



**SURVEY ON  
BROADBAND USAGE  
IN SINGAPORE 2001**

**Summary Report**



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## Executive Summary

- About 1 in 3 (34% or 950,000) Singapore residents aged 10 years and above were broadband users.
- 'Home' (46% user incidences) and 'Office/Workplaces' (46%) were the most popular broadband access locations.
- ADSL (40% share) was the most popular broadband access mode.
- 'E-mail' (96% user) and 'information retrieval & search' (86%) were the most popular types of broadband applications / services. Gaining in popularity are 'chat/ICQ' (51%), 'downloading music' (45%), 'web applications' (43%), 'playing online games' (36%) and 'watching movies / videos' (15%).
- 57% of the broadband users used broadband applications/services for 5 days or more in an average week while 71% of these users used them for a total of 10 hours or less per week.
- At least 85% of the broadband users were generally satisfied with their overall experience. Majority of these respondents was satisfied with the access speed, reliability of connection, range of applications/services, broadband service providers' help desk and subscription costs.
- Amongst the Internet users, the slight majority (71%) deemed that a price of "not exceeding \$30" to be most reasonable for an unlimited usage of broadband applications/ services.

# Introduction

This report provides the salient findings from the Survey on Broadband Users in Singapore 2001 which was commissioned to Precision Research Services by Infocomm Development Authority of Singapore (IDA). The survey aims to determine the broadband market size in Singapore while gaining an understanding of the demographic and usage profiles of these users.

## Survey Design

### Survey Methodology

For the purposes of gathering the data required in the research study, a structured questionnaire comprising largely closed-end questions was constructed for use.

A national, representative sample of  $n = 3,000$  Singapore residents<sup>1</sup>, aged 10 years and over, was interviewed in the survey<sup>2</sup>. Face-to-face interviews were conducted with the selected respondents at their homes between the period of 1 October 2001 and 1 December 2001.

10% of the completed interviews were also recalled for verification purposes. Prior to the data processing stage, all survey data recorded in the survey questionnaires were subjected to data editing, scrutiny and quality check against data completeness, accuracy and consistency.

The sampling error corresponding to a random sample survey of  $n = 3,000$  respondents is  $E = \pm 1.8\%$ .

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<sup>1</sup> Singapore residents refer to citizens and permanent residents of local residence.

<sup>2</sup> A *Multi-staged Probability Sampling Technique* consisting of (1) Selection of Primary Sampling Unit (PSU) by zone, (2) Selection of Households from PSU (3) Quota Sampling of People from Household by gender, age, race, house type and economic status was adopted .

## **Sample Distribution**

The ultimate sample was highly representative of its target population in terms of the major demographic and socio-economic characteristics as indicated below.

Table 1. Distribution of Survey Sample (n = 3,000)

Male.....	51%	Public Housing .....	89%
Female.....	49%	Private Housing.....	11%
10-19 years.....	14%	Working.....	59%
20-29 years.....	20%	Non-working .....	36%
30-55 years.....	57%	Unemployed .....	5%
Over 55 years.....	9%		
Chinese.....	79%		
Malays.....	13%		
Indians/Others.....	8%		

Source: Survey on Broadband Usage in Singapore, 2001

Table 2. Distribution of Population (N = 2,797,800)

Male.....	50%	Public Housing .....	80%
Female.....	50%	Private Housing.....	20%
10-19 years.....	16%	Working.....	59%
20-29 years.....	17%	Non-working .....	37%
30-55 years.....	50%	Unemployed .....	4%
Over 55 years.....	17%		
Chinese.....	78%		
Malays.....	13%		
Indians/Others.....	9%		

Source: Singapore Census Population, 2000

# Broadband Usage in Singapore

## Definition of Broadband User

In this report, a broadband user is defined as one who accessed the Internet via any one or more of the following types of connection<sup>3</sup>.

Table 3. Types of Connection defined as Broadband Tools

i	Asymmetrical Digital Subscriber Line (ADSL)
ii	Cable modem (e.g. Singapore Cable Vision)
iii	Leased Line/ ATM Link
iv	Integrated Services Digital Network (ISDN)
v	Local Area Network (LAN)
vi	Wireless (LAN)

Source: Survey on Broadband Usage in Singapore, 2001

## Incidence of Broadband Users in Singapore

It was estimated that at the time of the survey, there was about 1 in 3 (34%) Singapore residents aged 10 years and over who were classified as broadband users. Hence, the total number of broadband users in Singapore was projected to be around 950,000<sup>4</sup> Singapore residents aged 10 years and above.

In particular, the incidence of broadband users was relatively higher among some segments of Singapore residents, namely the graduates, the PMEBS, and the higher educated.

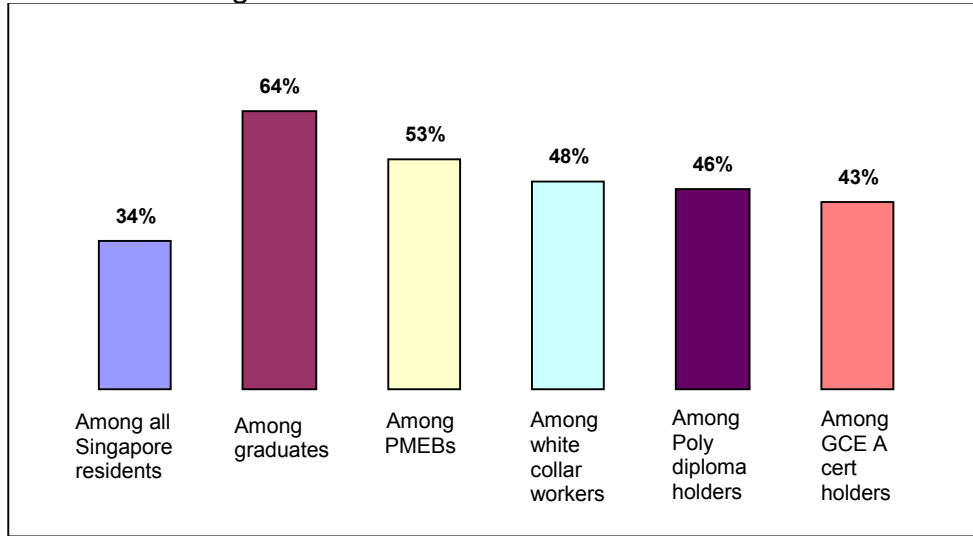
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<sup>3</sup> Thus, a person who accessed the Internet only via dial-up modem with access speed not exceeding 56 kbps is not classified as a broadband user under the above definition.

<sup>4</sup> Actual : 957,800



Figure 1. Incidence of Broadband Users



Source: Survey on Broadband Usage in Singapore, 2001

### **Profiles of Broadband Users**

To some extent, the profiles of broadband users showed little variations from the overall Singapore residents aged 10 years and above in terms of the major demographic, socio-economic attributes (see below)

Table 4. Profiles of Broadband Users

Male.....	54%	HDB 1-3 rooms...	24%
Female.....	46%	HDB 4 rooms.....	33%
		HDB 5 rooms.....	31%
10-19 years.....	17%	Pte housing.....	12%
20-29 years.....	27%		
30-39 years.....	55%	Working.....	70%
Over 55 years.....	1%	Housewife.....	5%
		Student.....	22%
Chinese.....	79%	Others.....	3%
Malays.....	12%		
Indians.....	7%		
Others.....	2%		

Source: Survey on Broadband Usage in Singapore, 2001

## **Broadband Usage By Location**

Not surprisingly, broadband services were typically accessed in offices/workplace and/or at home. Specifically, among broadband users, nearly one-half used it in offices/ workplace (45.9% or approximately 439,300 Singapore residents aged 10 years and above), or used it at home (45.6% or approximately 436,500 Singapore residents aged 10 years and above)

Table 5. Locations where Broadband Usage were accessed

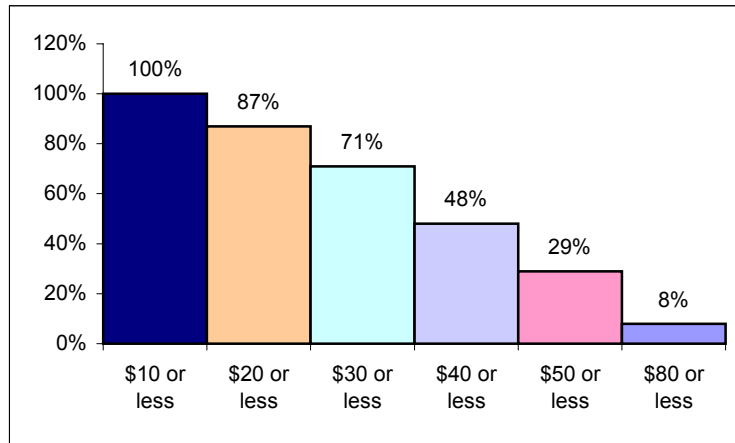
	As % of Singapore residents aged 10 yrs+	As % of Broadband users
All broadband users.....	34%	100%
Used broadband services in Office/workplace.....	16%	46%
Used broadband services at home.....	16%	46%
Used broadband services in schools, etc.....	5%	14%
Used broadband services in other venues (e.g. cyber café, public library)...	4%	11%

Source: Survey on Broadband Usage in Singapore, 2001

## **Fees for Unlimited Usage**

The majority (71%) of Internet users indicated that, for an unlimited usage of broadband access services, the range of “not exceeding \$30” of subscription fee per month was deemed to be the most reasonable.

Figure 2. “Most Reasonable” Monthly Subscription Fee



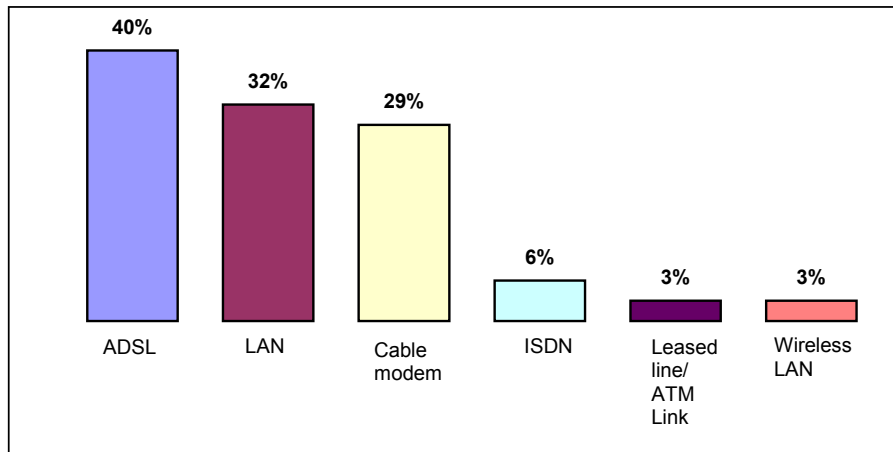
Source: Survey on Broadband Usage in Singapore, 2001

## **Types of Connection Used**

Asymmetrical Digital Subscriber Line (ADSL) was the most popular type of connection used by broadband users to access Internet – over 2 in 5 (40%) broadband users mentioned so.

The next two popular types of connection used by broadband users to access Internet were Local Area Network, or LAN (used by 32%) and cable modem (used by 29%).

Figure 3. Types of Access Connection Mode Used by Broadband Users



Source: Survey on Broadband Usage in Singapore, 2001

### **Frequency & Intensity of Broadband Usage**

Most broadband users utilised broadband applications and/or services through the Internet frequently. Well over one-half (57%) were using broadband applications/services for 5 days or more in an average week.

Table 6. Number of Days per Week using Broadband Services

All the 7 days.....	14%
6 days or more.....	26%
5 days or more.....	57%
4 days or more.....	72%
3 days or more.....	82%
2 days or more.....	92%
At least one day.....	100%

Source: Survey on Broadband Usage in Singapore, 2001

Meanwhile, the majority (71%) of broadband users engaged a total of 10 hours or less per week in using broadband applications and services, equivalent to an average of slightly over an hour daily.

Table 7. Time spent on surfing the Internet using Broadband Apps. / Svcs.

5 hours or less per week.....	32%
10 hours or less per week.....	71%
15 hours or less per week.....	85%
16 hours or more per week.....	15%

Source: Survey on Broadband Usage in Singapore, 2001

### **Most Popular Broadband Applications/Services Used**

- 'E-mail' (96%) and 'information retrieval & search' (86%) are the most popular types of broadband applications / services. Gaining in popularity are 'chat/ICQ' (51%), 'downloading music' (45%), 'web applications' (43%), 'playing online games' (36%) and 'watching movies / videos' (15%).

Table 8. Type of Broadband Applications/ Services more frequently used

Email.....	96%
Information retrieval/ search.....	86%
Chat/ICQ.....	51%
Download music (e.g. MP3).....	45%
News/ News webcast.....	52%
Web applications (e.g. Download application software).....	43%
Play online games.....	36%
Watch movies/ videos.....	15%
Discussion groups.....	14%
Online banking.....	14%
Online shopping.....	12%
Children educational content.....	8%
Video-conferencing.....	6%
Online learning modules.....	6%
Teleworking/ Working from home.....	4%

Source: Survey on Broadband Usage in Singapore, 2001

### **On-line Banking Services**

Nearly 1 in 7 (14% or approximately 132,400) broadband users were using on-line banking services. Near to one-half (46%) of on-line banking service users were only willing to effect transactions of not exceeding \$500.

Table 9. Maximum Value willing to transact on On-line Banking

Not more than \$500	46%
Not more that \$5,000	65%
Over \$5,000	24%
Refused/Don't Know	11%

Source: Survey on Broadband Usage in Singapore, 2001

## **On-line Shopping Services**

Among the broadband users, near to 1 in 8 (12% or approximately 110,050) had experienced on-line shopping. In particular, over 2 in 5 (44%) of on-line shopping users had paid \$100 or less to purchase a product (e.g. groceries, books, CDs) through on-line shopping.

Table 10. Maximum Price of Product purchased via on-line shopping

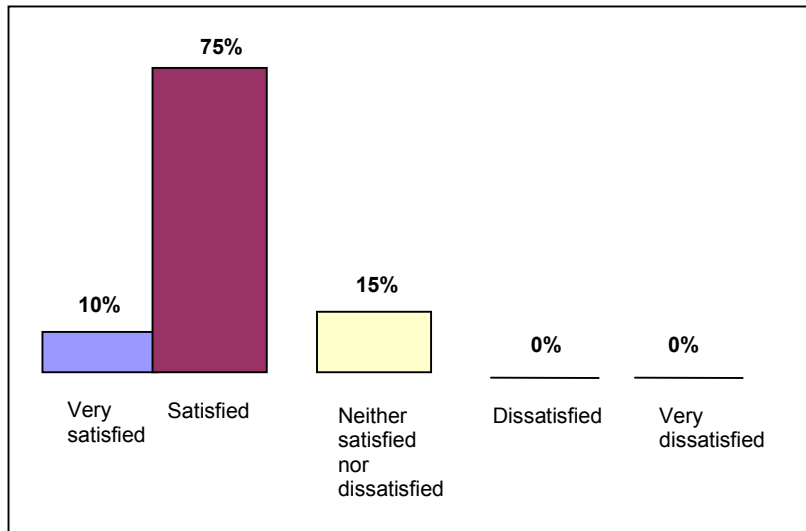
\$50 or less	19%
\$100 or less	44%
\$200 or less	71%
Over \$200	20%
Refused/Don't Know	8%

Source: Survey on Broadband Usage in Singapore, 2001

## **Customer Satisfaction**

On overall experience in using broadband applications and services, the large majority (85%) were satisfied or very satisfied, whilst another 15% remained neutral. Almost none (less than 1%) was dissatisfied or very dissatisfied.

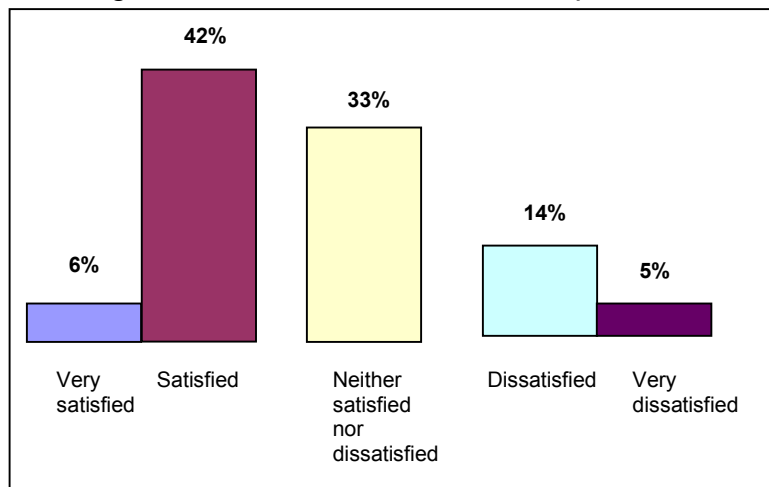
Figure 4. Overall experience in using broadband by broadband users



Source: Survey on Broadband Usage in Singapore, 2001

In terms of satisfaction with the subscription cost of broadband applications/ services, 48% of broadband users were satisfied or very satisfied. About 1 in 5 (19 %) of broadband users expressed otherwise.

Figure 5. Satisfaction with Subscription Cost



Source: Survey on Broadband Usage in Singapore, 2001



In terms of satisfaction on the access speed associated with broadband usage, reliability of connection, range of application/services and broadband access service providers' help desk, high levels of satisfaction were significantly shown as in the following table.

Table 11. Satisfaction with other factors of broadband service provision

	<u>Very satisfied</u>	<u>Satisfied</u>	<u>Neutral</u>	<u>Dissatisfied</u>	<u>Very dissatisfied</u>
i. Access speed-----	17%	67%	14%	2%	*
ii. Reliability of connection-----	21%	65%	12%	3%	*
iii. Range of application/ services-----	9%	66%	22%	2%	*
iv. Access service providers-----	10%	63%	25%	2%	*

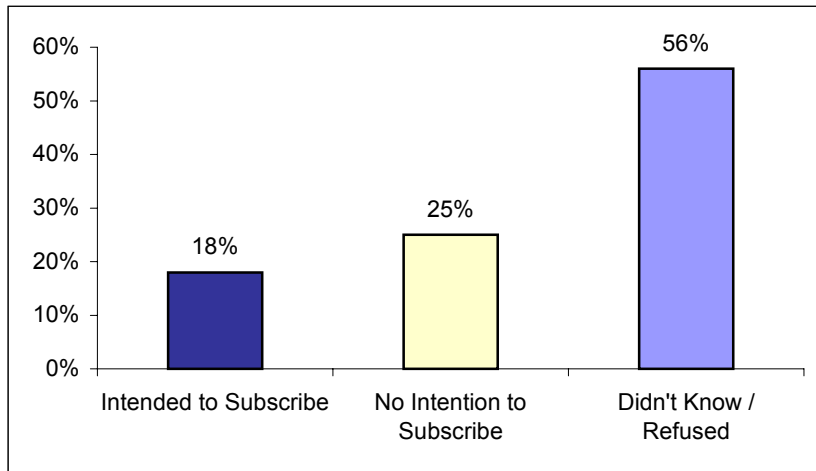
Source: Survey on Broadband Usage in Singapore, 2001

# Non-Broadband Internet User

## Intention to Subscribe to Broadband Services

About 1 in 5 (18%) non-broadband internet users intends to personally subscribe to broadband access. A significant percentage (56%) refused / was unable to enumerate the reasons to justify their intention.

Figure 6. Intention to subscribe to Broadband Services



Source: Survey on Broadband Usage in Singapore, 2001

## Reasons for Intending/ not Intending to Subscribe to Broadband Applications/ Services

For those non-broadband internet users intending to subscribe to broadband services, a notable proportion reasoned that broadband was much convenient / faster as their unprompted responses. However, a significant percentage (44%) was unable to enumerate the reasons to justify their intention.

Table 12. Reasons for intending to subscribe to Broadband Services

It's much convenient/faster .....	38%
Other reasons ..... (including: free airtime, it's good/better; shorter waiting time ; it's fashionable now; etc)	19%
Don't Know/Refused.....	44%

Source: Survey on Broadband Usage in Singapore, 2001

Finally, among the non-broadband internet users who did not intend to subscribe to broadband applications and services, their reasons are summarised in the table below.

Table 13. Reasons for not intending to subscribe to Broadband Services

No such necessity-----	46%
It's too expensive-----	21%
Being not aware of it-----	6%
Not using Internet frequently-----	5%
Seldom use computer-----	4%
Feel comfortable with existing type of connection-----	3%
Don't Know/Refused-----	7%
Other responses-----	8%

Source: Survey on Broadband Usage in Singapore, 2001