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Ms Winnie C W Cheung  
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Dear Ms Cheung,

### **Inland Revenue (Amendment) (No.2) Bill 2001**

Thank you for your letter of 4 January 2002. I write to respond to the issues raised in your letter. The remaining areas of concern can be broadly categorised into two: security and legislation. I will address these two areas one by one in the following paragraphs.

#### **Security**

I am pleased to note that after our meeting on 21 December 2001, you and your members are now less concerned than before about the purely technical issues surrounding the proposed use of passwords for submitting tax returns electronically. Nonetheless, you provided us with some further comments on the system integrity aspects.

As noted by some LegCo Members at the Financial Affairs Panel meeting held on 7 January 2002, the level of system integrity required or desired in an IT system has to be determined having due regard to the risk involved. With respect to the proposed system for the filing of a return under the Electronic Service Delivery (ESD) Scheme by using a password, you may wish to note that the Information Technology Services Department (ITSD) has carefully studied and endorsed the security of this proposal. ITSD's conclusion was that such system will attain a high level of security in the transmission of tax data by meeting the "strong encryption" requirements and protecting the session key against third party access, and that the security level of the system is the same as in the case of digital certificate.

As a matter of fact, the use of a password is widely adopted in the internet especially for most internet banking services. The design of the ESD system to use passwords for authentication and signature would adopt similar security standard as in the commercial sector for e-commerce and internet banking services. As you are well aware, internet filing with the use of a password has also been implemented in

other tax jurisdictions such as the United States, Canada and Singapore for quite some time already.

In exploring the feasibility of launching the telefiling service, IRD has sent representatives to other tax administrations, such as Australia, Singapore and Canada to study their experience in this regard. Telefiling has been adopted by most of these countries for quite a number of years now and the service was well-received by taxpayers in these countries. Recently, the department had an exchange with the representatives of the Electronic Tax Administration Division of the U.S. Internal Revenue Service on the delivery of tax-related services using electronic means. In the light of other countries' experience, we believe that transmitting tax return data through telephone network is unlikely to pose a security concern.

All in all, we consider that the level of system integrity required or desired has to be determined having due regard to the risk involved. For the purpose of filing tax returns, the security offered by a password is, in our view, fully commensurate with the risk associated with that operation.

As a related issue, in the system design, we have provided facility for taxpayers to select his own password and that we will soon launch an Interactive Tax Enquiry Service which will be accessible through the use of the same password. Hence, taxpayers can make use of his password more than once in a year. The alleged problem of the password being vulnerable to abuse which is grounded on the premise that a taxpayer is likely to write down his password, may be overstated. Having said that, I agree that taxpayers should be well-alerted of their potential obligations and liabilities on the use of passwords. To help achieve this, we will stipulate in clear layman terms the legal consequences of using passwords in the Terms and Conditions for Use of Password, and urge taxpayers to keep their passwords in strict confidence. Taxpayers have an obligation to ensure that the security of their passwords is not compromised.

### **Legislation**

Turning to legislation, I noted that you have some concerns about the interface of the amendment Bill with the Electronic Transactions Ordinance (ETO), the lack of provisions in the amendment Bill prescribing the use of passwords, and some of the terminology used in the Bill.

### ***Interface with ETO and statutory support for the use of password***

The ETO was enacted to facilitate electronic transactions and drive e-business development by providing electronic records and digital signatures the same legal status as that of their paper-based counterparts. It is designed to provide a generic framework that can be applied to various legislation. However, there is scope for specific situations to be dealt with in the relevant ordinances in a self-contained manner. It is for this purpose that the ETO contains a provision (section 14) that if an ordinance accepts the electronic process and contains an express provision with specific requirements, procedures or other specifications for the purpose, then the ETO is not to be construed as affecting that express provision. In

other words, the ETO does not prevent other ordinances from providing for specific situations to facilitate electronic transactions and e-business.

Indeed, it is not our policy intent to put all legislative provisions concerning electronic transactions in the ETO, which may not be possible nor practical. For this reason, there are efforts by individual bureaux to make self-contained legislation to cater for specific circumstances and operation where necessary. For instance, the Import and Export (Electronic Transactions) Bill 2001 is intended to provide legal backing for the electronic submission of cargo manifests, and remove the requirement that the security device (i.e. the authentication apparatus) must be issued by Tradelink so as to allow for flexibility. The foci of our Inland Revenue (Amendment) (No. 2) Bill 2001 are to provide an alternative to the mode of authentication in satisfying the signature requirement in filing tax returns and provide the necessary legislative backing for the use of passwords in filing tax returns electronically. Both Bills contain specific provisions to cater for electronic processing in specific situations and, as provided for in section 14 of the ETO, the ETO is not to be construed as affecting those specific provisions. They are thus consistent with the policy intent and spirit of the ETO. The Dutiable Commodities (Amendment) Ordinance 2001 is another case in point. The Information Technology and Broadcasting Bureau (ITBB), which is the policy bureau for the promotion of e-business in Hong Kong and for the operation of the ETO, supports the amendment proposals in order to drive the development of E-government in Hong Kong.

We consider that the legislative provisions enabling the use of passwords should best be placed in the Inland Revenue Ordinance rather than the ETO. This is because the Administration reckons that the level of security offered by using a password to file tax return through the ESD platform is commensurate with the risk of filing tax returns and thus contemplates to introduce the use of password in the context of filing tax returns, and not in other electronic government service applications, for the time being.

As to whether or not the use of passwords should be widely adopted in other electronic processes, the ITBB will look into this general policy. The Bureau will consult the public on the issue shortly in the context of the coming ETO review.

### ***Terminology used in the Bill***

On terminology, you have made three specific suggestions. These suggestions are to (a) replace “any other signing device” by “any other means of authentication” and “affixed” by “used to authenticate” in new section 51AA(6)(b); (b) substitute “approved by the Commissioner” with “conforming to requirements prescribed by the Commissioner” in the definition of “password”; and (c) remove “any other signing device”.

Regarding (a), we do not consider it advisable to adopt your proposed wording. We have carefully examined the functions performed by traditional hand-written signatures in the existing legislation. We found that hand-written signatures have the following functions:

- (i) to identify a person;
- (ii) to provide certainty as to the personal involvement of that person in the act of signing;
- (iii) to authenticate the content of a document; and
- (iv) to associate that person with the content of a document.

Insofar as filing tax returns under the Inland Revenue Ordinance is concerned, hand-written signatures are required to fulfill all the above functions. For enforcement purpose, all tax returns, irrespective of the form in which they are furnished, must bear a signature and that in the Inland Revenue (Amendment) (No.2) Bill, we are accepting passwords as a signature, and passwords should perform similar functions as hand-written signatures. Since your proposed amendment only deals with one of the four aspects (i.e. authentication), we do not consider it appropriate and adequate to cater for tax return filing.

We understand that the very purpose of replacing our proposed terminology of “affixed” is to restrict the use of password for authentication purpose only. However, our policy intention of this amendment Bill is to accept passwords as a form of signature for return filing purposes. A tax return, which is specified by the Board of Inland Revenue, invariably requires the taxpayer’s signature. In such circumstances, we need to make sure that the signature (in the form of a password) is added to the return and furnished together with the tax return. In this regard, section 51(5) of the Inland Revenue Ordinance provides, among others, that any person signing any return shall be deemed to be cognizant of all matters therein. Therefore, the signing of a return is the very basis for our enforcement action. Mere authentication is not sufficient for the purpose. To achieve our policy intention and fulfill the functions mentioned above, we consider it appropriate to retain the word “affix”.

On (b), you suggested that the Commissioner should focus on approving and specifying the policies and standards to which passwords should conform instead of approving the passwords. I wish to point out that the setting up of a “password” does not only involve the selection of a 6-digit number by a taxpayer that “conforms to requirements prescribed by the Commissioner”. In fact, the following processes are involved:

- (i) verification of taxpayer’s identification number;
- (ii) selection of a 6-digit number by the taxpayer that conforms to prescribed requirements;
- (iii) transmission of the selected number to the IRD’s computer system;
- (iv) validation checks of the selected number by IRD’s computer system; and
- (v) recording of the selected number in IRD’s computer system.

It is thus clear that the selected number, apart from conforming to prescribed requirements, must be successfully transmitted, verified, validated and recorded in the Inland Revenue Department's computer system before it constitutes a "password". The suggested wording will only cover one of these processes ((ii) refers) and is therefore inadequate.

In fact, similar definitions of the word "password" in other jurisdictions also require the identification means to be approved by the Commissioner, e.g. the "electronic signature" and "telephone signature" in the Australian Income Tax Assessment Act 1997. It appears that such definitions have served well over all these years.

With respect to (c), the Society commented that the undefined term of "any other signing device" adds uncertainty to the security of the system. I wish to explain the rationale for including these words in the present amendment Bill. The purpose of so doing is to obviate the need to bother the Legislative Council with further technical amendment to the Inland Revenue Ordinance because of future development in technology that allows us to adopt yet another means of signing which also attains the same level of security as electronic signatures and passwords. Nevertheless, in view of the concerns expressed, the Administration has reviewed its position and is prepared to move a Committee Stage Amendment to delete these words from the Bill.

I hope the preceding paragraphs have set out clearly the Government's position on the issues raised in your letter. Last but not the least, thank you very much for your and your colleagues' valuable comments.

Yours sincerely,

(Mrs LAU MAK Yee-ming, Alice)  
Commissioner of Inland Revenue

c.c. Chairman & Members of  
LegCo Panel on Financial Services

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