International Taxation of Internet Commerce:
Issues in Sourcing and Jurisdiction

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History and Explanation of the Internet

When our country was in the midst of the Cold War, it seemed as if the 40 year political stand-off would bring few positive results. What we didn’t know then was that the global arms build-up provided the military with motivation for technological innovation. With necessity as the mother of invention, new ideas were needed for the United States to maintain a perception of military strength to the Communist World. The idea of a Star Wars system was conceived in the 1960’s and was later touted by the Reagan Administration as our means of deflecting enemy attack. But if a missile were to penetrate the Star Wars system, our national defense and communication systems would be knocked out. Said simply, points A & C needed to preserve a way to communicate if point B was destroyed. With this in mind “the U.S. government in conjunction with contractors and universities established a decentralized network among defense agencies and strategic command posts, so that our defense and communication systems would remain functional under nuclear attack.”¹ The multiple communication lines

were structured like a spiders web in lieu of the standard hub and spoke system\(^2\). The Internet was born.

The National Science Foundation quickly adopted this technology and found that it allowed users to transfer and share resources nationwide in ways never seen before. The network began to grow and in 1989, the Internet Society opened access to any users who agreed to abide by its guidelines.\(^3\) Today the Internet is open for use by all. Originally, the Internet had only displayed text and it was difficult to locate other organizations. But with the formation of the World Wide Web, the net became user-friendly and has enabled users to blend text with images, video and audio. What started as a government experiment has grown to become a global tool for communication, finding information and conducting business worldwide.

The Internet has no central, worldwide technical controlling point\(^4\). It is a global collection of millions of separate, freestanding computers and computer networks linked together by numerous combinations of cables and telephone lines.\(^5\) These computers belong to individual

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users, corporations, universities and a other various organizations. In essence, the Internet is a network of networks.

Ironically, the security measures created for transferring information via the original government Internet has enhanced the safety for users who provide business and personal account information online. Information is transferred on the Web via a method using TCP/IP (Transmission Protocol/Internet Protocol), a protocol (computer language) agreed upon over 20 years ago. When transferred, the data is broken down into packets and randomly transmitted to an assigned destination address where it is reassembled using the same protocol. (See Illustrations 1-3). Security breaches today occur predominantly at locations where complete data is stored, i.e. AOL, E-trade, etc., but not from the intercepting of packets containing only some of the information in encrypted form during the transfer process.

**Introduction to International Taxation of E-Commerce**

Our economy has become increasingly global and the Internet has enhanced this growth. “Recent estimates suggest that global business-to-business e-commerce will
reach $1.3 trillion by the year 2003."⁶ Traditional markets are disappearing. The use of E-commerce as a means of conducting business globally raises numerous international tax issues.⁷ These issues relate primarily to sourcing and characterizing electronic commerce income.

Government agencies worldwide have stressed the importance of resolving these characterization issues but have been challenged by the difficulty of classifying the multiple new types of intangible products and services downloaded and disseminated online.⁸ The tax systems of the Industrial Age were designed to tax the profits from buying and selling of tangible goods. Transactions that used to involve a physical exchange of goods are now often executed by a digital exchange of information. It has become commonplace for online consumers to download software, books, and information. Physical products are becoming a diminishing fraction of the “new economy” as intangibles, services and information have replaced traditional products in online communities.⁹

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By instinct, practitioners have often looked to the state and local arena as a microcosm and for examples of how to characterize and tax global e-commerce activity. However, the cases which provide the foundation for multi-jurisdictional analysis in State & Local Taxation of E-Commerce do not resolve the issues faced in the International area. For instance, in *National Bellas Hess*\(^9\), a company which merely sent flyers via common carrier into the state was deemed not to have triggered nexus with the jurisdiction. In *Quill Corp.*\(^{11}\), the court held that out of state retailers must have a physical presence in order to generate the "substantial nexus" needed to be responsible to collect and remit sales tax obligations for the jurisdiction. However, the Internet often provides global customers with more product information than a nexus generating sales presence created in *National Bellas Hess* without triggering the physical presence required in *Quill*. "An Internet site would no doubt be able to provide customers with substantially more information on a product than could ever have been offered previously without physical presence in the pre-Internet

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\(^{10}\) *National Bellas Hess Inc. v. Illinois Dept. of Rev.*, 386 U.S. 753 (1967)

\(^{11}\) *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992)
era.” The Public Law exception (P.L. 86-272) which provides that mere solicitation would not create Nexus could not apply to the Internet. A Web Site is visible to solicit sales on any computer and in any jurisdiction. In fact, even state governments have had difficulty categorizing Internet transactions in that they often provide differing treatment for the same product when sold in tangible vs. intangible form.

**Explanation of the International Tax System**

Nearly every country provides a manner for taxing foreign residents or its own residents doing business abroad. The most equitable policies attempt to obtain tax neutrality. In layman’s terms, neutrality principles dictate that whether you pay Country A (foreign country) or Country B (resident country), the total tax paid should be the same and should not offer an inherent incentive to shift income to any one jurisdiction over the other.

The basis under which a government operates usually favors either Nationality or Territoriality. Nationality operates under principles similar to those employed in

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13 “In the United States, the retail sales tax generally applies to tangible goods, but not to intangible goods or services. Downloaded MP3 (music files) are exempt from sales tax in many states, but the same music
state and local “incorporation” statutes. Under this doctrine, it would be appropriate to source the income to where the corporation was established since it is where the organization may utilize the protection of the courts. In an International context, “U.S. corporations, regardless of their physical presence in the United States, enjoy the benefits of U.S. laws that define corporate relationships.”

Nationality is an example of Residence-based jurisdiction.

If a nation operates under the alternate basis, Territoriality, it functions in a manner similar to state and local “doing business” statutes. Essentially, “A Territorial connection justifies the exercise of a taxing jurisdiction because a taxpayer can be expected to share the costs of running the country which makes possible the production of income.” Territoriality is an example of source jurisdiction. In essence, under the concept of Territoriality, a corporation’s income is taxed where earned.

When conducting business globally, there is “the potential for double taxation when conflicting

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15 ibid. pg. 8
Conflicts emerge when countries differ on how residency is determined or as to what constitutes “doing business” in a particular jurisdiction. The Internet has created particularly onerous. Countries have different understandings of the types of online activities that generate nexus or constitute a physical presence. Moreover, the lack of a central location also makes source jurisdiction determinations difficult because the Internet is everywhere.

One of the keys to avoiding double taxation is to clearly establish where legal residency exists. In a domestic context, the residence of a corporation is generally determined either by reference to its place of incorporation or its place of management. The place-of-incorporation test is the simplest method of determining residence. This test resembles the Nationality principles mentioned earlier. The place-of-management test not absolute. It involves a determination of “where” management was carried out and can easily be changed for

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16 ibid. pg. 9
19 ibid.
tax avoidance reasons. This resembles the Territoriality principles mentioned earlier.

“While many domestic laws govern international transactions and provide unilateral relief from juridical double taxation, these unilateral efforts do not always eliminate jurisdictional overlaps.”

Treaties were established to resolve these conflicts. They are often the basis for determining taxability between trading countries and serve several functions. In terms of hierarchy, treaties are given the same effect as acts of Congress.

Treaties are negotiated by the Executive branch of the government and are often based upon model treaties designed by the UN (United Nations) and the OECD. The OECD (Organization of Economic and Cooperation and Development) is a Paris based organization of 28 industrialized countries which coordinates member state’s economic policy strategies. Differences exist between the UN and OECD

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21 ibid. pg 104.
22 “The most important operational objective of bilateral treaties is the elimination of double taxation. Tax treaties also contain tie-breaker rules to make a taxpayer who is otherwise a resident in both countries a resident in only one of the countries. They also limit or eliminate the source country tax on certain types of income and require residence countries to provide relief for source country taxes either by way of a foreign tax credit or an exemption for the foreign-source income.” Brian J. Arnold & Michael J. McIntyre, *International Tax Primer*, (Kluwer Law International) (1995), page 91
23 In 1988, the Technical and Miscellaneous Reconciliation Act (TAMRA) amended I.R.C. Section 7852(d)(1) to indicate that “neither the treaty nor the law shall have preferential status by its being treaty or law.” According to I.R.C. Section 894(a)(1) however, the domestic statute applies when no treaty exists. “The provisions of this title shall be applied to any taxpayer with due regard to any treaty obligation of the United States which applies to such taxpayer.” Section 894(a)(1) of the Internal Revenue Code of 1986 as Amended
model. “The OECD Model Treaty favors capital exporting countries over capital importing countries.”

“The UN Model treaty allocates somewhat greater power to the source country to tax the business income of nonresidents.” In essence, the UN treaty contains a lower threshold before taxation can occur.

**Jurisdiction to Tax – Different Source Rules**

With an understanding of the potential implications that the Internet could eventually bring to International Taxation, the U.S. Treasury issued a White Paper in 1996 to discuss jurisdiction, classification of income and tax administration issues. The Paper was intended to foster further discussion for the tax policy implications of global electronic commerce. The Paper argues that “a move away from source-based taxation and toward residence-based taxation is both advisable and inevitable.”

The Treasury maintained that it is difficult to apply traditional source concepts to link an item of electronic commerce income with a specific geographic location. The most important item stressed by the Treasury was the intent to maintain neutrality between conventional and electronic commerce.

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25 ibid at pg 95.
Another goal for the U.S. government (and the OECD) is to promote the flow of electronic commerce without creating a tax haven.\footnote{CCH Tax Day, \textit{E-Commerce Should Not Become a Tax Haven}, July 11, 2000, \url{http://www.tax.cch.com}} The Treasury Secretary indicated in the White Paper that “tax rules and tax administrations should be neutral and nondiscriminatory between e-commerce and non-Internet transactions.”\footnote{ibid.} The Paper also acknowledged the difficulty that will be faced by attempting to enforce the “trade or business” standard of inbound taxation. Other potential administration difficulties such as the enforcement of “digital cash” transactions were also discussed. The Paper raised many issues still debated today – the most heated being whether a web server constitutes a permanent establishment. Although only created to raise issues, the White Paper has had an impact on state government and OECD discussions in this area.\footnote{See Karl Frieden – Arthur Andersen, \textit{Cybertaxation: The Taxation of E-Commerce}, (Commerce Clearing House) (2000) page 442}

In outlining its goal for neutrality, the White Paper indicated that no new discriminatory taxes should be made. In compliance with this request, Congress issued a Moratorium upon any new Internet access charges.\footnote{1998 Internet Tax Freedom Act} This has been confusingly interpreted by many to be an abatement of

\footnotesize{\begin{itemize}
\item \textit{Selected Tax Policy Implications of Global E-Commerce}, Department of the Treasury Office of Tax Policy, November 21, 1996
\item \textit{CCH Tax Day, E-Commerce Should Not Become a Tax Haven}, July 11, 2000, \url{http://www.tax.cch.com}
\item ibid.
\item See Karl Frieden – Arthur Andersen, \textit{Cybertaxation: The Taxation of E-Commerce}, (Commerce Clearing House) (2000) page 442
\item 1998 Internet Tax Freedom Act
\end{itemize}}
all Internet taxes. However, taxes already in place, i.e. sales and use taxes, etc. could still be collected and enforced.

**Inbound Transactions With Treaty Countries**

International transactions represent either outbound or inbound activity. The tax treatment to any country depends upon whether or not a treaty exists. Treaties clarify and define whether or not there is nexus. The criteria determining nexus are found in the Permanent Establishment (PE) clause contained in Article 5 of the OECD Model Treaty. The United States and 28 other countries base their tax treaties on the OECD Model which indicates that a PE exists if the venture is conducted through a fixed place of business such as a place of management, branch, office, factory or workshop. But Cyberspace is not a fixed location. A virtual presence alone should not trigger a Permanent Establishment.

As between the UN and OECD Model treaties, the OECD has taken the leading role in attempting to establish uniformity on e-commerce tax issues. Article 7 of the OECD’s treaty indicates that profits derived are exempt unless they are connected with a PE. Article 5 describes the elements that can generate a PE and a fixed place of
business. “Article 5 paragraph 4 lists various activities that do not result in a PE because they are, in general preparatory or auxiliary activities. These include:

1. “Acquisition of facilities for storing, displaying or delivering its own goods or merchandise (inventory)
2. Maintenance of inventory solely for the purpose of storage, display or delivery
3. Maintenance of inventory on behalf of others
4. Maintaining a fixed place of business solely for purchasing inventory
5. Maintaining a fixed place of business solely for preparatory or auxiliary engagements”

But no man is an island. “Because a corporation is not a natural person, it can only act through agents and employees.” These business arrangements performed in concert with others can also create a permanent establishment, even if one of the parties never set foot on the other countries’ shores. Regs. Section 1.864-7 provides explanations of what constitutes an office or other fixed place of business to determine if the organization is “engaged in a trade or business.” These criteria for permanency described in the statutes and regulations for use in non-treaty arrangements are also

33 Regs. Section 1.864-7(a)(1)
used when treaties exist to determine the extent of “effectively connected income”.

Even without a physical presence, a dependent agent can generate a permanent establishment on behalf of the principal. In order to avoid the PE classification, the agent must be legally and economically independent. In the past, case law had established the threshold for determining dependent agency. However, the Internet has raised new questions which have not yet been addressed by the courts. The Internet has raised the issue of determining when activity from an ISP (Internet Service Provider) or a Web Server would be deemed a dependent agent of the User. In fact, some state legislatures have acknowledged this dilemma and have “set up task forces to investigate the creation of special courts with judges specifically qualified to consider high-technology cases.” Complexity of technology may make it necessary to provide a court system exclusively for these matters. The OECD has recently addressed these agency issues and modified Article

34 Section 864(c) of the Internal Revenue Code of 1986 as Amended
35 See Regs. Section 1.864-7(d)
36 OECD Model Tax Convention of Income and Capital, Article 5(6)
37 See Appendix for definitions
38 See Appendix for definitions
5, Paragraphs 4 and 5 to list and define activities under which the use of an agent may or may not result in a PE. ⁴⁰

The Working Party No. 1 of the Committee on Fiscal Affairs drafted its revisions to Article 5 (the permanent establishment article) of the its Model Tax Convention to delineate the facts and circumstances under which a web site, web server, ISP or other computer based transactions would be deemed to have established a permanent establishment in another country. The Working Party held that:

1. “A server may constitute a PE if it is fixed, even in the absence of personnel. It is not whether it can be moved, but rather whether it actually is moved that is outcome determinative.
2. A web site alone would not create a PE agency for its owner.
3. Automated equipment and machinery alone (i.e. gaming equipment) may constitute a PE.
4. An ISP would most often not be viewed as a dependent agent.” ⁴¹

The Working Party appeared to bring mixed reactions from the professional community. “As a result of the lack of consensus among the world’s taxing authorities concerning what constitutes a PE in the context of e-commerce, countries are taking inconsistent positions, increasing the"

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risk of double taxation.”  The provision which holds that a web site alone should not create a PE seems logical because of the absence of any physical presence. The characterization of ISP’s as a dependent agent also seems correct because “it may have thousands of customers and is not economically or legally dependent on any particular principal.” However, the above findings that a web server may cause a PE if it is fixed (#1 above) and that automated machinery may create a PE (#3 above) drew controversy from practitioners. An Electronic Commerce Tax Study Group had indicated in response that “we respectfully differ with the [Working Parties’] view that existing OECD Commentary provides that machinery or equipment alone should constitute a PE. We believe that the Commentary suggests a higher threshold, under which personnel are required.” In response to the conclusion that automated equipment may create a PE, the Study Group held that “it is difficult to see how the physical computer equipment itself can be said to carry on a business. That equipment is merely a device used to effect communication.” Besides, “once connected

45 Ibid. at page 12
to the Internet, a server can be physically located anywhere; there is no reason that it needs to be located within the same country as the site’s customers."\textsuperscript{46} It is also difficult to establish what the presence of a server actually determines since the potential exists for the flow of data to be transferred via more than one server (See Illustration 4). The Group also held that even if the computer were considered to constitute a fixed place of business, “any activities that might be attributed to it should qualify as preparatory or auxiliary within the meaning of Article 5."\textsuperscript{47}

Treaties are created to establish certainty. Even though it is apparent that ambiguity and differences in opinion still exist, the treaty still serves its intended purpose by attempting to clarify these issues through a predetermined standard, whether liked or disliked by the industry.

**Inbound Transactions With Non-Treaty Countries**

If no treaty exists, I.R.C. Section 894(a)(1) conveys the authority for the statute to determine the U.S. income tax liability of foreign corporations under I.R.C. Section

\textsuperscript{46} Karl Frieden – Arthur Andersen, *Cybertaxation: The Taxation of E-Commerce*, (Commerce Clearing House) (2000), page 448
882(a)(1) upon its effectively connected income if the organization is deemed involved in a U.S. trade or business. 48

But the Internal Revenue Code and Treasury regulations do not provide a great deal of detail as to what constitutes a trade or business. A clear definition of a “trade or business” is not defined by statute. 49 Its definition has developed over time through court decisions and Revenue Rulings. 50 Many of the issues raised under the permanent establishment discussion are also raised when analyzing transactions between non-treaty countries. 51 For instance, the principal-agency relationship issue is also an issue when analyzing the trade or business standard to see if nexus results. Although a single event (i.e. a horse race 52) has, on occasion, constituted a U.S. Trade or Business, the most prevalent analysis involves whether the activity of the organization or its dependent agents is

49 “Section 864(b) contains a limited definition of the phrase *trade or business* within the United States.” ibid. at ¶C1.04[4][a].
52 Rev. Rul. 58-63, 1958-1 CB 624
“continuous, considerable and regular.” Even though the Internet is ‘always on’, that alone should not cause the web site to be a U.S. Trade or Business. In fact, due to the decentralized nature of its design, “it is generally impossible to regulate it or shut it down.” The user, with a “search engine” can seek out and locate products anywhere on the web. The mere ability of the user to view the product should not in itself imply efforts of active solicitation from the seller. Only the seller’s sales efforts should determine the seller’s tax consequences. However, it may not be clear whether the consumer found the seller or the seller proactively made their business visible to the consumer.

The statute uses the term “fixed place of business” in a non-treaty context when describing what would be a PE when a treaty exists. Categorization as a U.S. trade or business, occurs according to I.R.C. Section 864(c)(5)(B) when foreign source income is “attributable to” a U.S. office. For this to take place:

1. The office must be a material factor in the production of income and

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55 Regs. Section 1.864-7
2. The income was realized in the ordinary course of the trade or business from the office.\textsuperscript{56}

Considering these facts, it appears that a web site alone would not generate a U.S. trade or business because of the lack of a physical presence. In addition, a domestically located ISP would also probably not bring about the U.S. connection because an ISP is an independent agent serving many customers.\textsuperscript{57} I am certainly not America Online’s only customer.

A case often used as a standard of measurement for U.S. inbound nexus for E-Commerce is Commissioner of Internal Revenue v. Piedras Negras Broadcasting Co. \textit{Piedras} was a 1942 case where a Mexican radio station had derived 95% of its revenues from Texas Advertisers. This case set the precedent for clarifying both the source of income rules and the physical presence issue. The \textit{Piedras} court held that no domestic physical presence existed and that the source of the income was the act of transmission. Because of that fact, the advertising income as discussed later in this analysis, should be sourced to where the services are performed.\textsuperscript{58} Twenty years later in \textit{Inez de

\footnotesize
\begin{itemize}
\item \textsuperscript{56} See Section 864(c)(5)(B) of the Internal Revenue Code of 1986 as Amended.
\item \textsuperscript{58} Section 861(c)(3) of the Internal Revenue Code of 1986 as Amended.
\end{itemize}
Amodio, the Tax Court took an alternate position in indicating that even without a U.S. physical presence, the taxpayer was considered to have established a PE due to continuous and regular activity. “Inez is significant because it marks the first time that a nonresident alien was held to be engaged in a U.S. Trade or Business without having a U.S. permanent establishment.” However, if the continuous ISP connections could be traced by a tracking company like Double Click.com, then wouldn’t the income then qualify as continuous and systematic? Moreover, this does not resolve the issue which would occur if an offshore vendor had targeted the sale of particular product, i.e. had the auctioning off of Mark McGuire’s Record Home Run baseball been directly targeted to a U.S. audience. The Internet has generate many unanswered questions in this area.

**Outbound Transactions**

In an outbound transaction, the U.S. based company would be subjected to tax on its worldwide income under the rates in I.R.C. Section 11 and would receive a credit under Section 901 for taxes paid to the foreign jurisdiction on its foreign source income. Although there are many

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59 Inez De Amodio v. Commissioner of Internal Revenue, 299 F. 2d 623 (1962)  
circumstances which can alter these results, this is the
general scenario that exists when no exceptions apply (i.e.
subsidiary deemed paid dividends, etc.) In addition to the
credit method relief mechanism mentioned above, there are
also the deduction and exemption methods which may assist
in avoiding double taxation. Under the deduction method,
“the residence country allows its taxpayers to claim a
deduction for taxes, including income taxes, paid to a
foreign government in respect of foreign-source income.”

The exemption method merely allows an domestic exemption
for foreign-source income.

One Outbound issue which has surfaced is with regard
to the title passage rules. Under I.R.C. Section 865(b)
and as mentioned in Temp. Reg. 1.865-1T, the sale of
inventory property is sourced to where title and risk of
loss are deemed to pass. The issue involves a scenario
where a domestic corporation’s off-shore web server
contains computer programs available for online users to
purchase via download. “If an electronic contract
specifies that title passes outside of the United States,
this may be deemed sufficient to generate a permanent
establishment in the other country.”

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Outbound issue, it may also qualify as an income classification issue. The first determination appears to be “if” and “what” you are selling online. An example of this holds true in anonymous buyer/seller scenarios where downloaded software or a license number is provided in exchange for a credit card number. As this analysis will later discuss, the true dilemma brought about by the electronic transfer of an intangible product is not determining the source, but rather, the nature of the intangible itself (i.e. sale v. license).

Although the Internet is both import and export driven, the majority of the issues that appear to surface involve inbound transactions. This includes U.S. and foreign inbound determinations. In fact, from an Internet standpoint, the greatest uncertainty with regard to tax treatment of U.S. outbound transactions are the inconsistencies in the foreign inbound provisions. This is because a U.S. company’s foreign tax credit is contingent upon the amount of its foreign-source income.\(^\text{63}\) For purposes of this analysis, the focus will be upon Inbound taxation.

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\(^{63}\)“U.S. transferor’s foreign tax credit limitation is based on the amount of its foreign-source income derived in various categories.” ibid. at page 475.
The Character of the Transaction – Impact Upon Sourcing and Jurisdiction

The “Virtual” and borderless nature of the Internet economy has made transactions difficult to trace and to classify.64 “The real difficulty for companies where Internet taxation is concerned is that e-business is global while tax laws are territorial.”65 The character of a transaction determines its tax consequences. This is because the nature of the income determines which source rules to apply66. Before the Software Regulations were released in 1998, electronic transactions were categorized under I.R.C. Sections 861,863 or 865 as either a license, sale of a product, or sale of a service.

The most basic item to source is a sale of a product. Typically, a product sold is sourced to the seller under I.R.C Section 865(a). When inventory is sold, an exception is triggered under I.R.C Section 865(d) which holds that the product would be deemed sourced to where title passes. Under I.R.C Section 865(e)(2), these products would be treated as U.S. Source income to a nonresident if

64 “International tax policy will take up growing concerns that billions in tax revenues will disappear as a result of the Internet’s ability to shift both the location of the transaction and the paperless means of completing a transaction.” Brian Rowbotham – International Taxation of Internet Commerce, World Economic Forum – 1998 India Economic Summit, www.rowotham.com
attributable to a fixed place of business in the United States.

A transaction requiring treatment as a license typically covered two kinds of scenarios. Either one was traditionally sourced where the product was used under I.R.C. Section 861(a)(4). One involved when there was a transfer of a product between parties coupled with a limitation upon the user to exercise a full set of rights. However, neither the code nor the regulations at that time had adequately defined what would constitute a reduction in rights for a computer software. The other scenario was when a sale was made where the purchase price was dependent upon the amount of use of the product. I.R.C. Section 865(d) indicates that to the extent that the payments are contingent, the source of the payments shall be determined as if they were royalties.\textsuperscript{67}

The Computer Regulations also provide guidance for when the provision of services are rendered. Under Treasury Regulation 1.861-4(b), services are taxed where the service is provided or performed. Although this provision seems reasonably clear when personal services are involved, they do not provide direction in the computerized

\textsuperscript{67} Section 865(d)(1)(B) of the Internal Revenue Code of 1986 as Amended.
world where services are also performed by Internet Service Providers or Application Service Providers.

In light of the lack of statutory instruction, “the Internal Revenue Service issued final regulations in 1998 under Section 861 to provide guidance on the classification of software transactions for international tax purposes and for the interpretation of U.S. tax treaties.”

The 1998 Ministerial conference in Ottawa proposed revisions to Article 12 of the OECD Model Tax Convention. These proposed revisions were consistent with the Treasury Regulations and assisted in defining the differences in income categories. “The similarity between the approach now taken by the OECD and that adopted in the final regulations offers some hope of greater international convergence in the tax treatment of software.”

The Treasury Regulations classify transactions involving the transfer of a computer program into one of the following:

1. A transfer of a copyright right in the computer program
2. A transfer of a copy of the computer program (a copyright article)
3. The provision of services for the development or modification of the computer program

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68 Alan Levenson, *Taxation of Cross Border Payments for Computer Software*, 98 TNT 244-93.
70 Ibid.
4. The provision of know-how relating to computer programming techniques.\textsuperscript{71}

These regulations make a strong attempt to maintain tax neutrality. Section 1.861-18(g)(2) of the regulations indicates that whether downloaded or purchased, the medium (electronic or physical) does not classify or determine the character of the transaction.

These transactions could potentially be taxed as either a sale, royalty or license. However if more than one of the above (4) items were applicable, they are to be treated as separate transactions.\textsuperscript{72} Any de minimis transactions are treated as a part of another transaction.

Under the software regulations, income from a sale may occur upon the transfer of either a copyright article or a copyright right. Either way, a sale is deemed to have transpired if all benefits and burdens of ownership have passed under Regs. Sec. 1.861-18(f)(2). The purchase of a copyright article involves either the use of one product bought “off the shelf”, shrink-wrapped\textsuperscript{73} or the right to use a downloaded product without duplicating it for resale. A copyright article A copyright right give the ability to do

\textsuperscript{71} Treasury Regulation Section 1.861-18(b)(1)
\textsuperscript{72} Treasury Regulation Section 1.861-18(b)(2)
\textsuperscript{73} See Appendix for Definitions
even more. It carries with it the ability to duplicate and resell the software or application.

1. The Copyright Right

A sale of a copyright right would constitute full transfer of rights which would allow the user to do any of the following:

1. Make copies of a computer program for public distribution
2. Prepare other programs based upon the copyrighted program
3. Make public a performance of the computer program
4. Publicly display the computer program.  

When a sale of a copyright right occurs, the general sourcing rules for intangibles apply under I.R.C. Section 865(d)(1)(a) and the income is sourced to the residence of the seller.

2. The Copyright Article

A transfer of a copyright article would also be considered a sale if the acquirer obtained the full rights in the software disk under Regs. Sec. 1.861-18(f)(2). A copyright article would be deemed personal property and as such would be sourced the seller under the general rule in I.R.C. Section 865(a). The Copyright articles provisions contain two exceptions for inventory. As under the original statutory provisions, purchased inventory falls under the

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74 Treasury Regulation Section 1.861-18(c)(2)i-iv
exception in I.R.C. Section 865(b) and is sourced where the sale takes place. Income from manufactured inventory under I.R.C. sections 863(b)(2) and 865(b) is allocated for sourcing purposes between the country where it was produce and the country in which it was sold.\textsuperscript{75}

Categorization as inventory also brings other complications. If the normal title passage rules are to apply to sales of digital inventory, then when during the course of an electronic transaction would title be deemed to have passed?\textsuperscript{76} Should online vendors and purchasers establish who would assume risk of loss for a faulty transmission?

Generally speaking, computer applications are taxed as royalty income when the user merely obtains a temporary or limited interest in the software product. A transaction that does not constitute a sale or exchange because not all substantial rights have been transferred is classified as a license generating royalty income.\textsuperscript{77} The Regulations describe instances of partial ownership which include charging the user based upon its use\textsuperscript{78} or where the product

\textsuperscript{77} Treasury Regulation Section 1.861-18(f)(1)
\textsuperscript{78} Treasury Regulation Section 1.861-18(h)(1) example 12
expires after a limited period of time. “A limited-duration license to use software or other digital products will typically result in rental income,” whereas “a license for a single online use of a software program or other digital product arguably should result in services income.”

A subtle distinction exists between a copyright right and a copyright article. Copyright right limitations generate royalty income which is sourced to where the intangibles are used whereas copyright article limitations generate lease income which is sourced to where the property is located.

3. Provision of Services

Computer software can generate service income under the new regulations. Computer programming services can be rendered either when a vendor is engaged to produce custom made digital content or when computer programming maintenance and repair is administered. Regs. Section 1.861-18(d) indicates that “if the seller owns no rights in

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79 Treasury Regulation Section 1.861-18(h)(1) example 4
81 ibid.
82 Code Section 861(a)(4) of the Internal Revenue Code of 1986 as Amended
83 ibid.
what is produced and incurs little or no risk of loss with the development of the software,"\(^8\) then the developer should be treated as receiving services income.

Essentially, software services income differs from a traditional sale in that title never passes between the transacting parties when services income is earned. The owner maintains title of the property at all times during the contract. On the other hand, when a sale is made, title passes during the exchange. This interpretation reinforces the idea that even software work in progress that is manufactured by the vendor may also be categorized as services so long as title to the property produced had remained with the consumer since inception. According to Regs. Section 1.861-4(b), Service income is sourced to where it is performed.

An exception to the service income provisions exists in I.R.C. Section 863(e)(1)(A) to treat International Communications Income as 50% earned from U.S. sources. This generates some inconsistency in the E-Commerce arena. An Internet Service Provider such as AOL would source its income to where the user logging in is located. However, if the user logs on through their AOL account as a means of communicating e-mail with cell phone users via web sites

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\(^8\) Treasury Regulation Section 1.861-18(d)
such as Net2Phone or Phone.com, would that be taxed and categorized as traditional computer service income or telecommunications income?

4. Provision of Know-How

The provision of Know-How income was held under the Regulations to involve:

1. Information relating to computer programming techniques; and
2. Furnished under conditions preventing unauthorized disclosure, specifically contracted for between parties; and
3. considered property subject to trade secret protection.  

Know-How income is taxed as royalty income and its sourcing is based upon the location of the intangible property. This is an awkward determination to make when advice on web page design is rendered. Questions remain as to where in cyberspace the intangible is actually located. 

Issues Related to Royalty Income

Other issues are brought about by the categorization as royalty income. “For withholding tax purposes,

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85 Treasury Regulation Section 1.861-18(e)
87 However, “If a taxpayer undertakes activities to develop the content on a web site, some of the service income may be sourced to the location of the content development.” Bureau of National Affairs, Source of Income, Applying Rules to E-Commerce Income Raises Many Tax Issues, Volume 1, Number 2, May 29, 2000, E-Commerce Tax Report, http://www.bnatax.com
classification of a transaction as a license may produce a withholding tax obligation that would not otherwise exist for a sale of a tangible property classification.” 88 This may be impractical to impose upon a large number of consumer transactions.

Another issue that exists is known as the Cascading Royalty dilemma where multiple layers of royalties are generated. Examples are already visible on the Internet where multiple web site affiliations and exchanges of other sites banner ads allows each web page to solicit and deliver the products of various others. For instance, if Yahoo were to sell subscriptions to TheStreet.com. Multiple stages of royalty income could develop as Yahoo collects royalty income for displaying a product for TheStreet.com which earns their royalty income from Yahoo. “Traditional roles of buyers and sellers are vanishing, merging into a blur of partnerships, strategic alliances, and bartering into which it is difficult to pinpoint who is the buyer and who is the seller.” 89 In SDI Netherlands B.V. v. Commissioner, the Tax Court had held that, in essence, the lower layers of the transaction did not impact the

character of the income in the immediate transaction.\textsuperscript{90} This position was adopted and slightly modified by the Internal Revenue Service in Rev. Rul. 80-362 which held that although the lower levels of activity generatetaxable royalty income, it would be exempted by treaty. \textsuperscript{91}

“Often it is not easy to determine the character of a particular payment that is received. Only after the character is determined can the appropriate source rule be applied.”\textsuperscript{92} Characterizing the differences can be difficult. Distinguishing service transactions from property transactions often runs along a fine line. An example would be when an investment site designs a generic recommended investment listing like Harmon’s 2000 Recommended Stock Picks. The purchase of the investment report was not created specifically for any particular customer and as such would likely give rise to income from the sale of property. \textsuperscript{93} However, had it been custom tailored to meet the specific needs of that user’s portfolio, then it may actually constitute service income.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{90} SDI Netherlands B.V. v. Commissioner 107 T.C. No 10, 107 T.C. 161 (U.S. Tax Ct. 1996)
\item \textsuperscript{91} Rev. Rul. 80-362, 1980-2 CB 208
\item \textsuperscript{92} Richard L. Doernberg, \textit{International Taxation, Nutshell Series}, (West Publishing Company) (1999), page 77
\item \textsuperscript{93} “The term property should be understood to include electronic data, including software, digitized music, or video images, and other forms of digital information and content.” Taylor S. Reid, Esq., Characterization of Income, \textit{Tax Characterization of Electronic Commerce Revenue}, Volume 1, Number 5, July 10, 2000, page 197 E-Commerce Tax Report, \url{http://www.bnatax.com}
\end{itemize}
\end{footnotesize}
Other Internet transactions that would also be deemed service income are advertising revenue and Application Service Provider (ASP) transactions.\footnote{Though the court in \textit{Piedras Negras} did not expressly hold that advertising is a service for tax purposes, the IRS has issued a private ruling that provides support for this position. In PLR 620305590A, the taxpayer sold advertising to U.S. advertisers for publication in a magazine to be distributed only outside of the United States. For purposes of determining the source of the taxpayer’s advertising income, the IRS only considered the sourcing rule under Section 862 for compensation for labor or personal services.” Ibid at page 206.} Under the Piedras standard, the hosting and maintenance of another company’s computer and software functions would appear to fit into the classification of service income.

“The digitization of information, whether it is music, publications, books, financial reports, or advisory services, creates difficulties in defining the source, origin, and destination of both production and consumption.”\footnote{Thomas Neubig & Satya Poddar, \textit{Blurring of Boundaries in the New Economy: Trends and Implications}, Tax Analysts, Tax Notes Today, page 1158, August 28, 2000.} The International Tax community has recognized these difficulties and in light of these facts has formed a TAG (Technical Advisory Group). The TAG is an Electronic Commerce Tax Study Group was comprised of leaders of various computer and Internet companies who issue their guidance on how to treat digitally downloaded products. The committee was formed to explore the characterization of Internet-based revenues. In September 2000, the TAG issued an revised version of their original report. As discussed below, although not all if its
holdings were unanimous, the majority of its members did reach certain conclusions.96

One issue discussed by the TAG was whether allowing a user to make a backup copy of a copyright article or shrink-wrapped product97 could be deemed a transfer of a copyright right. The TAG had held that “even if the act of copying the product onto the customer’s hard disk or other non-temporary media constitutes the use of a copyright by the user under the relevant law and contractual arrangements, this is merely an incidental part of the transaction.”98 However, a minority of the TAG still felt that “the right to copy is only needed if one intends to re-sell copies.”99

Another issue stressed by the TAG was in reference to treating a digital product the same as one purchased online in consistency with the framework of neutrality adopted by the OECD. This reinforces that the ability to make a


97 See Appendix for Definitions

backup copy can be viewed as a sale, even if downloaded electronically.\textsuperscript{100}

A new issue discussed in the revised report was regarding whether the use of online software will result in rental or services income. The issue was raised because of the growing popularity of Application Service Providers (ASP\textsuperscript{101}). An ASP allows a company to use its software platform for the benefit of the customer. The ASP “uses the software to provide services to customers, maintains the software as needed, and owns the equipment on which the software is loaded.”\textsuperscript{102} The irony is that the seller would usually recognize service income even though the customer may not have possession or control over the software at the time. Since title was never transferred it would most likely be deemed a service.

The TAG recognized the difficulties in characterizing ASP transactions and as result issued a listing of items that could assist in deciding whether a transaction represents a service or a rental.\textsuperscript{103} With the number of

\textsuperscript{100} This would subject business profits to the rules of Article 7 as opposed to being deemed a royalty subject to Article 12.

\textsuperscript{101} See Appendix for Definition
\textsuperscript{102} Taylor S. Reid, Esq., Characterization of Income, Tax Characterization of Electronic Commerce Revenue, Volume 1, Number 5, July 10, 2000, page 205, E-Commerce Tax Report, \texttt{http://www.bnatax.com}
\textsuperscript{103} The TAG’s listing was as follows:
1. The customer is in physical possession of the property
2. The customer controls the property
3. The customer has a significant economic or possessory interest in the property
parameters and the complexity involved, it is no wonder that Judge Thomas Penfield Jackson of the Microsoft antitrust case had indicated that he was “ill-equipped” to resolve complex issues with regard to emerging technologies\(^{104}\).

**How Other Countries Have Taxed E-commerce**

A lack of consensus among the world’s taxing authorities has caused many countries to take inconsistent positions on whether a web site or web server can constitute a PE. The analysis below is merely intended to provide an overview of how other countries have sourced and taxed Internet commerce.

**The United Kingdom**

In the United Kingdom, statutory law does not provide a clear description about the manner in which trade or business activity is sourced. \(^{4}\) Whether a trade is exercised in the United Kingdom is, therefore, an issue to be

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4. The provider does not bear any risk of substantially diminished receipts or substantially increased expenditures if there is nonperformance under the contract
5. The provider does not use the property concurrently to provide significant services to entities unrelated to the service recipient
6. The total payment does not substantially exceed the rental value of the computer equipment for the contract period.


determined by case law.” The Inland Revenue has published a paper detailing the U.K. government’s objectives for e-commerce. The paper, like the recent OECD commentary had outline the governments objectives and expressed that neutrality should be maintained between e-commerce and more traditional forms of commerce. In short, the Paper is very similar to the U.S. Treasury’s White Paper issued in 1996. The U.K. paper discusses the Electronic Commerce Statutory Agenda and stresses the concerns for modernizing tax administration and preserving the tax base. “For a U.S. taxpayer, a web server located in the United Kingdom may be enough to create a permanent establishment.” “An example is a web server that both processes orders and delivers a digital product or service. On the other hand, where the server merely performs an auxiliary function, a permanent establishment is unlikely to arise.” But under the U.K. logic, a seller using more than one server could theoretically manipulate which server the sale is approved upon to bring the most favorable tax

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107 “The U.K. is slightly at odds with the OECD position, which is that ownership or exclusive rental of a server could constitute a permanent establishment.” Anne Fairpo, Taxation of Electronic Commerce: Residence, http://www.e-tax.org.uk, September 13, 1999
109 ibid.
results. In the last few months, the U.K. has changed its views to indicate that both web sites and servers should not be considered a PE for tax purposes.\textsuperscript{110} A new official stance by the U.K. has not yet been released.

**Canada**

Canada is similar to the United States in that they use the OECD Model Treaty with a comparable PE standard. Although Canada has not yet adopted any specific E-commerce measures, an e-commerce advisory committee has been formed.\textsuperscript{111} A point that may provide difficulty later on is that Canada does not use the trade or business standard. An alternate system is employed under which “nonresidents of Canada are taxed on income from carrying on a business and employment in Canada.” But when trade involves a treaty nation, the permanent establishment standard is used.\textsuperscript{112} Issues to be determined are whether a web site and server constitutes ‘a business’ and how long of a duration must it be ‘carried on’ to create a physical presence.\textsuperscript{113}


\textsuperscript{111} “the minister of National Revenue established an advisory committee on e-commerce in April 1997.” Steve Suarez, *E-Commerce: A Canadian Perspective*, 11 J. Int’l Tax’n 20, August 2000

\textsuperscript{112} See Generally, Ibid. at page 2.

\textsuperscript{113} “There are a host of other issues which are relevant to taxation of electronic commerce transactions in Canada. These include: audit verification, enforcement and collection of tax; books, and record keeping; tax avoidance, especially through tax havens; and criminal law aspects of tax evasion, especially through the ability to transmit cash electronically. All of these areas need to be studied and their implications considered by Canada and the provinces.” S.M. Borraccia, *Taxation of Electronic Commerce in Canada*, August 1998, Baker & McKenzie web page- \url{http://www.bakerinfo.com}
“The short life span of many e-businesses and the extent to which many activities are automated or outsourced to third parties makes it less certain that these operations (if they are a business) are indeed carried on.”

**India**

E-Commerce taxation in India has caught the eyes of the world. India has been under close scrutiny for its radical views on economic e-commerce activity. India’s taxation of e-commerce has been out of sync with other countries’ approach and has been quick to grasp at what would merely otherwise be “virtually” unconnected income.

A working group set up by the Income Tax Department of India recently began examining e-commerce tax activity. This group also recommended the radical PE standards. U.S. lawmakers have contacted Indian authorities on behalf of the American Electronic Association in attempts to reverse the classification of a virtual presence into a physical presence.

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114 Ibid. at page 13.
116 “The core issue is that India has said in some taxpayers’ cases that the availability of workstation software installed in an India-based office creates a permanent establishment. The result, according to the American Electronic Association is that U.S. companies having virtual equipment such as computer programs or software in India creates a permanent establishment for tax purposes.” Ibid.
one. Currently, there is “no global consensus with India on the definition of a PE.”

Germany

Germany on the other hand, has established a reputation for being on the forefront of determining the PE criterion for the Internet. A 1997 decision of the German Supreme Tax Court had seemed to indicate that the presence of property without employees may give rise to a permanent establishment. The case involved an oil company that provided oil to users in the country through underground pipes but was operated and controlled remotely. The court had held that the fixed presence of the pipes still constituted a PE. The German court believed that the web server was merely preparatory in nature.

Conclusion

The evolution of the Internet has at times rendered income classification nearly impossible. America Online for instance, can be viewed as a product (copyright article) when the CD is received with rights to install it

119 Although,“the pipeline was integral to the taxpayer’s business and there was a significant degree of permanence to it, German authorities recently issued a pronouncement indicating that they will take the position that a server does not create a PE pursuant to Article 5, Paragraph 4 of the OECD Model Tax Treaty.” Howard J. Levine & David A. Weintraub, Tax Management Memorandum: When Does E-Commerce Result in a Permanent Establishment? The OECD’s Initial Response, January 27, 2000, Tax Management Inc., page 13.
on any machine, a service for providing the Internet
connection, or a license for allowing the user to log in
and view subscription based content (provided by Time
Warner) in exchange for the user fee. Although critics
have already emerged who are displeased with the IRS’s
interpretations\textsuperscript{120}, it would be unrealistic to expect the
Computer Regulations in 1.861-18 or the OECD to provide
guidance on how to treat an object or service with multi-
faceted capabilities. For the time being, it will be up to
taxpayers and practitioners to determine in which capacity
the products or services are used.

While conducting research for this analysis, it became
apparent that texts and magazine articles have consistently
felt the compulsion to compare the emergence of the
Internet to other milestones in the history of commerce.
One article indicated that “the internet can be likened to
the Silk Roads of China which constituted a brand-new route
for the international trade of a “brand new” commodity.”\textsuperscript{121}
Another compares the rise in E-commerce to the telegraph.\textsuperscript{122}

\textsuperscript{120} See Generally, Michael J.A. Karlin and Bradley Smith, On-Line, Off Base: The Computer Program
Final Regulations Miss An Opportunity, 10 J. Int’l Tax’n 5.
\textsuperscript{121} Zak Muscovitch, Taxation of Internet Commerce, Toronto-Canada, April 26, 1996,
http://www.globalserve.net
\textsuperscript{122} “In 1869, a New Hampshire court was called upon to decide the validity of telegraph communications as
both writings and signatures. In its decision to validate the telegraph, the court opined, “Nor does it make
any difference that in one case common record ink is used, while in the other case a more subtle fluid,
known as electricity, performs the same office.” Taylor S. Reid, Esq., Characterization of Income, Tax
Characterization of Electronic Commerce Revenue, Volume 1, Number 5, July 10, 2000, E-Commerce Tax
I think that no analogy can be made. The Internet is a communication device, information pipeline, auctioneer, storage system, magazine stand, stock market, movie theatre, television, music player, car salesman, advertising agent – all accessed from the same machine. The fascinating part is that its purpose and its uses change daily. As I write this paper on e-commerce, m-commerce (Mobile e-commerce) is just beginning to unfold, where wireless handheld devices can provide the power of the world in the palm of your hand. No telegraph or silk screen trader ever exhibited the ability to evolve this quickly.

The Internet is a borderless economy. I believe that its growth will ultimately push us to recognize one global currency and tax system. Only then can true “neutrality” be obtained. Until that time, I believe the best solution is to tax every transaction where the person or corporation resides. Because even in an age where the world moves at a digital pace… we all have to live somewhere.
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Appendix

Commonly used Internet terms

(with information provided from various how-to and trade publications.)

1. **ASP** (Application Service Provider) – A company whose job is to carry out the internal computer function of contracting organizations.

2. **Bandwidth** – The mythical “size” of the Internet and its ability to carry the files and messages of those that use it.

3. **Baud** – A measure of speed at which data can be transferred over a network connection.

4. **Browser** – A software application that allows the user to view and access data stored on Internet servers (web servers)

5. **Domain** – A unique name that identifies a computer on a network. The domain name is part of an e-mail address and indicates the computer system at which the message should arrive.

6. **Firewall** – A combination of hardware and software used to isolate a computer or network and protect it from security risk.

7. **Home Page** – The opening screen on a World Wide Web site that allows users easy access to files.
8. **Host** – A computer that serves as an information resource on the Internet or a central processing unit for several computers by receiving information from and sending data to terminals connected by telecommunication lines.

9. **HTML** (Hypertext Markup Language) – Incorporates graphics and sound; used for linking keywords in a document with other documents or other www sites. The resulting documents are called “hypertext”. Thus hypertext provides “hot links”, that when clicked, take the user to another site or document of interest. An example looks like this: http:\\www.stjohns.edu.

10. **ISP** (Internet Service Provider) – Organizations which provide individuals and businesses with access to the Internet. (For example, America Online, MSN)

11. **List Serve** – A mailing list program that maintains a variety of mailing lists and distributes information to its subscribers.

12. **Protocols** – A formal description of message formats and the rules that the two computers must follow to exchange those messages.

13. **PPP** (Point to Point Protocol) – A Protocol that treats the computer as if it has a complete and continuous connection to the Internet instead of merely being
connected with a modem and telephone on an intermittent basis.

14. **Server** – A computer that shares its resources, such as printers and files with other computers on the network.

15. **Shrink Wrap License** – This is a business term referring to the nature and extent of rights being transferred in the context of mass marketed “off the shelf” software. Software purchased “off the shelf” is ordinarily packaged in shrink wrapping, thus the name “shrink wrapped software.”

16. **URL** (Uniform Resource Locator) – Information used by the World Wide Web browser to determine where an Internet site is and how to connect to it.

17. **Web Site** – a page of hypertext and graphics that can be viewed by browser software.
Illustration 1- What is the Internet?

(Diagram from the CPA’s Internet Reference Guide Online)

Search engines are companies that have indexed or categorized websites located on servers on the worldwide web. When queried with a set of keywords, the search engine returns a list of matching websites. The person requesting the matches simply clicks on a name on the list and the website appears on their computer. The vast majority of websites are found in this manner.

The Internet

The World Wide Web (also known as the Web or www), is a group of interconnected computers called servers. All websites are located on a server. Your customer views your website by locating it through the use of search engines.

The Internet is a global network of millions of computers connected by way of phone lines. The Internet is accessed by individuals through the use of an Internet Service Provider (ISP). The World Wide Web is just one part of the Internet. The World Wide Web is where all commerce is conducted on the Internet.

Servers are high-tech, memory intensive computer systems that store or “host” websites. One server may host thousands of websites.
Illustration 2 – How Does the Internet Work?

**Application** – such as an e-mail program at the sending system’s computer.

**TCP** – Breaks the Message Into Packets, if necessary and transmits the information, via modem to the ISP server (i.e. America Online).

**IP** – Randomly Routes the Packets through the Internet via various Routers.

**TCP** – Reassembles the packets and delivers to information to the application being used by the receiver.

**Application** – such as the e-mail program at the receiving system.

(Diagrams from The Revere Group and can be viewed at http://rus1.home.mindspring.com/whitepapers/internet_whitepaper.html#ad_dz)
Illustration 3: A Close Look at Your Local ISP (ie. AOL)

(Diagram from webclasses.net)
Illustration 4: How Local ISP’s (Your local dial-up number) Integrates into the World Wide Web

(Diagram from WebClasses.net)
Computer Software Transactions: Illustration of Source Rules In Treasury Regulations Section 1.861-18