Property Taxes: The New Challenge for Data Centers

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Abstract

Capital-intensive businesses, particularly those with data centers, spend significant time considering where to locate or re-locate their "computer power". It's a complex decision making process. Today many States offer incentives to attract data centers into their communities although these vary widely from state to state. The last major tax survey was carried out by the Lincoln Institute of Land Policy using 2010 census and other data. To illustrate the wide variation in tax policies the following table shows the locations with the highest and lowest commercial property taxes in the nation's 50 largest cities.

City, State	$100,000		$1,000,000		$25,000,000	
	Tax	Rank (of 50)	Tax	Rank (of 50)	Tax	Rank (of 50)
Detroit, MI	$4,814	1	$48,141	1	$1,203,536	1
Philadephia, PA	$4,082	2	$40,817	2	$1,020,413	2
New York, NY	$3,968	3	$39,681	3	$992,014	3
Kansas City, MO	$3,443	4	$34,425	4	$860,632	4
Raleigh, NC	$1,083	47	$10,828	47	$270,707	47
Honolulu, HI	$1,061	48	$10,613	48	$265,329	48
Virginia Beach, VA	$965	49	$9,650	49	$241,253	49
Seattle, WA	$939	50	$9,394	50	$234,861	50

On a broader scale, the following table is a snapshot of payable 2010 urban commercial property tax burdens by census region. In many cases, the effective tax rate (ETR) rises as property value rises and so the effect of fixed tax exemptions, one of the key decision criteria in siting a data center diminishes over time.

	$100,000		$1,000,000		$25,000,000	
	Amount	ETR	Amount	ETR	Amount	ETR
New England	$2,765	2.304%	$27,653	2.304%	$691,332	2.304%
Mid-Atlantic	$2,797	2.331%	$27,972	2.331%	$728,423	2.428%
South	$2,048	1.707%	$20,740	1.728%	$519,383	1.731%
Midwest	$2,965	2.471%	$30,246	2.520%	$758,576	2.529%
Southwest	$1,961	1.634%	$20,447	1.704%	$521,129	1.737%
West	$1,477	1.231%	$14,771	1.231%	$369,267	1.231%
U.S. Average	**$2,328**	**1.940%**	**$23,548**	**1.962%**	**$594,103**	**1.980%**

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Then there are other key factors such as the cost and availability of power, communications infrastructure and a high quality educated workforce. Traditional models used in this process have been all about minimizing total cost of ownership (TCO).

While some consideration is given to taxation policy, it has to this point, come well down the priority list and is often overlooked from any consideration. In today's economic climate, the incentive programs offered by state and local governments are on the surface attractive, but they are offered because data centers generate significant tax revenues for the area. The extent of these taxes has now become a telling factor and is having significant cost implications for large IT dependent companies.

Given the impact that sales tax and property tax have on actual occupancy cost, coupled with the wide local variances of tax policy, this matter has come to deserve and demand more attention in site selection thinking. Some of the more schooled businesses have figured this out and have made local tax policy the No.1 priority in site selection, more so than incentives, land costs, labor and power availability. They have further established that incentives provided by State and Local Governments are quickly absorbed by sales and personal property taxes on their IT capital assets.

This paper provides insights into this new taxation challenge and the hidden impacts that property taxes can specifically have. It further looks into the process of how companies deal with this issue particularly within their financial organizations.

The Nature of Data Center Taxes

Capital investment in data center operations produces significant sales taxes and property taxes. Sales taxes are obvious and well publicized. Wherever we live, work and run our businesses, it's part of our daily lives. This cannot be said for the more shadowy world of what's called business personal property taxes. Business personal property tax is levied on computer equipment as well as mechanical and electrical equipment within the facility. These taxes are applied at different rates in every State and are assessed at the State, City, County, and School district levels. In an article entitled Megawatts vs. Millions authored by John Lenio, Economist and Managing Director, CBRE Economic Incentives Group, he identified when comparing the unit costs of Rent, Power, Taxes, and Operating Expense[1]:

- Typically, $100 million in equipment will be charged $2.6 million the first year and with compounding growth can become a major significant factor over a five to ten years period even considering depreciation on the equipment.
- A 1% difference in a property tax rate equates to $12 million in total taxes over 10 years for each $100 million in capital investment.
- Taxes are second only to Rent.

Oregon based, Fortune Data Centers, showed the cost impact in four different sites along the west coast, illustrated below. While their purpose was to promote Oregon, they highlighted the wide variation in occupation and taxation costs with California being the highest of the four sites selected. Even locations in central Washington with very attractive electricity costs can actually have higher occupancy costs when taxes are considered. In this case, Portland, OR has a lower occupancy cost compared to Quincy, WA, despite having a delivered power cost that is twice as high.

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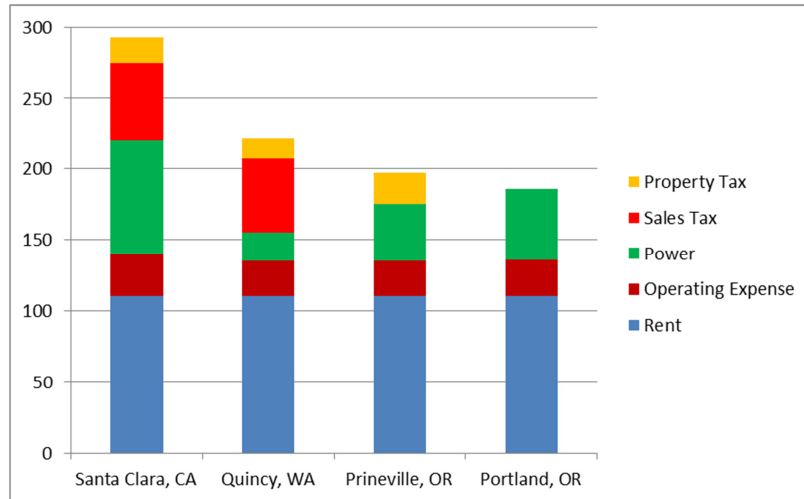
As mentioned earlier, across the industry, companies have sought to choose locations of new data centers based on the traditional practices, but largely the levels of taxation has been either ignored or overlooked. Fortune Data Center identified that taxes can account for as much as a third of total occupancy costs and assuming rents (including Operating Expense) are equal for various geographies, the availability of very cheap power does not offset the elimination of *sales and property tax*.

So property taxes in themselves are an important cost factor for businesses with large IT infrastructures; however it's not the only challenge faced that needs to be addressed today.

The Days of Estimating Are Over

Data centers are capital intensive, and it is important to understand the impact of property taxes on the company's on-going operating costs. In the halcyon days prior to the recent economic crisis, while states had the right to directly perform appraisals of the value of business personal property tax on the value of assets physical present at a location, they rarely if ever chose to do so. Instead, they would rely on businesses to undertake "self-assessments" and in the vast majority of cases these were accepted by the authority.

However, the recession has left many States and Local Authorities strapped for cash, and they have been looking for any means through which they can generate more tax dollars. High on their target list is a renewed attention and focus on the valuation of data center business personal property. Questions are now being asked about the accuracy and efficacy of self-assessments. The state auditors worked the math and realized that there could be a hidden tax gold mine to be found. It is one thing for business property taxes to range between 1-3% of assessed fair market value of the assets. But what if the basis of the valuation was flawed or inaccurate? What if businesses had far more assets than they were reporting irrespective of whether they did so accidentally or intentionally? Whatever the tax rate, these would go untouched from a taxation perspective.

This issue has become a central pillar of revenue recovery for lawmakers because of the sheer scale of the potential numbers involved.

A Neat Way of Enforcing the Law

It was decided by lawmakers that going forward, there needed to be a new way to accurately account for data center personal property. The question then was how do the authorities audit what companies have in their possession? For State and Local Authorities to do it themselves would require a massive increase in staff to cover all the data centers in their area and a considerable investment in training to professionally carry out the audit

tasks. This was considered totally unpalatable and ruled out immediately. After all, the objective was generating new tax revenue not spending more money. The answer was a neat alternative. The decision taken was to force companies to do self-assessments, only this time, rather than accepting the results as is, regulations and measures were created to ensure their accuracy and stiff penalties would be levied if wrongdoing was found. It was further realized that enforcement could be achieved through on-site snapshot or spot audits where inspectors would investigate a random fraction of the total assets present, reducing bureaucratic costs to a minimum.

The Buck Has Been Passed

This change to the status quo has immediately placed businesses in the line of fire from new property tax initiatives. The burden now falls on them to accurately account for their business personal property. However, this turns out to be a nightmare for many. It's a well-known fact that physical inventory management, particularly for the larger data centers has been one of the fundamental challenges that has plagued businesses for years. Capturing asset data for the most part, has been an entirely manual, mind-numbing process that consumes valuable people time with staff using clip boards and excel spreadsheets. It involves people walking the data center floor working rack to rack to try and figure out what assets are there, what's missing and what assets are found that weren't supposed to be present. The permutations are endless and the pen and paper results, which can take weeks and sometime months to complete, are fraught with inevitable errors. Historically, so problematic has the inventory management process been, that many data center managers reluctantly choose to skip the activity all together.

The combination of pressures for accountability and the lack of accurate data has become a major conundrum. How can companies under these circumstances truly measure and report their property tax without running afoul of stringent regulations?

The Departmental Disconnect

The inventory challenges are but one faced by large enterprises today when it comes to business property taxes. The next question is how to derive a value of the business personal property one owns or what's more accurately called the *net book value* (NBV). Assets depreciate over time in their value and this must be reflected in any tax assessment. But how do businesses get to an evaluation when they can't accurately inventory the assets they have? And in any event most taxation departments have little working relations with IT departments.

The accountants responsible for taxation have remarkably tried to sidestep this issue. Rather than work with data center, facilities and operations management, they instead use historical invoices to capture what was bought, when and at what value. They then follow depreciation guidelines to establish the NBV of assets in a location and provide this to the taxing authorities as the company's assessment of business property tax.

The first thing wrong with this approach should be obviously apparent. The internal taxation department has no idea what assets, bought over time, still exist in the data center. An unequivocal recipe for error. Worse still, from a business and taxation perspective, many accountants do not take the time analyzing each invoice and merely use its total value as the basis for asset valuation. However, many capital procurements have associated secondary products and services attached to them, which may form part of the invoice. The cost of maintenance can also be part of the same invoice as the capital item itself. Inherently, the use of total invoice amounts wrongly and potentially significantly inflate the true value of capital assets and consequently the business property tax for that asset. Multiply this by the many thousands of assets found in a typical, large-scale data center and the financial implications are stark.

There is one further property tax issue to which the taxation department is blindsided. In some companies, assets are shipped to a location which acts as a distribution center. This is reflected on the invoice for such goods. However, in practice these assets can be shipped to data centers across a state and maybe further afield. So, in

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using the invoice details as the location and therefore the basis for property tax assessment is again in error in that the assets should be accounted for in their actual location and the tax policy that exists there. Whether the tax regime is higher or lower, the result is a false property tax assessment.

Mitigating Risk

So far, we have described the impact state and local taxation policy can have on businesses from a business personal property tax perspective. The costs in themselves are significant as are the downside risks of not keeping accurate inventory records. The calculation of taxes is equally flawed as a result, especially when using data sources other than an accurate account of capital inventories.

The question that we are left with is what can be done to mitigate risk and help companies address these challenges. The answer lies firmly in the effective control of data center asset management. Without locking down exactly what assets businesses have at any moment in time, these problems will not only persist, but also get worse.

The financial fallout for companies is today so large that whatever caused them not to properly account for capital assets in the past are surely outweighed by taking positive action now. It's time to throw out the clipboards, pencils and spreadsheets.

Advances in Data Center Inventory Management Technology

Fortunately, there are new technologies and solutions in the market that can comprehensively deal with the age old challenge of inventory management and auditing. Antiquated tools and error-prone methodologies are now being superseded by software-fueled advancements such as modern mobile, tablet-based applications using wireless Bluetooth readers, and scanners. Smart tagging technologies, such as RFID, have always held the promise of change and together with these new solutions, companies can automate the entire process giving fast and very accurate data center audits.

Although the first step of tagging assets is a hurdle, the case for doing so is now compelling and absolutely worth the effort. Once the tagging process is complete some 10,000 assets can be audited in just a few minutes, instead of spending days or even weeks.

Collaboration: At the Heart of New Innovation

This new breed of software innovation delivers another major advance for the company data center and its business as a whole. In addition to accurately and rapidly capturing information, new software applications seamlessly integrate into modern, multi-dimensional database environments.

One emerging technology represents a new generation of application programming interfaces (APIs) that allow software applications to communicate with each other as never before. This modern and new approach to APIs, called representational state transfer (RESTful) APIs, delivers the mechanism to quickly and inexpensively build API programmatic interfaces. RESTful APIs are the under-pinning for significant new opportunities for enterprises to benefit from software integrations nimbly and more cost-effectively. Such advances open a panacea of opportunity and capabilities. Information captured on the data center floor can now be matched using smart indexing and semantics with information found on other systems, thereby eliminating business information silos. With this type of innovative software, asset information can be integrated with financial, contractual, maintenance and purchasing data. Now integrated, stakeholders across the company can have information presented in a fashion they uniquely need to support their roles and responsibilities in a fully immersive and collaborative way. It is also a platform for supporting best practices in IT Service Management (ITSM) such as the Information

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Technology Infrastructure Library (ITIL) services through which IT focuses on aligning itself with the needs of business.

Bottom Line Business & Taxation Benefits

Simply put, the financial benefits are significant. From a business personal property tax perspective, companies can provide accurate and transparent assessments of capital assets and their valuation, totally satisfying the needs of state and local government. As a result, the amount of taxes paid is an accurate reflection of what exists. Once opaque data silos and manual process and practices that were fraught with inaccuracy are a thing of the past, and the tax accountants see the same information through their unique lens about capital assets as other stakeholders.

Companies can also make better, more informed decisions on where to locate or relocate their assets to optimize their use, while the real costs of doing so are fully transparent.

To get there takes some effort, but the gains go further that just taxation. Companies can **achieve improved regulatory compliance**, **enhanced security** and **optimize asset utilization**. They can **reduce inventories** and **over provisioning**, which has financial benefits all round (including the **reduction of business personal property tax**). The "Agile Data Center" is now the foundation required to make all this happen and enable businesses to take advantage of proactive and preventative change.

Attribution:

[1] *Megawatts vs. Millions:* http://www.cbre.us/services/office/critical-environment/Pages/megawatts-vs-millions.aspx

[2] *Taxes & Data Center Site Selection:* http://www.oregon4biz.com/The-Oregon-Advantage/Telecommunications/oregon-broadband-council/2012/0412meeting/siteSelection.

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