135 replies, 35.7%), DIALOG (128 replies, 33.9%) and NIFTY-Serve (95 replies, 25.1%). Although the top two service systems in the previous survey were JOIS (52.6%) and Nikkei Telecom (50.4%), as a result of usage of JOIS decreasing by 5.5 points in the current survey, their order was reversed. When NIFTY-Serve was added to the selections in this year's survey in consideration of large-volume use as a PC network service, it ended up being ranked fifth. Although the number of replies for NIFTY-Serve was only half that of Nikkei Telecom, its proliferation has been conspicuous. Although there was considerable variation in the replies for other service systems, some more common examples included Info Stream, Telerate and First Search.

When these are looked at according to company size, the order of usage among large companies was nearly the same as that of overall usage. Among small and medium-sized businesses, however, Nikkei Telecom was ranked 4th (41.0%), and the difference with JOIS in 1st place (54.1%) was 13.1 points. In addition, in the case of public services, NIFTY-Serve was ranked third (26.4%). The differences in systems used according to company size yielded interesting results.

By individual industrial categories, in addition to Nikkei Telecom demonstrating high usage of 71.4% by "Iron and steel, nonferrous metal and metal manufacturing" and 62.2% by "Other business services", its usage exceeded 50% in four other industrial categories. JOIS, which was ranked second overall, was used at the rate of 78.0% by the "Oil and chemical industry" and 68.3% by "Electrical, general and transport machinery manufacturers". Its difference in usage in other industrial categories pulled down the average, and it ended up being ranked second.

The top ranked database (file) having the highest frequency of use was science and technology document files. Newspaper article databases were in second place followed by patent-related information in third place and corporate information ranked in 4th and 5th place. The top positions are the same as those of the previous survey. In terms of frequently used databases by company size, since the objectives are different between general companies and public services, the types of databases used are also different. Those databases that are frequently used among general companies consist of patent and trademark databases, while popular databases among public services include newspaper article and document file databases. Corporate information databases are frequently used by both. Additional replies other than the 32 files indicated included ELMOR, JBCAT/FBCAT and others (Table IV-6).

For reference purposes, the numbers of contracted users of on-line information service companies according to "Nikkei New Media" (published by Nikkei Business Publications Inc.) are shown in Tables IV-7 (1), (2) and (3).

Table IV-6 Databases with High Utilization Frequency (N=361: multiple replies)

| Rank | Databases | No. of replies | Reply ratio(%) |
|------|-------------------------------------------------------|----------------|----------------|
| 1 | JICST File on Science and Technology Documents | 150 | 41.6 |
| 2 | Nihon Keizai Shimbun Article File | 148 | 41.0 |
| 3 | Patent/Utility Model File | 123 | 34.1 |
| 4 | COSMOS2 (Teikoku Databank corporete information) | 114 | 31.6 |
| 5 | TSR-BIGS (Tokyo Shoko Research corporete information) | 91 | 25.2 |
| 6 | WPI | 53 | 14.7 |
| 7 | CA | 50 | 13.9 |
| 8 | Asahi Shimbun News Database | 47 | 13.0 |
| 9 | Nikkei Who's Who | 37 | 10.2 |
| 10 | Trade Mark File | 35 | 9.7 |
| 11 | MEDLINE | 28 | 7.8 |
| 12 | WHO | 25 | 6.9 |
| 12 | Nikkei overall economic file | 25 | 6.9 |
| 12 | Yomiuri Shimbun News Database System | 25 | 6.9 |
| 15 | Nikkei POS information | 24 | 6.6 |
| . | . | . | . |
| . | . | . | . |

Table IV-7(1) Ranking of On-Line Information Service Companies (Including Producers) by No. of Contracted Users

(Source: Nikkei New Media)

| Supplying Companies and Organizations | Name of Services | Description | No. of passwords accessible from the Internet (*1) | | No. of passwords including services provided on own network | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------|-------------------------------------------------------------|--------------------|
| | | | As of Jan. 1, 1998 | As of Jan. 1, 1997 | As of Jan. 1, 1998 | As of Jan. 1, 1997 |
| Nihon Keizai Shimbun, Inc. | Nikkei Telecom 21, Nikkei Telecom, NEEDS-TS, NEEDS-DataGEAR, Nikkei News Line, etc. | On-line supply of news and databases, newspaper and magazine article searching, on-line searching of U.S. and European news article information, etc. | Not released | Not released | 85,447 | 80,356 |
| TKC Corp. | ProFIT, LEX/DB, TPS1000, TPS9000, AUDIT96, PX1, etc. | Complete text DB of tax revisions and other information, judicial precedents, ordinances, etc., management indicators, management planning, wage calculations, etc. | 9,802 | 4,777 | (*2)58,466 | 56,560 |
| Kinokuniya Co., Ltd. | BookWeb | Book and CD contents information | 36,000 | 6,000 | 36,000 | (*3)6,000 |
| Japan Science and Technology Corporation | JOIS, JOIS-F, STN-International | Science, technology and medical literature databases, etc. | 17,900 | 12,100 | (*2)17,900 | 12,100 |
| Tohan Co., Ltd. | SUPER, TONETS, Book Adventure Team | Bibliographical information | 600 | 0 | 8,150 | 6,900 |
| Teikoku Databank, Ltd. | COSMOS NET, COSMOS | Corporate financial and director information, corporate profile information, corporate credit survey reports, etc. | 0 | 0 | 7,747 | 6,921 |
| Kyodo News Markets Co., Ltd. | Kyodo real-time news, Kyodo Japan Business News Line | Financial information, economic information, etc. | 0 | 0 | 4,400 | (*4)3,850 |
| Brandy International Co., Ltd. | BRANDY | Similar trademark searching, trademark bibliographical information searching, trademark public relations, etc. | 0 | 0 | 1,700 | 1,677 |
| Japan Construction Information Center | JACIC NET | Public works bidding and contract information, construction news, construction statistical information, etc. | 0 | 0 | 1,686 | (*5)1,582 |
| Tokyo Kantei Corp. | Real estate information service | Apartment and land price information | 0 | 0 | 400 | 200 |
| Kokusai Information Service Co., Ltd. Not released | KISPAT | Patent information, etc. | 0 | 0 | 100 | 70 |
| Total for 11 on-line information service companies (producers) (*6) | | | (*7)64,302 | 22,877 | 221,996 | 176,216 |

*1: The number of passwords of businesses which changed calculation standards for the number of passwords at the time of the 1997 survey was calculated using the new standards as a general rule. *2: Calculation standards for the number of passwords were changed. *3: Although providing other services, the number of passwords was only released for BookWeb. *4: Separately established from KK Kyodo News Service. Increased the number of passwords released. *5: Although providing other services, the number of passwords was only released for JACIC NET. *6: There were no replies from the Japan Patent Information Organization or Tokyo Shoko Research, Ltd. in this year's survey.

Table IV-7(2) Numbers of Contracted Users of On-Line Information Service Companies (Distributors)

(Source: Nikkei New Media)

| Supplying Companies and Organizations | Name of Services | Description | No. of passwords accessible from the Internet (*1) | | No. of passwords including services provided on own network | |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------|-------------------------------------------------------------|--------------------|
| | | | As of Jan. 1, 1998 | As of Jan. 1, 1997 | As of Jan. 1, 1998 | As of Jan. 1, 1997 |
| NEC Corp. | BIGLOBE | Corporate information, newspaper article information, marketing information, economic information, semiconductor information, etc. | Not released | Not released | 2,520,000 | 2,170,000 |
| Nihon Keizai Shimbun, Inc. | Nikkei Telecom 21, Nikkei Telecom, NEEDS-TS, NEEDS-Data GEAR, LEXIS/NEXIS, LEXPAT, DJN/R, FTPROFILE, Nikkei News Line, etc. | On-line supply of news and databases, newspaper and magazine article searching, on-line searching of U.S. and European news article information, on-line searching of U.S. and European corporate information, searching of overseas corporate information, etc. | Not released | Not released | 99,811 | 94,669 |
| G-Search Corp. | G-Search commercial DB, corporate multimedia DB service/Lite, corporate multimedia DB service/[Manager function type] | Newspaper article information, corporate information, magazine and book information, industrial, economic and management information, who's who information, marketing and new product information, government and municipal office information, scientific and technical information, law, patents, weather, etc. | 91,176 | 4,724 | 95,427 | 87,111 |
| TKC Corp. | ProFIT, LEX/DB, TPS1000, TPS9000, AUDIT96, PX1, Continuing MAS, Corporate defense DB, etc. | Tax revision information, complete text DB of judicial precedents, ordinances, etc., | 9,802 | 4,777 | 60,523 | 56,560 |
| QUICK Corp. | QUICK-IS Level I/II, QUICK-21 Watch I/II, QUICK Indicator Board, etc. | economic indicators, management planning, tax simulation, wage calculation, life insurance contract simulation, etc. | 0 | 0 | 46,000 | 46,000 |
| Kinokuniya Co., Ltd. | Book Web | Comprehensive economic information focusing primarily on securities and finance | 36,000 | 6,000 | 36,000 | 6,000 |
| Japan Science and Technology Corporation | JOIS, JOIS-F, STN-International, NACSIS-IR, etc. | Book and CD contents information | 18,623 | 12,100 | 18,623 | 12,100 |
| Bloomberg L. P. | Bloomberg | Science, technology and medical literature database, academic information and medical literature database, etc. | 250 | 0 | 15,000 | 10,000 |

**Table IV-7(3) Numbers of Contracted Users of On-Line Information Service Companies
(Distributors) (continued)**

| Supplying Companies and Organizations | Name of Services | Description | No. of passwords accessible from the Internet (*1) | | No. of passwords including services provided on own network | |
|------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------|----------------------------------------------------------------|--------------------|
| | | | As of Jan. 1, 1998 | As of Jan. 1, 1997 | As of Jan. 1, 1998 | As of Jan. 1, 1997 |
| Kyodo News Markets Co., Ltd. | Kyodo real-time news, Kyodo Japan Business News Line, etc. | Financial information, economic information, newspaper and magazine information database, etc. | 0 | 0 | 14,400 | 12,800 (*5) |
| KMK Digitex | DIALOG, DataStar, DIALOG Web, DIALOG Select, DataStar Web | Business information, patent information, scientific and technical information and medical information databases, etc. | 12,000 | 10,000 | 12,000(*3) | 10,000 |
| Kokusai Information Service Co., Ltd. | KISPAT, FT Profile, I/ PLUS Direct, etc. | Patent information, corporate information, market survey information, etc. | 10,800 | 800 | 11,353(*3) | 2,900 |
| Fujitsu Facom Information Processing Corp. | FENICS General Database [G-Search] | Corporate information, newspaper article information, magazine and book information, who's who information | 450 | 0 | 10,120 | 9,720 |
| Tohan Co., Ltd. | SUPER TONETS, Book Adventure Team | Bibliographical information, etc. | 600 | 0 | 8,150 | 8,900 |
| Teikoku Databank, Ltd. | COSMOS NET, COSMOS | Corporate financial and director information, corporate profile information, corporate credit survey reports, corporate reported income, etc. | 0 | 0 | 7,747 | 6,921 |
| Japan Information Processing Service Co., Ltd. | Infostream, Orbit | Pharmaceutical information, medical information, overseas patent information, etc. | 100 | 0 | 4,800 | 4,700 |
| Maruzen Co., Ltd. | UnCover, BLDSC, EBSCOdoc, QUESTEL, JOIS, DIALINE, etc. | Scientific, technical and humanities literature information, patent information database, scientific and technical information database, etc. | 0 | 0 | 3,100 | 1,700 |
| Electronic Library Inc. | ELNET (ELMOR, ELSDI, ELDB, etc.) | Newspaper (59 domestic newspapers) and magazine (approx. 150 publications) article information, article image database | 0 | 0 | 2,300 | 2,100 |
| Brandy International Co., Ltd. | BRANDY | Similar trademark searching, trademark bibliographical information searching, trademark public relations, etc. | 0 | 0 | 1,700 | 1,677 |

**Table IV-7(4) Numbers of Contracted Users of On-Line Information Service Companies
(Distributors) (continued)**

| Supplying Companies and Organizations | Name of Services | Description | No. of passwords accessible from the Internet (*1) | | No. of passwords including services provided on own network | |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------|-------------------------------------------------------------|--------------------|
| | | | As of Jan. 1, 1998 | As of Jan. 1, 1997 | As of Jan. 1, 1998 | As of Jan. 1, 1997 |
| Japan Construction Information Center | JACIC NET | Public works bidding and contract information, construction news, construction statistical information, etc. | 0 | 0 | 1,686 | 1,582(*6) |
| Tokyo Kantai Corp. | Real estate information service | Condominium and land price information | 0 | 0 | 400 | 200 |
| Total for 20 on-line information service companies (including distributors) | | | 179,801(*8) | 038,401(*8) | 2,969,140 | 2,543,640 |
| Reuters Japan Ltd. | Reuters First, Reuters First Web, Reuters Business Briefing, etc. | On-line providing of exchange rate, securities and other financial information using characters and images, financial database, business information database covering various industries, etc. | Notreleased | Notreleased | 435,000(*9) | 362,000(*9) |

*1: The number of passwords of businesses which changed calculation standards for the number of passwords at the time of the 1997 survey was calculated using the new standards as a general rule.

*2: Indicates the number of possible users. *3: Calculation standards for the number of passwords were changed. *4: Although providing other services, the number of passwords was only released for BookWeb. *5: Separately established from KK Kyodo News Service. Increased the number of passwords released. *6: Although providing other services, the number of passwords was only released for JACIC NET. *7: There were no replies from the Japan Patent Information Organization or Tokyo Shoko Research, Ltd. in this year's survey. *8: Calculations are based on assuming a value of 0 when figures are not released. *9: Treated separately since the number includes the number of contracted users not only in Japan but also throughout the world.

2.2 Categories of Frequently Used Databases

This section takes a look at the target categories of databases frequently used by users.

With respect to domestic databases, the top category was "Newspapers/journals/news" at 68.3%. This was followed by "Corporate finance/profile" at 66.0%, "Who's who/organization information" at 44.7% and "Patents" at 42.6%. This order is the same as in the previous survey. Other categories mentioned included "Science and technology" and "Nuclear power information".

On the other hand, with respect to overseas databases, the top category was "Patents" at 52.5% followed by "Medicine/ pharmaceuticals/biotechnology/biology" at 45.9%, "Newspapers/ journals/news" at 41.5% and "Corporate finance/profile" at 41.0%. The main difference in this order with last year's survey is that the ranking of "Medicine/pharmaceuticals/ biotechnology/ biology" in second place. This category increased by 8.1 points from the previous survey. In addition, other categories mentioned by the replying companies included "Science and engineering", "General engineering" and "Article searching".

2.3 Types of Data Currently Used

The types of data currently used by users along with the types of data for which an increase is desired in the future were tabulated separately for on-line and off-line usage.

In the case of on-line services, "Text" data is currently used the most frequently by users (95.2%). This figure indicates that nearly all users are using text data. This was followed by "Numerical" data at 48.9%. Although "Text" data had previously been divided into reference and fact/character data, only "Text" was used in this survey. Although reference text data has exhibited levels of better than 80% while fact/character text data has exhibited levels of better than 70% for several years now, their combined result yielded an even higher percentage. With respect to off-line services as well, use of "Text" data was indicated by 81.9% of the replying companies, which is higher than the levels obtained when it was divided into two subcategories (about 60% each). Moreover, since this was also indicated by about 60% of the replying companies with respect to types of data desired to be used or increased in the future, there is recognized to be an intention to continue to use this type of data in the future.

When comparing the present state of use with future use, there can be seen to be considerable expectations placed on "Image" and "Multimedia". More than half of the replying companies indicated that they desire to use "Image" information services on-line, and growth from the present level of 30.9% to 47.5% is expected even for off-line use. Although the current level of services using multimedia is less than 5%, there is expected to be considerable demand for these services in the future, with replying companies desiring on-line use of these services accounting for 39.9%, and those desiring off-line use accounting for 34.4% (Table IV-8).

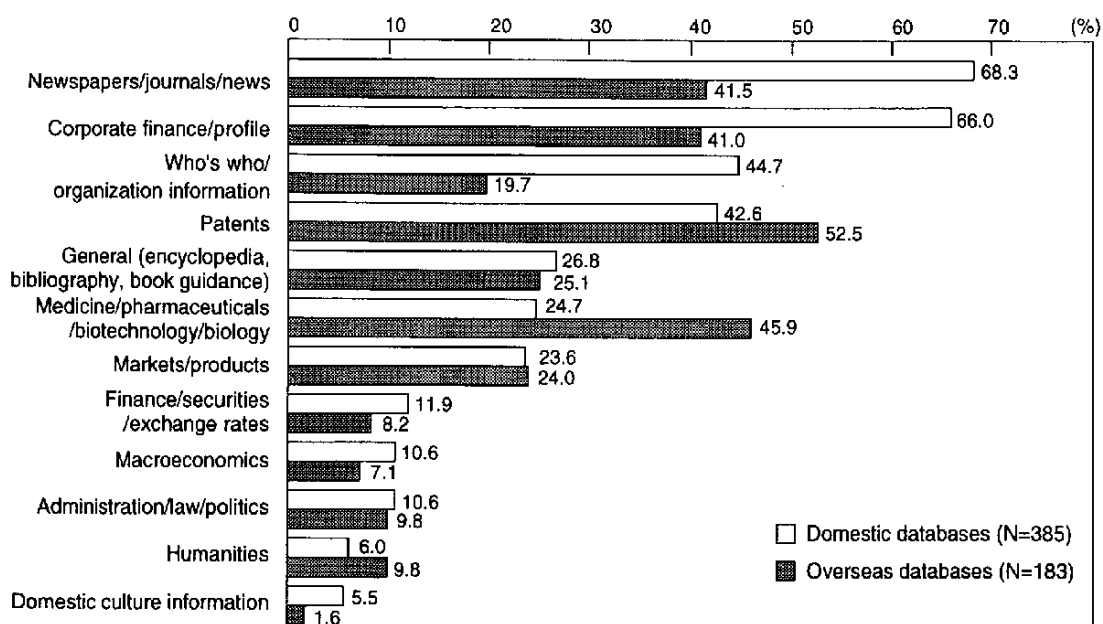


Fig. IV-1 Categories of Frequently Used Databases (multiple replies)

Table IV-8 Types of Data Currently Used and for which Greater Use is Desired in the Future (multiple replies)

| | Currently Using | | Desire to Increase Use | |
|-----------------------------|--------------------|---------------------------------------|------------------------|---------------------------------------|
| | On-line (N=354) | Off-line (CD-ROM, etc.) (N=149) | On-line (N=258) | Off-line (CD-ROM, etc.) (N=122) |
| Text | 337 (95.2%) | 122 (81.9%) | 157 (60.9%) | 73 (59.8%) |
| Numerical data | 173 (48.9%) | 47 (31.5%) | 121 (46.9%) | 56 (45.9%) |
| Image (including animation) | 42 (11.9%) | 46 (30.9%) | 138 (53.5%) | 58 (47.5%) |
| Multimedia | 15 (4.2%) | 7 (4.7%) | 103 (39.9%) | 42 (34.4%) |
| Other | 7 (2.0%) | 5 (3.4%) | 4 (1.6%) | 2 (1.6%) |

2.4 Specific Examples by Type of Data Desired to be Used

This survey attempted to determine specific examples of data desired to be used in the future. As a result, the top reply was "Numerical data" at 60.3%. This was followed by "Text data" at 57.9% (Fig. IV-2). In looking at the results by industrial category, "Numerical data" was desired to be used by 71.4% of other business services, 66.7% of public services and 66.7% of other manufacturers. In addition, those companies that replied they desired to use "Text data" consisted of 65.4% of information processing and information supply services, 61.5% of electrical, general and transport machinery manufacturers, and 58.3% of public services, with all of these being conspicuously high. Furthermore, although there were few replies overall with respect to "Multimedia", 25.0% of public services and 23.1% of information processing and information supply services indicated that they desired to use multimedia services in the future, which was relatively high in comparison with other industrial categories. Specific examples of text data included "Government and municipal government announcement information", "Government reports" and "Newspaper articles". With respect to numerical data as well, many respondents indicated "Government statistics and government office statistical documents", thereby clearly indicating the high demand for public data and article information. With respect to image data, "Patent information" (such as image drawings and patent gazette drawings) was selected by many of the replying companies.

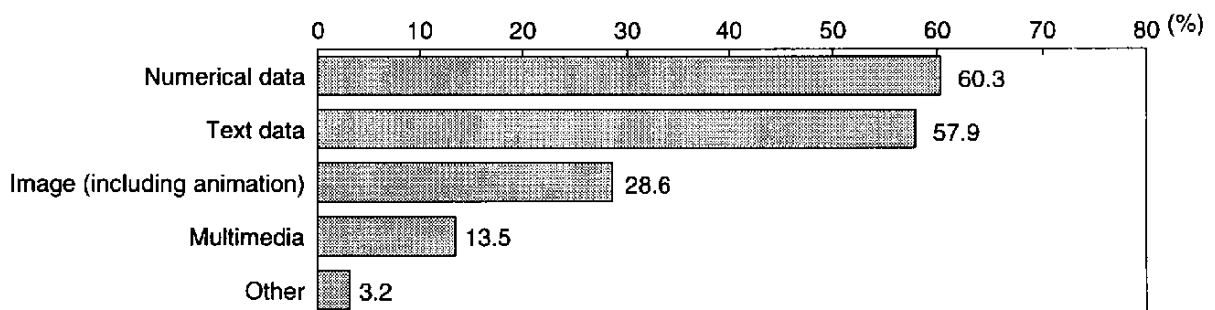


Fig. IV-2 Types of Data Desired to be Used (N=126: multiple replies)

2.5 Utilization of Public Data

The utilization of databases handling public data (data prepared and released by the government and government organizations) has been surveyed for the past four consecutive years. In this year's survey, those companies currently using public data (225 replying companies) accounted for 56.5% of the companies using commercial databases. This is nearly the same level as in the previous survey (56.2%).

Although the types of data are broadly divided into "Text data" and "Numerical data", there were many replies for "Text data" with respect to data that is currently being used or data desired to be used in the future.

Among the public data currently being used, "Patent information" exhibited by far the highest utilization rate of 66.7%. This represents an increase of 5.5 points over the level of the previous survey. Although this figure had the effect of significantly pulling up the utilization rate of 89.3% of secondary industries, the utilization rate of patent information was 47.8% even among tertiary industries, giving it the highest level among text data. Among "Numerical data", "Corporate-related data" was the top reply among both secondary and tertiary industries, being indicated by 45.5% and 42.0%, respectively, of the replying companies.

"Government reports" were most frequently indicated for "Text data" desired by companies not currently using public data but desiring to do so in the future, being selected by 50.2% of the replying companies. In looking at the results by industry, "Government reports" was selected by 55.6% of secondary industries, 43.8% of tertiary industries, and 46.5% of public services. Furthermore, in comparison with the previous survey, decreases for "Domestic economy, business climate and finance" (12.3 points) and "General business and industry" (6.6 points) were conspicuous (Table IV-9).

Table IV-9 Utilization of Databases Handling Public Data (multiple replies)

| | | Currently Using | Desire to Use in Future |
|----------------|-------------------------------------------------|-----------------|-------------------------|
| Text Data | Government white papers and related documents | 47(20.9(%)) | 88 (42.5(%)) |
| | Government committee reference materials | 34 (15.1) | 66 (31.9) |
| | Government press conference reference materials | 26 (11.6) | 59 (28.5) |
| | Government reports | 43 (19.1) | 104 (50.2) |
| | Judicial precedents | 29 (12.9) | 67 (32.4) |
| | City planning data (including map information) | 14 (6.2) | 52 (25.1) |
| | Patent information | 150 (66.7) | 50 (24.2) |
| | Other | 4 (1.8) | 4 (1.9) |
| | Total | 197 (87.6) | 182 (87.9) |
| Numerical Data | Population, employment and labor | 38 (16.9) | 68 (32.9) |
| | Domestic economy, business climate and finance | 56 (24.9) | 74 (35.7) |
| | International trade and settlement | 23 (10.2) | 62 (30.0) |
| | General business and industry | 76 (33.8) | 93 (44.9) |
| | Corporate-related data | 93 (41.3) | 106 (51.2) |
| | Other | 1 (0.4) | 4 (1.9) |
| | Total | 125 (55.6) | 147 (71.0) |
| | | (N=225) | (N=207) |

3. Database Utilization Forms

The forms in which databases are used were divided into the four categories shown below to investigate the rate of use of each form on a monetary basis.

- (1) On-line database services excluding PC network services
- (2) PC network services
- (3) Off-line CD-ROM services
- (4) Other off-line services

Although the high utilization rate for category (1) is the same as in past years, in comparison with the previous survey, on-line use of overseas databases increased by 6.1 points in terms of actual results and by 6.9 points in terms of the 1997 forecast. The gradual decrease of category (2) also indicates the effects of easier acquisition of information from overseas users due to the proliferation of the Internet. Conversely, use of domestic databases by PC network services of category (2) demonstrated slight growth, increasing by 2.1 points in terms of actual results and by 2.0 points in terms of the 1997 forecast. Amidst the increasing diversification of supply media and intensifying market competition, contrivances made by PC network providers to attract users can be said to be the key to success. With respect to CD-ROM, domestic databases increased slightly while overseas databases decreased slightly, while other off-line utilization rates demonstrated a decreasing trend overall (Table IV-10).

Table IV-10 Database Utilization Rates

| | 1996 Results | | 1997 Forecast | |
|------------------------------------------------------|--------------|----------|---------------|----------|
| | Domestic | Overseas | Domestic | Overseas |
| On-line excluding personal computer network services | 63.7(%) | 84.6(%) | 62.9(%) | 83.5(%) |
| On-line by Personal computer network services | 25.5 | 6.1 | 25.8 | 6.3 |
| Off-line by CD-ROM | 6.2 | 6.6 | 6.7 | 7.4 |
| Other off-line | 4.6 | 2.7 | 4.6 | 2.8 |
| | (N=333) | (N=147) | (N=327) | (N=152) |

4. Issues on Pricing and Utilization

4.1 Pricing Issues

Those companies who indicated that their overall impression of commercial database charges was "Expensive" accounted for 71.0% of the total, while 28.5% evaluated them as "Reasonable" and 0.5% evaluated them as "Inexpensive". In looking at a breakdown of these figures, among 372 companies currently using domestic databases, 56.9% indicated that they were "Expensive" while 42.0% indicated that they were "Reasonable". Among 174 companies using overseas databases, 56.3% evaluated them as "Expensive" while 38.9% evaluated them as "Reasonable".

In addition, according to the replies of 19 companies that had used domestic databases in the past but are not using them at present, 72.6% thought they were "Expensive" while 21.8% thought they were "Reasonable". It therefore appears that one of the reasons for discontinuing use of commercial databases is high usage charges.

In taking an even closer look at pricing impressions, in the case of domestic databases, there was considerable dissatisfaction, with 48.8% of the replying companies indicating that they were "Charged for usage even though were unable to obtain required information or references", and 47.2% indicating that they are "Metered but expensive". On the other hand, in the case of overseas databases, "Metered but expensive" was indicated by 43.9% of the replying companies followed by "Charged for usage even though were unable to obtain required information or references" at 40.2%, indicating that the order is reversed. In the previous survey, although the leading reply was "Metered but expensive" for both domestic and overseas databases (domestic: 42.6%, overseas: 39.3%), "Charged for usage even though unable to obtain required information or references" increased by 7.4 points. Since database usage charges are calculated based on the amount of time required for searching, a cost burden is incurred regardless of whether or not the user obtains the required information.

4.2 Impressions of Recorded Information

Considerable fluctuations were observed in the current survey as compared with the previous survey with respect to impressions (dissatisfaction) of information recorded on databases. The reply of "Short retroactively effective period", the most common reply in the previous survey (37.8%) was indicated by only 13.9% of the replying companies in the current survey, corresponding to a decrease of 23.9 points. The top replies consisted of "Excessive time required for updating database" (34.5%), "Data not updated frequently" (31.1%) and "Data not recorded in full text" (25.8%). These findings reaffirmed the fact that users constantly seek new information and complete data. On the other hand, with respect to overseas databases, the top replies consisted of "No particular dissatisfaction" (30.3%), "Presence of desired information unclear" (26.3%) and "Information inaccuracy" (25.7%). Due in part to the fact that both the users and information used are fixed to a certain extent in the case of overseas databases, it may be expected that the top reply be "No particular dissatisfaction". It appears that users seek the location of information and accuracy in overseas databases. In addition, other replies indicating opinions regarding domestic databases included "Lack of a user-friendly interface", "Excessive number of information entries" and "Pricing consists of a fixed rate and metered rate, but metered rate is too high". Other replies concerning overseas databases consisted of "Large variation depending on country and market" and "Unclear data recording source".

4.3 Problems with Commands, Functions and Operability

There was little fluctuation from the results of the previous survey with respect to service commands, functions and operability. The leading reply was "Inconsistent commands" at 61.1%. This was followed, although after quite a large gap, by "Need for a comprehensive thesaurus" at 29.8%, "Slow search speed" at 27.7% and "Slow communication speed" at 24.1%. The most remarkable difference with the results of the previous survey was an increase of 13.8 points by "Need for a function that gives some idea of the output contents in advance". This is probably related to the number of data entries when attempting to acquire the desired information.

5. Database Utilization by Personal Computer Network Services

There has been a rapid increase in the use of databases utilizing PC network services and the Internet due to the changes that have taken place in the information environment in recent years.

66.4% of the 601 replying companies stated that they are using databases by PC network services. This is the same percentage as in the previous survey. In looking at this by company size, 59.3% of small and medium-sized businesses indicated that they were using PC network services, up 5.8 points from the previous survey. Among large companies, 75.2% are using PC network services, representing an increase of 1.3 points. Thus, PC network service utilization is increasing, although only slightly. In addition, in looking at these results by industrial category, the category that indicated the greatest use of PC network services was "Information processing and information supply services" at 81.9%. This was followed by "Electrical, general and transport machinery manufacturers" at 77.2% and "Construction " at 76.5%. Although "Construction" has ranked second for three consecutive years, it fell to third place in this year's survey. Although the average of secondary industries changed places with the average of tertiary industries in the previous survey, in the current survey as well, the average of secondary industries at 73.0% surpassed that of tertiary industries at 69.5%.

With respect to the most frequently used PC network services, "NIFTY-Serve" is by far used the most at 87.3%. This was followed by "BIGLOBE (PC-VAN)" at 14.8% and "ASAHI Net/People" at 5.6%. Other PC network service companies indicated included "G-Search", "ITJ" and "MSN".

Next, when the respondents were asked about the menus used with PC network services, "Electronic mail" was the most common reply at 70.3%. This was followed by "Database" at 51.1% and "Software acquisition" at 33.0%. The utilization rates of "Electronic mail" and "Database" increased slightly from the previous survey (1.8 points and 2.1 points, respectively). In looking at these results by industrial category, the utilization rates for "Electronic mail" and "Database" were equal for public services only (54.1%), while "Electronic mail" demonstrated the highest utilization rate for all other industrial categories. With respect to company size, the

utilization rates among large companies exceeded the average for all three of the top menus. Although small and medium-sized businesses far exceeded the average for "Electronic mail" at 80.0%, the utilization rates for "Database" (38.6%) and "Software acquisition" (25.7%) were below the average. It is worth noting that there was a 25.9 points difference in the utilization rates of "Electronic mail" between public services and small and medium-sized businesses. Although it is virtually certain that use of electronic mail will continue to grow as a means of transmitting and receiving information, since database use and software acquisition are influenced by the quality and volume of information along with the conditions of use, improvement of services offered by providers can be said to lead directly to increased utilization rates (Table IV-11).

In addition, with respect to the reasons for using PC network services, the most common reply was "Accessibility to various databases" at 73.0%. Although there were no large differences between the remaining replies, some examples include "No need for specialized software" at 24.5%, "Can use with other functions" at 21.4% and "Easy operation" at 20.9%. Based on these results, it can be said that database menus are covering a broader range in response to user needs, and that if improvements are made in special features and information technology, such as by allowing PC network services to more closely match individual needs through compound utilization of database contents, the utilization rate can be expected to increase even more in the future. Other reasons for using PC network services included "Able to acquire specialized information" and "Use of services that are not commercial databases".

Conversely, with respect to dissatisfaction with PC network services, 121 of 189 replying companies (64.6%) stated that they are dissatisfied with PC network services. The top reason for this was "Expensive subscription charge" mentioned by 54.5% of the replying companies. Dissatisfaction appears to be particularly strong among large companies. In comparison with the previous survey, the number of companies expressing dissatisfaction with respect to subscription charges increased by 4.9 points. This reply was followed by "Connection takes time" at 34.7% and "Number of databases available is small" at 27.3%. Other reasons for dissatisfaction with PC network services included "Slow communication speed" and "Expensive rates", indicating dissatisfaction in terms of both cost and speed.

Table IV-11 Frequency of Use of Personal Computer Network Service Menus (multiple replies)

| | Small and medium-sized businesses | Large companies | Public services | Total |
|---------------------------------------------------|-----------------------------------|-----------------|-----------------|---------|
| | (%) | (%) | (%) | (%) |
| Electronic mail | 80.0 | 72.3 | 54.1 | 70.3 |
| Database | 38.6 | 53.8 | 54.1 | 51.1 |
| Software acquisition | 25.7 | 38.7 | 20.3 | 33.0 |
| Electronic conferences (forum) | 17.1 | 30.0 | 10.8 | 24.2 |
| BBS (electronic bulletin board) | 21.4 | 18.2 | 17.6 | 18.6 |
| Networking with other networks including Internet | 20.0 | 15.4 | 14.9 | 16.1 |
| Shopping, seat reservation, etc. | 1.4 | 0.8 | 0.0 | 0.8 |
| Other | 2.9 | 3.2 | 4.1 | 3.3 |
| | (N=70) | (N=253) | (N=74) | (N=397) |

6. Utilization of the Internet

The number of companies that have installed facilities for accessing the Internet is continuing to grow, and database utilization via the Internet is expected to increase in view of its high degree of convenience. Problems relating to the pricing system, security and other matters have prevented it from reaching full-scale utilization, however.

When companies were asked whether or not they are using the Internet, 85.0% of the 605 replying companies indicated that they are "Currently using", 9.6% replied "Not currently using but desire to use in the future", and 5.5% indicated that "No need to use in the future or do not know". Since 69.2% of the replying companies indicated that they are "Currently using" in the previous survey, this year's results represent an increase of 15.8 points. The growing popularity of the Internet can be understood from these results as well. There is little variation in the results among different industrial categories.

Amidst the widespread proliferation of the Internet, one particular industrial category that has a conspicuously high utilization rate is "Public services" at 96.0%. This figure is up 19.3 points from the 76.7% determined in the previous survey. Incidentally, the 78.2% of "Information processing and information supply service" was the top utilization rate in the previous survey (90.4% in the current survey). Conversely, examples of industrial categories exhibiting high response rates for "No need to use in the future or unknown" included "Finance and insurance" (current survey: 18.8%, previous survey: 23.3%) and "Commerce" (current survey: 13.6%, previous survey: 24.2%). In all cases, the rates for the current survey are less than those in the previous survey.

Next, 503 companies currently using the Internet were asked about the manner in which they are connected to the Internet. The most common reply was "Use of commercial networks such as Infoweb and IJ" at 73.6%. In looking at this figure in terms of individual companies, more than 60% of all companies in all industrial categories are using these commercial networks with the exception of "Public services". Although the next most common reply was "Use via PC network services such as NIFTY-Serve and BIGGLOBE" at 29.4%, this number fell by 3 points from the previous survey. "Non-commercial nationwide networks such as SINET and WIDE" was in third place at 16.9%, and these are naturally used heavily by "Public services". In addition, among the 49 companies "Not currently using but desire to use in the future", the difference between use by "Commercial networks" (69.4%) and "PC network services" (61.2%) was smaller.

Although the number of companies currently using the Internet via PC network services decreased from the previous survey, it is interesting to note that, conversely, the number of companies desiring to use the Internet in the future via PC network services is increasing significantly. Although a definite conclusion cannot be drawn due to the effects of the number of responses and differences in the parent groups, there appears to be expectations being placed on PC network providers to provide Internet access services.

In addition, with respect to the reasons for using the Internet, the most common reply among 564 replying companies was "Information acquisition from home page" at 90.6%. This was followed by "Electronic mail" at 87.2% and "Information transmission by creating home page" at 62.8%. Although there are no changes in the top replies from the results of the previous survey, the overall rates are higher. The response rate of "Commercial database searching", ranked fifth in the current survey, was 20.6%, up 12.1 points from the previous survey. This increase was 12.5 points among companies currently using the Internet and 8.3 points among companies desiring to use the Internet in the future. These results confirm the growing need to use the Internet for the purpose of searching for commercial databases. When respondents were asked to indicate the name of the system used for "Commercial database searching", those systems that were indicated by numerous respondents included "DIALOG including DIALOG-Web" (24 companies), "JOIS including JOIS-Web" (21 companies) and "Nikkei Telecom 21 including Nikkei Telecom" (13 companies) (Table IV-12).

When respondents were asked about "Services via the Internet considered to be promising", the top reply among 556 replying companies was "News and other text information services using electronic mail" at 54.7%. This was followed by "Information searching services using WWW, Telnet, etc." at 41.0% and "Text, numerical and still image information services using WWW" at 40.1%. There were no fluctuations in the order of these replies from the previous survey. In addition, those services for which differences were clearly observed between companies currently using the Internet and companies desiring to use the Internet in the future consisted of "Text, numerical and still picture information services using WWW", exhibiting a difference of 19.3

points, and "Text, numerical, still image, voice and video image information services via WWW using Push technology", exhibiting a difference of 18.9 points. These are both considered to be promising services by companies currently using the Internet.

Conversely, those services considered to be promising by companies desiring to use the Internet in the future consisted of "On-line sales of products and services", exhibiting a difference of 14.8 points, and "Information services using NetNews", exhibiting a difference of 9.1 points. In actuality, companies currently using the Internet tended to view as promising those services which are an extension of current services, while companies desiring to use the Internet in the future tended to view as promising new services that are expected to grow in the future (Fig. IV-3).

Finally, with respect to problems concerning Internet utilization, the greatest concern was over "Security", indicated by 82.5% of the replying companies. This was followed by "Leakage of individual and confidential information" at 50.9%, which surpassed "Slow scrolling due to line and server capacity" at 46.7%, which was ranked second in the previous survey. With respect to security on the Internet, although its frailty is frequently covered by the mass media along with the frequent occurrence of incidents involving security, it can be seen to be a major area of concern for companies.

Although concern over security is high for both companies currently using the Internet and companies desiring to use the Internet in the future, the next most serious problems indicated by companies currently using the Internet were "slow scrolling due to line and server capacity" (difference of 22.7 points) and "Copyright not established" (difference of 19.3 points). Conversely, those problems considered to be the most serious among companies desiring to use the Internet in the future consisted of "High networking charges" (difference of 11.9 points) and "Unpredictable future" (difference of 9.8 points). These results also indicate that users currently using the Internet have considerable interest in problems with which they are actually confronted.

Table IV-12 Purposes of Using the Internet (multiple replies)

| Purpose | Currently Using | Desire to Use in Future | Total |
|-------------------------------------------------------------------------|-----------------|-------------------------|---------|
| Information acquisition from home page | 92.4(%) | 73.6(%) | 90.6(%) |
| Electronic mail | 88.8 | 71.7 | 87.2 |
| Information transmission by creating home page | 63.8 | 52.8 | 62.8 |
| File transfer | 45.0 | 26.4 | 43.3 |
| Commercial database searching | 20.9 | 17.0 | 20.6 |
| Information exchange service using NetNews | 19.6 | 15.1 | 19.1 |
| Transactions of products and services using WWW such as electronic mail | 5.9 | 9.4 | 6.2 |
| CALS-EDI (Electronic data interchange) | 6.1 | 5.7 | 6.0 |
| Financial Transaction service such as securities | 1.0 | 7.5 | 1.6 |
| Other | 2.3 | 0.0 | 2.1 |

(N=511)

(N=53)

(N=564)

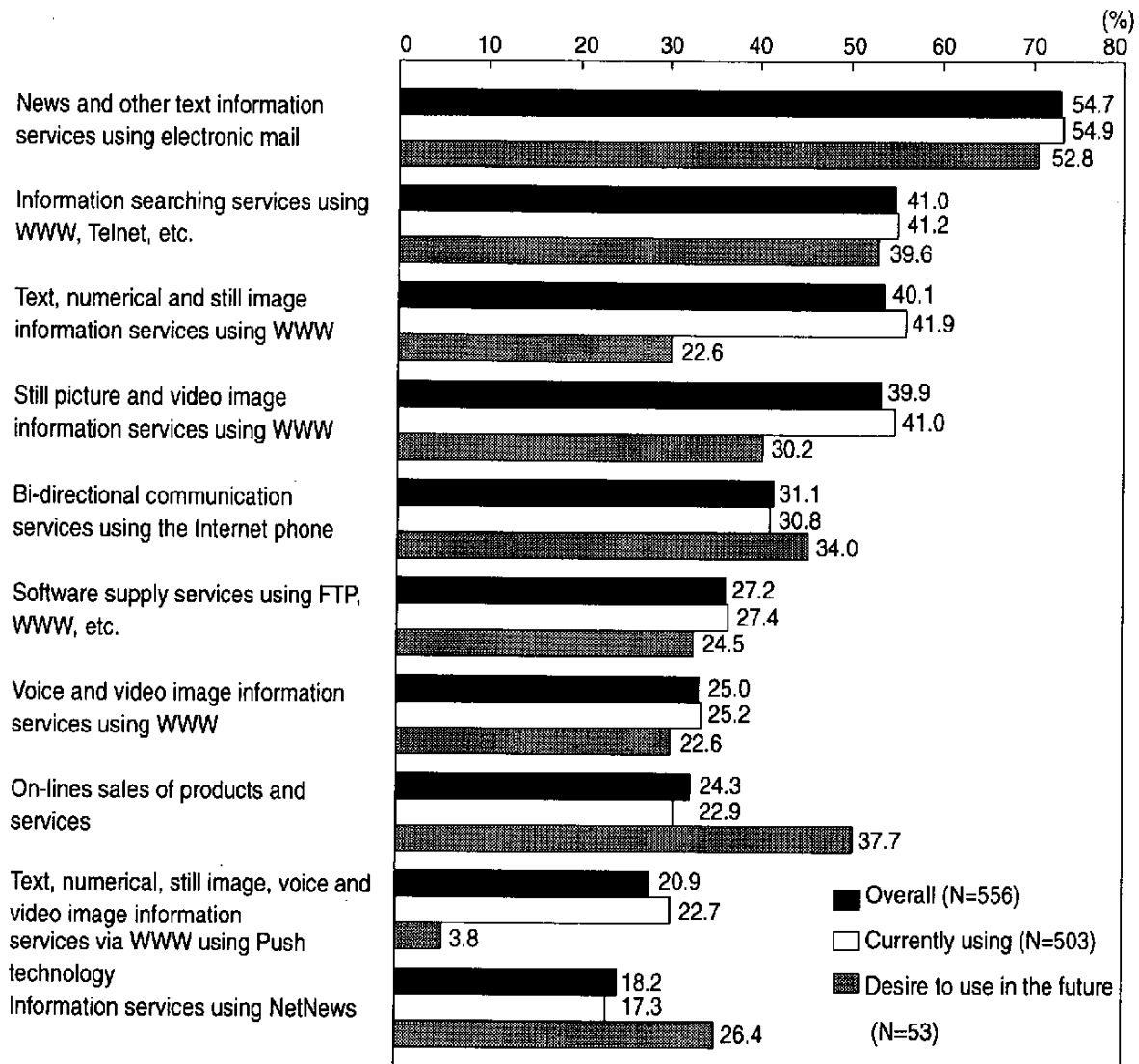


Fig. IV-3 Services via the Internet Considered to be Promising (multiple replies)

7. Questions Relating to CD-ROM

CD-ROMs are one of the most typical examples of off-line use of commercial databases. Government white paper and public databases as well as a wide range of other databases are available on CD-ROM, and their demand is continuing to increase. Those companies that replied they were currently using commercial databases on CD-ROM accounted for 35.1% of the 599 replying companies, up 3.3 points from the previous survey. In looking at utilization rates by industrial category, the utilization rate of "Public services" at 41.8%, far outdistancing secondary industries (36.2%) and tertiary industries (30.0%). "Oil and chemical industries" exhibited the top utilization rate at 62.7% by industrial category.

In addition, 41.4% of the 379 replying companies indicated that they planned to use CD-ROM in the future, with the number of companies indicating that they do not plan on using CD-ROM in the future accounting for more than half of the replying companies.

7.1 Categories of Information Use

The top five categories in which CD-ROM databases are used are as shown in Fig. IV-4. Among the 207 replying companies, "Science, technology and patents" returned for the first time in a year at 30.0%. This was followed by "Dictionaries, encyclopedias and directories" at 29.5%, and "Bibliographies, books and periodical information" at 23.2%. "Newspapers, magazines and news", ranked fifth in the previous survey, decreased by 3.0 points to 9.7%. Although utilization rates decreased overall, "Maps, mapping, telephone numbers and address codes" increased by 2.8 points, reflecting the growing activity in the development of map information last year. Since utilization covered a broad range irrespective of industrial category, considerable growth is expected in the future.

In addition, in terms of the number of CD-ROM databases (number of titles) in use, the top category was "Dictionaries, encyclopedias and directories" (total of 169 titles, 46 replies, average of 3.7 titles). This was followed by "Bibliographies, books and periodical information" (total of 165 titles, 38 replies, average of 4.3 titles) and "Science, technology and patents" (total of 151 titles, 49 replies, average 3.1 titles).

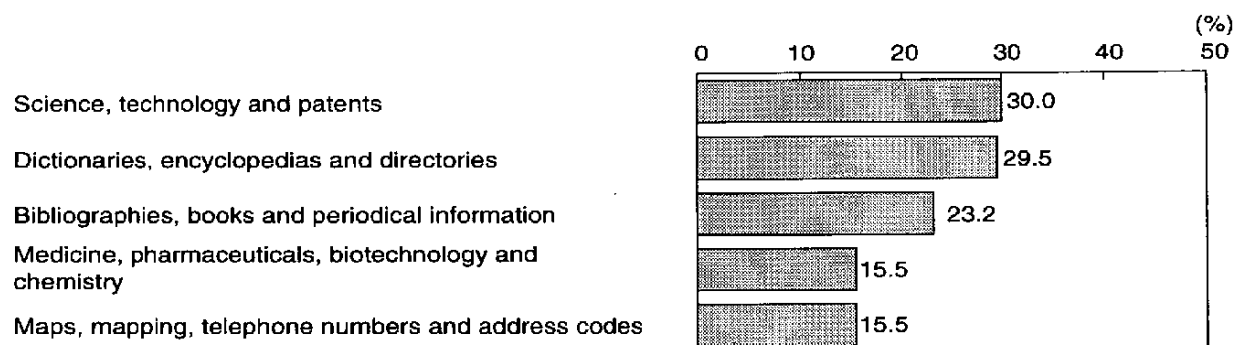


Fig. IV-4 Information Categories Frequently Used on CD-ROM (N=207: multiple replies)

7.2 Reasons for Use

With regard to the reasons for using CD-ROMs, the top response among 203 replying companies was "Space-saving compared to micro data and prints" at 52.7%. This result was the same as that of the previous year's survey. However, the second most common reply of "Lump-sum payment of fixed amount" at 46.3% was different from previous years. Although the margin was small, it surpassed "Communication cost not required" at 45.8% for the first time this year. Although large proportions of large companies and public services selected "Communication cost not required" in the previous survey, large companies and small and medium-sized businesses exhibited relatively large proportions in this year's survey. With respect to communication fees, the number of instances in which this has been indicated as a problem have decreased due to the effects of reduced charges as was previously mentioned. This may have consequently resulted in a decrease in the number of replies pointing out one of the major advantages of CD-ROMs, namely the fact that communication costs are not required. 55.9% of public services selected "Lump-sum payment of fixed amount". Other replies consisted of "Easy searching and operation", "Can be used at any time" and "Access speed faster than on-line services", with many respondents pointing out the simple access operation and short access time associated with CD-ROM.

7.3 Inconveniences Concerning Use of CD-ROMs

With respect to inconveniences felt when using CD-ROMs, the top reply was "Frequency of data updating" at 52.8%. This was followed by "Search software not standardized" at 40.6% and "Expensive software" at 33.3%. Although there are very little changes in the order as compared with the previous survey, "Slow search speed", which was ranked fifth in the previous survey, surpassed "Desired data not available on CD-ROM" to move into fourth place, but only by a small margin. The absence of variation between industrial categories is different from the results of the previous survey. This is believed to be the result of all CD-ROMs approaching an equilibrium level accompanying the increasing utilization rate. Other replies included "Difficult management due to large number" and "Volume limitations due to small amount of data on a single disk". In addition, since increased volume involves technical factors that are also related to saving on space, a prompt solution is being sought.

V. State of Personal and Home Utilization

1. Survey Summary

DPC conducted a questionnaire survey to determine the status of commercial database utilization by individuals and in the home for the one week period from November 15 to November 21, 1997. Although previous surveys had been targeted at users of PC network services, this year's survey was targeted at Internet users. Subjects consisting of all members registered in the "My Directory" of the Internet provider, NTT Navispace Co., Ltd. were asked to answer questions displayed on an Internet screen (total respondents: 2,484).

2. Respondent Composition

There were 2,484 persons who submitted replies to this year's survey. Men accounted for 85.7%, while women accounted for 13.3% (1%: no reply). Although the number of women respondents has increased each time this survey has been conducted, the number in this year's survey decreased significantly from the level of the previous survey (18.9%), dropping to the level of the 1994 survey (13.0%). In addition, the respondents also covered a wide range of age groups. In the previous survey, respondents in their late twenties accounted for 27.7% while those in their early thirties accounted for 26.5%, with the combined number of these two groups accounting for more than half of the total. In the current survey, however, respondents in their late twenties accounted for 19.1% while those in their early thirties accounted for only 21.4%, representing a significant decrease in both groups. In their places, respondents in their late thirties accounted for 18.2% (15.2% in the previous survey), those in their forties accounted for 16.9% (10.0% in the previous survey), and those in their fifties or older accounted for 4.1% (1.7% in the previous survey), exhibiting increases in each of these age groups.

In looking at the results by occupation (11 categories consisting of students, company employees (clerical workers), company employees (sales personnel), company employees (skilled workers), specialists, public servants, teachers, self-employed, part-timers, housewives and other), increases in the number of skilled company employees at 36.0% (33.8% in the previous survey) and students at 15.7% (13.0% in the previous survey) were conspicuous. In terms of company employees overall, clerical workers accounted for 13.4% while sales personnel accounted for 7.0%. These occupations along with skilled company employees accounted for the majority of the respondents, and this is the same as in the previous survey.

3. Trends of Personal Utilization

3.1 Database Users Account for More Than 30%

Among the 2,484 respondents, 786, or 31.6%, replied that they had used a commercial database, including CD-ROM, in the past. Since the number in the previous survey targeted at PC network users was 55.4%, this represents a considerable decrease. This decrease is expected, however, since this year's survey was targeted at Internet users who have access to an abundant amount of free information. Thus, whether or not the above percentage is large or small depends on the interpretation. For persons related to databases, however, the figures may be somewhat dismal since the results were obtained from a survey in which more than half the respondents were business persons, considered to be the core users of commercial databases.

Although respondents who have used a commercial database at one time or another have been asked about the purpose of database use (for personal use only, mainly for personal use, for work only, mainly for work and both for work and personal use equally) in each of the previous surveys, users for primarily personal use, which is the total of "For personal use only" and "Mainly for personal use", accounted for 38.4% of all respondents. Since this group accounted for 35.7% in the previous survey, at least with respect to Internet users, the proportion of mainly personal users is high. Students, part-timers and housewives naturally consist primarily of personal use, while among persons regularly employed, the proportion of personal use is high for public servants, teachers and specialists in comparison with other occupations in this category. Each of these groups exhibited significant increases from the previous survey.

In addition, in looking at the results by sex, men using databases mainly for work consisted of 57.4% of the total, while those using them mainly for personal use accounted for 36.3%. In contrast, women using databases mainly for work accounted for 38.3%, while women using them mainly for personal use accounted for 60.3%, thus indicating inverse results in comparison with men.

3.2 PC Network Services Remain Top Utilization Medium

With the exception of respondents who use commercial databases for work only (28.0%), 566 respondents, or 72.0%, can be said to be respondents who have used commercial databases for personal use. These persons were asked in more detail about their personal use.

To begin with, with respect to the purpose of personal use, the respondents were asked to select several replies from "up-to-date information such as books and weather forecasts", "acquisition of information relating to hobbies", "acquisition of information relating to culture", "shopping and seat reservations" and "quizzes, games and fortune-telling". According to the results, 53.0% (61.1% in the previous survey) selected up-to-date information, 53.0% (60.2%)

selected hobbies, 38.9% (34.0%) selected culture, 19.8% (18.8%) selected shopping and seat reservations and 15.7% (10.1%) selected entertainment. The response rates for up-to-date information and hobbies fell below the levels of the previous survey.

With respect to the amount of time per week these respondents use commercial databases, the most common reply was less than 30 minutes given by 54.9% of the respondents (66.4% in the previous survey). This was followed by less than 1 hour at 15.0% (9.9%), less than 3 hours at 5.8% (3.4%) and 3 hours or more at 1.4% (1.1%). Calculating from these results, the average amount of time per week these respondents use commercial databases is 24 minutes, which is similar to the findings of the previous survey. In addition, the number of respondents who replied that they are currently not using commercial databases increased to 21.6% (19.3% in the previous survey).

In addition, the most common reply given when respondents were asked what media they use when accessing commercial databases was "PC network services" at 67.0%. This was followed by "Access with Internet" at 51.9%. Although the high response rate for "Access with Internet" can be expected since this year's survey was targeted at Internet users, PC network services, which provide a wide range of databases targeted at personal users, held onto the top spot despite a reduction in its percentage (88.3% in the previous survey). On the other hand, less positive response rates were obtained for "Direct access to on-line database services" and "CD-ROM (including electronic books)" at 11.7% each (16.0% and 14.4%, respectively, in the previous survey). High usage charges in the case of the former, and a lack of fresh information in the case of the latter were cited as reasons for lack of use.

294 persons who replied that they access commercial databases with the Internet were asked if their use of charged commercial databases had changed after they began using the Internet. As a result, 53.1% replied that their use increased, 38.1% replied that it had not changed, while only 7.5% replied that it had decreased. With respect to their assessment of commercial databases that can be accessed with the Internet, 34.4% were somewhat satisfied, 25.5% replied that they were somewhat dissatisfied, 24.1% replied that they were neither satisfied or dissatisfied, 9.9% replied that they were dissatisfied and 3.4% replied that they were satisfied. These results indicate that despite there being a huge volume of information available on the Internet free of charge, users are not satisfied with information that is not useful. When respondents were asked to freely describe their assessment, many stated to the effect that they would not mind paying for information provided it was of a technical nature and worthwhile. This suggests that there may be the possibility for commercial databases to make inroads into this field.

3.3 Decreased Utilization of Hobby and Recreation Categories

The results of asking the respondents to select three commercial database categories that they use frequently during the course of personal database use from among the 21 categories listed

below are shown in Fig. V-1. There were considerable changes from the results of the previous survey.

- * News
- * Article searching
- * Corporate information
- * Financial, stock and market information (finance-related)
- * Who's who information
- * Book information
- * Law
- * Natural science and technology
- * Humanities
- * Education and culture
- * Theater and movie guides
- * CD/video software information
- * Resort and tourism information
- * Weather forecasts
- * Cooking
- * Shopping and seat reservations
- * Household supportive information
- * Healthcare institution information
- * Quizzes, games and fortune-telling
- * Currently not using
- * Other

Although the top three replies in the previous survey were article searching (13.2%), news (12.4%) and book information (11.9%), the response rate for article searching decreased somewhat, while the support rate of corporate information (8.3%) increased. What was even more conspicuous was the decreases in the response rates for categories related to hobbies and recreation. "Shopping and seat reservations" decreased from 6.2% in the previous survey to 5.9%, while resort and tourism information dropped from 7.3% to 4.7%. In addition, CD/video software information decreased by more than 2 points from 5.8% to 3.5%.

This trend was even more remarkable when looking at replies for "Categories desiring to use in the future". This question was asked of a total of 2,366 persons consisting of not only of those persons who have used commercial databases for personal use in the past, but also those users who have the possibility of using commercial databases under the right conditions. Those results are shown in Fig. V-2. When compared with the top three replies in the previous survey of "book information" (11.2%), "resort and tourism information" (9.9%) and "shopping and seat reservations" (8.4%), the decreases in categories relating to hobbies and recreation were

conspicuous.

One possible reason for this is the existence of a vast amount of free information on the Internet. Although hobby and recreation categories exhibited the highest demand among personal and home users, the findings of the current survey can be assumed to be the result of it having become possible to acquire a certain degree of information free of charge by using the Internet.

Returning the focus to the subject of personal users who have used commercial databases, the respondents were shown 19 major commercial databases currently in use and asked to select three that they frequently use. The ten most popular choices are shown in Table V-1. Although there is considerable fluctuation in the order, the first to ninth positions are the same as the previous survey. JICST Files in tenth place fell to 1.2%.

Although many of these databases also exhibited high utilization rates among business users, in this survey, 32.3% of the respondents selected "Other", thus indicating the strong tendency towards diversification of the databases being used.

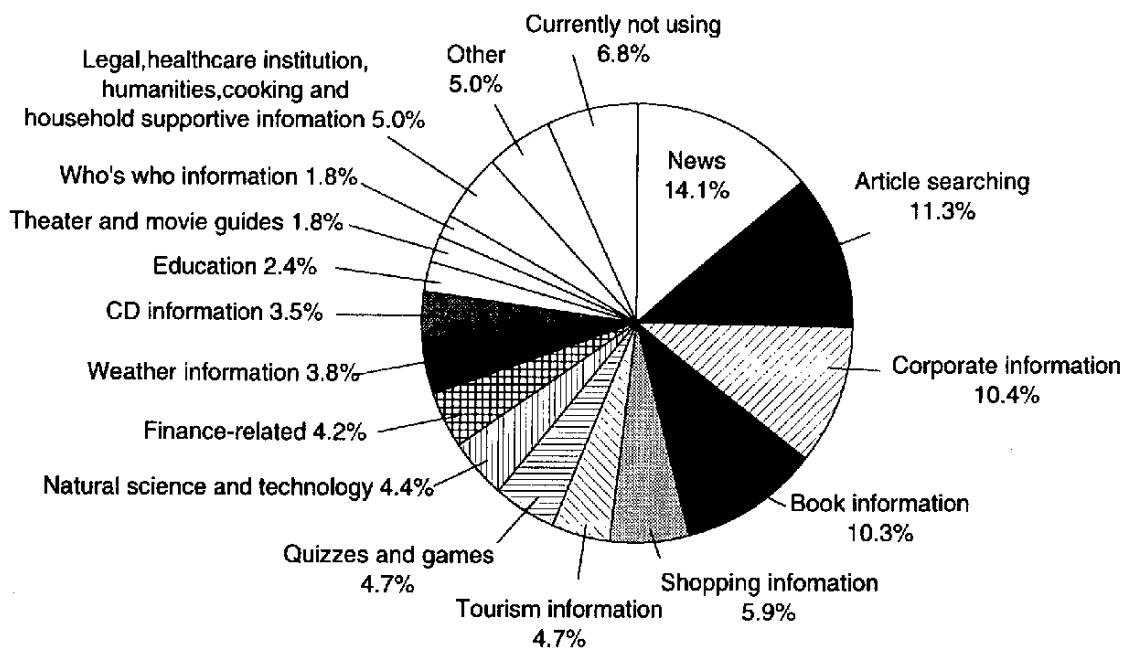


Fig. V-1 Categories of Frequently Used Commercial Databases (N=1,244: multiple replies)

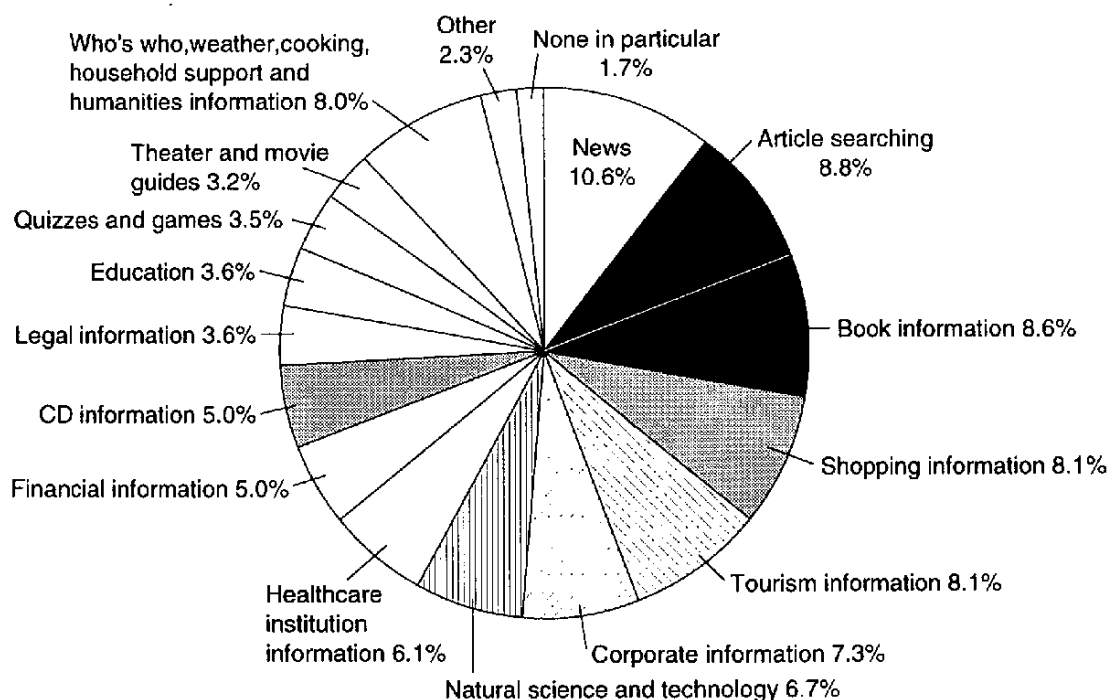


Fig. V-2 Categories of Commercial Databases Desired to be Used in the Future
(N=6,537: multiple replies)

Table V-1 Frequently Used Commercial Databases (multiple replies, N=566, parentheses indicate results of previous survey, N=1,184)

| Rank | Database | Ratio (%) |
|--------|-------------------------------------------------------------|------------|
| 1 (2) | Nikkei Shimbun News Database | 21.7(18.6) |
| 2 (1) | Asahi Shimbun News Database | 19.4(27.2) |
| 3 (6) | Mainichi Shimbun News Database | 11.1 (9.8) |
| 4 (3) | Tokyo Shoko Research | 10.4(11.9) |
| 5 (4) | Yomiuri Shimbun News Database | 8.1(11.1) |
| 6 (7) | Other newspaper article files | 7.4 (9.0) |
| 7 (5) | Nichigai Assist | 6.0(10.2) |
| 8 (9) | Other domestic STM (science, technology, medicine) files | 5.5 (4.1) |
| 9 (8) | COSMOS | 4.4 (5.5) |
| 10 (-) | Nikkei Who's Who | 3.7 (-) |

3.4 Nearly 80% of Respondents Dissatisfied with Cost Effectiveness

When 566 persons that have used commercial databases in the past on a personal basis were asked about any dissatisfactions they have with respect to commercial databases, dissatisfaction with usage fees reached nearly 80% (77.2%). The replies covered a broad range from dissatisfaction with high usage fees to improvement of the fee system and a clearer relationship between information and fees. In addition, when compared with the findings of the previous

survey, although dissatisfaction with respect to high line usage fees was low (27.9%), the high levels of dissatisfaction with respect to database quality, namely greater detail of database contents (24.9%) and increased data updating speed (24.7%), were characteristically high. This indicates the high expectations placed on commercial databases which are used for a fee as compared with the abundant amount of free information on the Internet.

With respect to an evaluation of the total cost and contents when using commercial databases, 35.5% of the respondents were "somewhat dissatisfied", 34.1% were "dissatisfied", 8.0% were "somewhat satisfied" and only 0.5% were "satisfied".

4. Requests for Commercial Databases

Although the questions described thus far were asked mainly of personal users of commercial databases, additional questions were asked to determine the impressions of other people not falling within this group.

Among those persons who have used a commercial database, 220, or 28.0%, replied that they have only used commercial databases for work. The reasons for this included "high usage fees" at 70.5%, "no need to use at present" at 51.8%, "high line usage fees" at 19.1% and "desired data not available" at 12.7%.

In addition, when the same question was asked of 1,698 persons who had never used a commercial database, the main reasons included "no need to use at present" at 68.4%, "high usage fees" at 48.1% and "do not know of a suitable database" at 33.5%. It should be noticed that the reply of "no need to use at present" increased significantly from the level of 45.7% in the previous survey.

Those persons who have never used a commercial database as well as those persons who have only used a commercial database for work were then asked what conditions should be satisfied in order to get them to use commercial databases on a personal basis. As a result, although the overwhelmingly most popular reply was "lower usage fees" (76.6%), which is naturally expected, this was extremely high among users of commercial databases (84.5%) in compared with other conditions. Thus, for those persons who have used a commercial database, although they recognize the usefulness of commercial databases, it appears that high usage fees are a major obstacle to their use.

5. Internet Utilization Trends

5.1 Personal Use Accounts for 60%

On the other hand, when all respondents were asked about their purpose for using the Internet, 30.7% replied that it was "for personal use only", while 30.3% replied that it was "mainly for

personal use", indicating that utilization consisting primarily of personal use accounts for more than 60% of all Internet use. Similar results were obtained in the previous survey targeted at users of PC network services (65.8%). Thus, the Internet consists primarily of personal users. In looking at the results by sex, in contrast to men accounting for 58.4% of personal users, women accounted for 78.6%, indicating a very high proportion of personal users. When examining the figures according to occupation, the proportions of users who use the Internet primarily for personal use, excluding students, part-timers, housewives and the "Other" category, was the highest among public servants at 87.4% followed by specialists at 58.0%, company employee clerical workers at 57.2%, teachers at 56.8%, company employee sales personnel at 56.6%, self-employed at 53.6% and skilled company workers at 45.6%, with the proportion among public servants being far higher than the rest.

However, in looking the number of years of Internet use, although persons who have used the Internet for less than 2 years have a personal use utilization rate that reaches 60%, as the number of years of Internet use increases, the number of uses who use the Internet primarily for work increases correspondingly. The Internet originally grew as a means of exchanging mail and publishing papers "for work only" by college professors and researchers. Thus, it is probably only natural that those persons having a long history of using the Internet use it primarily for work.

5.2 Established Awareness of Information Transmission

All respondents were then asked about the services they are currently using on the Internet or services they are planning on using in the future. The selections available to the respondents consisted of electronic mail, news services, on-line marketing, file transfer, acquisition of information from home pages, commercial database searching, non-commercial database searching, disclosure of research results, information transmission by creating home pages, EDI and other. The respondents were asked to make up to three choices. Those results are shown in Fig. V-3. The overwhelmingly most common replies were "electronic mail" and "acquisition of information from home pages". Replies indicating "on-line marketing" and "database (commercial or non-commercial) searching" were in the minority.

Respondents evaluated information that can be obtained from free sites such as home pages as being "somewhat satisfied" by 49.3% and "satisfied" by 11.4%, thus indicating that the respondents generally evaluate the information favorably. Those respondents who gave the evaluation of "neither satisfied or dissatisfied" accounted for 20.8%, while "somewhat dissatisfied" and "dissatisfied" only accounted for 7.4% and 2.5%, respectively.

Moreover, "Information transmission by creating home pages" was selected by 16.4% of the respondents. When also considering that the reply of "can easily become information providers", indicated as the second most popular merit of the Internet, was given by nearly 50% of the

respondents (Table V-2), this indicates that the concept in which the Internet is positioned as a means of information transmission has become firmly established.

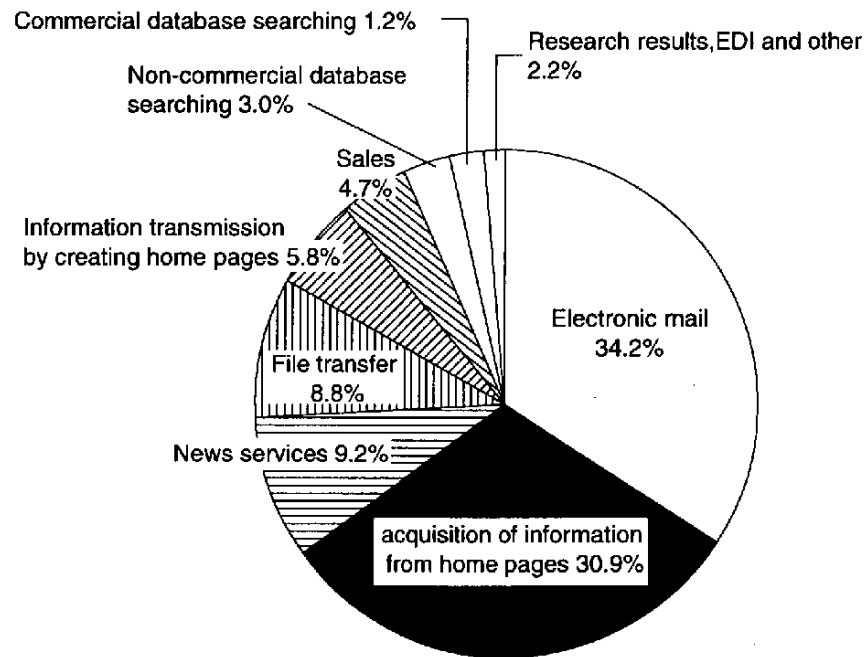


Fig. V-3 Services Used and Desired to be Used on the Internet (multiple replies, N=7,049)

Table V-2 Merits and Demerits of the Internet (N= 2,484, multiple replies, units: %)

[Merits]

(No. of respondents in previous survey: 2,791)

| | Current survey | Previous survey |
|-------------------------------------------|----------------|-----------------|
| Global information gathering | 87.6 | 76.9 |
| Can easily become information provider | 45.8 | 31.0 |
| Simple processing of acquired information | 34.9 | 18.5 |
| Overseas communication | 24.9 | 28.8 |
| Savings on communication costs | 22.3 | 21.9 |

[Demerits]

(No. of respondents in previous survey: 3,027)

| | | |
|-----------------------------|------|------|
| Security | 65.3 | 55.5 |
| Risk of information leakage | 54.8 | 47.0 |
| Slow scrolling speed | 48.4 | - |
| Security during shopping | 36.4 | 31.2 |
| High line usage fees | 32.7 | 34.4 |

VI. Present State of In-house Databases

1. Database Retention Rates

According to the "Survey of Japanese Database Services (User Edition)" (no. of replies: 609, response rate: 22.0%), among 599 replies to questions relating to in-house databases, there were 395 private corporations and organizations that had in-house databases. This yields a retention rate of 65.9% (Fig. VI-1). Although this figure has continued to decrease since 1994, this year's figure surpassed last year's level of 63.8%. It is still lower than the level of 68.8% in 1994 and 66.5% in 1995, however.

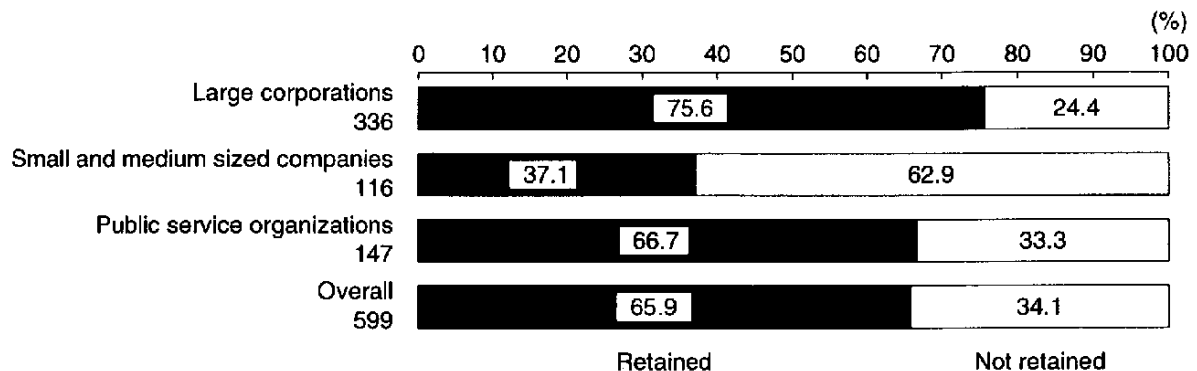


Figure VI-1 Retention Status of In-house Databases

1.1 Retention Rate of Large Corporations Exceeds 70%

In looking at the results by size of the surveyed private corporations and organizations, the retention rate of in-house databases for large corporations was 75.6%, meaning that more than 3/4 of large corporations have their own in-house databases. This is about the same level as the 74.2% in 1994 and 74.3% in 1995. Although this figure dropped to 69.5% in 1996, this is considered to be the result of bias among the replying companies.

The retention rate for small and medium-sized companies was 37.1%. This falls far below the levels of 49.2% in 1994, 44.4% in 1995 and 48.9% in 1996.

The retention rate for "Public services" (including schools and other educational facilities, hospitals and other health care facilities, survey and research organizations, unions and other organizations, and national and local governments) was 66.7%, or exactly 2/3 of the replying companies. The retention rate for this category was 68.9% in 1994, 65.0% in 1995 and 62.7% in 1996.

1.2 High Retention Rates in Manufacturing Industries

In looking at the retention rates of in-house databases by industrial category, the top category was "Steel, non-ferrous metal and metal manufacturing industries" (steel industry, non-ferrous metal and metal product manufacturing industries) at 77.3% (Fig. VI-2).

This was followed by "Oil and chemical industries" (pharmaceutical manufacturers, petroleum industry, chemical industry) at 72.5%, "Electrical, general and transport machinery manufacturing industries" (electrical machinery manufacturers, transport machinery manufacturers, mechanical and precision machinery manufacturers) at 71.4%, "Finance and insurance industries" (finance industry, securities industry, insurance industry) at 71.0%, and "Construction industry" at 70.6%.

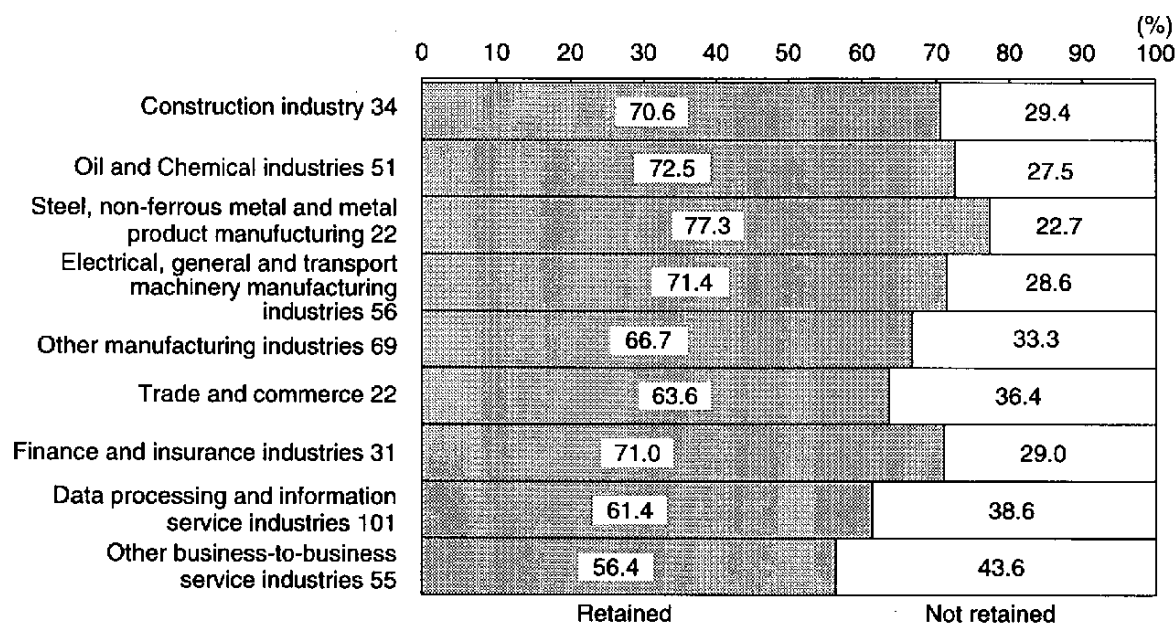


Figure VI-2 Retention Status of In-house Databases of Major Industrial Categories

2. Purpose of In-house Database Construction

The most common reason given for the purpose of constructing an in-house database overall was "Improved efficiency of clerical work" indicated by 69.8% of the replying companies, and the response rate exceeded 60% for both large corporations as well as small and medium-sized companies.

2.1 More Corporations Using to Improve Efficiency of Payment Processing

The next most common replies after improved efficiency of clerical work consisted of "Improved efficiency of sales promotion" at 34.5%, "Improved efficiency of inventory management" at 32.9%, and "Effective utilization of books, references, documents and other in-house information" at 31.3%. Although "Effective utilization of books, references, documents and other in-house information" was only ranked 5th among corporations, it was ranked second overall with a response rate of 44.8%. This was due to the high response rate of 63.0% among public services.

Although there was a small degree of fluctuation in the order, the top five replies for the purpose of construction of in-house databases was the same as in previous years. The response rates were also generally at the same level.

In comparison with the previous 1996 survey, a conspicuous increase in response rate was exhibited by "Improved efficiency of payment processing" among corporations. Although the response rate was only 14.4% in 1996, it increased to 24.4% in the current survey. The large number of large corporations reviewing their accounting system in order to comply with international accounting standards is believed to lie in the background of this increase.

2.2 Active Use of Databases to Monitor Internal Affairs

In looking at the retention rates of in-house databases according to their contents, the category with the highest response rate overall was "customer management" at 47.4% (Fig. VI-3). This was followed by "accounting and financial management" at 40.2%, "marketing (sales) management" at 38.4%, "personnel management" at 37.8%, and "stock management" at 31.2%.

The top five categories were the same in 1995 and 1996. There were no other major changes in order or retention rate for other categories as well.

In looking at the results by industrial category, the retention rate for customer management databases was by far the highest in the finance and insurance industries at 85.0%. The retention rate for these industries was 84.2% in the previous survey. In addition, the retention rate for personnel management databases in the construction industry was extremely high at 95.7%. This rate was 81.0% in 1996.

Respondents were then asked about the number of years in-house databases have been in use according to contents as of October 1997. An analysis of those results shows that over the past three years, the number of private corporations and organizations that constructed "internal affair" databases was found to be high. 27.3% of the replying companies constructed these databases in 1995, 40.9% in 1996 and 13.6% in 1997 (Fig. VI-4). A large number of private corporations and

organizations also constructed "product information" and "reference information" databases as well. Judging from the contents of these databases, they can be assumed to be intranet databases.

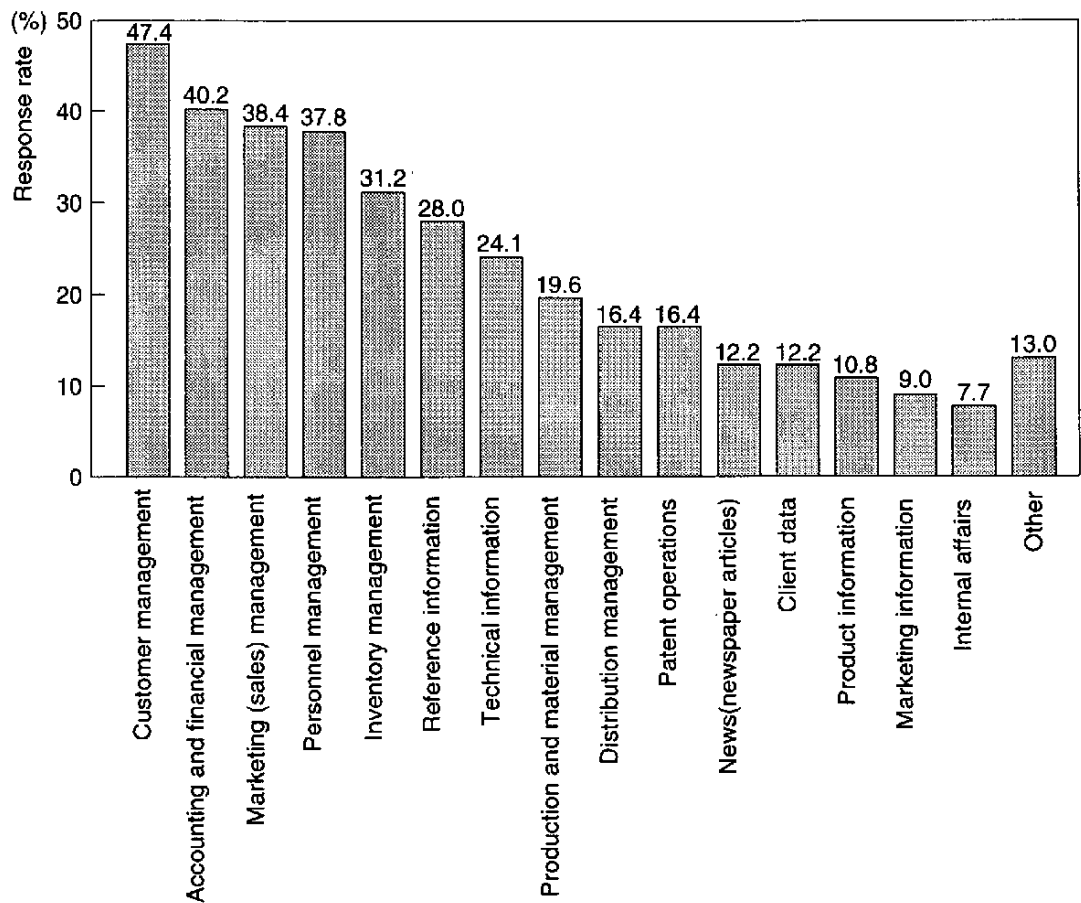


Fig. VI-3 Contents of In-house Databases

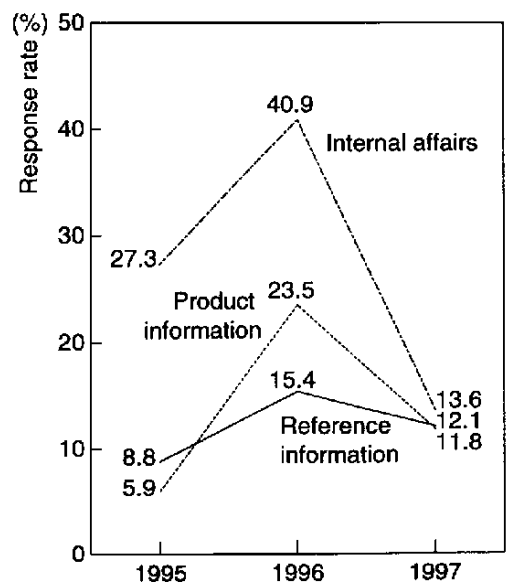


Fig. VI-4 Contents of Recently Constructed In-house Databases (Top 3)

2.3 Sales Division Demonstrates High Utilization Rate

The division that demonstrated the greatest use of in-house databases was the "sales division". Although it was indicated by 60.6% of the replying companies overall, when looking at private corporations while excluding public services, the figures surpasses 75%.

This was followed by the "general affairs division" at 46.8%, "planning division" at 36.8%, "research division" at 30.7% and "production division" at 29.3%. Although the "survey division" was ranked fourth in the 1996 survey, this year it fell to sixth place at 27.0%. The planning division moved into the top five in its place.

3. Utilization of Groupware

In this survey, the form in which in-house databases are constructed was examined in somewhat detail. Respondents were also asked about the type of DBMS in use.

3.1 Groupware Installation Rate Exceeds 50%

Private corporations and organizations that constructed in-house databases in the form of groupware accounted for 52.2% overall. Although this result can only serve as a reference since the questioning format was different, this response rate was 18.9% in 1996.

The groupware installation rate for large corporations was 62.0% (Fig. VI-5). More than half of the respondents indicated that they were "already installed". When this amount is added to the 25.7% who replied that groupware databases are "planning to be installed", the total percentage reaches 87.7%. Thus, it appears that the use of groupware has become a matter of common sense among large corporations. The groupware installation rate among small and medium-sized companies was 24.1% and 34.7% among public service organizations, indicating a considerable gap with large corporations.

In looking at the groupware installation rates by industrial category, the rates were 69.0% in the data processing and information service industries, 66.7% in the oil and chemical industries, 65.4% in the electrical, general and transport machinery manufacturing industries, and 57.1% among other manufacturing industries (food industry, fiber, paper and pulp industries, glass and porcelain industries, printing, publishing, newspaper and other manufacturing industries), with all of these exhibiting relatively high rates. The highest response rates for "planning to be installed" were observed for commerce at 44.4%, the construction industry at 41.2% and the steel, non-ferrous metal and metal product manufacturing industries at 38.5%.

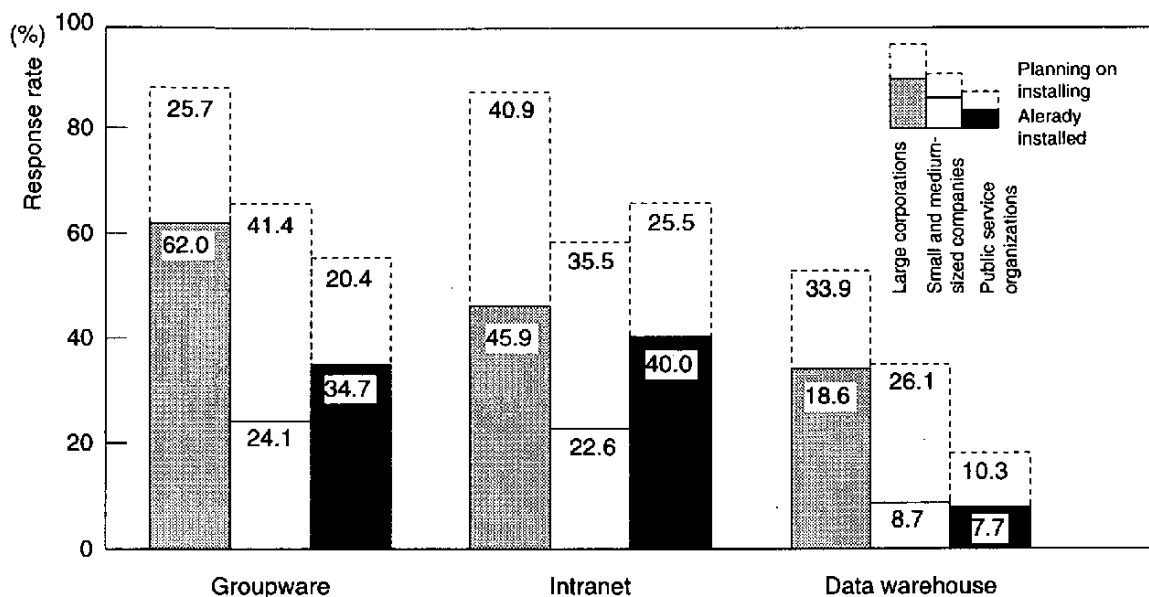


Figure VI-5 Construction and Installation Status of In-house Databases

3.2 Intranet Installation Rate Increasingly Rapidly

Those private corporations and organizations that have constructed in-house databases in the form of an intranet accounted for 41.9% of the total respondents. This figure was 11.0% in the 1996 survey.

The installation rate was again high for large corporations, with 45.9% indicating that they are "already installed" and an additional 40.9% indicating that they are "planning to be installed". This brings the total to 86.8%. The ultimate proliferation rate of intranet in-house databases can therefore be expected to reach a considerably high level. The installation rate among public service organizations is 40.0%, and that among small and medium-sized companies is 22.6%.

In looking at installation rates according to industrial category, high rates were demonstrated by the data processing and information service industries at 62.2% and by the oil and chemical industries at 52.0%. Among those companies planning on installing an intranet database, other manufacturing industries accounted for 53.1%, the finance and insurance industries for 46.2% and the steel, non-ferrous metal and metal product manufacturing industries for 45.5%.

3.3 Proliferation of Data Warehouses Still in the Future

Those private corporations and organizations that have constructed an in-house database in the form of a data warehouse accounted for 15.0% of the total. Although this has increased by 5.4% since the 1996 survey, it still cannot be said to have reached the level of genuine proliferation.

When looking at the replies to "planning to be installed", however, the installation rate increases significantly. Those private corporations and organizations that indicated that they are planning on installing data warehouses in the future accounted for 33.9% of large corporations, 26.1% of small and medium-sized companies, and 10.3% of public service organizations.

In looking at the installation rates according to industrial category, the installation rate in the finance and insurance industries was 25.0%, that in the electrical, general and transport machinery manufacturing industries was 21.1%, and that in other manufacturing industries, data processing and information service industries and other business service industries was 20.0%, demonstrating high rates in all of these industrial categories. High response rates for "planning to be installed" were observed in the data processing and information service industries at 52.0% and in the construction industry and commerce at 40.0%.

3.4 RDBMS Installation Rate Surpasses 80%

The proportion of replying companies using relational database management systems (RDBMS) for construction of in-house databases was 81.8% overall. This can be considered to be a significant proliferation rate. For reference purposes, this proportion in the 1996 survey was 43.1%.

In looking at installation rates by company size, large corporations exhibited an installation rate of 84.2%, small and medium-sized companies 70.0%, and public service organizations 80.9%. The proportion of replying companies that are "planning on installing" an RDBMS was 6.2% overall.

On the other hand, the installation rate for object-oriented DBMS was 18.1% overall. It is somewhat surprising that the installation rate is higher than that of data warehouses. The response rate for the same with respect to "planning on installing" was 21.5%. It will be interesting to note the extent to which these systems proliferate in the future.

According to the installation rates by company size, large corporations indicated an installation rate of 19.0%, small and medium-sized companies 13.6% and public service organizations 17.9%. Thus, there were little differences observed with respect to company size. In looking at the installation rates by industrial category, high installation rates were demonstrated by the construction industry at 36.4% and the steel, non-ferrous metal and metal product manufacturing industries at 33.3%. With respect to the rate of planning to install in the future, high rates were observed among the data processing and information service industries at 47.8% and the electrical, general and transport machinery manufacturing industries at 33.3%.

4. Progressing Installation of the Internet

The environment in which in-house databases are accessed was also examined. Respondents were asked whether or not they have installed in-house databases using four choices consisting of in-house LAN, Internet, VAN and mobile/remote computing.

4.1 In-house LAN Installation Rate Approaches 90%

Private corporations and organizations using an in-house LAN as the route for accessing an in-house database accounted for 88.4% of the respondents. This can be said to be an extremely high proliferation rate. For reference purposes, the installation rate in the 1996 survey was 61.0%.

In looking at these figures in terms of company size, the installation rate among large corporations was 91.1%, that among small and medium-sized companies was 71.8% and that among public service organizations was 88.6% (Fig. VI-6). All of these installation rates exceed 90% when the number of companies replying "planning to be installed" are included in the totals.

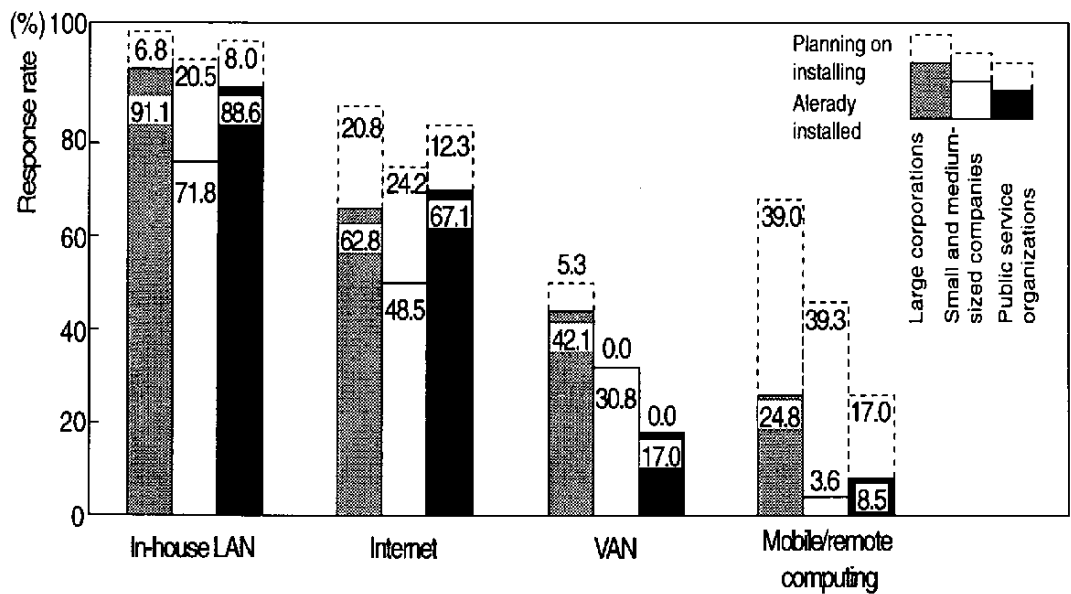


Figure VI-6 Access Environment of In-house Databases

4.2 Internet Surpasses 60%

Those private corporations and organizations accessing in-house databases using the Internet accounted for 62.3% overall. In terms of company size, the installation rate among large corporations was 62.8%, that among small and medium-sized companies was 48.5%, and that among public service organizations was 67.1%.

However, these figures are too high. "Accessing an in-house database using the Internet" means that in-house systems are being used by using the Internet from outside the company. Alternatively, it means that data is being exchanged using the Internet with other businesses and clients. It is virtually unthinkable that more than 60% of the surveyed private corporations and organizations would be using such a sophisticated utilization method. It is only natural to think that the respondents simply replied as to whether or not they were using the Internet irrespective of in-house databases.

4.3 VAN Installation Rate Appears to Have Peaked

The installation rate of VANs was 35.0% overall. It was 42.1% among large corporations, 30.8% among small and medium-sized companies, and 17.0% among public service organizations. The number of private corporations and organizations considering its installation is expectedly low due to the effects of the Internet. The response rate for "planing to be installed" was only 3.4% overall.

Although the appeal of the Internet lies in its ease of installation and its low communication charges, concerns still remain with respect to security. The question for the future will be whether or not the status of VANs, which have spread in the form of a network used to connect the offices within a company or different companies, will be able to win out over the Internet. The next two or three years will be critical in determining the outcome of this question.

4.4 Mobile/Remote Computing Reaches 18.5%

Private corporations and organizations that have implemented a mobile computing or remote computing environment for being able to access in-house databases from outside the company accounted for 18.5% overall. For reference purposes, this figure was 6.6% in the 1996 survey.

Large corporations appear to be particularly aggressive with respect to mobile and remote computing. Their installation rate was 24.8%, while those large corporations planning to install mobile/remote computing systems in the future accounted for 39.0% of the replying firms.

In looking at these numbers by industrial category, the installation rates in the electrical, general and transport machinery manufacturing industries and other manufacturing industries

were 33.3%. High installation rates were also demonstrated by the oil and chemical industries at 28.6%, and the data processing and information service industries at 28.1%.

5. Connection with Outside Networks

Those private corporations and organizations having in-house databases connected to outside networks accounted for 23.9% of the total. This figure has increased from 13.1% in 1995 and from 17.9% in 1996.

5.1 High Connection Rate Among Public Service Organizations

Public service organizations demonstrate a higher connection rate (38.5%) for outside networks than private corporations. Other industrial categories exhibiting high connection rates consisted of the data processing and information service industries at 24.2%, oil and chemical industries at 22.9%, and electrical, general and transport machinery manufacturing industries at 20.0%. These three industrial categories also demonstrated highest installation rates for mobile/remote computing.

The most frequently indicated partners involved in exchanging data by connecting with outside networks were "Affiliates/subsidiaries" at 38.0% overall. They were followed by "Material (part/material) vendors" at 15.2% and "Sales agents/retailers" at 13.9%.

5.2 In-house Databases Disclosed on the Internet at Less Than 10%

As a new question asked for the first time in the current survey, respondents were asked whether or not they are planning to disclose their in-house database on the Internet.

Those private corporations and organizations who have already disclosed in-house databases on the Internet accounted for 9.8% of the total. Those private corporations and organizations planning to do so in the future accounted for 5.0%. Public service organizations tended to be more aggressive with respect to the disclosure of in-house databases on the Internet than private corporations. 32.2% of all surveyed public service organizations had already disclosed in-house databases on the Internet, while 11.1% are planning to disclose in-house databases in the future.

Appendix

Table 1 Japanese Databases Accessible Overseas (1998: Producers)

Subject ①: Science and Technology Language J: Japanese Vendor Status P: Producer Medium O: Online
 ②: Economics, Business E: English D: Distributor M: Magnetic Tape
 and Finance O: Others A: Agent or Diskette
 ③: General/Others T: Telecommunications C: CD-ROM/CD-I
 Center F: Telefax

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|----------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|-----------------------------|
| Asahi Shimbun | AERA Article Database | Articles from weekly journal AERA | ③ | J | P | O/M/C | U.S.A., Europe, Asia |
| | Asahi News Service | Distributing to Mead Data Base, FT Profile and Microsoft Network via New York Times Syndication Sales | ③ | E | P | O | North America, Europe, Asia |
| | Asahi News Service | Distributing directly to C.W.N. (Chamber World Network) | ③ | E | P | O | Worldwide |
| | Asahi News Service(ANS) | Articles from 'Asahi Evening News' | ③ | E | P | O/M/C | U.S.A., Europe, Asia |
| | HIASK | Articles from Asahi Shimbun (Morning and Evening Editions) of 18 districts | ③ | J | P | O/M/C | |
| Association of Agriculture and Forestry Statistics | Agriculture, Forestry & Fisheries Statistics | Statistics Data including Agricultural Census | ② | J | P/D | M/C | Korea |
| AXESS INTERNATIONAL NETWORK INC.(AXESS) | DRS | Collection of 40,000 records on tours. such as C.I.Q., towns, hotels, air ports, weathers information | ③ | J | P | O | U.S.A., Europe, Asia |
| COMLINE Business Data, Inc.(COMLINE) | CDN | News on Japanese companies in nine major industries. | ② | E | P | O/M | U.S.A., Europe, Asia |
| | COMLINE News Service | News on Japanese Industries & Economy | ② | E | P | O/M | U.S.A., Europe, Hong Kong |
| | TFW | Information on Japanese finance and economy | ② | E | P | O/M | U.S.A., Europe, Asia |
| Database Promotion Center, Japan(DPC) | Database Directory | Electronic version of the 'Database Directory' compiled by MITI | ③ | J | P | M | |
| Dun & Bradstreet Japan Ltd.(D&B) | Business Information Report | Credit information on Japanese companies | ② | E | P/D | O | Worldwide |
| | Japan 250,000 | CD-ROM including 250,000 Japanese companies | ② | E | P/D | C | |
| | WorldBase | Short Form Japanese Company Information | ② | E | P/D | O/M/C | |
| EDUCA Inc.(EDUCA) | Japanese Language Thesaurus | Directory of basic vocabularies in Japanese and English with examples | ③ | J/E | P | M | U.S.A. |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|------------------------------------------------------------|
| Electronic Devices Information Service Co., Ltd.(ELISNET) | ELISNET | Various information on electronic devices, especially semiconductors | ① | J/E | P/D | O/M/C | |
| ELECTRONIC LIBRARY Inc.(EL) | ELISNET | Various information on electronic devices, especially semiconductors | ① | J/E | P/D | O/M/C | U.S.A., Europe, South-East Asia, China |
| G/K Japan Ltd. | ACSISS-E | Online daily POS database of home appliances and durable consumers' goods obtained from 2,100 retailers in Japan | ② | J | P/D | O/M | U.S.A., U.K., Germany, France, China, Singapore, Hong Kong |
| | INTELECT | Sales information of home appliances and durable consumer goods obtained in U.S.A., Canada, and Mexico | ② | E | P/D | M | |
| IBJ-NIKKO INFORMATION SYSTEMS, LTD.(INIS) | I.N.Bond Database | Information on domestic public issues by Japanese resident corporations | ② | E | P | O | U.S.A., Europe |
| | I.N.Economic Statistics Database | Information on statistics of economy, industry, and monetary | ② | E | P | O | |
| Japan Association for International Chemical Information(JAICI) | Chem-J | Bibliographies of chemical literature published by Japanese chemical societies | ① | E | P/D | M | Europe, U.S.A. |
| | NQRS | Numerical data of Nuclear Quadruple Resonance Spectrum(NQRS) | ① | E | P/D | M | |
| Japan Center for Intercultural Communications(JCIC)/ Japan Information Network(JIN) | Facts of Japan | Various kinds of statistical data | ② | E | P/D | O | Worldwide |
| Japan Construction Information Center(JACIC) | Infor JACIC | Open Bid Announcements and Information for Construction Materials | ② | J/E | P/D | O | Worldwide |
| Japan External Trade Organization(JETRO) | Governmental Procurement | Governmental Procurement on Official Gazette | ② | J/E | P | O/M | Worldwide |
| | Information on mail order | Information on mail order | ② | J | P | O | |
| | Japan Market Report Database | Guide of Japanese Market | ② | E | P | O | |
| | Japan Trade Directory | List of Traders in Japan | ② | E | P | C | |
| | Potential Imports | List of Importers | ② | E | P | O | |
| JAPAN PATENT DATA SERVICE, CO. | JP-NET | Japanese Patents | ① | J | P/D | O/C | U.S.A., Korea, U.K. |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|----------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------------------------|
| Japan Patent Information Organization(Japio) | Design | Published bibliographic data of design applications to the Japanese Patent Office which are registered from 1965 ; Examination procedure records from 1964 ; Trial decision procedure records from 1982 and registration records from 1965. | ① | J | P/D | O | U.S.A., Germany, France, Korea, Taiwan, and others |
| | Japio | Published bibliographic data and abstracts in English of unexamined patent applications (filed by only Japanese applicants from 1976.) | ① | E | P | M | U.S.A., France, Germany |
| | PAJ/CD-ROM | Published bibliographic data and abstracts in English with representative drawing (filed by only Japanese applicants from 1976.); Back File : From 1976 to 1993 in 69 technical fields basis, Front File : From 1994 in numerical order. | ① | E | P/D | C | U.S.A., Europe, Asia |
| | Patent | Published bibliographic data of all patent applications to the Japanese Patent Office from 1955 ; Patent abstracts and representative drawings of first publications since 1971 ; Examination procedure records from 1964 ; Trial decision procedure records from 1982 and registration records from 1967. | ① | J | P/D | O | U.S.A., Germany, France, Korea, Taiwan, and others |
| | Trademark | Bibliographic data and specimens of trademark and service mark applications which are filed to the Japanese Patent Office ; Examination procedure records from 1964 ; Trial decision procedure records from 1982 and registration records from 1897. | ① | J | P/D | O | |
| | Utility Model | Published bibliographic data of all utility model applications to the Japanese Patent Office from 1960 ; Utility model summaries and representative drawings of first publication since 1980 ; Examination procedure records from 1964 ; Trial decision procedure records from 1982 and registration records from 1974. | ① | J | P/D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------|
| Japan Science and Technology Corporation, Information Center for Science and Technology(JICST)/JOIS | JCATALOG(JICST Holding List File) | Machine-readable catalog of JICST library collection | ③ | J | P/D | O | U.S.A., U.K. Germany, Korea |
| | JCLEARING(JICST File on Current Science and Technology Research in Japan) | Description on research projects planned or ongoing in Japanese public research institutions, based on questionnaire survey | ① | J | P/D | O | |
| | JCST(JICST File on Science and Technology) | Bibliographic information, with abstracts, on 670,000 articles in the fields of science and technology, collected from scholarly journals, proceedings, technical notes, public literature, and others in 50 countries | ① | J | P/D | O | |
| Japan Science and Technology Corporation, Information Center for Science and Technology(JICST)/JOIS | JICST Chemical Substance Name | Database of Chemical terms numbers molecular formulas, registry information compiled by JICST | ① | J | P/D | O | |
| | JICST QUICK FILE | Database of files and bibliographic data of JICST's Collection without abstracts on keywords | ① | J | P/D | O | |
| | JICST-E(JICST File on Science, Technology, and Medicine in Japan) | Bibliographic information, with abstracts, of literature in the fields of science, technology, and medicine in JICST File on Science and Technology and JICST File on Medical Science, translated into English | ① | E | P/D | O | |
| | JMEDICINE(JICST File on Medical Science in Japan) | Bibliographic information, with abstracts, of articles in the fields of health science published in Japan, compiled from 'Igaku Chuo Zasshi' (abstract journal of medicine published since 1903) and JICST Domestic Medical File offered since 1981 | ① | J | P/D | O | |
| Japan Science and Technology Corporation, Information Center for Science and Technology(JICST)/STN | JGRIP | Description of research projects planned or ongoing in Japanese public research institutions | ① | E | P/D | O | U.S.A., U.K., Europe, and others |
| | JICST-E plus | Bibliographic information, partially with abstracts, of Japanese literature in the fields of science, technology, and medicine, translated into English | ① | E | P/D | O | |
| KAHOKU SHIMPO PUBLISHING CO. | KD | Database of articles | ③ | J | P | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------------------------|
| K.K. Kyodo News | Kyodo Real time News(JLS) | 24 hour real-time financial & economic news | ② | J | P | O | Around 70 countries including U.S.A., Europe, Asia |
| Marketing Intelligence Corporation(MIC) | MAI Alcohol | Comprehensive coverage of alcohol sales | ② | J/E | P | M | U.S.A., Europe |
| | SCI Consumer | Nationwide household data on daily purchases of FMCGS | ② | J/E | P | M | U.S.A., Europe |
| | SDI Annual Report | Sales trend data of OTC drug market | ② | J/E | P | M | U.S.A., U.K. |
| | SLI Consumer | Extensive data on women's products | ② | J/E | P | M | U.S.A., Europe |
| | SRI Retail | POS and store audit data covering all FMCGS | ② | J/E | P | M | U.S.A., Europe |
| Maruzen Co.,LTD. | CHOICE | Bibliographic information on Japanese and Foreign books | ③ | J/E | P/D | O | Worldwide |
| Media Research Center, Inc.(MRC) | MEDIA DATA JAPAN, MAGAZINE EDITION | Advertising rates and data of consumer and business magazines | ③ | J | P/D | M | |
| | MEDIA DATA JAPAN, NEWSPAPER EDITION | Advertising rates and data of consumer and business newspapers | ③ | J | P/D | M | |
| | NAVI(quarterly journal) | Quarterly Journal specialized software by DATAWARE TECHNOLOGIES, Equivalent in ISO 9660 and HIS(multi-operating system) | ③ | J | P/D | C | |
| | SERIALS JAPAN | Data of serials(magazines, newspapers and others) published in Japan. The first half edition of 1997 has 21,362 titles, publishers' data, subscription rates, distributors, advertising rates and contents | ③ | J | P/D | O/M | |
| METRO Inc. | FAMILIS | Personal names, addresses, telephone numbers, ages, etc. extracted from various directories and survey data | ③ | J | P | M | U.S.A., Canada |
| Moody's Japan K.K. | Company Data Direct | Internet-accessible financial data on more than 10,000 U.S.companies | ② | E | P/D | O | |
| | International Company Data | Financial Data of over 12,000 non-U.S.companies | ② | E | P/D | C | |
| National Diet Library(NDL) | JAPAN/MARC | Machine-readable catalog of books and periodicals published in Japan | ③ | J | P | M | U.S.A., Canada |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|------------------------|
| National Diet Library(NDL) | JAPAN/MARC on Disc (J-BISC) | Machine-readable catalog of books and periodicals published in Japan | ③ | J | P | C | U.S.A., Canada |
| | NDL CD-ROM LINE Japanese Periodicals Index | Bibliographic information of articles in Japanese periodicals | ③ | J | P | C | |
| New Glass Forum(NGF) | International Glass Database | Fact data on the relation between composition and properties of glass | ① | E | P | C | |
| Nichigai Associates, Inc. (Nichigai) | BOOKPLUS | Contents information of books published after 1925, provides cover images of newly published in nearly two weeks. Also provides outlines of novels | ③ | J | P/D | O/M/C | Worldwide |
| | Computer/ Technical Terms | Over 90,000 words(J->E, E->J) and over 123,000 usages | ①/② | J | P/D | O/C | |
| | Historical WHO Foreign | Contains the profile of about 32,000 famous people in the world history | ③ | J | P/D | O | |
| | Historical WHO Japan | Contains the profile of about 62,000 famous people in Japanese history | ③ | J | P/D | O | |
| | Journal Index | Index to articles, since 1981, of 1,300 popular journals in Japan | ②/③ | J | P/D | O | |
| | NICHIGAI ASSIST BOOK/ MONTHLY | Provides BOOK data of newly published in last month | ③ | J | P/D | O | |
| | NICHIGAI ASSIST MAGAZINE | Index to articles, since 1981, of 1,300 journals in business and economics | ③ | J | P/D | O/M/C | |
| | NICHIGAI ASSIST PRIZE | Information on 2,600 Japanese prizes in various areas, with 200,000 prize-winners' data | ③ | J | P/D | O/M | |
| | NICHIGAI ASSIST WHO | Biographical information of 380,000 writers in Japan, with bibliographic information of their publications | ③ | J | P/D | O/M/C | |
| | Prize Index | Information of 2,400 Japanese prizes in prizes in various fields, with 160,000 prize-winner's data | ①/③ | J | P/D | O/M | |
| | Writer's Who's Who | Biographical information of 80,000 writers in Japan, with bibliographic information of their works | ③ | J | P/D | O | |
| Nihon Keizai Shimbun, Inc.(NIKKEI) | China Economic Database | Major economic statistical data from mainland China | ③ | J/E | P/D | O | U.S.A., U.K., Germany, |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|-------------------------------------|
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Commodity Market Data | Price data and demand/ supply data of major commodities market conditions(daily, weekly and monthly) | ② | J/E | P/D | O/M | France, Switzerland, Italy, |
| | Consumer Radar | Originally obtained data on the attitudes and reality of consumer behavior toward financial issues | ② | J | P/D | O/M/C | Canada, Hong Kong, Singapore, Korea |
| | Consumer Statistics Data | 7,000 series of statistical data on consumer price from the General Affairs Agency | ② | J/E | P/D | O | |
| | Corporate Action Related Data | Data related to new stock issuing such as patterns of fund raising, increase and decrease of capital, stock split, and other information on fund raising for listed companies | ② | J/E | P/D | O/M | |
| | Corporate Profile | Description of Japanese major companies. Data elements such as name of CEOs, address, telephone number, year established, outline of business, major stock holders, summarized financial data, sales by line of business, are included | ② | J/E | P/D | O/M/C | |
| | Daily Exchange Rate & Interest Rate Data | Daily data of foreign and domestic exchanges | ② | J/E | P/D | O/M | |
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Earnings Estimate for Listed Companies | Estimated and actual data of balance of settlements of accounts at the end of fiscal year, interim closing, and consolidated financial statements for listed companies | ② | J/E | P/D | O/M | Canada, Hong Kong, Singapore, Korea |
| | Economic Data by Size | Economic statistical data by size of small-to-medium sized companies based on data from the Small and Medium Enterprises Agency and the Smaller Business Finance Corporation | ② | J/E | P/D | O/M | |
| | Energy Data | Demand/supply data and cost data on petroleum, coal, electric, gas, and nuclear power, as well as general economic statistical data | ② | J/E | P/D | O/M | |
| | Financial Statement for Banks | Balance of settlements of accounts for banks since 1974 | ② | J/E | P/D | O/M/C | |
| | Financial Statement for Insurance Companies | Balance of settlements of accounts for non-life insurance companies submitted to the Ministry of Finance since 1983 | ② | J/E | P/D | O/M/C | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|----------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------------------|
| Nihon keizai shimbun, Inc. (NIKKEI) | Financial Statement for Listed Companies | Balance of settlements of accounts at the end of fiscal year, interim closing, and consolidated financial statements, since 1964, for listed companies other than banks, securities houses, and insurance companies | ② | J/E | P/D | O/M/C | Canada, Hong Kong, Singapore, Korea |
| | Financial Statement for Security Houses | Balance of settlements of accounts for security houses submitted to the Ministry of Finance | ② | J/E | P/D | O/M/C | |
| | Financial Statement for Unlisted Companies | Financial report information submitted to the Ministry of Finance by unlisted major companies since 1977 | ② | J/E | P/D | O/M/C | |
| | Flash Financial Report for Listed Companies | Balance of settlements of accounts at the end of fiscal year, interim closing, and consolidated financial statements for listed companies other than banks security houses, and insurance companies, as disclosed | ② | J/E | P/D | O/M | |
| | Futures Data | Trading and price data of forward buying stock and bond | ② | J/E | P/D | O/M | |
| | Industrial Data | Statistical data on various industry obtained from MITI and industrial associations | ② | J/E | P/D | O/M | |
| | International Trade Statistics | International trade statistics of commodities and countries based on the Ministry of Finance data | ② | J/E | P/D | O | |
| | Japanese Economic Model | Quarterly model of short-term forecast for Japanese economy, integrating the whole aspects of Japanese economy including energy and finance. Monthly 'Standard Forecasts' with updated information is provided, capable of customized simulation | ② | J/E | P/D | O | |
| | Major Market Indices Data | Nikkei stock price average data, stock price average data for Nikkei 500 major stocks, volume of margin transactions for three exchanges, and others | ② | J/E | P/D | O/M | |
| | Marketing Report for Unlisted Companies | Marketing report information submitted to the Ministry of Finance by unlisted major companies since 1977 | ② | J/E | P/D | O | |
| | News Flash | Real-time daily news from all over the world, categorized by subject | ③ | J/E | P/D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|-------------------------------------|
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Newspapers and Magazines for Text Search | Articles from news papers including four Nikkei publications | ③ | J/E | P/D | O | Canada, Hong Kong, Singapore, Korea |
| | Nikkei Macro Economic Statistics | 15,000 major national statistics of Japanese economy including statistics of earnings, production, corporate management, finance, international trade, international balance of payments, labor, commodity prices, and consumption | ② | J/E | P/D | O/M | |
| | Nikkei Monetary Databank | Major economic statistical data including money supply, interest rates, capital circulation, and other general financial statistics | ② | J/E | P/D | O/M | |
| | Option Data | Trading and price data, volume, and positions of options and stock price index options | ② | J/E | P/D | O/M | |
| | Personnel Data Bank | Personnel data of executives of major companies and managing staff of government employees. Data elements such as title, place of employment, birth date, educational history, graduate data are included | ② | J | P/D | O/M | |
| | Portfolio Related Data Service | Various indices on risks and returns in Japanese and US stock market investment with portfolio evaluation and optimization system | ② | J/E | P/D | O | |
| | POS Data | POS data of 2,000,000 items including foods, household appliances, and others obtained from 550 stores | ② | J | P/D | O | |
| | Regional Databank | Regional data including area, population, housing, land price, number of establishments by industry, and shipments for 3,400 cities, towns, and villages | ② | J/E | P/D | O | |
| | Regional Economic and Financial File | Regional market data including industry, finance, local public finance, consumption, commodity price, labor, and commerce for the metropolises and districts | ② | J/E | P/D | O | |
| | Regional Input Output Table | Input output tables within and between regions provided by MITI | ② | J/E | P/D | O | |
| | Short-term Model for Seven Advanced Nations | Quarterly metrical model for Japan, U.S.A., U.K., France, Germany, Italy and Canada, intended to provide short-term forecasts | ② | J/E | P/D | O/M | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|----------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|---------------------------------------------|
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Statistical Data of Prices | Wholesale price indices, import price indices, and input-output indices from the Bank of Japan | ② | J/E | P/D | O | Canada, Hong Kong, Singapore, Korea |
| | Statistics on Construction | Statistics on orders received, starting works, cost of construction, and other construction related statistical data | ② | J/E | P/D | O/M | |
| | Statistics on Corporations | Estimated statistical data based on 'Statistics on Corporations', published by the Ministry of Finance, updated quarterly | ② | J/E | P/D | O/M | |
| | Statistics on Products, Shipments, and Inventory | Statistics on products, shipments, and inventory based on MITI's data | ② | J/E | P/D | O/M | |
| | Stock Bond Data | Stock data of listed companies and over-the-counter trading in national stock market and bond data for Tokyo and Osaka Exchanges | ② | J/E | P/D | O/M | |
| | Technical Indices for Industries and Each Issue | Basic indices and indices by industry as well as value added indices data on Tokyo and Osaka Exchanges | ② | J/E | P/D | O | |
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Unlisted Debenture Data | Evaluated market price of unlisted public offering debenture calculated based on the circular notice from the Ministry of Finance | ② | J/E | P/D | O/M | Canada, Hong Kong, Singapore, Korea |
| | World Economic Long-Term Model | Annual metrical model for long-term forecasts of the world 9 regions. Capable of customized simulation | ② | J/E | P/D | O | |
| Nippon Statistics Center Ltd., | City / Town / Village District-Units | About 900 items of social economic | ② | J/E | P/D | M/C | U.S.A. |
| | Smallest District-Units | About 200 items of social economic | ② | J/E | P/D | M/C | U.S.A. |
| Nomura Research Institute, Ltd.(NRI) | DataLine, IDS | Macroeconomic Database Equity Database; Bond Database; NRI Index Database | ② | J/E | P/D | O | U.S.A., U.K., Germany, Switzerland, Belgium |
| | FAST | Financial results and indicators of Japanese companies | ② | J/E | P/D | C | France, Netherlands |
| | NRI/E | Information of Japanese Economy, Industry, and Finance | ② | E | P | O | |
| NTT Visual Communication Systems Inc.(NTT-V) | The Accommodations Reservation Information Service | Free access to information on a wide selection of accommodations throughout Japan | ② | J/E | P/D | O | Worldwide |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|--------|--------|----------------------------------------------------------|
| Osaka city foundation for urban technology | OSAKA-UE File | Offer the urban engineering information Osaka City through JICST on line service | ① | J | P | O | |
| Protein Research Foundation(PRF) | PRF/LITDB | Literature database related to peptides and proteins | ① | E | P/D | O/M/C | U.S.A. |
| | PRF/SEQDB | Amino acids sequence database (peptides & proteins) | ① | E | P/D | O/M/C | U.S.A. |
| | PRF/SYNDB | Chemically synthesize Compound database (peptides) | ① | E | P/D | O/M/C | U.S.A. |
| QUICK Corp. | QUICK-IS | QUICK-IS a comprehensive financial information service which provides stable data delivery and easy data manipulation through PC in the environment best fit for each customer. i.e. Client/Server system, remote system or customer's Local Area Network and so on. The basic service is classified into QUICK-IS Level I and QUICK-IS Level II, and wide range of information and function options, like dynamic data exchange, various analysis services, order routing, e-mail etc., are also available | ② | J/E Numeric | P/D | O | U.S.A., Europe, Hong Kong, Singapore, others |
| Research Institute of Human Engineering for Quality Life(HQL) | Body Size database | 178size items of 34,000 Japanese persons, measured in period in 1992 from 1994 | ① | J/E | P/D | M/C | |
| | 3 Dimensional database | Base of body size data. This data by the format of DXF and IGES PC files | ① | J/E | P/D | M/C | |
| Research Organization for Information Science & Technology(RIST) | ATOMICA, Encyclopedia on Nuclear Energy | a Search Engine of Atomic Energy Information for Promotion of Public Acceptance Through Internet | ① | J | P/D | O | |
| Rural Culture Association | Diagnosis and Control of Disease and Insect Pest | 130 Kinds of crop 1600 disease and insect pest diagnoses and control | ③ | J | P/D | O/C | |
| | Gendai Nougyou (The Contemporary Agriculture) | Monthly journal 'Gendai Nougyou' title retrieval | ③ | J | P/D | O/C | |
| | Nougyou Gijutsu Taikai (The Encyclopedia of Agricultural Technology) | "Nougyou Gijutsu Taikai" title retrieval | ③ | J | P/D | O/C | |
| | The CD-ROM of Agricultural Chemical 1996 | Japanese Agricultural Chemical retrieval | ③ | J | P/D | C | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------|
| Rural Culture Association | The Complete Works of Japanese Dietary Habits | Interview Research of Japanese Dietary Habits over 60 years ago | ③ | J | P/D | O/C | |
| Technomics, Inc. | Pharmacast Data | Information on medicines and pharmaceuticals | ①/② | E | P | M | U.S.A., Europe |
| TEIKOKU DATABANK, LTD.(TDB) | COSMOS1 | Financial data of 120,000 Japanese companies, including 340,000 statements | ② | E | P | O/M/C | |
| | COSMOS2 | Descriptive information of 240,000 Japanese companies | ② | E | P | O/M/C | |
| The Japan Shipping Exchange, Inc. (JSE) | Japan Maritime Information Service | Japanese Flag Ships | ② | E | P/D | M | Worldwide |
| The Japan Times, Ltd. | Japan Times in The Nikkei-Telecom Japan News & Retrieval | Major world, domestic news, Art, Sports and Editorial descriptions selected from daily English Newspaper "The Japan Times" | ③ | E | P | O | U.S.A. |
| THE MAINICHI NEWSPAPERS | Mainichi Daily News Database | articles of Mainichi Daily News | ③ | E | P | O | U.S.A. |
| | Mainichi Newspapers Database | articles of Mainichi Newspapers | ③ | J | P | O | U.S.A., Asia |
| THE YOMIURI SHIMBUN | THE DAILY YOMIURI DATABASE | Electronic version of 'The Daily Yomiuri' a Newspaper written in English | ③ | E | P | O | U.S.A., Europe |
| | YOMIDAS | Articles from Yomiuri Shimbun including Tokyo, Osaka, Western, and Central versions | ③ | J | P | O | |
| TOHAN Company. | Publishing Information. | About 1,500,000 books (Japanese) Information. | ③ | J | P/D | O/C | |
| Tokyo Shoko Research, Ltd.(TSR) | CD-ROM JAPAN 250,000 | CD-ROM Japan 250,000 contains information on the 250,000 largest Japanese businesses | ② | E | P | C | U.S.A., Europe, Asia |
| | World Base | Short Form Japanese Company Information | ② | E | P | O/M/C | Worldwide |
| TOYO KEIZAI INC. | Business Performance Forecasts | Forecast data of business performance of 2,460 public companies and 850 over-the-counter companies | ② | J/E | P | M | Worldwide |
| | Flash Report(Tanshin) | Sole and consolidated account information on 2,460 public and on 850 over-the-counter companies | ② | J/E | P | M | |
| | Major Shareholders | Top 20 shareholders of 2,460 public and 850 over-the-counter companies | ② | J/E | P | M | |

Appendix

Table 2 Japanese Databases Accessible Overseas (1998: Distributors/Agents)

Subject ①: Science and Technology Language J: Japanese Vendor Status P: Producer Medium O: Online
 ②: Economics, Business and Finance E: English D: Distributor M: Magnetic Tape or Diskette
 ③: General/Others O: Others A: Agent C: CD-ROM/CD-I
 T: Telecommunications Center F: Telefax

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------------------------|
| Asia Data Research, Inc. (ADR) | ADR Market Trend Search | Retail panel data of home appliances and photo cameras in Asian countries | ② | J/E | D | M | Hong Kong, China, Indonesia, Singapore, and others |
| | G/K RETAIL PANEL | Retail panel data of home appliances and photo cameras in European countries | ② | J/E | A | M | Europe |
| COMLINE Business Data, Inc. (COMLINE) | KED | News on Korean companies and industries | ② | E | D | O | U.S.A., Europe, Asia |
| | PRC | News on Japanese Foods, Household, Products, Packaging | ② | E | D | O/M | |
| DENTSU INC. | ELNET | Articles, with full-text image data, from 59 Japanese major newspapers and from 150 Japanese journals including monthly economic reports | ③ | J | A | O/C | U.S.A., Hong Kong, France |
| Fijitsu Ltd. | ADMINISTRATIVE REFORM COMMITTEE'S BULLETIN | Prompt reports of Administrative Reform Council's discussion and announcement. The Council started at Dec.19, 1994 | ③ | J | A | O | Worldwide |
| | AERA | Collection of articles from weekly magazine 'AERA' | ③ | J | A | O | |
| | ASAHI ONLINE DATABASE | Collection of articles in English from 'Asahi Evening News' and English version of 'Asahi News Services' | ③ | E | A | O | |
| | Asahi Shimbun Database | Contains the full text of 'Asahi Shimbun' | ③ | J | A | O | |
| | BOOK/MONTHLY | Provides the information of the new books available in Japan | ③ | J | A | O | |
| | BOOKPLUS | Contains the title, outline, author, publisher and price of the books published in Japan | ③ | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | Bulletin of Administrative Reform Committee's Minutes | Provides the outline of bulletin of Administrative Reform Committee's Minutes | ③ | J | A | O | Worldwide |
| | Catalog of Journals and Newspapers | Catalog of domestic Journals, newspapers, and newsletters with their circulation, price, description and codes | ③ | J | A | O | |
| | CD New Score Information | Information on newly published and forth-coming CD titles | ③ | J | A | O | |
| | Chunich Shimbun Database | Collection of the articles of Chunich Shimbun | ③ | J | A | O | |
| | Company Information by Teikoku Databank | Profiles of more than 1,080,000 companies in Japan | ② | J | A | O | |
| | Company Information by Tokyo Shoko Research | Profiles with performance information for current three years of more than 720,000 companies in Japan | ② | J | A | O | |
| | Company Information Retrieval Service | Cross-file retrieval system from several databases of newspapers and company profiles | ② | J | A | O | |
| | Computer Terms Dictionary | Contains the computer terms (in Japanese and English) and their meanings | ③ | J | A | O | |
| | Cross-File Retrieval of Company Information | Cross-file retrieval system from eight company databases | ② | J | A | O | |
| | Cross-File Retrieval of National Newspapers | Cross-File retrieval system from three database. Provides articles in the last two years | ③ | J | A | O | |
| | Database of Directories | Bibliographic information and general description on directories published in Japan | ② | J | A | O | |
| | Decentralization Promotion Committee's Bulletin | Prompt reports of Decentralization Promotion Committee's discussion and announcement | ③ | J | A | O | |
| | DIAMOND Personnel Directory of Companies | Personnel directory of major companies in Japan with personnel changes and corporate structure | ② | J | A | O | |
| | DNN INFORMATION INDUSTRY TODAY | Collection of articles from "DAILY NETWORK NEWS" and by-weekly "IBM WATCHING" published by Network News Co., Ltd. | ③ | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | ECONOMIST | Electronic version of 'Economist' Journal, full-text | ③ | J | A | O | Worldwide |
| | Executives' Personal Profile by Tokyo Shoko Research | Biographical information with address of executives of more than 500,000 companies in Japan | ② | J | A | O | |
| | Extraordinary Administrative Research Council and the Administrative Reform Council Report | Reports and suggestions from Extraordinary Administrative Research Council and the Administrative Reform Council | ③ | J | A | O | |
| | Financial Information by Teikoku Databank | Financial records of companies in Japan | ② | J | A | O | |
| | Financial Information by Tokyo Shoko Research | Financial records of companies in Japan | ② | J | A | O | |
| | Gendai Yogo no Kiso Chishiki (Basic Knowledge of Modern Terminology) | Electronic version of the 'Gendai Yogo no Kiso Chishiki(Basic Knowledge of Modern Terminology)' published by Jiyu Kokuminsha | ③ | J | A | O | |
| | Historical WHO Foreign | Contains the profile of about 32,000 famous people in the world history | ③ | J | A | O | |
| | Historical WHO Japan | Contains the profile of 60,000 famous people in Japanese history | ③ | J | A | O | |
| | Hot Springs in Japan | The information of about 1,400 hot springs and inns in Japan provided by Yama to Keikoku-sha | ③ | J | A | O | |
| | IBJ-NIKKO Information System's Database/ Japanese Notable Industries | Provides the information of the Japanese notable industries the IBJ-NIKKO information System possesses | ② | J | A | O | |
| | IBJ-NIKKO INFORMATION SYSTEMS' DATABASE-JAPAN ECONOMICS | Major macro-economic statistical data announced by government, administrative agencies or private organizations | ② | J | A | O | |
| | IBJ-NIKKO INFORMATION SYSTEMS' DATABASE-JAPAN INDUSTRIES | Monthly data of foreign trade and domestic trade. Data elements such as production, inventory, shipment, import, export. The data conveyed all 39 types of Japanese industry | ② | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | Index of the magazines in National Diet Library | Provides the information of the bibliography of magazines the National Diet Library possesses | ③ | J | A | O | Worldwide |
| | Industrial News | News releases from companies, government bodies, and related organizations | ② | J | A | O | |
| | Information Industry Hotline | Flash reports of 'The Daily Network News' | ③ | J | A | O | |
| | Information of Bankrupt Companies by Teikoku Databank | Prompt reports of bankrupt companies | ② | J | A | O | |
| | INFORMATION OF BANKRUPT COMPANIES BY Tokyo Shoko Research | Prompt reports of bankrupt companies | ② | J | A | O | |
| | JAFIC | Contains abstracts and references to articles on food industry | ① | J | A | O | |
| | JCATALOG | Provides catalog of serial publications, technical reports and conference related materials published in over 50 countries | ① | J | A | O | |
| | JCLEARING | Provides information of research on science and technology intended or in progress | ① | J | A | O | |
| | JETRO ACE | Collection of reports and statistics from 80 overseas offices of JETRO | ② | J | A | O | |
| | JICST (Time Span: from 1981 to present) | Contains references of the literature on science and technology from serial publications, technical reports etc. published in over 50 countries. Includes abstract | ① | J | A | O | |
| | JICST75-80 (Time Span: from 1975 to 1980) | Contains references of the literature on science and technology from serial publications, technical reports etc. published in over 50 countries. Includes abstracts | ① | J | A | O | |
| | JICST-E | Provides abstracts and references to articles on science and technology, medical science in Japan, described in English | ① | E | A | O | |
| | JMEDICINE | Provides abstracts and references to medical articles in Japan | ① | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | JQUICK | Contains references of the current literature on science and technology from 10,000 serial publications etc. | ① | J | A | O | Worldwide |
| | JTB Hotel Information | Directory of domestic hotels and lodges | ③ | J | A | O | |
| | JTB Travel Box Overseas Version | Provides tourist information for overseas tours | ③ | J | A | O | |
| | Kagaku Kogyo Nippo Database | Articles from 'Kagaku Kogyo Nippo' the leading newspaper for chemical industry | ② | J | A | O | |
| | Kensetsu Tsusin Shimbun Database | Collection of the articles of Kensetsu Tsushin Shimbun | ③ | J | A | O | |
| | Kroll Travel Watch™ | Provides the information of the traffic, establishments and public peace of 250 cities in the world | ③ | J | A | O | |
| | Kyodo News Agency World Yearbook | Electronic version of World Yearbook published by Kyodo News Agency | ③ | J | A | O | |
| | Law Database | Full-text of current laws held by the General Affairs Agency | ② | J | A | O | |
| | Library on Questionnaire to Consumers | Provides reports of Questionnaire to Consumers | ② | J | A | O | |
| | Listed and Over-the-counter companies by Toyo Keizai | Detailed information on the listed, over-the-counter, and foreign affiliated companies in Japan | ② | J | A | O | |
| | MAGAZINE | Provides the outlines of the articles in newspapers and magazines of economic, industrial and business fields | ③ | J | A | O | |
| | MAINICHI ONLINE DATABASE | Collection of articles from 'MAINICHI DAILY NEWS' | ③ | E | A | O | |
| | MAINICHI Shimbun DATABASE | Collection of articles from 'MAINICHI Shimbun' | ③ | J | A | O | |
| | Mainichi Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Mainichi Shimbun Database' | ③ | J | A | O | |
| | Market Search on Company Trends | Reference to the marketing research information on companies | ② | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | Market Search on Consumer Trends | Reference to the marketing research information based on questionnaire to consumers | ② | J | A | O | Worldwide |
| | Market Search on Products and Industries | Reference to the marketing research information on all industries and their products in Japan | ② | J | A | O | |
| | Market Search Reference Directory | Reference to the marketing research reports and articles | ② | J | A | O | |
| | Market Search Reference to trade papers and magazines | Provides references to trade papers and magazines concerning to the marketing research | ② | J | A | O | |
| | Monthly Outdoor Campsite Information | The information of about 1800 campsites in Japan provided by Yama to Keikoku-sha | ③ | J | A | O | |
| | Music CD Catalog | Bibliographic and price information with critics for music CD | ③ | J | A | O | |
| | NATIONAL TOURIST INFORMATION DATABASE | Information on sight-seeing, such as depth of snow, events, availability of parking lots and hotels, and coupons of ski-ground, presented by cities, towns and villages in Japan | ③ | J | A | O | |
| | NEW BUSINESS INDUSTRY REPORT | Research report of remarkable industries' trends and issues including description, structure, and profitability information | ② | J | A | O | |
| | Nihon Kogyo Shimbun Database | Collection of articles from 'Nihon Kogyo Shimbun' | ③ | J | A | O | |
| | Nihon Nogyo Shimbun Database | Collection of articles from 'Nihon Nogyo Shimbun' | ③ | J | A | O | |
| | Nihon Shokuryo Shimbun Database | Articles from 'Shokuryo Shimbun' the leading newspaper for food industry | ② | J | A | O | |
| | Nikkan Kogyo Shimbun Database | Collection of articles on new products and technology from 'Nikkan Kogyo Shimbun' | ③ | J | A | O | |
| | NIKKAN SPORTS | Collection of articles from 'Nikkan Sports' newspaper | ③ | J | A | O | |
| | Nikkan Sports Bulletin | The information of professional baseball games, entertainment, etc. provided by Nikkan Sports Data Supply | ③ | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | Nikkan Sports Celebrities Information | The collection of the profiles of athletes, artists, celebrities in various fields | ③ | J | A | O | Worldwide |
| | NIKKEI Shimbun Database | Collection of articles from 'Nikkei Shimbun', 'Nikkei Sangyo', 'Nikkei Chutsu', and 'Nikkei Kinyu Shimbun'. Collection of titles from 'Science' and 'Nikkei Business' | ③ | J | A | O | |
| | Nikken | Collection of articles from 'Nikken' | ③ | J | A | O | |
| | PHARMA JAPAN | Collection of articles from 'PHARMA JAPAN' for overseas' medical and medicine business men. It includes full texts | ② | J/E | A | O | |
| | Pharmaceutical Company Information | Detailed company profiles of pharmaceutical manufacturers and wholesalers | ② | J | A | O | |
| | PRIZE | The introduction of 2,144 prizes in Japan and The winners' name of the prizes | ③ | J | A | O | |
| | Q&A on Taxation and Corporation Law Database | Basic information on taxation in Q and A style with letters of Tax Law and Corporation Law | ② | J | A | O | |
| | Sankei Shimbun Database | Articles from 'Sankei Shimbun' | ② | J | A | O | |
| | Sankei Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Sankei Shimbun Database' | ③ | J | A | O | |
| | SKI INFORMATION DATABASE | Information of snow-status and hotel reservation status of 300 ski-playing sports in Japan | ③ | J | A | O | |
| | Sports Nippon Database | Collection of the articles of Sports Nippon | ③ | J | A | O | |
| | Taxation Business Judgement Database (Summary) | Collection of summary on Taxation Business Judgment since 1948 | ② | J | A | O | |
| | TEIKOKU DATABANK: JAPANESE COMPANIES | Business information of 210,000 Japanese companies | ② | E | A | O | |
| | The Brain Map Guide to the Specialists | The profiles of the specialists in various fields according to JMA ACE Research Instituted Inc.'s research | ③ | J | A | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| Fijitsu Ltd. | THE DAILY YOMIURI DATABASE | Collection of article from 'THE DAILY YOMIURI' published by the Yomiuri Shimbun. It includes full texts | ③ | E | A | O | Worldwide |
| | Title of Weekly and Monthly Magazine | Title information of 35 popular magazine | ③ | J | A | O | |
| | TITLE SEARCH | Title information of articles from 1,000 magazines on technology | ③ | J | A | O | |
| | TKC Law Information Database | Full-text of civil and administrative cases and related information | ② | J | A | O | |
| | Tokyo Shimbun Database | Collection of articles from 'Tokyo Shimbun' | ③ | J | A | O | |
| | Trial for the Database of Newspapers | Provides the Samples of the database of the newspapers (Mainichi, Yomiuri, Sankei) for free | ③ | J | A | O | |
| | VIDEO & LD CATALOG DATABASE | Collection of software of visual laser-disc. | ③ | J | A | O | |
| | Video & LD Flash | Prompt reports on forthcoming video & LD | ③ | J | A | O | |
| | Weekly Toyo Keizai Database | Collection of articles from 'Weekly Toyo Keizai' | ③ | J | A | O | |
| | WHO | Contains the profile, books, essays interviews of celebrities who appear in newspapers, magazines and books | ③ | J | A | O | |
| | Yomiuri Shimbun Database | Collection of articles from 'Yomiuri Shimbun' and 'Yomiuri Katei Shimbun' | ③ | J | A | O | |
| | Yomiuri Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Yomiuri Shimbun Database' | ③ | J | A | O | |
| GREEN NET CO., LTD. | G•Net | Japanese patent data stored | ① | J | D | O | Worldwide |
| G-Search Ltd. (GHS) | ADMINISTRATIVE REFORM COMMITTEE'S BULLETIN | Prompt reports of Administrative Reform Council's discussion and announcement. The Council started at Dec.19, 1994 | ③ | J | D | O | Worldwide |
| | AERA | Collection of articles from weekly magazine 'AERA' | ③ | J | D | O | |
| | ASAHI ONLINE DATABASE | Collection of articles in English from 'Asahi Evening News' and English version of 'Asahi News Services' | ③ | E | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | Asahi Shimbun Database | Contains the full text of 'Asahi Shimbun' | ③ | J | D | O | Worldwide |
| | BOOK/MONTHLY | Provides the information of the new books available in Japan | ③ | J | D | O | |
| | BOOKPLUS | Contains the title, outline, author, publisher and price of the books published in Japan | ③ | J | D | O | |
| | Bulletin of Administrative Reform Committee's Minutes | Provides the outline of bulletin of Administrative Reform Committee's Minutes | ③ | J | D | O | |
| | Catalog of Journals and Newspapers | Catalog of domestic Journals, newspapers, and newsletters with their circulation, price, description and codes | ③ | J | D | O | |
| | CD New Score Information | Information on newly published and forth-coming CD titles | ③ | J | D | O | |
| | Chunich Shimbun Database | Collection of the articles of Chunich Shimbun | ③ | J | D | O | |
| | Company Information by Teikoku Databank | Profiles of more than 1,080,000 companies in Japan | ② | J | D | O | |
| | Company Information by Tokyo Shoko Research | Profiles with performance information for current three years of more than 720,000 companies in Japan | ② | J | D | O | |
| | Company Information Retrieval Service | Cross-file retrieval system from several databases of newspapers and company profiles | ② | J | D | O | |
| | Computer Terms Dictionary | Contains the computer terms (in Japanese and English) and their meanings | ③ | J | D | O | |
| | Cross-File Retrieval of Company Information | Cross-file retrieval system from eight company databases | ② | J | D | O | |
| | Cross-File Retrieval of National Newspapers | Cross-File retrieval system from three database. Provides articles in the last two years | ③ | J | D | O | |
| | Database of Directories | Bibliographic information and general description on directories published in Japan | ② | J | D | O | |
| | Decentralization Promotion Committee's Bulletin | Prompt reports of Decentralization Promotion Committee's discussion and announcement | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | DIAMOND Personnel Directory of Companies | Personnel directory of major companies in Japan with personnel changes and corporate structure | ② | J | D | O | Worldwide |
| | DNN INFORMATION INDUSTRY TODAY | Collection of articles from "DAILY NETWORK NEWS" and by-weekly "IBM WATCHING" published by Network News Co., Ltd. | ③ | J | D | O | |
| | ECONOMIST | Electronic version of 'Economist' Journal, full-text | ③ | J | D | O | |
| | Executives' Personal Profile by Tokyo Shoko Research | Biographical information with address of executives of more than 500,000 companies in Japan | ② | J | D | O | |
| | Extraordinary Administrative Research Council and the Administrative Reform Council Report | Reports and suggestions from Extraordinary Administrative Research Council and the Administrative Reform Council | ③ | J | D | O | |
| | Financial Information by Teikoku Databank | Financial records of companies in Japan | ② | J | D | O | |
| | Financial Information by Tokyo Shoko Research | Financial records of companies in Japan | ② | J | D | O | |
| | Gendai Yogo no Kiso Chishiki(Basic Knowledge of Modern Terminology) | Electronic version of the 'Gendai Yogo no Kiso Chishiki(Basic Knowledge of Modern Terminology)' published by Jiyu Kokuminsha | ③ | J | D | O | |
| | Historical WHO Foreign | Contains the profile of about 32,000 famous people in the world history | ③ | J | D | O | |
| | Historical WHO Japan | Contains the profile of 60,000 famous people in Japanese history | ③ | J | D | O | |
| | Hot Springs in Japan | The information of about 1,400 hot springs and inns in Japan provided by Yama to Keikoku-sha | ③ | J | D | O | |
| | IBJ-NIKKO Information System's Database/ Japanese Notable Industries | Provides the information of the Japanese notable industries the IBJ-NIKKO Information System possesses | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | IBJ-NIKKO INFORMATION SYSTEMS' DATABASE-JAPAN ECONOMICS | Major macro-economic statistical data announced by government, administrative agencies or private organizations | ② | J | D | O | Worldwide |
| | IBJ-NIKKO INFORMATION SYSTEMS' DATABASE-JAPAN INDUSTRIES | Monthly data of foreign trade and domestic trade. Data elements such as production, inventory, shipment, import, export. The data conveyed all 39 types of Japanese industry | ② | J | D | O | |
| | Index of the magazines in National Diet Library | Provides the information of the bibliography of magazines the National Diet Library possesses | ③ | J | D | O | |
| | Industrial News | News releases from companies, government bodies, and related organizations | ② | J | D | O | |
| | Information Industry Hotline | Flash reports of 'The Daily Network News' | ③ | J | D | O | |
| | Information of Bankrupt Companies by Teikoku Databank | Prompt reports of bankrupt companies | ② | J | D | O | |
| | INFORMATION OF BANKRUPT COMPANIES BY Tokyo Shoko Research | Prompt reports of bankrupt companies | ② | J | D | O | |
| | JAFIC | Contains abstracts and references to articles on food industry | ① | J | D | O | |
| | JCATALOG | Provides catalog of serial publications, technical reports and conference related materials published in over 50 countries | ① | J | D | O | |
| | JCLEARING | Provides information of research on science and technology intended or in progress | ① | J | D | O | |
| | JETRO ACE | Collection of reports and statistics from 80 overseas offices of JETRO | ② | J | D | O | |
| | JICST(Time Span: from 1981 to present) | Contains references of the literature on science and technology from serial publications, technical reports etc. published in over 50 countries. Includes abstracts | ① | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | JICST75-80 (Time Span: from 1975 to 1980) | Contains references of the literature on science and technology from serial publications, technical reports etc. published in over 50 countries. Includes abstracts | ① | J | D | O | Worldwide |
| | JICST-E | Provides abstracts and references to articles on science and technology, medical science in Japan, described in English | ① | E | D | O | |
| | JMEDICINE | Provides abstracts and references to medical articles in Japan | ① | J | D | O | |
| | JQUICK | Contains references of the current literature on science and technology from 10,000 serial publications etc. | ① | J | D | O | |
| | JTB Hotel Information | Directory of domestic hotels and lodges | ③ | J | D | O | |
| | JTB Travel Box Overseas Version | Provides tourist information for overseas tours | ③ | J | D | O | |
| | Kagaku Kogyo Nippo Database | Articles from 'Kagaku Kogyo Nippo' the leading newspaper for chemical industry | ② | J | D | O | |
| | Kensetsu Tsusin Shimibun Database | Collection of the articles of Kensetsu Tsushin Shimibun | ③ | J | D | O | |
| | Kroll Travel Watch™ | Provides the information of the traffic, establishments and public peace of 250 cities in the world | ③ | J | D | O | |
| | Kyodo News Agency World Yearbook | Electronic version of World Yearbook published by Kyodo News Agency | ③ | J | D | O | |
| | Law Database | Full-text of current laws held by the General Affairs Agency | ② | J | D | O | |
| | Library on Questionnaire to Consumers | Provides reports of Questionnaire to Consumers | ② | J | D | O | |
| | Listed and Over-the-counter companies by Toyo Keizai | Detailed information on the listed, over-the-counter, and foreign affiliated companies in Japan | ② | J | D | O | |
| | MAGAZINE | Provides the outlines of the articles in newspapers and magazines of economic, industrial and business fields | ③ | J | D | O | |
| | MAINICHI ONLINE DATABASE | Collection of articles from 'MAINICHI DAILY NEWS' | ③ | E | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | MAINICHI Shimbun DATABASE | Collection of articles from 'MAINICHI Shimbun' | ③ | J | D | O | Worldwide |
| | Mainichi Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Mainichi Shimbun Database' | ③ | J | D | O | |
| | Market Search on Company Trends | Reference to the marketing research information on companies | ② | J | D | O | |
| | Market Search on Consumer Trends | Reference to the marketing research information based on questionnaire to consumers | ② | J | D | O | |
| | Market Search on Products and Industries | Reference to the marketing research information on all industries and their products in Japan | ② | J | D | O | |
| | Market Search Reference Directory | Reference to the marketing research reports and articles | ② | J | D | O | |
| | Market Search Reference to trade papers and magazines | Provides references to trade papers and magazines concerning to the marketing research. | ② | J | D | O | |
| | Monthly Outdoor Campsite Information | The information of about 1800 campsites in Japan provided by Yama to Keikoku-sha | ③ | J | D | O | |
| | Music CD Catalog | Bibliographic and price information with critics for music CD | ③ | J | D | O | |
| | NATIONAL TOURIST INFORMATION DATABASE | Information on sight-seeing, such as depth of snow, events, availability of parking lots and hotels, and coupons of ski-ground, presented by cities, towns and villages in Japan | ③ | J | D | O | |
| | NEW BUSINESS INDUSTRY REPORT | Research report of remarkable industries' trends and issues including description, structure, and profitability information | ② | J | D | O | |
| | Nihon Kogyo Shimbun Database | Collection of articles from 'Nihon Kogyo Shimbun' | ③ | J | D | O | |
| | Nihon Nogyo Shimbun Database | Collection of articles from 'Nihon Nogyo Shimbun' | ③ | J | D | O | |
| | Nihon Shokuryo Shimbun Database | Articles from 'Shokuryo Shimbun' the leading newspaper for food industry | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|---------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | Nikkan Kogyo Shimbun Database | Collection of articles on new products and technology from 'Nikkan Kogyo Shimbun' | ③ | J | D | O | Worldwide |
| | NIKKAN SPORTS | Collection of articles from 'Nikkan Sports' newspaper | ③ | J | D | O | |
| | Nikkan Sports Bulletin | The information of professional baseball games, entertainment, etc. provided by Nikkan Sports Data Supply | ③ | J | D | O | |
| | Nikkan Sports Celebrities information | The collection of the profiles of athletes, artists, celebrities in various fields | ③ | J | D | O | |
| | NIKKEI Shimbun Database | Collection of articles from 'Nikkei Shimbun', 'Nikkei Sangyo', 'Nikkei Chutsu', and 'Nikkei Kinyu Shimbun'. Collection of titles from 'Science' and 'Nikkei Business' | ③ | J | D | O | |
| | Nikken | Collection of articles from 'Nikken' | ③ | J | D | O | |
| | PHARMA JAPAN | Collection of articles from 'PHARMA JAPAN' for overseas' medical and medicine business men. It includes full texts | ② | J/E | D | O | |
| | Pharmaceutical Company Information | Detailed company profiles of pharmaceutical manufacturers and wholesalers | ② | J | D | O | |
| | PRIZE | The introduction of 2,144 prizes in Japan and The winners' name of the prizes | ③ | J | D | O | |
| | Q&A on Taxation and Corporation Law Database | Basic information on taxation in Q and A style with letters of Tax Law and Corporation Law | ② | J | D | O | |
| | Sankei Shimbun Database | Articles from 'Sankei Shimbun' | ② | J | D | O | |
| | Sankei Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Sankei Shimbun Database' | ③ | J | D | O | |
| | SKI INFORMATION DATABASE | Information of snow-status and hotel reservation status of 300 ski-playing sports in Japan | ③ | J | D | O | |
| | Sports Nippon Database | Collection of the articles of Sports Nippon | ③ | J | D | O | |
| | Taxation Business Judgement Database (Summary) | Collection of summary on Taxation Business Judgment since 1948 | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| G-Search Ltd. (GHS) | TEIKOKU DATABANK: JAPANESE COMPANIES | Business information of 210,000 Japanese companies | ② | E | D | O | Worldwide |
| | The Brain Map Guide to the Specialists | The profiles of the specialists in various fields according to JMA ACE Research Instituted Inc.'s research | ③ | J | D | O | |
| | THE DAILY YOMIURI DATABASE | Collection of article from 'THE DAILY YOMIURI' published by the Yomiuri Shimbun. It includes full texts | ③ | E | D | O | |
| | Title of Weekly and Monthly Magazine | Title information of 35 popular magazine | ③ | J | D | O | |
| | TITLE SEARCH | Title information of articles from 1,000 magazines on technology | ③ | J | D | O | |
| | TKC Law Information Database | Full-text of civil and administrative cases and related information | ② | J | D | O | |
| | Tokyo Shimbun Database | Collection of articles from 'Tokyo Shimbun' | ③ | J | D | O | |
| | Trial for the Database of Newspapers | Provides the Samples of the database of the newspapers (Mainichi, Yomiuri, Sankei) for free | ③ | J | D | O | |
| | VIDEO & LD CATALOG DATABASE | Collection of software of visual laser-disc. | ③ | J | D | O | |
| | Video & LD Flash | Prompt reports on forthcoming video & LD | ③ | J | D | O | |
| | Weekly Toyo Keizai Database | Collection of articles from 'Weekly Toyo Keizai' | ③ | J | D | O | |
| | WHO | Contains the profile, books, essays interviews of celebrities who appear in newspapers, magazines and books | ③ | J | D | O | |
| | Yomiuri Shimbun Database | Collection of articles from 'Yomiuri Shimbun' and 'Yomiuri Katei Shimbun' | ③ | J | D | O | |
| | Yomiuri Shimbun Database Personal Use Edition | Collection of articles in the last two years from 'Yomiuri Shimbun Database' | ③ | J | D | O | |
| Information Services International Dentsu, Ltd.(ISID) | JSD | Real-time stock price information on Tokyo and Osaka Stock Exchanges, provided by Jiji Press, Ltd | ② | J | D | O | |
| Japan Association for International Chemical Information(JAICI) | QCLDB | Bibliographic database of ab initio quantum chemistry | ① | E | D | M/C | U.S.A.,Europe |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|--------------------------------------------|
| Japan Patent Information Organization(Japio) | INPADOC | Published bibliographic data on patents and utility models of 62 countries and 4 international organizations from 1969. (Remark : Each accumulation period depends on the originating countries and organizations.) | ① | E/O | D | O | Korea, Taiwan, Germany, France, and others |
| Japan Science and Technology Corporation, Information Center for Science and Technology(JICST)/JOIS | NK-MEDIA (Nikkan Kogyo Shimbun Articles) | Bibliographic information with abstracts of articles related to new products and new technology with related company trends | ② | J | D | O | U.S.A., U.K., Germany, Korea |
| NEC Corporation(NEC) | C&C-VAN DATABASE | Information on companies, economy, and international trade | ②/③ | J | D | O | U.S.A., U.K., and others |
| | DIALINE | Information on books published in Japan and others | ②/③ | J | D | O | |
| NEC Corporation(NEC) | ELISNET | Information on electronic devices including semi-conductor devices | ① | J | D | O | U.S.A., U.K., and others |
| | JOIS | Information of science and technology | ②/③ | J | D | O | |
| | NICHIGAI ASSIST | Information on biographies, books, and journals | ③ | J | D | O | |
| | NIKKEI TELECOM BIZ | Articles from newspapers, company information, and other general textual information, with downloading capability | ②/③ | J | D | O | |
| Nichigai Associates, Inc. (Nichigai) | Zasshi Kiji Sakuin | Index to more than 15 million articles, since 1985, over 5,000 journals in Japan collected by National Diet Library | ②/③ | J | D | O | Worldwide |
| NIFTY Corporation | (*teresahfin*) | TV program information | ③ | J | D | O | Worldwide |
| | '60s CARNIVAL. | About 900 types of car are introduced by the photograph, the explanation, and the spec among car produced between 60 years and 69 years. | ③ | J | D | O | |
| | Account Interest Information | Information of the rate of Interest | ② | J | D | O | |
| | Administrative information synthesis offer service | The outline of proceedings in "Administrative reformation conference" is offered by the news flash at the time of each holding of the conference. | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Administrative reformation committee discussion outline news flash | The outline of the discussion of the administrative reformation committee is offered by the news flash. | ② | J | D | O | Worldwide |
| | Administrative reformation conference proceedings outline news flash | Outline of material announced by each ministry public government office and information on summary and diagram, etc. | ② | J | D | O | |
| | AERA Database | Collection of all the articles from weekly magazine 'AERA' published by Asahi Shimbun | ③ | J | D | O | |
| | AIDS Info | Information of AIDS | ③ | J | D | O | |
| | AIP China Xinhua News Agency news Japanese version | Only the article on the category with a high concern degree is elected, and the information service in needs is achieved. | ③ | E | D | O | |
| | All Japan Campsite Database | Nationwide campground data base | ③ | J | D | O | |
| | All JAPAN HOSPITAL INFO | Information of hospitals in Japan | ③ | J | D | O | |
| | All Japan Sight-seeing Database | Over 120,000 data of sight-seeing info | ③ | J | D | O | |
| | ALL JAPAN TOWN GOURMET GUIDE | Information of restaurants in Japan | ③ | J | D | O | |
| | American Business Directory. | Directory information on profession | ② | E | D | O | |
| | American Computer Semiconductor Info | Articles of America Computer semiconductor in Japanese High technology information in Japanese | ① | J | D | O | |
| | American Daily Journal | Daily Journal of America | ③ | J | D | O | |
| | American Newspaper & Magazine's Article Information | Americans' Main Magazines & Newspapers' article information | ③ | E | D | O | |
| | American Weekly Journal | Weekly Journal of America | ③ | J | D | O | |
| | Architecture article Database | New Article Database "Architecture News" | ③ | J | D | O | |
| | Architecture CAD | Software information from the book "Architecture CAD" | ① | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Architecture Dictionary | Electrolyzed version of the book "1997 Architecture Dictionary" | ① | J | D | O | Worldwide |
| | Architecture Laws & Ordinances Info | Information of Architecture Laws | ① | J | D | O | |
| | Articles Information Guide | Electrolyzed version of the book "Architecture Info Guide 95-96" | ① | J | D | O | |
| | Articles Magazine Index | Electrolyzed version of the book "Architecture Magazine Index" | ① | J | D | O | |
| | Artist's name in the world Information | Personal Information in Art field | ③ | J | D | O | |
| | Asahi News Service | English Version of articles from 'Asahi Shimbun' | ③ | J | D | O | |
| | Asahi online database | Information of "Asahi Evening News" in English | ③ | J | D | O | |
| | Asahi Shimbun Database | Collection of articles from 'Asahi Shimbun' | ③ | J | D | O | |
| | Asahi Shimbun Newslash | Newslash from 'Asahi Shimbun' | ③ | J | D | O | |
| | asahi.com perfect. | Service of back number in morning paper of three months in news flash, newspaper article data base, and the past | ③ | E | D | O | |
| | Asia Business Information | Business Information in Asia | ② | J | D | O | |
| | ATIS traffic information | Traffic information is displayed on a general road and the expressway of a simple figure. | ③ | J | D | O | |
| | Bank of Japan information | Various statistics and material of making public of Bank of Japan and finance and the economic conditions etc. of Japan are started and various monetary economy information is offered. | ② | J | D | O | |
| | BCN Computer News | Articles of "Syukan BUSINESS COMPUTER NEWS" | ① | J | D | O | |
| | Best Ten Toys of the Week | Sales data of toys in the week | ② | J | D | O | |
| | Betting-ticket emperor study of rapids name sincerity | Information on forecast and result of horse racing | ③ | J | D | O | |
| | biba laughing theater of KAMIGATA | Laughter information on Kansai | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Biosis Previews | Information of BIO | ① | E | D | O | Worldwide |
| | Blood Line and Racing Prediction of Racing Horses | Prediction of race results just before the high prize horse races held on Saturday and Sunday | ③ | J | D | O | |
| | Book in Print | Information of books in USA | ③ | E | D | O | |
| | Book Street | Information on new books, best-sellers and lectures | ③ | J | D | O | |
| | Book/Monthly | Monthly revision of new information from 'Book' | ③ | J | D | O | |
| | BrainMap Expert talent guide | Information on expert collected to this name book | ③ | J | D | O | |
| | Building Materials Maker Info | Database of "Building Materials Maker'97" | ① | J | D | O | |
| | Business Information Guide | Directory of business related organizations | ③ | J | D | O | |
| | Business Letter Examples | Collection of Japanese related organizations | ③ | J | D | O | |
| | Business of communication hot line | Online of technical paper(magazine) of business of communication industry which network news company issues news flash version | ③ | J | D | O | |
| | Business Survey Guide | The guide of Business Survey | ② | J | D | O | |
| | Business Wire. | About 242,000 news release or more by which the enterprise in the one United States and other organizations made from now on and 11,000 or more in 1986 public is collected by all sentences. | ② | J | D | O | |
| | CA Search | Information of chemical | ① | E | D | O | |
| | CCML | Comprehensive Core Medical Library | ① | J | D | O | |
| | CD New Score Information | Information on newly published and forth-coming CD titles | ③ | J | D | O | |
| | CD-ROM CATALOG | Title Information of CD-ROM | ③ | J | D | O | |
| | Central ministry personnel information | Profile information on officers such as central ministry, public corporation, business groups, and special banks | ② | J | D | O | |
| | Ceremonial Precedents | Ceremonial manners and precedents on marriage, funeral, and ancestral worship | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Chamber of commerce and industry info | Information of conducting license test by Chamber of commerce and industry | ③ | E | D | O | Worldwide |
| | China Trend Report | Report of China's Trend | ② | J | D | O | |
| | CHINTAI room information | The real estate rental article is offered according to the popularity place along railway-tracks. | ③ | J | D | O | |
| | Chunichi news article service | News from "Chunichi News" | ③ | J | D | O | |
| | Chunichi Shimbun Chubu District News | Collection of local articles from 'Chunichi Shimbun Chubu(Central Japan) version | ③ | J | D | O | |
| | Chunichi Shimbun Headline News | Summary of newflash from 'Chunichi Shimbun' | ③ | J | D | O | |
| | Chunichi Shimbun News Summary | Summary of selected articles from 'Chunichi Shimbun' morning edition | ③ | J | D | O | |
| | Chunichi Shimbun Tokai-Hokuriku Financial Information | Financial information on nine prefectures in Tokai-Hokuriku region from 'Chunichi Shimbun' | ② | J | D | O | |
| | Common club raising horse mixing diagnosis | The brief comment of the blood table and the mixing diagnosis is sent. | ③ | J | D | O | |
| | Company Tax | Useful Information about the tax of the Company | ③ | J | D | O | |
| | Compendex | Information of engineering | ① | E | D | O | |
| | Computer Database Fulltext. | All article sentences after 1988 of a typical magazine related to the computer and journals are collected. | ① | E | D | O | |
| | Computer Word Dictionary | Dictionary about Computer Words | ① | J | D | O | |
| | Computer World PC-today | Article of "COMPUTER WORLD PC TODAY" | ① | J | D | O | |
| | COMPUTER-WORLD NET-TODAY | Collection of articles from 'COMPUTERWORLD NET-TODAY' | ① | J | D | O | |
| | Condolence Info | Condolence information appeared in "MAINICHI NEWS" | ③ | J | D | O | |
| | Construction administration information | Administrative information related to Ministry of Construction is offered widely and fast. | ② | J | D | O | |
| | Cooking information | Data base which introduces ("reshipi") of cooking | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Copyright judicial precedent collection | An important judicial precedent which becomes a standard in thinking about the copyright problem is collected. | ① | J | D | O | Worldwide |
| | COSMOS2 | Financial and descriptive data on Japanese companies from Teikoku Databank | ② | J | D | O | |
| | Countries of the world Information | Characteristic of countries of the world | ③ | J | D | O | |
| | Current Index to Journal Articles | Index to current articles of newly published journals, categorized into various fields | ③ | J | D | O | |
| | D & B Business Report | Over 1,000 million report of Company Outline | ② | E | D | O | |
| | D & B Canadian Dun's Market Identifiers | Canadian Company Directory information | ② | E | D | O | |
| | D & B Dun's Electronic Business Directory | Over 850 million directory of Electronic Business | ② | E | D | O | |
| | D & B Dun's Market Identifiers | Over 670 million of stock release Co Info | ② | E | D | O | |
| | D & B European Dun's Market Identifiers | Directory information of European Company | ② | E | D | O | |
| | D & B International Dun's Market Identifiers | Company Outline of the world | ② | E | D | O | |
| | D&B country risk ranking information | It is e-mail and notice assignment as for a country risk ranking and the latest trend. | ② | E | D | O | |
| | D&B U.S. firm financial affairs information | The address directory of official organization and the private sector in the United States etc. are prepared. | ② | J | D | O | |
| | Daily mail of every day | E-mail and the report of internet information. | ① | J | D | O | |
| | Data Communications. | All sentence collection of article on Data Communications | ① | E | D | O | |
| | Data of Company's Campaign | Information of Company's Campaign | ② | J | D | O | |
| | Data of Young People Sense Survey | Result of questionnaires | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Database of Directories | Bibliographic information and general description of directories published in Japan | ③ | J | D | O | Worldwide |
| | Defense Agency | Defense policy of Japan, "Defense Agency news", "Main maintenance information", and "Event information", etc. are offered. | ② | J | D | O | |
| | Dentistry dictionary | All explanation dental disease | ① | J | D | O | |
| | DERWENT WORLD PATENTS INDEX. | The patent documentary information and information on the invention are collected. | ③ | E | D | O | |
| | Dial Q2 Program Guide | Description of programs offered from Dial Q2 | ③ | J | D | O | |
| | DIAMOND Personnel Directory of Companies | Electronic version of the 'Directory of Personnel in Japanese Companies' published by Diamond Press | ③ | J | D | O | |
| | Digital CINEMA information | Information service of movie work of topic open to the public soon while opening to the public | ③ | J | D | O | |
| | Directory of Discount Stores | Directory of 1,080 discount stores | ③ | J | D | O | |
| | Disclosure Database | Over 12,000 of stock company info | ② | E | D | O | |
| | DNN business of communication TODAY | Data base in full text of daily paper "DAILY NETWORK NEWS" and biweekly paper "IBM WATCHING" | ② | J | D | O | |
| | Domestic Concert information | Information on concerts held all over Japan by area and genre | ③ | J | D | O | |
| | Domestic Patent Database "ATMS" | Patent office information | ① | J | D | O | |
| | Dow Jones News | Information of newspaper and magazines by Dow Jones News | ③ | J | D | O | |
| | EAS CARD INFO | Information of Life and Economics | ② | J | D | O | |
| | Economic Trends | Macro economic information including economic trends for world and Japan | ② | J | D | O | |
| | Economic Trends Reports of Small Business | Electronic version of 'Chusho Kigyo(Small Business) Business Radar' | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | ECONOMIST | Electronic version of 'Economist' Journal published by Mainichi Shimbun | ② | J | D | O | Worldwide |
| | Educational News from Mainichi Shimbun | Articles on education and entrance examinations from 'Mainichi Shimbun' | ③ | J | D | O | |
| | Ehime news article service | News from "Ehime News" | ③ | J | D | O | |
| | ELISNET (Technical Information on SemiConductors) | Technical information on semi-conductor devices | ① | J | D | O | |
| | ELNET head line service | The article which corresponds to the theme is extracted, and headline information is offered from among the newspaper and the magazine article. | ③ | J | D | O | |
| | ELNET Newswatch from 28 Newspapers | Headline News of Selected articles from 28 Newspapers | ③ | J | D | O | |
| | ELNET sports news index | Information of sports news head line | ③ | J | D | O | |
| | Embase | Database of biomedicine journal | ③ | E | D | O | |
| | Employment Information of Japanese Companies | Employment trends of companies in Japan | ② | J | D | O | |
| | ENCYCLOPEDIA My Pedia | "ENCYCLOPEDIA MY PEDIA" Database | ③ | J | D | O | |
| | English Letter & E-Mail Example | Example of English Letter & E-mail | ③ | J | D | O | |
| | English News Release | Collection of news release in English | ③ | E | D | O | |
| | English of JTB one walking | Useful English conversation example of each situation for traveling abroad is collected. | ③ | J | D | O | |
| | EU ENTERTAINMENT INFORMATION | Information of Entertainment place in Europe | ③ | J | D | O | |
| | Extraordinary Administrative Research Council and the Administrative Reform Council Report | Reports and suggestions from Extraordinary Administrative Research Council and the Administrative Reform Council | ② | J | D | O | |
| | FAIRS AND EVENTS | Newsflash on fairs and events held in Japan | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | FAX data utility guide | Online, latest offer version of "FAX service Yellow Page information FAX telephone notebook" | ③ | J | D | O | Worldwide |
| | Finding Books | New Book Information | ③ | J | D | O | |
| | Flower Market Information | Price information on flowers at Tokyo Ohta Flower Market | ② | J | D | O | |
| | FREE MARKET INFO | Information of Freemarket | ③ | J | D | O | |
| | Fuji-TV "Baseball News" | Online-Edition of "Baseball News" by Fuji Television | ③ | J | D | O | |
| | Fuji-TV "Super Keiba" | Horse race information from Fuji-TV "Super Keiba" | ③ | J | D | O | |
| | Fukuoka Pref. police information | Management and report of information etc. of guide and traffic of the police event and various procedures | ② | J | D | O | |
| | Fukushima Pref. police information | Management and report of information etc. of guide and traffic of the police event and various procedures | ② | J | D | O | |
| | Gendai Yogo no Kiso Chishiki (Knowledge of Modern Terminology) | Electronic version of the 'Gendai Yogo no Kiso Chishiki(Knowledge of Modern Terminology)' published by Jiyu Kokuminsha | ③ | J | D | O | |
| | Global Search of Article | Reference service of newspapers | ③ | J | D | O | |
| | Guide in nationwide play facilities | Amusement spot in about 300 nationwide facilities such as theme park, amusement park, aquariums, and zoos | ③ | J | D | O | |
| | Guide of Marketing Research | The Guide of Marketing Research | ② | J | D | O | |
| | Guide to CD Titles | Articles from monthly 'CD Journal' | ③ | J | D | O | |
| | Guide to Excellent Eating Places in Tokyo | Electronic version of 'Tokyo Oishiimise Guide(Tokyo Excellent Eating Places)' | ③ | J | D | O | |
| | Guide to High-Tech Training Courses | Information on training courses held by Kodo Gino Kaihatsu Center(High-technology Development Center) | ③ | J | D | O | |
| | Guide to PC Related Goods | Database of software and book information on PC | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Hajime Takano's Magazine Headline | Main news of major magazines | ③ | J | D | O | Worldwide |
| | Hanging information service "Kantou fishing ship information" | Ship hotel data around Kantou and latest fishing information | ③ | J | D | O | |
| | Harvard Business Review Online | All sentences in article after 1976 of Harvard Business Review paper | ② | J | D | O | |
| | Hint collections of classification by industry PL method measures | The question and the answer concerning the product liability system were brought together in each classification by industry comprehensible. | ② | J | D | O | |
| | HINT OF WINDOWS 95 | Hints for Windows 95 | ① | J | D | O | |
| | Hit commodity of Asia Information | From the report of Asia watcher information on invented various hit products from among life of every day | ② | J | D | O | |
| | Hit Product Information | Information on remarkable and well sold commodity | ②/③ | J | D | O | |
| | Hokkoku / Toyama news article service | News from "Hokkoku / Toyama News" | ③ | J | D | O | |
| | Hollywood Hotline | Cinema information of Hollywood | ③ | J | D | O | |
| | Home Town Information | Information on cities, towns, and villages all over Japan | ③ | J | D | O | |
| | HOMETOWN INFORMATION DATABASE | Information of Ishikawaken | ③ | J | D | O | |
| | Horse ability information | Horse ability information from technical paper | ③ | J | D | O | |
| | Horse Race Expectation by blood | Blood horse news by KEIBA news | ③ | J | D | O | |
| | Horse racing road On Line | Horse racing information service service sent to horse racing fan | ③ | J | D | O | |
| | HOSO Univ. | Curriculum of HOSO Univ. | ③ | J | D | O | |
| | Hotel Directory | Directory of member hotels of Japan Hotel Association | ③ | J | D | O | |
| | Hotel of the World | Information of hotel of the world | ③ | J | D | O | |
| | House of Law Information | Information on law related to daily life and on revision of law | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Housing Loan Corporation information | Finance information on the Housing Loan Corporation | ③ | J | D | O | Worldwide |
| | How necessary is money? | Online version of "now How necessary is money when saying?". | ③ | J | D | O | |
| | Human Network Guide | Guide of the Party of Study | ② | J | D | O | |
| | Hyogo Pref. information | Corner where various prefectural administration information is offered | ② | J | D | O | |
| | IJIME Problem INFO | Information about "Bullying Problem" | ③ | J | D | O | |
| | Imperial Data Bank enterprise director information | Enterprise director profile data base | ② | J | D | O | |
| | I-N Industrial Statistics | Production, shipment, stock data and trade information for all industries in Japan | ② | J | D | O | |
| | IN Principal Economic Index | Database of Economical Index | ② | J | D | O | |
| | IN Remark Trade Statistics Data | Remark Trade Statistics Data | ② | J | D | O | |
| | Industrial News | News-release from companies, governments, and related organizations | ② | J | D | O | |
| | In-flight Shopping Info | Information of goods which served in In-flight | ③ | J | D | O | |
| | Information of Tax Counseling | Problem of tax matters question and answer | ② | J | D | O | |
| | Information on Administration of the Ministry of Posts and Telecommunications | Information on the formation of policy by the Ministry of Posts and Telecommunications | ② | J | D | O | |
| | Information related to the Ministry of Science and Technology | Various administrative information announced by the Ministry of Science and Technology is offered online. | ② | J | D | O | |
| | INSPEC | Information of ELCTRN | ① | E | D | O | |
| | interesting information,It is possible to use at once. | Various, various text information is offered from hobby to the business according to the theme according to the genre. | ③ | J | D | O | |
| | Interim investigative committee and Gyokakushin report data base | The report and the opinion of interim investigative committee and Gyokakushin are collected. | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Internet watch | Electron newspaper about Internet | ① | J | D | O | Worldwide |
| | INTERNET'S TERM DICTIONARY | Terms Dictionary of Internet | ① | J | D | O | |
| | Introduction to C Language | Information on how to write programs in C-Language | ③ | J | D | O | |
| | InvesText (enterprise and industrial analysis report) | The inspection slip concerning industry is collected with the enterprise by the Wall Street, the United States various places done in two years recently, and an international securities firm and the investigation organizations, etc. | ② | J | D | O | |
| | It is a day in each braille. | Weekly braille newspaper | ③ | J | D | O | |
| | Iwate Pref. police information | Management and report of information etc. of guide and traffic of the police event and various procedures | ② | J | D | O | |
| | J league information | It is a report of J league official information. | ③ | J | D | O | |
| | JAPAN MARC | Catalog of books published in Japan, delivered to the National Diet Library | ③ | J | D | O | |
| | Japan Scholarship Info | Information of "Japan Scholarship" | ③ | J | D | O | |
| | Japan Trend Watch | Trend Information of all fields | ② | J | D | O | |
| | Japanese medical book publication society "Medicine book total table" | Data base in medicine and nursing study book | ① | J | D | O | |
| | Japanese Spa Information | DB of Japanese Spa | ③ | J | D | O | |
| | JETRO ACE | Collection of reports and other materials from overseas points of JETRO, provided with textual and numerical information | ② | J | D | O | |
| | JETRO-WINDS | Information for promotion of Japanese imports including trade fairs and after-service of imported goods | ② | J | D | O | |
| | JFA formal info | Official Soccer news from JFA | ③ | J | D | O | |
| | JIJI Newstflash | Newstflash from JIJI News | ③ | J | D | O | |
| | Jiji Tsushin sports news | Sports news from Jiji Tsushin | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------|--------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | JOIS Technology information from JICST | Technology information from JICST | ① | J | D | O | Worldwide |
| | JRA Horse Race Information | Horse Race information from JRA's related company | ③ | J | D | O | |
| | JTB Travel Box | Information of traveling foreign country by JTB | ③ | J | D | O | |
| | Judicial Precedents of Intellectual Property | Laws and judicial precedents related to intellectual property since 1975 | ② | J | D | O | |
| | Kagaku Kogyo Nippo Database | Articles from 'Kagaku Kogyo Nippo' the leading newspaper for chemical industry | ② | J | D | O | |
| | Kahoku Shinpo article service | News from "Kahoku Shinpo" | ③ | J | D | O | |
| | Kanji test guide | Guideline to "KANJI" Examination | ③ | J | D | O | |
| | Kensetsu Tsushin Shimbun News | News of "Kensetsu Tsushin" | ① | J | D | O | |
| | Kochi news article service | News from "Kochi News" | ③ | J | D | O | |
| | Korea News & Today | Online version of membership system information paper | ③ | J | D | O | |
| | Korea Report | The report of Korea | ③ | J | D | O | |
| | KROLL TRAVEL WATCH | Latest news of countries of the world | ③ | J | D | O | |
| | Kumamoto news article service | News from "KUMAMOTO NICHINICHI NEWS" | ③ | J | D | O | |
| | KYODO / Famous Paper News Article Database | All article of Kyodo Tsushinsha and Famous papers | ③ | J | D | O | |
| | KYODO 24Hours News | Real-time service of articles from KYODO News | ③ | J | D | O | |
| | Kyodo Economical Newsflash | Economical Newsflash of KYODO News | ② | J | D | O | |
| | Kyodo Financial and Economic Newsflash | Economic newsflash from Kyodo News Service | ② | J | D | O | |
| | Kyodo Financial Newsflash | Financial Newsflash of KYODO News | ② | J | D | O | |
| | Kyodo Flash News Database | Online newsflash from 'Kyodo News Service' | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | KYODO News flash | All article of Kyodo Tsushinsha | ③ | J | D | O | Worldwide |
| | Kyodo Newflash | Newsflash from 'Kyodo News Service' | ③ | J | D | O | |
| | Kyodo Worldwide Year book | Information of World's Trend and Politics | ③ | J | D | O | |
| | Law Database | Full-text of current laws held by the General Affairs Agency | ③ | J | D | O | |
| | L.C. Marc | Information of "Library of Congress" | ① | J | D | O | |
| | Library of Questionnaire on Living People | Digest version of 'Seikatsusha(Living People) Data' | ③ | J | D | O | |
| | Life Tax | Tax Information concerned our Life | ② | J | D | O | |
| | Living living information exchange service | The post office network is used, and the report of information which the local government sends. | ② | J | D | O | |
| | Localization promotion committee discussion outline news flash | The outline of the discussion is offered by the news flash. | ② | J | D | O | |
| | Macintosh WIRE | Daily e-mail magazine | ③ | J | D | O | |
| | Magazine Database Fulltext | All articles of popularity magazines in USA | ③ | E | D | O | |
| | MAGAZINE INFO | Information of magazines and treatise | ③ | J | D | O | |
| | Magill movie data base | Detailed information on movie open to the public after 1902 | ③ | J | D | O | |
| | MAIL-ORDER PC PRICE INFO | The Online Version of "Mail order PC Price Info" | ③ | J | D | O | |
| | MAINICHI "AUM Judgement" News | News of Judgement about "AUM" | ③ | J | D | O | |
| | MAINICHI "ZAURUS" Electric News | Electric News for SHARP'S "ZAURUS" | ③ | J | D | O | |
| | MAINICHI 150 words News | Newsflash by Mainichi Shimbunsha | ③ | J | D | O | |
| | MAINICHI Cinema Paradise | Topics about Movies | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Mainichi Company News Guide | Company's News Release of "MAINICHI NEWS" | ② | J | D | O | Worldwide |
| | MAINICHI Daily click | MAINICHI Daily click by Mainichi Shinbunsha | ③ | J | D | O | |
| | MAINICHI DAILY NEWS. | The one that the copyright of the space publishing articles belongs to the The Mainichi News paper company is offered. | ③ | J | D | O | |
| | MAINICHI drama guide | Theater guide of Mainichi News Paper | ③ | J | D | O | |
| | MAINICHI Internet Information | Information of Internet by Mainichi Shimbun | ① | J | D | O | |
| | Mainichi Music Box | Information about New Song | ③ | J | D | O | |
| | MAINICHI ONLINE DATABASE | The alphabet paper of the The Mainichi News paper company issue is made a data base. | ③ | J | D | O | |
| | Mainichi school children News | Articles of school life | ③ | J | D | O | |
| | Mainichi Shimbun Company News Release | News release from Japanese companies and industries | ② | J | D | O | |
| | Mainichi Shimbun Database | Collection of articles from the 'Mainichi Shimbun' | ③ | J | D | O | |
| | Mainichi Shimbun Headline News | Summary of articles from 'Mainichi Shimbun' | ③ | J | D | O | |
| | Mainichi Shimbun Health and Medical Information | Information on health care, beauty care, and medical services | ③ | J | D | O | |
| | Mainichi Shimbun Lottery Information | Referral of winning number of lottery and other information | ③ | J | D | O | |
| | Mainichi Shimbun Newflash | Newflash from 'Mainichi Shimbun' | ③ | J | D | O | |
| | Mainichi Shimbun Regional News | Real-time regional news from 'Mainichi Shimbun' | ③ | J | D | O | |
| | MAINICHI Sports news | Sports news from MAINICHI shimbun | ③ | J | D | O | |
| | MAINICHI Today's Sports | TODAY'S Sports new by MAINICHI news | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Management guide | management guide of the information center publication bureau is offered. | ③ | J | D | O | Worldwide |
| | Management of traffic opening to the public information | Information on the management of the traffic opening to the public which the main police in the Kantou area and the Kinki area announce is offered. | ③ | J | D | O | |
| | Manager Tokyo Shoko Research, Ltd. information | Abundant information such as enterprise manager's careers and where to make contact is collected. | ② | J | D | O | |
| | Manual of Company Events and Festivals | Instructional manual on promoting and conducting company events and festivals | ③ | J | D | O | |
| | Market Search | Reference to the market research reports issued by public and private institutions | ② | J | D | O | |
| | Market share library | Data which originally hearing, is estimated, and made | ② | J | D | O | |
| | MARRIAGE PIA USEFUL INFO | Information of Useful marriage | ③ | J | D | O | |
| | McGraw-Hill Publications | All articles of McGraw-Hill's magazines | ③ | E | D | O | |
| | MEDICAL ACCESS | Information of "MEDICAL ACCESS" | ③ | J | D | O | |
| | Medical Check Up Information | Information of Medical Check Up Clinic in Japan | ③ | J | D | O | |
| | Medical Information on Remarkable Diseases | Description by medical practitioners on heart attach, cardiac infarction, cerebral apoplexy, hepatitis, ulcer of stomach and duodenum, gastric cancer, and atonic dermatitis | ③ | J | D | O | |
| | Medical paper's Global search | Database of Medical paper's | ③ | J | D | O | |
| | Medicine unabridged dictionary | words of clinical medicine about 40, 000 words | ① | J | D | O | |
| | Medline | Database of medical journal | ③ | E | D | O | |
| | Metropolitan area and Kinki region road traffic information | It is a report of road traffic information on a main, general road in a main, high-speed road, a pay road, and Tokyo and Osaka Pref. it is in the metropolitan area and the Kinki region. | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Minaminihon news article service | News from "MINAMINIHON NEWS" | ③ | J | D | O | Worldwide |
| | Ministry of Agriculture, Forestry and Fisheries administrative information | Agricultural administration information, a woods political situation report, a fishing political situation report, a statistical news flash, and agriculture and forestry fishery local information, etc. which Ministry of Agriculture, Forestry and Fisheries announced are offered. | ② | J | D | O | |
| | Ministry of Finance administrative information | Various administrative information which Ministry of Finance makes public is collected. | ② | J | D | O | |
| | Ministry of Health and Welfare administrative information | Administrative information on the Ministry of Health and Welfare is published. | ② | J | D | O | |
| | Miyagi Pref. police information | Information from the Miyagi Pref. police and various information, etc. are offered. | ② | J | D | O | |
| | Moody's corporate Profiles | Over 5,000 of American financial data | ② | E | D | O | |
| | Morning sun publisher "Business term of present age" | Database which covered everything from basic word of business term to special term | ③ | J | D | O | |
| | Motor boat race information | An about motorboat race news | ③ | J | D | O | |
| | Motor Sports Lives | All about Motor sports Live news | ③ | J | D | O | |
| | Mountain and Lodge Info | Information of Mountain and Lodge | ③ | J | D | O | |
| | Movie index | Movie information | ③ | J | D | O | |
| | Mr. Mac's Horse Race Info | Hidividend Betting-ticket Information from Mr.Mac | ③ | J | D | O | |
| | MRI Business Letter | Full-text of publicly held research reports written by researchers of the Mitsubishi Research Institute | ② | J | D | O | |
| | MRI Seminar Lectures | Full-text of lectures at seminars held by Mitsubishi Research Institute | ③ | J | D | O | |
| | MS-DOS GUIDE | Guide for "MS-DOS" | ① | J | D | O | |
| | Museum Information | Information of museum | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | National Diet Library Magazine Index | Database of published books in Japan | ③ | J | D | O | Worldwide |
| | National Public Library Guide | Information of National public library | ③ | J | D | O | |
| | Nationwide elderly person health facilities information | Facilities information on elderly person health facilities in whole country | ③ | J | D | O | |
| | Nationwide having fee home for the aged information | Facilities information on pay home for the aged in whole country | ③ | J | D | O | |
| | Naze naze Dial 110 | Question & Answer about Science | ① | J | D | O | |
| | New Business Industry Report | Research reports of 350 remarkable industries' business trends and analysis | ②/③ | J | D | O | |
| | New Idea Business Chance | Company's Marketing Case | ② | J | D | O | |
| | New Idea Business Chance | Information of Business Chance | ② | J | D | O | |
| | New Material guide | All about new material information | ① | J | D | O | |
| | NEW PC BOOKS INFO | Information about New PC Books | ① | J | D | O | |
| | NEW PC-GAME GUIDE | Newsflash of PC's Game | ③ | J | D | O | |
| | New-Business Hi-Tech Information | Technological and products information on Japanese high-technology industries | ①/② | J | D | O | |
| | Newsbytes | Source concerning computer and telecommunications | ① | J | D | O | |
| | Newspaper article crossing retrieval | Data base which collected article on each production passing general newspaper(magazine) Yomiuri and Mainichi | ③ | J | D | O | |
| | Newspaper article crossing retrieval experience version | was made to be able to use ("O) as the range of the article of the newspaper article crossing retrieval was limited, and the surcharge did not exist. | ③ | J | D | O | |
| | NHK Info | TV Program of NHK | ③ | J | D | O | |
| | NHK News Text | Broadcasted news texts by NHK | ③ | J | D | O | |
| | NHK Newsflash | Broadcasted news texts by NHK | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-----------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | NICHIGAI ASSIST | Information on biography(WHO), books(BOOK), journal articles(MAGAZINE), and corporate management tactics(MANAGEMENT) | ②/③ | J | D | O | Worldwide |
| | NICHIGAI ASSIST BOOK | Database of published books in Japan | ③ | J | D | O | |
| | Nihon Kogyo Shimbun Database | Collection of articles from 'Nihon Kogyo Shimbun' | ③ | J | D | O | |
| | Nihon Nogyo Shimbun Articles | Collection of articles from 'Nihon Nogyo Shimbun' | ③ | J | D | O | |
| | Nihon Shokuryo Shimbun Database | Collection of articles from 'Nihon Shokuryo Shimbun' | ③ | J | D | O | |
| | Nikkan Kogyo Shimbun Database | Collection of articles from 'Nikkan Kogyo Shimbun' | ③ | J | D | O | |
| | Nikkan Sports news wire | News wire of Nikkan Sports | ③ | J | D | O | |
| | Nikkan Sports Newspaper Information | Collection of articles from 'Nikkan Sports Newspaper' | ④ | J | D | O | |
| | Nikkan Sports Personal Info | Personal Information of Sports Player and Performer | ④ | J | D | O | |
| | Nikkei Article Database | Article of Nihon Keizai Shimbun | ③ | J | D | O | |
| | NIKKIN article information | Article data of financial, integrated professional journal which Japanese financial news agency issues | ③ | J | D | O | |
| | NIPPAN MARC | Catalog of books published in Japan, distributed by Nihon Shuppan Hambai | ③ | J | D | O | |
| | Nishinihon news article service | News from "NISHI NIHON NEWS" | ③ | J | D | O | |
| | Nissho-Iwai Company Limited Futures futures information | The market information of the commodity market price is offered. | ② | J | D | O | |
| | NTIS | U.S. Department of commerce's report. | ① | E | D | O | |
| OHTA-KU Company Information | OHTA-KU Company Information | Profile of in Ohta-ku Company | ② | J | D | O | |
| | Online insider | The online industry analyst analyzes by an original aspect and various news in the United States online industry is brought together. | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Online Stock Price Newsflash | Stock price news from first and second section of Tokyo Stock Exchange(TSE) | ② | J | D | O | Worldwide |
| | Orient economic investment information | Information profitable for the stock investment is chiefly offered by the ranking form. | ② | J | D | O | |
| | OUTDOOR AND CAMPGROUND INFO | Campground information | ③ | J | D | O | |
| | Oversea's business trend Info | Market Data from Magazines and Newspapers | ② | E | D | O | |
| | Overseas individual travel & cheap airline ticket information | The editorial staff edits special, and (*S) offers (*O). | ③ | J | D | O | |
| | Oversea's new product Info | New products Information of Overseas | ② | E | D | O | |
| | Overseas Popular CD Directory | CD's Information sold on Overseas | ③ | J | D | O | |
| | OZ mall minitown | The Gourmet spot play spot of booking a typical area in the vicinity of Tokyo is introduced. | ③ | J | D | O | |
| | PC Hardware Database | Description and price information on PC hardware products | ③ | J | D | O | |
| | PC MAGAZINE ARTICLE INDEX | Articles of PC Magazines | ① | J | D | O | |
| | PC watch | Electron newspaper about personal computer | ① | J | D | O | |
| | PC WEEK WIRE | Daily newspaper by which a lot of United States computer circumstances are included | ③ | J | D | O | |
| | PC-SOFT INFO | Information about PC's Software | ① | J | D | O | |
| | Personal computer peripherals information | Data base to introduce product about equipment which works personal computer internal and around | ③ | J | D | O | |
| | PERSONAL COMPUTER TERMS DICTIONARY | Electronic dictionary of "Personal Computer Terms Dictionary" | ① | J | D | O | |
| | PHARMA JAPAN. | All sentence data base in English information magazine for overseas medicine relation | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Pharmaceutical Company Information | Company information on pharmaceutical industry | ② | J | D | O | Worldwide |
| | PIA Art Museum Guide | Exhibition schedule for 50 museum near Tokyo | ③ | J | D | O | |
| | PIA Road Show Information | Information about Road Show | ③ | J | D | O | |
| | PIA Ticket Guide | Purchasing guide for tickets | ③ | J | D | O | |
| | PIA Today's Ticket Info | Information of Today's Ticket | ③ | J | D | O | |
| | Pill Book | Electronic version of the book "Pill Dictionary" | ③ | J | D | O | |
| | POINTILLAGE DB | Information of healthy human body | ③ | J | D | O | |
| | POS Sales Information | Information of popular goods and price | ② | J | D | O | |
| | Pregnancy, birth, and nurture of a man | Edited service of pregnancy, birth, and nurture of a man for personal computer communication | ③ | J | D | O | |
| | Pro baseball news flash | Flash and various datum about Pro baseball | ③ | J | D | O | |
| | Ranking of university Entrance by Yoyogi Seminar | Information on the difficulty of university entrance examination based on the survey conducted by Yoyogi Seminar, a preparatory school | ③ | J | D | O | |
| | RCA Engineer Class 2 Test | Question of RCA Engineer class 2 test | ③ | J | D | O | |
| | Real Estate Broker License Test Question | Information of "Real estate broker license test" | ③ | J | D | O | |
| | Recruit Guide for Mass Communication Industry | Information on seminars and orientations for recruiting new graduate held by mass-communication industry | ③ | J | D | O | |
| | Reference to Research Reports | Summary of research reports from public and private research institutions | ②/③ | J | D | O | |
| | Relieved HOT information on living | Wise bag which helps you in usual life | ③ | J | D | O | |
| | Remarkable New Book Titles | Information on new books by genre from Mainichi Shimbun | ③ | J | D | O | |
| | Remedium Info | Actino, attention, any side effects of medicine | ① | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | report summary by Dan | The summary of the business information report is offered. | ② | E | D | O | Worldwide |
| | Reports from Mitsubishi Research Institute | Forecasts for 90's of various fields based on case studies | ②/③ | J | D | O | |
| | S&P United States financial affairs information | The outline of the gold public enterprise in the United States and the outline of the financial report book of the annual are collected. | ② | E | D | O | |
| | Safety information on Passengers Abroad | Safety information on Japanese passengers abroad | ③ | J | D | O | |
| | Sankei Shimbun Database | Collection of articles from morning and evening edition of 'Sankei Shimbun' | ② | J | D | O | |
| | Sanseido Co., Ltd. "Large dictionary & English-Japanese and Japanese-English" | A Japanese dictionary, a English-Japanese dictionary, and a Japanese-English dictionary to one data base. | ③ | J | D | O | |
| | Sanseido Model Compendium of "Compendium of blaws" | The Database of "Compendium of blaws" | ③ | J | D | O | |
| | Sanwa Money Center Report | Information and analytical reports of Tokyo, London, and New York stock markets | ② | J | D | O | |
| | Sanwa Soken Financial and Economic Information | Information on foreign money exchange market and economic news | ② | J | D | O | |
| | SAVING INFO | Information of general info | ③ | J | D | O | |
| | Self-diagnosis of price of apartment house- SENS | Service by which price of condominium is diagnosed | ③ | J | D | O | |
| | Service of online looking up a word into a dictionary | English-Japanese/a Japanese-English dictionary is retrieved and displayed online. | ③ | J | D | O | |
| | Shiatsu Database | Information of finger pressure therapy | ③ | J | D | O | |
| | Shiga Pref. police information | It is a report of the guide of the police event and various procedures. | ② | J | D | O | |
| | SHIZUOKA ECONOMY INFO | Overseas Information for small companies | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Shizuoka information | Various administrative information etc. on Shizuoka Pref. are offered. | ② | J | D | O | Worldwide |
| | Shizuoka news article service | News from "SHIZUOKA NEWS" | ③ | J | D | O | |
| | Shizuoka Pref. police information | It is a report of various information like information etc. | ② | J | D | O | |
| | Sight-seeing Information | Information on festivals, events, sight-seeing spots, and accommodations | ③ | J | D | O | |
| | Ski Database | Information of slopes and accommodations | ③ | J | D | O | |
| | SkyPort program guide | The race card of the SkyPort communication service is retrieved. | ③ | J | D | O | |
| | South Korea and North Korea news news flash | News flash from South Korea and North Korea | ③ | J | D | O | |
| | South Korea showplace tour guide | The sightseeing showplace in South Korea and information on the public utility etc. are offered. | ③ | J | D | O | |
| | Sport Nippon article service | Database of "SPORTS NIPPON" articles | ③ | J | D | O | |
| | Sport Nippon pro baseball news | Information of baseball by Sport Nippon | ③ | J | D | O | |
| | Sport Nippon Soccer news | Soccer news of Sports Nippon | ③ | J | D | O | |
| | Sports information horse racing news | Horse racing information on The Hochi Shimbun offer | ③ | J | D | O | |
| | Sports Nippon Sports & TOPICS | Full loading such as articles related to various sports and noteworthy events | ③ | J | D | O | |
| | Sports Nippon fishing information | Information on fishing whole | ③ | J | D | O | |
| | Sports Nippon public entertainment news | Domestic, overseas public entertainments information | ③ | J | D | O | |
| | Sports-Nippon Golf news | Golf news from Sport Nippon | ③ | J | D | O | |
| | Sports-Nippon Tigers Information | Information about 'Hanshin-Tigers(Baseball-Team)' from Sports-Nippon | ③ | J | D | O | |
| | St. GIGA PROGRAM INFO | Program of St. GIGA | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Star system Video list according to actor | 500 foreign actors or more main appearance works are introduced. | ③ | J | D | O | Worldwide |
| | Structure Index | Database of "Structure Index" | ① | J | D | O | |
| | Summary of Weekly and Monthly Magazine | Summary of articles of popular magazines | ③ | J | D | O | |
| | SUPONICHI Entertainment Information | Entertainment and show business information | ③ | J | D | O | |
| | SUPONICHI F1 News | Newsflash on the results of F1 races | ③ | J | D | O | |
| | SUPONICHI Horse Racing News | Information on horse racing and popular horses | ③ | J | D | O | |
| | SUPONICHI Sumo Information | Newsflash on victory or defeat of Sumo matches | ③ | J | D | O | |
| | Syubun company "Scholar in Japan" | Personal data base of university professor, assistant professor, and lecturer in whole country | ② | J | D | O | |
| | TDN Horse Race Guide | Horse race guide held by JRA | ③ | J | D | O | |
| | TDN PUBLIC ISSUE INFO | Information of Public Issues | ③ | J | D | O | |
| | TDN visual management consulting | Business information to which data of financial affairs and management situation of Japan of main enterprise about 6,000 companies is displayed with special software in graph and figure | ② | J | D | O | |
| | TechWire Japan | Information related to personal computer seen from eyes of edit person of the United States living | ① | J | D | O | |
| | Teikoku Databank Credit Information | Failure information of Teikoku Databank | ② | J | D | O | |
| | Teikoku Databank Financial Information | Financial information on 250,000 Japanese major companies | ② | J | D | O | |
| | TEIKOKU Databank Japanese companies | Japanese companies report by English | ② | E | D | O | |
| | THE ASAHI ENCYCLOPEDIA OF CURRENT TERMS | Dictionary of Current Terms | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | THE DAILY YOMIURI BULLETIN | Content of "THE DAILY YOMIURI BULLETIN" | ③ | J | D | O | Worldwide |
| | THE DAILY YOMIURI Database | Collection of articles from 'THE DAILY YOMIURI Database' | ③ | E | D | O | |
| | The financial real estate world report | Financial, real estate, and economic latest information is offered. | ② | J | D | O | |
| | The Financial Times | Collection of articles from 'Financial Times' | ② | E | D | O | |
| | The first Entertainment | Various music information | ③ | J | D | O | |
| | The Mainichi News paper design room | The illustrations of cutting and the diagram, etc. recorded on paper of The Mainichi News paper for the Macintosh user are collected as it is. | ③ | J | D | O | |
| | The Ministry of International Trade and Industry official report | The article published in daily paper concerning administrative information on the Ministry of International Trade and Industry is offered online. | ② | J | D | O | |
| | The National Land Agency | Various administrative information is offered online. | ② | J | D | O | |
| | The reportage of Masscommunication world | Report of Mass-communication world | ③ | J | D | O | |
| | The Textile Company Information | DB of textile Company | ② | J | D | O | |
| | The Times & The Sunday Times | Collection of articles from 'Times' & 'Sunday Times' | ③ | E | D | O | |
| | The Tokyo Shimbun article information | Article information data base of daily paper "The Tokyo Shimbun" | ③ | J | D | O | |
| | The Washington Post | Collection of articles from 'Washington Post' | ③ | E | D | O | |
| | Title of Weekly and Monthly Magazine | Title information on 32 popular magazines | ③ | J | D | O | |
| | TITLE SEARCH | Table of contents of industrial and technological journals issued in Japan | ③ | J | D | O | |
| | TKC Legal Information | Judicial precedent and related information on civil cases and administrative cases | ③ | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corporation | Toku-Toku Information | Information on benefits, premiums, and gifts offered from various media | ③ | J | D | O | Worldwide |
| | Tokyo Fire Defense Agency information | Fire fighting information on information etc. related to fire prevention and disaster prevention is at the right time offered. | ② | J | D | O | |
| | Tokyo information | Offer of metropolitan politics information | ② | J | D | O | |
| | Tokyo Shoko Research Credit Information | Failure information of Tokyo Shoko Research | ② | J | D | O | |
| | Tokyo Survival Guide | Guidance information on Tokyo Metropolitan Area in English | ③ | E | D | O | |
| | Top News of Morning Newspapers | Newsflash of top articles from national newspapers | ③ | J | D | O | |
| | Total Catalog of Magazine and Newspaper | Database of "Zasshi, Shimbun so katarogu" | ③ | J | D | O | |
| | Touken Corporation room search | Apartment and rental unit information | ③ | J | D | O | |
| | Toyama Pref. police information | Management and report of information etc. of guide and traffic of the police event and various procedures | ② | J | D | O | |
| | Toyo Keizai Company Information | Detailed information on Japanese listed companies and foreign owned companies | ② | J | D | O | |
| | Trade & Industry Database | All article of American Business magazines | ③ | J | D | O | |
| | Travel, Taste and Sports | Profiles and special information on travel, local tastes, and sport facilities | ③ | J | D | O | |
| | Traveling abroad information | Integrated travel data utility which makes information on each travel company related to overseas tour information and travel data base | ③ | J | D | O | |
| | Trends in New York | City guide for New York City | ③ | J | D | O | |
| | Trends in Paris | City guide for Paris | ③ | J | D | O | |
| | TRW Business Profiles | American frame & trust report | ② | E | D | O | |
| | TSR Company Information | Summarized data on 500,000 Japanese major companies | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|-------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------|
| NIFTY Corparation | TSR Financial Information | Financial information on 50,000 Japanese major companies | ② | J | D | O | Worldwide |
| | TV and Movie Daily guide | Ratings of TV programs and movies | ③ | J | D | O | |
| | TV-Taro program movie Info | Information about TV Program & Movie | ③ | J | D | O | |
| | TV-Taro TV program & Movies Info | On-Air Music information | ③ | J | D | O | |
| | UNDER STANDING ART OF PC OPERATION | Online books to improvement of PC Direction | ③ | J | D | O | |
| | United States embassy information | Various information on the United States which the United States embassy report part offers can be acquired. | ② | J | D | O | |
| | Updated Fishing Information | Information on techniques and points of fishing | ③ | J | D | O | |
| | UPI News | Collection of articles from the news of UPI | ③ | E | D | O | |
| | US Automobile Industry News | News of American Car Industry | ② | J | D | O | |
| | US multi-media high technology | Articles of America High technology Information in Japanese | ① | J | D | O | |
| | US Personal Info | Personal Information in America | ③ | J | D | O | |
| | USA entertainment information | Batch offer of indispensable integrated entertainment information for sightseeing of New York | ③ | J | D | O | |
| | USA TODAY | Collection of articles from 'USA TODAY' | ③ | E | D | O | |
| | Variety Questionnaire Info | Information of various Questionnaire | ② | J | D | O | |
| | Video & LD Catalogue | Information VIDEO & LD Software | ③ | J | D | O | |
| | Video and Laser Disk Information | Domestic on-sale information on video, laser disk, and compact disc video | ③ | J | D | O | |
| | Weekly Flash of 'ECONOMIST' | Collection of articles from 'ECONOMIST' journal of the week | ② | J | D | O | |
| | Weekly Orient economic article information | Article data base of economic, integrated magazine "Weekly Orient economy" | ② | J | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|--------|----------------------------------------------------------------------------------------|
| NIFTY Corporation | West European and Russian Economics | Economics Digest of Europe and Russia | ② | J | D | O | World wide |
| | Wine cellar information | Detailed information on the sake brewed in about 500 of Japanese whole country wine cellar and the wine cellars is offered. | ③ | J | D | O | |
| | Work information center | Various labor relations information and promptly offers. | ② | J | D | O | |
| | World map information | It to be able to be seeing of the map of a main city and a main region in the world free of charge. | ③ | J | D | O | |
| | World Report | Information extracted from 'Trade-pia' World reports | ③ | J | D | O | |
| | Yomiuri Shimbun Database | Collection of articles from the 'Yomiuri Shimbun' | ③ | J | D | O | |
| | Yomiuri Shimbun Newsflash | Newsflash from 'Yomiuri Shimbun' | ③ | J | D | O | |
| | YOSHIE'S FITNESS INFO | Information of healthy human body | ③ | J | D | O | |
| | ZEIKEN news | High quality information for businessmen who works at the tax matters | ③ | J | D | O | |
| Nihon Keizai Shimbun, Inc.(NIKKEI) | Asian Corporate Profile | Description of companies in Asia including 10,000 Chinese manufacturers, 1,800 Korean listed companies, 600 Hong Kong listed companies, and 1,000 Japanese-owned companies in Asia | ② | E | D | O/M | U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea |
| | DRI DATA | Major economic statistics and indices for United States | ② | E | D | O | |
| | Data on Borrowing by Financial Institutions | Data on borrowing by the financial institutions provided by the Industrial Bank of Japan | ② | J/E | D | O/M | |
| | IFS Data | Financial statistics and price indices with GNP for IMF member countries | ② | E | D | O | |
| | Input-Output Tables | Expanded input-output tables originally developed by NIKKEI, basic government table and its supplements, and connected industry input-output tables are included | ② | J/E | D | O | |
| | OECD Economic file | Major economic indices including GNP for IMF member countries | ② | E | D | O | |

| Company | Database | Description | Subject | Language | Status | Medium | Main Countries |
|--------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|--------|--------|----------------------------------------------------------------------------------------|
| Nihon Keizai Shimbun, Inc.(NIKKEI) | OECD National Income Statistics File | National expenditure and its itemized break-down for 20 industrial nations | ② | E | D | O | U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea |
| | World Bank External Debt Statistics | Balance of debts and other economic indices of 105 developing countries | ② | E | D | O | |
| NTT BUSINESS INFORMATION SERVICE INC. | Town Page Database | Search for area or industry type from 11million nationwide corporate information listings in 1650 categories (The Town Page Database is an electronic version of the NTT Town Pages) Details include company name, postcode, address, industry classification and telephone number | ③ | J | D | M/C | Worldwide |
| Research Institute of International Trade and Industry(RITI) | Input-Output Table | Input-output table of Japanese industries, provided by the Ministry of International Trade and Industry(MITI) | ② | O: Numeric | D | M | U.S.A. |
| Technomics, Inc. | Actfund | Information on antibiotic substances | ① | J/E | D | M | U.S.A., Europe |
| TESCO Direct Company Ltd. | LEXIS-NEXIS | I.P. Litigation Flash News | ②/③ | J/E | D | O | Worldwide |

Appendix

Table 4 Address of Overseas Service Points (1998: Producers/Distributors)

| Company | Contacts | Address | Telephone | Facsimile | Status |
|----------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------|------------------|----------------------|
| Asahi Shimbun Publishing Company(ASAHI SHIMBUN) | Electronic Media & Broadcasting Division, Asahi Shimbun Company | 5-3-2 Tsukiji, Chuo-ku, Tokyo 104-8011, Japan | +81-3-5541-8693 | +81-3-5541-8694 | Headquarters |
| | C.W.N New York Office | 445 West 23rd Street Suite 10-13 New York N.Y. 10011, U.S.A. | +212-645-2464 | +212-645-0979 | Agent |
| | New York Times Syndication Sales | 3 Rue Scribe Paris 75009, France | +33-1-47-42-1711 | +33-1-47-42-8044 | Agent |
| Asia Data Research, Inc.(ADR) | Asia Data Research, Inc. | Nakanosakaue Sunbright Twin 15F, 2-46-1 Honcho, Nakano-ku, Tokyo 164-0012, Japan | +81-3-5350-4765 | +81-3-5350-4776 | Headquarters |
| | ADR Marketing Service Ltd. | Room 2314, Park-in-Commercial Center, 56 Dundas Street, Yaumatei, Kowloon, Hong Kong | +852-2359-3333 | +852-2332-5841 | Branch; Headquarters |
| | GfK Handelsforschung GmbH & Co. KG | Nordwestring 101, D-90319, Nurnberg 90, Germany | +49-911-3950 | +49-911-336970 | Agent |
| Association of Agriculture and Forestry Statistics | Association of Agriculture and Forestry Statistics | Meguro-Sumiya bldg. 3-9-13, Shimo-Meguro, Meguro-ku, Tokyo 153-0064, Japan | +81-3-3492-2989 | +81-3-3492-2942 | Information Division |
| AXESS INTERNATIONAL NETWORK INC. (AXESS) | AXESS INTERNATIONAL NETWORK INC. (AXESS) | Seafort Square Center Bldg., 2-3-12 Higashi Shinagawa, Shinagawa-ku, Tokyo 140-8619, Japan | +81-3-5460-7035 | +81-3-5460-7009 | Headquarters |
| COMLINE Business Data, Inc. (COMLINE) | COMLINE Business Data, Inc. | Kiyomiya Bldg., 1F, 1-15-2 Hamamatsu-cho, Minato-ku, Tokyo 105-0013, Japan | +81-3-5401-4567 | +81-3-5401-2345 | Headquarters |
| | COMLINE Business Data, N.Y., Inc. | 80 Maiden Lane, 22nd Fl., New York, NY 10038, U.S.A. | +1-212-480-2100 | +1-212-344-8074 | Branch |
| Database Promotion Center, Japan (DPC) | Database Promotion Center, Japan | 5th Floor, Shinbashi-Towa Bldg., 2-13-8 Shinbashi, Minato-ku, Tokyo 105-0004 Japan | +81-3-3508-2430 | +81-3-3508-2440 | Headquarters |
| DENTSU INC. | Electronic Library Division, DENTSU INC. | 1-11 Tsukiji, Chuo-ku, Tokyo 104-8426, Japan | +81-3-5551-7116 | +81-3-5551-2345 | Headquarters |
| Dun & Bradstreet Japan Ltd.(D&B) | Dun & Bradstreet Japan Ltd.(D&B) | Aobadai Hills 5F, 4-7-7 Aobadai, Meguro-ku, Tokyo 153-0042, Japan | +81-3-3481-3561 | +81-3-3481-3570 | Subsidiary |

| Company | Contacts | Address | Telephone | Facsimile | Status |
|------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------|-----------------|---------------|
| EDUCA Inc. (EDUCA) | EDUCA Inc. | 4-4-10, Minami-Aoyama, Minato-ku, Tokyo 107- 0062, Japan | +81-3-5474-3541 | +81-3-5474-6944 | Headquarters |
| Electronic Devices Information Service Co., Ltd. (ELISNET) | Electronic Devices Information Service Co., Ltd. | Hirakawa-cho KS Bldg., 5F, 2-4-14 Hirakawa-cho, Chiyoda-ku, Tokyo 102- 0093, Japan | +81-3-5275-3770 | +81-3-5275-9928 | Headquarters |
| ELECTRONIC LIBRARY Inc. (EL) | ELECTRONIC LIBRARY Inc. (EL) | Collins 8, 8-11-13 Nishi- Gotanda, Shinagawa-ku, Tokyo 141-0031, Japan | +81-3-3779-1211 | +81-3-3779-1227 | Headquarters |
| | Electronic Library Division, DENTSU INC. | 1-11 Tsukiji, Chuo-ku, Tokyo 104-8426, Japan | +81-3-5551-7116 | +81-3-5551-2345 | Agent |
| | NI+C International Co. | IBM Kawasaki Bldg., 1-14 Nisshin-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-0024, Japan | +81-44-245-8030 | +81-44-245-8027 | Agent |
| Fujitsu Ltd. | Fujitsu Ltd. | 1-18-18 Ebisu, Shibuya-ku, Tokyo 150-8450, Japan | +81-3-5423-6350 | +81-3-5449-7240 | Agent |
| GfK Japan Ltd. | GfK Japan Ltd. | Nakanosakaue Sunbright Twin 15F, 2-46-1 Honcho, Nakano- ku, Tokyo 164-0012, Japan | +81-3-5350-4621 | +81-3-5350-4647 | Headquarters |
| | ADR Marketing Service Ltd. | Room 2314, Park-in- Commercial Centre, 56 Dundas Street, Yaumatei, Kowloon, Hong Kong | +852-2359-3333 | +852-2332-5841 | Agent |
| GfK Japan Ltd. | GfK Handelsforschung GmbH & Co. KG | Nordwestring 101, D-90319, Nurnberg 90, Germany | +49-911-3950 | +49-911-336970 | Agent |
| | THE NPD GOUP, INC. | 900 West Shore Road, Port Washington, NY 11050- 0402, U.S.A. | +1-516-625-2310 | +1-516-625-2444 | Partner |
| GreenNet CO.,LTD. | GreenNet CO.,LTD. | 3-7-10, Toranomon, Minato- ku, Tokyo 105-0001, Japan | +81-3-5404-7601 | +81-3-5404-0480 | Headquarters |
| | GREEN NET KOREA CO., LTD. | #406, Dae Kyo B/D 56- 4,3GA Wonhyo-ro Yong San-gu Seoul, KOREA. | +82-2-717-1894 | +82-2-706-5687 | Branch Office |
| G-Search Limited(GSH) | G-Search Limited | LOOP-X Bldg., 9F 3-9-15 Kaigan, Minato-ku, Tokyo 108-0022, Japan | +81-3-5442-4381 | +81-3-5442-4391 | Headquarters |
| IBJ-NIKKO INFORMATION SYSTEMS, LTD. (INIS) | IBJ-NIKKO INFORMATION SYSTEMS, LTD. | 3-7-1 Kanda-Nishiki-cho, Chiyoda-ku, Tokyo 101-0054, Japan | +81-3-5281-1101 | +81-3-5281-0707 | Headquarters |
| | Datastream International Limited | Monmouth House, 58-64 City Road, London EC1Y2AL, U.K. | +44-171-250-3000 | | Agent |
| | Thomson Financial Services Database Group Inc. | Two Gateway Center, Newark, NJ 07102, U.S.A. | +1-201-622-3100 | | Agent |

| Company | Contacts | Address | Telephone | Facsimile | Status |
|------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|--------------------|---------------|
| IBJ-NIKKO INFORMATION SYSTEMS, LTD. (INIS) | Thomson Financial Services Limited | Aldgate House, 33 Aldgate High Street, London EC3 N1AJ, U.K. | +44-171-815-3803 | | Agent |
| Information Services International Dentsu, Ltd. (ISID) | Information Services International Dentsu, Ltd. | 4-11-10 Nakano, Nakano-ku, Tokyo 164-8520, Japan | +81-3-3228-6111 | +81-3-3319-6989 | Headquarters |
| | ISI-Dentsu of America, Inc. | 1114 Avenue of the Americas, New York, NY 10036, U.S.A. | +1-212-789-2300 | +1-212-789-2333 | Branch Office |
| | ISI-Dentsu of Asia, Ltd. | Suite 1101, Central Plaza, 18 Harbour Road, Wanchai, Hong Kong | +852-2829-0829 | +852-2802-8477 | Branch Office |
| | ISI-Dentsu of Europe, Ltd. | 1st Floor, Aquila House, 33-34 Soho Square, London, W1V 5DG, U.K. | +44-171-287-4207 | +44-171-287-4206 | Branch Office |
| | ISI-Dentsu Singapore, Pte. Ltd. | 1 Raffles Place #52-01A, OUB Centre, Singapore | +65-538-3955 | +65-538-4011 | Branch Office |
| Japan Association for International Chemical Information (JAICI) | Japan Association for International Chemical Information | Nakai Bldg., 6-25-4 Honkomagome, Bunkyo-ku, Tokyo 113-0021, Japan | +81-3-5978-3622 | +81-3-5978-3600 | Headquarters |
| | FIZ Chemie GmbH | Franklinstrasse 11, D-10587 Berlin, Germany | +49-30-390-76 | +49-30-390-76 | Agent |
| | Kay Pool | 9520 Linden Avenue, Bethesda, MD 20814, U.S.A. | +1-301-493-6595 | +1-301-897-3487 | Agent |
| | KOREA INFORMATION SERVICES FOUNDATION | #450-1, Gayang Bldg., Gayang Dong, Gangsao-ku, Seoul, 157-200 Korea | +82-2-3668-1493 | +82-2-3661-1586 | Agent |
| Japan Construction Information Center(JACIC) | Japan Construction Information Center | Akasaka Seventh Avenue Bldg., 10-20, 7-chome, Akasaka, Minato-ku, Tokyo 107-8416, Japan | +81-3-3505-2981 | +81-3-3505-2966 | Headquarters |
| Japan External Trade Organization (JETRO) | Japan External Trade Organization | 2-2-5 Toranomon, Minato-ku, Tokyo 105-0001, Japan | +81-3-3584-6016 | +81-3-3584-6018 | Headquarters |
| JAPANESE PATENTS DATA SERVICE, CO. | HANLIM IPS CO.,LTD | SUDA BLDG. 1-17-8 Nishi-Shinbashi, Minato-ku, Tokyo 105-0003, Japan | +81-3-3580-8021 | +81-3-3580-8081 | Agent |
| Japan Patent Information Organization (Japio) | Japan Patent Information Organization (Japio) | Sato Dia Bldg.4-1-7 Toyo, Koto-ku, Tokyo 135-0016, Japan | +81-3-5690-5555 | +81-3-5690-5566 | Headquarters |
| | European Patent Office (EPO) | Dienststelle Wien, Schottenfeldgasse 29, Postfach 82, A-1072 Wien, Austria | +43-1-521-26-433 | +43-1-521-26-54-91 | Partner |
| Japan Patent Information Organization (Japio) | Knight-Ridder Information, Inc. | 2440 El Camino Real, Mountain View, CA 94040, U.S.A. | +1-415-254-7000 | +1-415-254-7070 | Partner |

| Company | Contacts | Address | Telephone | Facsimile | Status |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------|------------------|-----------------------------|
| Japan Patent Information Organization (Japio) | Orbit Questel, Inc. | 8000 Westpark Drive, McLean, VA 22102, U.S.A. | +1-703-442-0900 | +1-703-893-4632 | Partner |
| | QUESTEL | Le Capitole 55, Avenue des Champs Pierreux 92029 Nanterre Cedex, France | +33-1-46145555 | +33-1-46145511 | Partner |
| | STN INTERNATIONAL, c/o FIZ Karlsruhe | D-76344 Eggenstein-Leopoldshafen, Germany | +49-7247-808510 | +49-7247-808131 | Partner |
| Japan Science and Technology Corporation, Information Center for Science and Technology (JICST) | Japan Science and Technology Corporation, Information Center for Science and Technology (JICST) | 5-3, Yonbancho, Chiyoda-ku, Tokyo 102-0081, Japan | +81-3-5214-8414 | +81-3-5214-8410 | Headquarters |
| | Data Communications Corp. of Korea (DACOM) | DACOM Building 65-228, 3-Ga, Han Gang-Ro Yong San-gu Seoul 140-716, Korea | +82-2-220-7273 | +82-2-220-7219 | Agent |
| | FIZ-Karlsruhe | P.O. Box 2465, W-7500 Karlsruhe 1, Germany | +49-7247-808-555 | +49-7247-808-666 | Agent |
| | Institut de l'Information Scientifique et Technique (INIST) | 2, Allee du parc de Brabois, Vandoeuvre-Les Nancy, Codex 54514, France | +33-83-50-46-80 | +33-83-50-46-83 | Agent |
| | JST Malaysia Office | Suite 19.1 Menara Genesis, No.33 Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia | +60-3-244-9913 | +60-3-244-9914 | Branch |
| | JST Paris Office | c/o CNRS 27, rue Damesme, 75013 Paris, France | +33-1-4581-1077 | +33-1-4581-1196 | Branch |
| | JST Washington Office | Suite 1050, 1550 M Street, N.W., Washington, D.C. 20005, U.S.A | +1-202-872-6370 | +1-202-872-6372 | Branch |
| | National Technical Information Service (NTIS) | 5285 Port Royal Road, Springfield, VA 22161, U.S.A. | +1-703-487-4822 | +1-703-321-8547 | Agent |
| KAHOKU SHIMPO PUBLISHING CO. | | 1-2-28 Itsutsubashi, Aoba-ku, Sendai 980-8660, Japan | +81-22-211-1166 | +81-22-211-1156 | Headquarters |
| K.K. KYODO NEWS | Dow Jones Markets | Harbor side Financial Center 600 Plaza Two Jersey City, NJ07311 U.S.A | +201-938-5563 | +201-938-5555 | Partner |
| Marketing Intelligence Corporation (MiC) | Marketing Intelligence Corporation | 1-4-1 Honcho, Higashikurume-shi, Tokyo 203-8601, Japan | +81-424-76-5164 | +81-424-76-5169 | Marketing Research Division |
| MARUZEN CO., LTD. | Maruzen Co., LTD. | 2-3-10, Nihombashi, Chuo-ku, Tokyo 103-8245, Japan | +81-3-3272-0338 | +81-3-3274-3072 | Headquarters |

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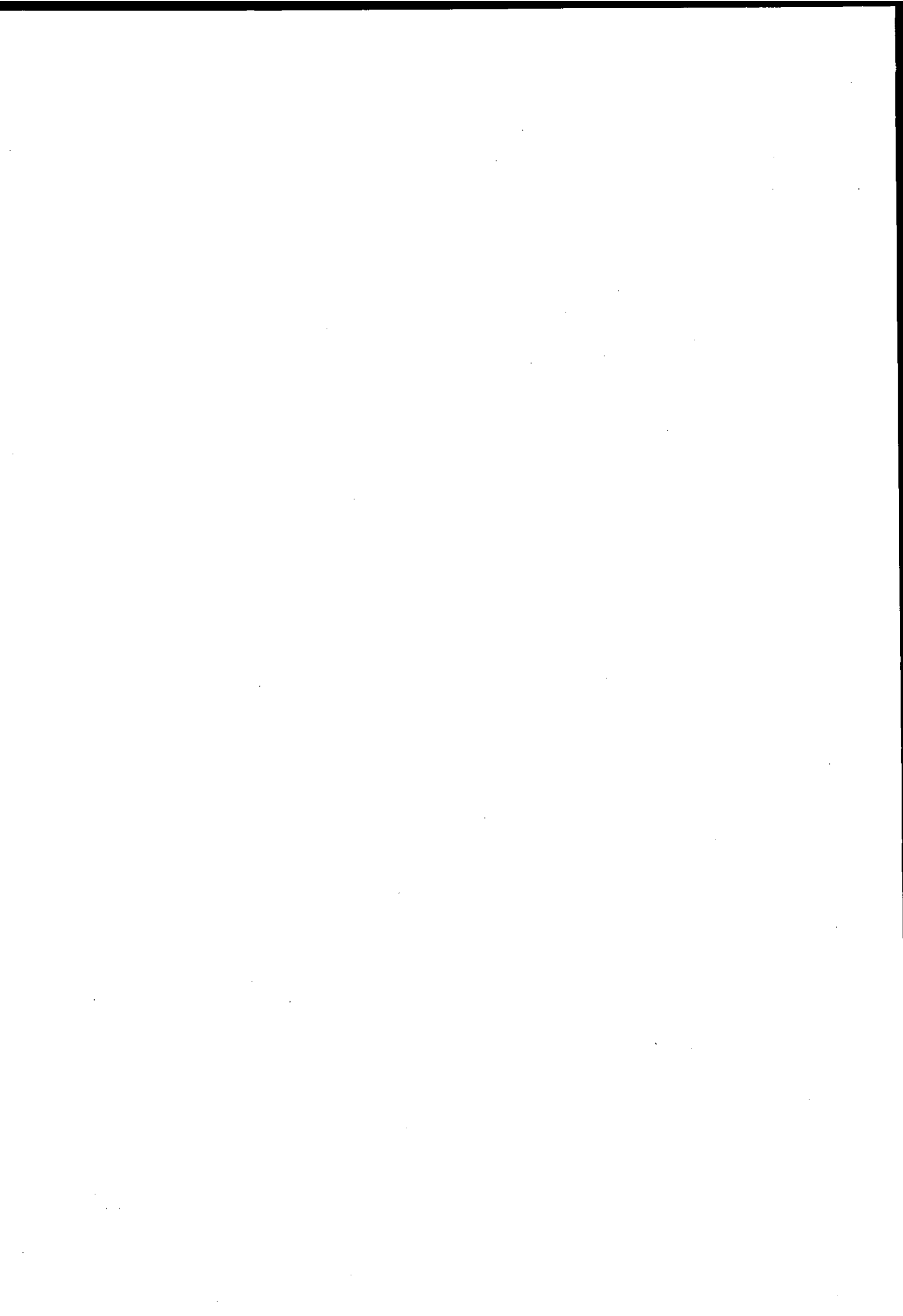
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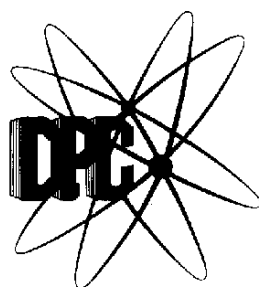
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