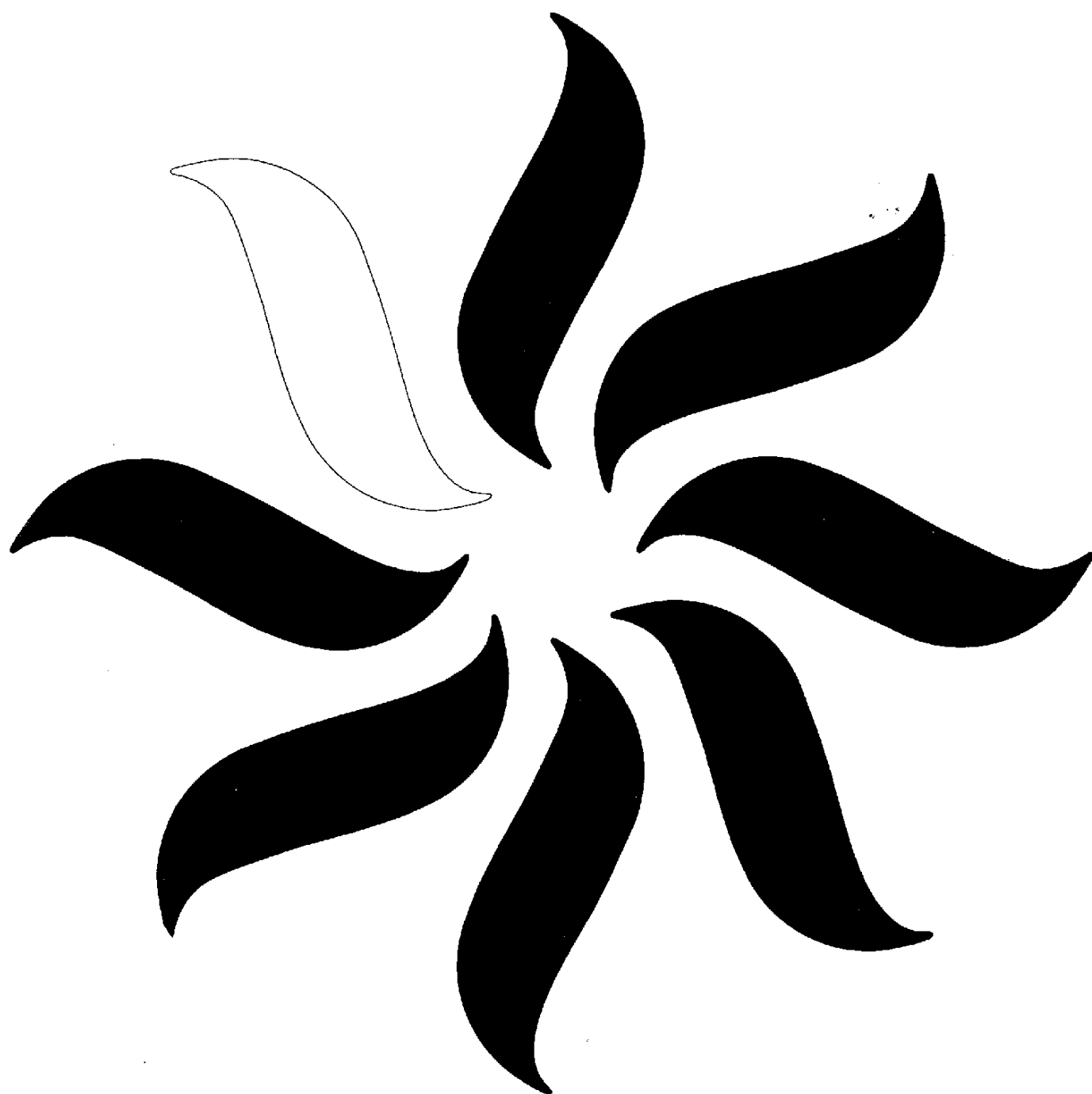


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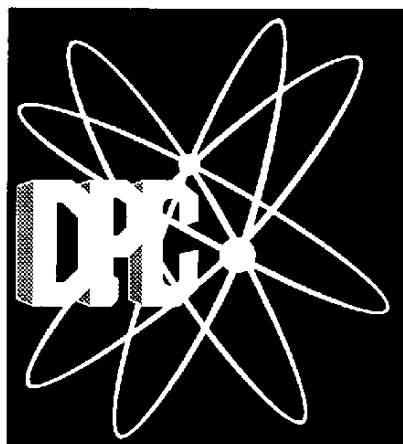


Database Promotion Center, Japan

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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Databases in Japan 1997



Database Promotion Center, Japan

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I Present State of Databases

1. Introduction

For the information service industry, the year 1996 began and ended with the Internet, and the excitement over the Internet is continuing into 1997.

There are presently 80 to 160 million people using the Internet in some form throughout the world. In Japan alone, more than 50 million people are using the Internet, which is nearly equal to the number of subscribers to PC network services.

The channels by which databases are provided are expanding rapidly, and include new media most typically represented by the Internet.

According to a survey conducted by SIMBA Information Inc., the market size of online database services throughout the world reached roughly ¥2.2 trillion (\$1 = ¥108.79) in 1996, and is reported to be growing at the rate of 16% annually.

The channels by which databases are supplied are also starting to lean towards the Internet.

Consumer-oriented online services represented by PC network services are also beginning to infiltrate the general public over a broad range, accompanying higher levels of information literacy.

The progress of communication technology is paving the way for dramatically high-capacity information transmission, making multimedia services a reality. In addition, due to the accelerating increase in storage capacity, offline media such as CD-ROM are also attracting attention in terms of how to effectively take advantage of their capabilities.

Even in database fields previously led primarily by commercial use by corporations, databases are expanding into areas more closely associated with daily life, including recreation, culture, domestic culture and hobbies. At the same time, the use of databases is progressing in public service fields such as medical care, welfare and education, in which movement had previously attracted little attention.

Information sharing between corporations and industries has also become more prominent to the extent that the corporate performance of some industries is affected by the skill with which they are able to use new forms of information exchange found through Electronic Commerce (EC).

2. Supply Status of Commercial Databases

The total number of personal computers sold in Japan in 1996 totaled roughly 6.8 million, corresponding to an increase of 33% over the previous year. In terms of the fiscal year, sales of

7.2 million units are predicted. Since the demand among corporations is relatively steady, sales are expected to reach 9 million units in 1997. Naturally, in the background of this growth lies more advanced functions, continuing evolution of operating systems and the proliferation of the Internet. An environment in which the number of database users exceeds approximately 5 million in Japan and 100 million worldwide, newly provided channels continue to grow on a daily basis, and personal computers become increasingly popular and more sophisticated as a means of accessing databases, is extremely favorable for the database service industry.

According to the results of a survey by SIMBA Information Inc. for the Database Promotion Center, Japan (DPC), the market size of database services in North America in 1995 reached ¥1.4 trillion, roughly 7 times the size of the market in Japan and accounting for nearly 2/3 the world market. The market is estimated to have expanded at the rate of roughly 16% annually over the past several years on a global scale.

It goes without saying that the Internet has accelerated this growth. As of 1996, approximately 1/6 of the white collar population in North America, equal to roughly 12 million people, have accessed business information from the Internet. This is nearly 4 times the number of conventional online (not including PC network services) database users.

According to the "1995 Survey of Selected Service Industries" conducted by the Ministry of International Trade and Industry (MITI), sales of the database industry in 1995 totaled ¥197.3 billion, a decrease of ¥1.5 billion, or 0.8%, from the previous year. Thus, the industry appears to still be going through an adjustment period, judging from the results of this survey. Since this survey is also considered to have limitations on coverage, the actual figures are considered to be roughly another 10% higher.

According to the findings of the "1995 Database Directory" published in September 1996 by MITI, the number of commercial databases accessible in Japan in 1995 totaled 3,308, consisting of 1,124 domestic databases and 2,184 overseas databases. These figures represent an increase of 247 databases, or 8.1%, over the previous year.

In comparison with the actual figures for 1985 ten years ago (domestic databases: 281, overseas databases: 1,008), the number of databases has increased by 4 times and 2.2 times, respectively, and the proportion of domestic databases can be seen to be increasing.

In looking at the categories in which databases are supplied, the top category is "Business", at 35.5%. This is followed by "General" at 31.0%, "Natural science and technology" at 28.5%, "Humanities" at 3.1% and "Other" at 1.8%.

When database utilization is divided into corporate use and personal use, finance and insurance accounts for the majority of the monetary amount of corporate usage, thus indicating that there is no change in the financial and insurance industries being the largest users (1995 Survey of Selected Service Industries). These were followed by government offices, other service industries, manufacturing, construction and the real estate industry.

In addition, according to the results of the "Survey of Japanese Database Services (User

Edition)" conducted by DPC, 63.5% of corporate users in 1995 replied that they use commercial databases. The amount spent on this database utilization, in the case of large corporations, was ¥51 million on average, representing an increase of 6% from the previous year. Even larger increases are predicted for 1996, indicating that use of commercial databases is increasing steadily.

Representative examples of subcategories having the highest utilization by corporations include "Newspapers/journals and news" and "Corporate finance and profiles". Usage of the "Patent" subcategory is also high, particularly in fields in which overseas databases are used.

The "Survey of Individual and Home Database Use" conducted by DPC in 1996 on users of PC network services summarizes the situation concerning database utilization by individuals. According to those results, 55.4% of the persons surveyed replied that they had used databases in the past.

The top-ranked categories of commercial databases used consisted primarily of work-related fields such as "Article searching", "News", "Book information" and "Corporate information". Fields such as "Recreation and travel", in which personal use is considered to be prominent, are increasing in number and becoming more diversified.

The means used to access commercial databases by individuals were naturally led by PC network services, while the Internet and CD-ROM also exhibited high ratios.

However, in "News" and other fields in which freshness is emphasized, commercial databases were accessed mainly using PC network services and the Internet, while law and dictionaries were accessed mainly using CD-ROM in consideration of costs.

3. Information Usage and Databases in Fields Relating to Industry and Domestic Culture

Separate from the world of commercial database services, the trend towards sharing information is expanding a little at a time accompanying the use of information within and between corporations as well as between industries.

In looking at the kinds of systems being applied, in-house databases themselves are becoming increasingly decentralized and localized (by enhancing the level of processing that can be performed at sites where information is generated) accompanying the progress being made in the fields of hardware and software technology.

Decentralization refers to the majority of processing being performed between a server and terminal, in the case of logical processing at a level approaching that of the actual site, as the conventional form of processing, in which terminals are connected with a host, is replaced by client-server processing.

Windows NT4.0 has provided the impetus for this trend. Sophisticated operating systems such as this, that raise the level of PC performance to enable them to fulfill the role of servers, are said to be increasingly accelerating the localization of in-house databases.

The Electronic Commerce Promotion Council of Japan (ECOM) was inaugurated in January 1996. Although Electronic Commerce (EC) are defined in various ways, MITI has defined them in the broad sense, as referring to "the performing of advertising, order placement and receiving, design, development, purchasing, payment and all other economic actions using a network". EC in Japan are broadly classified into the following two categories:

- (1) EC between corporations and consumers: economic activities in which consumers are directly involved, such as the buying and selling of products in a cyber mall.
- (2) EC between corporations: these include "EC between an unspecified large number of corporations" in an open network environment, and "EC between specified corporations (CALS, EDI, etc.)" engaged in transactions.

Active steps, including experimentation, are being taken to incorporate CALS and EDI as means of exchanging data between corporations and industries.

CALS, which is oriented mainly at the manufacturing industry, is based on the concept of using a database to integrate and manage all information pertaining to manufacturing, from material procurement to product design, development, production and maintenance.

More recently, the storage of all data pertaining to corporate activities on computerized storage media has also sometimes been referred to as CALS. In Japan, two research organizations—Network of CALS (NCALS), established in 1995, and the CALS Industry Forum (CIF)—are respectively proceeding with experimentation and other research activities in this field.

A total of nine CALS experimental projects are promoted in the "Intercompany Advanced EC Promotion Project", according to the 2nd revised budget for 1995.

The most critical task confronting members of the textile industry is the securing of competitive strength due to the influx of products from surrounding countries. As a result, attempts are actively being made to share information using IT. Members of this industry are working jointly with the government to establish a quick response (QR) system. These efforts led primarily by the QR Code Center have resulted in the development of QR codes that incorporate characteristics unique to textile products by hierarchization of the concept of JAN codes. The system will eventually evolve into a system sharing the information of 3000 firms. EDI standard messages, which serve as the means of information exchange, are scheduled to use CII as well as EDIFACT.

In the field of air cargo, airline companies from various countries joined hands five years ago to begin operation of a cargo-related information exchange system referred to as CCS. At present, 23 of these systems are in operation. In view of the circumstances surrounding its establishment, the syntax of the exchange messages are governed by rules unique to the industry.

In the distribution and general merchandise manufacturing fields, in which there are said to be relatively few limitations on competition in terms of business deployment in essential areas, with the exception of some areas relating to the Law Concerning the Adjustment of Retail Business Operations in Large-scale Retail Stores, efforts to incorporate ECR (QR) and EDI are only at the

experimental stage. In these industries, efforts are being made to reduce total costs, including those associated with commodity and distribution channels, as witnessed in the Planet participation problem of the Kao Corporation. The degree to which these efforts are successful is even reflected in corporate performance.

Although EDI was incorporated more rapidly in the iron and steel, chemical and other basic material industries than in the above industries, due to the large investments made in existing systems, it is likely that considerable time will be required for EDI to be completely introduced into company-wide systems.

The automobile industry is characterized by the existence of powerful, binding relationships between dealers and vendors. Although the deployment of information systems supporting vertical integration, or so-called enclosure management, has developed in this industry, it has traditionally been difficult to establish information sharing that cuts horizontally across the industry.

In comparison with the petroleum, steel and other basic material industries, since the standard for product development among automobile manufacturers who target consumers for their end users focuses on differentiation of their own products from those of their competitors, including differentiation in terms of performance, common qualities among products is certainly not desirable. Despite this, operations have recently been streamlined wherever possible, including sharing of chassis and the use of common parts.

It has recently been reported that even the Toyota Motor Corporation has engaged in procuring open parts from the world market.

Although the construction and active utilization of databases as sources of internal information and information exchange is progressing accompanying the use of databases within corporations as well as between corporations and industries, the use of computerized information in advanced technology fields and public service fields is proceeding at an even faster pace, and the use of databases is becoming more active accompanying this trend.

Database construction is also proceeding at a torrid pace in the field of biotechnology as well, a typical example of which is gene recombination technology applying gene analysis, which has quietly attracted growing attention with the birth of a cloned sheep.

The Human Genome Analysis Center of the Medical Research Institute of the University of Tokyo is currently developing a gene database that contains such information as base sequence data and gene functions. The results of research are updated daily and disclosed on the Internet.

A business has also started up that will attempt to construct a database for decoding human genetic information contained in gene DNA. This enterprise was started in October 1996 by the Japan Science and Technology Corporation, and the database is scheduled for completion in three years.

Businesses using so-called "dormant patents", which refer to inventions that have been patented but are not actually in use due to the existence of protective patents filed by large

corporations, are being aggressively exploited by the government, local governments and regional key corporations. In this case as well, movements to disclose databases containing patents that are the subjects of these transactions on the Internet are becoming conspicuous.

The wave of digitization and database construction is also steadily closing in on the field of art, in which the powerful demonstrations of Hi-Vision are expanding the range of the age of multi-media.

The "National Cultural Asset Information System" being promoted by the Agency for Cultural Affairs indexes subject matter disclosed on the Internet by art galleries and museums to provide centralized management of that information. The information is then carried on their respective home pages.

Bill Gates, president of Microsoft Corporation, has personally financed a new business involving digitizing the exhibits of world-famous art galleries and museums and then leasing them out on the Internet for a fee.

Art work auctions and photograph databases are also beginning to be provided commercially. In the field of art auctions, ArtNet Auction Prices Online began operations in Japan in 1996. Archive Photo Ltd. also selected 100,000 of its stock of 10 million photographs for digitization, and began supplying them both online and offline in 1996.

In the field of medical care, activities using information technology are steadily expanding. These activities are symbolized by the use of electronic medical charts. Medical charts, which serve as a public record of medical treatment, are only allowed to be printed on paper due to legal restrictions. If electronic storage of these documents is allowed, the computerization and use of electronic medical charts is expected to increase dramatically.

Although medical information services had previously been led by pharmaceutical databases for physicians, including online medical document searching services, there is a growing number of databases that provide information on medicine and drugs for the general public.

In the field of education as well, movement towards computerization and efforts to make greater use of databases are beginning to appear.

According to a plan proposed by the Ministry of Education, personal computers will be installed in elementary schools at the rate of one to two students, and in junior high schools at the rate of one per student by March 2000.

The introduction of personal computers at universities and other higher education facilities is proceeding at such a rapid pace that officials are beginning to be concerned about paying electricity bills resulting from the use of so many personal computers.

In the government sector, following the start of the "Basic Project for the Promotion of Government Informatization", being conducted over a five-year period that began in 1995, the Kasumigaseki WAN went into operation in January 1997. This system will initially be used for handling electronic mail between central government ministries and agencies, and after being used for sharing databases such as those containing government white papers, services are

ultimately expected to be expanded to include the exchange of official documents. Separately from this project, information is also beginning to be supplied on the Internet.

4. Evolving Media and Databases

The proliferation of online services, proud of their "tradition" of supplying databases, and PC network services, providing communication paths for the Internet, is accelerating.

According to a survey conducted in 1996 by SIMBA Information Inc. for DPC, the number of subscribers to online commercial database services in the U.S. at the end of 1996 reached 4.35 million, an increase of 11.6% from the previous year. This number does not include the subscribers to PC network services, however. The number of users of the Internet for business purposes is also increasing rapidly, and is estimated to have reached 12 million people as of the end of 1996.

The survey conducted by SIMBA Information Inc. also revealed that the number of subscribers to PC network services and other consumer-oriented online services increased by 4.25 million during 1996 in North America alone. This has brought the total number of these users to 16.45 million, which represents an increase of 34.8% over the previous year. The key to the future of these services is how effectively they are able to reach a compromise with the Internet.

According to a survey conducted by the New Media Development Association, the number of subscribers to PC network services in Japan totaled 5.7 million as of June 1996. Market activity is continuing to grow, including the commencement of service by America Online, the world's largest PC service network firm, in January 1997.

In addition to the points above, although previous PC network services had been characterized by offering total service including communication functions such as electronic bulletin board, database searching, transaction and gateway functions and so on, PC network services have more recently started to offer Internet connection services, the provision of databases on the Internet and expanded functions, as fusion with the Internet progresses at a rapid pace.

Incidentally, the number of databases supplied by NIFTY-Serve, the largest PC network service in Japan, reached 1,350 in February 1997.

The other leading PC network service in Japan, BIGLOBE, is increasing the range of its services while inheriting the assets of PC-VAN. This service is moving rapidly to offer additional services including play-by-play coverage of professional baseball games using stream media and connection with Hanako-NET.

With respect to Internet service providers, companies are beginning to appear that are supplying information including databases as part of efforts to differentiate their services from those of competitors. Companies like Sonet and JustNet are examples of firms that are attempting to differentiate their services from those of competitors by aggressively gathering and supplying information. Moreover, services can be accessed by not only their own subscribers, but also

through other providers. Sonet is said to be planning on supplying the music and movie software accumulated by the Sony Group.

JustNet has begun providing news, newspaper articles and Zenrin residential housing maps.

MSN, operated by Microsoft, is moving rapidly to expand the range of information it supplies.

As of January 1997, the Internet is reported to be connected to approximately 16 million hosts. The number of users is estimated to be within the range of 80 to 160 million throughout the world based on the number of hosts. In Japan, there are believed to be 3.5 to 7 million users, equal to roughly 10% of the worldwide total.

Progress is steadily being made in the field of communication technology as well. Although the fastest available speed for connection with the Internet using an analog telephone line is currently 33.6 kbps, 56 kbps modems are expected to come into practical use in the near future. The xDSL technology being developed in the U.S. makes it possible to use digital signals on existing telephone lines, enabling high-speed communications of up to 9 megabits.

The world of cable television was the first to realize high-speed communication. The use of CATV lines via a cable modem allows data to be transmitted at the rate of 3-30 megabps. Musashino-Mitaka Cable Television in Tokyo began offering a cable Internet commercial service in October 1996.

Another field that is taking advantage of the potential of CATV is Video-on-Demand (VOD). This is providing a setting for pioneering experiments until optic fiber networks are installed in homes and multimedia services commence in the future.

In the field of high-speed communications using dedicated lines, high-quality communication services are being supplied accompanying technical advances.

The development of technology towards the realization of next-generation optical communications connecting continents at the rate of 1 terabit, equivalent to nearly 1000 times current rates, is moving into full swing. NTT and other firms have succeeded at optical soliton experiments involving transmission over a distance of 10,000 kilometers at the rate of 100 gigabits (1/10 of a terabit) per second. This technology will enable international transmission of animated images.

There is also a growing potential for the use of mobile communications as a means of database transmission, an area in which communication functions have attracted considerable attention, and which are proliferating at a rapid rate.

The number of subscribers to portable telephones, car telephones and PHS as of the end of 1996 reached 26.90 million. On the other hand, the number of ordinary telephones is tending to decrease.

Data communications at 32 kbps, for which service has begun with PHS, and data communications at 28.8 kbps that is possible with portable telephones, can be said to have significantly paved the way towards active utilization of databases in a mobile environment.

At present, Japanese portable telephones cannot be used overseas due to different standards in

effect in the U.S., Europe and Japan. Steps have been taken to achieve standardization to eliminate this problem. Efforts to achieve a de facto standard in the field of mobile communications in the form of the "broad-band CDMA" being promoted by NTT DoCoMo are attracting attention.

If this standardization is realized, it will be possible for users to engage in communications at 384 kbps while moving and at 2 megabps when stationary. This will enable the realization of services such as a kind of "portable video telephone" service that will allow salesmen to conduct business talks while showing customers image data of new products using a portable telephone, as well as to download the image data for shelf-layout simulation in the presence of the customer.

After high-speed communications, there is also 12 Mbps satellite data communication for which service has started under the name Direc PC service.

Recently, an offline CD family generically referred to as "Removable Media" is also playing an important role in the supplying of databases. These databases can be divided into "retrieval databases", "archival databases" and "distribution databases", according to the area and form in which they are used.

Databases that are used by temporarily taking original data compiled on a hard disk out of the computer in which it is stored, storing it on respective disks and then retrieving the required information are referred to as retrieval databases. Representative examples of media that are used in this way include PD, JAZ and CD-R.

Archival databases refer to the use of databases as a backup for databases that are required to be stored, examples of which include medical data and official government documents. Under the present circumstances, MO, WORM and CD-R are used as media for these databases.

Distribution databases refer to databases and the form of their media contained in offline media used in areas of commercial distribution, such as encyclopedias, games and software. The most typical example of this medium is CD-ROM. Recent personal computer models are provided with CD-ROM drives as standard equipment. Roughly 60 million CD-ROM drives will be shipped throughout the world in 1997, and that number is predicted to increase to 71 million in 1998.

In the case of next-generation offline media, the key will be how effectively that media can be used in light of the dramatic achievements that have been made in storage capacity.

One example of this are DVD that offer a huge storage capacity of 4.7 GB. These devices are being considered to play the role of a kind of hybrid database that enables a diverse range of information to be stored and used in combination on a single medium.

Another example is the manner of use that can be referred to as a connected database. This manner of use involves searching for real-time information on a network, while searching for back data on offline media. This concept can be said to have evolved from the difference between the continually increasing data processing speeds achieved within personal computers and the distribution capabilities of networks.

Although the media forms in which databases are supplied have conveniently been divided into online and offline media in this publication, as has been described above, database media were not naturally divided in this manner. Rather, these media have evolved by supplying functions required by databases through the process of mutual complementation according to the state of technology at that particular time.

II Trends in the Database Service Market

1. Size of the Database Market

According to the "Survey of Selected Service Industries", leading businesses in the information service industry include "database services" along with "software development and programming" and "on-line and off-line data processing services."

According to the 1995 edition of this same survey which provides the latest data, sales for the entire information service industry totaled ¥6.3622 trillion, up 3.0% from the previous year, getting out of two consecutive years of negative growth. During the 1970s and 80s, sales of the information service industry tripled in the span of five years, growing at a tremendous pace. Following that, however, the industry had been severely affected by the business slump which was worst in 1991. Analysis of the results of the survey reveals that the upturn of the sales reflects the increased contracts from major users including finance, insurance, transport and telecommunications businesses, as well as public sectors.

In looking at sales figures for individual types of services, the upturn in the area of "software development and programming", the mainstream information service area, for the first time in four years, which was supported by the recovery in investment in the information area, contributed greatly to the upturn of the sales of the entire industry. The sales of "on-line and off-

Table II-1 Annual Sales by Various Information Service Sectors

Classification	1994			1995		
	Annual sales (¥100 million)	Ratio(%)	Change from the previous year (%)	Annual sales (¥100 million)	Ratio(%)	Change from the previous year (%)
Total	61,770	100.0	-5.2	63,622	100.0	3.0
On-line and off-line data processing	9,660	15.6	-4.2	9,764	15.4	1.1
Software development and programming	34,858	56.4	-8.6	36,971	58.1	6.1
Key punching and data entry	1,843	3.0	-3.7	1,775	2.8	-3.7
Machine time sales	332	0.5	-23.4	348	0.5	4.8
Facility management services	3,585	5.8	-0.2	3,563	5.6	-0.6
Database services	1,988	3.2	-6.0	1,973	3.1	-0.8
Various types of research	2,476	4.0	0.0	2,395	3.8	-3.3
Miscellaneous services	7,028	11.4	10.0	6,831	10.7	-2.8

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

line information processing services" also increased from the previous year (Table II-1) .

What, then, is the situation for the database service industry? Although there are some aspects that do not always reflect the business trends accurately due in part to restrictions in the statistics on coverage of surveyed corporations, sales decreased for the fourth consecutive year. Incidentally, the review of the coverage has been progressing, and survey results are expected to reflect actual conditions more accurately, starting with the survey conducted in November 1996. Sales of "database services" have continued declining after peaking in 1991 at ¥216 billion (Fig. II-1). However, the margin of decline decreased from 6.0% in the previous survey to 0.8%, and sales per business increased from ¥527.42 million to ¥587.12 million, showing signs of recovery for the entire industry. Also, some effects of the Internet are expected to appear in the survey results in 1997 and following years.

Table II-2 shows changes in sales of database services by on-line and off-line services. Following the sales of on-line services which showed negative growth in the last survey, those in off-line services exhibited negative growth; however, the margin of decline was small in both services. The sales of on-line services accounted for 75.6% of the entire sales of database services, which were about the same as in the last survey. The figure is considerably larger than that shown in the "Survey of Japanese Database Services" (DPC) introduced in Chapter III, exhibiting a slight contradiction.

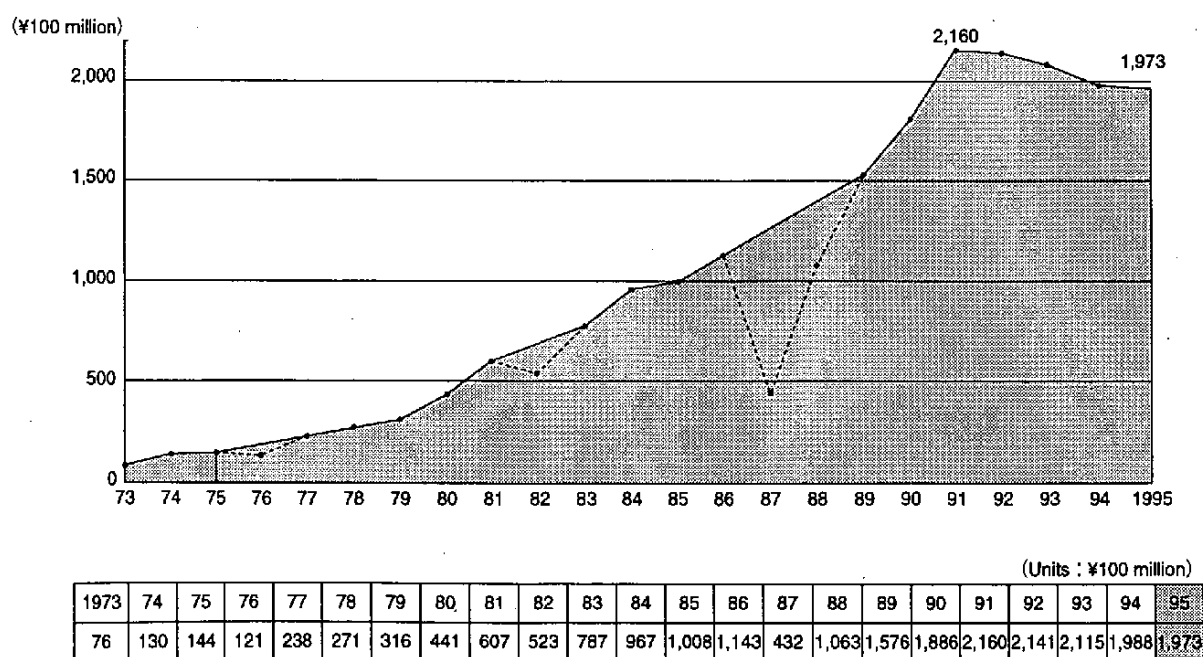


Figure II-1 Changes in Annual Sales of the Database Service Industry

Source: Prepared from "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
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	215,981 (459)	148,135 (227)	67,845 (232)
1990	188,613 (372)	129,009 (219)	59,610 (229)

Note: Figures in parentheses are the numbers of businesses

2. Distribution of Commercial Databases

2.1 Numbers of Accessible Databases and Companies Implementing Database Services

According to the 1995 edition of the "Database Directory", the actual number of commercial databases that were accessible in Japan as of 1995 was 3,308, up 247 (8.1%) from the previous year, when it broke the 3,000 mark for the first time. Figure II-2 shows changes in the number of databases accessible in Japan. The number of databases offered by Japanese companies has continued growing steadily since 1993 when it broke the 1,000 mark, and reached 1,124, according to the findings of the most recent survey. In terms of ratios, domestic databases have accounted for 33% to 34% of the total number of databases accessible in Japan in the past six years.

The Database Directory has been issued once a year since 1982. It serves as a guidebook that introduces commercial databases available in Japan with indices from various viewpoints, including category, supply form and vendor. There were 187 firms that reported results to the Database Directory for the 1995 edition.

By breakdown in terms of the types of businesses of these companies, "producers/vendors" accounted for the largest category, at 64 (34.2%) of the reporting firms.

Other major business types included "information brokers" (36 firms), "producers" (25 firms), "distributors" and "agencies" (10 firms each). Thus, the large number of "producers/vendors" is characteristic of the business types found in Japan.

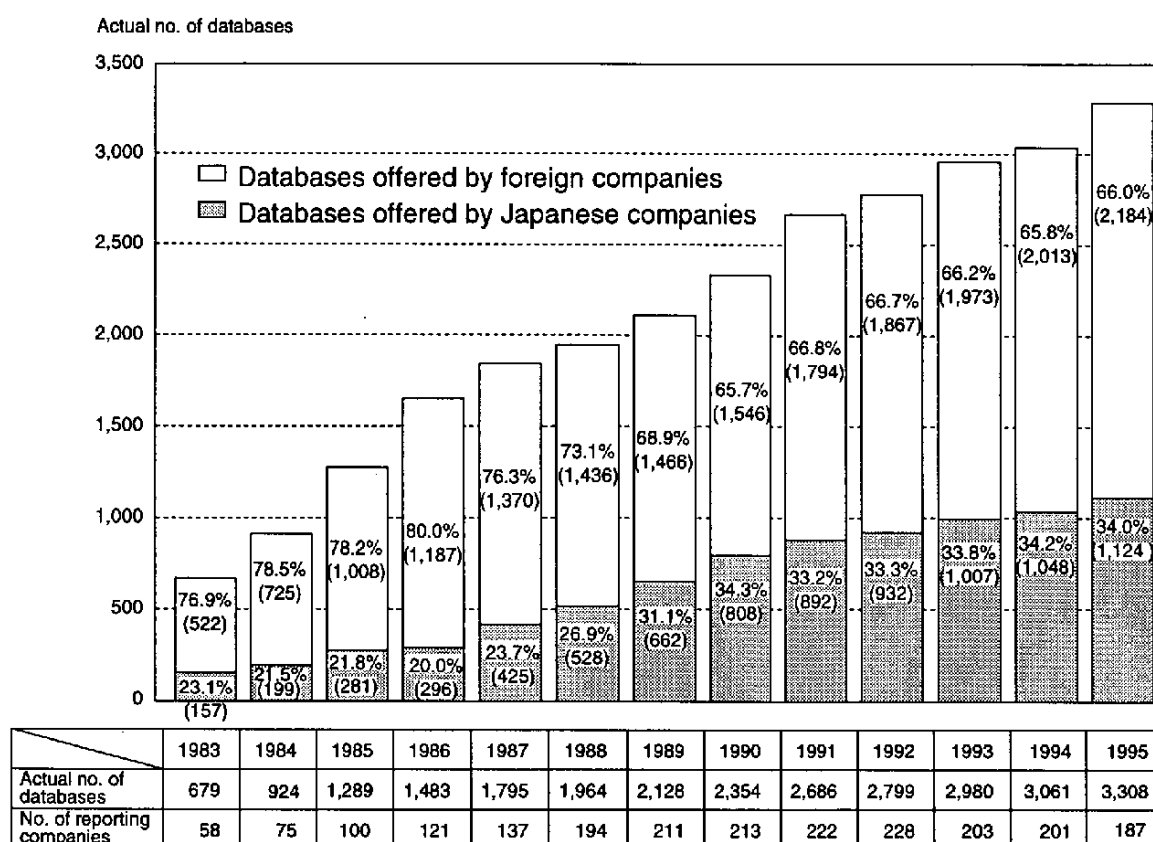


Figure II-2 Changes in the Number of Databases Accessible in Japan
(Based on Actual Numbers)

Source: Prepared from the "Database Directory," MITI

2.2 Status by Category

Databases distributed in Japan are broken down by category as (1) General 1,028 (31.1%), (2) Natural Science and Technology 940 (28.4%), (3) Humanities 105 (3.2%), (4) Business 1,174 (35.5%) and (5) Other 61 (1.8%).

In the "General" category, the number of databases has consistently increased, and its ratio to the total databases available has approached to that of the "Business" category. The growth rate of this category from the previous year was 10.9% or 101 databases. This favorable growth reflects the rapid growth of a subcategory, "Newspapers, journals and news", that has grown at a pace of about 50 databases per year. Also, the category has a prospect to expand into life-related information with the expansion of user bases. The "Business" category has continued to account for the largest number of databases of all the categories since the start of this survey. However, in the current survey, the year-on-year growth rate of the "Business" category was the smallest among major classification categories, at 1.2%. In particular, the number of databases decreased in the subcategory of "Corporate profiles and finance" for both domestic and overseas.

Meanwhile, the number of databases in the category of "Natural Science and Technology" exhibited the largest growth ever at 14.8%, recovering from the negative growth in the last survey. Databases distributed in the "Humanities" category increased 11.7%, reaching the order of 100.

One hundred or more databases are distributed in the following nine subcategories, one subcategory more than last time (Table II-3).

- (1) Newspapers, journals and news (469)
- (2) Corporate profiles and finance (overseas) (257)
- (3) Medicine, pharmaceuticals, biotechnology and biology (196)
- (4) Finance, securities and foreign exchange (168)
- (5) Electricity, electronics and information (134)
- (6) Markets and products (133)
- (7) Chemistry (121)
- (8) Patent (112)
- (9) General business/industry (105)

There is a viewpoint to include the "General" subcategories of "Newspapers, journals and news" and "Who's who/Organizations", for which there is a large amount of business use, in the "Business" category, to reflect actual usage. When this viewpoint is applied, the figure for the "Business" category is corrected to account for more than half of the total, at 52.1%.

Table II-3 Distribution by Category of Databases Accessible in Japan
(Number of Databases)

(continued on next page)

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

Source: Prepared from the "Database Directory", MITI

Table II-3 Distribution by Category of Databases Accessible in Japan
(Number of Databases)

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

Source: Prepared from the "Database Directory", MITI

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

This section provides a comparison of databases in the United States and Japan by looking at various sources of data, thereby allowing for the comparison of Japan with the U.S., which is always ahead of Japan, since data in this field, or the information service industry, is not necessarily internationally compatible. Therefore, the results obtained should be used to provide an indication of database conditions in the two countries. Comparison was made based on the following parameters:

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

The first four parameters can be considered to be indicators of the strength of the database service industry. The last four parameters are indicators of the distribution status of databases in the respective countries (Table II-4, Fig. II-3).

Table II-4 Comparison between U.S. and Japanese Databases (1995)

Criteria	Japan	United States
(1) Database sales	1.0	7.1
(2) No. of passwords	1.0	10.1
(3) No. of producers	1.0	9.7
(4) No. of participating organizations	1.0	10.9
(5) No. of distributed databases	1.0	2.6
(6) No. of domestic databases	1.0	5.3
(7) No. of business databases	1.0	2.3
(8) No. of fact databases	1.0	2.1

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

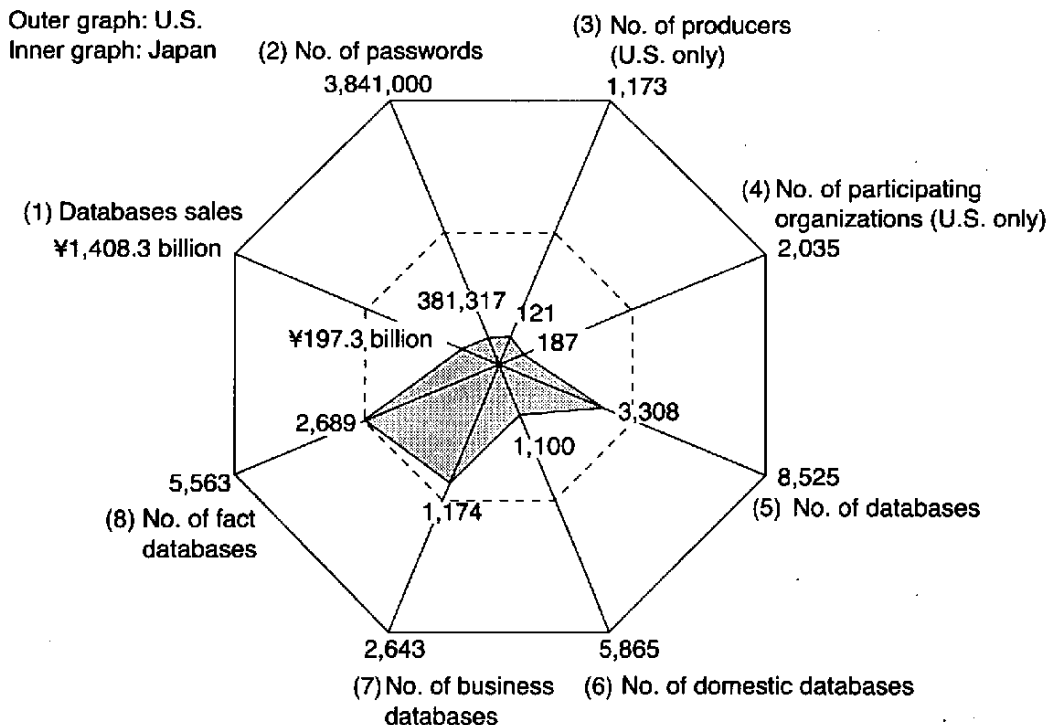


Figure II-3 Graphical Comparison of Database Conditions in the United States and Japan (1995)

- Notes: 1. Database sales for the United States indicate approximate figures calculated at the rate of ¥94.06 for a dollar based on data from SIMBA Information Inc. (worldwide sales of information service businesses based in North America including Canada. Therefore, North American sales of Reuters and Reed Elsevier are excluded).
2. U.S. data for the number of passwords uses data for 1995 from SIMBA Information Inc., while Japanese data uses data as of January 1, 1996, taken from the established rankings of "Nikkei New Media", published by Nikkei BP. However, the number of passwords for the United States is the total passwords in the "business/professional category", and does not include those via the Internet.
3. Items (3) through (8) for the United States were compiled based on the paper by Martha E. Williams, excerpted from the January 1996 edition of Vol. 1 (Online) and Vol. 2 (CD-ROM, etc.) of the "Gale Directory of Databases". Data for Japan was taken from the "Database Directory" (1995 edition).
4. Actual numbers are shown for items (5) through (8).

3.1 Comparison of Database Industry Strength

The overwhelming superiority of the U.S. database industry was unchanged with respect to indicators of database industry strength. Numbers of participating organizations, passwords and producers were all ten times higher in the U.S. than in Japan. However, it should be noted that the number of passwords in the U.S. was limited to those used in the field of "Business/Professional" including "Financial information services", and excludes consumer services. In the field of services provided under the name of PC network services in Japan, the number of passwords in the U.S. was about 2.5 times that in Japan. Hence, the actual difference could be smaller than the figure mentioned above.

There was a 7.1-fold difference in the database sales between the two countries, with the gap widening for three consecutive years. It cannot be denied that usage by overseas customers is the major factor contributing to widening the differences in the number of passwords and database sales between the two countries.

3.2 Comparison of the States of Database Distribution

The difference between the United States and Japan in terms of the status of database distribution was not as large as that in industry strength. This is only natural, since a large number of databases in the United States can be accessed on-line from Japan, for example, with respect to item (5) regarding the No. of databases accessible.

Numbers of databases, business databases and fact databases were all more than twice as high in the United States as in Japan. However, consideration of the 10-fold difference in the numbers of producers between the two countries reveals that the number of databases provided per producer is considerably higher in Japan than in the United States. The difference in the number of domestic databases was about five-fold, as usual.

III Trends in the Database Service Industry

This chapter provides an introduction to trends in the database service industry in Japan, based on analytical results of the "Survey of Japanese Database Services (Vendor Edition)" conducted by the Database Promotion Center (DPC).

1. Positioning of Database Services

Companies covering a wide range of business types are involved in the database service market. The diversity of businesses involved in this market include firms engaged in mass communications media such as publishing, newspapers and broadcasting, and other firms engaged in think tank and public services, as well as in information services.

These firms were questioned about the positioning of their database business within their companies by asking whether or not it is their major business, both for now and in the future. Of the 103 firms that replied, 48.5% responded that it is currently their major business (Fig. III-1). This represents an increase of 4.4% from the previous survey (September 1995). In terms of future prospects, 60.2% replied that it would be their major business in the future, representing an increase of 2.7% from the previous survey.

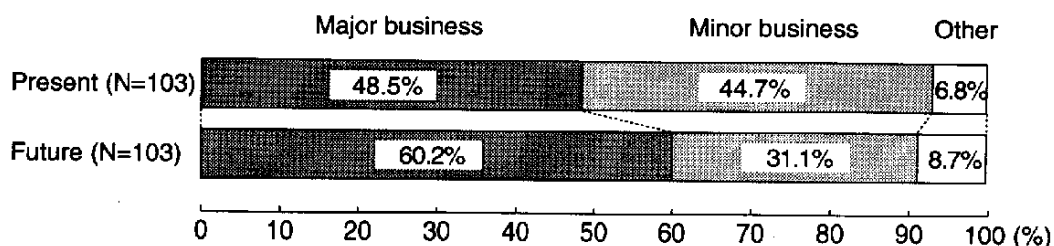


Figure III-1 Positioning of Database Services

2. Sales of Database Services

The "Report of the Survey of Selected Service Industries", a compilation of selected statistics issued by the Ministry of Trade and International Industry (MITI), serves as a source of official statistics relating to database sales. According to the survey, sales of database services in Japan in 1995 totaled ¥197.3 billion.

Here, instead of looking at actual numbers, an attempt will be made to determine the positioning and perspective of database services as a business by gaining an understanding of trends relating to database sales on the basis of six indicators shown below. It should be noted,

however, that some of the companies that replied to the questionnaire calculated their database sales including the costs of manuals and seminars, as well as those of database construction ordered from other companies.

- (1) Ratio of database sales to company gross sales
- (2) Ratio of Japanese domestic database sales to total database sales
- (3) Ratio of database sales by form
- (4) Year-on-year growth rates of database sales
- (5) Estimated annual average growth rates of database sales over the next five years (corporate level)
- (6) Estimated annual average growth rates of database sales over the next five years (industry level)

2.1 Ratio of Database Sales to Company Gross Sales

As shown in Fig. III-2, the overall average ratio of database sales to company gross sales at 79 replying companies for fiscal 1995 was 30.5%, down 3.0 percentage point from the previous survey. In looking at the distribution of sales ratios, "1-5%" was the most common reply given by 21.5% of replying firms, followed by "15-50%" by 16.5%, and "Less than 1%" given by 15.2%, respectively, of the replying firms. The number of firms for which the ratio of database sales was 10% or less accounted for 45.6% of all firms replied, exhibiting a slight shift toward higher ratios compared to the previous year.

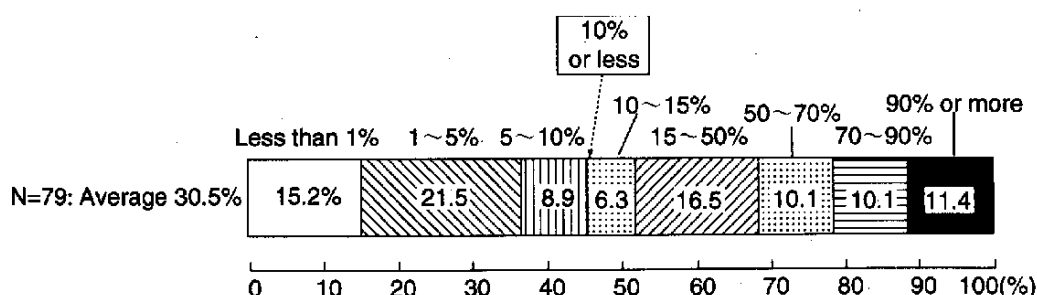


Figure III-2 Distribution of the Ratio of Database Sales to Company Gross Sales

2.2 Ratio of Japanese Database Sales to Total Sales

The ratio of Japanese database sales to total database sales was an average of 87.1% for 87 replying companies. This ratio has remained consistently at 85% or above since this survey was started in 1988, indicating that domestic databases are the major source of database sales for vendors compiled in the Database Directory, in spite of the reputation of Japanese database

service as being dependent on overseas services.

By business type, the ratio of domestic databases was higher, with 100% of "producers", 95.5% of "producers/distributors", 74.0% of "producers/agents" and 72.7% of "agents".

2.3 Database Sales Ratio by Form

With respect to domestic databases (79 firms replied), the ratio of on-line sales, which has continued declining over the past several years, declined to 49.0% in the current survey. On the other hand, sales of magnetic tapes and CD-ROMs, which had been on the rise, accounted for 14.2% and 12.2%, respectively. Thus, the form of database supply has been diversifying (Fig. III-3).

With overseas databases (27 firms replied), on-line sales accounted for 54.2%, down about 17% from the previous survey, showing the same trend as among domestic databases. In addition, sales of magnetic tapes and CD-ROMs, which accounted for 2.0% and 6.5%, respectively, were not as high as those of domestic databases. The ratio of "Other", which includes "agents", increased.

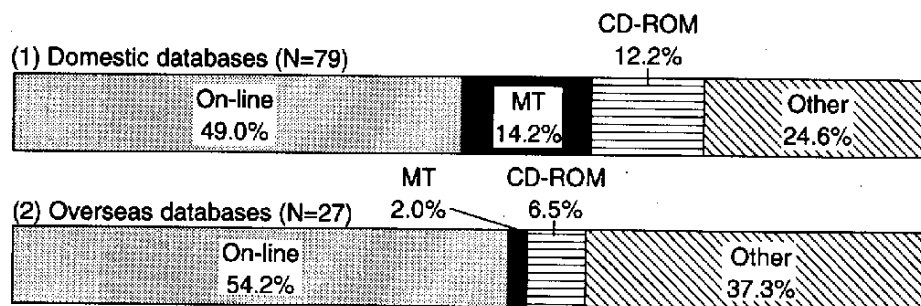


Figure III-3 Ratio of Database Sales by Form

2.4 Growth Rate of Database Sales

The average growth rate of database sales for 76 replying companies in fiscal 1995 over the previous year was 20.0%, a decrease of 5 percentage points from the previous survey. In terms of the distribution of the range of the growth rates, "10% to less than 20%" accounted for the largest category, reported by 27.6% of the replying companies (Fig. III-4).

In comparison with the previous survey, the ratio of those reporting "0 or negative" and "No change" in their growth rates declined slightly, and that of those reporting growth rates from negative to less than 30% increased by about 11 percentage points. The ratio of those reporting a high growth rate of "70% or more" also decreased, giving the impression that the overall growth rate is diminishing.

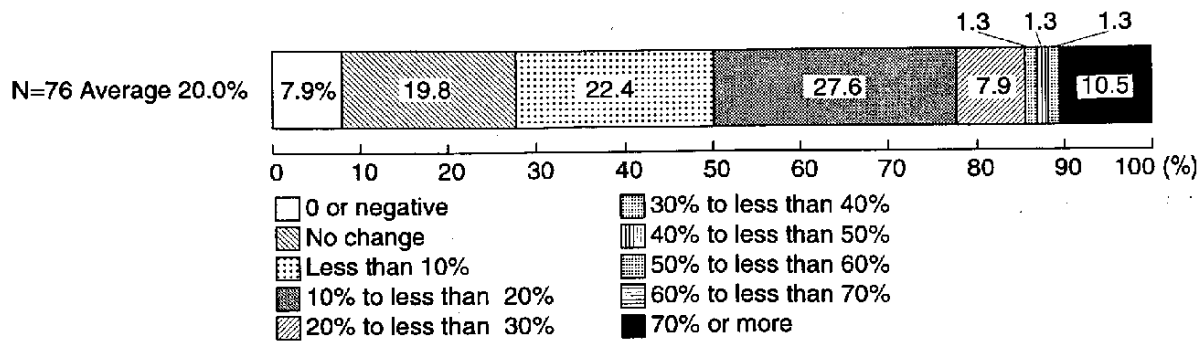


Figure III-4 Distribution of Year-on-Year Changes in Database Sales

2.5 Estimated Growth Rate of Future Database Sales (Company Level)

Respondents were asked to estimate the annual average growth rate of database sales over the next five years at their respective companies. The overall average of 81 replying companies was 13.6%, down about 10% from the previous year. On the other hand, the combined ratio of "0 or negative" and "No change" increased 6%, presenting an element of concern for the future (Fig. III-5).

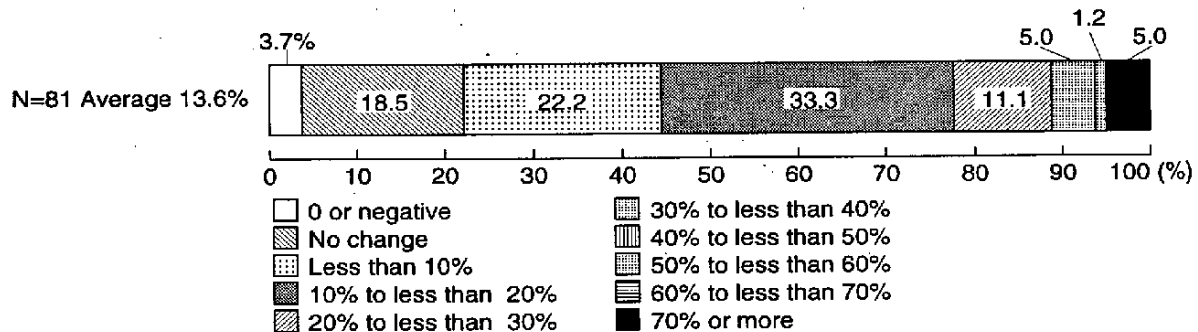


Figure III-5 Distribution of Estimated Annual Average Growth Rate of Database Sales over Five Years (Company Level)

2.6 Estimated Growth Rate of Future Database Sales (Industry Level)

Companies were asked to estimate the annual average growth rate of database sales for the entire database industry over the next five years. The overall estimated average growth rate of 80 replying companies was 20.7%. Although the figure was higher than the average growth rate of individual companies mentioned above, it was 5% lower than in the previous survey (Fig. III-6).

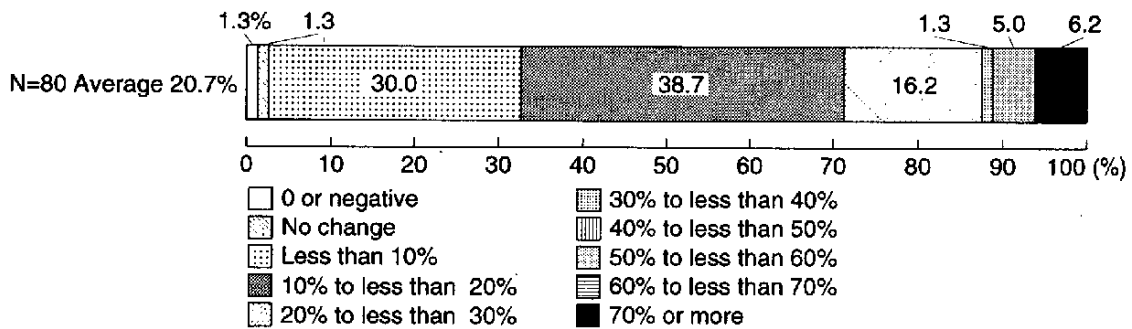


Figure III-6 Distribution of Estimated Annual Average Growth Rate of Database Sales over Five Years (Industry Level)

3. Media with the Highest Expectations

Media on which databases are supplied have been diversifying. Companies providing database services were asked to indicate three media for which they have the highest expectations over the next five years, along with their annual average growth rates.

3.1 Media with the Highest Expectations

As shown in Fig. III-7, "the Internet" was cited by the overwhelming majority, 86.0% of the replying companies, followed by "CD-ROMs", which was ranked second in the previous survey, at 50.5%, and "use via PC network", which was ranked first in the previous survey, at 48.4%.

"The Internet" accounted for the majority of the "Other" category in the previous survey. In the current survey, "the Internet" was an independent category and, as had been expected, jumped to first place. However, there are still many problems to be solved regarding the actual utilization of commercial database services, as described elsewhere in this report.

"CD-ROMs" that accommodate multimedia as removable media are optimistically viewed as future media. Expectations for "PC networks" heightened in the previous survey, symbolized by the explosive increase in the number of subscribers in the wake of the Great Hanshin-Awaji Earthquake. However, it fell in ranking in the current survey. The expectations gap between the two media has been narrowing year by year.

Among the media with lower degrees of expectations, "CATVs" ranked eighth place at 11.8%, coming ahead of "Facsimile services" and "Magneto-optical disks".

3.2 Predicted Growth Rates

Figure III-8 shows the predicted annual average growth rates of selected media over the next five years. The top three media in terms of largest predicted growth rates consisted of (1) "The

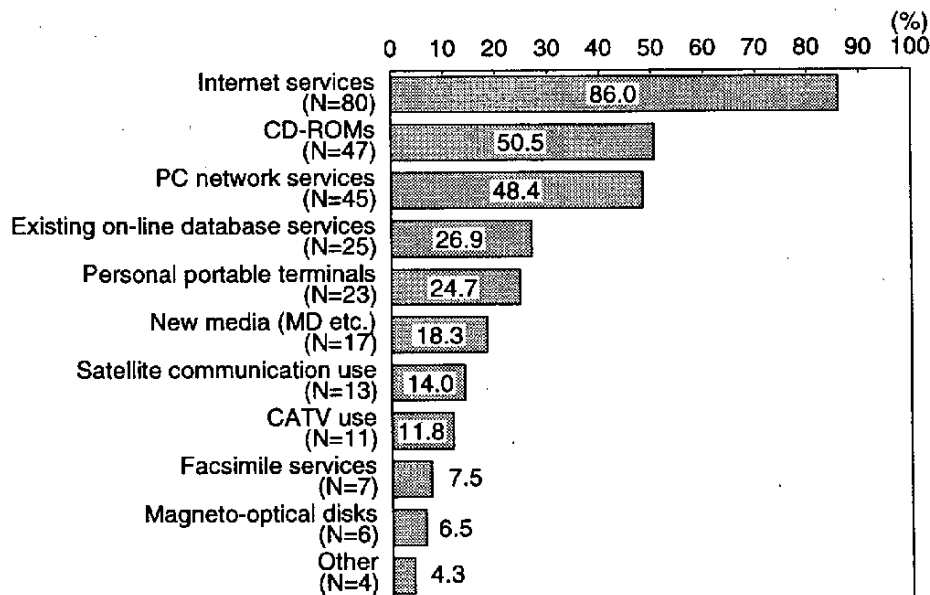


Figure III-7 Media Expected to Demonstrate the Highest Growth over the Next Five Years
(N=93: multiple replies)

Note: Dial Q² services and magnetic tapes (MTs) are included in the "Other" category since there were hardly any replies for these media.

Internet" at 66.3%, (2) "New package-type media to be introduced in the near future" at 62.2% and (3) "Fax services" at 60.0%. The predicted annual average growth rate of "CATV" dropped to 39.0% from first place, at 70%, in the previous survey. Incidentally, the orders in degree of expectations described in Section 3 and the ranks in growth rate do not agree, except for "the Internet".

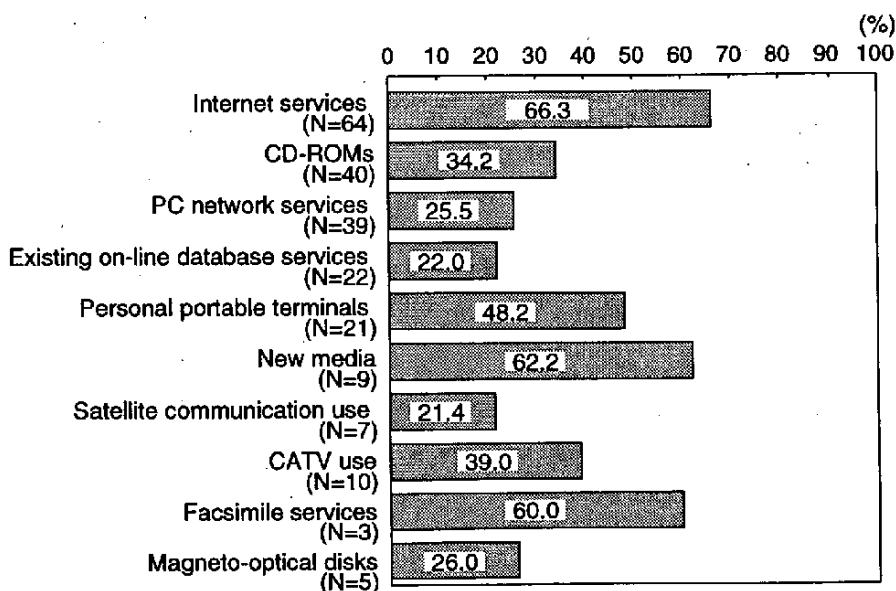


Figure III-8 Annual Average Growth Rates of Media Expected to Demonstrate the Highest Growth over the Next Five Years (Forecast)

4. Distribution of Databases

Among producers distributing their own databases, some handle distribution on their own, while others outsource distribution to other companies. The former group is referred to as "producers/distributors" in terms of business type.

Among the 71 companies that replied that they were producers, 61 firms (85.9%) supply databases on their own, and 29 firms (40.8%) outsource distribution to other companies. These figures were almost identical to the results of the previous survey, and reflect the characteristic of database distribution in Japan that many producers are also distributors themselves. Eighteen firms (25.4%) both distribute on their own and outsource distribution to other companies.

Of 28 producers replying that they outsourced distribution to other companies, 32.1% said that they used one company, 21.4% indicated 5 to 10 companies, and 14.3% indicated two and four companies each. The number of companies to whom producers outsourced distribution was 4.0 in average, which was close to the figure of the survey before the last.

5. Problems in Database Construction

Database producers were asked about problems they are aware of when constructing databases. As shown in Fig. III-9, the major problem involved cost. This trend has not changed for a long time, although the number citing "High construction cost, including data collection and data entry" at 84.3%, and those indicating the second largest problem, "High maintenance cost" at 57.1%, were both slightly lower than in the previous survey.

Other problems exhibiting notable decreases in response rates were "Anxiety for security measures", which decreased from 19.2% to 10.0%, and "Shortage of personnel for data production such as indexer", from 20.5% to 12.9%.

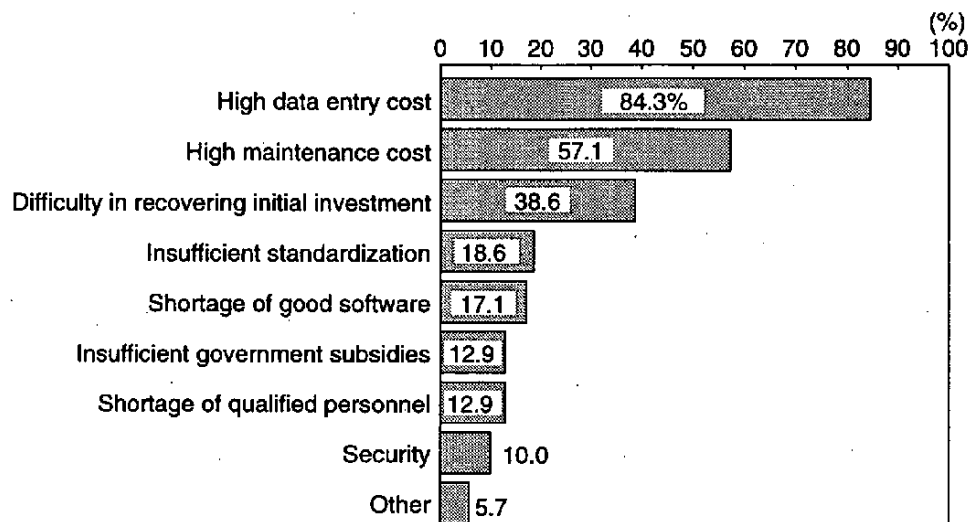


Figure III-9 Problems in Database Construction (N=70: multiple replies)

6. Utilization of Public Data

Public data, which refers to statistical data and documentary information such as council reports produced by government agencies and other public organizations, is being viewed with considerable optimism for use as database source data. User expectations are also high in the "Survey of Japanese Database Services (User Edition)" concurrently performed with the current survey. Producers were asked to what extent they actually use public data, and what types of problems they encounter when using the data.

Of the 70 replying producers, 35 (50.0%) are using public data as database source data. This figure has not changed very much from the previous survey. As the reason for using public data, an equal 48.6% indicated "reliability of data", "high demand" and "data is updated annually or regularly" (Fig. III-10).

Public data currently being used or supplied by producers in the form of character data consists primarily of "government reports" (28.6%) and "government white papers" (25.7%). With respect to numerical data, "general business/industry" and "economy, business and finance" accounted for the largest at 40.0% each, followed by "international trade and payments", which accounted for 34.3%. Thus, the supply of economic indices increased (Fig. III-11).

With respect to problems in using public data, "Late announcement and supply of data (data is old)" was indicated by 54.3%, and "Supply form of public data used is on paper and not digitized" was indicated by 51.4%, both by far the largest portion of respondents, as in the previous survey.

With respect to reasons for not using public data, "Desired data is not available" was the largest, accounting for 67.7%, followed by "Supply medium is paper and not digitized" at 32.3% and "Data is old" at 22.6%.

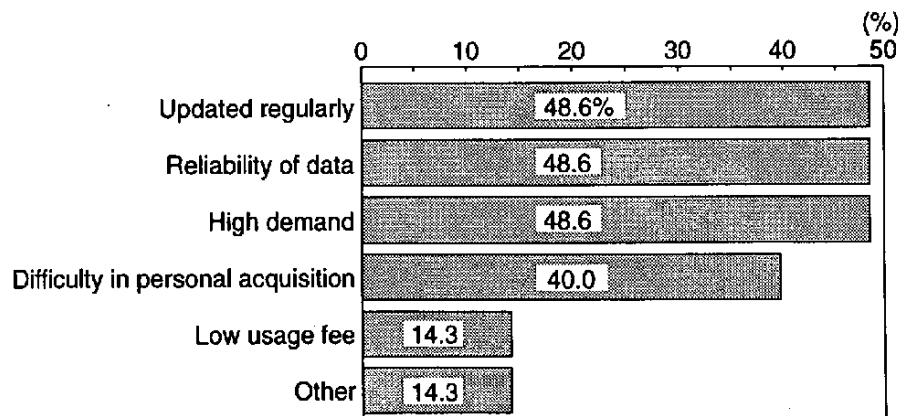


Figure III-10 Reasons for Using Public Data (N=35: multiple replies)

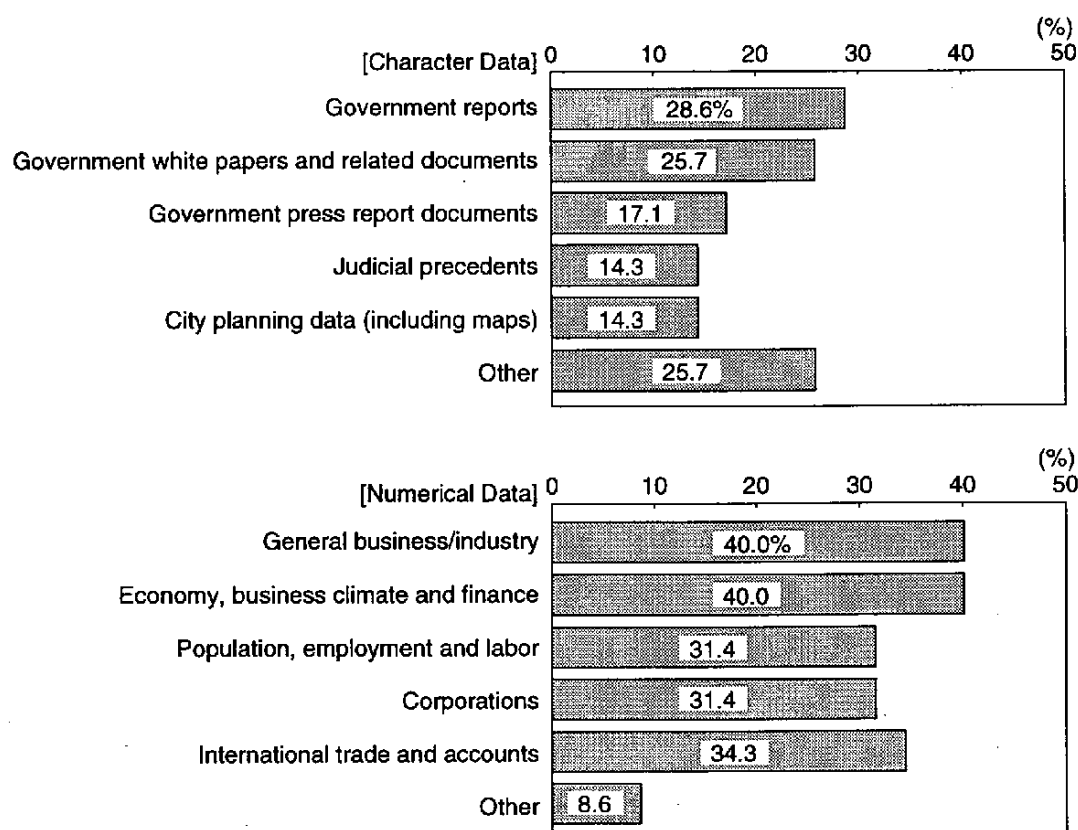


Figure III-11 Currently Used Public Data (N=35: multiple replies)

7. Types of Data (Text, Image, Video, etc.)

7.1 Data Currently Being Supplied

Types of data being supplied on-line include "Text (reference)", "Text (fact, character)" and "Numerical", with the majority of data in this order. "Text (reference)" increased by 9 percentage points, reaching the first place. The largest change from the previous year was exhibited by "Image (still pictures, photographs, etc.)", which increased by 14 percentage points to 36.8% (Fig. III-12).

The types of data being supplied off-line are greatest in the following order: "Text (fact, character)" and "Text (reference)". In comparison with the survey of the previous year, "Numerical" and "Image (still pictures, photographs, etc.)" decreased by 10% and 6%, respectively (Fig. III-13).

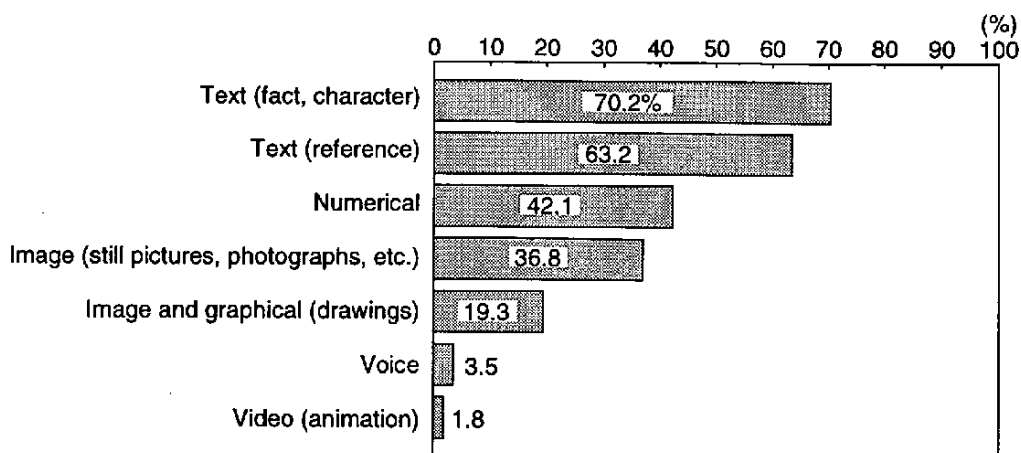


Figure III-12 Types of Data Currently Supplied On-line (N=57: multiple replies)

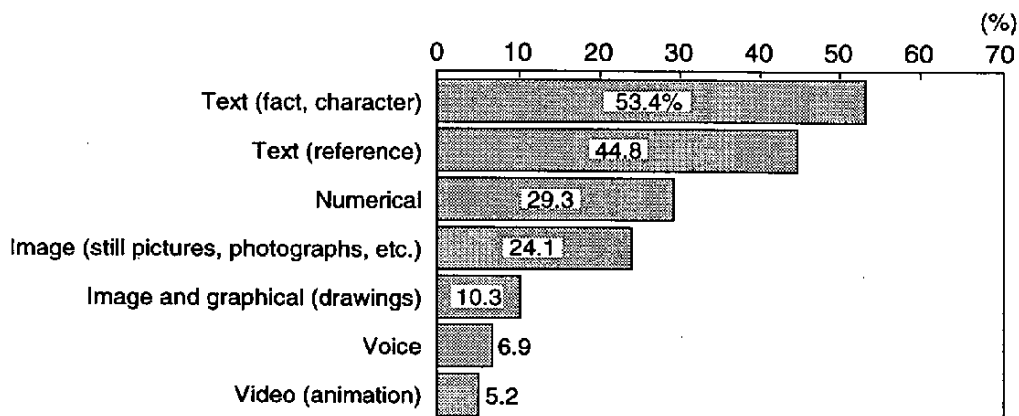


Figure III-13 Types of Data Currently Being Supplied Off-line (N=58: multiple replies)

7.2 Data Scheduled to be Supplied in the Future

With regard to data scheduled to be supplied or for which supply is scheduled to be expanded on-line, the orientation toward multimedia data has become pronounced, whereas conventional types of data such as text and numerical data decreased from the previous survey. "Numerical" decreased by 12%. In contrast, "Image (still pictures, photographs, etc.)" jumped up to the top position, accounting for nearly 50% of all data for which supply or expansion is scheduled. "Image and graphical" also rose in ranking (Fig. III-14).

In the case of off-line supply of data, expectations were high for "Image (still pictures, photographs)" and "Image and graphical", both of which rose in ranking. Replies indicating desire to supply or expand supply for "Text (fact, character)" and "Numerical" plummeted, down more than 20% each from the previous year (Fig. III-15).

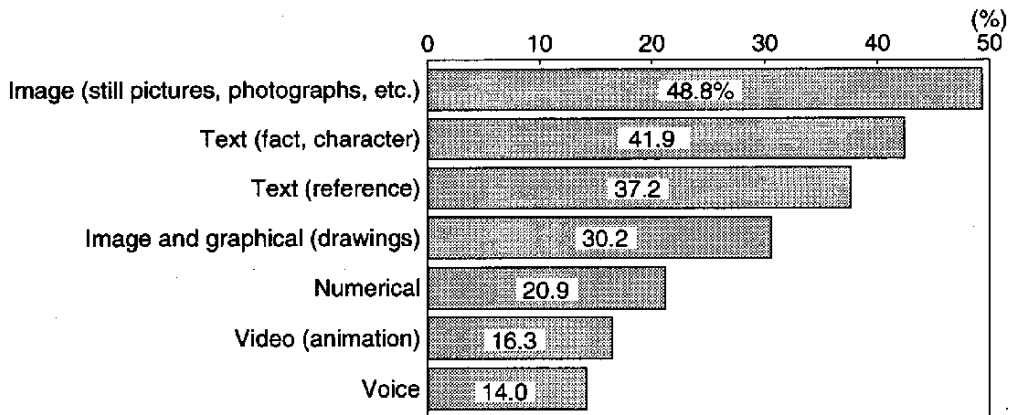


Figure III-14 Types of Data Desired to Supply (or Desired to Expand) On-line
(N=43: multiple replies)

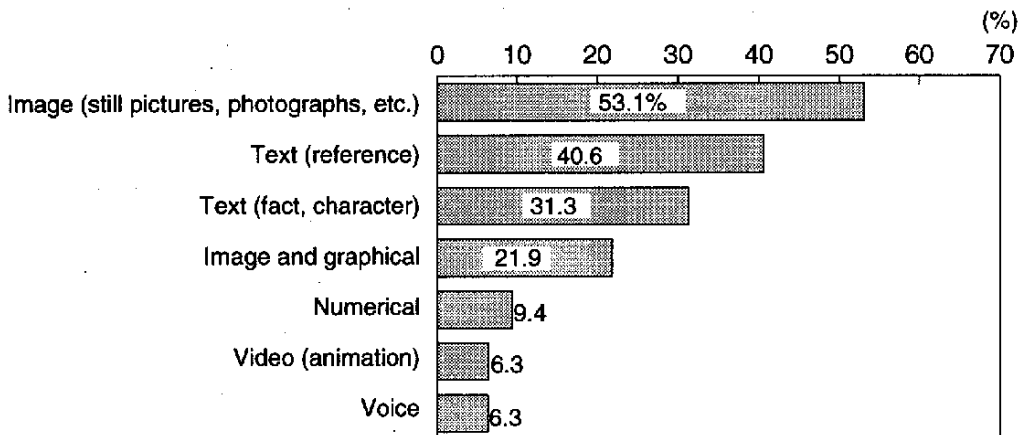


Figure III-15 Types of Data Desired to Supply (or Desired to Expand) Off-line
(N=32: multiple replies)

7.3 Positioning of Image and Video Data

As described above, the number of vendors supplying image and video data has been increasing. Companies which replied that the supply of image and video databases constitutes "Partial service" accounted for 55.9%, an increase of about 17% from the previous survey. Meanwhile, 26.5% of the companies replied that image and video data services are their "Extremely small-scale service", down by about 11%. Those indicating image and video data service as their "Main service" decreased slightly. These replies indicate that these companies' main focus has been shifting.

Companies not currently supplying image or video data were asked when they expected to start supplying that data. Of the 44 companies that responded, those replying "Not considering at present" accounted for 45.5%, up 7% from the previous survey. When this is combined with the 9.1% "Do not know" figure, the total accounted for more than 50%, indicating the bipolarization

in the supply of image and video data services.

8. Database Supply by CD-ROM

8.1 Status of CD-ROM Database Supply

The number of companies supplying database by CD-ROM has increased steadily since the start of the survey. The companies that replied they are supplying databases by CD-ROM amounted to 46.8% in the current survey (Fig. III-16). By breakdown in terms of business type, 17 "producers/distributors" ranked as the largest group at 45.9%, followed by eight "producers" at 21.6%.

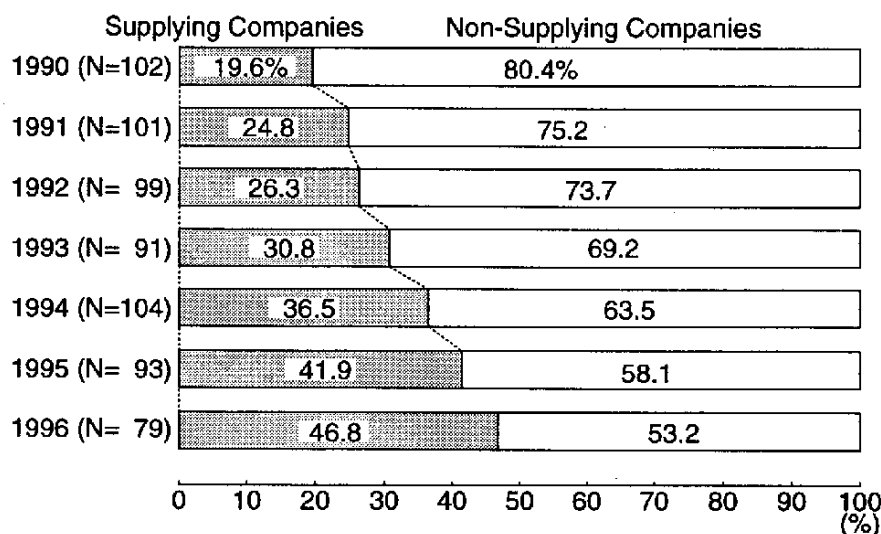


Figure III-16 Proportion of Companies Supplying Databases by CD-ROM

8.2 Categories of CD-ROM Databases

The number of companies supplying CD-ROM databases are broken down by category as follows. The number of companies supplying data in the "General" category was the largest at 20 companies, followed by "Business" at 17 companies and "Natural science and technology" by 14 companies. In terms of the breakdown by subcategory, "Medicine, pharmaceuticals, biotechnology and chemistry" was supplied by eight companies, followed by "Newspapers, journals and news" by seven companies, and "Magazine, book and periodical information" by six companies (Table III-1).

In terms of the number of titles actually supplied, "Medicine, pharmaceuticals, biotechnology and chemistry", "Science, technology and patents", "Newspapers, journals and news" and "Economics and business" were the largest at 129, 111, 89 and 83 titles, respectively.

The margin of the increase from the previous survey was the largest in "Science, technology and patents", which increased by 93 titles, followed by "Newspapers, journals and news", up 69 titles, and "Arts, culture, literature and history", up by 41 titles.

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

	Currently supplied (N=36)	Scheduled to be supplied in the future (N=20)
[General]	[20]	[7]
Audio-visual, games, entertainment	3	1
Dictionary, encyclopedia and document guides	3	1
Service guides and information	—	—
Magazine, book and periodical information	6	2
Who's who	1	—
Newspapers, journals and news	7	3
CAI	—	—
[Business]	[17]	[15]
Finance, securities, foreign exchange and market information	1	2
Standards	—	—
Products and product information	1	2
Corporate finance and profiles	4	3
Economics and business	3	2
Maps and mapping, telephone numbers and address codes	3	2
Statistics and populations	1	3
Laws, regulations, precedents, taxes and tax information	4	1
[Natural Science and Technology]	[14]	[2]
Medicine, pharmaceuticals, biotechnology and chemistry	8	—
Science, technology and patents	3	1
Computers and software	1	—
Architecture and construction	1	1
Materials and components	1	—
Space, earth, marine and fisheries	—	—
[Humanities]	[3]	[3]
Arts, culture, literature and history	—	—
Language and words	—	—
Social science and psychology	1	—
Libraries and information science	1	—
Maps and geography	—	2
Education and religion	1	1
Other	[1]	[1]
Totals	55	28

9. Internet Utilization

The popularization of the Internet has been affecting the commercial database services greatly. In the current survey, database service companies were asked about how they are dealing with database services via the Internet.

With respect to the actual status of the database services supplied via the Internet, 22 companies (27.8%) said that they were currently "providing" database services via the Internet, more than double the 12.6% figure in the previous survey (Fig. III-17). By business type, 26.7% of "producers" (15 companies) said they were "providing", accounting for the largest percentage of the business types to which five or more companies replied. Companies that replied they "would like to consider in the future" was high (36.1%) among "producers/distributors" (36 companies), probably due to the relation with services they are currently providing.

Types of services that database service companies were providing or planning to provide via the Internet are shown in Fig. III-18. Of the database services provided via the Internet by 22 companies currently providing services, "Character, numerical and still picture information service on the WWW" accounted for the largest at 86.4%, followed by "Data search on the WWW" at 68.2% and "Character data service such as news in electronic mail" at 27.3%. This

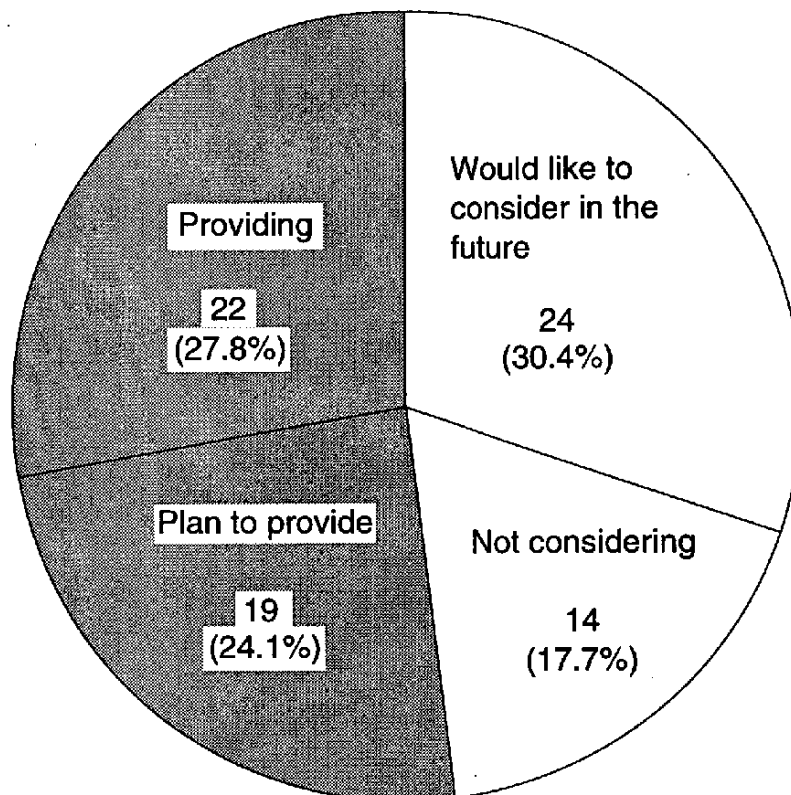


Figure III-17 Implementation Status of Database Services via the Internet (N=79)

order was exactly the same among companies that replied they were planning or considering to provide database services via the Internet.

With respect to the reasons for "Not considering providing database services via the Internet", "Bothersome billing" ranked first in the previous survey. Therefore, in the current survey, companies were asked about the billing system they were currently implementing or planning to implement.

Of the 22 companies currently providing database services via the Internet, 59.1% replied that "Services are charged on the basis of the conventional charging method targeting specified users", 31.8% replied that "Services are free", 27.3% said that "Users make access via the Internet, and conventional systems such as bank transfers are employed for invoicing and settlement" and 22.7% said they use "Credit cards" (Fig. III-19).

In the case of companies planning to provide database services via the Internet, the top two responses were the same as those from companies currently providing these services, at 37.8% and 27.0%, respectively, excepting those who said "Specific system is yet to be decided".

Companies currently providing information services via the Internet were similarly asked about any concerns or problems they have with using the Internet. Of the replying companies, 59.1% indicated "Bothersome billing", 54.5% indicated that "Sometimes, scrolling of the screen is too slow depending on the line and server capacity", 50.0% said that they are "Concerned about security, such as interference by outsiders", and 40.9% said they are concerned about "Leakage of individual and confidential information".

Companies currently providing and those considering providing database services via the Internet exhibited different viewpoints regarding "Line and server capacity" and "Leakage of individual information", suggesting the difficulties involved with rapidly growing media. Those exhibiting concern for these items were greater among companies currently providing services. The difference in viewpoints were also great with regard to the issue of "Unable to find a way to pay the maintenance cost", this time reversed manner (Fig. III-20).

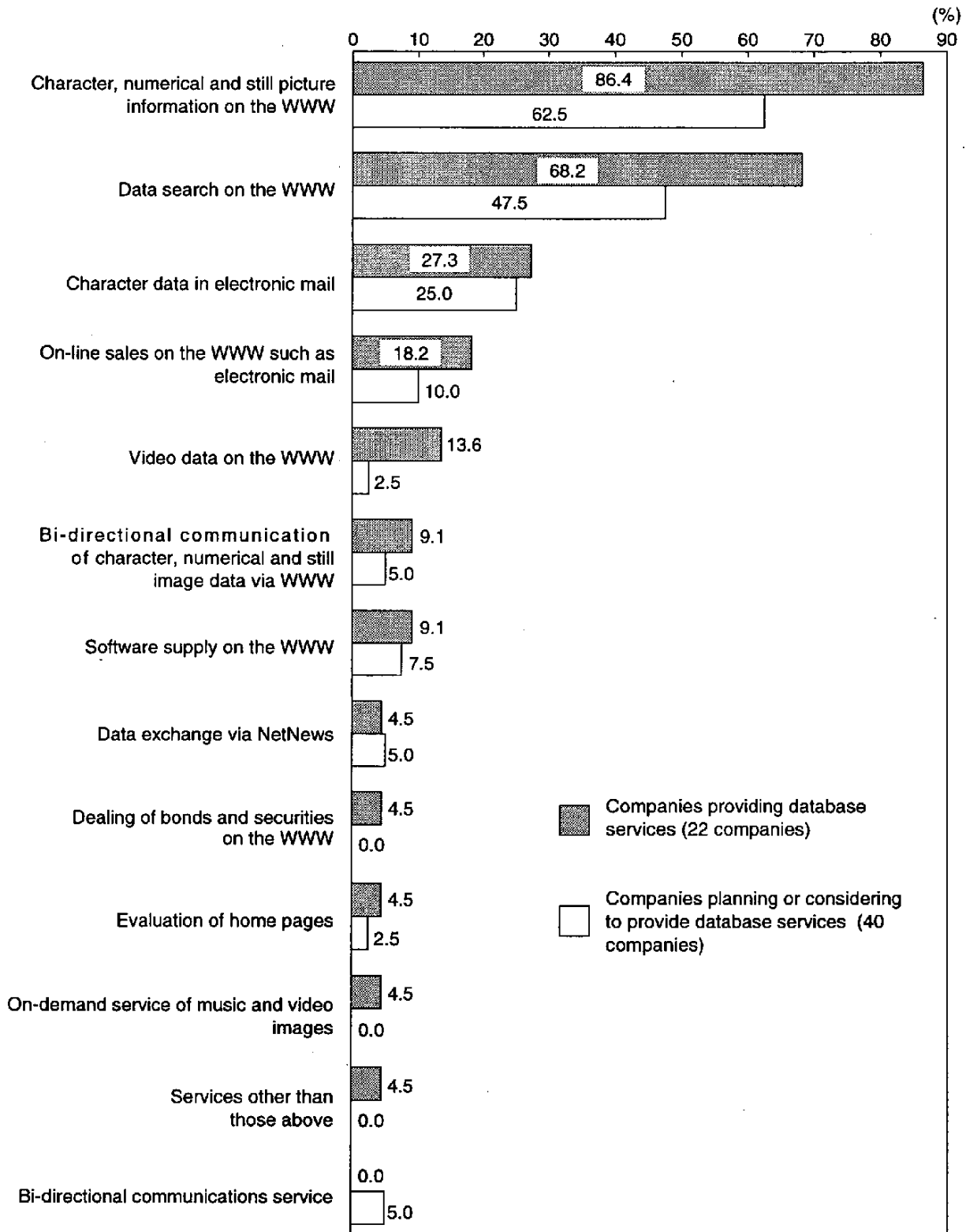


Figure III-18 Database Services Provided via the Internet

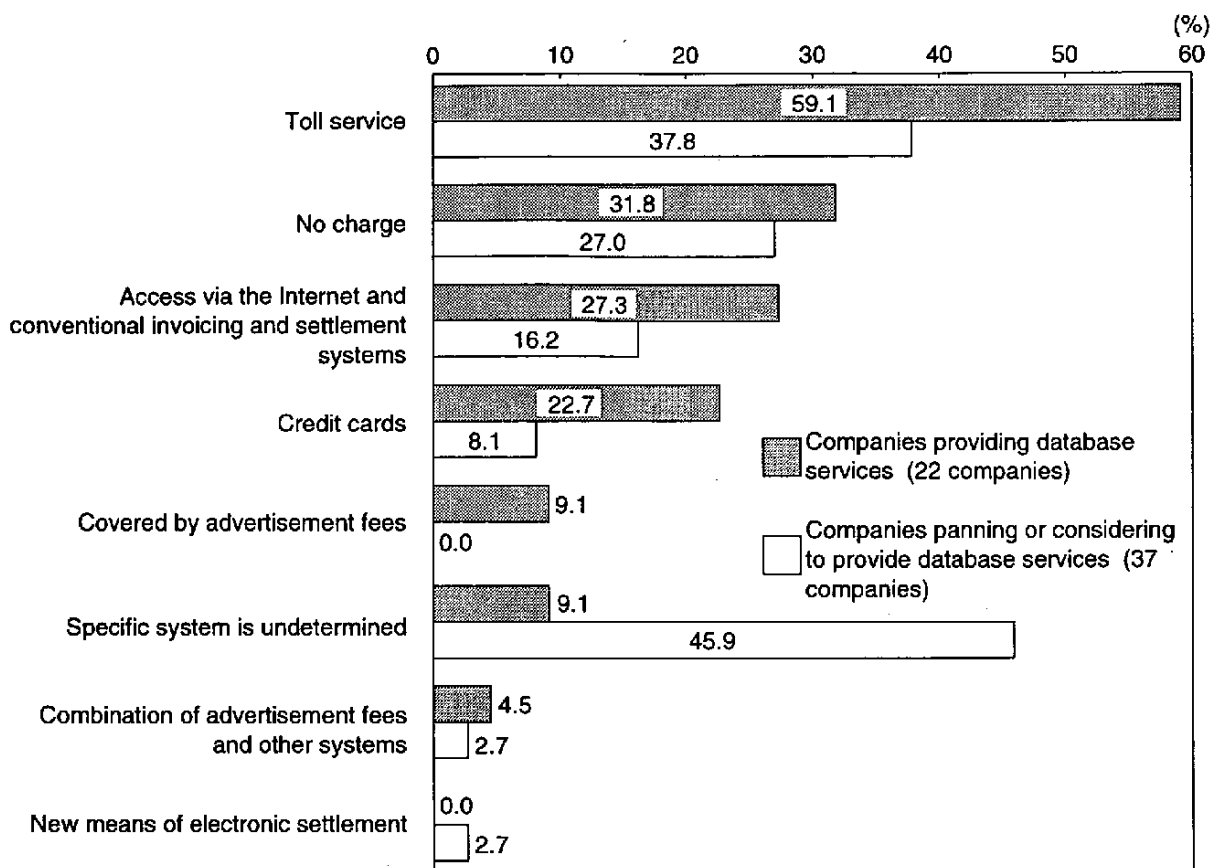


Figure III-19 Charging System for Database Services via the Internet

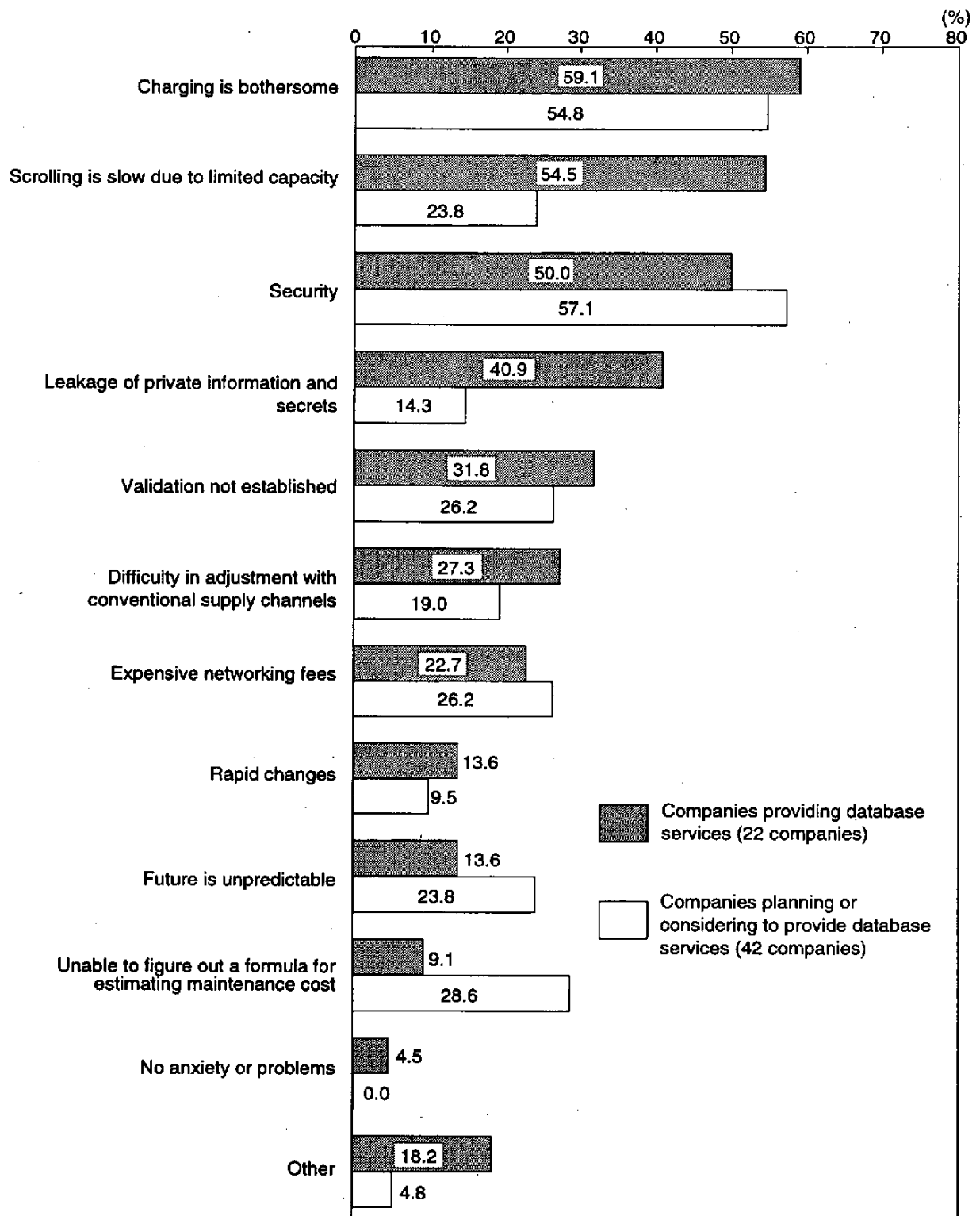


Figure III-20 Anxiety and Problems Involving Database Services via the Internet

10. Present State of Overseas Database Supply

The Japan Database Industry Association (DINA) was commissioned by DPC in July 1996 to conduct their 10th survey targeted at DINA members, DPC supporting members and other organizations involved in database services. Survey forms were sent to 350 organizations, replies to which were obtained from 128 (response rate: 36.6%).

41 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 nine years, and, as of July 1996, there were 430 types of databases being supplied overseas, representing an increase of 14.1% from the previous year (Table III-2, Fig. III-21).

Table III-2 Number of Domestic Databases being Supplied Overseas

Item \ Time of Survey	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
No. of databases and	28	83	104	155	226	290	308	353	377	430
proportion supplied (%)	(9.5)	(19.5)	(19.7)	(23.4)	(28.0)	(32.5)	(32.8)	(35.1)	(36.0)	(38.3)

Note: Proportion supplied = No. of domestic databases supplied overseas / Total no. of domestic databases

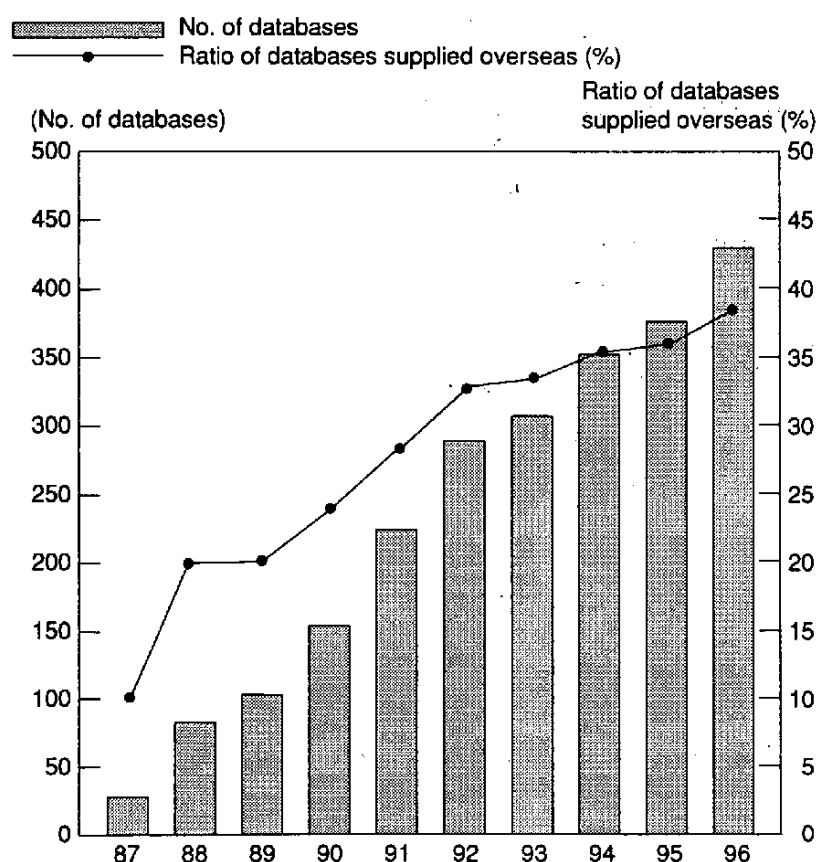
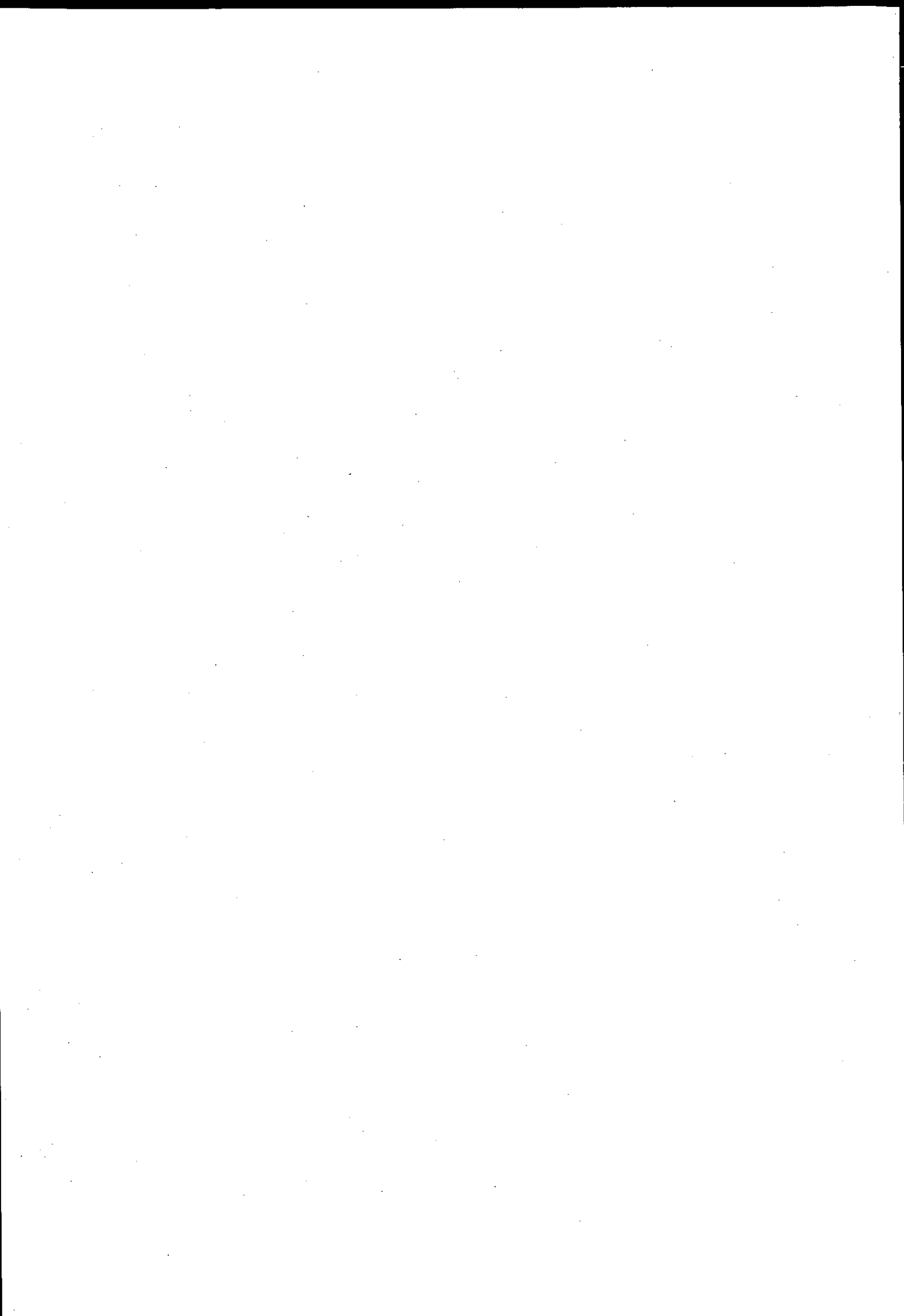


Figure III-21 Growth of the Number of Databases Supplied Overseas

The distribution of these 430 databases by category consists of 68 in the "Science and technology" category (15.8%), 136 in the "Economics, business and finance" category (31.6%), 213 in the "General" category (49.5%), ten in the "Economics, business and finance" and "General" categories (2.3%), two in the "Science and technology" and "Economics, business and finance" categories (0.5%), and one in the "Science and technology" and "General" category (0.2%).

In addition, in looking at the distribution of these databases according to language, there are 288 types in "Japanese" (67.0%), 90 in "English" (20.9%), one in "Other" languages (0.2%), 42 in "Japanese" and "English" (9.8%) and eight in "Japanese", "English" and "Other" languages (1.9%), and one in "English" and "Others" (0.5%).

With respect to supply form, 340 databases are supplied "On-line" (79.1%), 30 by "MT (magnetic tape)" (7.0%), 13 by "CD-ROM/CD-I" (3.0%), 28 "On-line" and by "MT (magnetic tape)" (6.5%), three "On-line" and by "CD-ROM/CD-I" (0.7%), 14 "On-line" and by "MT" and by "CD-ROM/CD-I" (3.3%), and two by "MT (magnetic tape)" and "CD-ROM/CD-I" (0.5%).



IV Present State of Use of Commercial Databases

1. Introduction

According to the results of the "Survey of Japanese Database Services (User Edition)" conducted by DPC in September 1996, 63.5% of 665 replying companies and organizations indicated that they were currently using databases. When this is looked at in terms of company size, 53.4% of small and medium-sized businesses and 68.3% of large companies are using databases. By industrial category, "Oil and chemical industries" lead the way at 93.1%, followed by "Construction industry" at 72.5% and "Electrical, general and transport machinery manufacturers" at 70.5%.

This chapter introduces the usage of commercial databases and user's awareness on the basis of the "Survey of Japanese Database Services (User Edition)".

2. Usage Results and Forecasts

2.1 Annual Spending on Database Usage

Table IV-1 indicates the 1995 results for the annual average monetary amount of database usage per replying company by company size as determined in this survey. In the past, these numbers were calculated on the basis of replies that indicated the breakdown between domestic and overseas databases. However, recently, this breakdown has become difficult due to usage via PC network services and the Internet. Therefore, in the current report, spending on database usage was calculated including companies that indicated only a total amount for database usage, irrespective of any indication of the breakdown between domestic and overseas databases. Thus the results indicate spending amounts close to actual usage.

The overall average spending on database usage for fiscal 1995 was ¥32.359 million, a slight decrease from the equivalent figure for 1994 results of the previous survey (September 1995) which was ¥33.539 million. The overall average amount spending for database usage is affected by the number of large companies that reply including significant database usage. The figure in the current survey is believed to reflect the decrease in the number of large companies replying from 257 to 212 companies.

Next, in looking at the average spending on database usage by company size, small and medium-sized businesses spent ¥2.913 million per company, while large companies spent ¥51.013 million, exhibiting a large gap between the two categories. In comparison with the results of the previous fiscal year, small and medium-sized businesses exhibited a slight decline, while

Table IV-1 Annual Average Spending on Database Usage per Company by Company Size

(Unit: ¥10,000)

	Previous Survey	Current Survey	
	1994 Results (N=373)	1995 Results (N=344)	1996 Forecasts (N=350)
Small and medium-sized businesses	306.3	291.3 (-4.9)	301.3
Large companies	4,759.1	5,101.3 (7.2)	5,127.2
Public service	197.4	199.5 (1.1)	185.9
Average of secondary industry	1,658.9	1,931.5 (16.4)	2,099.2
Average of tertiary industry	8,211.0	7,533.1 (-8.3)	7,187.8
Overall average	3,353.9	3,235.9 (-3.5)	3,269.7

Note: Figures in parentheses for 1995 results indicate the growth rate from the previous year in %.

the figure for large companies reached ¥50 million level. In terms of the scheduled amount of usage for fiscal 1996, both small and medium-sized businesses and large companies indicated an increasing trend. By industrial category, the secondary industry exhibited double-digit growth.

In looking at the 1995 results for the average spending on database usage by industrial category, as in the previous years, the amount for "Finance and insurance" far outdistanced other categories, at ¥513.314 million. This category was followed by "Other manufacturers" at ¥41.162 million and "Electrical, general and transport machinery manufacturers" at ¥16.351 million. In comparison with the average spending on database usage in the fiscal 1994 results in the previous survey, there were five industrial categories where spending fell below the levels of 1994, including "Commerce", "Iron and steel, nonferrous metal and metal manufacturing" and "Information processing and information supply service", and there were four industrial categories where spending surpassed the 1994 levels, including "Electrical, general and transport machinery manufacturers" and "Construction".

According to the predicted growth rates for fiscal 1996, growth of 36.6% was predicted for the "Oil and chemical industry", the only category in which double-digit growth was predicted. Only small marginal increases were predicted for other categories.

In looking at the figures obtained by calculating the spending on usage in replies that indicated the breakdown between domestic and overseas databases, as in the past, the ratio of domestic

database usage to overseas database usage was approximately 8:2 for 1995 results, reflecting higher domestic database usage than in the previous survey (1995). By industrial category as well, domestic database usage on a monetary basis was greater than overseas database usage in all categories. In particular, in the category of "Commerce", domestic database usage accounted for 99.7%. Also, more than 80% of the spending on usage came from domestic databases in the categories of "Construction" and "Iron and steel, nonferrous metal and metal manufacturing".

3. Types and Contents of Frequently Used Commercial Databases

3.1 Frequently Used Systems and Databases

Table IV-2 shows the top five systems in terms of the spending usage at each replying company in order of the greatest number of replies. Overall, the systems that were indicated most frequently were JOIS (209 replies, 52.6%), Nikkei Telecom (200 replies, 50.4%), PATOLIS (142 replies, 35.8%), DIALOG (137 replies, 34.5%) and G-Search (90 replies, 22.7%), in that order.

Table IV-2 Frequently Used Systems on a Monetary Basis in Order of the Number of Replies (N=397: multiple replies)
(Aggregate of the top five systems by spending at each replying company)

1996		Name of service system
Rank	No. of replies	
1	209	JOIS
2	200	Nikkei Telecom
3	142	PATOLIS
4	137	DIALOG
5	90	G-Search
6	82	STN INTERNATIONAL
7	67	COSMOS
8	40	ELNET
9	37	TSR
10	34	NACISIS-IR
11	30	NICHIGAI-ASSIST
12	25	BRANDY
13	20	Reuter Monitor Service
14	18	DIALINE
15	14	MAIN
.	.	.

JOIS retained the lead position. Although the ranking of the top nine systems changed somewhat, they have all remained at the top for the past several years. In general, domestic systems appeared to be dominant.

In looking at these figures by company size, the top three systems used by large corporations were JOIS (52.0%), Nikkei Telecom (51.2%) and PATOLIS (42.7%). Among small and medium-sized businesses, the most frequently used systems were JOIS (54.7%), DIALOG (42.2%) and Nikkei Telecom (40.6%). As in the previous survey, these figures indicated that JOIS and DIALOG were selected by a larger proportion of small and medium-sized businesses than large companies.

By individual industrial categories, JOIS was used the most by "Iron and steel, nonferrous metal and metal manufacturing", at 84.6%. Among the secondary industries, there were two in which more than 70% of the respondents selected JOIS. Overall, an average of 68.0% of the secondary industries selected JOIS. PATOLIS was also used widely among the secondary industries. Meanwhile, Nikkei Telecom, ranked second, was used the most in the tertiary industries, at an average of 53.6%, and overall, it was characterized as being used by a wide range of users.

**Table IV-3 Databases with High Utilization Frequency
(N=386: multiple replies)**

1996		Databases
Rank	No. of replies	
1	189	JICST File on Science and Technology Documents
2	173	Nihon Keizai Shimbun Article File
3	137	Patent/Utility Model File
4	125	COSMOS2
5	95	TSR-BIGS
6	63	Nikkei Who's Who
7	60	WPI
8	54	CA
9	53	Asahi Shimbun News Database
9	38	Trade Mark File
11	32	MEDLINE
12	28	CA-SEARCH
12	28	Yomiuri Shimbun News Database System
14	24	Mainichi Shimbun News Database System
15	21	INSPEC
15	21	Nikkei Financial Data
.	.	.

The results of totaling the five most frequently used databases (files) for each replying company are shown in Table IV-3, compiled similarly to the previous list of frequently used systems. The results mostly reflected those of the frequently selected service systems, with the exception of the appearance of newspaper article databases.

Following the previous survey, companies were asked about the number of contracted database service systems. The overall average for all replying companies was 7.8 contracted systems per company, almost identical to the figure of the previous survey. The averages by company size were 9.8 systems for large companies and 5.3 systems for small and medium-sized businesses. In looking at the distribution of the number of contracts, the largest proportion was 10 or more systems, indicated by 22.5% of the replying companies, with the upward trend continuing from the previous survey. This was followed by two systems at 16.0% and one system at 14.5%, showing a trend toward contracting with more than one system.

The "Survey of Japanese Database Services" is based on spending on database usage, and the target of the survey is limited to corporate users. The rankings according to number of contracted users of on-line information service companies (distributors) according to "Nikkei News Media" (published by Nikkei Business Publications Inc.) are shown in Table IV-4 for reference purposes. This survey is conducted exclusively by this publication twice a year, in January and July, targeted at representative database service companies in Japan.

**Table IV-4-1 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	Supply via the Internet	Other Company's Network Connected	No. of passwords		Growth rate (%)
					As of Jan. 1, 1997	As of Jan. 1, 1996	
Nihon Keizai Shimbun, Inc.	Nikkei Telecom 21, Nikkei Telecom, NEEDS-TS, NEEDS DataGEAR, NEEDS-BULK, Nikkei News Line, English News	On-line supply of news and databases, newspaper and magazine article searching, forecast and analysis using metrics models, news for overseas vendors	Nikkei Telecom 21	No reply	80,356	75,312	6.7
TKC Corp	LEX/DB, TPS1000, Daikoku Kusu 95, AUDIT1000, PX1, FX2, etc.	Complete text DB of judicial precedents, ordinances, etc., management indicators, corporate legal affairs, management planning, tax payment planning, etc.	No plan	Nikkei Telecom, G-Search, PC-VAN, FENICS	56,560	48,848	15.8
Japan Science and Technology Corporation	JOIS, JOIS-F, STN- International, NACSIS-IR, NLM Direct Access Service	Science, technology and domestic medical literature database, etc.	JOIS supplied	NIFTY-Serve, PC-VAN, MARUNET, KINOCOSMO- NET, Nikkei Telecom, AMS, PC network, G-Search, etc.	12,100	11,800	2.5
Japan Patent Infor- mation Organization (JAPIO)	PATOLIS, PATOLIS-INPADOC	Japanese industry property and overseas patent data	Initiation planned for Oct. 1997	The Japan Technomart Foundation, Nikkei Telecom, Kaihanna Infosai Inc., G-Search, etc.	7,149	6,738	6.1
Teikoku Databank, Ltd.	COSMONET	Corporate financial information and profiles, management information, corporate credit survey reports, etc.	No plan	No reply	6,921	6,741	2.7
Tohan Co., Ltd.	SUPER TONETS	Bibliographical information	No plan	No reply	6,900	6,050	14.0
Tokyo Shoko Research, Ltd.	TSR-VAN	Corporate, financial, representative, financial ratio, corporate income statement and bankruptcy information, and information on corporations paying large amounts of taxes, etc.	Under consideration	IBM/NMS, Secomnet,	4,501	4,207	7.0
Japan Construction Information Center	JACIC, NET, Info JACIC, Technical information exchange service on construction by-products	Administrative, ordering and statistic information in construction industry, technical information on construction materials, methods, etc.	JACIC NET data partially supplied	NIFTY-Serve	1,782	1,450	22.9
Brandy International Co., Ltd.	Base-BRANDY, Win-BRANDY, Auto-BRANDY	Similar trademark searching, trademark bibliographical information searching, trademark watching service, trademark public relations information searching, trademark bibliographical information searching with images	Charged supply using WWW server being considered	None	1,677	1,312	27.8
Tokyo Kantei Corp.	Apartment and land database	Condominium and land prices	Under consideration	None	200	70	185.7
Total for 10 on-line information service companies (including distributors)					178,146	162,528	9.6

Table IV-4-2 Ranking of On-Line Information Service Companies (Including Distributors) by No. of Contracted Users

(Source: Nikkei New Media)

Supplying Companies and Organizations	Name of Services	Description	Supply via the Internet	Other Company's Network Connected	No. of passwords		Growth rate (%)
					As of Jan. 1, 1997	As of Jan. 1, 1996	
NEC Corp.	BIGLOBE (C&C-VAN Database)	Stock price information, corporate information, science and technology information	Partly supplied	None	2,170,000	1,410,000	Note 1): 53.9
Nihon Keizai Shimbun, Inc.	Nikkei Telecom 21, Nikkei Telecom, NEEDS-TS, NEEDS Data GEAR, NEEDS-BULK, NEXIS, LEXIS, LEXPAT, DJN/R, FTPROFILE, D&B BIR, etc.	On-line supply of news and databases, newspaper and magazine article searching, on-line searching for European and U.S. news article information, on-line searching for U.S. and European corporate information, etc.	Nikkei Telecom 21	No reply	94,669	85,420	10.8
G-Search Corp.	G-Search	Newspaper article information, corporate information, magazine and book information, industrial, economic and management information, who's who information, national bond information, government and municipal office information, scientific and technical information, etc.	Charged supply being considered	NIFTY-Serve, Asahi-NET, People	87,111	61,862	40.8
TKC Corp.	LEX/DB, TPS1000, AUDIT1000, PX1, FX2, etc.	Complete text DB of judicial precedents, ordinances, etc., management indicators, corporate legal affairs, management planning, tax payment planning, etc.	No plan	Nikkei Telecom, G-Search, PC-VAN, FENICS	56,560	48,848	15.8
QUICK Corp.	QUICK-IS Level I-II, QUICK-21, QUICK Indicator Board	Comprehensive economic information focusing primarily on securities and finance	Under consideration	None	46,000	45,000	Note 2): 2.2
Kinokuniya Co., Ltd.	BOOKWEB, First-Search, NUMERICA, WESTLAW, etc.	Book information, medical, chemical, patent and other scientific and technical literature information, business, corporate, newspaper and law information, etc.	BOOKWEB supplied	KINOCOSMO NET, etc.	15,500	15,007	3.3
Japan Science and Technology Corporation	JOIS, JOIS-F, STN-International, NAC-SIS-IR, NLM Direct Access Service	Science, technology and domestic medical literature database, patent information, research subject information, doctoral theses, researcher directory, research abstract database, etc.	JOIS, STN-International, NLM Direct Access Service	NIFTY-Serve, PC-VAN, MARUNET, KINOCOSMO-NET, Nikkei Telecom, AMS, PC Network, G-Search, FENICS, COMPUSERVE, etc.	12,100	11,800	2.5
KMK Digitex	DIALIG, DataStar, etc.	Patent information, magazine articles, minutes, research and development trends, etc.	Partly supplied	PC-VAN	10,000	—	—

(Continued on the following page)

Table IV-4-2 Ranking of On-Line Information Service Companies (Including Distributors) by

No. of Contracted Users

(Source: Nikkei New Media)(Continued from the last page)

Supplying Companies and Organizations	Name of Services	Description	Supply via the Internet	Other Company's Network Connected	No. of passwords		Growth rate (%)
					As of Jan. 1, 1997	As of Jan. 1, 1996	
Fujitsu Facom Information Processing Corp.	G-Search	Corporate information, newspaper, news article information, magazine, book information, industrial, economic and management information, who's who information, international information, etc.	Under consideration	NIFTY-Serve, ASCII-NET, EYE-NET, etc.	9,720	9,585	1.4
Japan Patent Information Organization (JPIO)	PATOLIS, PATOLIS-INPADOC	Domestic and overseas patent data	Start in April 1997	The Japan Technomart Foundation, etc.	7,149	6,738	6.1
Teikoku Databank, Ltd.	COSMOSNET	Corporate financial information and profiles, management information, corporate credit survey reports, etc.	No plan	No reply	6,921	6,741	2.7
Tohan Co., Ltd.	SUPER TONETS	Bibliographical information, etc.	No plan	No reply	6,900	6,050	14.0
Japan Information Processing Service Co., Ltd.	Infostream, Orbit	Adverse drug effects and other pharmaceutical information, medical information, patent information, etc.	Partial supply of Orbit	None	4,700	4,650	1.1
Tokyo Shoko Research, Ltd.	TSR-VAN	Corporate, financial, representative, financial ratio, corporate income statement and bankruptcy information, and information on corporations paying large amounts of taxes, etc.	Under consideration	IBM/NMS, Secomnet	4,501	4,207	7.0
KK Kyodo News Service Japan Information	AP, DJ, Telerate, DJN/R	Financial, stock price and product quotation information, general article information	No plan	No reply	4,400	4,300	2.3
Kokusai Information Service Co., Ltd.	I/Plus, Billboard, FBR, UMI, HITEL, GLOBAL REPORT, etc.	Corporate information, market survey information, etc.	Charged supply of I/Plus being considered	No reply	2,900	2,700	7.4
Electronic Library Inc.	ELNET (ELMOR, ELSDI, ELDB, etc.)	Newspaper (55 major domestic newspapers) and magazine (approx. 150 publications) article information, original article image information database	Under consideration	KINOCOSMO NET	2,100	1,920	9.4
Japan Construction Information Center	JACIC NET, Info JACIC, Technical information exchange service on construction by-products	Administrative, ordering and statistical information on the construction industry, technical information on construction materials, methods, etc.	JACC NET information partially supplied	NIFTY-Serve	1,782	1,450	22.9
Maruzen Co., Ltd.	Questel, QPAT-us, JOIS, DIALINE-II, G-Search	Scientific and technical literature information, patent information, business and corporate information, book and magazine information, newspaper article information, newly published foreign book information, etc.	QPAT-us supplied with charge	FENICE	1,700	8,000	-78.8
Brandy International Co., Ltd.	Base-BRANDY, Win-BRANDY, Auto-BRANDY	Similar trademark searching, trademark bibliographical information searching, trademark watching service, trademark public relations information searching, trademark bibliographical information searching with images	Charged supply using WWW server under consideration	None	1,677	1,312	27.8
Tokyo Kantei Corp.	Apartment and land database	Condominium and land prices	Under consideration	None	200	70	185.7
Total for 21 on-line information service companies (including distributors)					2,546,590	1,735,660	46.7

Note 1: Number of contracted subscribers (not necessarily all of them are using the service)

Note 2: Number of exclusive terminals

3.2 Categories of Frequently Used Databases

Figure IV-1 summarizes replies pertaining to categories of frequently used commercial databases, dividing these between domestic and overseas databases. In the case of domestic databases, the top category was "Newspapers/journals/news" and "Corporate finance/profiles" at 70.3% each. These were followed by "Who's who/organization information" (47.2%) and "Patent" (41.8%), exhibiting the same order as in the previous survey.

On the other hand, in the case of overseas databases, the top categories consisted of "Patent" (52.6%), "Corporate finance/profiles" (50.7%) and "Newspapers/journals/news" (45.9%), also showing the same order as in the previous survey.

Whether domestic or overseas, the selection rates for the frequently used database categories of "Newspapers/journals/news" and "Corporate finance/profiles" continue to grow. In addition, the selection of databases in the main categories of "General" and "Business" increased relative to the expansion of the range of users.

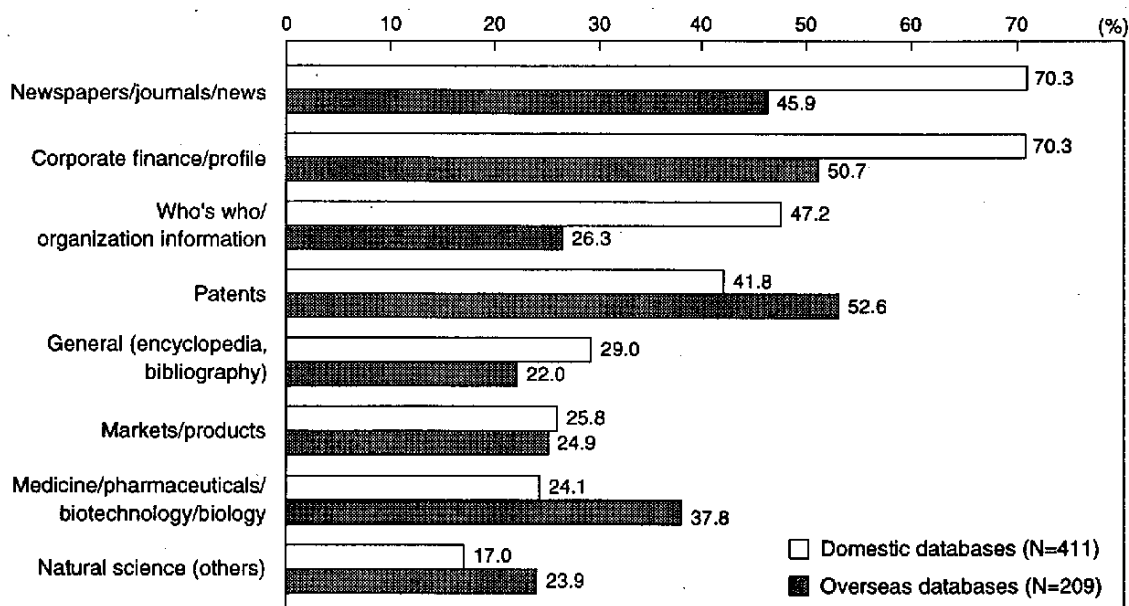


Figure IV-1 Categories of Frequently Used Databases (multiple replies)

3.3 Types of Data Currently Used

Table IV-5 indicates the types of data currently being used or for which an increase was desired in the future for both on-line and off-line utilization.

First, among the on-line services users were currently using, "Text (reference)" data was the most frequently used. This was followed by "Text (fact, character)" and "Numerical" data. The top three types have remained the same, in this order, for the past three years. However, among off-line services such as CD-ROMs, "Image (still pictures, photographs)" was indicated by 25.7%

of users, jumping to third place, and exceeding "Numerical" data. With respect to data types that users indicated they desired to use in the future or for which they desired to use more, "Image (still pictures, photographs)" recorded high selection rates for both on-line and off-line services. The selection rate of text-type data also remained high.

Table IV-5 Types of Data Currently Being Used or for Which Greater Use is Desired in the Future
(multiple replies)

	Currently using (N=385)		Desire to increase use (N=309)	
	On-line (N=375)	Off-line (CD-ROM, etc.) (N=148)	On-line (N=275)	Off-line (CD-ROM, etc.) (N=154)
Text (reference)*	310 (82.7)	97 (65.5)	139 (50.5)	73 (47.4)
Text (fact, character)	263 (70.1)	92 (62.2)	137 (49.8)	68 (44.2)
Numerical	149 (39.7)	37 (25.0)	126 (45.8)	44 (28.6)
Image and graphical (drawings: NAPLP, etc.)	30 (8.0)	24 (16.2)	113 (41.1)	62 (40.3)
Image (still pictures, photographs, etc.)	27 (7.2)	38 (25.7)	131 (47.6)	72 (46.8)
Video (animation)	4 (1.1)	2 (1.4)	51 (18.5)	36 (23.4)
Voice	4 (1.1)	3 (2.0)	33 (12.0)	23 (14.9)

Figures in parentheses indicate ratio to total number of replies for respective items.

*: "Reference" refers to secondary information such as directories.

3.4 Types of Data Desired

Following the previous survey, users were asked about the data they desired to use in terms of primary information (non-processed raw data) or secondary information (abstracts, graphs, directories, etc.) for text data and numerical data, respectively.

The orders shown in Fig. IV-2 remained the same as in the previous survey, with the desire for primary information expressed by a large proportion of replies. In particular, "Primary information (text data)" was selected by 77.8% of the replying users. As in the previous survey, in terms of company size, the averages among secondary industries and tertiary industries were both above 70% for this reply, selected by an overwhelming majority. The category having the second highest selection rate was "Primary information (numerical data)", at 61.6%. In particular, this category was selected at the rate of 82.1% among "Electrical, general and transport machinery manufacturers".

Specifically, public data that includes "Local government and government statistics and announcement information" exhibited the largest selection rate. Others include "Corporate

information", "Newspaper articles" and "Full text of papers and journal articles".

The selection rate for "Secondary information" was much smaller than that for the primary information, with numerical data exhibiting a slightly higher selection rate. Specific examples of numerical data consist primarily of paper abstracts, book collection catalogs and bibliographical information of statistics.

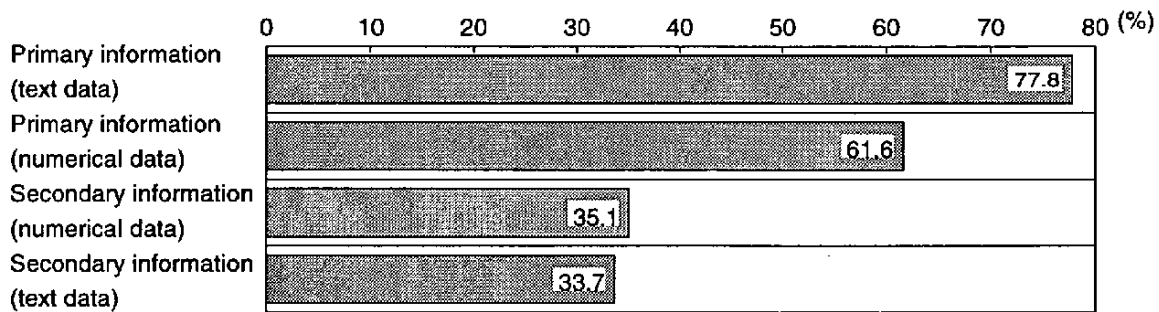


Figure IV-2 Types of Data Desired to be Used (N=279: multiple replies)

3.5 Utilization of Public Data

Questions were asked regarding utilization of databases handling public data (data prepared and released by the government and government organizations), for the third consecutive survey. Table IV-6 shows the results of the current survey. There were 237 replies indicating that public data was currently being used, which accounted for 56.2% of the companies utilizing databases, up 20% from the previous survey.

When the types of data used were divided into text data and numerical data, text databases were found to be used more frequently, regardless of company size and industrial category (214 of 237 replying companies: 90.3%). This can be attributed to the high utilization rate of the newly established "Patent information" category. The use rate was especially high among the secondary industries, at 78.9%. With respect to numerical data, "Corporate-related data" was used by 43.5%, and "General business and industry" was used by 34.2%. Numerical data was used by 58.6% of the replying companies, a decrease from the previous year.

On the other hand, the 229 replies to "Currently not using but desire to use in the future" was broken down to 200 replies for text data and 183 replies for numerical data. In looking at subcategories of character data, the utilization rates of "Government reports" and "Government white papers and related documents" were high, at 52.4% and 46.7%, respectively. With respect to subcategories of numerical data, utilization rates of "General business and industry" and "Corporate-related data" were equal, at 51.5%, followed by "Domestic economy, business climate and finance" at 48.0%.

Combined with the replies to "Types of data desired to be used" in the previous section, it can be seen that there is strong demand for public data. However, database supply forms that are easy

to use have yet to be established in Japan. Recently, there have been an increasing number of cases in which the government and local governments supply information on their Internet home pages. Discussions on the segregation between public service and commercial service are awaited.

Table IV-6 Utilization of Databases Handling Public Data

Figures in parentheses indicate ratio to total number of replies (%)

		Currently Using	Desire to Use in Future
Text Data	Government white papers and related documents	55 (23.2)	107 (46.7)
	Government committee reference materials	34 (14.3)	70 (30.6)
	Government press conference reference materials	26 (11.0)	55 (24.0)
	Government reports	54 (22.8)	120 (52.4)
	Judicial precedents	36 (15.2)	74 (32.3)
	City planning documents	18 (7.6)	68 (29.7)
	Patent information	145 (61.2)	52 (22.7)
	Other	6 (2.5)	7 (3.1)
Numerical Data	Population, employment and labor	42 (17.7)	78 (34.1)
	Domestic economy, business climate and finance	51 (21.5)	110 (48.0)
	International trade and settlement	35 (14.8)	75 (32.8)
	General business and industry	81 (34.2)	118 (51.5)
	Corporate-related data	103 (43.5)	118 (51.5)
	Other	4 (1.7)	8 (3.5)
		(N=237)	(N=229)

Here, with regard to the compensation for public data supply, users were asked whether public data "Should be supplied free of charge or with charges" (Table IV-7). Approximately one third of the replying users, or 33.5%, replied that, public data "Should be supplied unconditionally to anyone who desires to use them". However, 26.2% said that "Charges should be set at realistic rates, with due consideration given to data preparation and supply costs", and 24.4% said that "Data for individual use should be supplied free of charge, and use by companies and use aiming at supply to a third party should be charged", exhibiting a wide separation in views on the compensation of public data usage.

Table IV-7 Opinions Concerning Public Data Supply (N=385: multiple replies)

Public data should be supplied unconditionally to anyone who desires to use them. Public data should be supplied via the Internet as well as long as it is possible.	33.5(%)
Data for individual use should be supplied free of charge, and use by companies and use aiming at supply to a third party should be charged. Only data belonging to fields categorized as data of free of charge should be supplied via the Internet.	24.4
Different charge rates should be set for individual use, company use and use aiming at supply to a third party. Only data belonging to fields categorized as data of free of charge should be supplied via the Internet.	13.8
Charges should be set at realistic rates, with due consideration given to data preparation and supply costs. Only data belonging to fields categorized as data free of charge should be supplied via the Internet.	26.2

4. Rates of Database Utilization Forms

In this survey, companies were asked about their database utilization rates on a monetary basis, divided in the manner indicated below (Table IV-8).

- (1) Use of on-line services other than personal computer network services
- (2) Use of database services via personal computer network services
- (3) Use of off-line services by CD-ROMs
- (4) Use of other off-line services

Overall, category (1) accounted for 65.0% of domestic database usage and 78.5% of overseas database usage, showing no major changes from the previous year. Use of database services via personal computer network services bounced back to the level of the survey before last and, in the forecast for fiscal 1996, a slight increase was expected.

The off-line rate, obtained by combining categories (3) and (4), exhibited no major changes either. However, use of "Other off-line services" which include printed matters, increased slightly for overseas databases.

Table IV-8 Database Utilization Rates

	1995 Results		1996 Forecast	
	Domestic	Overseas	Domestic	Overseas
On-line (excluding personal computer network services)	65.0(%)	78.5(%)	64.5(%)	76.6(%)
Personal computer network services	23.4	9.1	23.8	10.5
CD-ROM	5.9	7.4	6.1	8.4
Other	5.7	5.0	5.6	4.5
	(N=360)	(N=177)	(N=348)	(N=175)

5. Issues on Pricing and Utilization

5.1 Pricing Issues

In continuation from the previous survey, companies were asked about their impressions of the pricing of domestic and overseas databases. Overall, domestic databases were evaluated as "Expensive" by 58.8% and "Reasonable" by 40.4%, on average. Those replying that they were "Inexpensive" accounted for only 0.8%. Comparison of the rates of replies to "Expensive" and "Reasonable" showed that they were almost the same in the "General" category, which includes "Newspapers, journals and news". The rates for these two answers exhibited a wide gap in the categories of "Business" and "Natural science". Also in particular, "Patent" and "Corporate-related information" were evaluated as being "Expensive" by 70% of the replying companies. In the case of overseas databases, the overall averages consisted of 51.8% for "Expensive", 43.3% for "Reasonable" and 4.9% for "Inexpensive", indicating they were considered more reasonable than domestic databases. Also, as in the case of domestic databases, the rate of those replying that they were "Reasonable" was slightly higher than that of "Expensive" in the "General" category.

5.2 Impressions of Recorded Information

Companies were asked about their impressions of information recorded on databases. In the case of domestic databases, the top reply was "Short retroactively effective period", at 37.8%. This was followed by "Data not updated frequently" at 27.7%, "Data not recorded in full text", at 26.7%. In past surveys, selection of "Data not recorded in full text" varied in the range of 10 percentage points depending on the industry the user belonged to. In the current survey, however, few differences were shown, and the desire for original full text information was expressed commonly by all the users.

With respect to overseas databases, the top reply was "Presence of desired information unclear", at 32.1%. "No particular dissatisfaction", which was the top reply in the previous survey, dropped to second place, at 26.7%. This was followed by "Information inaccuracy", at 25.5%. "Short retroactively effective period" was pointed out by 22.4%, up 13% from the previous survey.

Overall, there was a large discrepancy between domestic and overseas databases with respect to evaluation of "Updating frequency" and "Number of information entries". Credibility of the recorded information was higher for domestic databases than for overseas databases.

5.3 Problems with Commands, Functions and Operability

In this section, the survey focused on problems relating to the commands, functions and operability of database services. Among the 370 replying companies, 63.8% indicated "Inconvenience due to inconsistent commands", which again took the dominant position, as in previous years. This was followed by "Need for a comprehensive thesaurus" (33.2%) and "Slow search speed" (31.1%). There were no major changes in the selection rates of respective items, except for "Insufficient key words", which decreased by 6 percentage points from the previous year. The variety of selection rates depending on the industry to which companies belong narrowed. In particular, where there had been a gap of 20% between the secondary and tertiary industries regarding "Inconsistent commands", the difference was 5.6% in the current survey.

6. Database Utilization by Personal Computer Network Services

First, 431 of 649 replying companies stated that they were currently using personal computer network services, corresponding to an increase of 5 percentage points from the previous survey.

In looking at these results by company size, 53.5% of small and medium-sized businesses and 73.9% of large companies were using PC network services. In terms of industry category, the highest utilization rate was demonstrated by "Data processing and information services", at 86.2%. This was followed by "Construction" at 76.3%. This order was the same for the third consecutive year. In addition, the utilization rates among secondary industries and tertiary industries switched in order from the previous survey, at 70.0% and 67.0%, respectively.

The most frequently used personal computer network services were of "Nifty-Serve" (88.5%), "BIGLOBE (PV-VAN)" (14.3%) and "ASAHI Net/People" (8.2%). The usage rate of "Nifty-Serve" was high, regardless of company size and industrial category.

With respect to the most frequently used menus of personal computer network services, the overall leader was "Electronic mail" (68.5%), "Database" (49.0%) and "Software acquisition" (35.0%) (Table IV-9). In looking at these results by industrial category, "Oil and chemical industry" was the only industry that exhibited higher utilization rate for "Database" than for "Electronic mail". In tertiary industries, utilization rates of "Database" and "Software acquisition" were close on average.

Next, regarding the reasons corporations access databases via personal computer network services, a majority of 72.1% indicated "Accessibility to various databases". Meanwhile, the number of companies indicating "Utilization along with other functions such as electronic mail and forums" (24.0%) continued increasing.

With respect to "Dissatisfactions in using commercial databases via PC network services", 127 of the 189 replying companies (67.2%) said they had dissatisfactions. In terms of industrial category, 75.3% of the secondary industries group said so.

Overall, the most frequently indicated dissatisfactory point was "Expensive subscription charge", indicated by 49.6% of the replying companies; the greatest discrepancy was observed in this category in the evaluations between large companies and small and medium-sized businesses. The second most frequently indicated dissatisfactory point was "Connection takes time", at 32.3%, followed by "Number of databases available is small", at 30.7%.

Table IV-9 Frequency of Use of Personal Computer Network Service Menus (multiple replies)

	Small and medium-sized businesses	Large companies	Total
	(%)	(%)	(%)
Electronic mail	75.0	70.3	68.5
Database	50.0	50.2	49.0
Software acquisition	38.2	35.5	35.0
Electronic conferences	17.6	25.4	22.1
BBS (electronic bulletin board)	11.8	22.6	21.2
Networking with other networks	16.2	18.6	18.2
Shopping, seat reservation, etc.	5.9	1.1	2.1
Other	0.0	3.9	4.0
	(N=68)	(N=279)	(N=429)

7. Utilization of the Internet

Some commercial databases are accessible via the Internet and are attracting the attention of users with a wide range of available information. Questions were asked about the utilization of the Internet.

Among the 659 companies replying to this question, 456 companies (69.2%) were using the Internet, up 32.5 percentage points from the previous survey. 126 companies (19.1%) said that they were not using the Internet now but desire to use it in the future. When the two groups were combined, 88.3% of the replying companies were interested in the Internet.

By industrial category, those having the highest utilization rates consisted of "Data processing and information supply services" (78.2%), "Electrical, general and transport machinery manufacturers" (77.0%) and "Other manufacturers" (73.7%). When looking at the figures by company size, the Internet was used by 74.5% of large companies, 45.5% of small and medium-sized businesses and 76.7% of public services, all exhibiting major increases from the previous survey.

Companies were also asked about their "Connection routes currently used or planning to use". Among the 441 companies that said they were currently using the Internet, the most frequently indicated route was "Use of commercial networks such as Infoweb and IJ" (73.9%), the rate of which continued growing as was represented by the increase of the number of providers. This was followed by "Use via PC network services" (32.4%), and "Non-commercial nationwide

networks such as SINET and WIDE" (14.5%), the users of which were mostly public services. "Commercial networks" was also indicated by the largest percentage of 107 companies that said they desired to use the Internet in the future.

Table IV-10 shows the breakdown of reasons for using the Internet indicated by the replying companies. Among the 453 companies that replied they were "Currently using" the Internet, the most frequently indicated purpose was "Information acquisition from home page" (85.0%), surpassing "Electronic mail" (80.8%). These were followed by "Information transmission by creating home page" (62.3%), exhibiting an increase of 20 percentage points from the previous survey. Among the 115 companies that said they desired to use the Internet in the future, the most frequently stated purpose was also "Information acquisition from home page", surpassing "Electronic mail". In looking at the combined total of the purposes of companies that were currently using the Internet and those desiring to use it in the future, "Information acquisition from home page" and "Information transmission by creating home page" increased 13 and 18 percentage points, respectively, from the previous survey.

With respect to the "Services via the Internet considered to be promising", the difference between companies using it and those not using it was shown for some items (Fig. IV-3). The difference was the largest with respect to "Software supply service using WWW", and with respect to WWW-related services, companies currently using the Internet more frequently indicated these as promising compared with those not using it. Overall, the services via the

Table IV-10 Purposes of Using the Internet (multiple replies)

Purpose	Currently Using	Desire to Use in Future	Overall
Information acquisition from home page	85.0(%)	70.4(%)	82.0(%)
Electronic mail	80.8	68.7	78.3
Information transmission by creating home page	62.3	56.5	61.1
File transfer	40.0	33.0	38.6
Information exchange service using NetNews	21.6	18.3	21.0
Software supply service using WWW	18.1	7.0	15.8
Commercial database searching	8.4	8.7	8.5
EDI (Electronic data interchange)	6.4	9.6	7.0
On-line dealing using WWW such as electronic mail	5.3	7.8	5.8
Transaction service such as securities transaction using WWW	0.9	0.9	0.9
Other	2.6	1.7	2.5
	(N=453)	(N=115)	(N=568)

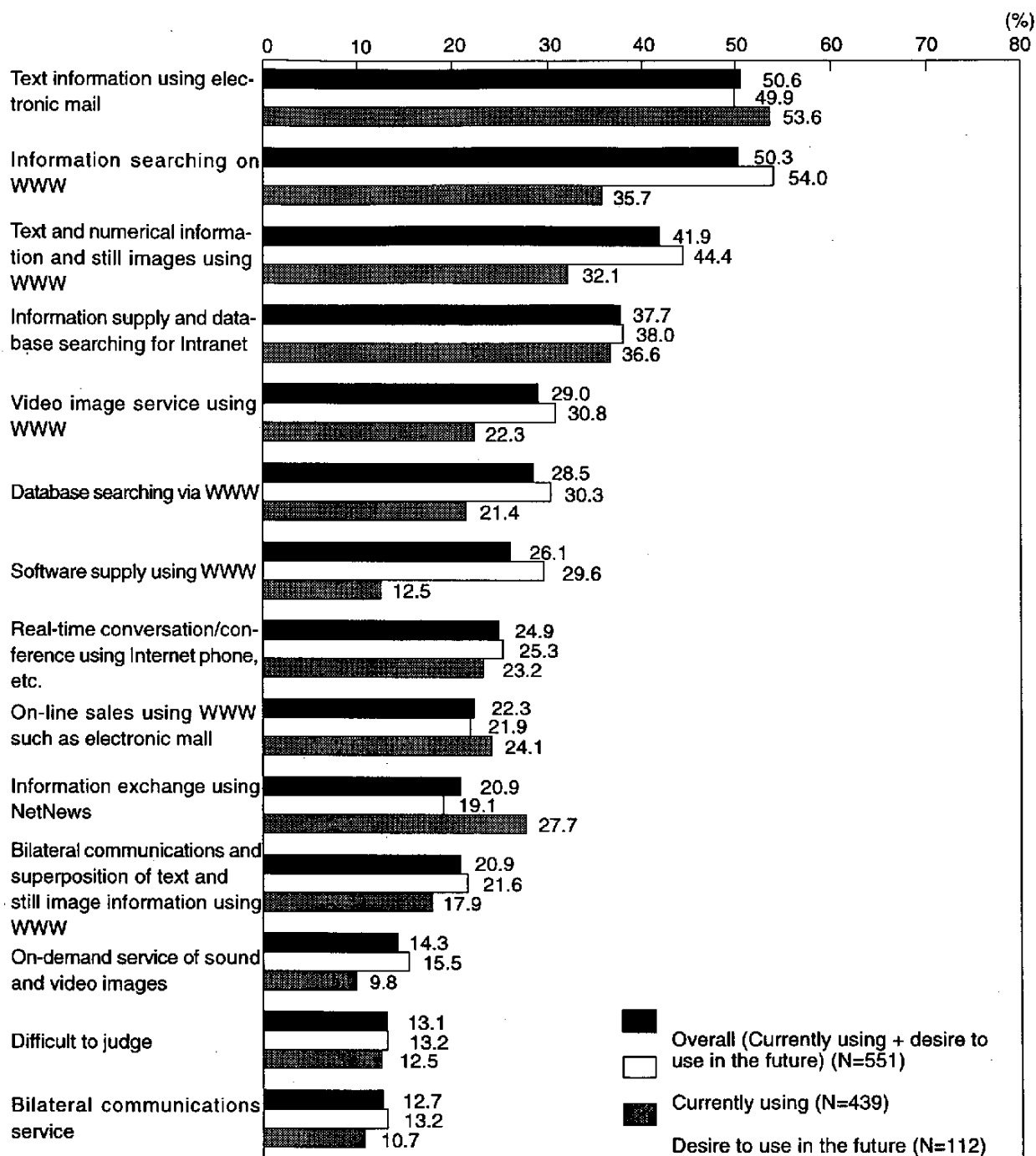


Figure IV-3 Services via the Internet Considered to be Promising

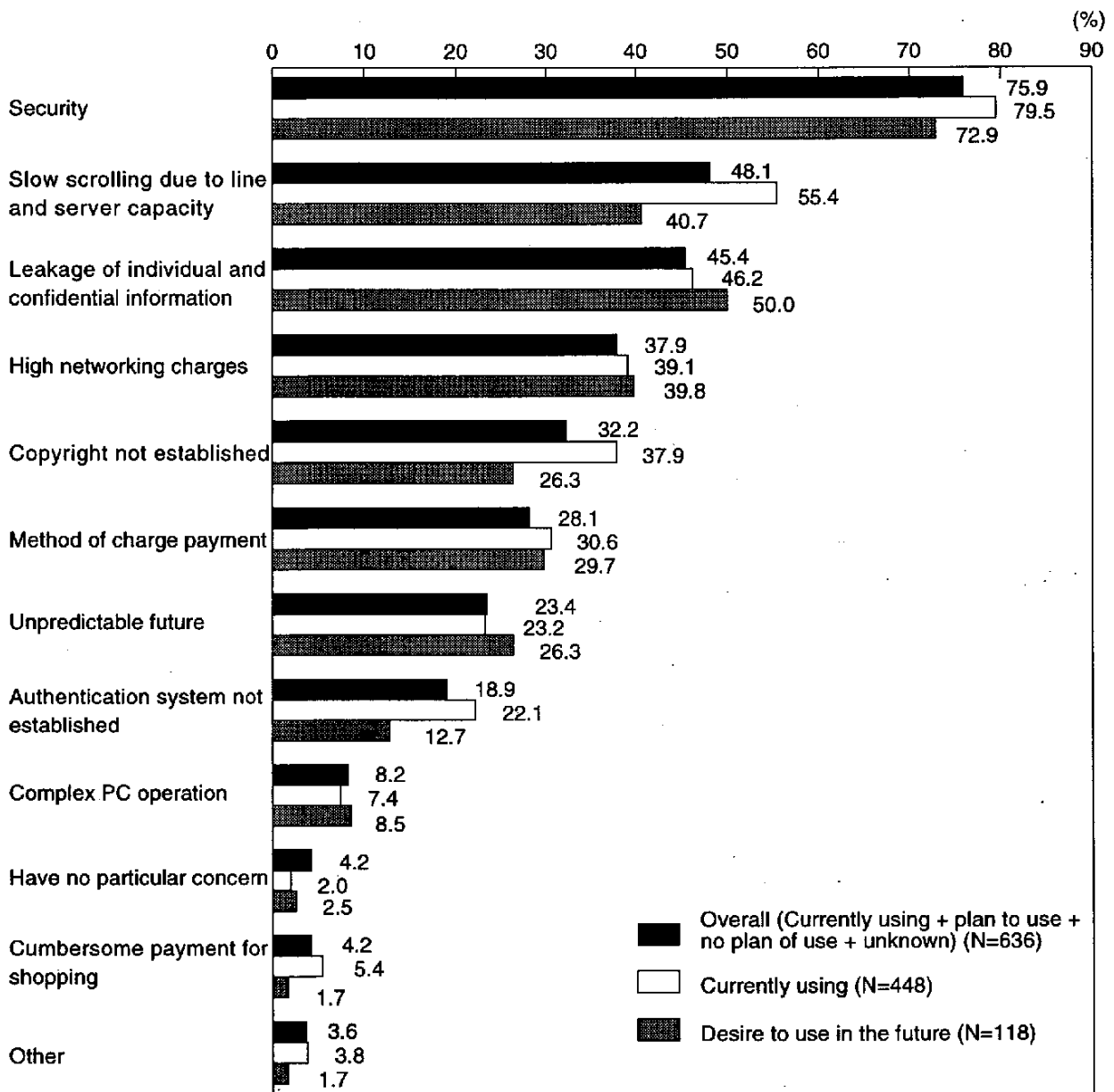


Figure IV-4 Points of Concern in Internet Utilization

Internet considered to be most promising consisted of "Text information services using electronic mail such as news" (50.6%), "Information searching services on the WWW" (50.3%) and "Text, numerical information and still image services using the WWW" (41.9%).

Finally, with respect to problems concerning Internet utilization, the greatest concern was over "Security", indicated by 75.9% of the replying companies. When this was combined with the number of companies that selected "Leakage of individual and confidential information" (ranked third at 45.4%), considerable concern was expressed over security for the third consecutive year. Meanwhile, "Slow scrolling due to on line and server capacity" was indicated as a problem involving the supply of information via the Internet in the vendor edition of this survey as well (Fig. IV-4).

8. Questions Relating to CD-ROM

CD-ROMs are representative of off-line use of commercial databases. Those companies that replied they were currently using commercial information on CD-ROMs accounted for 207 of the 650 replying companies (31.8%), for an increase of about five percentage points from the previous survey. Utilization rates by industrial category showed of "Oil and chemical industry" with the highest rate at 64.9%, followed by "Electrical, general and transport machinery manufacturers" at 41.0% and "Other manufacturing industries" at 40.8%.

8.1 Categories of Information Use

Figure IV-5 is a graph of the top six categories of information currently used on CD-ROMs. The "Science, technology and patents" category, the most frequently used category of information for the past three years, yielded first place to "Dictionaries, encyclopedias and directories" (34.1%) in the current survey. The "Bibliographies, books and periodical information" category (22.9%), was ranked third, as in the previous survey. In the current survey, "Maps, telephone numbers and address codes" (12.7%) joined the top six categories for the first time. Maps and telephone numbers on CD-ROMs are used in broad areas of industries including marketing, and their usage is expected to grow in the future.

In terms of the number of CD-ROM databases (number of titles) used in respective industries, the most frequently used category was "Science, technology and patents" (a total of 174 titles, 53 replies, an average of 3.3 titles). This was followed by "Dictionaries, encyclopedias and directories" (a total of 132 titles, 51 replies, an average of 2.6 titles), and "Bibliographies, books and periodical information" (a total of 127 titles, 39 replies, an average of 3.3 titles).

Further, in looking at the average number of CD-ROMs used by industrial category, they were

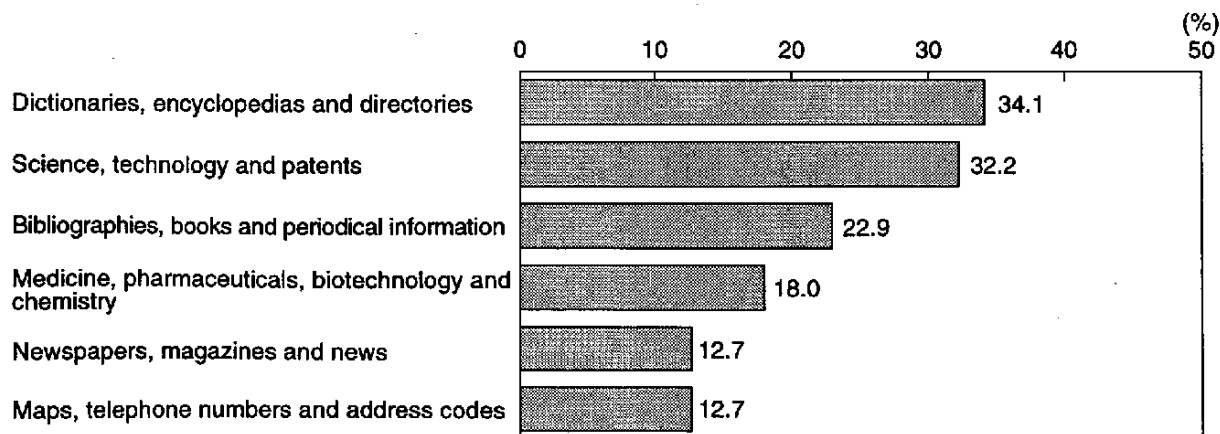


Figure IV-5 Information Categories Frequently Used on CD-ROM (N=205: multiple replies)

most frequently used by "Other services for businesses" at an average of 5.8 titles. In general, the number of CD-ROMs used in tertiary industries was larger, at an average of 4.1 titles compared to 2.7 titles in secondary industries. By industrial category, the average numbers of CD-ROM databases used in small and medium-sized companies, large companies and public service organizations were 6.1, 2.6 and 3.2 titles, respectively.

8.2 Reasons for Use

With regard to reasons for using CD-ROMs, 60.7% of the 201 replying companies indicated that they are "Space-saving compared to micro data and prints", maintaining the first position as in previous years. This was followed by "Communication cost not required" (46.8%) and "Lump-sum payment of fixed amount" (40.8%), in the same order as in the previous year. The selection rate of "Communication cost not required" was high among large companies and public services, whereas small and medium-sized businesses placed importance on "Lump-sum payment of fixed amount".

8.3 Inconveniences Concerning Use of CD-ROMs

With respect to inconveniences, users had concerning the use of CD-ROMs, the most frequently indicated problem was "Frequency of data updating", pointed out by 49.5% of all the replying companies. The rate was especially high in tertiary industries, indicated by an average of 59.5%. This is considered to be due to the fact that many "Business" category data frequently used by tertiary industries require frequent updating. The second most frequently indicated problem was "Search software not standardized" (41.9%), followed by "Expensive software" (30.1%) and "Desired data not available on CD-ROMs" (29.0%). The selection rate of "Slow search speed", which was once high, has been declining with improvements in hardware performance.

V State of Personal and Home Utilization

1. Summary

DPC conducted a "Survey of the State of Personal and Home Database Utilization" targeted at users of PC network services for roughly 1 week in November 1996.

The characteristics of the results of that survey are as follows:

- (1) The actual number and percentage of respondents that had used a commercial database were both lower than the previous survey (November 1995).
- (2) The proportion of respondents using commercial databases primarily for personal use continued to decrease.
- (3) The Internet appeared near the top as the media of choice for commercial database use, while the popularity of CD-ROMs began to drop off.

In addition, the results of a survey of Internet use conducted as a part of the above survey clearly showed that the number of persons that used the Internet reached nearly 80%, thereby indicating a growing trend towards personal use in contrast to that exhibited by commercial databases.

2. Trends of Personal Utilization

A total of 3,027 users of PC network services responded to this survey. Men accounted for 81.1% (82.9% in the previous survey), while women accounted for 18.9% (17.1% in the previous survey). The percentage of women has increased steadily each time the survey has been conducted.

2.1 Significant Decrease in Number of Users

A total of 1,678 of the 3,027 respondents, or 55.4%, replied that they had used a commercial database (including CD-ROMs and electronic books). Since 1,869 respondents, or 62.3%, replied that they had used a commercial database in the previous survey, the above figures represent large decreases both as an actual number and as a percentage. This was the first time that the number of respondents that had used a commercial database in the past decreased. When this is considered with the fact that the total number of respondents is greater than during the previous survey, it means that database-related companies are facing a bleak situation.

The results of asking the 1,678 persons that had used a commercial database to classify the purpose of that use into five choices consisting of "for work only", "mainly for work", "both for

work and personal use equally", "mainly for personal use" and "for personal use only" are as described below.

The number of respondents that replied "mainly for personal use" or "for personal use only" accounted for 35.7% of the total. Since the same figure in the previous survey was 40.9%, this means that there has been a significant decrease in primarily personal use. This decrease was particularly conspicuous among part-timers and housewives, who demonstrated high percentages for primarily personal use in the previous survey.

In addition, although there were 1,184 respondents that used a commercial database other than for work, when these respondents were asked about the amount of time per week they use commercial databases, those using commercial databases for less than 30 minutes for week accounted for 66.4% of the total, while those using them for less than 1 hour accounted for 9.9%, those for less than 3 hours 3.4% and those for 3 hours or more 1.1%. Calculating the mean utilization time per week from these results yields a value of 24 minutes, which is a little longer than the value of 18 minutes obtained in the previous survey.

2.2 Sudden Increase in Access by Internet

The 1,184 respondents mentioned above were also asked what media they use when accessing commercial databases (multiple replies). The most common reply was PC network services at 88.3%, followed by "access with Internet" at 39.4%, which was added to the available choices for the first time in this survey. Other replies included "direct access to online database services" at 16.0%, "CD-ROMs (including electronic books)" at 14.4% and "magnetic tape/floppy disks" at 2.8%. When compared with the results of the previous survey, in which CD-ROMs were at 17.7% and electronics at 5.5%, the decline of package services is conspicuous.

In addition, when the same question was asked of the above group of respondents while also including those persons that "have a possibility" of using commercial databases in the future (total respondents: 2,975), the most popular choice of media selected was PC network services at 79.6%. This was followed by the Internet at 59.5%, online database services at 19.0% and CD-ROMs at 16.9%. Thus, there is a strong possibility that the Internet will be used as a medium for accessing commercial databases in the future along with PC network services.

2.3 Emphasis on "Freshness of Information"

A change has taken place in the popularity of CD-ROMs which had continued to demonstrate growing support until the previous survey. CD-ROMs offer the major advantage to users of not having to worry about fees once they have been purchased. Although expected to grow into a powerful media for database services because of this advantage, the reason for their recent decline appears to be due to the appearance of the Internet along with growing emphasis on the "freshness

of information".

As a new question added to this year's survey, respondents were asked to identify the purpose of personal use of commercial databases by selecting up to three of five possible choices consisting of "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 those results, 61.1% of the respondents selected up-to-date information, 60.2% hobbies, 34.0% culture, 18.8% shopping and seat reservations, and 10.1% entertainment. Thus, it was determined that more than 60% of the respondents were seeking up-to-date information.

2.4 Increasing Trend Towards Dispersion of Utilization Fields

The top three categories of commercial databases used most frequently during personal use consisted of article searching, news and book information (Fig. V-1).

These findings are the result of asking respondents to select three categories from the choices given. The categories of "News" and "Patents" were added to the 20 categories used in the previous survey. Although CD/video software information was previously ranked 3rd at 9.8%, it

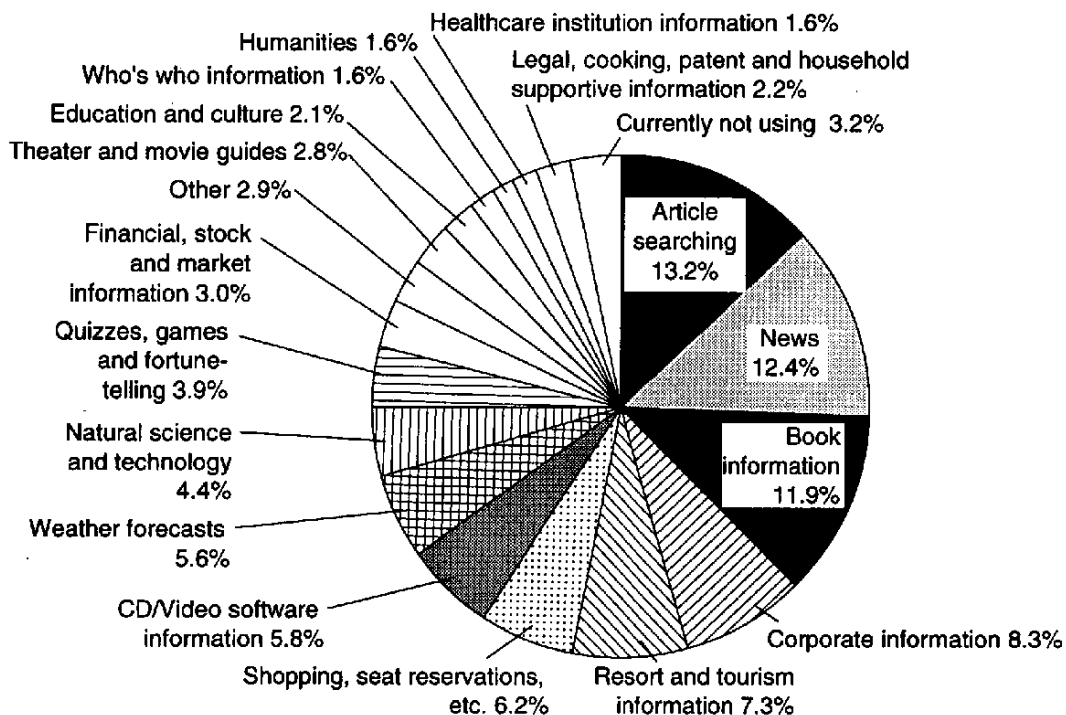


Figure V-1 Categories of Frequently Used Commercial Databases
(breakdown of total no. of replies: 2,493)

fell to only 5.8% in this survey.

Among the top-ranked categories most frequently used, article searching, book information and corporate information (ranked 4th in the previous survey) have continued to exhibit solid support, but their percentages are decreasing. In contrast, resort and tourism information, along with shopping, seat reservations, etc., exhibited slight increases, thus indicating that the categories of database utilization are becoming increasingly diverse.

A more detailed study was made of categories used with respect to article searching, corporate information and book information, continuing from the previous survey. First, with respect to article searching, the top ranking subcategories were "Corporate and industrial information" (27.4%), "Social and domestic information" (24.6%) and "Natural science and technology information" (21.1%). This order is unchanged from the previous survey. In looking at the results in terms of occupation, the highest rates of access to corporate and industrial information was exhibited by general employees overall, professionals and self-employed persons.

The most frequently-used subcategories of corporate information consisted of corporate profiles (28.4%), corporate new product information (16.6%) and corporate financial data (11.6%). These results are similar to those of the previous survey. Those persons who most frequently use corporate information were general employees assigned to sales-related positions, and the proportion of information relating to corporate trends was also high following corporate profiles.

Moreover, with respect to book information, the most frequently used subcategories consisted of new publication guides (31.2%), bibliographies (23.5%) and technical journal information (19.4%). Although new publication guides demonstrated wide-ranging support regardless of users' occupation, age or purpose of use, technical journal information was, perhaps naturally,

Table V-1 Frequently Used Databases (multiple replies, no. of respondents: 1,184, figures in parentheses indicate results of previous survey (1,403 respondents))

Rank	Database	Ratio (%)	
1 (1)	Asahi Shimbun News Database	27.2	(26.7)
2 (2)	Nikkei Shimbun News Database	18.6	(17.3)
3 (5)	Tokyo Shoko Research	11.9	(10.8)
4 (4)	Yomiuri Shimbun News Database	11.1	(10.9)
5 (3)	Nichigai Assist	10.2	(12.9)
6 (6)	Mainichi Shimbun News Database	9.8	(10.5)
7 (7)	Other newspaper article files	9.0	(6.6)
8 (8)	COSMOS	5.5	(6.4)
9 (9)	Other domestic STM (science, technology, medicine) files	4.1	(4.0)
10 (-)	JICST Files	3.8	(2.6)

popular among students, professionals and teachers.

In addition, Table V-1 shows a list of the ten most popular commercial databases determined as a result of asking respondents to name three databases they most frequently use among 17 commercial database services currently available. Although there was no change in the order from 1st to 9th place, JICST files moved into the 10th position in this survey, replacing Nikkei Who's Who.

2.5 Growing Need for Leisure-Related Information

A survey of not only personal users of commercial databases, but also latent users having the potential to use commercial databases, depending on particular conditions, was conducted by widening the scope of the respondents to determine the categories of databases they desire to use. The results of that survey again clearly showed the growing trend towards diversification.

The results of asking a total of 2,975 respondents, consisting of 1,791 latent users added to the number of personal users, to indicate the three categories of databases they would most like to use in the future are shown in Fig. V-2. Since the top-ranked categories in the previous survey consisted of book information (12.5%), article searching (10.0%) and CD/video software information (9.5%), the results of the current survey indicate a growing interest in leisure-related information.

Ultimately, the categories of commercial databases desired by personal users can be broadly divided into the following three categories:

- (1) general categories such as book information and article searching
- (2) leisure-related information
- (3) information in professional fields

Among these, there are considered to be a considerable number of commercial databases available in general categories such as article searching, and there are quite a few commercial databases in the professional category that are able to respond to business needs. The degree to which commercial databases are able to accommodate information needs relating to leisure and recreation, health care, domestic support and other home-related fields will most likely be the key that determines the success of personal use in the future.

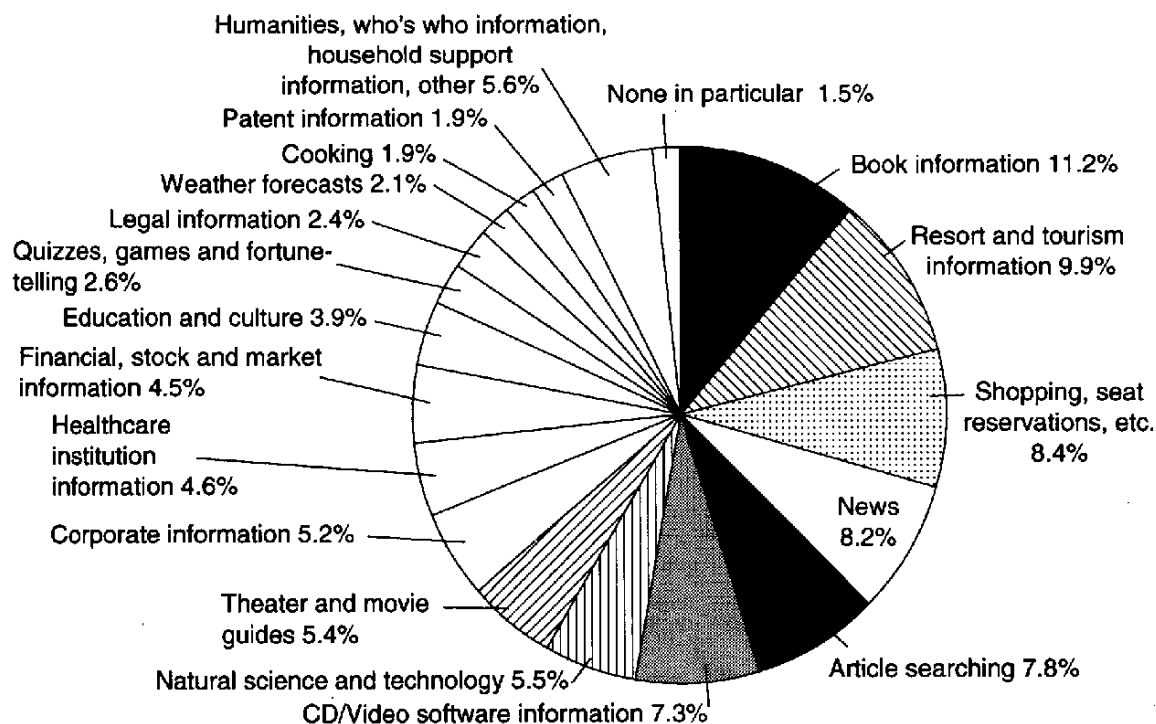


Figure V-2 Categories of Commercial Databases Desired to be Used in the Future
(breakdown of total no. of replies: 7,061)

3. Requests for Commercial Databases

The major area of dissatisfaction with commercial databases continues to be related to usage fees. The fastest-growing reply to why individuals have not yet used commercial databases is that they are not needed at present.

3.1 Increase in "No Need to Use"

In looking at the reasons for dissatisfaction with commercial databases among 1,184 individuals who have used a database in the past (multiple replies), the most common reason for dissatisfaction was the "usage fee system" at 67.7%. This represents very little change from the previous survey, which exhibited a result of 67.9%. Additional reasons consisted of "high line-usage fees" at 50.0% (previous survey: 52.0%), "more search methods" at 22.7% (33.9%), "increased data updating speed" at 16.1% (15.6%), "faster communication speed" at 16.0% (15.4%) and "greater detail of database contents" at 15.9% (14.5%). In addition, "preliminary guide to search results", which was newly added this year, was indicated by 19.6% of the respondents.

On the other hand, the areas of dissatisfaction on the part of those persons who only use commercial databases at work (494 respondents) consisted of "high usage fees" at 54.0% and "no

need to use at present" at 52.8%. Although the respondents were allowed to give multiple replies, nearly all replies were concentrated on the above two reasons. The latter reply in particular represents a significant increase from the level of 39.1% in the previous survey.

3.2 Dissatisfaction with Time-Based Fee System

The major dissatisfaction that personal users have with respect to commercial databases is problems with fees, and this was already clearly shown in the previous survey. What is particularly disconcerting in this survey for members of the database industry is the increase in the number of respondents who replied that they do not have a need for database use. It is certainly true that commercial databases provide little appeal for individual users as a result of having previously set their sights on business use. There is a strong possibility, however, that even these individual users would access commercial databases more easily if the fees were more reasonable.

One of the findings that supports this conclusion is the results obtained when those persons who have only used a commercial database at work and those persons who have never used a commercial database were asked under what conditions they would use a commercial database on an individual basis.

Although the overall ratios are lower since one additional choice was added, the trend is about the same as that observed in the previous survey. It appears that the environment surrounding commercial databases has not changed in a year, despite the requests and expectations of users.

Roughly 30% of the respondents cited a "system that allows judgment of contents and fees", which was newly added to this survey, as one of the conditions for using commercial databases in the future. This most likely indicates apprehension as to whether or not they will be able to obtain information that corresponds to the "high fees".

In addition, a significant number of users continued to express a desire for more search methods and standardization. As the types of databases increase, systems are being sought that offer unified searching methods and allow for more ambiguity.

4. Internet Utilization Trends

In a survey that was conducted simultaneously regarding the state of utilization of the Internet, the number of Internet users was found to have reached nearly 80%. Although this marks the 3rd time that a survey regarding the Internet has been conducted, the rapid growth that has taken place in just two years since the initial value of 26.3% in the first survey (November 1994) is truly astounding. On the other hand, approximately 12% of those persons that used the Internet in the past replied that they are "currently not using" the Internet, thus indicating that some criticism of the Internet is beginning to surface.

4.1 Number of Internet Users Reaches Nearly 80 %

All 3,027 respondents were asked about their use of the Internet and their intentions regarding its use. Those respondents that replied they are "currently using" the Internet accounted for 66.7% of the total, "would like to use in the future" accounted for 19.2%, "have used in the past but are not using now" for 12.3%, and "no need to use in the future" only 1.5%. The combined total of users who are "currently using" and those who "are not using now" increased to 78.9% of the total, representing an increase of nearly 30% over the previous survey (50.0%).

In looking at Internet users by age, with the exception of those under age 15, 50% or more of the persons in all age groups have used the Internet. In addition, according to occupation, professionals accounted for the largest group at 87.3%, followed by company workers engaged in technical jobs at 83.0%, teachers at 81.5% and students at 80.6%, with each group exceeding the overall figures. On the other hand, those occupations in which Internet users were relatively low included housewives at 55.5%, self-employed persons at 65.8% and part-timers at 68.2%. However, the proportions of people in these groups that desire to use the Internet in the future were 41.3%, 32.3% and 24.7%, respectively. Thus, the number of users can be expected to further increase in the future. It should also be noted, however, that a new choice added in this survey, namely "not using now", accounted for more than 10% of the total.

The results of asking those persons using or desiring to use the Internet what the purpose of that use was are shown in Fig. V-3. In comparison with the results of the previous survey, use primarily for work (combined total of "for work only" and "mainly for work") decreased by 5.3% to 17.2%, while primarily personal use (combined total of "for personal use only" and "mainly for personal use") increased by 2.9% to 65.8%, thus suggesting a growing trend towards personal use of the Internet.

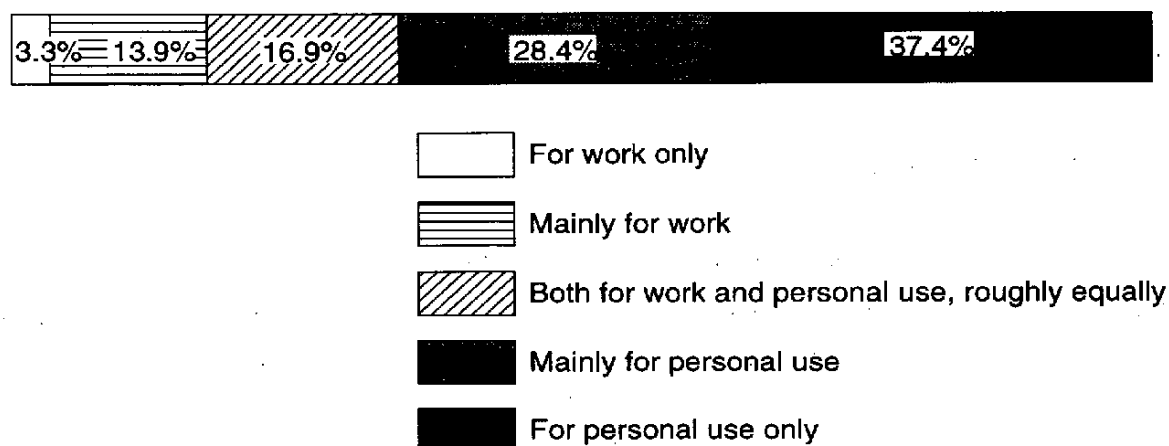


Figure V-3 Purpose of Internet Utilization (No. of replies: 2,971)

4.2 Increasing Awareness of Information Transmission

The primary routes used to connect to the Internet consisted of commercial network services at 54.8% (previous survey: 35.6%), PC network services at 31.6% (49.1%) and non-commercial network services at 13.6% (15.2%), yielding results showing that commercial network services account for more than half of the total. The number of providers engaged in the business of offering connection to the Internet exceeded 1,000 firms in the summer of 1996, and usage fees are continuing to decrease amidst intensifying competition. The result is expected to be an environment that facilitates use.

Respondents were asked to list three services they use on the Internet or intend to use in the future. Electronic mail and text, numerical and static image information accounted for more than half of the replies (Fig. V-4), indicating that the number of people using the Internet to exchange mail and gather information remains large. Since the choices available to the respondents were changed considerably from the previous survey, it is difficult to make a simple comparison between this year's results and those of the previous year. However, the percentages for use of electronic mail, news services and commercial and non-commercial databases are all down from the previous year. Although this appears to be the result of adding more choices to this year's survey, the increase in "information acquisition by creating home pages" is conspicuous. In particular, this reply was given by 27.9% of housewives, 20.4% of self-employed persons, 18.5% of students and 17.8% of teachers, while the figures for general company employees and professionals are in stark contrast at roughly only 10%.

In addition, the advantage offered by the Internet that was given by an overwhelmingly large number of respondents was "gathering global information". Although "users can easily become information providers", which was ranked 3rd in the previous survey, decreased in terms of percentage, it is characteristic that it was replaced with "communicating with persons overseas". In addition to organizations and corporations, the number of individuals creating home pages is also increasing, and the above findings are considered as proof that there is a growing awareness of the Internet as a useful media for transmitting information as well.

4.3 Concern Over Security

All respondents were asked to indicate three areas that concerned them regarding use of the Internet. There were slight differences in the replies depending on whether or not respondents had used the Internet in the past, whether or not they intended to use the Internet in the future, and so forth. Although concern over security and the risk of leakage of information were ranked 1st and 2nd among all groups, for the 3rd area of concern, persons currently using the Internet indicated concern over the method of payment when purchasing articles on the Internet, while other groups expressed concern over high communication costs. Although concern over "difficulty with

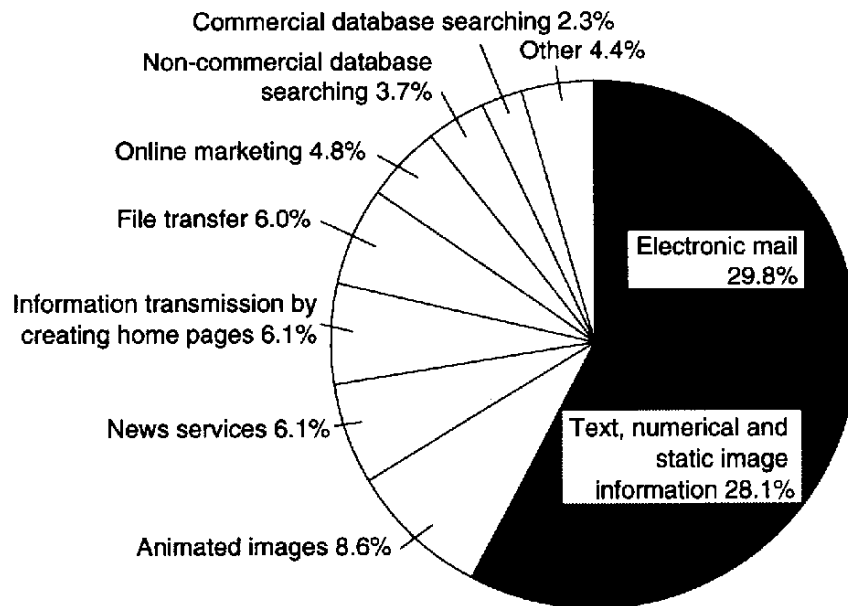


Figure V-4 Services Used with Internet (Ratio with respect to total number of replies: 6,611)

Note: Other replies included remote log-in at 1.4%, public release of thesis research results at 0.5%, EDI at 0.5%, financial transactions at 0.4% and other at 1.6%

English" decreased significantly despite having been ranked 3rd in the previous survey, it still ranked 5th among the group of persons that had never used the Internet.

In addition, among the replies given when respondents were asked to freely state any opinions or comments regarding the Internet, there were a large number of opinions expressing apprehension over the present state and future of the Internet rather than simple approval or disapproval. In addition to replies relating to the above-mentioned problems such as security and high communication costs, there was a conspicuous number of opinions that questioned the quality of information available, such as those indicating that "information is too vast and confusing" and that there is an "excess of useless information".

VI Present State of In-house Databases

1. Database Retention Rate Decreases for Second Consecutive Year

DPC conducted a "Survey of Japanese Database Services (User Edition)" in October 1996. This survey was targeted on 2,724 private corporations and organizations located in Japan, in the same manner as in previous years. A total of 665 replies were received, yielding a response rate of 24.4%.

Among the 643 replies to questions concerning in-house databases, 410 corporations and organizations replied that they had such databases. This results in a retention rate of 63.8% (Fig. VI-1). This figure has exhibited a decreasing tendency over the past few years. After recording a value of 68.8% in 1994, it decreased to 66.5% in 1995 and further decreased in 1996. Since it had been increasing through 1994, it appears that the trend began to reverse some time in 1994. Although this is probably related to some extent with the decrease in the response rate of the survey, this is not the only factor. This decrease may be due to the effects of out-sourcing the construction and administration of in-house information systems to outside firms.

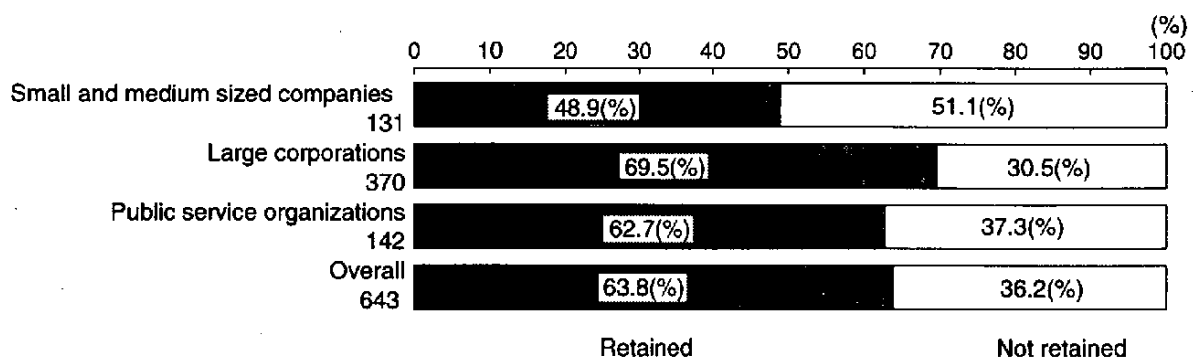


Figure VI-1 Retention Status of In-house Databases

1.1 Retention Rate of Small and Medium Sized Companies Below 50%

In looking at retention rates according to the size of corporations and organizations, the retention rate for "large corporations" is 69.5%. Of the 370 large corporations that replied, 257 indicated that they have in-house databases. This represents a considerable decrease from the levels of 74.2% in 1994 and 74.3% in 1995.

Conversely, 64 of the 131 "small and medium sized companies" replied that they have in-house databases, for a retention rate of 48.9%. The retention rate for these companies has increased from the level of 44.4% in 1995. However, since the level in 1994 was 49.2%, this

degree of fluctuation can also be said to be within the normal range of error. In any case, it appears that the retention rate of in-house databases among small and medium sized companies has yet to reach 50%.

The retention rate of in-house databases is also decreasing among public service organizations (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). In 1996, 89 of the 142 replying organizations stated that they have in-house databases, for a retention rate of 62.7%. The same figure in the 1994 survey was 68.9%, while that in the 1995 survey was 65.0%.

1.2 Trade and Commerce Industry Exhibits Top Retention Rate

In looking at the retention rates of in-house databases according to industry types, the top industry is "Trade and commerce" at 80.6% (Fig. VI-2). This represents a significant increase from the level of 66.7% obtained in the 1995 survey. However, the level in the 1994 survey was 77.1%. Judging from the changes in this figure, it appears that there is little significance in a detailed discussion of the fluctuations in retention rates by industry.

Other industries exhibiting high retention rates of in-house databases included "Electrical, general and transport machinery manufacturing industries" (electrical machinery manufacturing, transport machinery manufacturing, machinery and precision machinery manufacturing) at 80.3%, "Oil and chemical industries" (pharmaceutical manufacturing, oil industry, chemical industry) at 72.4%, "Finance and insurance industries" (finance industry, security industry,

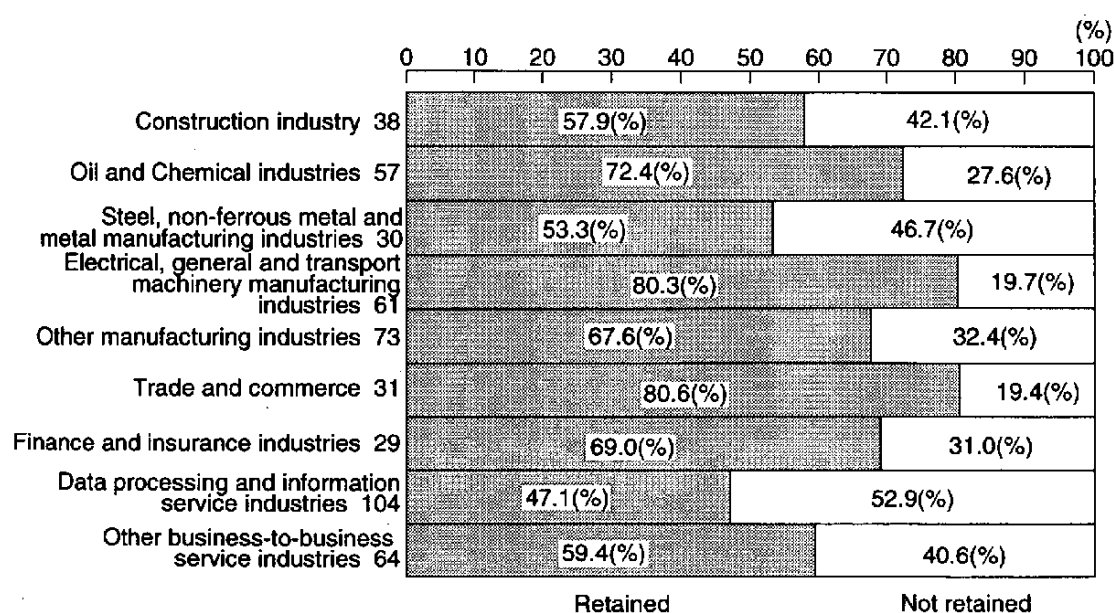


Figure VI-2 Retention Status of In-house Databases of Major Industrial Categories

insurance industry) at 69.0% and "Other manufacturing industries" (food industry, textile, paper and pulp industries, glass and stoneware industries, printing, publishing, newspaper and other manufacturing industries) at 67.6%.

Similar to the previous year, the industry with the lowest in-house database retention rate was "Data processing and information service industries" (data processing service, software and information providers). The retention rate of this industry was 47.1%, and was the only industry to fall below the 50% level. The levels for this industry were 52.5% in 1994 and 50.8% in 1995.

2. Improved Efficiency of Clerical Work Exceeds 60% as Purpose of Constructing In-house Databases

When those corporations and organizations having in-house databases were asked about the purpose of their construction, the overwhelmingly most common reply overall was "improved efficiency of clerical processing" indicated by 62.5% of the respondents (multiple replies). This result was similar to that obtained in the 1995 survey.

The next most common reply after "improved efficiency of clerical processing" was "effective utilization of books, references, documents and other in-house corporate information" at 43.3%. This was followed by "improved efficiency of sales promotion" at 32.5%, "improved efficiency of order processing" at 31.0% and "improved efficiency of inventory management" at 29.2%. The reply rate for "effective utilization of books, references, documents and other in-house corporate information" was 61.6% among public service organizations.

3. More Than 40% of Corporations Use for Customer Management

In looking at the retention rates of in-house databases according to their contents, the most common reply was "customer management" at 44.3% (Fig. VI-3). This was followed by "personnel management" at 36.4%, "marketing (sales) management" at 34.9%, "accounting and financial management" at 33.1% and "inventory management" at 29.8%. These results are generally similar to those obtained in the 1995 survey. All retention rates were lower in 1996 with the exception of "customer management", which demonstrated a retention rate of 42.0% in the 1995 survey.

Those database contents that demonstrated retention rates below 10% consisted of "internal affairs" at 4.6%, "marketing information" at 6.6% and "product information" at 8.4%.

In looking at the retention rates of in-house databases by content for each industry, "Finance and insurance" and "Trade and commerce" can be seen to be placing emphasis on "customer management". 84.2% of finance and insurance companies and 70.8% of trade and commerce companies have in-house databases for customer management. This trend remains unchanged from the results of the 1994 and 1995 surveys.

With respect to "personnel management", the "Construction industry" exhibited the highest retention rate, at 81.0%. This is also similar to the results of previous years. The highest retention rate for "marketing (sales) management" can naturally be found in the "Trade and commerce" industries.

In looking at the divisions that use in-house databases, the highest rate of use was observed in the "sales division". In-house databases are used by the sales division of 45.7% of the replying corporations overall. This figure increases to more than half, at 59.4%, when the respondents are limited to only "large corporations".

In addition, other divisions that demonstrate high rates of use overall include the "general affairs division" at 39.4%, "production division" at 23.4%, "survey division" at 21.5%, "research division" at 21.5% and "planning division" at 20.7%. These results also vary only a little from the results of previous years. The only changes from the results of the 1995 survey are a drop in ranking by the "general affairs division" and "planning division", and their replacement by the "sales division" and "survey division".

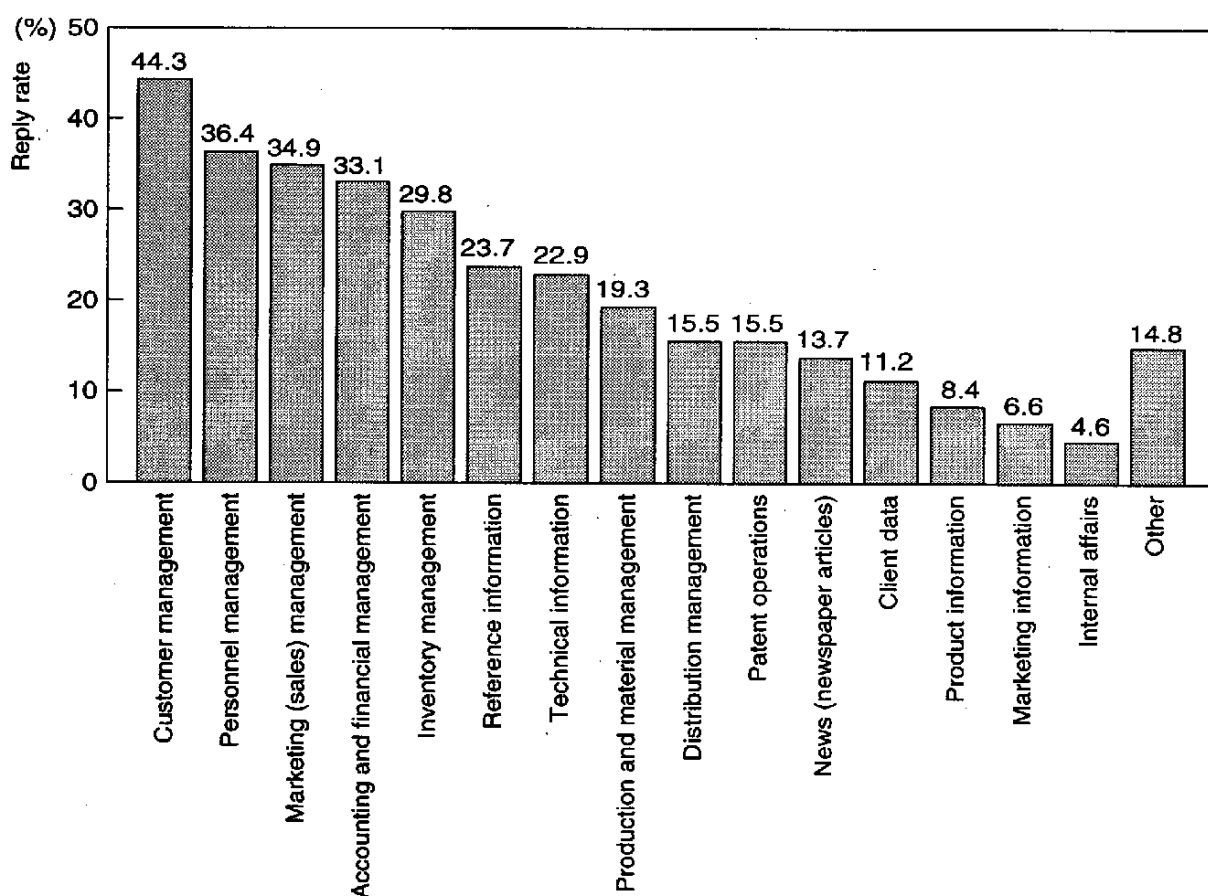


Figure VI-3 Retention Rate of In-house Databases by Content (multiple replies)

4. Establishment of Relational Database Management Systems (RDBMS)

Respondents were asked for the first time in this survey about the form in which in-house databases are constructed. Questions were focused on relational database management systems (RDBMS) and data warehouses. Corporations and organizations currently possessing in-house databases were then asked whether or not they had installed either of these systems (or whether or not they had plans for their installation).

4.1 RDBMS Installation Rate at 43.1%

The installation rate for RDBMS reached 43.1% overall. Looking at this in terms of company size, the rate was 40.8% for large corporations and 42.2% for small and medium sized companies. The results were interesting in that the rate for small and medium sized companies was larger than that for large corporations (Fig. VI-4). The installation rate for public service organizations was even higher, at 50.6%, indicating that more than half of these organizations had installed RDBMS.

Only 2.7% of the corporations and organizations replied that they planned on installing RDBMS in the future. In consideration of this result, it appears that the majority of those corporations and organizations that should install RDBMS have already completed their installation.

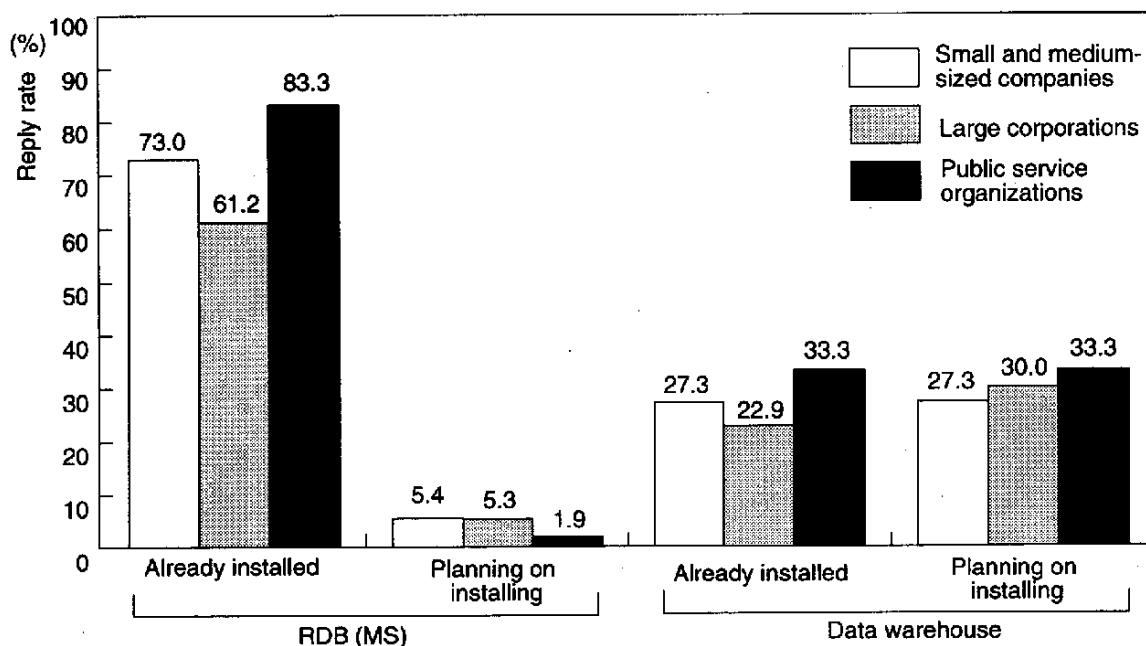


Figure VI-4 Construction and Installation Status of In-house Databases (multiple replies)

Naturally, this does not mean that the proliferation of RDBMS has peaked. Those corporations and organizations that have already installed RDBMS ought to still have a considerable number of databases left that are monitored with DBMS and ordinary file systems other than RDBMS. Thus, the utilization rate of RDBMS is expected to increase in the future as these corporations and organizations change over these databases to RDBMS.

4.2 Proliferation of Data Warehouses Still in the Future

Data warehouses, on the other hand, are still in the early stages of proliferation. The overall installation rate is still only 5.4%. The reply rate for "planning on installing" was 6.6%, which exceeds the reply rate for "already installed". Although it is difficult to predict what the final installation rate will be, it is virtually certain that there will be growth towards the installation of data warehouses in the future.

It is difficult to determine installation trends by industry due to the small amount of data. The installation rate can be said to be relatively high in "Other manufacturing industries" and "Finance and insurance industries". Those industries exhibiting high reply rates for "planning on installing" included "Other manufacturing industries", "Electrical, general and transport machinery manufacturing industries" and "Trade and commerce".

5. Expectations Focusing on the Intranet

Respondents were also asked about the environment in which they access in-house databases. Network environments are used in the majority of cases. Four items were mentioned, namely inhouse LANs, groupware, intranet and mobile/remote computing.

5.1 In-house LANs Installed in More than 60% of Replying Companies

Those corporations and organizations that are able to access in-house databases by way of an in-house LAN accounted for 61.0% of overall respondents. Looking at this figure in terms of company size, the reply rate for large corporations was 65.9%, while that for small and medium sized companies was 46.9% (Fig. VI-5). Amidst the explosive proliferation of personal computers, it appears that corporations have joined forces to install in-house LANs. The installation rate for public service organizations was also high, at 57.3%.

Those corporations and organizations who replied that they are planning to install inhouse LANs accounted for 14.0% of the total.

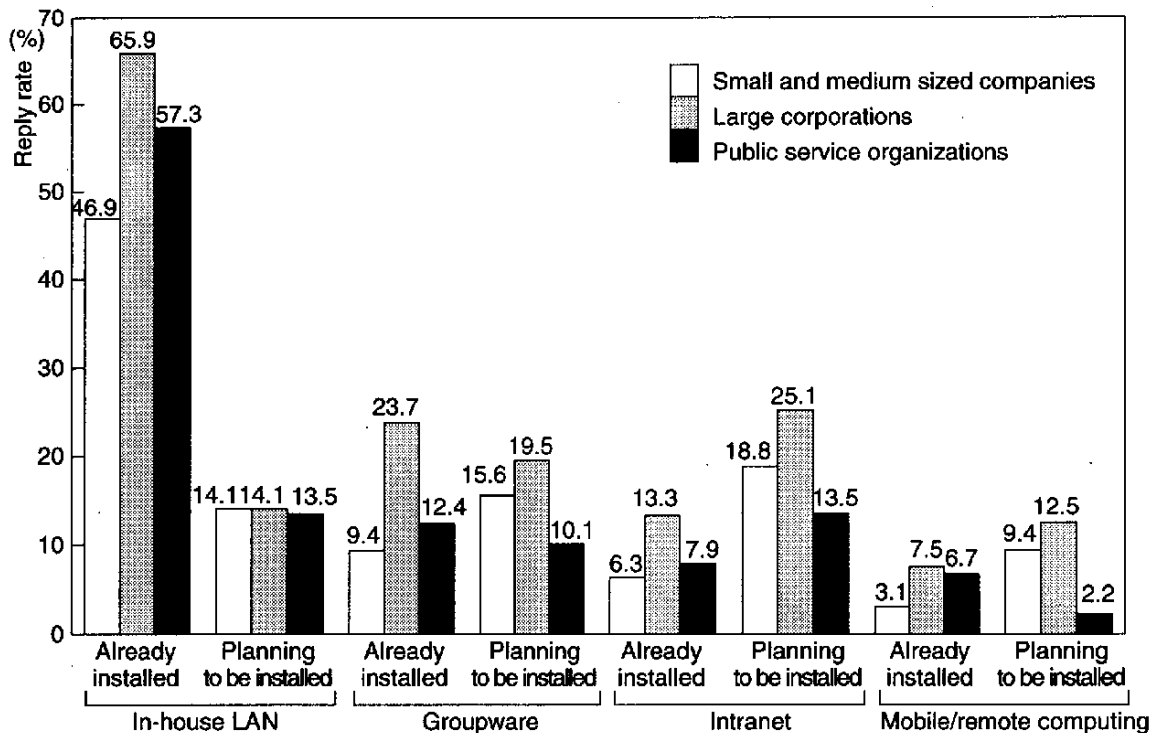


Figure VI-5 Access Environment of In-house Databases (multiple replies)

5.2 Groupware Installation Rate Under 20%

The installation rate for groupware was 18.9% overall. The installation rate for large corporations was higher, as would be expected, at 23.7%. The installation rate for small and medium sized companies was 9.4%, while that for public service corporations was 12.4%.

The reply rate for "planning on installing" was 16.9% overall. That for large corporations was 19.5% and that for small and medium sized companies was 15.6%, indicating that small and medium sized companies also have high expectations for groupware. There were no industries that exhibited particularly high rates for "already installed" or "planning on installing".

5.3 More Than 20% of Respondents Plan on Installing Intranets

The installation rate for intranet was 11.0% overall. A breakdown of this figure consists of 13.3% for large corporations, 6.3% for small and medium sized companies, and 7.9% for public service organizations. In looking at these figures by industry type, installation rates were the highest in the "Electrical, general and transport machinery manufacturing industries" and "Data processing and information service industries". This is an obvious result in the case of the former since they include computer manufacturers.

The reply rate for planning on installing an intranet was 21.6% overall. This was the highest

reply rate among the four items regarding in-house databases covered in this survey. Since this reply rate far exceeds the current installation rate, intranets can be expected to proliferate extensively in the future. The ultimate installation rate will probably reach a level not dissimilar to that of inhouse LANs. In addition, since the client software of recently released groupware products is equipped with functions for accessing WWW servers, from the viewpoint of in-house users, the boundary between groupware and intranet is becoming increasingly obscure.

5.4 Corporations Offering a Mobile Environment Reach 6.6%

The number of corporations and organizations that have established mobile/remote computing as the environment for accessing in-house databases is still quite low. The number of such corporations and organizations accounted for only 6.6% of the total. In looking at individual industries, "Electrical, general and transport machinery manufacturing industries" demonstrated the highest installation rate, at 14.3%.

The reply rate for corporations and organizations that plan on installing a mobile/remote computing environment in the future was 9.8% overall, 12.5% for large corporations and 9.4% for small- and medium-sized companies, indicating growing expectations in this field.

6. Increased Connection with Outside Networks

Those corporations and organizations at which in-house databases are connected to outside networks accounted for 17.9% of the total. This represents an increase over the value of 12.4% in the 1994 survey and 13.1% in the 1995 survey.

In looking at the figures by industry type, the highest reply rates were exhibited by the "Data processing and information service industries", at 24.5% and "Electrical, general and transport machinery manufacturing industries" at 23.4%. The former also exhibited a high rate in the 1995 survey. The result of the latter has more than doubled from the level of 10.2% in the 1995 survey.

However, the number of outside networks to which in-house databases are connected has decreased dramatically. In this survey, the average number of outside networks per company was 20.8 overall. In the 1995 survey, the number was 74.7, meaning that the number of outside networks has decreased to less than 1/3 the level just one year ago. Although it is easy to think that this is due to the increase in the number of corporations and organizations that have accessed the Internet during the past year, it is unclear if this is directly related to the results of this survey.

The most common reply with respect to partners involved in exchanging data by connecting with outside networks were "Affiliates/subsidiaries" at 51.6% overall (multiple replies). This represents a significant increase over the level of 38.5% obtained in the 1995 survey. This was followed by "Sales agents" at 17.7% and "Distribution agents" at 12.9%.

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)	ELNET	Articles, with full-text image data, of 55 Japanese major newspapers and 150 Japanese journals including monthly economic reports	③	J	P/D	O	U.S.A., Europe, South-East Asia, China
GfK 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
	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	③	J/E	P	M	Worldwide
	Import Procedure by Commodity in Japan	Description of import procedure by commodity	②	E	P	O	
	Japan Trade Directory	List of Traders in Japan	②	E	P	M	
	JETRO Publications in English	List of JETRO Publications	②	E	P	M	
	Japan Regional Investment Guide	Guide for Investment for JAPAN	②	E	P	M	
	Market Trends in Japan	Guide of Japanese Market	②	E	P	M	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Japan External Trade Organization (JETRO)	Potential Imports	List of Importers	②	E	P	M	Worldwide
	Trade Fairs in Japan	Information of trade fairs in Japan	②	E	P	M	
	Your Market in Japan JETRO QUEST	Macrodata of Japanese Economy	②	E	P	M	
Japan Patent Information Organization (JPIO)	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 and registration procedure records from 1982.	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 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 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 and registration procedure records from 1982.	①	J	P/D	O	U.S.A., Germany, France, Korea, Taiwan, and others
	Trademark	Bibliographic data and specimens of trademark and service mark from applications are made to the Japanese Patent Office; Examination procedure records from 1964; Trial decision procedure records and registration procedure records from 1982.	①	J	P/D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Japan Patent Information Organization (JPIO)	Utility Model	Published bibliographic data of all utility model application 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 and registration procedure records from 1982.	①	J	P/D	O	U.S.A., Germany, France, Korea, Taiwan, and others
JAPAN PATENT DATA SERVICE, CO.	JAPANESE PATENTS		①	J	P/D	C	U.S.A., Korea, U.K.
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	
	JICST (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	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
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	
	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	U.S.A., U.K., Europe, and others
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)	JOTI	Data on Japanese travelers abroad	②	J/E	P	M	U.S.A., U.K.
	SDI Annual Report	Sal et	②	J/E	P	M	
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	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 9680 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
National Center for Science Information Systems (NACSIS)	Academic Conference Papers	Citations with abstracts of conference papers presented to conferences and meetings of the academic societies in Japan	①	J/E	P	O	Worldwide
	Bibliography of Central Asian Studies in Japan	Bibliographic citations of literature on Central Asian Studies published in Japan	①	J	P	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
National Center for Science Information Systems (NACSIS)	Bibliography of Islamic and Middle Eastern Studies in Japan	Bibliographic citations of literature on Islamic and Middle Eastern Studies published in Japan	①	J	P	O	Worldwide
	Calendar of Academic Conferences, compiled by Science Council of Japan	Calendar of international conferences to which societies registered at Science Council of Japan have relation	①	J/O	P	O	
	Clinical Case Reports	Full text of scientific papers in the field of clinical medicine	①	J/E	P	O	
	Current Contents of Academic Serials in Japan	Current contents of academic serials in all fields in Japan	①	J/O	P	O	
	Database Directory	Directory of databases created by and/or served at universities in Japan	①	J	P	O	
	Directory of Researchers	Information on research subjects, papers, etc. of researchers in universities	①	J/E	P	O	
	Dissertation Index	Index to doctoral theses submitted to universities in Japan	①	J	P	O	
	Economic Titles Japan	Bibliographic citations of literatures on economics	①	J/O	P	O	
	Electronic File of Academic Conference Papers	Citations of papers presented to conferences and meetings in Japan	①	J/E	P	O	
	Grant-in-Aid Scientific Research	Research project information with abstracts on research subsidized by Grant-in-Aid Scientific Research, Ministry of Education, Science, Sports and Culture	①	J/E	P	O	
	Private Grants-in-Aid Research	Research project information with abstracts on grant-in-aid scientific research subsidized by private foundations	①	J/E	P	O	
	Register of Grants-in-Aid Scientific Research	Research project information on grant-in-aid scientific research subsidized by Ministry of Education, Science Sports and Culture	①	J	P	O	
	Scientific Papers (Series 1; Electronics)	Fulltext of scientific papers in the field of electronics	①	J/E	P	O	
	Scientific Papers (Series 2; Chemistry)	Full text of scientific papers in the field of chemistry	①	J/E	P	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
National Center for Science Information Systems (NACSIS)	Scientific Papers (Series 5; Physical sciences)	Full text of scientific papers in the field of physical sciences	①	J/E	P	O	Worldwide
	Union Catalog of Foreign Books Bibliographies Holdings	Union catalog of books in European languages held by university libraries in Japan	①	E/O	P	O	
	Union Catalog of Foreign Serials Bibliographies Holdings	Union catalog of serials in European languages held by university libraries in Japan	①	E/O	P	O	
	Union Catalog of Japanese Books Bibliographies Holdings	Union catalog of books in Japanese languages held by university libraries in Japan	①	J	P	O	
	Union Catalog of Japanese Serials Bibliographies Holdings	Union catalog of serials in Japanese languages held by university libraries in Japan	①	J	P	O	
National Diet Library (NDL)	JAPAN/MARC	Machine-readable catalog of books and periodicals published in Japan	③	J	P	M	U.S.A., Canada
	JAPAN/MARC on Disc (J-BISC)	Machine-readable catalog of books and periodicals published in Japan	③	J	P	C	
	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, provide cover image of newly published books in nearly two weeks	③	J	P/D	O	Worldwide
	Computer/ Technical Terms	E→J 44,000 words and J→E 46,000 words, provide over 40,000 usage's	①/②	J	P/D	O	
	Historical WHO Foreign	Contains the profile of about 30,000 famous people in the world history	③	J	P/D	O	
	Historical WHO Japan	Contains the profile of about 60,000 famous people in Japanese history	③	J	P/D	O	
	Hon-das' Book Index	Provides references to books published since 1926 in Japan	③	J	P	O	
	Journal Index	Index to articles, since 1981, of 1,300 popular journals in Japan	②/③	J	P/D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nichigai Associates, Inc. (Nichigai)	NICHIGAI ASSIST BOOK	Contents information of books published after 1986 (50,000 books per year), provide outlines of novels	③	J	P/D	O/M/C	Worldwide
	NICHIGAI ASSIST BOOK/ MONTHLY	Monthly version of 'BOOK' database	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 2,520 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 various fields, with 160,000 prize-winner's data	①/③	J	P/D	O	
	Writer's Who's Who	Biographical information of 80,000 writers in Japan, with bibliographic information of their works	③	J	P/D	O	
	Zasshi Kiji Sakuin	Index to articles, since 1985, over 5,000 journals in Japan collected by National Diet Library	②/③	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, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	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	
	Consumer Radar	Originally obtained data on the attitudes and reality of consumer behavior toward financial issues	②	J	P/D	O/M/C	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nihon Keizai Shimbun, Inc. (NIKKEI)	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	U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	Daily Exchange Rate & Interest Rate Data	Daily data of foreign and domestic exchanges	②	J/E	P/D	O/M	
	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	
	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	
	Financial Statement for Listed Companies	Balance of settlements of accounts at the end of fiscal year, interim closing, and consolidated financial statements, since 1984, for listed companies other than banks, securities houses, and insurance companies	②	J/E	P/D	O/M/C	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nihon Keizai Shimbun, Inc. (NIKKEI)	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	U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	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 hole 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	
	Newspapers and Magazines for Text Search	Articles from newspapers including four Nikkei publications and several magazines published by Nikkei BP	③	J/E	P/D	O	
	Nikkei Macro Economic Statistics	12,400 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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nihon Keizai Shimbun, Inc. (NIKKEI)	Option Data	Trading and price data, volume, and positions of options and stock price index options	②	J/E	P/D	O/M	U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	Personnel Data Bank	Personnel data of executives of major companies and managing staff of government employees. Data elements such as title, place of employment, home address, 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 U.S. stock market investment with portfolio evaluation and optimization system	②	J/E	P/D	O	
	POS Data	POS data of 1,800,000 items including foods, household appliances, and others obtained from 450 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	
	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	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nihon Keizai Shimbun, Inc. (NIKKEI)	Statistics on Products, Shipments, and Inventory	Statistics on products, shipments, and inventory based on MITI's data	②	J/E	P/D	O/M	U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	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	
	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	
	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	
Nomura Research Institute, Ltd. (NRI)	DataLine	Investment Environment Database Stock Database; Debt Securities Database; NRI Index Database	②	J/E	P/D	O	U.S.A., U.K., Germany, Switzerland, Belgium, France, Netherlands
	FAST	Financial result and indicators of Japanese companies	②	E	P/D	C	
	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
Osaka city foundation for urban technology	OSAKA-UE File	Offer the urban engineering information of Osaka City through JICST on line service	①	J	P	O	
Protein Research Foundation (PRF)	PRF/LITDB	Literature database related to peptides and protein	①	E	P/D	O/M/C	U.S.A.
	PRF/SEQDB	Amino acids sequence database (peptides, protein)	①	E	P/D	O/M/C	
QUICK Corp.	QUICK-21 Advance	Served on the personal computer, Offering information on prices of the domestic and international stock exchanges in real-time, the company data, over-the-counter stocks, foreign exchange, money rates, commodities, investment and Nihon Keizai Shimbun News	②	J/E/O	P	O	Hong Kong

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
QUICK Corp.	QUICK-21 Dealer	Distribution of information on the securities and money markets in real-time and the technical charts, displayed on the multiple screen with the linkage function. Supporting the dealing and trading strategy with the high-grade market analysis and forecast	②	J/E/O: Numeric	P/D	O	Hong Kong
	QUICK-21 Watch II	Distribution of the automatically up-dated information on individual stocks and bonds, the business results and financial condition of listed companies, various rankings, charts and Nikkei Shimbun news, with the function of portfolio management using table-calculation software	②	J/E/O: Numeric	P/D	O	
	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	P/D	O	U.K., U.S.A., Europe, Hong Kong, Singapore, Switzerland, Germany, France, others
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	Gendai Nougyou (The Contemporary Agriculture)	Monthly journal 'Gendai Nougyou' title retrieval	③	J	P/D	O/C	
	Nougyou Gijutsu Taikei (The Encyclopedia of Agricultural Technology)	Nogyo Gijutsu Taikei title retrieval	③	J	P/D	O/C	
	The CD-ROM of Agricultural Chemical 1996	Japanese Agricultural Chemical retrieval	③	J	P/D	C	
	The Complete Works of Japanese Dietary Habits	Interview Research of Japanese Dietary Habits over 60 years ago	③	J	P/D	O/C	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Technomics, Inc.	Pharmcast 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 320,000 statements	②	E	P	O/C	
	COSMOS2	Descriptive information of 230,000 Japanese companies	②	E	P	O/C	
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 Japan Shipping Exchange, Inc. (JSE)	Japan Maritime Information Service	Japan Flag Ships	②	E	P/D	M	Worldwide
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	
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 2,400 public companies and 800 over-the-counter companies	②	J/E	P	M	Worldwide
	Flash Report (Tanshin)	Sole and consolidated account information on 2,400 public and 800 over-the-counter companies	②	J/E	P	M	
	Major Shareholders	Top 20 shareholders of 2,400 public and 800 over-the-counter companies	②	J/E	P	M	

Appendix

Table 2 Japanese Databases Accessible Overseas (1997: 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
	GfK 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	
DENTS INC.	ELENA	Articles, with full-text image data, from 55 Japanese major newspapers and from 150 Japanese journals including monthly economic reports	③	J	A	O/C	U.S.A., Hong Kong, France
GREEN NET CO., LTD.	G-Net	Japanese patent data stored from CD-ROM issued by Japanese Patent Office	①	J	D	O	Worldwide
G-Search 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	D	O	Worldwide
	AERA Database	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	
	Asahi Shimbun Database	Contains the full text of 'Asahi Shimbun'	③	J	D	O	
	Asahi Shimbun Evening Edition Bulletin	Provides prompt reports from 'Asahi Shimbun Evening Edition'	③	J	D	O	
	BOOK	Contains the title, outline, author, publisher and price of the books published in Japan	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
G-Search Ltd.	BOOK/MONTHLY	Provides the information of the new books available in Japan	③	J	D	O	Worldwide
	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 1,060,000 companies in Japan	②	J	D	O	
	Company Information by Tokyo Shoko Research	Profiles with performance information for current three years of more than 610,000 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	
	DIAMOND Personnel Directory of Companies	Personnel directory of major companies in Japan with personnel changes and corporate structure	②	J	D	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	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
G-Search Ltd.	ECONOMIST	Electronic version of 'Economist' Journal, full-text	③	J	D	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	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	
	General Information of Administration	The whereabouts of materials and documents of 25 ministries in administrative organization provided by the Diffusing and Studying Administrative Documents Committee	③	J	D	O	
	GENETIC INFORMATION SEARCH & ANALYSIS SERVICES	Services to search for DNA-base data	①	J	D	O	
	Historical WHO Foreign	Contains the profile of about 30,000 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	
	Hon-das' Book Index	Provides references to books published since 1926 in Japan	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.	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 and Technical Information on China	Major articles related to industry and technology from Chinese domestic newspapers	②	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.	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 Shimbun Database	Collection of the articles of Kensetsu Tsushin Shimbun	③	J	D	O	
	Kroll Travel Watch tm	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	
	LEX/DB	Full-text of civil and administrative cases and related information	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	
	LOCAL GOVERNORS & MAYOR PROFILE DATABASE	Bibliographical information of Japanese local governors and mayors	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
G-Search Ltd.	MAGAZINE	Provides the outlines of the articles in newspapers and magazines of economic, industrial and business fields	③	J	D	O	Worldwide
	MAINICHI Daily Click	The electronic newspapers provided by Mainichi Shimbun	③	J	D	O	
	MAINICHI Daily Mail	Provides the latest information about the internet in MAINICHI Daily Mail Provided by Mainichi Shimbun	③	J	D	O	
	MAINICHI ONLINE DATABASE	Collection of articles from 'MAINICHI DAILY NEWS'	③	E	D	O	
	MAINICHI Shimbun DATABASE	Collection of articles from 'MAINICHI Shimbun'	③	J	D	O	
	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	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
G-Search Ltd.	Nihon Nogyo Shimbun Database	Collection of articles from 'Nihon Nogyo Shimbun'	③	J	D	O	Worldwide
	Nihon Shokuryo Shimbun Database	Articles from 'Shokuryo Shimbun', the leading newspaper for food industry	②	J	D	O	
	Nikkan Kogyo Shimbun Database	Collection of articles on new products and technology from 'Nikkan Kogyo Shimbun'	③	J	D	O	
	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	
	Patent Information: The Public/Patent Official Report	The database of patent and utility models according to the CD-ROM of domestic patent official reports published by the Patent Office	③	J	D	O	
	PHARMA JAPAN	Collection of articles from 'PHARMA JAPAN' for overseas' medical and medicine businessmen. 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	
	Sake Cellar Information	Introduces 500 sake cellars in Japan and comments on their sake in detail	①	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
G-Search Ltd.	SUNDAY MAINICHI DOCTOR'S PROFILE 2800	Profiles of 2800 doctors by whom you wish to be diagnosed. These are the articles of 'SUNDAY MAINICHI'	①	J	D	O	Worldwide
	TEIKOKU DATABANK: JAPANESE COMPANIES	Business information of 210,000 Japanese companies	②	E	D	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	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 32 popular magazines	③	J	D	O	
	TITLE SEARCH	Title information of articles from 1,000 magazines on technology	③	J	D	O	
	Trial for the Database of Newspapers	Provides samples of the database of the newspapers (Mainichi, Yomiuri, Sankel) 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	
	Weather Information	Weather Information according to the announcement of Japan Weather Association	③	J	D	O	
	WHO	Contains the profile, books, essays, interviews of celebrities who appear in newspapers, magazines and books	③	J	D	O	
	World Map	Provides the maps of the main cities and the Main areas in the world for free	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Japan Association for International Chemical Information (JAICI)	QCLDB	Bibliographic database of ab initio quantum chemistry	①	E	D	M/C	U.S.A., Europe
Japan Patent Information Organization (JPIO)	INPADOC	Published bibliographic data on patents and utility models of 62 countries and 4 international organizations from 1969. (Remark: Each accumulation data 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
National Center for Science Information Systems (NACSIS)	Bibliographia germanistica japonica	Bibliographic information on books and serials held by Japanische Gesellschaft für Germanistik	①	J/O	D	O	Worldwide
	Calendar of Academic Meetings, compiled by Japan Federation of Engineering Societies	Calendar of meeting and conferences to which member societies of the Japan Federation of Engineering Societies have relation	①	J/E	D	O	
	Chemical Education Database	Citations (with abstracts) of articles appearing in "Chemistry and Education", journal of the Chemical Society of Japan	①	J	D	O	
	Chemical Sensor Database	Information on preparation and property of chemical sensors with bibliographic citations	①	J	D	O	
	Database for Scientific Studies on Cultural Properties	Bibliographic information on scientific analysis and measurements using cultural properties in Japan/ Japanese Society for Scientific Studies on Cultural Property	①	J	D	O	
	Database of Medical Conference Proceedings in Japan (MCPJ)	Bibliographic information on conference proceedings in Japanese languages related to medical science and pharmacy, held by International Medical Information Center	①	J/E	D	O	
	Database of Japanese Traditional Music by Modern Composers	Bibliographic information on contemporary music composed for traditional musical instruments of Japan / The Okita Memorial Association for International Exchange of Japanese Music	①	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
National Center for Science Information Systems (NACSIS)	Directory of Asian Historical Studies in Japan	Information on research subjects, papers, etc. of Asian Historical Studies researchers in Japan	①	J	D	O	Worldwide
	Directory of Buddhist and Indic Studies in Japan	Information on research subjects, papers, etc. of Buddhist and Indic Studies researchers in Japan	①	J	D	O	
	Directory of Special Collections of National University Libraries	Directory of Special Collections of Humanities and Social Sciences held by National University Libraries in Japan / University of Tokyo Library	①	J	D	O	
	Electric Chemistry Databases	Numeric information relating to parameters of electric chemical reaction and physical chemistry parameter of electrolytic solution with bibliographic citations	①	E/O	D	O	
	Hokkaido University Northern Studies Collection	Bibliographic information on the Northern Studies Collection of Japan, held by Hokkaido University Library	①	J	D	O	
	Index for General Information of Home Economics Research	Bibliographic citations of scientific papers in the fields of home economics	①	J	D	O	
	Index to Papers of Architectural Institute of Japan	Index to dissertations featured in Journal of Architecture in Japan, Transactions of the Architectural Institute of Japan, Summaries of technical papers of Annual Meeting Architectural Institute of Japan, etc. published by the Architectural Institute of Japan	①	J	D	O	
	Inventory of Japanese Historical Documents	Documents covered by historiographical materials, some of which take the form of "Eisha-bon" (full-size tracings made with brush and India ink on thin Japanese paper)	①	J	D	O	
	Japanese Periodicals Index	Bibliographic citations of scientific papers in all fields in Japan	①	J	D	O	
	Japanese Slavic and East European Studies Database	Information on literature relating to Slavic area published in Japan	①	J	D	O	
	National Diet Library Catalog of Foreign Books	Catalog of books in foreign languages held by National Diet Library	①	E/O	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
National Center for Science Information Systems (NACSIS)	RAMBIOS	Bibliographic citations of review articles in the field of molecular biosciences	①	J	D	O	Worldwide
	Register of Private Grants-in-Aid	Research project information on grant-in-aid scientific research subsidized by private foundations	①	J	D	O	
	Summary of Materials of Ishin History	Fulltext of the summary of materials of Ishin (Meiji Restoration)	①	J	D	O	
	Unearthed Wooden Tablets	"Shakumon" (text) of unearthed wooden tablets in Japan and bibliographic citations of the reports	①	J	D	O	
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	
	ELISNET	Information on electronic devices including semi-conductor devices	①	J	D	O	
	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	
NIFTY Corporation	ABC News	Collection of articles from 'ABC News'	③	J	D	O	Worldwide
	Account Interest Information	Information of the rate of interest	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	
	All Japan Governor and Mayor Profiles	Profiles of Governor and Mayor in Japan	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	American Business Directory	Over 900 million directory of American Business	②	E	D	O	Worldwide
	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 American	③	J	D	O	
	Apple & Macintosh	Information on Apple and Macintosh	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	
	Architecture Dictionary	Electrolyzed version of the book "1997 Architecture Dictionary"	①	J	D	O	
	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	E	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 Newflash	Newflash from 'Asahi Shimbun'	③	J	D	O	
	Asia Business Information	Business Information in Asia	②	J	D	O	
	Asia Newflash	Business information on NIES & ASEAN countries and China	②/③	J	D	O	
	BBC news	English database by BBC	③	E	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	BCN Computer News	Articles of "Syukan BUSINESS COMPUTER NEWS"	①	J	D	O	Worldwide
	Best Ten Toys of the Week	Sales data of toys in the week	②	J	D	O	
	Biosis Previews	Information of BIO	①	E	D	O	
	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	
	Books on PC	Review of books related personal computers	③	J	D	O	
	"Brain Map" specialist Guide	Information of Specialist	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 Survey Guide	The guide of Business Survey	②	J	D	O	
	Business Wire	Company's News Release in America	②	E	D	O	
	CA Search	Information of chemical	①	E	D	O	
	CAR SENSOR	Articles from 'CAR SENSOR' the automobile journal	③	J	D	O	
	CBS News	Collection of articles from 'CBS News'	③	J	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	
	Ceremonial Precedents	Ceremonial manners and precedents on marriage, funeral, and ancestral worship	③	J	D	O	
	Chamber of commerce and industry info	Information of conducting license test by Chamber of commerce and industry	③	E	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Chicago Tribune	Collection of articles from 'Chicago Tribune'	③	E	D	O	Worldwide
	China Trend Report	Report of China's Trend	②	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 'Chunich Shimbun'	③	J	D	O	
	Chunichi Shimbun News Summary	Summary of selected articles from 'Chunich 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	
	CNN News	Collection of articles from the news of 'CNN News'	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	Articles about PC Magazine	①	J	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	
	Cosmo Calendar Astrology	Fortune of love derived from the astrology with scientific analysis based on the Space ecology	③	J	D	O	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Current Index to PC Journal	Summary of articles from major PC journals	③	J	D	O	Worldwide
	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	
	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	
	Database of Directories	Bibliographic information and general description of directories published in Japan	③	J	D	O	
	Dentistry dictionary	All explanation dental disease	①	J	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 INFO	Information about Movies of topics	③	J	D	O	
	Directory of Discount Stores	Directory of 1,080 discount stores	③	J	D	O	
	Directory of Facsimile Numbers	Electronic version of 'Joho FAX Denwacho (FAX Directory)' published by TOMOE	③	J	D	O	
	Disclosure Database	Over 12,000 of stock company info	②	E	D	O	
	DNN Information industry Today	Information of Information Industry	②	J	D	O	
	Domestic Concert information	Information on concerts held all over Japan by area and genre	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Domestic Patent Database "ATMS"	Patent office information	①	J	D	O	Worldwide
	Dow Jones News	Information of newspaper and magazines by Dow Jones News	③	J	D	O	
	DUN REPORT SUMMARY	Summary of Company Outline (Whole of the world)	②	E	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	
	ECONOMIST	Electronic version of 'Economist' Journal published by Mainichi Shimbun	②	J	D	O	
	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 semiconductor devices	①	J	D	O	
	ELNET Headline service news index	Headline News of Selected articles	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 headline	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 Business Letter Examples	Collection of business letter examples in English	③	E	D	O	
	English Letter & E-Mail Example	Example of English Letter & E-mail	③	J	D	O	
	English Letters for Technical Fields	Collection of examples of English letters and sentences for technical use	③	E	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	English News Release	Collection of news release in English	③	E	D	O	Worldwide
	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	
	Finding Books	New Book Information	③	J	D	O	
	Fishing Information from Kansai	Fishing information on western Japan from weekly 'Tsuru Sunday'	③	J	D	O	
	Flower Market Information	Price information on flowers at Tokyo Ohta Flower Market	②	J	D	O	
	FLEE MARKET INFO	Information of Fleemarket	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	
	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	
	Global Search of Article	Reference service of newspapers	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 Oishimise 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 Magazine	Bibliographic information on major PC magazines	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	Guide to Popular Spots	Information on the popular shops based on the questionnaire survey to 20s	③	J	D	O	Worldwide
	Hajime Takano's Magazine Headline	Main news of major magazines	③	J	D	O	
	Harvard Business Review Online	All article of "Harvard Business Review"	③	E	D	O	
	HINT OF WINDOWS 95	Hints for Windows 95	①	J	D	O	
	Hints of Counterplan for PL Low	Explain about PL Low	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 Mews"	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	
	"HON-DAS" LIB INDEX	Database of published books in Japan	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	
	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	
	Human Network Guide	Guide of the Party of Study	②	J	D	O	
	IJIME Problem INFO	Information about "Bullying Problem"	③	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	IN Remark Trade Statistics Data	Remark Trade Statistics Data	②	J	D	O	Worldwide
	Industrial and Technical Information on China	Major articles related to industry and technology from Chinese domestic newspapers	①	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 Industry Hotline	Online news-flash for 'The Daily Network News', an industrial newsletter for information industry	①/③	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 on U.S.A. by Front Line	Information on economy, business and Japanese affiliated companies in U.S.A.	③	J	D	O	
	INSPEC	Information of ELCTRN	①	E	D	O	
	Internet watch	Electron newspaper about Internet	①	J	D	O	
	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	
	Inves Text	Inves Text of Overseas Company	②	E	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 Travel Up dates	Travel information for foreign traveler	③	J	D	O	
	Japan Trend Watch	Trend Information of all fields	②	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	JETRO-WINDS	Information for promotion of Japanese imports including trade fairs and after-service of imported goods	②	J	D	O	Worldwide
	JFA formal info	Official Soccer news from JFA	③	J	D	O	
	Jiji Newsflash	Newsflash from Jiji News	③	J	D	O	
	Jiji Press Sport News	Collection of articles on sports from Jiji Press	②	J	D	O	
	Jiji Tsushin sports news	Sports news from Jiji Tsushin	③	J	D	O	
	J-League information	The report of J-League	③	J	D	O	
	JOIS Technology information from JICST	Technology information from JICST	①	J	D	O	
	JRA Horse Race Information	Horse Race information from JRA's related company	③	J	D	O	
	JTB hotel information	Directory of domestic hotels and lodges	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 Newsflash	Newsflash about Korea	③	J	D	O	
	Korea Report	The report of Korea	③	J	D	O	
	KOREA SIGHTSEEING GUIDE	Information of viewpoint of sightseeing in 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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	KYODO / Famous Paper News Article Database	All article of Kyodo Tsushinsha and Famous papers	③	J	D	O	Worldwide
	KYODO 24 Hours News	Real-time service of articles from KYODO News	③	J	D	O	
	Kyodo Economical Newflash	Economical Newflash of KYODO News	②	J	D	O	
	Kyodo Financial and Economic Newflash	Economic newflash from Kyodo News Service	②	J	D	O	
	Kyodo Financial Newflash	Financial Newflash of KYODO News	②	J	D	O	
	Kyodo Flash News Database	Online newflash from 'Kyodo News Service'	③	J	D	O	
	KYODO News flash	All article of Kyodo Tsushinsha	③	J	D	O	
	Kyodo Newflash	Newflash 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	
	LC Marc	Information of "Library of Congress"	①	J	D	O	
	Letax Proxy Service	Sending Letax of the Post Office using E-mail	③	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	
	Los Angeles Times	Collection of articles from 'Los Angeles Times'	③	E	D	O	
	Macweek online	Articles of "Mac WEEK" in Japanese	①	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 Movies Database	Database Collected Information of Movies	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	MAINICHI "ZAURUS" Electric News	Electric News for SHARP'S "ZAURUS"	③	J	D	O	Worldwide
	MAINICHI 150 words News	Newsflash by Mainichi Shimbun	③	J	D	O	
	MAINICHI Cinema Par	Topics about Movies	③	J	D	O	
	Mainichi Company News Guide	Company's News Release of "MAINICHI NEWS"	②	J	D	O	
	MAINICHI DAILY NEWS	English newsflash of Mainichi Shimbun	③	E	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	Collection of articles from 'Mainichi Daily News'	③	E	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 Newsflash	Newsflash from 'Mainichi Shimbun'	③	J	D	O	
	Mainichi Shimbun Photographic Database	News photograph database	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	MAINICHI Today's Sports	TODAY'S Sports new by MAINICHI news	③	J	D	O	Worldwide
	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	
	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 attack, 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	
	Minaminihon news article service	News from "MINAMINIHON NEWS"	③	J	D	O	
	Moody's corporate Profiles	Over 5,000 of American financial data	②	E	D	O	
	Motor boat race information	An information 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	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Museum Information	Information of museum	③	J	D	O	Worldwide
	National Diet Library Magazine Index	Database of published books in Japan	③	J	D	O	
	National Public Library Guide	Information of National public library	③	J	D	O	
	Naze naze Dial 110	Question & Answer about Science	①	J	D	O	
	NBC News	Collection of articles from 'NBC News'	③	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	Information of Business Chance	②	J	D	O	
	New Idea Business Chance	Company's Marketing Case	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	Articles of information about computer in English and Japanese	①	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	
	NICHIGAI ASSIST	Information on biography (WHO), books (BOOK), journal articles (MAGAZINE), and corporate management tactics (MANAGEMENT)	②/③	J	D	O	
	NICHIGAI ASSIST BOOK	Database of published books in Japan	③	J	D	O	
	Nihon Kogyo Shimibun Database	Collection of articles from 'Nihon Kogyo Shimibun'	③	J	D	O	
	Nihon Nogyo Shimibun Articles	Collection of articles from 'Nihon Nogyo Shimibun'	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Nihon Shokuryo Shimbun Database	Collection of articles from 'Nihon Shokuryo Shimbun'	③	J	D	O	Worldwide
	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'	③	J	D	O	
	Nikkan Sports Personal Info	Personal Information of Sports Player and Performer	③	J	D	O	
	Nikkel Article Database	Article of Nihon Keizai Shimbun	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	
	NTIS	U.S. Department of commerce's report.	①	E	D	O	
	NTT Town Page	Telephone directory of 1,110,000 companies	③	J	D	O	
	NY Entertainment Information	Updated information on events held in New York City	③	J	D	O	
	Official Airline Guides	Information of Tripped Journey	③	J	D	O	
	OHTA-KU Company Information	Profile of Ohta-ku Company	②	J	D	O	
	Online Stock Price Newflash	Stock price news from first and second sections of Tokyo Stock Exchange (TSE)	②	J	D	O	
	ORICON Music Guide	Ranking list of popular songs and artists information.	③	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	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	PC Hardware Database	Description and price information on PC hardware products	③	J	D	O	Worldwide
	PC MAGAZINE ARTICLE INDEX	Articles of PC Magazines	①	J	D	O	
	PC New Products Weekly	Description and price information on new PC products	③	J	D	O	
	PC watch	Electron newspaper about personal computer	①	J	D	O	
	PC-SOFT INFO	Information about PC's Software	①	J	D	O	
	PCweek online	News about PC world	②	J	D	O	
	Per-Golf Information	Results of tournaments and new products on golf	③	E	D	O	
	PERSONAL COMPUTER TERMS DICTIONARY	Electronic dictionary of "Personal Computer Terms Dictionary"	①	J	D	O	
	Pharmaceutical Company Information	Company information on pharmaceutical industry	②	J	D	O	
	PIA Art Museum Guide	Exhibition schedule for 50 museums near Tokyo	③	J	D	O	
	PIA Cinema Club (Western and Domestic Movies)	Plots, casts, and awards of more than 15,000 movies	③	J	D	O	
	Pia Event Client Information	Event Information & Sponsorship Information	③	J	D	O	
	PIA Road Show Information	Updated road show guide	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 ticket guide	Ticket Information about Concert & Movie	③	J	D	O	
	PIA Ticket Information of the Day	Day ticket information on concerts held within and close to Tokyo City	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	
	Popularity and Ability of Racing Horses	Information concerning the horses registered in the race	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	POS Sales Information	Information of popular goods and price	②	J	D	O	Worldwide
	Precious Metal Market	Information on precious metal prices	③	J	D	O	
	Pro baseball news flash	Flash and various data about Pro baseball	③	J	D	O	
	Professional Baseball Game Newsflash	Daily game news of professional baseball	③	J	D	O	
	Q and A on Taxation	Basic information on taxation in Q and A style with letters of Tax Law	③	J	D	O	
	Questionnaire Data of Youth	Data collected from young women living in the Tokyo Metropolitan Area	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	
	Remarkable New Book Titles	Information on new books by genre from Mainichi Shimbun	③	J	D	O	
	Remedium Info	Acting, attention, any side effects of medicine	①	J	D	O	
	Reports from Mitsubishi Research Institute	Forecasts for 90's of various fields based on case studies	②/③	J	D	O	
	REUTERS Overseas News Information	Collection of the news of REUTERS from 1980	③	E	D	O	
	REUTERS PRESS	Collection of articles from the news of REUTERS	③	E	D	O	
	Robots and FA Products	Information on industrial robots and factory automation products	①	J	D	O	
	S & P corporate Descriptions plus	Outline and financial report of American stock company	②	E	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Safety information on Passengers Abroad	Safety information on Japanese passengers abroad	③	J	D	O	Worldwide
	Saitama Prefectural Information	Current administrative information announced by Saitama Prefecture	③	J	D	O	
	Sankei Shimbun Database	Collection of articles from morning and evening editions of 'Sankei Shimbun'	②	J	D	O	
	Sanseldo 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	②	J	D	O	
	Shiatsu Database	Information of finger pressure therapy	③	J	D	O	
	SHIZUOKA ECONOMY INFO	Overseas Information for small companies	②	J	D	O	
	Shizuoka news article service	News from "SHIZUOKA NEWS"	③	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	
	SPONICHI Sport Topics	Collection of articles related to sports such as Soccer, Rugby and Golf	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-Nippon Golf news	Golf news from Sport Nippon	③	J	D	O	
	Sports-Nippon Nagoya Olympic news	Nagoya Olympic news by Sport Nippon	③	J	D	O	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Sports-Nippon Tigers Information	Information about 'Hanshin-Tigers (Baseball-Team)' from Sports-Nippon	③	J	D	O	Worldwide
	St. GIGA PROGRAM INFO	Program of St. GIGA	③	J	D	O	
	Star System Video List	Major video movies casted by popular foreign actors and actresses	③	J	D	O	
	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	
	SUNDAY MAINICHI DOCTOR DB	Information of 2,800 doctors	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 FAX Service of Well-known People	Facsimile transmission service of biographical information with pictures published on 'Sports Nippon' since 1967	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	
	TASS	English database by the former Soviet Union	③	E	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 Public Issue Information	Visual company information	②	J	D	M	
	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	THE ASAHI ENCYCLOPEDIA OF CURRENT TERM	Dictionary of Current Terms	③	J	D	O	Worldwide
	THE DAILY YOMIURI BULLETIN	Content of "THE DAILY YOMIURI BULLETIN"	③	E	D	O	
	THE DAILY YOMIURI Database	Collection of articles from 'THE DAILY YOMIURI Database'	③	E	D	O	
	The Financial Times	Collection of articles from 'Financial Times'	②	E	D	O	
	The Guardian	Collection of articles from 'The Guardian'	③	E	D	O	
	The reportage of Mass communication world	Report of Mass communication world	③	J	D	O	
	The TASS Database	Collection of articles from TASS	③	E	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 Washington Post	Collection of articles from 'Washington Post'	③	E	D	O	
	This Week's Stocks to be Watched	Information on remarkable stocks selected by editors of investment magazines	②	J	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	
	Toku-Toku Information	Information on benefits, premiums, and gifts offered from various media	③	J	D	O	
	Tokyo Community Guide	City-life information collected from Tokyo city and its 23 wards	③	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	Top News of Morning Newspapers	Newsflash of top articles from national newspapers	③	J	D	O	Worldwide
	Total Catalog of Magazine and Newspaper	Database of "Zasshi, Shimbun no katarogu"	③	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	
	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	
	Trends of Vegetable and Fruit Market	Price information on vegetables and fruits at the Ohta and Tsukiji markets, with those at Osaka market	②	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	
	TSR Financial Information	Financial information on 50,000 Japanese major companies	②	J	D	O	
	Tsukiji Fish Market price information	Wholesale price information on flesh fish from Tsukiji Fish Market	②	J	D	O	
	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	
	UNDERSTANDING ART OF PC OPERATION	Online books to improvement of PC Direction	③	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
NIFTY Corporation	US multi-media high technology	Articles of American High technology Information in Japanese	①	J	D	O	Worldwide
	US Personal Info	Personal information in America	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	
	Welcome to 1200 Years of Kyoto	Information on more than 1,000 events and 600 ceremonies held in Tokyo	③	J	D	O	
	West European and Russian Economics	Economics Digest of Europe and Russia	②	J	D	O	
	World Report	Information extracted from 'Trade-pla' World reports	③	J	D	O	
	YAMAHA music seminar	Information of music knowledge	③	J	D	O	
	Yomiuri Shimbun Database	Collection of articles from the 'Yomiuri Shimbun'	③	J	D	O	
	Yomiuri Shimbun Newflash	Newflash 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	②	J	D	O	
Nihon Keizai Shimbun, Inc. (NIKKEI)	Asian Corporate Profile	Description of companies in Asia including 12,000 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
	CITIBASE	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	

Company	Database	Description	Subject	Language	Status	Medium	Main Countries
Nihon Keizai Shimbun, Inc. (NIKKEI)	IFS Data	Financial statistics and price indices with GNP for IMF member countries	②	E	D	O	U.S.A., U.K., Germany, France, Switzerland, Italy, Canada, Hong Kong, Singapore, Korea
	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	
	OECD National Income Statistics File	National expenditure and its itemized break-down for 13 industrial nations	②	E	D	O	
	World Bank External Debt Statistics	Balance of debts and other economic indices of 105 developing countries	②	E	D	O	
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	Microsoft Windows NT Flash News	②/③	J/E	D	O	Worldwide
	LEXIS-NEXIS	Microsoft BackOffice Flash News	②/③	J/E	D	O	
	LEXIS-NEXIS	I.P. Litigation Flash News	②/③	J/E	D	O	
	LEXIS-NEXIS	Semiconductor Mfg. Flash News	②/③	J/E	D	O	
	LEXIS-NEXIS	Semiconductor Maker Flash News	②/③	J/E	D	O	
USACO Corporation (USACO)	KMC-Plus	Physiologically activated materials extracted from actinomycetes, mold, and bacteria	①	E	D	M	U.S.A., Korea

Appendix

Table 3 Japanese Databases being Planned for Overseas (1997)

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	Medium
GREEN NET CO., LTD.	G • Net En	English data Transferred from Patent data referenced and perused by G-Net	①	E	O
	G • Net Kr	Korean data	①	O	O
Japan Association for International Chemical Information	PATENT-ALERT	Collection of Japanese patents of chemical field. It includes titles and keywords	①	E	O
Nippon Statistics Center., Ltd.	Data by Cities & Towns	3,255 District-Unit (800 datas)	②	J/E	M/C
	Data by Smallest Area	162,616 Distrat-Unit (200 datas)	②	J/E	M/C
Osaka City of Foundation for Urban Technology	Osaka and Its Technology	Outstanding reports on various fields of engineering written by staff engineering officers of the city	①	E	C
Technical Research Institution of Japan Society for Promotion Machine Industry	Machining Data Base	Planning Translate Japanese Version into English	①	J	C
The Energy Conservation Center, Japan (ECCJ)	Energy Conservation Database	English version of Energy Conservation Database in Japanese, Energy conservation technology data and related energy and environment data	①	J/E	O

Appendix

Table 4 Address of Overseas Service Points (1997: Producers/Distributors)

Company	Contacts	Address	Telephone	Facsimile	Status
Asahi Shimbun	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
	Electronic Media & Broadcasting Division, Asahi Shimbun Company	5-3-2 Tsukiji, Chuo-ku, Tokyo 104-11, Japan	+81-3-5541-8693	+81-3-5541-8694	Headquarters
	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)	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
	Asia Data Research, Inc.	15F Nakanosakaue sunbright twin., 2-46-1 Honcho, Nakano-ku, Tokyo 164, Japan	+81-3-5350-4765	+81-3-5350-4775	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-Sumiyu bldg. 3-9-13, Shimo-Meguro, Meguro-ku, Tokyo 153, Japan	+81-3-3492-2989	+81-3-3492-2942	Headquarters
AXESS INTERNATIONAL NETWORK INC. (AXESS)	AXESS INTERNATIONAL NETWORK INC. (AXESS)	Seafort Square Center Bldg., 2-3-12 Higashi Shinagawa, Shinagawa-ku, Tokyo 140, Japan	+81-3-5460-7035	+81-3-5460-7009	Headquarters
COMLINE Business Data, Inc. (COMLINE)	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
	COMLINE Business Data, Inc.	Daitetsu Bldg., 4F, 1-10-12 Shiba-Daimon, Minato-ku, Tokyo 105, Japan	+81-3-5401-4567	+81-3-5401-2345	Headquarters
	COMLINE Business Data, Malaysia, Inc.	Suite 11.09, 11F, Semua House, P.O.Box77, Lorong Bunus Enam, off Jalan Masjid India, 50100 Kuala Lumpur, Malaysia	+60-3-2926546	+60-3-2923932	ASEAN, Headquarters
Database Promotion Center, Japan (DPC)	Database Promotion Center, Japan	7F World Trade Center Bldg., 2-4-1 Hamamatsu-cho, Minato-ku, Tokyo 105, Japan	+81-3-3459-8581	+81-3-3432-7558	Headquarters
DENTSU INC.	Electronic Library Division, DENTSU INC.	1-11 Tsukiji, Chuo-ku, Tokyo 104, 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, 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, Japan	+81-3-5474-3541	+81-3-5474-6944	Headquarters
Electronic Devices Information Service Co., Ltd.	Electronic Devices Information Service Co., Ltd.	Hirakawa-cho KS Bldg., 5F, 2- 4-14 Hirakawa-cho, Chiyoda- ku, Tokyo 102, Japan	+81-3-5275-3699	+81-3-5275-3840	Headquarters
ELECTRONIC LIBRARY Inc. (EL)	Electronic Library Division, DENTSU INC.	1-11 Tsukiji, Chuo-ku, Tokyo 104, Japan	+81-3-5551-7116	+81-3-5551-2345	Agent
	ELECTRONIC LIBRARY Inc. (EL)	Colins 8, 8-11-13 Nishi- Gotanda, Shinagawa-ku, Tokyo 141, Japan	+81-3-3779-1211	+81-3-3779-1227	Headquarters
	NI+C International Co.	IBM Kawasaki Bldg., 1-14 Nisshin-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa 210, Japan	+81-44-245-8030	+81-44-245-8027	Agent
GfK Japan Ltd.	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.	Nakanosakaue Sunbright Twin 15F, 2-46-1 Honcho, Nakano- ku, Tokyo 164, Japan	+81-3-3352-2591	+81-3-3350-0589	Headquarters
	GfK Handelsforschung GmbH & Co. KG	Nordwestring 101, D-90319, Nurnberg 90, Germany	+49-911-3950	+49-911-336970	Agent
	THE NPD GROUP, INC.	900 West Shore Road, Port Washington, NY 11050-0402, U.S.A.	+1-516-625-2310	+1-516-625-2444	Partner
GREEN NET CO., LTD.	GREEN NET CO., LTD.	2-3-20, Toranomom, Minato-ku, Tokyo 105, Japan	+81-3-3501-2900	+81-3-5511-8716	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	G-Search Limited	LOOP-X Bldg., 3-9-15 Kaigan, Minato-ku, Tokyo 108, Japan	+81-3-5442-4381	+81-3-5442-4391	Headquarters
IBJ-NIKKO INFORMATION SYSTEMS, LTD. (INIS)	Datastream International Limited	Monmouth House, 58-64 City Road, London EC1Y2AL, U.K.	+44-171-250-3000		Agent
	IBJ-NIKKO INFORMATION SYSTEMS, LTD.	3-7-1 Kanda-Nishiki-cho, Chiyoda-ku, Tokyo 101, Japan	+81-3-5281-1101	+81-3-5281-0707	Headquarters
	Thomson Financial Services Database Group Inc.	Two Gateway Center, Newark, NJ 07102, U.S.A.	+1-201-622-3100		Agent
	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, Japan	+81-3-3228-6111	+81-3-3319-6989	Headquarters

Company	Contacts	Address	Telephone	Facsimile	Status
Information Services International Dentsu, Ltd. (ISID)	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)	FIZ Chemie GmbH	Franklinstrasse 11, D-10587 Berlin, Germany	+49-30-390-76	+49-30-390-76	Agent
	Japan Association for International Chemical Information	Nakai Bldg., 6-25-4 Hon-Komagome, Bunkyo-ku, Tokyo 113, Japan	+81-3-5978-3622	+81-3-5978-3600	Headquarters
	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	+82-2-668-1493	+82-2-3661-1586	Agent
Japan Center for Intercultural Rural Communications (JCIC)	Japan Center for Intercultural Rural Communications (JCIC)	2-7-7 Hirakawa-cho, Chiyoda-ku, Tokyo 102, Japan	+81-3-3263-5041	+81-3-3238-9696	Headquarters
Japan Construction Information Center (JACIC)	Japan Construction Information Center	10-20, 7-chome, Akasaka, Minato-ku, Tokyo 107, 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, Japan	+81-3-3582-5564	+81-3-3585-7499	Headquarters
JAPANESE PATENTS DATA SERVICE, CO.	HANLIM IPS CO., LTD	Room 302, Hanlim Tower Anamdong-5GA, Sungbook-Gu, Seoul 136-075, Korea	+82-2-922-0564	+82-2-952-5301	Agent
Japan Patent Information Organization (JPIO)	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	Sato Dia Bldg. 4-1-7 Toyo, Koto-ku, Tokyo 135, Japan	+81-3-5690-5555	+81-3-5690-5566	Headquarters
	Knight-Ridder Information, Inc.	2440 El Camino Real, Mountain View, CA 94040, U.S.A.	+1-415-254-7000	+1-415-254-7070	Partner
	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

Company	Contacts	Address	Telephone	Facsimile	Status
Japan Patent Information Organization (JAPIO)	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, 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
The Japan Times, Ltd.	JT USA Inc.	3655 Torrance, Blvd., Suite 430, Torrance, CA 90503 U.S.A	+1-310-540-6862	+1-310-540-3462	Branch
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, 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, Japan	+81-3-3272-0338	+81-3-3274-3072	Headquarters
	Maruzen International Co., Ltd.	1200 Harbor Blvd., 10th Floor, Weehawken, NJ 07087, U.S.A.	+1-201-865-4400	+1-201-865-4845	Branch
Media Research Center, Inc.	Media Research Center, Inc.	Heiwado Building 5F, 2-4 Kanda Ogawamachi, Chiyoda-ku, Tokyo 101, Japan	+81-3-3219-7575	+81-3-3219-7377	Headquarters
METRO Inc.	ACTION DIRECT	P.O. Box 5059, Lincoln, NE 68505-0059, U.S.A.	+1-402-466-8400	+1-402-466-9074	Partner

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METRO Inc.	METRO Inc.	Tokai Bldg., 2-4-2 Nishi-Gotanda, Shinagawa-ku, Tokyo 141, Japan	+81-3-3490-8031	+81-3-3490-1069	Headquarters
National Center for Science Information Systems (NACSIS)	National Center for Science Information Systems (NACSIS)	3-29-1 Otsuka, Bunkyo-ku, Tokyo 112, Japan	+81-3-3942-8578	+81-3-3942-9398	Headquarters
National Diet Library (NDL)	National Diet Library (NDL)	1-10-1 Nagata-cho, Chiyoda-ku, Tokyo 100, Japan	+81-3-3581-2331 (Ex. 2104)	+81-3-3581-3292	Headquarters
NEC Corporation (NEC)	NEC Corporation	5-7-1 Shiba, Minato-ku, Tokyo 108, Japan	+81-3-3798-9111	+81-3-3798-7844	Headquarters
New Glass Forum (NGF)	New Glass Forum	3-1-9 Shimbashi, Minato-ku, Tokyo 105, Japan	+81-3-3595-2775	+81-3-3595-0255	Headquarters
Nichigai Associates, Inc.	Nichigai Associates, Inc.	Dai-3 Shimokawa Bldg., 1-23-8 Ohmorikita, Ohta-ku, Tokyo 143, Japan	+81-3763-5241	+81-3-3764-1350	Headquarters
NIFTY Corporation	CompuServe Inc.	5000 Arlington Center Boulevard, Columbus, OH 43220, U.S.A.	+1-614-457-8600	+1-614-457-0504	Agent
	Overseas Information Service, PODATA COMPANY, LTD	2nd Floor Taehanjedang Bldg., 7-23, Shincheon-dong, Songpa-gu, Seoul, Korea	+82-2-411-1327	+82-2-441-1555	Partner
	Service Products Department, NIFTY Corporation	Ohmori Bell-Port A, 6-26-1, Minami-Ohi, Shinagawa-ku, Tokyo 140, Japan	+81-3-5471-5803	+81-3-5471-5890	Headquarters
	Taiwan Telecommunication Network Services Co., Ltd. (TTN)	15th Floor, 120 Chien-Kuo, N.Road, Sec2. Taipei, Taiwan, R.O.C.	+886-2-515-0330	+886-2-504-5593	Partner
Nihon Keizai Shimbun, Inc. (NIKKEI)	Dow Jones & Company, Inc.	200 Liberty St., New York, NY 10281, U.S.A.	+1-212-416-2667	+1-212-416-2720	Partner
	F.T. Business Enterprises, Ltd.	P.O. Box 12, Sunoury Middlesex, TW16 7UD, U.K.	+1-212-416-2667	+1-212-416-2720	Partner
	GENOIS Wirtschaftsdatenbanken	Postfach 1102 Kasernenstrasse 67, D-4000 Dusseldorf, Germany	+49-211-887-1534	+49-211-379-330	Agent
	Nihon Keizai Shimbun America, Inc.	1325 Avenue of the Americas, Suite #2500, New York, NY 10019, U.S.A.	+1-212-261-6240	+1-212-261-6249	Branch
	Nihon Keizai Shimbun Europe, Ltd.	Bush House, North West Wing, Aldwych, London WC2B 4PJ, U.K.	+44-171-379-4994	+44-171-379-0378	Branch
	Nihon Keizai Shimbun Singapore Pte Ltd.	331 North Bridge Road, #13-02/03, Odeon Towers, Singapore 188720	+65-336-4122	+65-336-4016	Branch
	Nihon keizai Shimbun, Inc.	1-9-5 Otemachi, Chiyoda-ku, Tokyo 100-66, Japan	+81-3-5255-2808	+81-3-5255-2809	Headquarters

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Nihon Keizai Shimbun, Inc. (NIKKEI)	Nihon Keizai Shimbun, Hong Kong Ltd.	Suite 1707B-10, Dah Sing Financial Centre, 108 Gloucester Road, Wanchai, Hong Kong	+852-2598-1771	+852-2845-7768	Branch
Nomura Research Institute, Ltd. (NRI)	Haver Analytics	60 East 42nd Street, Suite 2424, New York, NY U.S.A.	+1-212-986-9300	+1-212-986-5857	Agent
	Nomura Research Institute America, Inc.	2 World financial Center, Building B, New York, NY, U.S.A.	+1-212-667-9010	+1-212-667-1013	Branch
	Nomura Research Institute Europe Limited	Nomura House, 1, St.Martin's-le-Grand, London, U.K.	+44-171-489-8710	+44-171-489-0032	Branch
	Nomura Research Institute, Ltd.	Dai-2 Yamaman-Bldg., 6-7 Nihombashi Koami-cho, Chuo-ku, Tokyo 103, Japan	+81-3-3249-9402	+81-3-3639-0273	Headquarters
	WEFA, Inc.	401 City Avenue, Suite 300, Bala-Cynwyd, PA 19004, U.S.A.	+1-610-667-6000	+1-610-660-6477	Agent
NTT Visual Communication Systems Inc.	NTT Visual Communication Systems Inc.	Azabudai Dai-ichiseimei Building, 11-9, 1 chome Azabudai, Minato-ku, Tokyo, Japan	+81-3-3589-1855	+81-3-3588-8588	
Osaka City Foundation for Urban Technology	Osaka City Foundation for Urban Technology	3-5-22 Kitahama, Chuo-ku, Osaka, 541 Japan	+81-6-209-1910	+81-6-209-1920	Headquarters
Protein Research Foundation	Protein Research Foundation	4-1-2, Ina, Minoh-shi, Osaka, Japan	+81-727-29-2040	+81-727-29-4124	
QUICK Corp.	QUICK AMERICA CORPORATION	Broad Financial Center, 33 Whitehall Street, New York, NY 10004, U.S.A.	+1-212-804-3000	+1-212-804-3107	Branch
	QUICK Corp. London Branch	65 Clifton Street, London EC2A 4JE, U.K.	+44-171-247-2222	+44-171-377-2201	Branch
	QUICK Corp.	Ohtemachi-Bldg., 1-6-1 Ohtemachi, Chiyoda-ku, Tokyo 100, Japan	+81-3-3216-5911	+81-3287-0836	Headquarters
	QUICK INFORMATION (H.K.) LIMITED	Room 1501-2, Sino Plaza, 255-257, Gloucester Road, Causeway Bay, Hong Kong	+852-2831-9888	+852-2831-9868	Branch
Research Institute of International Trade and Industry (RITI)	Research Institute of International Trade and Industry	Kobiki-kan Ginza Bldg., 2-8-9 Ginza, Chuo-ku Tokyo 104, Japan	+81-3-3535-5348	+80-3-3535-5347	Headquarters
Research Organization for Information Science & Technology (RIST)	Research Organization for Information Science & Technology	Shirakata-Shirane 2-4, Tokai-mura, Naka-gun, Ibaraki 319-11, Japan	+81-29-283-3833	+81-29-283-3811	Headquarters
Rural Culture Association	Rural Culture Association	7-6-1 Akasaka, Minato-ku, Tokyo 107, Japan	+81-3-3585-1146	+81-3-3585-6466	Headquarters
Technomics, Inc.	Technomics, Inc.	Nihombashi TM Bldg., 1-6-11 Nihombashi Horidome-cho, Chuo-ku, Tokyo 103, Japan	+81-3-3666-2952	+81-3-3666-2730	Headquarters

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TEIKOKU DATABANK, LTD (TDB)	TEIKOKU DATABANK, LTD	2-5-20 Minami-Aoyama, Minato-ku, Tokyo 107, Japan	+81-3-3408-1108	+81-3-3404-4339	Headquarters
	TEIKOKU DATABANK AMERICA, INC.	1120 Avenue of the Americas, 4th Fl., New York, NY 10036, U.S.A	+1-212-626-6871	+1-212-626-6872	Branch
TESCO Direct Company Ltd.	TESCO Direct Company Ltd.	Shinwa Bldg., 2-9-11 Toranomon, Minato-ku, Tokyo 105, Japan	+81-3-3502-5641	+81-3-3502-5643	Headquarters
The Japan Shipping Exchange, Inc.	The Japan Shipping Exchange, Inc.	Wajun Bldg., 2-22-2, Koisikawa, Bunkyo-ku, Tokyo 102 Japan	+81-3-8368-8370	+81-3-5802-8371	Headquarters
THE YOMIURI SHIMBUN	THE YOMIURI SHIMBUN	1-7-1 Ohtemachi, Chiyoda-ku, Tokyo 100-55, Japan	+81-3-3217-8217	+81-3-3217-8279	Headquarters
Tokyo Shoko Research, Ltd. (TSR)	Dun & Brad Street Information Services	One Diamond Hill Road, Murray Hill, NJ 07974, U.S.A	+1-908-665-5104		Agent
	Tokyo Shoko Research, Ltd.	1-9-6 Shimbashi, Minato-ku, Tokyo 105 Japan	+81-3-3574-2268	+81-3574-2224	Headquarters
TOYO KEIZAI INC.	TOYO KEIZAI INC.	1-2-1 Nihonbashi Hongoku-cho, chuo-ku, Tokyo 103, Japan	+81-3-3246-5580	+81-3-3242-4067	Headquarters
	TOYO KEIZAI AMERICA INC.	380 Lexington Ave., 45th Fl., New York, NY 10168, U.S.A.	+1-212-949-6737	+1-212-949-6648	Branch
USACO Corporation (USACO)	USACO Corporation	1-13-12 Shinbashi, Minato-ku, Tokyo 105, Japan	+81-3-3502-6471	+81-3-3593-2709	Headquarters



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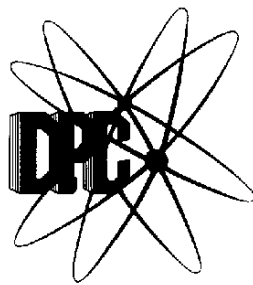
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