ELECTRONIC COMMERCE: THE CHALLENGES TO TAX AUTHORITIES AND TAXPAYERS

An Informal Round Table Discussion

between

Business and Government

DISCUSSION PAPER PROVIDED BY MR. R. N. MATTSON, CHIEF TAX OFFICER, INTERNATIONAL BUSINESS MACHINES CORPORATION, UNITED STATES

Note: Mr. Mattson has subsequently left IBM and has joined a leading International accountancy firm.

For technical reasons, an accompanying diagram, of the operation of the SET protocol has been omitted.
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"DEMYSTIFYING TAXATION OF GLOBAL ELECTRONIC COMMERCE: LETS GET ON WITH THE BUSINESS OF [e-BUSINESS]"
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Concerns over the loss of tax revenue have resulted in academic papers describing a world where the leading designers, engineers, architects and other professionals with highly developed skills and possessing intellectual property reside in tax havens such as Guyana and Bermuda. Under this hypothesis the developed world's residents will mainly be consumers whose financial resources would be located in Caribbean sheltered bank accounts.

Manufacturing plants in this scenario would be relocated to South East Asia's less developed areas and possibly some of the more struggling Eastern European countries. All business decisions would then start with the tax consequences as the key determinant. Personal residence and lifestyle decisions of the highly talented professional class would be focused on tax considerations. All of this driven by a new technology known as “e-Business”.

It's time to rid our discussions of the extreme, highly unlikely scenarios which presumably cause sleepless nights for the tax administrator. Rather our deliberations should use normal, real world patterns of behavior and commerce to examine the important question of taxation surrounding the operation of the internet in a global electronic commercial world, which most likely will dominate the way business is conducted in the early decades of the 21st Century.

One of the great difficulties our generation is having deciding these questions, is unfamiliarity with the medium. We are unprepared for the uncertainty of this new technology and this raises the nightmare scenario. We need time to reflect, to understand. We need to go slow and avoid adopting new rules on false premises. We need less heady times and more experience before we make any decisions. Current tax policies, rules and administrative practices are more than adequate to deal with e-Business at this time in its infancy.

Probably the most significant error of current thinking about the internet, is that it allows consumers and merchants to avoid intermediaries, e.g., credit card verification. It is assumed that the internet is borderless and ungoverned, and consumers and businesses may use Cyberspace as a vehicle for tax avoidance. It’s been suggested that audit trails will disappear in Cyberspace or that it will become impossible to verify the parties to a particular transaction.

These concerns are overstated. In order for electronic commerce to flourish -- both on a business-to-business and business-to-consumer basis -- it is essential to establish “trust” between the participants in a transaction.

Industry is seeking to ensure consumer confidence in network-based transactions and protect legal rights. Considerable effort has already been devoted to developing technologies such as digital signatures that can be used to document the particulars of a transaction, as well as verify the identity of the participants. The recently developed Secure Electronic Transaction protocols for

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1 “Tax and the Web: New Technology, Old Problems” Horner and Owens, OECD.


2 “The Tax Man Cometh to Cyberspace”, Owens, OECD.
processing credit card transactions over the net is an example of an industry-driven technology solution that also will be useful in ensuring that tax audit and compliance processes will be routine.

THE “e-BUSINESS” PROCESSING CYCLE

A number of assertions have been made about internet technology and e-Business which raises the specter of withering governmental tax bases. Some of these positions do not take into account new technological developments. For example, some argue that:

- Traditional tax enforcement audit trails will disappear in Cyberspace;
- There will be no verification of the identity of parties to the transactions;
- Obtaining acceptable documents of proof will become difficult, and
- Tax haven, offshore banking will become prominent.

Merchants must be able to accept a variety of payment methods with the assurance that the transaction is secure and valid. The funds must transfer from the consumer to the merchant’s banking institution. At the same time, customers must feel comfortable using their credit cards, electronic money, etc. online.

The solution for this exploding e-Business will take the form of software packages running over faster computer equipment, e.g. host servers and routers. Secure Electronic Transaction (SET) protocols solve this need. SET, jointly developed by Visa and Mastercard, is the industry standard for secure electronic transactions. It is an open multiparty solution for conducting secure bank card and debit card payments over the internet. SET provides message integrity, authentication of all financial data and encryption of sensitive information. Under SET, solution payment processors interact with payers (customers) and payees (merchants). The financial institution processing the payment uses software that decrypts the sensitive information and manages transaction settlement for the merchant.

A pictorial representation of the SET processing cycle is attached. It portrays a group of IBM products currently on the market. Other vendors have similar products.

“CommercePoint e Tell” acts as the cash register for the Merchant on the internet. The “e Tell” handles the necessary authorization requests and recording of the transaction in the merchant’s database. It manages all aspects of the payment process from communicating with the consumer to handling drafts with the merchant’s bank which has installed “CommercePoint Gateway” as its communication software solution. This software provides cryptographic functions and serves as a gateway to existing credit card clearing and authorization networks. It also protects the customer because the merchant’s identity is verified. Also, “e Tell” processes digital certificate authority from the company (Visa, Mastercard, etc.) authenticating the parties using a “Registry” software solutions package. It provides certificates of authority (CAs) to ensure the security of using payment cards over the internet.

The “CommercePoint Wallet” software package located on the customer’s computer enables viewing accounts and records the authorization certificate. This certificate is a digital credential attesting to the identity of the customer by a trusted authority, which is unlikely to be a tax haven bank. Once entered on to the software, the customer may safely order electronically through the Web by using a client browser. At the completion of the transaction, a printable receipt displays the acknowledgment of the Merchant.
The “e Tell” software works with server equipment on which the Merchant’s Web Page is located, displaying the merchandise or services for sale. All of these applications interface with the Merchant’s existing customer and transaction data bases which are currently subject to tax audits.

The audit trail for an internet merchant should be potentially easier to follow than for a mail order retailer because the internet infrastructure (hardware and software) provides:

- Digital certificate verification of the parties to the transaction and
- Log files of the transaction.

Verification of the identity of the parties by the “Registry” will be necessary in order to have an orderly market. Trust by the parties as to the authenticity of the other parties in the transaction will be required for large volumes of transaction to occur. The system will be self-policing as the consumer will base his/her trust in the “Registry” to validate the Merchant. e-Business requires legitimacy and trust to be successful and this should provide comfort to the tax administrator that the reliable documentation will be available for the audit. e-Business requires a “trust” infrastructure!

**AN “E-BUSINESS” APPLICATION**

An example of this application is its use by the largest department chain in Europe, German-based Karstadt, with stores in 51 countries worldwide and sales of nearly twenty billion dollars. Four million internet users currently frequent Karstadt’s Web site.

Karstadt teamed up with Commerzbank Euro Card and Europay International to offer the complete SET solution. Karstadt is also able to offer Visa card owners the ability to conduct secure online transactions at Karstadt’s virtual shopping mail.

This is an early application of e-Business. The first SET-based cross-border transaction took place on April 17, 1997 when an airline ticket was ordered over the internet. Europay served as the intermediary, issuing digital certificates and handling the international payments. Let’s not miss the significance of the fact that this conference is being held only seven months and one day after this initial international secured e-Business transaction occurred.

**CONCLUSION**

It is the purpose of this paper to provide a real-world example of how large volumes of e-Business will be conducted. At least in the start-up phase probably extending into the next Century almost all such commerce will be conducted in this manner.

The traditional international tax issues of source, residence and permanent establishment should continue to be verifiable in an internet e-Business world. Withholding tax enforcement, compliance with transfer pricing regimes and value-added tax liability should continue to raise the same questions tax administrators deal with in a physical commercial world. Traditional questions of who has authority to conclude contracts, whether a display of goods exception applies, is there sufficient presence for a fixed place of business and whether the services are auxiliary to the sale will still be the issues of the day. They are as solvable for electronic trading in an e-Business world as they are today³.

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