

**For information
on 18 July 2007**

**Legislative Council Panel
on Information Technology and Broadcasting**

**The Provision of Consumer Information in relation to
Residential Broadband Use in Hong Kong**

Purpose

This paper is to brief Members on the recent consumer survey commissioned by the Office of the Telecommunications Authority (OFTA) on residential broadband services in Hong Kong. The Telecommunications Authority's (TA) published statement about the broadband survey results is attached to this paper.

Background

2. There was concern about the quality of service (QoS) of local broadband services. Against the background of vocal consumer complaints about service, OFTA announced in January 2005¹ a programme for testing and publishing certain technical and service performance data on each of the four major broadband networks now operating in Hong Kong.

3. Due to the lack of empirical data on user awareness of underlying engineering features of different broadband technology, and on consumer preferences in respect of different service characteristics, OFTA was concerned about the effect that the publication of the raw technical data arising from the test might have on consumer behaviour and the competitive process.

4. Subsequently, the TA announced in a May 2006 statement,² the

¹ TA Statement "*Providing QoS Information to Consumers of Residential Broadband Internet Access Services*" issued on 31 January 2005.

² TA Statement "*Consumer Information in Relation to Broadband Internet Access Services*" issued on 12 May 2006.

commissioning of a detailed survey of residential broadband use in Hong Kong so that there would be a more scientific basis for identifying any deficiency in the consumer information which was available, or in the technical regulation of the broadband services and networks. The TA could then ascertain what if any remedial steps would be required. If such remedial steps are considered to be inconsistent with OFTA's role as a regulator, they may be more appropriately pursued by the other stakeholders including the Internet service providers (ISPs), other government agencies or the Consumer Council.

The Survey

5. The Social Science Research Centre of the University of Hong Kong was commissioned by OFTA to conduct the survey. A working group with representatives from the four major ISPs was set up to advise on the design of the survey and assist in its implementation. A sample of 1,063 residential broadband subscribers, representative of the actual subscribers of each of the four major ISPs, were interviewed from September to December 2006. The full report of the survey can be downloaded at OFTA's website (<http://www.ofta.gov.hk/en/tas/others/ta20070502a.pdf>).

Survey Results

6. The survey shows that the very large majority of households (some 87%) are in fact reasonably satisfied with the service they are getting, whichever particular service provider they happen to be using. There are nevertheless indications that some in the community are not yet fully conversant with computers and the Internet in the home and their enjoyment of their broadband service is therefore not optimal. The survey has confirmed that simply publishing more technical test data about network performance is unlikely to contribute to an improvement in consumer awareness levels.

7. The study also shows that a reliable service experience is the number one requirement which people have for their Internet access arrangements, even more important than the price and transmission speed of the broadband service. However, the reliability of the service may

often have more to do with how conversant household members are with their computers and the Internet in general, rather than the service delivery by the company concerned. The survey results strongly suggest that many residential Internet users do not yet have an adequate grasp of the technical issues facing them in the home.

8. Although most respondents to the survey think there is adequate information available when choosing a service provider, the survey results suggest there could be improvements. For example, many said they would like better visibility about the price, transmission speeds and the quality of service of individual ISPs. In a competitive market each of the service providers is naturally incentivised to ensure consumers have good information about their products through advertising and marketing. However, consumers still need the essential information presented to them in a meaningful manner so that they can make informed decisions in the marketplace.

The Way Forward

9. To ensure consumers can make better informed choices about broadband services, OFTA is now actively pursuing initiatives in three main areas –

- (a) improved provision of service information by the ISPs themselves;
- (b) targeted consumer education about computers, the Internet and related services, and how consumers should go about negotiating a broadband contract; and
- (c) on-going prevention of misleading and deceptive marketing of broadband services.

10. On (a) above, OFTA will be discussing with the industry how the companies themselves must help to close the information gap identified in the survey. ISPs can consider disclosing and making customer pledges about service restoration times, customer hotline performance and the claimed speed for the relevant network segment along the Internet pathway, etc.

11. On (b) above, to improve the day to day experience which people have in their use of a broadband service, OFTA will be working with the industry and the Consumer Council on proposals for educating the wider Hong Kong community about being smart information technology users in the home. A dialogue with the Communications Associations of Hong Kong (CAHK) together with the representatives from the major ISPs for the purpose has already commenced.

12. In addition, OFTA will be extending its own programme for direct consumer advice on telecommunications services topics to include the issues about how to choose a broadband service and negotiating a price. The first new information brochures on broadband transmission speed were published in April 2007.

13. OFTA is also exploring the feasibility of collaboration with the Consumer Council on a joint consumer education programme on specific computer and Internet use issues.

14. On (c) above, the complexity of broadband technologies, the number of service options, and the ever changing marketing strategies of the competing companies, all contribute to an environment in which consumers may find it difficult to obtain the most accurate and updated information.

15. In marketing or advertising their broadband services, it is essential that ISPs fully comply with the principles of fair competition and consumer protection established under section 7M of the Telecommunications Ordinance (which prohibits misleading or deceptive conduct by telecommunications licensees in relation to, among other things, the promotion, marketing and advertising of telecommunications services).

16. OFTA is preparing a set of specific Best Practice Indicators for marketing broadband services based on the information from the survey and OFTA's experience in investigating complaints. For example when an ISP claims a certain specific speed for their service, usually it refers to the speed between the "local" connection from a consumer's home to the local exchange or the Hong Kong Internet Exchange, but not beyond. However, most consumers probably focus on their overall broadband

experience, and there is therefore potential for misunderstandings if inadequate qualifications and explanations are provided. The Best Practice Indicators under preparation will require that all relevant qualifications regarding the segment of the transmission pathway to which the specified speed applies are identified, as well as any other factors which might influence the user's actual speed experience.

17. The Indicators will provide the clearest possible signal to the industry about when their marketing claims are likely to fall foul of section 7M of the Telecommunications Ordinance.

18. At present, OFTA is looking into 17 separate cases involving allegations of mis-selling of broadband services by sales representatives, and 1 case involving allegations of misleading advertisements. Previously we looked into over 160 complaints concerning mis-selling of broadband services or allegations of misleading advertisements, out of which 40 were established to be in breach of section 7M of the Telecommunications Ordinance. All these established cases were subject to written warnings issued by OFTA.

Office of the Telecommunications Authority
11 July 2007

TELECOMMUNICATIONS AUTHORITY STATEMENT

Survey on residential broadband internet access services

2 May 2007

1 BACKGROUND

- 1.1 The Telecommunications Authority (the “Authority”) has completed the survey of residential broadband internet use foreshadowed in his May 2006 statement on “Consumer Information in Relation to Broadband Internet Access Services”.
- 1.2 As of the end of 2006, there were approximately 1.6 million residential broadband connections in Hong Kong, with the household penetration rate reaching almost 68%. This is one of the highest rates in the world. Moreover some 76% of Hong Kong households now have direct connectivity with at least one alternative broadband customer access network.
- 1.3 The highly competitive market environment has been driven by the aggressive rollout of broadband networks by facilities-based internet service providers (“ISPs”) and the use of fibre optic cabling to individual buildings. However, the wide availability and high uptake of broadband internet access services have also been accompanied by a significant number of consumer complaints over the years.
- 1.4 In 2006, the Consumer Council received over 4,000 internet-related consumer complaints. Most of these involved individual contractual disputes and were not within the Authority’s oversight of either section 7M of the Telecommunications Ordinance (which prohibits misleading or deceptive conduct by telecommunications licensees in relation to, among other things, the promotion, marketing and advertising of telecommunications services) or telecommunications licence conditions.

- 1.5 In response, the Authority has undertaken extensive publicity to educate consumers to understand contracts before they sign up¹ and instigated a voluntary code of practice for service contract terms and format². In addition, to deal with the underlying causes of mis-selling incidents involving individual consumers, the Authority has established best practice indicators for the selling of fixed line services³. How individual ISPs comply with the code of practice for contracts and the best practice indicators is being monitored continuously.
- 1.6 The quality of service (“QoS”) of the broadband networks has been a particular focus of complaints for the last three years. In 2004 some 43% of the consumer complaints received by OFTA about broadband access services were concerned with technical performance and other quality of customer service issues⁴. The corresponding figures for 2005 and 2006 were 35% and 30% respectively.
- 1.7 It was against the background of a high level of complaints about QoS that the Authority announced in early 2005⁵ a programme to address QoS concerns through the publication of certain technical and service performance data for each of the four broadband networks. However, during consultations with the ISPs, objections emerged that the test results for “speed” performance in particular, could be wrongly interpreted by consumers as an endorsement by the Authority of some networks over the others, thereby distorting the competitive process⁶.
- 1.8 To gain a better understanding of how broadband services are perceived by typical residential users, the Authority subsequently announced in the May 2006 statement the commissioning of a survey of residential broadband use. The intention was that the survey would provide the Authority with a scientific basis for identifying and correcting any deficit in the availability of

¹ “Your Choice is on the Line” Consumer Education Programme during September 2005 to February 2006.

² “Code of Practice for the Service Contracts for the Provision of Public Telecommunications Services” issued on 12 November 2004.

³ “Report on Mis-selling of Fixed-line Telecommunications Services to Consumers in Hong Kong” issued on 29 March 2005.

⁴ Paragraphs 19 and 20 of the TA Statement referred to footnote no. 5 below.

⁵ TA Statement “Providing QoS Information to Consumers of Residential Broadband Internet Access Services” issued on 31 January 2005.

⁶ Paragraph 4.14 of the TA Statement “Consumer Information in Relation to Broadband Internet Access Services” issued on 12 May 2006.

information which consumers need to make informed choices, or any deficit in the technical regulation of broadband services.

2 THE SURVEY

- 2.1 The Social Science Research Centre of the University of Hong Kong was commissioned by OFTA to conduct the survey of residential broadband use. A working group with representatives from the four major ISPs⁷ was also set up to provide comments throughout the course of the survey's design and to assist in the design and implementation of the survey. A sample of 1,063 residential broadband subscribers, representative of the actual subscribers of each of the four major ISPs, were interviewed from September to December 2006.
- 2.2 The full report of the survey (the "Survey Report") is annexed to this Statement.

3 SURVEY RESULTS

3.1 Level of Consumer Satisfaction

- 3.1.1 Given the number of broadband users and the actual level of broadband usage in Hong Kong, it has always been clear that the number of complaints about residential broadband services needs to be kept in perspective. The survey shows that some 87%⁸ of the respondents were not dissatisfied with the service they were getting, whichever particular service provider they happened to be using. Nevertheless some 13% of respondents were prepared to say that they were dissatisfied with their service provider.
- 3.1.2 These levels of satisfaction and dissatisfaction reflect the individual consumer's overall experience of their broadband service. According to the survey, around 62%⁹ of respondents had encountered problems with their ISP in the previous 12 months.

⁷ The four ISPs are Hong Kong Broadband Network Limited, Hutchison MultiMedia Services Limited, i-Cable WebServe Limited and PCCW IMS Limited.

⁸ Q4 in the Survey Report.

⁹ Q16 in the Survey Report.

3.2 Nature of Problems Encountered by Consumers

3.2.1 The major concern for most people was service reliability, accounting for over 84%¹⁰ of the problems which users had had in the last 12 months. Service reliability also attracted the majority of complaints lodged by the respondents with their ISP. Apart from service reliability, other issues were much less problematic. Connection speed, billing and customer services each accounted for less than 5% of problems encountered in the past 12 months.

3.3 Service Parameters Considered Important to Consumers

3.3.1 During the survey respondents were asked to indicate the importance of several factors when choosing an ISP¹¹. For ease of comparison, the average score for each service element was determined on a 5-point scale where “1” refers to “not important at all” and “5” refers to “very important.”

3.3.2 The survey shows that a reliable service experience is the number one requirement which people have for their internet access arrangements. Around 92% of the respondents considered network reliability either important or very important. The average score at 4.5 was also the highest among the 11 factors identified. In fact at present, it appears that reliability is more important than the price people are prepared to pay for internet access or indeed any other aspects related to the operation of the service.

¹⁰ Q17 in the Survey Report.

¹¹ Q5 in the Survey Report.

Importance of individual service elements when choosing ISPs		
Service element	Average score*	% of respondents rated important or very important
Network reliability	4.5	92%
Download speed	4.2	84%
Customer service quality	4.1	81%
Price	4.1	77%
Customer service hotline	4.0	71%
Coverage	3.8	67%
Upload speed	3.8	65%
Public reputation	3.5	52%
Package of services	3.2	37%
Storage space	3.1	37%
ISP webpage content	2.9	25%
* "1" refers to "not important at all" and "5" refers to "very important". The number in the second column is the simple average of the score of each valid respondent.		

3.3.3 Other than network reliability, there were four other factors having scores exceeding 4.0 (very important or important). They are, in descending order of importance, download speed (score 4.2), customer service quality (score 4.1), price (score 4.1) and customer service hotline (score 4.0). In terms of percentage of respondents rating the factors as important or very important, there are eight factors with percentages exceeding 50% - they are, in descending order of percentages, network reliability (92%), download speed (84%), customer service quality (81%), price (77%), customer service hotline (71%), coverage (67%), upload speed (65%) and public reputation (52%).

3.3.4 To ensure there is a thorough understanding of the decision making process which consumers employ in selecting an ISP, and what is important when the service is in use, follow-up enquiries are underway in which respondents to the survey will be provided with a series of scenarios for conjoint analysis. The results of this exercise should provide further insight into the relationships between the different service parameters in paragraph 3.3.2.

3.4 Whether Sufficient Information is Available to Consumers on the Important Service Parameters

3.4.1 The survey asked respondents whether there was sufficient information available when choosing an ISP¹². Around 62% of the respondents considered there was. For the 38% who considered otherwise, pricing information was the major missing item, followed by download speed then upload speed.

3.4.2 When asked a more general question about the need for quality of service information on ISPs to be made available¹³ to consumers, the vast majority of respondents (97%) indicated there was such a need and some 43% of them indicated that the information should be provided by OFTA¹⁴.

3.5 Technical Knowledge

3.5.1 To ascertain residential users' actual level of technical knowledge, respondents were asked to indicate whether their broadband connection performance could be affected by a number of specifically identified factors¹⁵. These were all concerned with an individual consumer's computer set-up and were not related to the actual performance of their broadband network.

3.5.2 Most respondents correctly reported that a computer software virus could affect the performance of their connection. However, less than 70% of the respondents realised that broadband performance can be adversely affected by other factors, such as spyware, hardware faults, spam and the software settings on their computers.

3.5.3 Even when QoS problems were mostly related to users' hardware or software set-up, and were therefore issues outside their ISP's control and responsibility, nearly 60% of the respondents who had encountered problems of that kind nevertheless sought their ISPs' assistance.

¹² Q9 in the Survey Report.

¹³ Q13 in the Survey Report

¹⁴ Q14 in the Survey Report

¹⁵ Q6 in the Survey Report.

- 3.5.4 These results indicate that many in the community are not yet fully conversant with the use of computers and the internet in the home. Their enjoyment of their broadband service is therefore not optimal, no doubt leading to their remaining somewhat unhappy with their service, and to their directing complaints to parties such as OFTA and the Consumer Council.

4 DISCUSSION

4.1 Importance of Meaningful Information to Consumers

- 4.1.1 The Authority encourages all telecommunications service providers to distinguish their services in any way which reflects their particular competitive advantage and which focuses on the things they believe their target customers are likely to consider important. In the case of broadband services, this can include network stability, reliability, or high connection speeds. Whatever angle an ISP chooses to take in its marketing its claims must not be misleading or deceptive.

- 4.1.2 To ensure consumers can make informed choices amongst the various competing service providers, the statutory obligation on service providers not to mislead or deceive carries positive obligations to ensure that the information which they make available is meaningful to consumers as they consider which service best meets their needs within their budget.

4.2 Pricing Information

- 4.2.1 The natural feature of the present strong competition in the broadband market is that pricing has to be flexible if one company is to win business off another. The result is that even when consumers are customers of the same ISP, the prices they pay may not be the same. The survey results about wanting more pricing information suggests that it is not widely understood that because competition is intense, companies often do not necessarily charge the prices published on their websites, or in their brochures and other marketing materials, because they are actually prepared to negotiate on an individual basis, usually via their customer hotline.
- 4.2.2 In the future the Authority will be providing more consumer advice about

negotiating prices. And while the Authority does not expect the ISPs to publish the exact prices that they charge individual customers, the Authority expects the ISPs to comply with their existing licence obligation to effect publication of their maximum prices. The Authority also expects the operators to provide the potential customers with complete price information *before* the contract is finalised.

- 4.2.3 Relevant pricing information includes not only the monthly subscription payable to service providers, but also other incidental charges, such as any installation charge, early termination penalty, etc. To avoid disputes later, service providers must provide all the pricing information that is likely to influence a consumer's decision whether or not to subscribe.

4.3 Speed Information

- 4.3.1 According to the survey, consumers also want unambiguous information about what the transmission speeds they will actually experience. Many ordinary consumers may not realise that the transmission speed specified in the promotion materials of service providers may only refer to the first (or the last) of several distinct stages in the journey made by the data being transmitted (or received). It is the Authority's view that service providers must state all relevant qualifications regarding the segment of the pathway to which the specified speed applies.

4.4 Other QoS Information

- 4.4.1 As well as information on pricing and transmission speed, the Authority notes from the survey results (paragraph 3.4.2) that consumers looking to buy a broadband internet access service may also want comparative information about QoS. However, QoS can mean different things to different people. For some people, the quality of a broadband service means the transmission speeds it is capable of delivering. For others, QoS can mean having day to day uninterrupted connection, while for others it may be the responsiveness of customer-support staff when getting the service installed or when help is needed later.
- 4.4.2 When service providers do face strong competition, each of them is naturally incentivised to ensure consumers have good information about their products

because their individual business success depends on their being able to persuade consumers about the merits of their services through advertising and marketing. In a competitive market it is for the consumers (and not the regulator) to decide whether one company has a better service than another, and whether some companies are more successful than others. However, consumers will need the necessary information presented to them in a meaningful manner so that they can make informed decisions in the market.

- 4.4.3 For this reason, the Authority will be discussing with ISPs and independent organisations approaches for providing QoS information to consumers which are relevant to the current marketplace environment, and more importantly, meaningful to consumers when choosing an ISP. The Authority recognises that over time benchmarks may need to change, as the levels of consumer understanding improve or as technology changes.

4.5 Importance of Consumer Education

- 4.5.1 The survey results do strongly suggest that many residential internet users do not yet have an adequate grasp of the technical issues and are therefore more vulnerable to being misled by technical terminology.
- 4.5.2 Some consumers are less technically able than others, and for these consumers special precautions are needed to guard against section 7M breaches. Consumers themselves also have a responsibility to be better informed about the qualifications that apply to claimed performance. As discussed further below, the industry and independent organisations like the Consumer Council, as well as OFTA, can all play an important educational role.
- 4.5.3 The Authority also notes that the perceived QoS of a particular broadband service may often have more to do with the “learning curve” which some household members face, rather than the service delivery by the company concerned. This is confirmed by the Authority’s follow-up enquiries which show that over 80% of calls to broadband customer hotlines in Hong Kong are about technical issues to do with the configuration of the users’ own computer equipment, problems at a website destination, or other things wholly beyond the local broadband provider’s practical influence and contractual responsibility.

- 4.5.4 Consumer education is an ongoing imperative across the whole telecommunications industry. Any assistance that can be provided to enable consumers to more quickly appreciate the importance and substance of new information, will normally be to the benefit of the consumers concerned and to the marketplace more generally.

5 THE WAY FORWARD

5.1 Addressing the Information Need of Consumers

- 5.1.1 Based on the finding of the survey, the Authority has initiated a dialogue with the industry on how adequate information considered to be important to the consumers should be made available to them in a meaningful manner.
- 5.1.2 The Authority's preferred approach is that necessary information, such as statistics on service and technical performance, should be published by the operators themselves. The Authority will discuss with the operators about the definitions of the performance indicators and how the information should be audited and published.
- 5.1.3 The Authority will also explore the feasibility of collaboration with independent organisations like the Consumer Council in making comparative information available to consumers.
- 5.1.4 In the longer term, if the voluntary efforts of the industry, and the coordinated education activities of the Authority, independent organisations like the Consumer Council and other relevant government agencies are not successful, and significant information deficits persist where internet access services are concerned, the Authority believes that the telecommunications legislation should be amended to empower the regulator to mandate specific consumer information disclosure requirements on ISPs.

5.2 Consumer Education

- 5.2.1 In view of the increasing technical complexity of broadband services and to ensure there are long term improvements in the day to day experience

which people have in their use of a broadband service, the Authority will be working with the industry, independent organisations like the Consumer Council and other relevant government agencies on proposals for educating the wider Hong Kong community about being smart information technology users in the home.

- 5.2.2 To close the specific information gaps concerning price and transmission speed, the Authority will be extending its current programme for direct consumer advice on telecommunications services topics to include the issues around how to choose a broadband service and negotiate a price.

5.3 Addressing Misleading or Deceptive Conduct

- 5.3.1 The Authority is also seeking cooperation from the industry and the Consumer Council to develop a number of Best Practice Indicators concerning advertising and provision of pricing information to potential customers based on the information from the survey.

- 5.3.2 The aim of establishing the Best Practice Indicators is to provide a clear picture of potential problem areas where misleading or deceptive conduct can occur – and explain ways of safeguarding against such event. In doing so, consumers and the market place are protected from misleading or deceptive practices that work to diminish the benefits of fair and effective competition in relation to broadband services in Hong Kong.

Office of the Telecommunications Authority

2 May 2007