Chapter I: Impact of the Internet on Japan

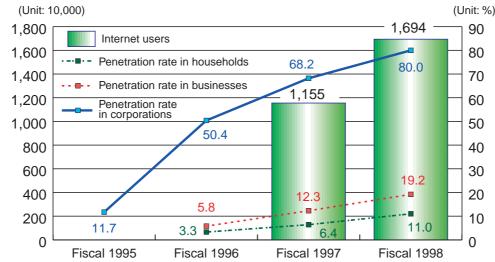# I-Introduction-1 Widespread use of the Internet

The Internet users in Japan number some 17 million.

Currently, the Internet penetration rate is expanding rapidly; in fiscal 1998, it was estimated that there were some 17 million Internet users in Japan aged between 15 and 69 (Refer to Endnote 1).

According to the "Fiscal 1998 Communications Usage Trend Survey," the Internet penetration rate for households was 11.0% (a rise of 4.6 percentage points over the previous fiscal year). Included within this figure is the diffusion rate for business office at 19.2% (6.9 percentage points over the previous fiscal year) and for corporate entities at 80.0%

(11.8 percentage points over the previous fiscal year). These figures thus indicate that the Internet is taking hold in the various facets of society (Fig. 1).

Just five years after becoming commercially available in Japan in 1993, the Internet had attained a household penetration rate of 10%. Compared with the major conventional info-communications media, it is easy to see how the Internet is also rapidly penetrating the household market (Fig. 2).

Fig. 1 Trends in Internet penetration

(Unit: 10,000)   (Unit: %)

Internet users
Penetration rate in households
Penetration rate in businesses
Penetration rate in corporations

	Fiscal 1995	Fiscal 1996	Fiscal 1997	Fiscal 1998
Internet users			1,155	1,694
Penetration in corporations	11.7	50.4	68.2	80.0
Penetration in businesses		5.8	12.3	19.2
Penetration in households		3.3	6.4	11.0

Notes: 1. "Businesses" refer to businesses (excluding postal services and telecommunications business) with five employees or more.
2. "Corporations" refer to corporations (excluding agriculture, forestry, fisheries and mining industries) with 300 employees or more.

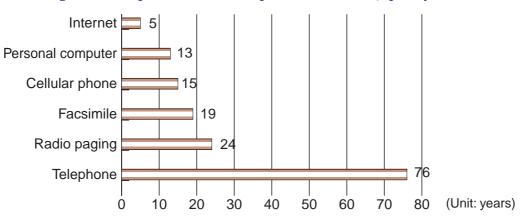Sources: "Communications Usage Trend Survey" and "Survey on the Use of Telecommunications Equipment," MPT

Fig. 2 Time required to reach 10% penetration rate in Japan by media

Media	Years
Internet	5
Personal computer	13
Cellular phone	15
Facsimile	19
Radio paging	24
Telephone	76

(Unit: years)

Sources: "Communications Usage Trend Survey," MPT; and other materials

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I-Introduction-2 Multiplying websites

The information amount available on the Web in Japan has grown 240% per annum.

Along with the increase in the number of Internet users, the information amount being posted and transmitted over the Web is rising dramatically. According to the "WWW Content Survey" carried out by the Institute for Posts and Telecommunications Policy using a statistics-use robot search engine, as of February 1999, collation results show that WWW servers located in Japan totaled 75,000 units (110% increase per annum), with the number of files accessible via WWW totaling 58.2 million (210% increase per annum), WWW pages totaling 29.5 million (190% increase per annum)

and information amount accessible via WWW totaling 1,024 GB (240% increase per annum) (Fig. 1; Refer to 1-Column-3).

According to information made public by Network Wizards, as of January 1999, there were 1.688 million Internet host computers (.jp domain, up 40% in a year and 530% over three years) in Japan (Fig. 2; Refer to I-Introduction-4).
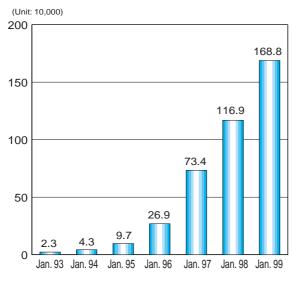
Furthermore, according to the Japan Network Information Center (JPNIC), there were over 68,785 domains (up 80% in a year, 970% over three years) allocated in Japan as of April 1, 1999 (Fig. 3).

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Fig. 1 Trends in total amount of WWW content in ".jp" domain (February 1988 index = 100)

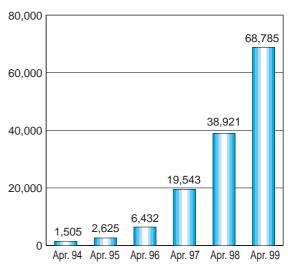|	Feb. 1998	Aug. 1998	Feb. 1999
Total number of WWW servers	36,000	54,000	75,000
Total number of files	18.9 mil.	36.5 mil.	58.2 mil.
Total number of pages	10.2 mil.	17.9 mil.	29.5 mil.
Total information amount (GB)	305	670	1,024

Source: "WWW Content Survey," Institute for Posts and Telecommunications Policy

Fig. 2 Trends in the number of Internet host computers in Japan

Source: http://www.nw.com/zone/WWW/top.html, Network Wizards

Fig. 3 Trends in the number of allocated domains in Japan

Source: ftp://ftp.nic.ad.jp/jpnic/statistics/Allocated_Domains, JPNIC

Related sites: Network Wizards (http://www.nw.com/); JPNIC (http://www.nic.ad.jp/jp/)

I-Introduction-3 Internet population worldwide

There are about 160 million Internet users worldwide.

1. Number of Internet users worldwide (Fig. 1)

The number of Internet users is growing rapidly. According to information made public by NUA Ltd., there were some 160 million Internet users as of March 1999. By region, North America had the highest number at 94.20 million, followed by Europe at 36.11 million.
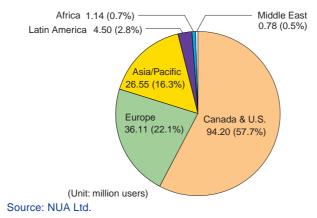
2. Internet penetration rate worldwide (Fig. 2)

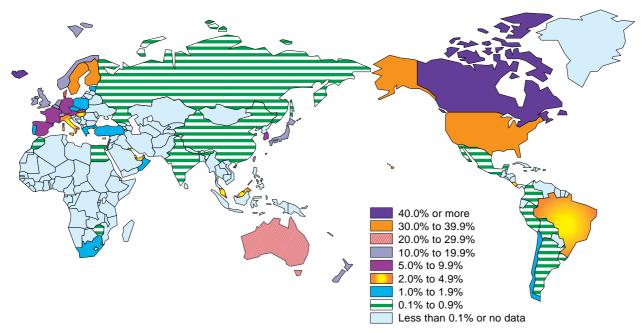Although there are large gaps between various countries as regards the Internet penetration rate (the ratio of the Internet population with the entire population), there were 41 countries and areas where the Internet penetration rate surpassed 1% as of March 1999.

Northern Europe such as Iceland (45.0%), Finland (35.0%), Sweden (33.0%), as well as Canada and the U.S. (30%), among others, had particularly high penetration rates; compared with these countries, Japan's penetration rate (13.4%) (Refer to Endnote 2) is still low.

Fig. 1 Number of Internet users worldwide

Africa 1.14 (0.7%)
Latin America 4.50 (2.8%)
Middle East 0.78 (0.5%)
Asia/Pacific 26.55 (16.3%)
Europe 36.11 (22.1%)
Canada & U.S. 94.20 (57.7%)

(Unit: million users)
Source: NUA Ltd.

Fig. 2 Internet penetration rate worldwide

- 40.0% or more
- 30.0% to 39.9%
- 20.0% to 29.9%
- 10.0% to 19.9%
- 5.0% to 9.9%
- 2.0% to 4.9%
- 1.0% to 1.9%
- 0.1% to 0.9%
- Less than 0.1% or no data

Sources: "Telecommunications Equipment Usage Survey," MPT; NUA Ltd.
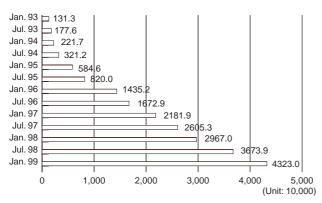
I-Introduction-4   Number of Internet host computers worldwide

The number of Internet host computers worldwide surpasses 43 million.

According to information made public by Network Wizards, as of January 1999, there were 43.23 million Internet host computers (up 45.7% from the same period the previous year) in Japan, which is about 20 times more than five years previously (Fig. 1).
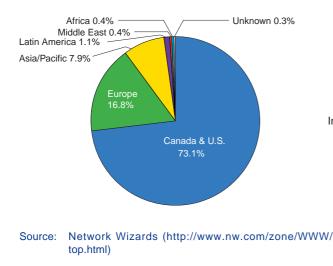
The breakdown by country shows that the U.S. had 70.5% of the total figure, with Japan (3.9%), the U.K. (3.3%), Germany (3.0%) and Canada (2.6%) in
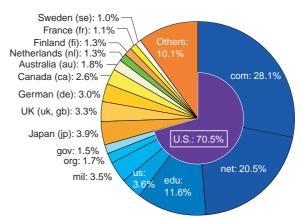
tow (Fig. 2; Refer to Appendix 1).

By region, North America had 73.1%, Europe 16.8% and Asia-Pacific had 7.9% (Fig. 3; Refer to Appendix 2).

Looking at the growth rate in the number of Internet host computers over the past year by region, South America was shown to be growing at about 100%, North America at 50% and Asia-Pacific at 40% (Fig. 4).

Fig. 1   Number of Internet host computers worldwide

Note: In line with the change in the calculation method in January 1998, figures from January 1995 through July 1997 are adjusted.

Fig. 2   Number of Internet host computers by country (as of January 1999)

Note: For convenience, top level domains such as .com, .net, and .org, which are mainly used in the U.S., are included in figures for the U.S.

Fig. 3   Number of Internet host computers by region (as of January 1999)

Source: Network Wizards (http://www.nw.com/zone/WWW/top.html)

Fig. 4   Growth rate of number of Internet host computers by region (Index: January 1998 = 100)

Related site: Network Wizards (http://www.nw.com/)