

RP04/95-96

Policy on Internet Access Providers and
On-line Service Providers in Overseas Countries

Research and Library Services Division
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Background

In March 1995, the police raided seven Internet access providers for operating without a licence and some other reasons. The action has aroused public concern on the protection of data transmitted electronically and the regulation of telecommunications services in Hong Kong. In response to the concern, LegCo Panel on Information Policy requested a research into the Internet and Bulletin Board Systems be undertaken.

2. A paper entitled "The Internet and Related Issues" was presented at the Panel meeting on 5 June 1995. The paper concluded that Internet is a useful source of information and an important means of communication with the world. The paper also pointed out the importance for Hong Kong to participate in international and regional telecommunications projects that would help maintain its status as an international financial, commercial and service centre.

3. At the June 1995 Panel meeting, the existing regulatory system on telecommunications was criticised by some in the information technology industry as restricting the free flow of information and failing to keep pace with the development in telecommunications technology. Members considered that it was time for the government to review the policy objectives behind the telecommunications law. This is especially important as the government is conducting a comprehensive review on the Telecommunication Ordinance, including the licensing system for Internet access providers.

4. Members requested further research into policy on Internet access providers in overseas countries and the rationale behind such policy. This paper covers regulation governing both Internet and on-line services since Internet is just one of the many electronic forms in providing information and messaging services over the telecommunications network.

Policy objective and regulatory framework

5. Internet and other on-line services enable people to communicate and obtain information instantly, efficiently and inexpensively no matter how far various parties are separated from each other¹. Internet access providers have performed an important role in making Internet accessible to the public at low cost.

¹ For general information on Internet and on-line services, please refer to Research Paper "The Internet and Related Issues" RP05/94-95.

6. The policy objective behind telecommunications laws determines the degree of control over providers of Internet and on-line services. The degree of control on the provision of services would in turn determine the price and availability of such services to the general public. In countries such as the United States and the United Kingdom, a liberal approach towards service providers is adopted with a view to encouraging on-line services to be provided on competitive terms. Details of their policy objectives and regulatory framework are given below.

The United States

7. On-line services such as the Internet and electronic data interchange are classified as "enhanced services²" in the US. Providers of such services enjoy a free regime since they are not regulated under the federal or state telecommunications law.

8. The US Federal Communications Commission (FCC) believes that deregulation of the enhanced services market would benefit customers by enhancing customer choice and encouraging more efficient use of telecommunications networks. It notes that the market for enhanced services is highly competitive in the US and believes that market forces will protect the public interest in reasonable rates and availability of services.

9. The US regulatory authority does not seek to achieve other policy objectives such as protecting consumers against unfair trade practices by telecommunications law. Instead, the US government protects consumer welfare through antitrust law. Internet access providers and on-line service providers like other business in the US are subject to antitrust law which prohibits activities such as price fixing, price discrimination and predatory pricing. This is different from the case in Hong Kong, as discussed later on.

The United Kingdom

10. Providers of Internet and other on-line services are classified as Value Added Data (VAD) Service Providers in the UK. They operate under a class licence called the Telecommunications Service Class Licence (TSL). Under the system, individual service providers do not need to make application or notification to the authority or pay fee. However, they must conform to the conditions of the licence which is mainly to ensure that only approved equipment is connected to the public telecoms networks.

² Page 205, West's Federal Reporter, Volume 693 F.2d, 1983. Enhanced services are defined as "services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information."

11. The Office of Telecommunications (OFTEL) in the UK considers detailed regulation unnecessary in a highly competitive market such as the provision of Internet access and on-line services. It also considers that there is no need to impose too much regulation on service providers since electronic networks do not perform essential public functions as the public switched telephone network.

12. Like the US, the UK tends to regulate other aspects of the VAD service providers with relevant laws rather than through telecommunications law. VAD service providers are subject to the Fair Trading Act and the Competition Act, which essentially ensure that the behavior of companies in the market does not act against the public interest. The UK government is also preparing a new Defamation (Responsibility for Publication) Bill which will have the effect of protecting "common carrier" such as distributors of newspapers and Internet access providers from being liable to "innocent dissemination" of libellous material.

Australia

13. The regulatory framework on Internet access providers and on-line service providers in Australia is similar to that in the UK. Internet access providers and international on-line service providers are classified as value added services under the International Service Providers Class Licence (SPCL). There is no restriction relating to the use, interconnection or resale of value added services. Service providers only need to comply with general conditions in the class licence such as technical and operational standards.

14. The intention of the class licence approach is to be administratively simple, to provide flexibility and to minimise the need for regulation. The Australian Telecommunications Authority (AUSTEL) considers ISPCCL as an effective regulatory method since it brings together all relevant information that a service provider needs to know and provides a means of facilitating service providers entry into the market.

The case of Hong Kong

15. Under Section 8 of the Telecommunication Ordinance, the provision of a telecommunications service involving the establishment or maintenance of a means of telecommunications is subject to licensing. The right licence for the provision of such a service to the public over the public telecommunications networks is the Public Non-exclusive Telecommunications Service (PNETS) licence. Internet access providers and on-line service providers satisfying the licensing criteria laid down by the Office of the Telecommunications Authority on telecommunications services need to obtain a PNETS licence. (The criteria are given in paragraph 21 below.)

16. OFTA aims to achieve the following policy objectives with the PNETS licensing system.

- to protect the confidentiality of customer data and messages

- to safeguard consumers against discriminatory or unfair trade practices
- to ensure compliance with international obligations
- to ensure compliance with local regulatory framework e.g. a breach of exclusive rights already granted
- to ensure network connectivity

17. It can be noted that the Hong Kong government tends to achieve multiple objectives through the Telecommunication Ordinance. For example, it seeks to protect the interest of the consumers of telecommunications services as well as to ensure the connectivity of network. By comparison, the trend in the US and the UK is to separate other policy objectives from the telecommunications laws. This would enable the telecommunications laws to become more coherent in providing a liberal environment for the development of the telecommunications industry. It would also be more logical to use the same set of laws such as the anti-trust law, fair trading law or competition law to regulate business behaviour of on-line service providers and that of other business operations.

18. Although OFTA has stripped down the control on Internet access providers to the minimum, the regulatory framework is still more complicated than those in some advanced countries. Under the present licensing procedure, the processing time for a PNETS licence is 14 days and the annual licence fee is \$750. In streamlining the regulatory framework on telecommunications service, OFTA plans to adopt a "class licensing" approach for various service providers. Under the proposed system, access providers would no longer need to apply for an individual licence or to pay any licence fee but are expected to abide by the conditions of that licence. This will bring Hong Kong in line with countries like the United Kingdom and Australia in providing a flexible and simple regulatory framework for the provision of Internet and on-line services.

19. Despite the fact that OFTA has no intention to restrict the development of Internet access service, the definition of telecommunications services has created problems and confusion to providers. Since the raid on seven Internet access providers in March 1995, OFTA has clarified and elaborated several times its interpretation on the definition. Further clarification may be needed when more new services emerge. The interpretation of the definition is particularly controversial since it would determine if on-line service providers have to pay an additional telephone charge called interconnection charge.

I. Problems arising from the definition of telecommunications services

20. All on-line services employ the same technology involving computer processing applications and transmission over telephone lines. The types of services offered may include the following:

- electronic mail

- multi-user chatting
- teleconferencing
- World Wide Web³ with a variety of functions including information retrieval, file transfer and news-reading

21. OFTA stated the following three basic criteria for licensing in a statement in March 1995.

- whether there are physical telecommunications installations for the conveyance of messages for customers
- whether a customer of the service can make use of the service to communicate or exchange messages with another customer of the service, for example, through electronic mail
- whether the service is generally available to the public

22. Based on the above criteria, Internet access providers offering a wide range of services including information retrieval, electronic mail and access to the Internet or providers offering messaging services such as electronic data interchange, electronic mail and teleconferencing would need a licence.

23. For services which do not involve the conveyance of messages but only sell information via the telecommunications networks, they are not regarded as telecommunications services under the OFTA criteria. Providers of these services are classified as users of the public telecommunications networks that operate some other lines of business. They are not required to obtain a PNETS licence.

24. Hong Kong seems to be unique in drawing a distinction between the provision of pure information services and services which involve the conveyance of messages. None of the countries examined in this paper make such a distinction. The distinction has actually led to confusions and dissatisfaction among Internet access providers as detailed below.

Problems caused by distinction between information and messaging services

25. Since pure information services and messaging services receive different treatment under the existing regulatory framework, some service providers may choose to offer messaging services separately from the rest of the services they offer. In this way, they could avoid legislative constraints and reduce operating cost.

³ The World Wide Web uses a variety of computer techniques to present and link information dispersed across the Internet in a multi-media fashion and an easily accessible way. It enables users to explore network resources on the Internet by clicking on highlighted text or areas without the need to enter complicated commands. While it is being used on Internet, World Wide Web can be used to present and link information on any other computer networks.

The differences in treatment between messaging services and information services are as follows:

Function of service	Messaging	Information services
PNETS licence	Yes	No
Interconnection charge ⁴	Yes	No
Telephone lines identified by prefix 300 ⁵	Yes	No

26. The definition of telecommunications services using conveyance of messages as a determining factor is controversial and has led to confusion among service providers. The distinction between "messaging" and "information service" is also debatable. While Internet access providers had been cited by OFTA as an example for licensing, it was unclear if they would need the licence for all Internet services or just the part involving messaging. The confusion was shown by the fact that some Internet access providers used ordinary telephone lines instead of lines with prefix 300 in providing access to some area of services on the Internet such as the World Wide Web. They argued that access to the World Wide Web was a kind of information service and should not be subject to the interconnection charge.

27. OFTA made a ruling on 2 December 1995 that providing access to information and files not originating from the providers (e.g. information and files retrieved over the World Wide Web from databases located throughout the world) are subject to the interconnection charge. The rationale behind is that Internet access providers are basically operating as a node to convey messages between World Wide Web databases and the end-users, they are therefore operating a public telecommunications service and would need a PNETS licence and have to pay the interconnection charge.

28. OFTA elaborated that the only situation when an Internet access provider can be treated as disseminating its own information and does not need a PNETS licence is where the provider has repackaged the information over the World Wide Web into another service with a separate identity.

29. The fact that OFTA has to consider on-line services on a case-by-case basis to decide whether they should be regulated reflects the limitation of the existing definition. It will also cause a lot of confusion to providers and customers as there are more and more new on-line services involving computer processing applications and transmission over telephone lines.

⁴ An interconnection charge imposed by the Hong Kong Telephone Company on PNETS licensees. The charge is \$5.4 per hour.

⁵ The Hong Kong Telephone Company cannot levy the interconnection charge unless the providers use special telephone numbers identified with a prefix 300 to provide their service.

II. Interconnection charge on PNETS licensees

30. The Hong Kong government in regulating the dominant telephone operator, allows the Hong Kong Telephone Company (HKTC) to impose an interconnection charge on PNETS licensees in recognition of the heavy usage of their lines and to recover cost with a reasonable return. Internet and on-line service providers as PNETS licensees are subject to a monthly fee of \$69 and an interconnection charge at \$5.4 per hour per telephone line. This is substantially higher than the flat rate charge for business users at \$98 a month per line.

31. In the US and the UK, providers of Internet and on-line services are treated as any other business user and are not subject to differential charges. VAD service providers in the UK may even qualify for larger discounts because of their heavy usage.

Impact of interconnection charge on end-users

32. End-users in Hong Kong pay \$65 per month for a residential telephone line and \$98 per month for a business line. They do not need to pay any additional fee for using the line for talking to friends, sending fax or messages and retrieving information from private networks despite the fact that they may occupy the line for many hours a day. However, they have to pay on top of the regular rental while they are on the Internet even doing the same activities as sending electronic messages or fax because access providers pass on the interconnection charge partly or fully to them.

33. In the UK where local calls are charged by usage⁶, the same charge applies whether customers use a telephone line for talking, sending fax, messaging or retrieving information on the Internet.

34. In the US, end-users pay a flat fee for making unlimited local calls. The telephone charge remains the same whether end-users use the telephone for talking, sending fax, messaging in private network or messaging and retrieving information over the Internet. By comparing the Internet charges in Hong Kong (Table 1) and the US (Table 2), it is evident that end-users in the US would feel more freely to surf on the Internet than those in Hong Kong.

OFTA's review

35. OFTA recognises that the current legislative framework on interconnection charges may not be the most appropriate arrangement⁷ given that many new technologies e.g. Internet services have emerged and there are likely to be many more new services coming up in the near future. OFTA is conducting a review on the

⁶ For example, UK's largest telephone company, BT, charges one pence to 3.95 pence per minute depending on the time of day.

⁷ Paragraphs 32 and 33 on page 13 of the statement issued by OFTA on 2 December 1995.

level of the interconnection charge and how the charge should be levied. The entire review process is expected to be completed by April 1996. OFTA would propose legislative amendments if the review leads to any changes.

Concluding remarks

36. Internet and on-line services have become an inexpensive and efficient way of obtaining information and communication in the modern world. The growth of this means of communication would be inhibited if the provision of the services are tightly controlled and regulated. The policy in the western countries is that of deregulation and liberalisation. In Hong Kong, the licensing system is simple and not expensive and the government plans to further simplify it by introducing a class licensing system. However, the government has to improve its definition on the types of services that need to be licensed to avoid confusion.

37. The telephone charging system on providers of Internet and other on-line services should also be devised in such a way to ensure fair treatment to the service providers and to encourage the provision of services at more competitive rates. End-users would benefit if Internet and other on-line services are provided at reasonable charges. This would facilitate efficient communication and exchange of information between Hong Kong and other parts of the world.

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Table 1 Internet charges of selected Internet access providers in Hong Kong

Fee IAP	Monthly Charge	Hourly Charge	Set up / Registration Fee	Monthly Charge for 4-hour day	Remarks
Supernet	\$175 (including 7 off peak hours or 17.5 peak hours)	\$10 off peak \$25 peak	N.A.	\$1,200 off peak \$3,000 peak	Minimum charge \$175/month
Hong Kong Internet and Gateway Services	\$100	\$20	N.A.	\$2,500	Minimum charge \$100/month
Hong Kong Star Internet	\$168	\$5.4	N.A.	\$816	N.A.
Vision Network	\$150	\$9.4 off peak \$15.4 peak	N.A.	\$1,128 off peak \$1,848 peak	Minimum charge \$150/month
Asia Pacific CompuNet	\$168 (including 10 hours)	\$15	N.A.	\$1,818	N.A.

Source: Internet, address is <http://thelist.com/cgi-thelist/>

IAP = Internet access provider

N.A. = Not available

Table 2 Internet charges of selected Internet access providers in the United States

IAP \ Fee	Monthly Charge	Hourly Charge	Set up / Registration Fee	Monthly Charge for 4-hour day	Remarks
Tribune Internet Services	\$117 (unlimited access)	N.A.	N.A.	\$117	N.A.
AlbanyNet	\$234 (including 720 hours)	N.A.	N.A.	\$234	N.A.
Telebyte Northwest Internet Services	\$195 (including 120 hours)	\$11.7	\$273	\$195	N.A.
Global Telecommunication	\$273 (including 120 hours)	N.A.	N.A.	\$273	N.A.
Internet Online Services	\$226.2 (flat rate)	N.A.	N.A.	\$226.2	N.A.

Source: Internet, address is <http://thelist.com/cgi-thelist/>
 All charges are converted in Hong Kong dollars (US\$ 1 = HK\$7.8)
 IAP = Internet access provider
 N.A. = Not available

Reference:

Australia

Telecommunications Act 1991

The United Kingdom

Explanatory Guide to Self-provision Licence and the Telecommunication Services Licence by the Office of Telecommunications 1992

Telecommunications Act 1984

The United States

West's Federal Reporter on cases argued and determined in the United States Courts of Appeals and Temporary Emergency Court of Appeals, Volume 693 F.2d (1983)