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From the Litigators' Desks: The Future in State Taxation of the Cloud and an Enduring Guiding Principle

As technological advances continue and more businesses pursue interests in the cloud, the complexities and uncertainties related to state taxation will continue to grow.

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We all know the backdrop. The product of an expanding service industry and increasingly online economy, plus a disappearing traditional tax base, continues to motivate states to target the taxation of cloud computing. The failure of state legislatures to act in this area, combined with concerns of remaining competitive for retaining and attracting new businesses, leaves state taxing agencies clamoring for ways to expand existing laws to capture taxable transactions in the new economy. As a result, a cornerstone of state cloud taxation has been the absence of legislative authority and aggressive attempts at administrative action by taxing agencies to apply outdated statutory constructs to newly existing technology-based business models.

As technological advances continue and more businesses pursue interests in the cloud, the complexities and uncertainties related to state taxation will continue to grow. And while navigating this landscape can be daunting, there is one overarching key principle that should always be considered in determining whether to challenge a state's assertion that a cloud transaction should be subject to tax.

Through this article, we explore (i) the current landscape of state taxation of cloud computing; (ii) the imminent expansion of the cloud with the advent of new technologies like streaming services and the Internet of Things; and (iii) we offer practical guidance for present and future state tax disputes involving cloud computing from the perspective of state tax litigators.

What Is Cloud Computing?

In the simplest terms, cloud computing means storing and accessing data and programs over the Internet instead of on your computer's hard drive. The cloud is just a metaphor for the Internet. It goes back to the days of flowcharts and presentations that would represent the gigantic server-farm infrastructure of the Internet as nothing but a puffy, white cloud, accepting connections and doling out information as it floats.

The realm of cloud computing continues to expand as businesses implement and rely on the cloud rather than software on each end-user's hard drive. Naturally, state taxation of cloud computing continues to morph and expand along with the introduction of additional business models, and state taxing agencies are forced to attempt to keep pace with the economy by shoehorning the evolving business models into outdated statutory constructs.

The Current Landscape in Brief

Several types of statutory classifications are implicated in the states' administrative actions to tax cloud computing transactions. In the absence of statutes directly applicable to cloud transactions, state taxing agencies generally seek authority to tax cloud computing based upon statutes that apply to sales of tangible personal property, data processing, information services or communications services.

Historically, the struggle by taxing agencies to address emerging business models has been centered on expanding the definition of "tangible personal property." Some state revenue departments continue to take the position that remote access to software constitutes a taxable transfer of tangible personal property via the "constructive possession" of that canned software. However, state revenue departments' attempts to impose taxation on cloud transactions as sales of tangible personal property have been tempered through decisions on appeal to administrative review boards or independent courts of appeal that have often rejected the departments' position.

For example, New York developed a policy position that allowing remote access to software, even when the service was arguably an ancillary aspect of the online transaction, constituted the taxable sale of tangible personal property because the user received "construction possession" of the software. [1] However, in *Matter of SunGard Securities Finance LLC*, the only decision from the Division of Tax Appeals on this issue in New York, the tax department's position was rejected by an administrative law judge who agreed with the

taxpayer that any possession or control of software by its customer was irrelevant because the primary purpose of the transactions were nontaxable data processing services. [2]

Similarly, Michigan's attempt to impose tax on cloud computing transactions as sales of tangible personal property has also recently met with resistance. [3]

Other states have not attempted to recharacterize the nature of the transaction in order to make it taxable, but have nonetheless forced cloud transactions into taxable service categories such as data processing (e.g., Texas) and communications (e.g., South Carolina). However, the underlying context-attempting to fit a square peg into a round hole-remains the same.

While some state legislatures have affirmatively taken positions regarding the taxation of cloud computing, whether to define these transactions and subject them to tax (e.g., Washington) or to define and exempt them (e.g., Vermont), most states are struggling to address the cloud computing landscape of the 21st century under a taxing regime devised for 20th century business models.

States Are Pursuing the Taxation of Streaming Services

Taxpayers can expect that streaming media content through the cloud will continue to be an area of interest for expansion by the state taxing authorities. However, the revenue agencies' characterization of streaming services and the methodologies through which they seek to apply sales and use tax will continue to be anything but uniform.

For example, Connecticut's Department of Revenue Services Ruling No. 2015-5 was issued in November 2015 and concluded that digital content streaming services are subject to sales and use tax in Connecticut by characterizing them as taxable "computer and data processing services." [4] In Kentucky, the Board of Tax Appeals ruled in favor of Netflix and concluded that its streaming services are not subject to taxes applied to "multichannel video programming services," which is effectively a tax on cable services. [5] The South Carolina Department of Revenue released a draft revenue ruling on February 19, 2016, stating the Department's conclusion that charges paid by a customer for streaming television programs, movies, music and other similar content are charges for "communications services," which is part of the definition of "tangible personal property" in the state and, therefore, subject to sales and use tax. South Carolina is currently expecting comments on the draft regulation.

While a number of state taxing agencies are ready to tax streaming services, state legislatures do not appear so eager to act. The Alabama Department of Revenue, for example, proposed regulations in February 2015 that would have expanded the definition of "tangible personal property" for rental tax purposes to include "digital transmissions" (including streaming audio/video). However, in July 2015, the proposed regulations were opposed by the Legislative Council, a group of legislators responsible for overseeing regulatory changes, and the Department ultimately withdrew the regulation. Nonetheless, the Commissioner indicated that the Department would interpret the tax as applying to streaming products regardless of the regulation or statute.

The manner in which this scenario has unfolded in Alabama highlights the competing interests between states wanting to remain competitive and attractive to new business ventures and the taxing agencies' attempts to salvage a declining tax base. It is safe to say that streaming services will continue to be in the crosshairs. Given the myriad ways that states have chosen to tax "digital goods," even under the auspices of a model act pursuant to the Streamlined Sales Tax efforts, it is not surprising that states' attempts to encompass streaming services are not consistent, thus adding to the complexity and uncertainties facing taxpayers in this area. [6]

The Next Frontier of State Taxation of Cloud Computing Transactions—Addressing the Fourth Industrial Revolution

A significant emerging frontier in the business world that is poised to be a new battlefield in the area of cloud taxation is the Internet of Things. The Internet of Things, sometimes referenced as IoT, is the term used to describe the proliferation of everyday appliances and devices connected to the Internet. It is the network of physical objects—devices, vehicles, buildings and other items embedded with electronics, software, sensors, and network connectivity—that enables these objects to collect and exchange data. [7]

The Internet of Things allows objects to be sensed and controlled remotely across existing network infrastructure, [8] creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit. [9] When IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber-physical systems, which also encompasses technologies such as smart homes and intelligent transportation.

Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure. Experts estimate that the IoT will consist of almost 50 billion objects by 2020. [10]

The interconnection of these embedded devices (including smart objects), is expected to usher in automation in nearly all fields, while also enabling advanced applications like a smart grid, [11] and expanding to areas such as smart cities. [12]

"Things," in the IoT sense, can refer to a wide variety of devices such as heart monitoring implants, biochip transponders on farm animals, electric clams in coastal waters, automobiles with built-in sensors, DNA analysis devices for environmental/food/pathogen monitoring or field operation devices that assist firefighters in search and rescue operations. [13] Legal scholars suggest looking at "Things" as an "inextricable mixture of hardware, software, data and service." [14]

These devices collect useful data with the help of various existing technologies and then autonomously flow the data between other devices. [15] Current market examples include smart thermostat systems and washer/dryers that use Wi-Fi for remote monitoring.

As well as the expansion of Internet-connected automation into a plethora of new application areas, IoT is also expected to generate large amounts of data from diverse locations, with the consequent need for quick aggregation of the data, and an increase in the need to index, store, and process such data more effectively. IoT is one of the platforms of today's Smart City and Smart Energy Management Systems. [16]

For all the potentially exponential applications of IoT, each will require the use of software accessed through the cloud using an applet or Internet solution on the user's device such as a smart phone. Future developments might lead to specific software development environments to create the software to work with the hardware used in the Internet of Things. For example, IBM has announced cognitive IoT, which combines traditional IoT with machine intelligence and learning, contextual information, industry-specific models and even natural language processing.

German engineering conglomerate Bosch recently announced that it is creating a cloud for the IoT. [17] The cloud will be used to further development on Bosch's smart home, intelligent manufacturing and connected car technologies. [18] It will be used internally first, before being offered as a service to other companies in 2017.

The "software core" of Bosch's new cloud is its "IOT Suite," a software platform that has been used for smart factories that lets companies connect production machinery on a secure cloud and analyze large amounts of data. [19] The manufacturing firm has been investing heavily in this area via its IoT software suite, which it reports has five million devices connected to it. [20] The company hopes to use the data harvested from the sensors embedded in its millions of products to help it crack the growing IoT market. [21]

Bosch's CEO announced that "[t]he Bosch IoT Cloud is the final piece of the puzzle that completes our software expertise. We are now a full service provider for connectivity and the IoT." [22] The IOT Suite platform has been central to Bosch's efforts in driving a German public-private initiative known as "Industrie 4.0," which seeks to bring about a "fourth industrial revolution" by connecting the Internet of Things to traditional industrial manufacturing. [23]

Other companies, such as U.S.-based General Electric Co. and business software provider SAP SE, are also working on similar efforts in this field. [24] Another company, New York-based N2 Global Solutions, has developed a new intelligent electrical "SuperSocket" platform that can universally convert existing electrical systems into advanced communications and control networks for any office, commercial building, home, or industrial facility. [25]

It's easy to see how such rapidly developing technology threatens to leave the tax administrators increasingly behind, as the gap between the 20th century taxing constructs and 21st century technology widens. This is true even in states that have specifically attempted to address the taxation of cloud transactions, as technological advances may no longer fit neatly within the definitions that were created to capture the cloud merely several years prior.

Further, the Internet of Things is yet another example of how the lines continue to increasingly blur between hardware, software, data and service. This could cause state taxing agencies to reconsider their positions and perhaps to become even more aggressive in attempting to reach this growing segment of the economy. However, through all of the changes in technology and as the state taxing agencies continue to test the boundaries of expansion under the existing statutory laws, there is a key principle that taxpayers should consider in determining whether to challenge a state's determination that their specific cloud transaction is subject to tax.

An Enduring Guiding Principle: Practical Guidance from the State Tax Litigators' Perspective

Regardless of a state's method in attempting to impose tax on cloud transactions, the key principle that providers and users of cloud-computing services should consider is whether the primary purpose that customers seek to obtain through the online service or product is indeed taxable under the state laws. In other words, do not lose sight of the fact that a cloud transaction can only be taxable if there is a taxing statute specifically imposing the tax on what it is that is actually being purchased.

In this context, facts and circumstances are of vital importance and "close" is not good enough. As all taxation must have its basis in the statutes passed by the state legislature, the focus should primarily be on the state's codified statutes rather than regulations promulgated by taxing agencies or subject matter policy pronouncements.

First, determine what the law says about what products or enumerated services are taxable in a particular state. Do not focus on what the state tax agency's regulations and guidance state as an initial matter. If the primary purpose of the product or service is not taxable under the state statutes, then the transactions are not subject to tax despite any departmental guidance to the contrary.

A department's attempts to expand the statutory application of a tax through regulations or publications such as memoranda or advisory opinions are only pertinent to the extent that they alert service providers to the department's position on the issue and indicate that the taxpayer may have an impending battle over the applicability of the tax to its online service.

The following three-part analysis will help guide taxpayers through the current and future landscapes of state taxation of cloud computing:

1. What is the primary purpose of the customer's purchase? Analyze the customer contracts, company website and marketing materials to confirm that they properly reflect the primary purpose of the customer's purchase, as this will become the supporting documentation for your case.
2. Is the primary purpose of the customer's purchase a taxable product or service under the state statutes-or is it only swept into taxable transactions under a departmental regulation or policy pronouncement? If it's the latter, it may be that the department's position is an invalid attempt to expand the state law to new revenue streams.

3. Avoid falling into the trap of unnecessarily focusing on the department's position on the issue as expressed through regulations and departmental guidance. For example, in New York it can be tempting for taxpayers to argue that because of security features with the software at issue, their customers do not technically exert the necessary possession or control over the software to be taxable under the department's regulation. However, if the primary purpose of the product or service that is being provided to customers is not canned software, there is no need to address the issue of a customer's constructive receipt or possession of the software. To illustrate, in *SunGard* the taxpayer did not dispute that it provided software to its customers, but argued that the software was used to enable the company to provide customers with its exempt data processing services, and the administrative law judge agreed. [26]

These three overarching principles will consistently guide taxpayers through the ever-changing landscape of state taxation of cloud transactions. However, taxpayers should note that refuting a department's expansion of the state's statutory construct to capture the cloud will likely require a willingness to challenge the department's position by pursuing an appeal outside of the administrative procedures offered by the department.

State Taxing Agencies Are Often Resistant to Primary Purpose Arguments

Taxpayers asserting an argument based on the primary purpose of the product or service offered to customers may need to seek review of their argument by appealing to an independent level of judicial review. This is especially true where the taxpayer's position is in direct opposition to a concerted effort by the state revenue agency to expand the tax base to new technology-based business models that are not within the existing state statutory construct. The recommendation to first examine the state law in light of the primary purpose of the service provided is exemplified by contrasting recent publications from state revenue agencies that address cloud computing.

As set forth above, the New York Department of Revenue has aggressively pursued the taxation of remote access to software as a sale of tangible personal property via the constructive possession of the software. However, the sole decision from the Division of Tax Appeals to address the Department's position focused on the primary purpose of the online transaction, concluding that there was no taxable transfer of software because the customer's primary purpose was to obtain data processing services. [27] Framing the dispute in this manner was a strategic decision that paid dividends, as the focus was not the elements of the ancillary software, but rather the purpose of the software within the overall service transaction.

More recently, the New York Department of Revenue, perhaps having taken to heart the decision in *Matter of SunGard Securities Finance*, [28] issued Advisory Opinion No. TSB-A-15(47)S in November 2015, embracing the primary purpose test and finding that the petitioner's cloud-based services are not taxable sales of software under the sales and use tax because the primary purpose of the petitioner's services and provision of software are overwhelmingly protective services rather than sales of software. We note, however, that the Department may have embraced the primary purpose test because the primary purpose of the service, while not cloud-based software, was subject to tax as other enumerated services (security and information services) that are explicitly taxable under the law in New York.

Nevertheless, the advisory opinion is noteworthy for service providers using the cloud because the Department concludes that the petitioner's provision of pre-written computer software plug-ins to its New York customers merely enable its mobile and roaming functionalities or its more detailed monitoring/report-generating functions for its cloud-based security services and are thus not subject to tax as sales of pre-written software. Rather, the petitioner uses the software to provide its services and the software is included in the purchase price of the service to which those plug-ins apply. Thus, the Department in New York has indicated a willingness to retreat from its historical position and embrace the primary purpose test.

The New York advisory opinion is in stark contrast to an Arizona Department of Revenue decision issued in October 2015, [29] through which the Director affirmed the holding of the administrative law judge (ALJ) that the taxpayer's sales are subject to the transaction privilege tax under the personal property rental classification [30] because the taxpayer's customers have exclusive use and control of the taxpayer's software.

The taxpayer, a provider of an online database of research articles and notes through customer subscriptions, appealed the ALJ's decision and argued that its customers do not have exclusive use and control of the taxpayer's software platform or the information within the software platform. The Department argued that the taxpayer leased subscriptions to its software and access to articles, which qualify as tangible personal property, and that the customers have exclusive use and control of the software when they access the platform and the articles with unique user names and passwords.

In his decision, the Director concludes that the software is taxable tangible personal property. The Director brushed aside the taxpayer's primary purpose argument that the objective of the transaction was to obtain research services and did not address what the subscription contracts said about the licensing of software.

This decision exemplifies a taxing agency's reluctance to analyze a cloud transaction under the primary purpose test, as well as a situation in which the taxpayer will likely need to appeal to an independent level of review. However, on appeal under these circumstances, a taxpayer should be mindful not to fall into the trap of allowing the department to frame the issue and should avoid arguing the department's position about the level of control its customers have over the software component of its online service.

If the customer contracts show that the taxpayer is licensing a subscription to access and use the research services provided by the taxpayer, the customers' level of control over the software that the taxpayer uses to provide its service is irrelevant, and the Director's focus on the software, and thus the conclusion that the software is taxable is incorrect, as the customers are likely not purchasing a license of the taxpayer's canned software, but are seeking to purchase online research services from the taxpayer.

Conclusion

As services provided through the cloud continue to expand with the exponential growth of new technology, including streaming services and the Internet of Things, state taxing agencies will continue in their attempts to subject these transactions to taxation. And these impositions will continue to be based primarily on policy or guidance reflecting a department's aggressive attempt to characterize a transaction in a manner that would render it taxable under the existing taxing statutes rather than pursuant to laws or policies that have been specifically enacted or blessed by the state legislatures.

When disputing these assertions, the guiding principle for taxpayers is, and will continue to be, determining whether the primary purpose of the customer's purchase is truly subject to tax under the state law. While it may require elevating an appeal to a level of independent review in order to prevail, when disputing an assessment, taxpayers can find success by adhering to this guiding principle and focusing on the primary purpose of the customer's purchase to determine whether the cloud transaction should truly be subject to tax.

[1] *See, e.g.,* TSB-A-13(22)S (July 25, 2013) (finding that a company's receipts from sales of access to forms via software on the company's website are subject to sales tax when accessed by a customer located in New York).

[2] No. 824336 (N.Y. Div. of Tax App. 2014).

[3] *Auto-Owners Insurance Co. v. Department of Treasury*, No. 321505 (Mich. Ct. App. Oct. 27, 2015); *Thomson Reuters (Tax & Accounting) Inc. v. Department of Treasury,* No. 313825 (Mich. Ct. App. May 13, 2014).

[4] 2015 weekly State Tax Report 27, November 13, 2015.

[5] *Netflix, Inc. v. Finance and Administration Cabinet Dep't of Revenue*, Order No. K-24900 (Kentucky Bd. Tax App. Sept. 23, 2015).

[6] For a discussion of the many ways that states have chosen to approach the taxation of digital goods, *see* Mary T. Benton & Jeffrey C. Glickman, *Digital Goods: Simplifying Lives, Complicating Taxes,* 16 ECLR 1752 (Oct. 19, 2011).

[7] *Internet of Things Global Standards Initiative*, ITU, retrieved June 26, 2015.

[8] *Internet of Things: Science Fiction or Business Fact?*, Harv. Bus. Rev., available at https://hbr.org/resources/pdfs/comm/verizon/18980_HBR_Verizon.

[9] http://www.internet-of-things-research.eu/pdf/Converging_Technologies_for_Smart_Environments_and_Integrated_Ecosystems_IERC_Book_Open_Access_2013.pdf; http://www.cisco.com/web/solutions/trends/iot/introduction_to_IoT_november.pdf; http://cordis.europa.eu/fp7/ict/enet/documents/publications/iot-between-the-internet-revolution.pdf; http://www.vs.inf.ethz.ch/publ/papers/Internet-of-things.pdf; http://www.cognizant.com/InsightsWhitepapers/Reaping-the-Benefits-of-the-Internet-of-Things.pdf; "The Supply Chain: Changing at the Speed of Technology," retrieved September 18, 2015.

[10] Dave Evans (April 2011), *The Internet of Things: How the Next Evolution of the Internet Is Changing Everything,* Cisco, retrieved February 15, 2016.

[11] O. Monnier, *A smarter grid with the Internet of Things,* Texas Instruments (2013).

[12] https://www.itu.int/dms_pub/itu-t/oth/0b/15/T0B150000153301PDFE.pdf, retrieved June 26, 2015.

[13] I. Wigmore, *Internet of Things (IoT),* TechTarget, June 2014.

[14] Guido Noto La Diega and Ian Walden, *Contracting for the "Internet of Things": Looking into the Nest,* Queen Mary School of Law Legal Studies Research Paper No. 219/2016 (Feb. 1, 2016), available at SSRN: http://ssrn.com/abstract=2725913.

[15] M.U. Farooq, Muhammad Waseem, Anjum Khairi and Sadia Mazhar, *A Critical Analysis on the Security Concerns of Internet of Things (IoT)*, International Journal of Computer Applications (IJCA) 11: 1-6. doi:10.5120/19547-1280 (2015); Drew Hendricks, *The Trouble with the Internet of Things,* London Datastore, Greater London Authority, retrieved August 10, 2015.

[16] Bob Violino, *The "Internet of things" will mean really, really big data,* InfoWorld, retrieved July 9, 2014; Michael Hogan, *The "The Internet of Things Database" Data Management Requirements,* ScaleDB, retrieved July 15, 2014.

[17] *Robert Bosch Launches Own Cloud for Internet of Things,* The Wall Street Journal, available at: http://www.wsj.com/articles/robert-bosch-launches-own-cloud-for-internet-of-things-1457528014.

[18] *Id.*

[19] *Id.*

[20] http://www.cloudpro.co.uk/it-infrastructure/5865/bosch-announces-purpose-built-cloud-for-internet-of-things.

[21] *Id.*

[22] *Id.*

[23] *Robert Bosch Launches Own Cloud for Internet of Things,* The Wall Street Journal, available at: http://www.wsj.com/articles/robert-bosch-launches-own-cloud-for-internet-of-things-1457528014.

[24] *Id.*

[25] http://www.prnewswire.com/news-releases/new-intelligent-electrical-infrastructure-connects-supersocket-superswitch-and-superfixture-modules-with-software-leading-to-unparalleled-savings-and-automation-274681131.html.

[26] *In the Matter of the Petition of SunGard Securities Finance LLC,* No. 824336 (N.Y. Div. of Tax App. 2014).

[27] *Id.*

[28] *Id.*

[29] Arizona DOR Director's Decision No. 201400197-S, October 27, 2015.

[30] Ariz. Rev. Stat. § 42-5071.