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# Every Cloud Has a Silver Lining: The Potential Sales and Use Taxation of Cloud Computing

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# Every Cloud Has a Silver Lining[1]: The Potential Sales and Use Taxation[2] of Cloud Computing[3]

Annmarie Dennehy[4]

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[1] PHINEAS TAYLOR BARNUM, STRUGGLES AND TRIUMPHS 19 (Warren, Johnson, & Co. 1872).

[2] *See* discussion *infra* Part II (explaining that sales and use taxation depends on three factors: 1) classification as a taxable good or service; 2) nexus, or sufficient contact with a state to allow the state to charge a sales tax; 3) sourcing of the tax to the appropriate state).

[3] *See* discussion *infra* Part I (describing cloud computing as a network that supports the sharing of information, software, and data).

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**INTRODUCTION**

The age old adage, "every cloud has a silver lining[5]" may once again be proven by the potential sales and use tax[6] revenues that can be collected if cloud computing[7] becomes a taxable product and / or service.[8] Cloud computing is a network based system that allows users to do everything from accessing applications offered by the provider to storing an end user's data on a remote server.[9] From a technological standpoint, this new system is revolutionary because it allows any number of end users to access and store data, from any given Internet supported device, at any time.[10] However, individuals and companies who use the cloud are not the only ones reveling at the possibilities the cloud may have to offer. State tax officials have recognized the potential sales taxability of cloud computing and are investigating how the states may be able to raise revenue by taxing the cloud.[11]

States eager to tax cloud computing currently face several obstacles. First, sales tax is usually levied on tangible personal property and services specifically enumerated by statute.[12] This technology does not easily fit into either one of these categories; the cloud is not a physical,

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[5] Barnum, *supra* note 1 at 19.

[6] *See generally* Tax Issues: Sales and Use Tax Issues, http://www.salestaxadvisors.com/v4.2/tax/ (last visited Nov. 23, 2011) (defining sales tax as "a tax on the sale at retail of tangible personal property and certain taxable services." A retail sale is defined as a sale to the final end user of a product. Tangible personal property is defined as a material item, but does not include real property. Most intangible goods, such as services, are not taxable unless a statute specifically enumerates a service as taxable by statute. A use tax is complimentary to sales tax, and is a tax on consuming or using tangible personal property or services).

[7] *See generally* Search Cloud Computing, http://searchcloudcomputing.techtarget.com/definition/cloud-computing (last visited Oct. 10, 2011) (explaining that cloud computing derives its name from the cloud-like diagram that is often used to portray the way the system works, with the platform in the center and the different services it supports floating around it).

[8] *See generally* http://www.salestaxadvisors.com/v4.2/tax/, *supra* note 6 (explaining the taxability of tangible personal property and the taxability of some services).

[9] http://searchcloudcomputing.techtarget.com/definition/cloud-computing, *supra* note 7.

[10] *Id.*

[11] MICHAEL A. JACOBS & KELLEY C. MILLER, PENNIES FROM HEAVEN: U.S. STATE TAX IMPLICATIONS WITHIN CLOUD COMPUTING (June 17, 2010), http://www.reedsmith.com/_db/_documents/State_Tax_Cloud_Computing_Paper.pdf.

[12] *Id.*

tangible product and cloud services are not explicitly defined as taxable by many states.[13] Some states have preemptively avoided the debate of classifying cloud computing by writing broad sales tax statutes that include digital transactions.[14] In these states, sales tax is levied on service based transactions involving data access and storage, making cloud computing taxable in these jurisdictions.[15] However, many other states have avoided new legislation in favor of trying to fit modern technology into already well-established sales tax laws.[16] As a result, problems with determining the taxability of cloud computing transactions arise. Can the storage or software components of cloud computing fit the definition of tangible personal property? Do pure services provided by the cloud remain nontaxable? What are the tax consequences of the cloud as a single transaction with many elements?

The second issue to be considered in regard to the sales taxability of cloud computing is determining which states can impose a sales tax on the transaction. For a state to require a business to collect and remit sales tax, the business needs to have sufficient nexus, or ties, with the state.[17] Nexus is clearly established by having physical presence in a state through the existence of a business location, store, or office.[18] Although this seems like a simple test, the issue of nexus becomes complicated when a business has a large presence in a state, but through means other than a physical location.[19] The Supreme Court held that "economic nexus" or the existence of customers within a state is not enough to establish nexus.[20] Yet situations that fall between clear physical presence and mere economic nexus make the determination of sufficient

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[13] *Id.*

[14] *Id.*

[15] *Id.*

[16] CAROLYNN IAFRATE KRANZ & RICH PREM, NATIONAL SALES & USE TAX CONCEPTS SURROUNDING CLOUD COMPUTING (Oct. 6, 2011), http://www.streamlinedsalestax.org/index.php?page=governing-board-presentation.

[17] ANNETTE NELLEN, NEXUS CONFUSION: SALES AND USE TAX (Sept. 27, 2007), http://www.cpa2biz.com/Content/media/PRODUCER_CONTENT/Newsletters/Articles_2007/CorpTax/UseTax.jsp.

[18] *Id.*

[19] *Id.*

[20] Quill Corp. v. North Dakota, 504 U.S. 298, 313 (1992).

nexus difficult. This gray area has caused significant controversy among Internet based companies and has resulted in many nexus based inquiries, especially in regard to cloud computing.[21] Does a cloud vendor establish nexus in a state where a server is located? Further, can nexus be established by the use of the cloud in a state?

The final inquiry in evaluating the potential taxation of cloud computing is to determine where to source the resulting tax revenue. There are currently two sourcing regimes; origin based sourcing and destination based sourcing.[22] When a state follows origin sourcing, tax is levied in the state where the transaction stems.[23] Conversely, most states use the destination based sourcing system and tax the good where it is used.[24] Sourcing presents an issue for cloud computing because the cloud's exact location has not been determined. Should states that use origin based sourcing tax the cloud if the server is located within the state? Where should tax be levied in destination based sourcing states if more than one server or access point is used?

This paper evaluates the current problems associated with the sales taxability of cloud computing and explains why in light of all issues and discrepancies, the cloud should be subject to sales and use tax. Part I presents an overview of cloud computing. This section provides a technical look at the cloud and describes the ways in which people and companies use cloud computing. Part II outlines sales and use taxation. In this part of the paper, the states' power to tax is addressed and the components necessary to collect sales tax are discussed. Part III takes the components of the prior two sections and combines them to describe the issues currently presented in trying to tax the cloud. Finally, Part IV sets forth possible solutions to enable states to collect sales tax from cloud computing services. The argument for placing a sales tax on the

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[21] NELLEN, *supra* note 17.
[22] JACOBS & MILLER, *supra* note 11.
[23] *Id.*
[24] *Id.*

cloud is supported by policy reasons in favor of the law changing to reflect evolving technology and to help the states raise revenue.

## I.   AN OVERVIEW OF CLOUD COMPUTING
### A. A Technical Look at the Cloud

Cloud computing[25] is a multi-faceted network that allows users to share information, software, and data through an Internet platform.[26]  Information placed "in the cloud" is stored on a server in one specific location, but is accessible through web browsers anywhere and through any device with Internet access.[27] Cloud computing is characterized by five features, offers three different forms of the service, and can be applied using four different models.[28]  The range of options available to end users in combination with its ease of access and application provides a cloud service that fits the needs of almost any person or group.[29]  Due to its variety of features and its flexible amount of available storage, individuals and businesses alike are moving toward a higher reliance on the cloud.[30]

Pinning down an exact definition of cloud computing has become increasingly difficult due in large part to the various forms of cloud services.  As a result, The National Institute of Standards and Technology has provided a list of "five essential characteristics" a service needs to display to be classified as a cloud computing service.[31]  These characteristics are: 1) on demand service, 2) broad network access, 3) resource pooling, 4) rapid elasticity, and 5) measured

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[25] http://searchcloudcomputing.techtarget.com/definition/cloud-computing, *supra* note 7.
[26] *Id.*
[27] Frank Gens, *Defining "Cloud Services" and "Cloud Computing,"* IDC Exchange, (Sept. 23, 2008), http://blogs.idc.com/ie/?p=190.
[28] U.S. DEPARTMENT OF COMMERCE, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, SPECIAL PUBLICATION 800-145, THE NIST DEFINITION OF CLOUD COMPUTING (2011) *available at* http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf [hereinafter The NIST Definition of Cloud Computing].
[29] *Id.*
[30] Gens, *supra* note 27.
[31] The NIST Definition of Cloud Computing, *supra* note 28 at 2.

service.[32]  On demand service is typified by the user being able to access and change network storage needs offered by the service provider automatically, rather than by needing to contact a person who works for the service provider.[33]  Cloud users can access information stored in the cloud when they want to access this data and without the need for IT assistance.[34]  Broad network access means that end users are able to retrieve information in the cloud from any device with Internet capabilities such as computers, laptops, and cell phones.[35] Resource pooling allows many users to access the data and applications stored within the cloud and to update and revise the information within the cloud as needed.[36]  Rapid elasticity allows users to expand the amount of storage space instantaneously while the measured service provides both the provider and the consumer a metric to determine the amount of storage being used.[37]

Cloud computing is offered through three different services; software as a service (SaaS), platform as a service (PaaS), and infrastructure as a service (IaaS).[38]  Each of these services meets the five characteristics of cloud computing, but offers end users varying cloud experiences.[39]  The cloud technology supporting the services are the same, but each gives the end user different levels of control over the system being used.[40]  In some instances SaaS, PaaS, and or IaaS may overlap resulting in hybrid programs.[41]  However, each service taken individually

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[32] *Id.*
[33] *Id.*
[34] *Id.*
[35] *Id.*
[36] *Id.*
[37] *Id.*
[38] *Id.*
[39] Cloud Computing For Dummies: SaaS, PaaS, IaaS, And All That Was, http://www.cloudtweaks.com/2011/02/cloud-computing-for-dummies-saas-paas-iaas-and-all-that-was/ (last visited Oct. 21, 2011).
[40] *Id.*
[41] *Id.*

has distinct characteristics, leaving an end user the option to choose the system that best fits his or her needs.[42]

The oldest of cloud services is the software as a service model.[43] SaaS is "software on demand" available to the user through a web browser.[44] This service provides the fewest options to the user and the most responsibility on the provider.[45] The user does not have any control over the service, network, servers, or capacities of the program.[46] Instead, the user typically signs a service agreement with the provider, agreeing to the terms of the SaaS being provided and accepting the service as is.[47] This interface offers users the advantages of efficiency and ease of access.[48] Many people are familiar with the SaaS model and use it on a daily basis when they access services such as Google's Gmail or NetSuite.[49]

The largest advantage and disadvantage to SaaS is the same; the user's inability to control the service's features. Regardless of inflexibility in form, many users still rely on SaaS cloud computing and enjoy both the availability and reliability of this service.[50] The only real concerns SaaS users have complained about have been privacy issues, which are more prevalent with this model since the user does not have any control over the infrastructure of the system.[51]

The second type of cloud service provides a platform (PaaS) and gives the user the opportunity to create a new application or build upon one that is already in existence within this

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[42] *Id.*

[43] cloudtweaks.com, *supra* note 39.

[44] *Id.*

[45] Archie Hendryx, *Cloudy Concepts: IaaS, SaaS, PaaS, MaaS, CaaS, & XaaS*, (Nov. 1, 2011), http://cloudcomputing.sys-con.com/node/2041405.

[46] *Id.*

[47] *Id.*

[48] *Id.*

[49] cloudtweaks.com, *supra* note 39.

[50] *Id.*

[51] *See generally* Who Doesn't Like Cloud Computing, http://www.cloudtweaks.com/2010/12/who-doesnt-like-cloud-computing/ (last visited Nov. 1, 2011) (explaining the concern over how secure information stored on the Internet is and how privacy may be forfeited through these services).

particular cloud.[52]  The user can generate an application through a PaaS provider without any other software, hardware, or other system.[53]  The advantage to this service is that the user has more control over the application without the need to oversee the base of the infrastructure (i.e. the network and servers.)[54]

In many ways, platform as a service is essentially a customizable version of SaaS.[55]  PaaS gives the user the ability to create and build a unique application without the need to purchase hardware, software, or any other tools previously needed to reach the same end result.[56]  The provider is still in control of all aspects of the actual infrastructure of the cloud; the network, server, and hardware.[57]  The defining feature that makes PaaS a different system is the option it offers its users to change the actual application and / or build a new application with the tools provided by the service.[58]  Google's App Engine and Microsoft's Azure are examples of platform services.[59]

The last cloud model, infrastructure as a service or IaaS, is perhaps the system that provides users with the most control.[60]  The provider still has control over the physical server and over some network features, but for the most part IaaS leaves all other aspects to the user.[61]  When a user purchases an IaaS system, he or she buys a package that includes software, network equipment, and storage space for data.[62]  The most popular uses of IaaS are for hosting websites

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[52] *Id.*
[53] *Id.*
[54] Hendryx, *supra* note 45.
[55] cloudtweaks.com, *supra* note 39.
[56] *Id.*
[57] *Id.*
[58] *Id.*
[59] *Id.*
[60] *Id.*
[61] *Id.*
[62] *Id.*

and for storage services.[63]   Customers who purchase IaaS cloud based services are billed on a

"per-use basis" dependent on the amount of cloud storage space the purchaser uses.[64]   The

Amazon private cloud offers an infrastructure as a service.[65]

The final layer of service options is a choice of four different cloud models; the private

cloud, community cloud, public cloud, and hybrid cloud.[66]   The private cloud is a cloud system

that is established solely for the use of one business or entity but with access capabilities for any

number of designated users.[67]   A community cloud is similar to a private cloud because access is

only given to specified users, but is comprised of information from several organizations.[68]

Public clouds may be established by anyone from the government to a school, but provides open

access to anyone.[69]   Finally, the hybrid cloud is a combination of the private, community, and /

or public clouds.[70]   In a hybrid cloud, two or more separate cloud systems exist but are tied

together by the transferability of data.[71]

### B.  The Use of the Cloud

Cloud computing offers so many options that almost any person or business can find a

cloud service that fits their needs. The cloud's easy accessibility, simple application, and

flexible amount of available storage has caused individuals and businesses alike to move toward

a higher reliance on cloud services.[72]   Although some people actively seek out cloud service

providers for personal or professional use, many people rely on the cloud on a daily basis and do

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[63] *Id.*

[64] What is Infrastructure as a Service (IaaS)?, http://searchcloudcomputing.techtarget.com/definition/Infrastructure-as-a-Service-IaaS (last visited Nov. 23, 2011).

[65] *Id.*

[66] The NIST Definition of Cloud Computing, *supra* note 28 at 3.

[67] *Id.*

[68] *Id.*

[69] *Id.*

[70] *Id.*

[71] *Id.*

[72] Seth Fiegerman, *5 Ways You're Already Using the Cloud*, (June 7, 2011) http://www.mainstreet.com/article/smart-spending/technology/5-ways-you-re-already-using-cloud.

not realize it.[73] Email services such as Google's Gmail and social media websites like Facebook are two of the most popular types of cloud based services.[74] Online music streaming, Google Docs, photo storage sites like Flickr, and file storage services like Dropbox are other commonly used cloud services.[75]

Whether people are aware of their reliance on the cloud or not, the increase in people's personal use of cloud computing has gradually led to its use in the business sector.[76] Dropbox launched a service for small and medium sized businesses called "Dropbox for Teams" that centralizes administrative services but provides the same data storage system as the original system.[77] Dropbox for Teams was designed for business use but was created in response to the number of Dropbox users that began using the service as a way to store and transfer data for work purposes.[78] The system offers all of the same services and features as its predecessor but specifically targets businesses with features that aid people in the workplace.[79] Dropbox for Teams does not charge users on a per-usage basis, but instead uses a pricing system based on the number of users.[80] The basic package offers five users access to this cloud for $795 a year.[81] Additional people may be granted access to an organization's Dropbox, but costs $125 per additional user.[82]

Dropbox for Teams is aimed at small to medium sized businesses, but larger service firms have embraced other cloud services in practice, as well. In a recent poll conducted by the

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[73] *Id.*
[74] *Id.*
[75] *Id.*
[76] Tom Loftus, *Cloud Storage Firm Dropbox Recognizes Business Use with New Service,* The Wall Street Journal Digital Service, (Oct. 28, 2011), http://blogs.wsj.com/ digits/ 2011/10/28/cloud-storage-firm-dropbox-recognizes-business-use-with-new-service/.
[77] *Id.*
[78] *Id.*
[79] *Id.*
[80] *Id.*
[81] *Id.`*
[82] *Id.*

American Lawyer, 65% of responding law firms reported the use of cloud computing, a 50%

increase in use of cloud services by law firms in only a year.[83] Law firms that have started

relying on the cloud use it for a variety of purposes from Human Resource management and

email systems to a data storage system.[84] Some law firms have customized the cloud even more

by using it in practice for e-discovery and litigation support.[85] Law firms that use the cloud pay

for the services it provides as well as for the data storage component.[86]

Accounting firms have similarly started to rely on cloud computing at an increasing

rate.[87] Cloud computing allows technology infrastructures that were pricey and required in-

house service to be outsourced for a much lower price.[88] Firms who use the cloud enjoy

instantaneous access to data stored within the cloud, on demand technical support, and a more

secure back-up system than previous software systems used in the industry.[89] Additionally, like

law firms, accounting firms have found a niche in the cloud to aid in industry specific tasks such

as tax preparation, payroll, and sales tax management.[90]

While accounting firms enjoy the benefits of the cloud, many tax professionals have

started to ask the same question state legislators have; is the cloud taxable?[91] This question does

not have a simple answer because of the many components involved in placing a sales tax on a

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[83] Majority of Law Firms in the US use some Kind of Cloud Computing, http://lawcloudcomputing.com/ 2011/11/majority-of-law-firms-in-the-us-use-some-kind-of-cloud-computing/ (last visited Nov. 15, 2011).

[84] Study: Majority of Law Firms Using Cloud Computing in Some Capacity, http://www.liveoffice.com/company/ industry-news/study-majority-law-firms-using-cloud-computing-some-capacity (last visited Nov. 25, 2011).

[85] *Id.*

[86] *Id.*

[87] Alexandra Defelice, *Cloud Computing: What Accountants Need to Know*, JOURNAL OF ACCOUNTANCY (Oct. 2010), *available at* http://www.journalofaccountancy.com/Issues/2010/Oct/20102519.htm.

[88] *Id.*

[89] *Id.*

[90] *Id.*

[91] JACOBS & MILLER, *supra* note 11.

given transaction.[92]  To fully understand the potential tax consequences of cloud computing,  an overview  of the state taxing  regime  needs to be understood.

## II.    AN OVERVIEW  OF SALES  AND USE TAXATION

### A. The States' Power to Tax

The States' power to tax is regulated  by the United  States Constitution  through  the Due Process Clause and the Commerce  Clause.  The Due Process Clause says that "no state shall deprive  any person of … property,  without  due process of law."[93]  Extending  the Due Process Clause  to the state tax arena  means that a state cannot tax a person, business,  or entity  unless  it is fair.[94]  The determination  of whether  an item is fairly  taxed rests largely  on how much contact a person or entity  has with a state.[95]  Thus,  to be in accord with  due process a state can only impose tax on a transaction  when there is a minimal  connection  with the business'  activities  and the state.[96]

The Commerce  Clause states that "The Congress  shall  have the power… to regulate commerce…  among the several States…"[97]  The Commerce  clause gives Congress ultimate power to oversee regulation  among the states.[98]  This power was clearly  established  and defined by the Supreme  Court's creation  of a four part test that must be met by a state in order for it to have the power to levy  a tax on interstate  commerce.[99]  The test states that a tax cannot be imposed unless:  1) substantial  nexus is established  with the state trying  to impose  the tax; 2) the tax is fairly  apportioned;  3) the tax is not discriminatory  to interstate  commerce;  and 4) the tax is

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[92] *Id.*
[93] U.S. CONST. amend. VIV,  § 1.
[94] *Id.*
[95] *Id.*
[96] *Id.*
[97] U.S. CONST. art, I, § 8, cl. 3.
[98] *Id.*
[99] *See generally* Complete Auto Transit,  Inc. v Brady, 430 US 274 (1977)  (establishing  a four prong test for taxation and how it is implemented  among the states).

linked to services offered by the state.[100] If a sale does not meet this test, a vendor cannot levy a

sales tax outside of its state's borders or on interstate commerce.[101]

## B. The Components Necessary to Impose Sales and Use Tax

Sales tax was first introduced in the 1930s as a way to raise state revenue.[102] A sales tax

is defined as a transactional tax that is levied on a purchaser of an item or user of a service.[103]

The most popular type of sales tax is a retail sales tax, which is a tax charged to the consumer on

a final sale.[104] State sales tax is usually itemized separately in a transaction because it is a

distinct charge paid by the purchaser.[105] The seller is responsible for collecting the sales tax from

its customers and eventually needs to remit it to the appropriate state.[106]

When states began to charge sales tax, it proved to be a highly successful way to raise

revenue.[107] However, the constitutional limitations on taxing interstate commerce made (and

continues to make) the collection of sales tax impossible in some states.[108] As a result, the use

tax was enacted as complementary to the sales tax and is imposed on the state where the product

is used or consumed.[109] Use tax is equal to the amount the sales tax on the item would have been

if the sale took place within the state.[110] The use tax is meant to discourage in state residents

from making out of state purchases not subject to sales tax.[111] Theoretically this corresponding

taxation system should work, but fails to meet its objectives because use tax is not a well

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[100] *Id.*
[101] U.S. CONST. art, I, § 8, cl. 3.
[102] JEROME R. HELLERSTEIN & WALTER HELLERSTEIN, STATE AND LOCAL TAXATION 813 (Thomson West 2005).
[103] *Id.* at 690 – 692.
[104] *Id.* at 691.
[105] *Id.* at 692.
[106] *Id.*
[107] *Id.* at 813.
[108] *Id.*
[109] *Id.*
[110] *Id.*
[111] *Id.*

monitored tax.[112] The use tax is self-reported by consumers and is difficult to track causing use taxes to be extremely underreported.[113]

### i. Classification of Taxable Products

The classification of the product being sold in a transaction is vital to the determination of whether a sales or use tax is owed. Historically, sales and use tax is levied on an item that is classified as tangible personal property.[114] Although each state has its own definition of tangible personal property defined by statute, states typically classify a taxable good as a physical object that can be seen or felt.[115] Some states have extended the definition of tangible personal property to include prewritten software, while other states have gone as far as to include digital products.[116] If an item falls within the definition of a tangible good, the good is taxable in states that require businesses to collect and remit sales tax unless specifically exempt by statute.[117] Conversely, a service is presumed to be a tax free transaction unless it is explicitly enumerated by statute as taxable.[118]

The classification of a transaction is not always clear-cut and obvious. For example, if a tangible good and a service are sold together, determining the taxability of the transaction becomes difficult. Some states deem the entire transaction as a taxable event when a good is comingled with a service.[119] Other states allow this "bundled" transaction to be separated for

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[112] *Id.*
[113] *Id.*
[114] PHIL SCHLESINGER, THE TAXABILITY OF SERVICES 3 (2009), http://www.cch.com/press/news/
CCHWhitePaperTaxabilityOfServices.pdf.
[115] STREAMLINED SALES TAX PROJECT, TANGIBLE PERSONAL PROPERTY ISSUE PAPER 1 (2002), *available at*
http://www.streamlinedsalestax.org/uploads/downloads/IP%20Issue%20Papers/IP02003_TPP_issue_paper_4_15_0
2.pdf.
[116] *Id.*
[117] SCHLESINGER, *supra* note 114, at 2.
[118] *Id.*
[119] *Id.*at 6 – 7.

taxation purposes if the good and service are itemized separately on the bill.[120] Thus, if a customer buys a taxable good and a non-taxable service, he or she will only be taxed on the good as long as the vendor lists the charges separately on the invoice.[121]

Each state applies fairly similar treatment to the taxation of tangible goods and the non-taxation of services. However, the states treatment of computer software and digital products varies greatly amongst the states.[122] Generally, computer software is considered tangible personal property and is therefore taxable even if it is delivered electronically.[123] A database service is not typically taxable because it does not fall into the category of a tangible good or a taxable service. However, the line between taxable software and nontaxable data access causes another questionable overlap for taxation purposes.[124] A few states have specifically passed legislation that taxes online informational services and data processing systems.[125] The majority of states that have not specifically addressed online informational services and data systems try to fit these services into existing tax law, but are being met with increasing controversy over how to classify new services into old statutory definitions.[126]

### ii. Nexus with a State

Despite an object's classification, a vendor cannot collect sales or use tax unless it has sufficient nexus or ties with a state.[127] Nexus with a state is established through "physical presence" in the form of an office, store, or business location.[128] Other nexus creating activities include storing inventory in a state, sending employees to a state for business purposes,

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[120] *Id.*

[121] *Id.*

[122] *Id.*

[123] *Id.*

[124] *Id.*

[125] *Id.*at 7 – 8.

[126] KRANZ & PREM, *supra* note 16.

[127] DAVID HARDESTY, TAXATION OF SOFTWARE AND INTERNET COMPANIES: MULTISTATE TAXATION OF SOFTWARE AND INTERNET COMPANIES (1997), *available at* http://www.riskinfo.com/tech/multista.htm.

[128] *Id.*

employees conducting business services in the state, and deliveries made to a state with the company's vehicles rather than through mail or common carrier.[129] States have tried to claim that nexus can be established by lesser business contacts within a state, but thus far this argument has failed.[130]

Nexus is generally not defined by state statute, but is rather a condition that results from constitutional limitations and case law.[131] The Due Process Clause and the Commerce Clause laid the groundwork for state taxation and nexus issues, but many cases have refined nexus requirements regarding state sales and use taxation.[132] One of the leading cases regarding issues of nexus and sales and use tax is *Nat'l Bellas Hess v. Dep't of Revenue of Illinois.*[133] In this case, the Supreme Court held that the Commerce Clause precludes a state from making a seller collect sales or use tax when the only connection with the state is through mail orders.[134] National Bellas Hess was a company with business headquarters in Missouri.[135] It contacted customers in other states by sending catalogues through the mail and completed orders by sending its products through mail or common carrier.[136] Illinois tried to argue that Bellas Hess had to collect sales tax from customers in its state, claiming that sufficient ties were made by selling and shipping products to residents in the state.[137] The Court held that nexus was not established merely by mailing products to customers in a state.[138]

The Supreme Court revisited the nexus issue in *Quill Corp. v. North Dakota* and reaffirmed all of its earlier decisions, particularly its decision in *Nat'l Bellas Hess*, when it held

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[129] *Id.*
[130] *Id.*
[131] *Id.*
[132] *Id.*
[133] Nat'l Bellas Hess v. Dep't of Revenue of Illinois, 386 US 753 (1967).
[134] *Id.* at 758 – 760.
[135] *Id.* at 754.
[136] *Id.* at 755 – 756.
[137] *Id.*
[138] *Id.* at 758 – 760.

that nexus is not established merely by having customers in a state.[139] In this case, the Tax Commissioner of North Dakota wanted Quill Corporation to collect sales and use tax from residents within the state.[140] Quill made sales to residents of North Dakota through catalogues, phone calls, and flyers. Additionally, it sent customers floppy disks so that available inventories could easily be seen and tracked.[141] Quill did not have a physical presence in the North Dakota in the form of buildings, land, or employees and used mail and common carrier for all shipments.[142] The Supreme Court held that requiring Quill to collect a use tax on sales made to North Dakota residents was a violation of the Commerce Clause because it interfered with interstate commerce.[143] Thus, a business must have physical presence with a state and not just economic nexus, or customers, to establish nexus with a state.[144]

Supreme Court precedent in combination with constitutional underpinnings has created a definition of nexus that has become problematic in modern times of Internet sales. A business needs to have a physical presence in a state to establish nexus, but many Internet vendors do not have buildings, land, or stores in the majority of states where sales are made and purchases are shipped. In *Quill Corp.* the Court said that Congress can overrule its decision through legislation thereby resolving this issue.[145] To date, there has been no uniform legislation passed on the matter and there has not been a Supreme Court decision on nexus in relation to sales tax issues since *Quill Corp.*

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[139] *Quill Corp*, 504 U.S. at 313.
[140] *Id.* at 301.
[141] *Id.* at 302.
[142] *Id.*
[143] *Id.*at 317 – 319.
[144] *Id.*
[145] *Id.* at 318.

Recent legislation has been proposed by Senate to help resolve some of the nexus issues created by the increase of Internet sales.[146]  On November 9, 2011 a Bill called the Marketplace Fairness Act was introduced to the Senate.[147]  If this Bill is enacted, states will be given the power to require out-of state Internet vendors to collect sales tax from online purchasers.[148]  If the Marketplace Fairness Act is passed into law, the nexus requirements set forth by *Quill Corp.* will no longer be applicable.[149]  The Bill is careful to state that it only affects nexus requirements in regard to sales and use tax, therefore not changing nexus rules for any other type of taxation.[150]  Although this proposal will likely cause arguments involving the Commerce Clause and interstate commerce, it does have the potential to put an end to nexus confusion and lost revenue surrounding Internet sales.

### iii.  Sourcing to the States

If a transaction is deemed to be a taxable event, the final inquiry that needs to be considered is where the resulting revenue should be sourced.  There are several sourcing regimes, but the two most common methods are origin based sourcing and destination based sourcing.[151]  States that follow origin based sourcing levy a tax in the state where the product comes from or originates.[152]  Only a minority of states follow an origin based sourcing scheme.[153]  Most states use destination based sourcing and levy a tax on the good in the state where it is used.[154] Determining an origin and destination state is a simple inquiry when a

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[146] Marketplace Fairness Act, S. 1832, 112th Cong. (2011).
[147] *Id.*
[148] *Id.*
[149] *Id.*
[150] *Id.*
[151] JACOBS & MILLER, *supra* note 11.
[152] *Id.*
[153] *Id.*
[154] *Id.*

tangible good is involved because the origin state is where the item is shipped from and the destination state is where the item is shipped to and ultimately used and consumed.

The application of sourcing rules becomes more complicated when the transaction is for a taxable nontangible good such as computer software or computer services. The rule is the same; the origin is the state where the digital item comes from and the destination state is where the consumer purchases and accesses it.[155] The rule application becomes difficult because the destination state is not always easily decipherable. Like most sales and use tax issues, states try to find a solution to this problem by fitting new technology into old tax laws. Although this method works in some instances, state legislators and tax professionals alike recognize the need for a new broader approach to some aspects of sales and use taxation.

## III. THE POTENTIAL SALES AND USE TAXABILITY OF CLOUD COMPUTING

Generally, the states follow three rules when applying sales and use tax: 1) tangible personal property is taxable while most services are not; 2) to tax a transaction a business needs nexus with the state; 3) and appropriate sourcing rules need to be followed.[156] However, the states application of these rules varies immensely, especially in the area of cloud computing. While some states have updated sales and use tax statutes to address changing technology, most states remain silent on the issue. The lack of updated statutes may be partially due to the onus of changing well established legislation. Yet it seems more likely that the absence of guidance is because legislators and tax professionals are not sure how cloud computing fits into the three prong sales and use tax regime.

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[155] STREAMLINED SALES AND USE TAX AGREEMENT 20‑26 (2010), *available at* http://www.streamlinedsalestax.org/uploads/downloads/Archive/SSUTA/SSUTA_As_Amended_4_30_10.pdf.
[156] *See* discussion *supra* Part II (explaining the components of sales and use taxation).

### A.  Is the Cloud a Taxable Product or a Non-Taxable Service?

States have historically taxed tangible personal property while allowing most services to remain nontaxable.[157]   While this discrepancy in taxing a good but not a service caused disputes in the past, current debates have focused more on how to classify digital products, namely the cloud, within this framework.  Cloud computing gives users the ability to use remote servers, store and access data, and use software.[158]  The result causes a mixture of tangible storage space that may be taxable, software that is often taxable, and services that are usually nontaxable.[159]  Some states have started to address the definition of cloud computing, but most states have not passed specific legislation on the issue and struggle to classify the cloud within current sales tax definitions.[160]   States that have addressed the taxability of cloud computing have done so largely by defining the taxability of the software component of the cloud.[161]   States' treatment of the taxation of software and cloud computing includes: the sale or lease of tangible personal property, the transfer of software, a taxable service, and / or a nontaxable service.[162]

Some states have amended the definition of tangible personal property to include prewritten computer software.[163]   For example, Washington has broadened its sales tax statutes to include prewritten software as a taxable item regardless of the method of transmission.[164]  Thus, the sale, lease, or authorization to use prewritten software is a taxable event regardless of whether the software is purchased in a store or downloaded from an Internet source.[165]  Additionally, Washington specified that remote access to prewritten software and data is a

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[157] SCHLESINGER, *supra* note 114, at 2
[158] The NIST Definition of Cloud Computing, *supra* note 28 at 3.
[159] JACOBS & MILLER, *supra* note 11.
[160] *Id.*
[161] *Id.*
[162] *Id.*
[163] *See* WASH. REV. CODE §82.04.050(6)  (2011);  WASH ADMIN CODE §458-20-15501(2009)  (providing an example of a state that has amended the definition of tangible personal property to include prewritten software).
[164] WASH. REV. CODE §82.04.050(6)  (2011);  WASH ADMIN CODE §458-20-15501(2009).
[165] WASH. REV. CODE §82.04.050(6)  (2011);  WASH ADMIN CODE §458-20-15501(2009).

taxable event.[166]  Applying these laws to cloud computing systems, it appears that the cloud is a taxable transaction in Washington.  Any prewritten software that is downloaded through the cloud is tangible personal property and therefore taxable.[167]  Furthermore, the "remote access" portion of the statute applies a broad enough standard to tax end users for using and accessing data they store, upload, and download from the cloud.[168]

Connecticut, the District of Columbia, Hawaii, New Mexico, and New York have similarly classified prewritten software as tangible personal property, regardless of transmission.[169]  These states have also specifically included computer services as an enumerated taxable service.[170]  As a result, the cloud is taxable in these jurisdictions.  The software component of the cloud is taxable as statutorily defined tangible personal property while the services provided by the cloud are also taxable by statute.[171]

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[166] WASH ADMIN CODE §458-20-15501(2009).

[167] WASH. REV. CODE §82.04.050(6)  (2011); WASH ADMIN CODE §458-20-15501(2009).

[168] WASH. REV. CODE §82.04.050(6)  (2011); WASH ADMIN CODE §458-20-15501(2009).

[169] See CONN. GEN. STAT. §39-26-102 (2011 ); D.C. CODE ANN. §47-2011(n)(1)(N)(2011);  HAW. REV. STAT. §237-13 (2008);  N.M. CODE R. §3.2.1.15(J)  (2000);  N.M. CODE §3.2.1.18  (2010);  NY COMM'ER OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(44)S,  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES - INTERNET ADVERTISING, SET-UP, AND SUPPORT SERVICES (Sept. 24, 2009);  CONNECTICUT DEP'T OF REVENUE SERVICES, CONNECTICUT STATE TAX REPORTER, POLICY STATEMENT 2006(8),  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES (Mar. 23, 2007)  (defining prewritten software as tangible personal property whether it is purchased in tangible form via CD-Rom or downloaded electronically from the Internet).

[170] See CONN. GEN. STAT. §39-26-102 (2011 ); D.C. CODE ANN. §47-2011(n)(1)(N)(2011);  HAW. REV. STAT. §237-13 (2008);  N.M. CODE R. §3.2.1.15(J)  (2000);  N.M. CODE §3.2.1.18  (2010);  NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(44)S,  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES - INTERNET ADVERTISING, SET-UP, AND SUPPORT SERVICES (Sept. 24, 2009);  CONNECTICUT DEP'T OF REVENUE SERVICES, CONNECTICUT STATE TAX REPORTER, POLICY STATEMENT 2006(8),  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES (Mar. 23, 2007)  (enumerating data processing and other computer services as taxable services).

[171] CONN. GEN. STAT. §39-26-102 (2011 ); D.C. CODE ANN. §47-2011(n)(1)(N)(2011);  HAW. REV. STAT. §237-13 (2008);  N.M. CODE R. §3.2.1.15(J)  (2000);  N.M. CODE §3.2.1.18  (2010);  NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(44)S,  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES - INTERNET ADVERTISING, SET-UP, AND SUPPORT SERVICES (Sept. 24, 2009);  CONNECTICUT DEP'T OF REVENUE SERVICES, CONNECTICUT STATE TAX REPORTER, POLICY STATEMENT 2006(8),  SALES AND USE – TAXABILITY OF PERSONS AND TRANSACTIONS: COMPUTERS, SOFTWARE AND SERVICES (Mar. 23, 2007)  (explaining  that the component parts of the cloud are taxable in these states).

Although some states tax Internet based services like cloud computing, many states regard cloud services like any other service and do not subject it to sales and use tax.[172] These states typically stay true to the historic sales and use tax regime and do not even levy tax on prewritten software that is transmitted electronically rather than through tangible means.[173] Arkansas, Florida, Missouri, and Oklahoma are a few of the states that follow this framework.[174] These states do not tax software if it is not sold in a tangible form and do not enumerate software as a service as a taxable service.[175] Computer services are also considered nontaxable in these jurisdictions, making cloud computing and its component parts nontaxable in these states.[176]

For the majority of states that have not specified the tax consequences of cloud computing, the question of how to handle the sales and use taxation of cloud services remains unanswered. Some tax professionals believe the physical storage aspect, data space, and servers are tangible personal property and therefore may be subject to tax.[177] However, the intangible service aspect of the cloud is arguably a nontaxable service.[178] The current split among the states leaves room for various applications. A broad sales and use taxation scheme would tax this entire transaction, viewing the software and servers as tangible personal property and the service

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[172] KRANTZ & PREM, *supra* note 16.

[173] *Id.*

[174] *See* ARK. CODE ANN. §26-52-304 (2011); FLA. 12A-1.062 (2001); MO. REV. STAT. §144.010 (2011); OKLA. STAT. 68, §1357 (2010); Ark Reg. GR – 25 (2008); MO. CODE REGS. ANN. tit. 12, §10-109.050 (2000); OKLA. ADMIN CODE §710:65-19-86 (2011) (exemplifying statutes from a few states that stay true to the "tangible personal property" definition by only taxing prewritten software if it is truly tangible in form. These states tax prewritten software if it is sold to a consumer through physical means in the form of a disc because the sale is of a tangible good. However, if the same software is purchased and downloaded electronically it is not taxed in these states because no "tangible" property is involved in the transaction).

[175] *See* ARK. CODE ANN. §26-52-304 (2011); FLA. 12A-1.062 (2001); MO. REV. STAT. §144.010 (2011); OKLA. STAT. 68, §1357 (2010); Ark Reg. GR – 25 (2008); MO. CODE REGS. ANN. tit. 12, §10-109.050 (2000); OKLA. ADMIN CODE §710:65-19-86 (2011) (illustrating a few states that do not classify software as a service or computing services as a taxable).

[176] *See* ARK. CODE ANN. §26-52-304 (2011); FLA. 12A-1.062 (2001); MO. REV. STAT. §144.010 (2011); OKLA. STAT. 68, §1357 (2010); Ark Reg. GR – 25 (2008); MO. CODE REGS. ANN. tit. 12, §10-109.050 (2000); OKLA. ADMIN CODE §710:65-19-86 (2011) (explaining that computing services are not taxable services in any of these states).

[177] JACOBS & MILLER, *supra* note 11.

[178] *Id.*

as a taxable event. Yet a narrow application of this regime may result in a completely nontaxable transaction.

One solution to this problem may be for states to treat cloud computing as any other "bundled" sale.[179] Bundled transactions are sales that include both tangible goods and intangible services.[180] Some states determine the taxability of this type of transaction based on the percentage makeup of the good versus the service.[181] Other states allow the service aspect to remain nontaxable as long as an itemized invoice can separate the good versus the service in a measurable way.[182] While this approach to sales and use tax again varies on a state to state basis, it seems this may be the most cohesive way for states to fit cloud computing into the current sales and use tax framework. Moreover, implementing a bundled approach to sales and use taxation of cloud computing allows both the states and the cloud computing users to "win." States can collect tax revenues on the tangible portion of the cloud, while end users still enjoy the service component tax-free. Thus, the cloud is both taxable, tangible personal property and a nontaxable service and should be taxed accordingly.

### B. Does the Cloud Create Sufficient Nexus with the States?

The second issue at the forefront of the sales and use taxability of cloud computing is whether the cloud creates nexus with the states, and if so through what means. This inquiry is perhaps the most important question regarding the sales and use taxation of cloud computing because regardless of the cloud's classification, it can only be taxed if sufficient nexus with a state exists.[183] Nexus with a state is established through "physical presence" usually in the form

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[179] *Id.*
[180] *Id.*
[181] *Id.*
[182] *Id.*
[183] HARDESTY, *supra* note 127.

of an office, business location, or employees within a state.[184] This requirement makes finding

nexus with a state extremely difficult in cloud computing transactions because the cloud is

largely Internet based and therefore does not have a physical location in the traditional sense.

The last time the Supreme Court examined nexus in regard to sales and use tax was in

1992, when it reaffirmed that a physical presence needs to be created in a state to establish

nexus.[185]   However, the rise of Internet sales has recently caused nexus issues to become hotly

debated between the states and online vendors leaving many states to pass legislation that

broadens the traditional nexus definition.[186]   The Marketplace Fairness Act has been introduced

to the Senate to help create a nexus standard for online sales and services, but unless and until

this Bill is passed into law there will be uncertainty regarding nexus and differing treatment of

nexus on a state by state basis.[187]

Nexus issues in relation to online activities have recently been brought before courts and

legislators largely due to the Amazon.com controversies taking place across the country.[188]

Online sales have generally remained nontaxable due to lack of sufficient nexus with the states,

causing a large loss of sales tax revenue.  Several states, including New York, California, and

Illinois have enacted (or tried to enact) statutes to levy taxes on Internet sales.[189]   States argue

that Amazon.com does create nexus through varying forms of contact and should therefore be

required to collect and remit sales and use tax.[190]   Amazon has tried to rebut state arguments by

citing *Quill Corp.* to support its argument that sufficient nexus does not exist.[191]   The Amazon

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[184] *Id.*

[185] *Quill Corp*, 504 U.S. at 313.

[186] *See generally* Roger Russell, *Amazon Tax Case Could Go to Supreme Court,* (May 7, 2010),
http://www.accountingtoday.com/news/Amazon-Tax-Case-Could-Hit-Supreme-Court-54139-1.html.

[187] Marketplace Fairness Act, S. 1832, 112th Cong. (2011).

[188] Russell, *supra* note 186.

[189] *Id.*

[190] *Id.*

[191] *Quill Corp*, 504 U.S. at 313.

cases have varied in issue and outcome among the states, but share a common nexus inquiry in relation to online sales.

In 2008, New York amended its tax laws to try to account for the loss of revenue it experienced from online sales.[192] The amendment states that a company, like Amazon, establishes nexus with New York when it uses a New York resident to advertise and solicit business from other New York residents through the third party resident's website.[193] The statute provides a threshold amount to protect smaller businesses by only levying a tax on referrals that result in revenues in excess of $10,000.[194] Thus, when a third party places an out-of-state seller's link on its website, nexus is created between the out-of-state seller and New York when the $10,000 threshold is met. Amazon brought suit alleging that the amendment was unconstitutional on Commerce Clause and Due Process grounds, but the trial court dismissed its complaint.[195] On appeal, the court held that Amazon's constitutional arguments failed, and held that the law is constitutionally sound.[196] However, the court remanded the case back to the trial court for further fact specific inquiries in regard to Amazon's particular circumstances.[197] In the meantime, New York Tax Law remains amended to include a nexus presumption for a business with a web link on a third party, in-state resident's website.[198] This law makes out-of state vendors solicit the help of third party websites, liable for collecting and remitting sales and use tax in New York.

In July 2011, California followed New York's lead and enacted the "Amazon Tax," requiring online companies to collect and remit sales and use tax if they had any type of

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[192] NY TAX LAW § 1101(b)(8)(vi)(2011).
[193] *Id.*
[194] *Id.*
[195] Amazon.com, LLC v New York State Dep't of Tax'n & Fin., No. 7823, slip op. at 188 (N.Y. App. Div. 2010).
[196] *Id.* at 206 - 207
[197] *Id.* at 207.
[198] DEP'T OF TAX'N AND FIN, NEW YORK STATE, AMAZON.COM, LLC V NEW YORK STATE DEP'T OF TAX'N & FIN, (2010) *available at* http://www.tax.ny.gov/bus/st/amazon_com_lit.htm.

connection with the state.[199] The Amazon Tax allowed nexus to be created by affiliates and websites that hosted links to an out-of-state online retailer.[200] Amazon did not agree with this broad definition of nexus and responded with the threat of a referendum.[201] A little over a month later, California and Amazon compromised.[202] The Governor of California repealed the Amazon Tax, allowing online retailers to avoid sales and use tax until September 15, 2012.[203] Although the state worked with online retailers and provided a grace period before implementing the Amazon tax, California has a strong incentive to see that this law remains intact for 2012. Once this law is enacted, California is expected to collect approximately $317 million from sales and use tax collection on Internet sales, per year.[204]

Illinois attempted to broaden its definition of nexus to include solicitation by in-state affiliates as well, but did not reach the same compromise with Amazon as California.[205] The newly enacted law requires online retailers to collect sales tax in the state if the vendor works with affiliates in the state.[206] Rather than being subjected to sales and use tax in Illinois, Amazon threatened to cut all ties with affiliates in the state to sever nexus under this new standard.[207] Thus, this law was meant to aid Illinois by raising revenues in the form of sales tax, but resulted in a loss of revenue to state businesses that are no longer used as Amazon affiliates.[208]

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[199] Cal. Rev. & Tax Code 6203, *amended* by ABX1, amendment *repealed by* AB 155 (2011).

[200] *Id.*

[201] Emily Holding, *Amazon.com seeks referendum on California's Internet sales tax law, supports similar legislation,* SAN DIEGO NEWS ROOM, Aug. 4, 2011, *available at* http://www.sandiegonewsroom.org/news/index.php?option=com_content&view=article&id=43815:amazoncom-seeks-referendum-on-californias-online-sales-tax-law-supports-similar-federal-legislation&catid=231:taxes&Itemid=264.

[202] *Id.*

[203] Cal. Rev. & Tax Code 6203, *amended* by ABX1, amendment *repealed by* AB 155 (2011).

[204] Holding, *supra* note 201.

[205] Janet Novack, *Illonois Governor Signs Amazon Internet Sales Tax Law,* FORBES, *available at* http://www.forbes.com/sites/janetnovack/2011/03/10/illinois-governor-signs-amazon-internet-sales-tax-law/.

[206] 35 Ill. Comp. Stat. 105/2, *amended by* H.B. 3659 (2011).

[207] Novack, *supra* note 205.

[208] *Id.*

The Amazon cases have been one of the driving forces behind the movement for a broader definition of nexus. Online vendors' avoidance of sales tax and the states' differing ways of dealing with the nexus loophole has caused various outcomes across the United States. However, the issue of nexus may be more confusing in the cloud computing realm because of both the recent affiliate nexus approach and due to the traditional "physical presence" requirement. Cloud computing vendors will likely make the same arguments that other online retailers have been making in regard to affiliate nexus. However, with a growing number of states broadening nexus to include the actions of in-state third parties, cloud computing vendors will likely have nexus with states where there is no "physical presence." Therefore, if an in-state resident or company provides a link to a cloud computing vendor's website in states like New York, California, and Illinois, the cloud vendor now has nexus with these states even in the absence of a physical location.

Although cloud providers are likely to face the same nexus issues as online vendors, cloud computing companies may be exposed to nexus through the traditional physical presence standard as well. The distinguishing feature of physical presence for cloud computing purposes is that it is more difficult to pin down where the cloud has physical presence because of the nature of the cloud.[209] The cloud as a whole is largely an intangible system. The only truly tangible component of the cloud is the server that hosts the software and houses the data stored to the cloud.[210] As with most of the sales tax issues involving the cloud, states' treatment of the nexus issue in relation to servers located in a state varies.[211]

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[209] The NIST Definition of Cloud Computing, *supra* note 28 at 2.
[210] *Id.*
[211] *Id.*

Most states have not passed cloud specific legislation in regard to nexus, though some states have issued rulings on the topic.[212] While a ruling is a judgment made based on a specific set of facts and circumstances, it is helpful in deciphering the direction a state might take in passing future legislation.[213] For example, Louisiana applied a broad taxation regime in a revenue ruling when it held that software and data are taxable regardless of where a server is located.[214] Thus, accessing data from a server located outside of the state is subject to the same taxation as accessing data from servers located in the state.[215] This is an extremely expansive interpretation of nexus, because it allows a taxable transaction to occur in the absence of both a physical presence and without affiliates acting on the cloud vendor's behalf.

A New York ruling similarly found a transaction to be taxable within New York, even though the vendor's server was located out-of-state.[216] When a consumer accessed prewritten software in New York, the state held that the sales taxation of this transaction should follow the sales tax laws for prewritten software.[217] Since prewritten software is taxable as tangible personal property in New York, accessing software from a remote server was deemed to be a taxable event as well.[218]

Though some states are trying to expand nexus applications to increase sales tax revenues, other states have created a nexus safe harbor. Texas recently passed legislation that

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[212] NELLEN, *supra* note 17.

[213] Understanding IRS Guidance, A Brief Primer, http://www.irs.gov/irs/article/0,,id=101102,00.html (last visited Dec. 1, 2011).

[214] La. Rev. Rul. 10-001 (2010); NELLEN, *supra* note 17.

[215] La. Rev. Rul. 10-001 (2010); NELLEN, *supra* note 17.

[216] NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(33)S, (Aug. 13, 2009); NELLEN, *supra* note 17.

[217] NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(33)S, (Aug. 13, 2009); NELLEN, *supra* note 17.

[218] NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(33)S, (Aug. 13, 2009); NELLEN, *supra* note 17.

exempts users from sales tax, even if the server is located within the state.[219] Thus, if a consumer is accessing a server in Texas for data processing, storage, or cloud services, the transaction is nontaxable, in the absence of any other nexus forming physical location.[220] This law does not preclude the transaction form taxation if nexus is established through the traditional physical presence of a business, office, or employees in the state.[221]

For the majority of states that have not made any statement on nexus issues, cloud computing promises to create sales taxability questions. Is nexus created only when a server is housed within the state? Further, is nexus established in several states if several servers supporting one system are located in several states? There are currently no uniform answers to these questions, as most states struggle to determine how to handle the sales taxability of this new transaction.[222]

The idea behind nexus should be an easy inquiry that can be answered by evaluating whether a company has a physical presence within a state. Over the years, the physical presence standard has been questioned, but to date *Quill Corp.* should be referenced as binding precedent on sales tax nexus issues.[223] However, as online sales and online services like cloud computing become more popular, the *Quill Corp.* standard of nexus seems to be outdated.[224] In the absence of uniform federal legislation, the states have taken matters into their own hands by issuing varying statutes and rulings on nexus issues. Some states have enacted broad based sales and use tax regimes, causing a cloud service to create nexus with no physical presence and minimal contact with the state. Other states have enacted nexus safe harbors that allow cloud computing

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[219] Texas Tax Code Ann. § 151.108(b)(2011).
[220] *Id.*
[221] *Id.*
[222] JACOBS & MILLER, *supra* note 11.
[223] *Quill Corp*, 504 U.S. at 313.
[224] *Id.*

services to be nontaxable. Unless and until a uniform nexus standard is implemented for online sales and services, sales taxability will continue to be a cloudy issue.

The best solution to the nexus problems created by the Internet is updated federal legislation. The Marketplace Fairness Act has the ability to solve many of the nexus issues created by Internet sales and faced in cloud computing transactions.[225] This Bill has not been passed yet, but it has the potential to create a standard for all states. In the absence of a uniform standard, a service like cloud computing is going to be subjected to varying sales tax rules depending on jurisdiction. Although sales tax rules currently vary from state to state in regard to other goods and services, cloud computing is distinguishable because one system or service can encompass several states in a single transaction. Thus, consistency seems to be the best way to handle the nexus issue in relation to sales and use taxation of the cloud.

### C. How Should Tax Revenue be Sourced to the States?

The final inquiry in the sales and use taxation of cloud computing is how to source any resulting tax revenue. The two most common methods of sales tax sourcing are origin based sourcing and destination based sourcing.[226] States that follow origin based sourcing levy a tax in the state where the product comes from or originates, while states that use destination based sourcing levy a tax on the good in the state where it is used.[227] The application of sourcing rules becomes more complicated when the transaction is for a taxable nontangible good such as computer software or computer services because the destination state is not always easily identifiable. Applying sourcing rules becomes extremely difficult for cloud computing because the cloud does not have one specific origin and many times has several destinations.

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[225] Marketplace Fairness Act, S. 1832, 112th Cong. (2011).
[226] JACOBS & MILLER, *supra* note 11.
[227] *Id*.

Like nexus issues, sourcing problems have only been answered by a few states and in the form of rulings. In Louisiana, the software's destination is the state where the consumer primarily uses it.[228] New York has a similar sourcing rule, in which it states that location should be determined based on where employees use the software.[229] As states begin to recognize and respond to sourcing issues, following the rulings from Louisiana and New York may provide helpful guidance. Since the cloud can be accessed anywhere, the destination state should be viewed as the state where the cloud is accessed the most. This access may be in the form of uploading data and / or downloading software. The simplest solution to determining a state of origination is to turn to the state that houses the main server in a cloud system because it is the only truly physical cloud location.

## IV.   PINNING DOWN THE CLOUD AND TAXING IT

### A. Possible solutions to taxing cloud computing

Finding a single sales and use taxation framework for cloud computing is difficult but necessary. The nature of cloud computing causes the cloud to avail itself to several states simultaneously. Current sales and use tax laws vary so much from state to state that the same cloud may be taxed differently depending on the state that tries to levy tax on that specific transaction. For example, if a cloud server is located in Texas and provides software to someone in New York, but also may be accessed by end users in several other states, what result? Do the Texas nexus safe harbor rules apply making this a nontaxable transaction?[230] Do the New York rules apply, establishing nexus in New York based on the classification of prewritten software as

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[228] La. Rev. Rul. 10-001 (2010); NELLEN, *supra* note 17.
[229] NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(33)S, (Aug. 13, 2009); NELLEN, *supra* note 17.
[230] Texas Tax Code Ann. § 151.108(b) (2011).

taxable, regardless of server location?[231]   Further, if taxes are collected on this transaction, where should the resulting revenue be sourced?  There are several possible solutions to these questions, but the solution that is ultimately reached should be uniform across all of the states and should outline all three prongs of sales and use taxation.

Ideally, the first step toward creating a sales and use tax framework for the cloud would be to define cloud computing as tangible personal property or as a service.  However, applying one definition may be both impractical and impossible since tangible personal property is defined by state statutes.  A possible solution to this problem is to levy tax on the component parts of the cloud, rather than trying to tax the cloud as a whole.  This means that prewritten software in the cloud would be taxable since it is generally defined as tangible personal property.[232]  Likewise, storage space used in the cloud would be taxed since data is stored on servers and servers are physical objects.  Conversely, any services provided through the cloud would be nontaxable transactions.  Taken as a whole, cloud computing would be treated like any other "bundled transaction" for sales and use tax purposes.[233]  Under this approach, vendors would need to supply an itemized breakdown of the tangible portion of the transaction versus the service portion of the transaction.[234]  States could then follow the sales and use tax laws already in place for transactions that consist of both tangible personal property and of services.

The second aspect of the sales and use taxation of cloud computing that needs to be dealt with is nexus.  Nexus is perhaps the most difficult problem to solve because of constitutional underpinnings, existing case law, and contradictory state application.  The simplest solution is

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[231] NY COMM'R OF TAXATION AND FINANCE, NEW YORK STATE TAX REPORTER, TSB-A-09(33)S,  (Aug. 13, 2009); NELLEN, *supra* note 17.

[232] *See* WASH. REV. CODE §82.04.050(6)  (2011);  WASH ADMIN CODE §458-20-15501(2009)  (providing one example of a state that has amended the definition of tangible personal property to include prewritten software).

[233] JACOBS & MILLER, *supra* note 11.

[234] *Id.*

federal legislation that would provide consistent tax guidance and nexus standards in regard to online services like cloud computing. The last Supreme Court case regarding sales tax nexus was in 1992, well before the Internet was the center of sales transactions and services.[235] The Marketplace Fairness Act is a step in the right direction toward visiting and resolving this issue.[236] If nexus laws remain unchanged, cloud computing systems only establish nexus in states where there is a physical presence through business headquarters, location of servers, and presence of employees.[237] If nexus is expanded to include more remote ties with the states, the cloud will establish nexus in a larger number of jurisdictions. Ultimately, the nexus issue should be resolved in a way that allows taxation of online sales and online services like the cloud, but does so fairly. Thus, nexus should still be established through traditional physical presence, but needs to be expanded to account for the new implications of sales made over the Internet. Codifying a federal standard for affiliate nexus established through contacts with third party in-state vendors is likely the best way to initially broaden the scope of sales tax nexus.

The third inquiry in the sales and use taxation of the cloud is where tax revenues should be sourced. The sourcing issue is the easiest to resolve because current sourcing laws can be applied to cloud computing. The minority of states that use origin based sourcing can still tax the transaction from the state where the cloud originates by looking to where the server is located. For the majority of states that use destination based sourcing, the tax can be levied where the cloud service is "delivered."

The final aspect of the sales and use taxation of cloud computing is how to measure the cloud so that sales and use tax can be calculated. Many cloud service providers track cloud

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[235] *Quill Corp*, 504 U.S. at 313.

[236] Marketplace Fairness Act, S. 1832, 112th Cong. (2011).

[237] *See generally Quill Corp*, 504 U.S. at 313 (explaining that nexus is not established merely by having customers in a state. For nexus to be established, a business needs to have a business, office, or employees within the state).

usage on a metered basis and charge end users based on bandwidth computing time or the amount of server space used.[238] This sales model is the best way to sell cloud services for purposes of sales and use taxation.[239] It itemizes the different elements of the cloud that are accessed and invoices cloud services using a standard metric that will allow sales and use tax to be levied on the taxable components in a measured way.[240]

## B. Policy Reasons for Imposing Sales and Use Tax on the Cloud

Cloud computing is a technological advancement that promises to be used at an increasing rate by individuals and businesses in the years to come. A recent study predicts that 70% of companies that currently use the cloud will expand their usage of cloud computing over the next several years.[241] Cloud computing service providers are expected to enjoy a large increase in revenue as a result. For example, Amazon.com's cloud based service revenues are forecasted to reach $750 million in 2011, a substantial increase from its 2010 total revenue of $500 million.[242] Other cloud service providers expected to increase cloud based revenue include but are not limited to: Apple's iCloud, Google Apps, Egnyte Hybrid Cloud, OpenDrive, and Dropbox.[243] The popularity of services like these has led to an overall projected market value of $160 billion in cloud computing services by 2013.[244]

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[238] JACOBS & MILLER, *supra* note 11.

[239] *Id.*

[240] *Id.*

[241] Lauren Toomey, *5 Cloud Computing Statistics You May Find Surprising,* (Nov. 30, 2011), http://cloudcomputingtopics.com/2011/11/5-cloud-computing-statistics-you-may-find-surprising/.

[242] *Id.*

[243] 2012 Best Cloud Computing Services Comparisons and Review, http://cloud-services-review.toptenreviews.com/ (last visited Dec. 4, 2011).

[244] Toomey, *supra* note 241 (explaining that different analysts have calculated different projected market values of cloud computing . Most of these calculations are close to $160 million, which is the projected market value calculated by Merill Lynch).

The projected revenues of cloud computing creates a market ripe for taxation. In a down economy, states have been dealing with growing deficits over the past few years.[245] As a result, many states have turned to Internet sales, digital goods, and online services as a new arena for sales taxation.[246] The next likely step is for states to move toward implementing legislation that specifically levies sales and use tax on cloud computing. The groundwork for this action is already in place with many states expanding sales statutes to allow taxation of online services. States' attempts to expand sales tax statutes have been met by vendors with arguments of constitutional limitations and prior Supreme Court precedent.[247] However, potential legislation currently before the Senate may put an end to this controversy and allow the uniform implementation of sales and use taxation of online services like cloud computing.[248]

**CONCLUSION**

Cloud computing is a network based system that has changed the way people and businesses store and access data, use applications, and download software. From a technological standpoint, the cloud is an innovative tool because it allows any number of users to access data within the cloud, from any Internet supported device, at any given time. However, the technological advantages of the cloud are not the only benefits this system may have to offer. State tax officials, tax professionals, and legislators have all recognized the potential sales and use taxability of cloud computing and are investigating how the states may be able to raise revenue by taxing the cloud. Some states have tried to tax the cloud under the current sales and use tax regime, while other states have moved toward amending and broadening legislation. Although there are several sales and use tax frameworks that can be implemented, one standard

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[245] JACOBS & MILLER, *supra* note 11.
[246] *Id.*
[247] *See* U.S. CONST. amend. VIV, § 1; U.S. CONST. art, I, § 8, cl. 3; *Quill Corp*, 504 U.S. at 313 (representing the current sales tax nexus precedent).
[248] Marketplace Fairness Act, S. 1832, 112th Cong. (2011).

structure should be chosen and enacted amongst all of the states. Tax laws need to evolve with technology so that states stop losing tax revenue from online sales that were once taxable transactions and through online services once offered in taxable, tangible form. Ultimately, updated tax laws that reflect these changes in a consistent way will raise sales and use tax revenues causing the states to find a silver lining in cloud computing.