

Adaptive Technology:

A Foundation for Automating the Taxation of E-commerce

A proposal to the Advisory Commission on Electronic Commerce

| | |
|---|---|
| Executive Summary | 1 |
| Who Is Data Kinetics?..... | 1 |
| Background of the Solution | 1 |
| The Proposed Solution | 2 |
| Implementing the Proposed Solution..... | 5 |
| Role of Data Kinetics | 6 |
| Benefits of the Solution | 6 |
| The Taxpayer | 6 |
| The Merchant | 6 |
| The Tax Administration | 6 |
| The Body Politic | 6 |
| Response to Evaluation Criteria..... | 7 |

Contact Information:

Data Kinetics Ltd.
2460 Lancaster Rd.
Ottawa, ON K1B 4S5
Canada
Phone: 613-523-5500
Fax: 613-523-5533
Attention: William P. Olders or Al DeVito

Executive Summary

Data Kinetics Ltd. recognizes the very difficult political issues involved in the fair and equitable taxation of electronic commerce. Such issues can be resolved only in the political arena. However, resolution of these issues is hindered by the current system of collecting state and local sales and use taxes. A simpler system must be devised. In addition to its simplicity, the system must be one that can readily adapt to the dynamic taxation environment triggered by the rise of electronic commerce. Tax authorities have differing regulations and differing definitions of taxable transactions. And, jurisdictional issues compound the problem. Can a single system be created which will meet the needs of the various tax authorities yet not burden the Internet merchant, compromise the purchaser's privacy or impose new kinds of taxes? Can this system be delivered by multiple vendors? Our answer is an unequivocal 'YES'.

It is important to note the phrase "be created" in the question above. It implies that such a system does not exist today. We, as a global, interlocked economy, are entering new ground. The current system of taxing commerce is based on a hard won, yet well-developed international consensus which was created prior to the advent of electronic commerce. The firm establishment of a new international consensus on the proper taxation of electronic commerce will take years to come to pass. In the interim the taxation system must be able to adapt to a rapidly changing world. It must provide a mechanism whereby each tax authority can customize the collection system to meet its unique needs until – and, perhaps, even after – a new international consensus exists.

The system we are proposing is built upon a technology (referred to as adaptive technology) which can, in fact, be readily adapted by tax authorities to meet their changing requirements. We are proposing an Internet-based system that will not burden the merchant, compromise the buyer's privacy or impose new kinds of taxes. Conversely, the system *will* enable tax authorities to tailor the system to meet their individual needs, update tax rules in real time, quickly understand the impact of changes and verify compliance.

At the core of any solution proposed is the question of who is the primary operator(s) of the system. There are strong arguments that can be made for combining the clearing and payment technologies of the financial intermediaries with existing tax assessment and collection technologies. Equally strong arguments can be made for the use of trusted third parties. Whichever approach is selected, the tax administration is ultimately responsible for establishing objectives and for monitoring and managing the collection processes.

The job of the tax administration would be simplified and a better system built by the establishment of practical, realistic technical standards. Standards would promote competition and enable the integration with tax collection systems to begin almost immediately.

No matter the regulations, the jurisdiction or the products used, the system architecture we propose is inherently flexible without imposing limitations on how the various taxation agencies need to implement their tax structure. This paper describes a framework for the fair and equitable application of tax policy, customized to the needs of each tax authority.

Who Is Data Kinetics?

Since 1977, Data Kinetics Ltd., a Canadian corporation, has helped Fortune 1000 companies around the world improve their bottom line through more effective use of information technology. Our solutions combine software products, professional services and technical courseware. The company's focus is the creation of tools and the provision of services to help our clients build high performance table-driven solutions from the mainframe to the web. The company, which is ISO 9001 certified, is one of the leading software solution providers in Canada, having been a member of the Branham 100 since the survey's inception.

The tax collection solution we are proposing here is based on our work helping our clients build applications that are especially capable of mastering the conditions wrought by the increasing pace of change. Our largest market is the financial services industry, where our clients include such leaders as Citibank, Visa, American Express, MBNA, Travelers Insurance and Goldman Sachs. Our flagship product, tableBASE, is the leading table management system in the IBM mainframe arena.

The solution has been reviewed with several government agencies in Canada and presented to the Value Added Tax Working Party of the European Union and, in the United States, to the Federation of Tax Administrators. The feedback from these organizations has been extremely supportive.

Background of the Solution

We refer to the technology underlying our solution as being 'adaptive' because it enables the crafting of a solution that can be readily modified to meet changing conditions. The technology is neither new nor unique to Data Kinetics. It has been in use for decades. It has helped build IBM's MVS, the most powerful and adaptive computer operating system in existence. It has been the linchpin in many companies' use of information technology as a competitive weapon. The technology is quite simple in concept but requires considerable experience for successful implementation. It is based on the separation of business rules and processing logic. In some circles, it is known as rules-based or table-driven programming.

The world of tax administration is being roiled by the current technological revolution, while at the same time laws and policies are changing frequently. Change and its mastery is what adaptive technology is all about. A key advantage of the technology is its ability to place the change function directly in the hands of authorized users. Programmers are not needed

to make changes; the user can modify the system using his Internet browser. Thus, changes can be made as rapidly as conditions warrant.

What are some of the characteristics of adaptive technology as applied to the world of sales taxation? First, it is a solution that can be readily adapted to the needs of any sales tax administration because it can be tailored to recognize an authority's tax policy, language and stakeholders. Which translates into significant savings – lower costs to implement, deploy and operate the tax collection system.

It is important to point out that adaptive technology can do more than provide individual tax administrations with a method to ensure that e-commerce within their jurisdictions is being taxed and being taxed fairly. As listed below, the ramifications of this technology are enormous.

- A *single*, properly implemented, adaptive technology taxation application can meet the needs of *all* the taxation stakeholders (federal, state, city and other local governments).
- This *single* application can handle *all* non-income-based taxes (goods, services, use, consumption, occupancy, excise, retail, etc.).
- Tax administrations can monitor — in near real time — the results of policy changes and swiftly implement any necessary corrections.
- Adaptive technology enables variable taxation per product and even variable taxation per product per usage, if that were the goal of the tax administration.

There is nothing built into the system to prevent its use in the collection of sales and use taxes that apply to commerce beyond that conducted electronically. As use of the system becomes widespread in the world of e-commerce, it can be phased in to handle other forms of commerce, including that conducted at the retail level.

The Proposed Solution

Viewed from a 'macro' level, the system we are proposing is comprised of rule bases, which externalize the tax regulations and other system rules, and software components for the Internet merchant, the tax authority and, optionally, a financial intermediary.

The software components contain two types of functions:

- Functions that make the transaction happen from a sales tax point of view
- Administrative functions that the tax administration needs to do its job

In the first category, the software, the tax agent, will:

- Validate the parties to the transaction
- Identify the item, the tax jurisdiction and any exemptions

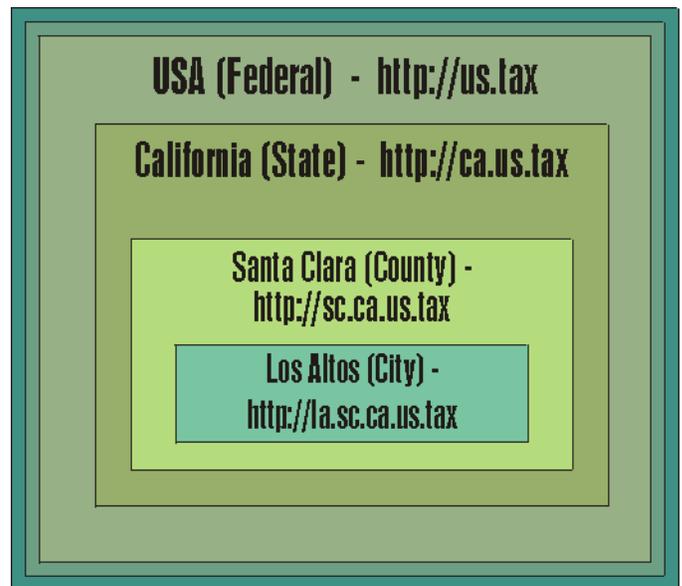
- Flag non-compliant transactions for further action by tax authorities
- Calculate taxes due
- Collect and remit taxes due
- Flag items for Customs' fast tracking
- Provide an audit trail
- Perform currency conversion and reporting
- Be sensitive to the language(s) of the merchant-customer interface

From an administrative point of view, the software will:

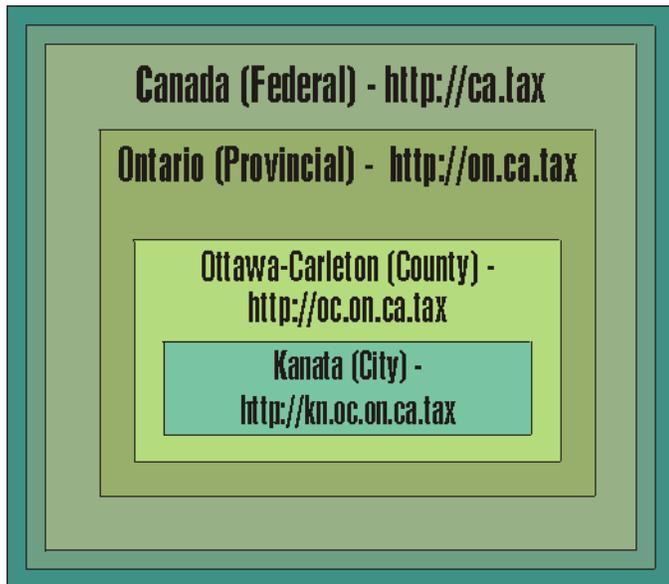
- Automatically replicate tax policy changes to the appropriate electronic agents
- Automatically generate control information to verify payment streams
- Verify compliance using remotely controlled sampling techniques
- Automatically distribute e-commerce protocols defined by tax authorities to alter payment streams
- Provide real time aggregated feedback

There are three primary rule bases that drive the system:

1. Hierarchical Jurisdiction – contains the rules applying to a particular tax jurisdiction. It is updated by the relevant, suitably authorized tax authorities using a web browser. Examples of the logical representation of the hierarchy are depicted below for both the United States and Canada.



Please note the use of a new Top Level Domain name "tax" depicted in the diagrams. This easily identifiable domain structure could form the basis of everyone's jurisdictional identification (merchant, taxpayer and tax administrator). The use of this form of jurisdictional identity for the taxpayer would address the privacy concerns that arise when using portions of the taxpayer's address or zip code information.



The hierarchical nature of the domain structure means that each level of tax authority can authorize 'subordinate' tax authorities; e.g., in the United States, the federal government can authorize states, states can authorize counties, counties authorize cities, etc. Rules established at a higher level are automatically inherited by a lower level if a particular jurisdiction is so inclined. For example, the city of Ogden may wish to use the same tax regulations as the state of Utah in all cases except for one particular product or service. It needs to specify the rules for just this particular product or service; it will inherit all the other rules that Utah uses.

The structure of the hierarchy provides for minimal input from a particular authority. The system would provide a series of templates for each of the different levels of tax authorities. Each particular government may also want its own customized template. This facilitates adding new states to countries, counties to states and cities to counties – simply prepare a template and use it as the basis for further customization.

Some rules would be specified as being not modifiable. The template is merely a convenience, so that the 30,000 tax authorities in North America can be brought up to speed quickly. Each tax authority could establish one or more templates for subordinate tax authorities. The subordinate tax authorities, working from rules copied from the template that they choose, would be free to select and/or alter their own tax rules as they see fit.

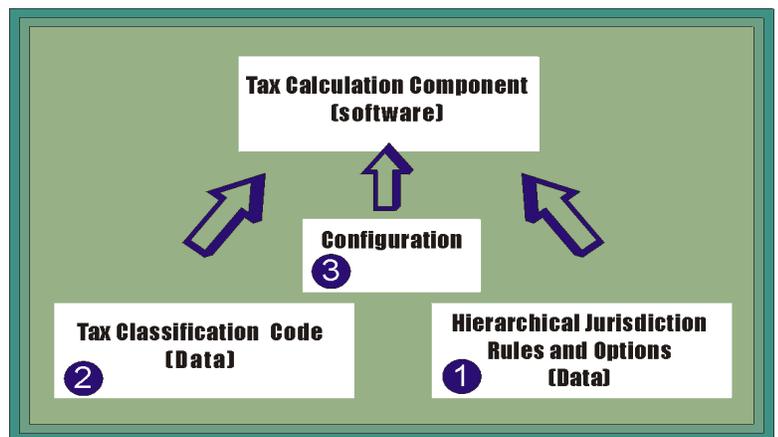
The template approach would fit well with the VAT system of the European Union where each country administers its own sales tax within the framework of a common legal base and common operating procedures but with some local variations. The E.U. is currently engaged in enlargement negotiations with a number of countries in central and eastern Europe who are in the process of adapting their tax systems to the European model.

2. Tax Classification Code – contains entries that uniquely identify a product/service (or class of product/service) for tax purposes. This may be based on the Harmonized Tariff Schedules proposed by the US International Trade Commission, the United Nations Product and Service Classification or any other suitable scheme.
3. Configuration – contains the rules by which a particular tax authority has customized the system (test modes, connectivity information, tax funds clearing, auditability criteria, etc.). One of the rules could relate to whether the tax administration wishes to make the merchant's compliance with the system optional or mandatory.

Note that since it is expected that tax authorities will be charged for the computing resources they consume, the system would supply a cost model populated with the authority's usage volumes, storage configuration and number of rules. This model would enable the authority to tailor its use of the system to maximize its net return.

Any one of these rule bases can be modified as conditions and rules change. These modifications can be made in real time over the Internet; at the option of the tax authority, they can be made effective immediately or the system can make them effective at a later time.

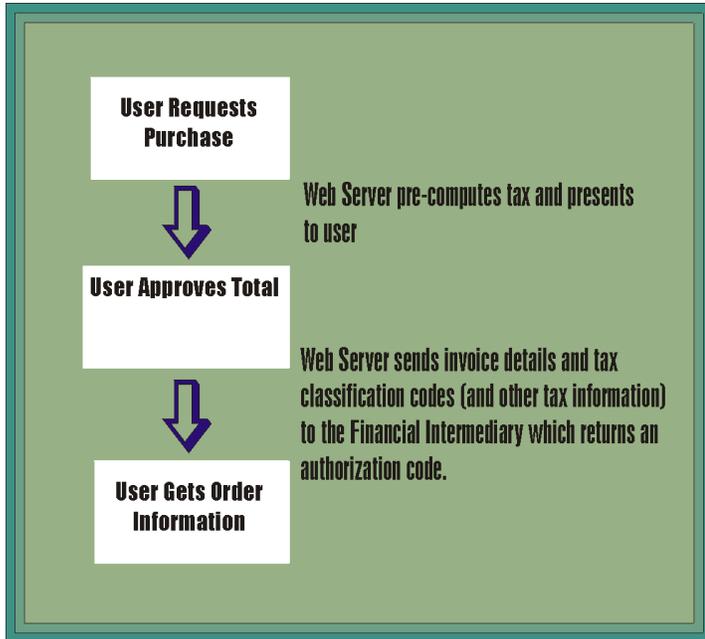
The schematic below shows how these rule bases relate to the tax calculation component.



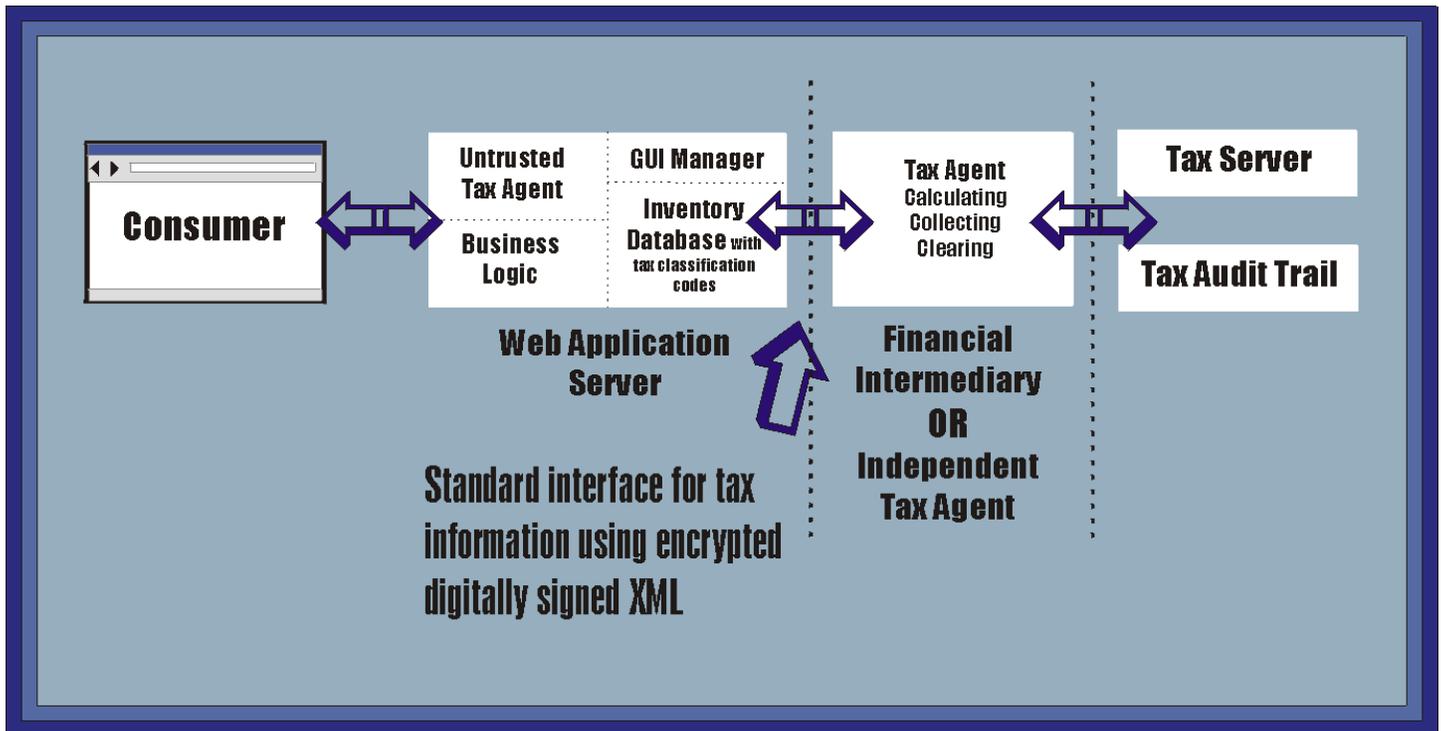
All the components – the rule bases and the software – can be revised independently and distributed over the Internet separately. Integrity is guaranteed by the use of 128-bit encryption, digital certificates and digital digests.

Note that we have not shown less important user interfaces dealing with product and merchant registration or screens depicting rule selection and creation, tax authority maintenance, etc. These will be discussed if the proposed solution is acceptable for presentation to the Advisory Commission.

Let's see how the system works when a consumer wishes to purchase something over the Internet.



Behind the scenes of this user interaction is a complete Internet computing environment shown below.



The merchant's application server contains the tax calculation component of the Tax Agent. While this is not mandatory, it reduces network delays prior to the consumer committing to the purchase, thus enhancing the purchasing experience. Once the consumer has approved the transaction (including sales

taxes), the financial intermediary or a trusted third party enters the picture. Note that the use of a financial intermediary is not mandatory for the success of the system; a suitably equipped and authorized third party could serve in its stead. However, reasons of economy, custom and convenience argue for the participation of a financial intermediary in the system. Since all Internet commerce passes through the computer network of a financial intermediary, it is the logical primary interface to the tax calculation, collection and clearing process.

The standard interface for the tax information transmittal between the web application server and the financial intermediary as well as that between the intermediary and the tax server uses encrypted, digitally signed XML. An example of this XML tax packet as well as further details of the solution can be found at <http://tax.dkl.com>.

The Tax Agent gets its instructions from the trusted Tax Server only if more information is required beyond that resident on the Tax Agent. The Tax Agent calculates and collects the tax and performs the necessary clearing functions. In addition to a formal acknowledgement of the tax due, a reference number that can be used for audit purposes will be passed back.

The Tax Server receives the audit information as well as control totals to verify the integrity of the system. The Tax

Server is also configured to aggregate commerce information. This wealth of data can be used by tax authorities for tax planning purposes.

Let's conclude our transaction by using an international example (Canadian Customer buying digital products from a USA based merchant and assuming nexus in Canada.) An examination of a typical invoice issued by World Digital Products at the end of an Internet shopping session will demonstrate additional features of the proposed system.

reducing the processing at the point of entry and in most cases avoiding the costs of a clearing agent. And, finally, the taxation jurisdiction is identified at the bottom of the invoice, on.ca representing Ontario, Canada.

| Item Number | Description | Price | Other Charges | Total Cost |
|---|---|-------|---|----------------|
| 1 | US Equities Market survey January 99 | 2.50 | Ontario Retail Sales Tax Exempt | 2.50 |
| 2 | Celine Dion - LET'S TALK ABOUT LOVE - mp3 | 10.99 | Canadian Copyright Board - Music Royalty 1.10 | 12.09 |
| 3 | Options Trading Seminar Lessons 9 - 17 | 90.00 | Ontario Education Learning Incentive -20% | 77.63 |
| | Trading Calculator Shipping charges | 5.63 | Customs FastTrac number - 78895432 | |
| Sub Total | | | | 92.22 |
| Ontario Retail Sales Tax (8%) | | | | 7.18 |
| Canadian GST (7%) | | | | 6.46 |
| Please remit the total amount: | | | | 105.86 |
| VISA: Payment accepted thank you | | | | -105.86 |
| Tax Audit Number: on.ca:8729572647 | | | Due: | 0.00 |

Item 1, the US Equities Market Survey, illustrates the use of an exemption by product type. In this case the survey was exempt from Ontario retail sales taxes; however, exemptions could be made for any other reason, such as the buyer having an exemption code of some type.

Item 2, shows how the system might handle situations involving an additional stakeholder, in this case the Canadian Copyright Board. The needs of all stakeholders, as embodied in agreements between parties, can be easily handled in the same manner.

Item 3, Options Trading Seminar, shows that the proposed solution could pay the merchant directly (the rules specifying the amount, the payer and the method of payment are defined in the system's rule bases) and, thus, lower the cost to the consumer while, at the same time, implementing a government incentive to further one's education. Note the "Customs FastTrac" number. It denotes that the calculator was supplied by a foreign merchant and has been pre-cleared by Customs,

Implementing the Proposed Solution

To be truly effective, the tax collection system must be based on generally accepted standards defining such issues as the Application Programming Interfaces, the processing rules and a hierarchical tax structure management schema. Standards are more likely to be accepted (and more useable and useful) when they have been tested in the real world. Our objective, then, is to rapidly develop a prototype system that can be vetted in the real world. This approach has worked quite well in the development of much of the software underlying the Internet. In fact, the motto of the IETF (Internet Engineering Task Force), "We believe in rough consensus and running code", highlights this approach.

We intend, then, to implement the solution in phases and obtain feedback and suggestions at each phase. A state or group of states can be solicited to join a pilot project. The project will be carried out in the following phases:

1. Gathering responses to this proposal and securing interest from appropriate parties.
2. Developing Release 0.1 which 'processes' transactions for some products and some jurisdictions; prepares an order form, calculates taxes. The financial intermediary is 'stubbed' out.
3. Developing Release 0.3 in which the tax authority component is built, sample items are bought, funds routed to the collection agency, some financial reporting available; preliminary standards specifications written.
4. Developing Release 0.5 in which the financial intermediary link is implemented, additional reporting is available
5. Developing Release 0.7 in which more products and jurisdictions are included.
6. Developing Release 0.9 in which final standards specifications are written; complete products and jurisdictions implemented.
7. Developing Release 1.0, the reference implementation. This is a relatively simple, straightforward implementation based on the agreed upon standards developed along the way. Commercial vendors would be encouraged to develop their own implementations, or to interface to the implementation of others.

We estimate that the elapsed time to complete phases 1 through 6 could be as short as one year. It is vital that the standards for the system interfaces and jurisdictional identification be agreed upon prior to development of Release 1.0.

Role of Data Kinetics

Data Kinetics sees its role in this implementation process as having three functions - a catalyst in launching the process, one of the players in creating the system and as a participant on the standards body.

Benefits of the Solution

We believe that the adaptive technology approach proposed herein is the foundation for a tax collection system that will benefit taxpayers, merchants, tax administrations and the body politic.

The Taxpayer

The taxpayer will see three primary benefits:

- Better value for his tax dollar - Tax administration becomes more efficient. Leakage is reduced, resulting in potentially lower cost of goods. Goods pass through Customs faster.

- Better information - The taxpayer and the tax administrator can readily learn which tax jurisdictions are receiving what amount for what products and services.
- Greater confidence that everyone is paying their fair share due to more universal compliance.

The Merchant

Fundamentally, the merchant saves money. He is relieved of a vast amount of paperwork and administration. He is immune from changes in tax policy as these are downloaded by the tax authorities and are implemented automatically by the software. The collection and payment of taxes is automated.

In sales tax jurisdictions where the merchant receives tax credits for sales made to entities other than end customers the application can greatly reduce the cost and effort of dealing with this 'reverse taxation'. The solution proposed will eliminate this burden from both the merchant and the tax administration by automatically accounting for such situations.

The merchant is better able to meet foreign competition, which hitherto may have been able to avoid sales taxes and thus offer a lower price to the consumer.

The Tax Administration

The ability of the tax application to adapt instantaneously means that tax policies can be updated and changes implemented at the press of a button. And, with the system's real time feedback loop, tax authorities would be able to see the effects of policy changes virtually instantly as well as effectively monitor the operation of the system — all the while reducing the paperwork burden and gathering information to help pinpoint tax "cheaters".

A properly designed and constructed system will reduce other burdens as well. Verifying compliance can be considerably more of an automated process, and, thus, less costly than at present. The system as proposed can handle taxes for all types of commerce, not merely e-commerce; there will not be a need to develop additional systems or re-develop existing systems to accommodate changing conditions.

Most importantly, each tax administration can readily tailor the system to meet *its* goals.

The Body Politic

The wealth of information that the system provides will enable a more knowledgeable consideration of proposed legislation. Tax policies can be devised based on accurate and up-to-date patterns of commerce. Legislatures would be made aware, very early in the life of a new policy, whether the policy is working as well as its effect on the tax base. Taxes could be targeted at specific items, for example, to improve the environment or the public health.

Response to Evaluation Criteria

Simplification

1. *How does this proposal fundamentally simplify the existing system of sales tax collection (Some examples may be: common definitions, single rate per state, clarification of nexus standards, and so forth)?*

This proposal does not address legal and political issues. It provides the basis for implementing whatever laws and regulations are established by a particular tax authority. No matter the regulations, the jurisdiction or the products used, the system architecture we propose is flexible without imposing limitations on how the various taxation agencies need to implement their tax structure. This paper describes a framework for the fair and equitable application of tax, customized to the needs of each tax authority in a hierarchy of tax authorities.

2. *How does this proposal define, distinguish, and propose to tax information, digital goods, and services provided electronically over the Internet?*

Information, digital goods and services provided electronically can be taxed using whatever definitions, distinctions or regulations a tax authority wishes to establish.

3. *How does this proposal protect against onerous and/or multiple audits?*

In our proposal, the nature of audits will change. Traditionally, a merchant's account is reviewed by one or several auditors each representing a particular jurisdiction. In the proposed solution, all that needs to be audited is whether the merchant's web server is properly instrumented with the merchant tax agent. This can be ascertained by querying the tax agent using a "Web crawler". Or, a digitally signed component could be built (using a digital digest) such that any tampering would render it non-functional. If the tax agent is deployed properly, then the responsibility for its correct functioning lies with the tax administration.

Audit logs are generated by the software tax collection agents. The nature of what is to be audited is directly controlled by the tax administration. Reports that query the logs are generated as requested for viewing and printing via a web browser. Monitoring functions that verify the correctness of the entire tax collection process are built into the application. Any anomaly or interruption in any part of the process is immediately brought to the attention of the responsible administration.

Taxation

4. *Does this proposal impose any taxes on Internet access or new taxes on Internet sales?*

This proposal does not impose any taxes on Internet access or new taxes on Internet sales. However, the system is flexible enough to provide for such taxes if a particular tax authority wishes.

5. *Does this proposal leave the net tax burden on consumers unchanged? (Does it impose an obligation to pay taxes where such an obligation does not exist today? Does it reduce or increase state and local telecommunication taxes? Does it reduce or increase taxes, licensing fees, or other charges on services designed or used for access to or use of the Internet?)*

This proposal does not change the net tax burden on consumers. It is likely that such a system will result in greater compliance with existing tax laws, lowering the net cost of tax collection. Such a lowering of costs could be used to reduce the net tax burden on consumers.

6. *Does the proposal impose any tax, licensing or reporting requirement, collection obligation or other obligation or fee on parties other than those with a physical presence in a particular state or political subdivision?*

The system proposed does not impose any obligation on any party including those with nexus in a particular jurisdiction. It is flexible enough to accommodate whatever rules of nexus are adopted by a particular tax authority.

7. *What features of the proposal will impact the revenue base of federal, state, and local governments?*

There will be no impact to the revenue base. The system will however lower the cost of tax administration and collection by federal, state and local governments. The revenue collected by states would likely increase as a result of greater compliance with current laws.

Burden on Sellers

8. *Does this proposal remove the financial, logistical, and administrative compliance burdens of sales and use tax collections from sellers? Does the proposal include any special provisions with respect to small, medium-sized, or start-up businesses?*

The system removes compliance burdens from sellers. Removed are a whole host of obstacles impeding sellers – the need to be current with changing tax regulations; periodic audits, in some cases by many different tax agencies; the filing of tax returns, in the case of AT&T this number is 50,000; etc. The cost of such removal is the integration of the seller's system with that of the new system. This cost could be subsidized by the government or the financial intermediary.

While there are no special provisions with respect to size or nature of business, the system's flexibility does not rule out including such provisions.

Discrimination

9. *Does the proposal treat purchasers of like products or services in as like a manner as possible through the implementation of a policy or system that does not discriminate on the basis of how people buy?*

The system does not discriminate on the basis of how people buy. However, it is flexible enough to do so should a particular tax authority adopt such a practice.

10. *Does the proposal discriminate against out-of-state or remote vendors or among different categories of such vendors?*

The system does not discriminate against out-of-state or remote vendors or among different categories of such vendors.

International

11. *How does this proposal affect U.S. global competitiveness and the ability of U.S. businesses to compete in a global marketplace?*

The system proposed herein will, if adopted, lower the costs of doing business for Internet merchants. No longer will organizations such as AT&T have to file 50,000 tax returns. Thus, U.S. businesses will become leaner and more competitive.

The major advantage, if adopted universally, is a leveling of the playing field. Currently, jurisdictions are losing tax revenue because their inhabitants flock to tax free buying opportunities.

Also, the costs of tax collection will decrease resulting in better uses of the taxpayer's dollars.

12. *Can this proposal be scaled to the international level?*

This system can be scaled to the international level. The entire workload of the tax administration application can be distributed; some performed locally, some at the financial intermediary, some at the tax authority. Since the architecture can accommodate intermediate data collection and rule distribution hubs in order to redistribute the transaction workload of the central computers, the application is highly scalable, i.e., it can easily and quickly grow so that the needs of the largest, as well as the smallest, tax authority can be readily met.

13. *How does this proposal conform to international tax systems, including those that are based on source rather than destination? Is this proposal harmonized with the tax systems of America's trading partners?*

The system's inherent flexibility presents no problems in conforming with international tax systems nor in being harmonized with tax systems of other nations. The proposed system meets all of the requirements for developing international tax systems which have been set out in the work of the OECD (Organization for Economic Cooperation and Development).

Technology

14. *Is the proposal technologically feasible utilizing widely available software to enable tax collection? If so, what are the initial costs and the costs for required updates, and who is to bear those costs?*

The solution is technologically feasible because it is built as an application using existing hardware and software infrastructure. The underlying software products are available on commonly available hardware from IBM mainframes to UNIX and Windows NT platforms.

The initial costs include two elements - the building of the system and its deployment. We have not performed a detailed analysis of the building costs; however, our current estimate is that they will be under \$5,000,000 US. Although we cannot estimate the deployment costs at this time, it is clear there will be small incremental costs for the increased usage of data base software residing on the computers of the financial intermediaries or third party independent tax agents. The taxation components residing on the merchants' and financial intermediaries' computers contain only one additional component: a rules processing engine (the typical license fee for this is about 20% of the cost of data base software). If the computers of either the financial intermediary or tax administration are not available for this system, additional computing power will have to be acquired.

The ongoing maintenance of the system consists primarily of keeping abreast of technological innovation. Virtually all enterprise software license agreements have a 15 - 20 percent annual maintenance fee for this purpose. All the revenue agencies that manage their portion of the system have the responsibility of populating and updating their own taxation rules using existing infrastructure.

The cost for the building of the application should be borne by revenue agencies and apportioned to the population they serve. The deployment and maintenance costs should be apportioned to the revenue agencies according to usage.

Privacy

15. Does the proposal protect the privacy of purchasers?

The tax software requires only jurisdictional information from the customer. The Hierarchical Jurisdiction Rule Base contains the rules to convert the customer's address into a 'Jurisdictional Id' to identify the tax district(s) involved in this transaction. There is no need to transmit to the tax authority any customer information even if the tax agent is required to verify a consumer based tax exemption code.

Sovereignty/Local Government Autonomy

16. Does this proposal respect the sovereignty of states and Native Americans?

This proposal respects the sovereignty of states and Native Americans.

17. How does this proposal treat local governments' autonomy and their ability to raise a greater or lesser amount of revenues depending on the needs and desires of their citizens?

This proposal grants local governments the ability to tailor their tax policy in any way they wish to meet the needs and desires of their citizens. In addition, this proposal gives the governments through their tax authorities the necessary data to make informed taxation decisions.

Constitutional

18. Is the proposal constitutional?

Without seeking a legal opinion, we see no reason to doubt the constitutionality of our proposal. However, it should be pointed out that we are proposing a system to implement policies and regulations promulgated by established tax authorities. We are not proposing the policies and regulations themselves.