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INTRODUCTION

- The Consumer Awareness and Satisfaction Survey ("CASS 10") is a perception survey that aims to measure consumers' awareness and usage of, and satisfaction with selected telecom services in Singapore. Consumers were asked for their satisfaction with the telecom services they had used in terms of the quality of service, price competitiveness of the service offerings, variety of services available given the range of products and services currently offered in the market and customer service rendered by the service providers.
- The CASS 10 is the fourth round carried out by IDA since the full liberalisation of the Singapore telecommunication market in year 2000. Comparisons with the previous survey findings in 2007 are provided where available and appropriate. New services such as mobile broadband Internet services via dongle and mobile phone Internet services are also included in this round of survey given their growing popularity.
- The scope of telecoms services surveyed includes:
 - (a) Fixed Line Telephone Services;
 - (b) Mobile Telephone Services;
 - (c) Voice Over Internet Protocol (VOIP);
 - (d) Fixed Broadband Internet Services;
 - (e) Mobile Broadband Internet;
 - (f) Mobile Phone Internet;
 - (g) International Roaming;
 - (h) Other services (Payphone, Printed Directories and Service 100); and
 - (i) Customer Care Services.

SURVEY METHODOLOGY

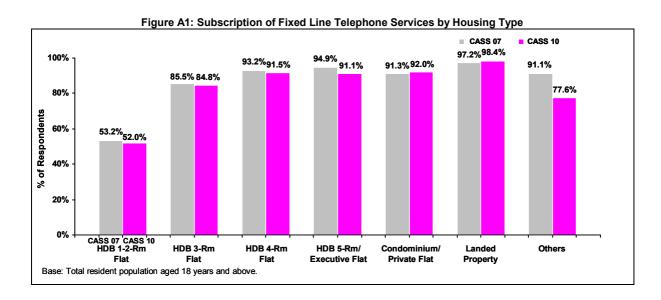
- In total, 1,500 individuals were interviewed between 6th December 2010 and 13th March 2011. The selection of the 1,500 individuals was conducted using a two-stage stratified design:
 - (a) a sample of 1,500 households was selected from the Household Sampling Frame maintained by the Department of Statistics, and
 - (b) from these sampled households, an individual was randomly selected for the survey.
- To be eligible for the survey, the individual must be a Singapore Citizen or Singapore PR aged 18 and above.

SURVEY FINDINGS

A FIXED LINE TELEPHONE SERVICES

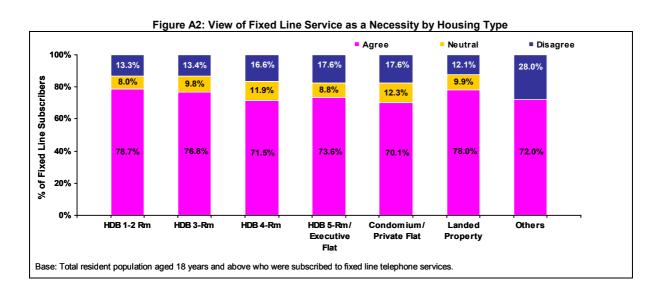
Subscription to Fixed Line Telephone Services

There was a decrease in fixed line telephone subscription across most housing types except among respondents who stayed in condominium / private flat and landed property. **Figure A1** shows a breakdown of subscription by housing type.



View of Fixed Line Telephone Service as a Necessity

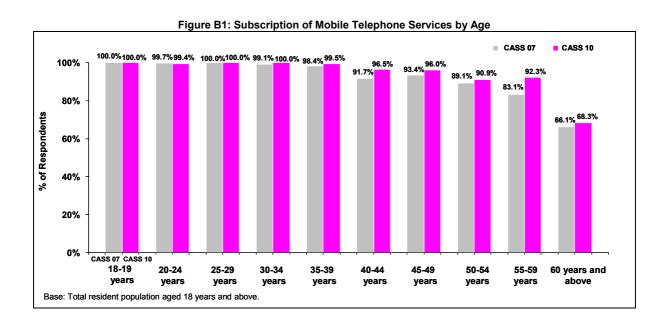
Respondents who were dwellers of HDB 1-2 room flat were most likely to agree that fixed line services were a necessity. Those who resided in condominium / private flat were less likely to agree, as illustrated by **Figure A2**.

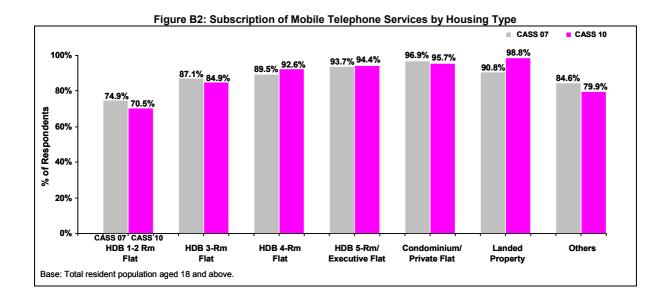


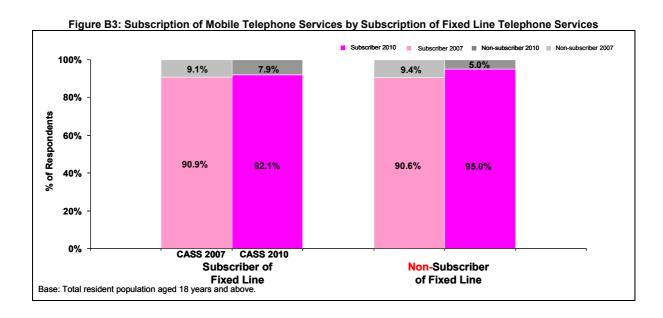
B MOBILE TELEPHONE SERVICES

Subscription to Mobile Telephone Services

A general increase in mobile telephone subscription was seen from 2007. **Figure B1** and **Figure B2** provide a breakdown by age and housing type of mobile phone subscription respectively, while **Figure B3** shows a breakdown by fixed telephone service subscription. As illustrated by **Figure B3**, there was a larger increase in mobile telephone subscription amongst non-fixed line subscribers than fixed line subscribers.

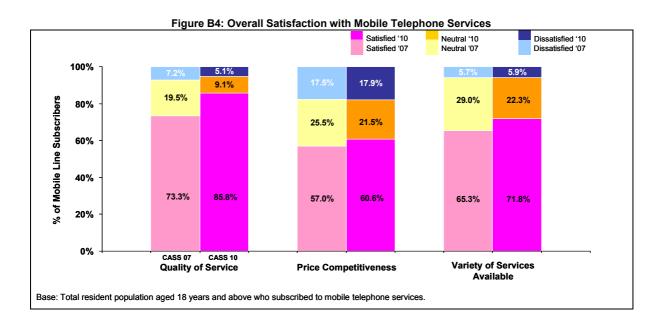






Satisfaction with Mobile Telephone Services

Satisfaction with the quality of service, price competitiveness and variety of services available improved from 2007 (Figure B4).

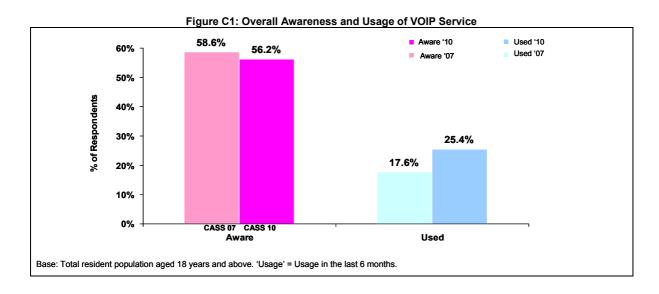


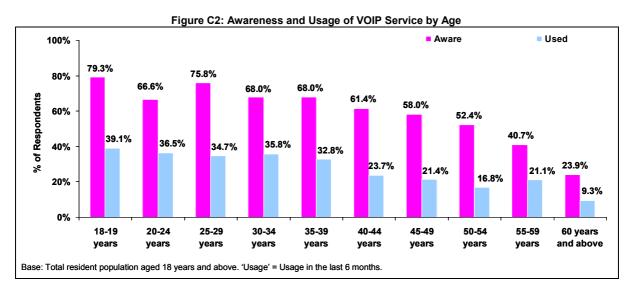
C VOICE OVER INTERNET PROTOCOL (VOIP)¹

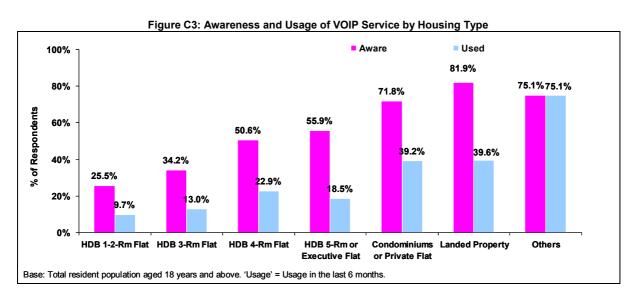
Awareness and Usage of VOIP

Awareness dropped slightly from 2007 but usage saw a substantial increase. About a quarter of the respondents used the service in the last 6 months as shown in **Figure C1**. A breakdown of awareness and usage by age and housing type is shown in **Figure C2** and **Figure C3** respectively.

¹ For this survey, VOIP refers to a service that allows the user to make free or cheaper calls through the Internet on a personal computer. Some examples are Skype, MSN Messenger and Google Talk.



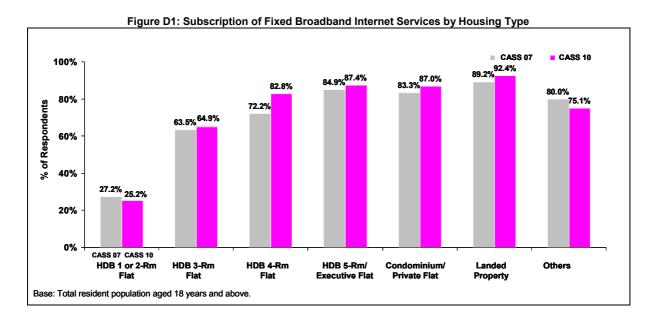




D FIXED BROADBAND INTERNET SERVICES

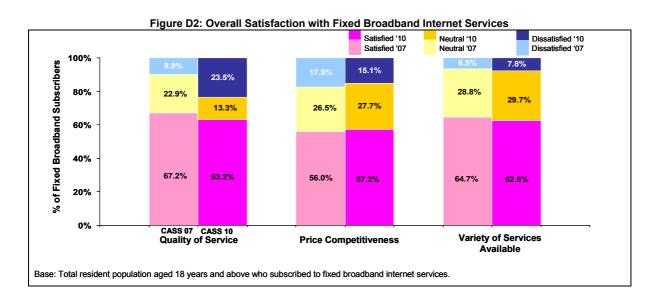
Subscription to Fixed Broadband Internet Services

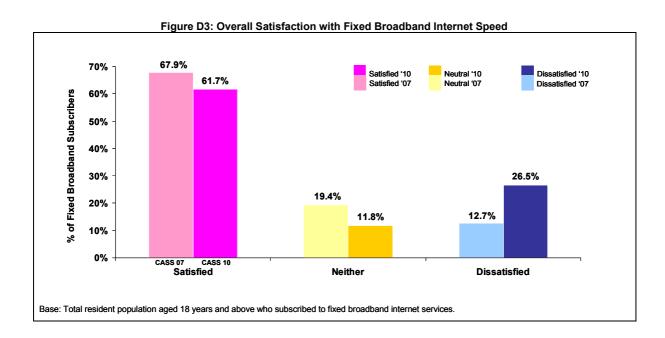
Generally, an increase in fixed broadband Internet subscription was observed in 2010 across most housing types except HDB 1-2 room flats and 'other' housing types. The increase was most evident among HDB 4-room flat dwellers and the proportion of subscribers was highest among landed property dwellers. **Figure D1** provides a breakdown of subscription by housing type.



Satisfaction with Fixed Broadband Internet Services

Satisfaction level remained fairly constant but more fixed broadband Internet subscribers expressed dissatisfaction with the service quality and the variety of services compared to 2007 (Figure D2). 26.5 percent of subscribers expressed dissatisfaction with fixed broadband Internet speed (Figure D3).

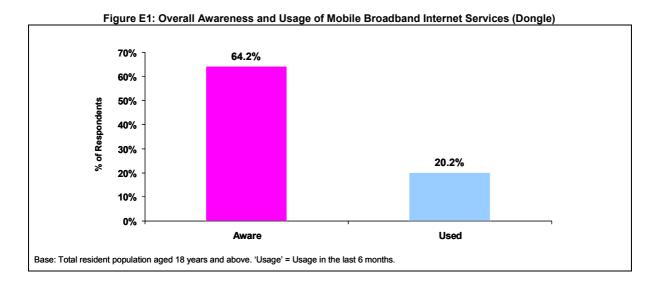


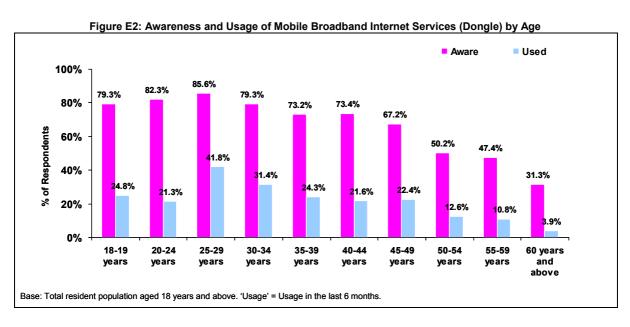


E MOBILE BROADBAND INTERNET SERVICES VIA DONGLE²

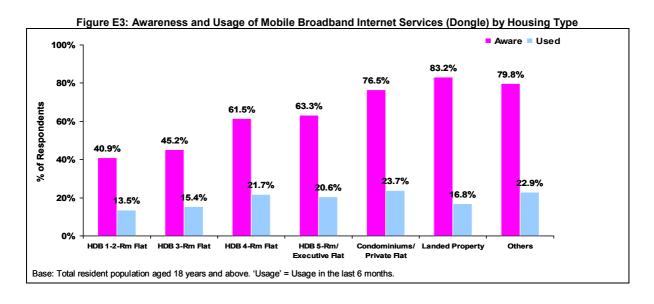
Awareness and Usage of Mobile Broadband Internet Services (Dongle)

Awareness of mobile broadband Internet services was moderately high at 64.2 percent, and about 1 in 5 respondents were current users of the service in 2010 (Figure E1). A breakdown of awareness and usage by age and housing type is provided in Figure E2 and Figure E3 respectively.



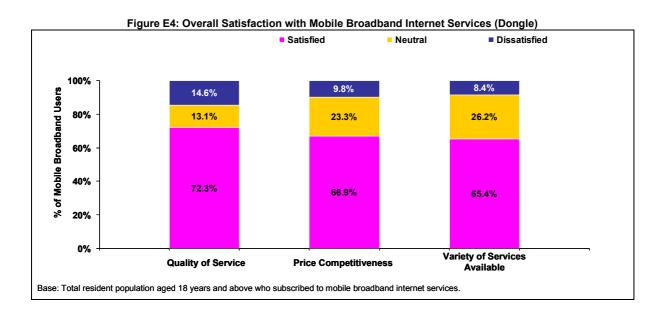


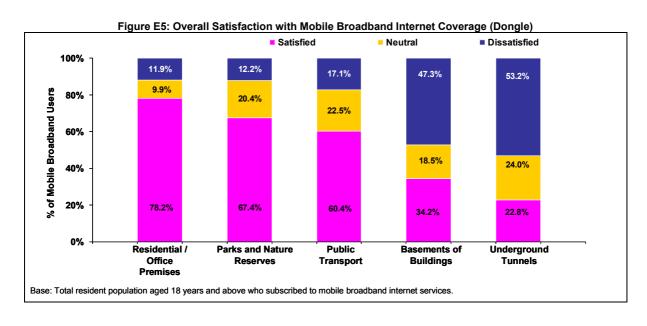
² Mobile broadband internet refers to mobile internet access via a dongle only, not inclusive of mobile phone internet or Wireless@SG services.

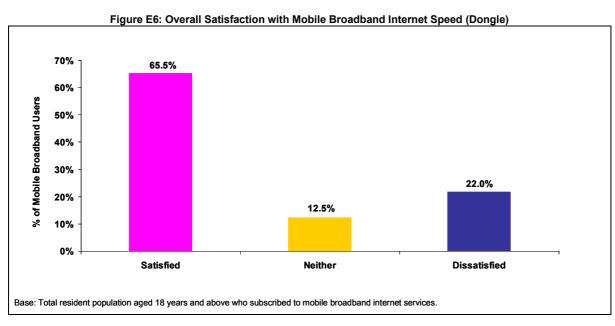


Satisfaction with Mobile Broadband Internet Services (Dongle)

Satisfaction with the quality of service was slightly higher than price competitiveness and variety of services available (Figure E4). Mobile broadband Internet subscribers were most satisfied with the coverage in residential / office premises (Figure E5). As illustrated by Figure E6, 65.6 percent of subscribers were satisfied with the speed of their mobile broadband Internet service.



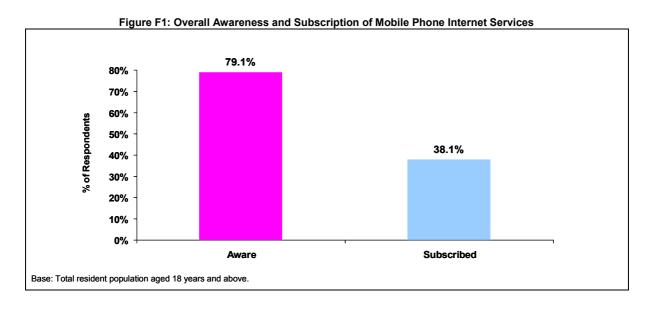


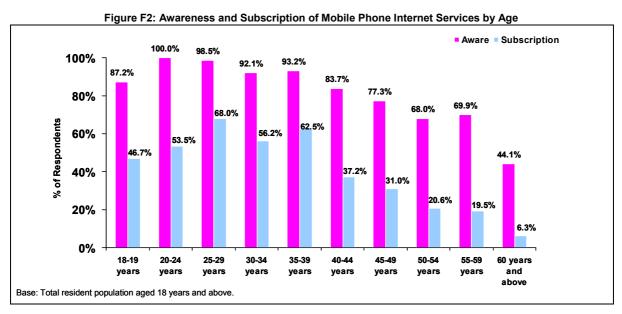


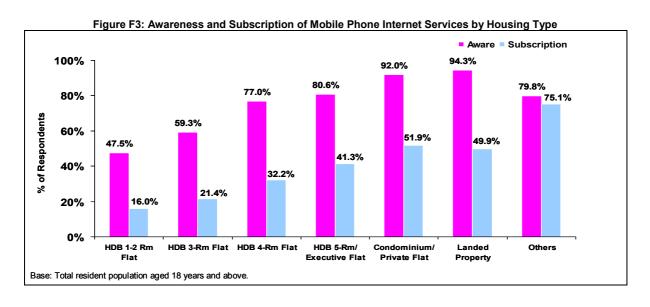
F MOBILE PHONE INTERNET SERVICES

Awareness and Subscription of Mobile Phone Internet Services

Awareness of mobile phone Internet services was high. Close to 8 in 10 respondents indicated their awareness of the service while 38.1 percent were subscribers (Figure F1). A breakdown of awareness and subscription by age and housing type is shown in Figure F2 and Figure F3 respectively.







Satisfaction with Mobile Phone Internet Services

Mobile phone Internet subscribers were slightly more satisfied with the quality of service and variety of services available than the price competitiveness (Figure F4). As illustrated by Figure F5, subscribers were most satisfied with the coverage in residential / office premises. Among the subscribers, 62.8 percent expressed their satisfaction with the speed of their mobile phone Internet services (Figure F6).

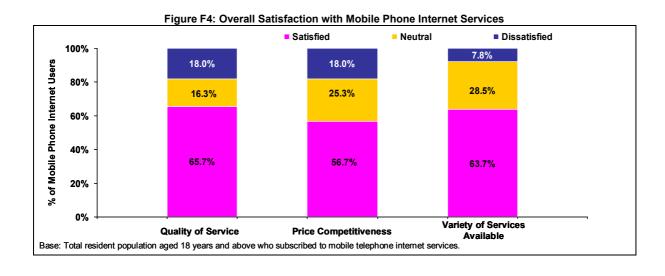
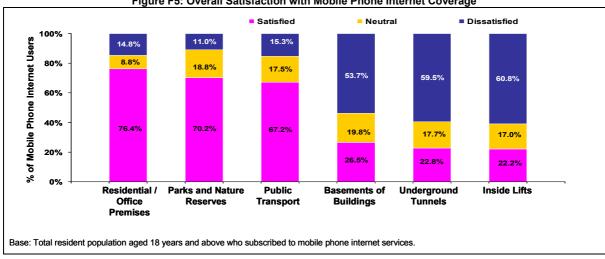
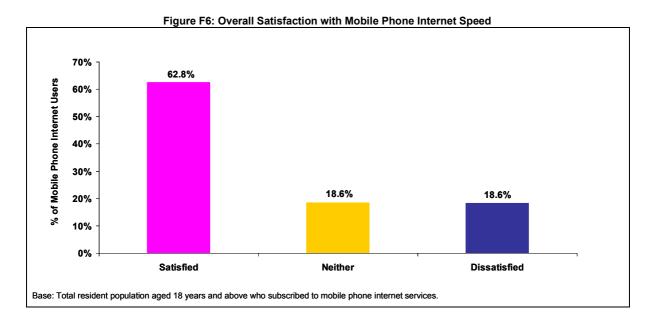


Figure F5: Overall Satisfaction with Mobile Phone Internet Coverage Satisfied Neutral Dissatisfied 100% % of Mobile Phone Internet Users 11.0% 15.3% 14.8% 8.8% 80% 18.8% 17.5% 53.7% 59.5% 60.8% 60% 40% 76.4% 70.2% 67.2% 19.8% 17.7% 17.0% 20% 22.8% 22.2% 0% Residential / **Parks and Nature** Public Basements of Underground Inside Lifts Office Reserves Transport **Buildings** Tunnels **Premises** Base: Total resident population aged 18 years and above who subscribed to mobile phone internet services.

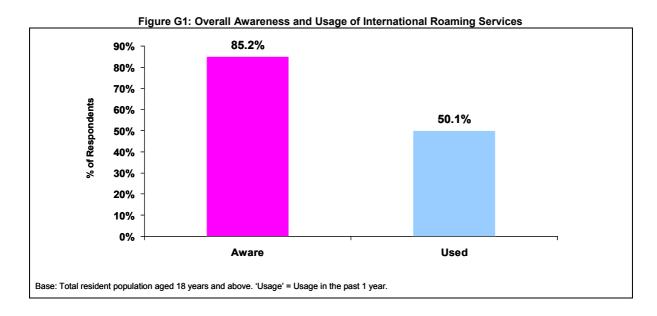


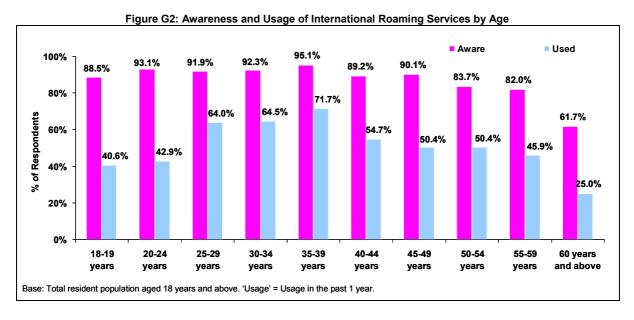


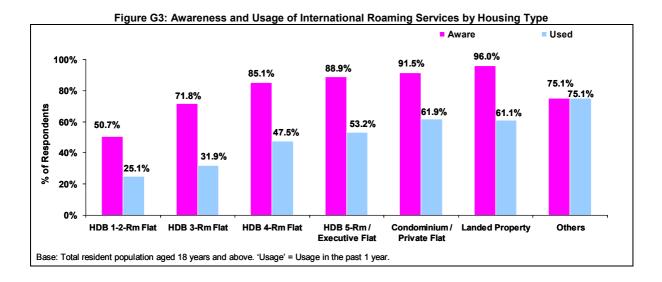
G INTERNATIONAL ROAMING SERVICES

Awareness and Usage of International Roaming Services

Level of awareness was generally high and among those who were aware, about half had used international roaming in the last 1 year (Figure G1). A breakdown of awareness and usage by age and housing type is illustrated by Figure G2 and Figure G3 respectively.

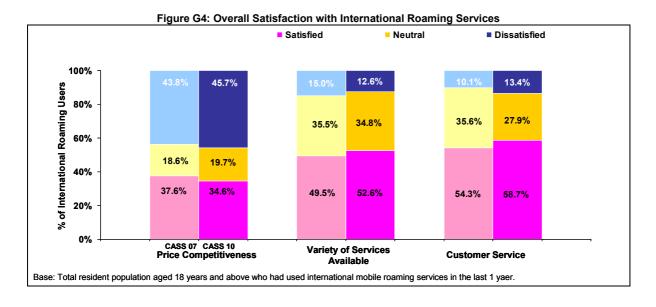






Satisfaction with International Roaming Services

Users of international roaming services were marginally more satisfied with the variety of services available and customer service, but as illustrated by **Figure G4**, a decline in satisfaction level was observed for price competitiveness.



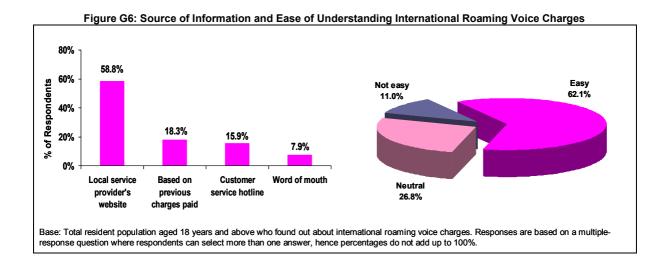
Awareness of International Roaming Charges

54.5 percent of users were aware of international roaming voice charges while 41.2 percent were aware of international roaming data charges. Only about 1 in 5 actually found out about the different charges before travelling **(Figure G5)**.

Figure G5: Overall Awareness of International Roaming Charges Do you find out about the different Are you aware of international mobile roaming international mobile roaming charges of your charges by your service provider? service provider before you travel? Among Respondents who Used International Roaming Services %0 %0 %0 %0 %0 Among Respondents who Used International Roaming Services 54.5% 41.2% 24.5% 18.3% Voice Charges **Data Charges** Voice Charges **Data Charges** Base: Total resident population aged 18 years and above who used international roaming services (voice charges); and subscribed to a data plan (data charges).

International Roaming Voice Charges

Among those who found out about the different international roaming charges for voice calls prior to travelling, more than half did so from the local service providers' website and as shown in **Figure G6**, 62.1 percent found the information easy to understand.



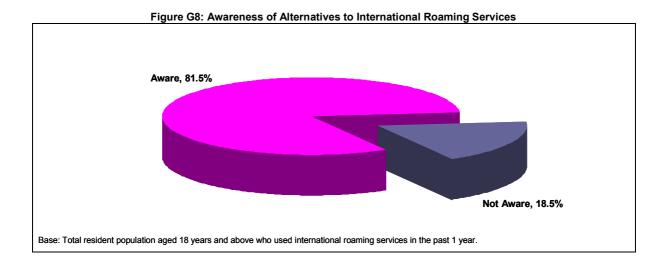
International Roaming Data Charges

Among those who found out about the different data charges prior to travelling, 67.3 percent did so from the local service providers' website and as illustrated by **Figure G7**, 59.0 percent felt that the information was easy to understand.

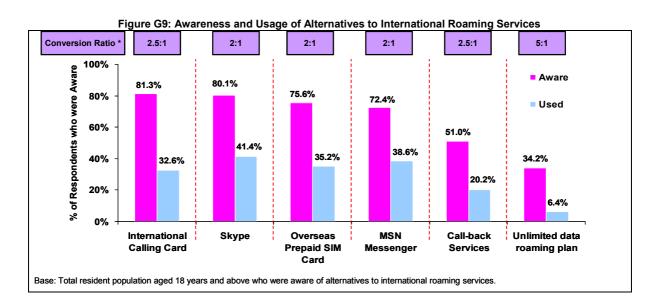
Figure G7: Source of Information and Ease of Understanding International Roaming Data Charges 80% 67.3% Easy of Respondents 60% Not easy 20.3% 20% 6.8% 5.4% 0% Local service Customer Based on **Brochures** Neutral provider's service hotline previous 25.5% website charges paid Base: Total resident population aged 18 years and above who found out about international roaming data charges. Responses are based on a multipleresponse question where respondents can select more than one answer, hence percentages do not add up to 100%

Awareness of Alternatives to International Roaming Services

Among users of international roaming services, more than 8 in 10 knew of other ways to make calls back to Singapore (Figure G8).

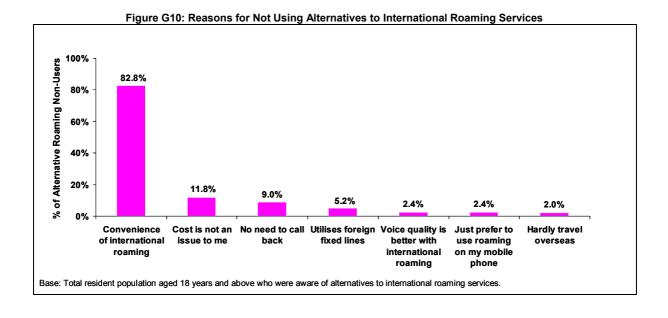


Among the alternatives to international roaming services, Skype, Overseas Prepaid SIM and MSN Messenger were best at converting awareness to usage. For every 2 persons who were aware of these alternative services, 1 had used the service before (Figure G9).



Reasons for Not Using Alternatives to International Roaming Services

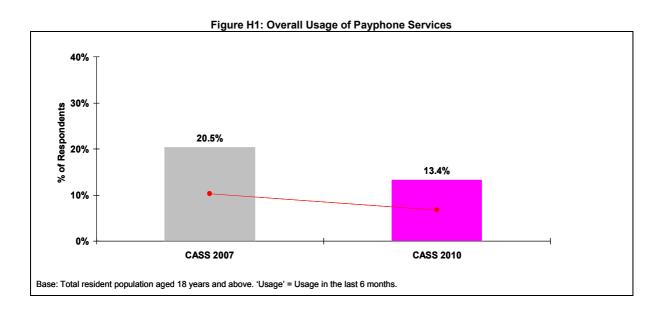
In 2010, the convenience of using international roaming services was cited as the main factor for not using the alternatives (Figure G10).

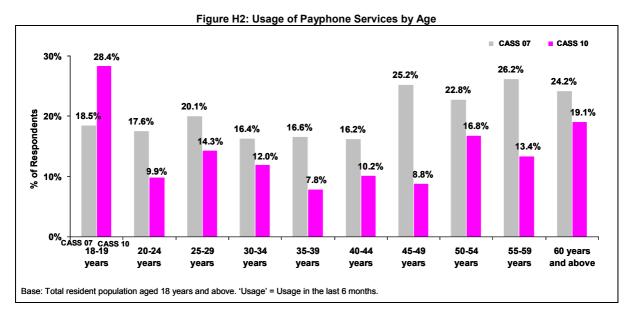


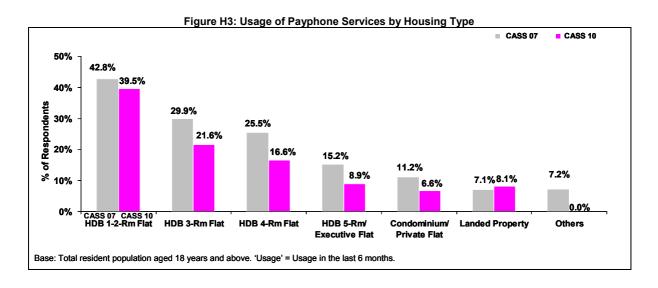
H OTHER SERVICES

Usage of Payphone Services

Usage rate for payphone services showed a decline over the last 3 years (Figure H1). Figure H2 and Figure H3 show a breakdown of usage by age and housing type respectively.

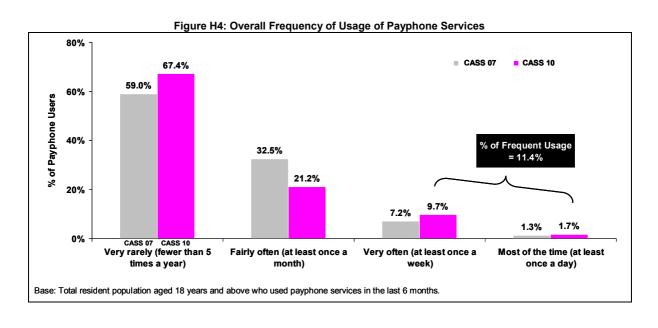


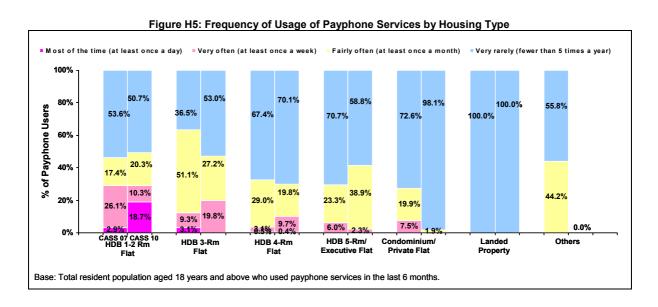




Frequency of Usage of Payphone Services

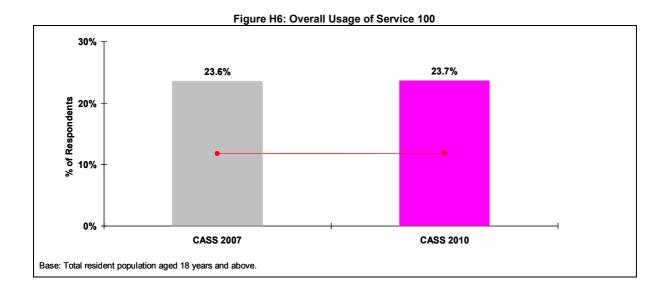
Frequency of usage remained low, with 67.4 percent of respondents using the services fewer than 5 times a year in 2010 (**Figure H4**). Frequency of usage by housing type is shown in **Figure H5**.





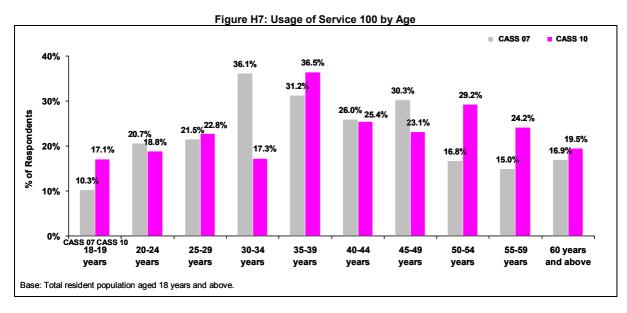
Usage of Service 100 (Directory Enquiry Service)³

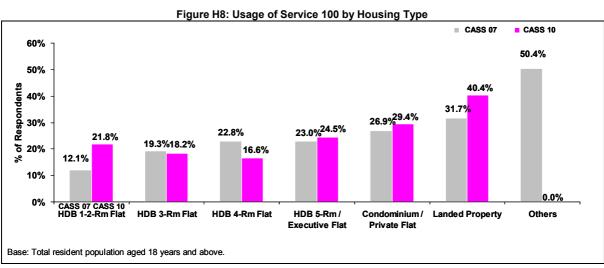
Usage of Service 100 remained fairly constant after 2007 (Figure H6). A breakdown of usage by age and housing type can be seen in Figure H7 and Figure H8 respectively.



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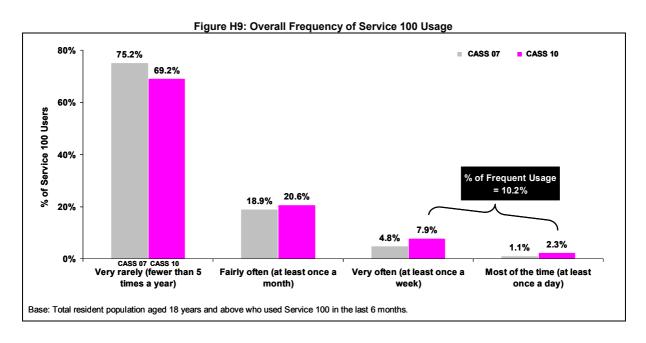
³ Service 100 refers to the operator-assistance service that provides callers with directory information, such as names, addresses and telephone numbers of subscribers to fixed line telephone services.

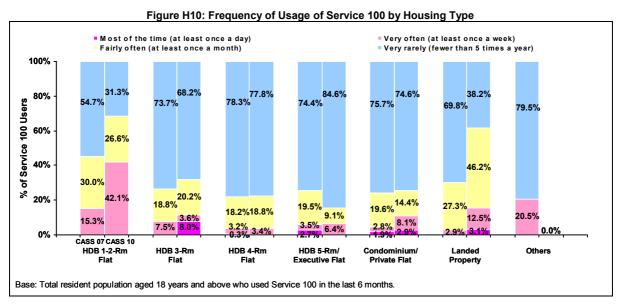




Frequency of Usage of Service 100

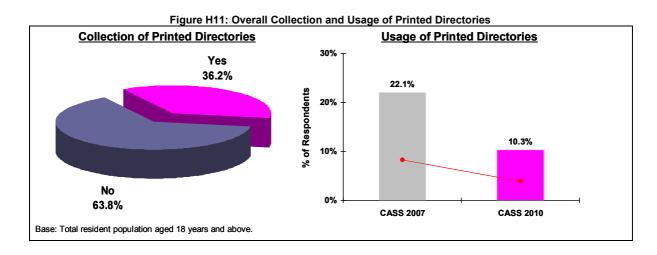
Frequency of usage remained low, with almost 7 in 10 respondents using the service fewer than 5 times a year (**Figure H9**). Frequency of usage by housing type is shown in **Figure H10**.

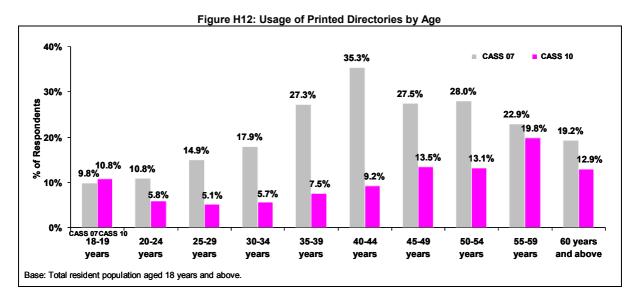


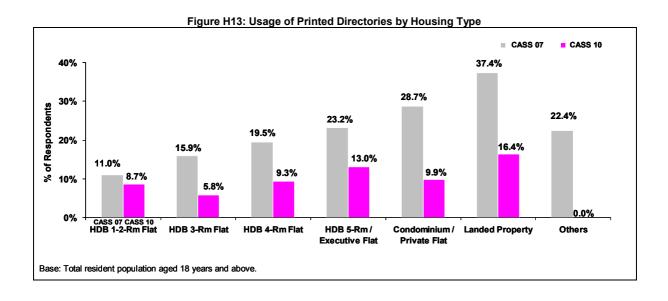


Collection and Usage of Printed Directories

About a third of the households continued to collect printed directories but a steep decrease in usage was observed over the last 3 years (Figure H11). In 2010, 9 in 10 households indicated that they had not used the printed directories in the last 6 months. A breakdown of usage by age and housing type is shown in Figure H12 and Figure H13 respectively.

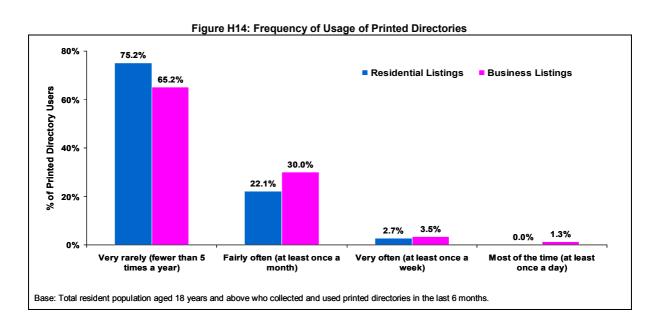






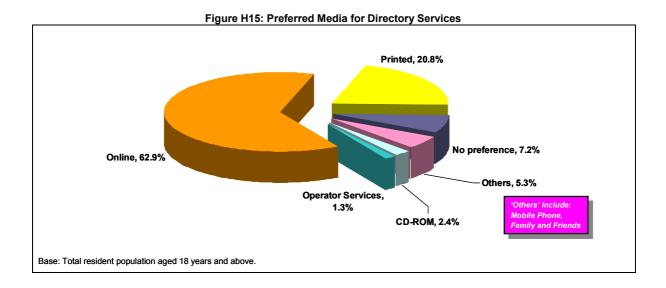
Frequency of Usage of Printed Directories

As illustrated by **Figure H14**, more than 6 in 10 households used the residential and business listings of the printed directories fewer than 5 times a year.



Preferred Media for Directory Services

6 in 10 respondents preferred using online directory services to search for contact information (**Figure H15**).



J CUSTOMER CARE SERVICES

Satisfaction with Customer Care Services

Respondents were least satisfied with hotline waiting time, compared to other measured aspects of service. Close to 3 in 5 respondents were satisfied with the competency of customer service officers and this was seen across all 3 operators (Figure J1).

