A shift to cloud computing and its impact on revenue recognition
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**The heart of the matter**

During the recent economic downturn, companies began to look for solutions that would help reduce their cost structures and improve profitability. One solution that has emerged is cloud computing. Cloud computing is a different way to consume technology. Now that cloud computing is increasing its penetration, the question is how will it impact revenue recognition for the companies that provide cloud services. Cloud providers will also need to consider the new exposure draft on revenue recognition issued jointly by the US Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) on June 24th, 2010, which, if adopted, could have significant changes to revenue recognition.

With cloud computing, users typically access IT infrastructure and software through the Internet on an "as needed" basis and pay only for the resources they use. This model is in stark contrast to the incumbent IT infrastructure, where companies typically have their entire IT resources (servers, networks, applications, support staff, etc.) on-site. Large capital outlays support their equipment and applications and continuous maintenance of often complex IT systems. And the companies need to determine IT needs well in advance.

Cloud computing provides more flexibility. Companies can more easily manage their IT infrastructure.

For example, under a traditional IT model, if a company's needs change, it will likely take significant time to react (e.g., purchasing and deploying the equipment, upgrading the entire organization, etc.), coupled with the cost of upgrades. If the increased need for IT support was temporary, the company would be left with underused equipment and resources.

With cloud computing, capacity is available when the company needs it. The company limits underuse of IT systems when capacity needs drop, allowing for reallocation of resources as necessary. No longer does the company have to go through significant software upgrades, which require large initial capital outlays, significant rollout time, and a loss of productivity during the adoption of a company-wide upgrade. The company can begin using new applications on a real-time basis, with little start-up cost and significantly less effort and complexity.

Because cloud offerings typically have usage-based, "pay as you go" pricing, the cost of an IT solution directly relates to the volume of a company's business, compared with a constrictive, fixed-cost model. The variable pricing model also limits the company's costs for IT support because cloud computing provides the flexibility to purchase IT solutions on an as-needed basis.

As companies face increased operating and capital expenditure requirements, their profitability could decline unless they change IT consumption patterns. Worldwide cloud services revenue is forecast to reach $68.3 billion in 2010, a 16.6 percent increase from 2009 revenue of $58.6 billion, according to Gartner, Inc. The industry is poised for strong growth through 2014, when worldwide cloud services revenue is projected to reach $148.8 billion.¹

An in-depth discussion

There are three primary types of cloud computing offerings: infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS). Under IaaS, hardware and network resources are delivered by the cloud provider while the customer continues to control its own applications and operating systems. With PaaS offerings, the cloud provider delivers the hardware, network, and operating systems, and the customer provides the application code to the cloud provider and runs the applications remotely. For SaaS offerings, the cloud provider controls the hardware, network, operating system, and applications, and the customer accesses the applications through the Internet.

Cloud offerings will provide new ways for consumers to purchase technology and suppliers to offer services to their customers, which affects how they price, bill, and deliver these services.

Companies have typically used a hardware or software model to provide IT solutions. They would provide an IT solution by delivering the servers, desktops, applications, and other IT infrastructure that a company would then use to build its IT infrastructure.

Cloud offerings are generally more of a service, and resources are provided on an as-needed basis. Therefore, cloud providers will need to reassess their sales models. For companies that are already IT solution providers, they will likely shift from hardware providers to service providers. Although there currently is no specific revenue guidance that a company would apply to cloud computing, as there is with software revenue recognition, in most instances, cloud computing providers would follow a services revenue recognition model.

Under a hardware model, customers pay for the right to own the hardware, which is often a straightforward, one-time transaction. From a pricing perspective, each asset in a hardware model has a list price. In a software model, customers pay for the right to use applications or licenses, which are also based on list prices. With cloud computing, the customer has the right to consume the technology, similar to how traditional services are provided. For a service model, cloud providers will likely have a variety of pricing plans based on a number of variables typically driven by how the services are consumed. Cloud providers also will have to track in detail the actual consumption by customers because this will drive invoicing and revenue recognition, which historically is not a concern for traditional hardware and software vendors.

Following is an overview of how cloud providers would recognize revenue under current US GAAP and under the joint FASB and IASB exposure draft on revenue recognition.

Current US GAAP approach

While cloud offerings give users the right to use software, the software that provides the basic functionality is controlled by the vendor, not the customer. In most software transactions, the vendor maintains the ownership of the intellectual property. What the customer receives is the right to use the intellectual property. Under current US GAAP, the determination of whether a software transaction is accounted for as a sale versus a service depends on whether the customer has or can take physical possession of the software. If the customer can take physical possession of the software, then the accounting follows a sales model. If the customer cannot take physical possession of the software and uses the software without taking possession, the services accounting model applies.

Generally in a cloud offering, the customer does not have the ability to take possession of the software and, accordingly, the revenue model is a services model. Once in a services model, the revenue is generally recognized ratably over the duration of the agreement unless the terms of the agreement indicate that revenue should be recognized in a different pattern. For example, usage-based transactions are generally recognized as the usage occurs because that is the point when the fee becomes fixed or determinable.

One area of accounting complication for cloud offerings under existing GAAP is when additional services are sold along with the primary or base service (access to and/or use of the desired software functionality). These additional services typically are for setup and consulting. Under the current accounting framework, the
existence of these additional services in the arrangement often results in a deferral of revenue. This occurs because revenue cannot be allocated because of the lack of fair value, the lack of stand-alone value, or the SEC guidance that upfront fees should be deferred over the life of the contract or the expected life of the customer relationship, whichever is longer. In these cases, fees for these additional services are recognized concurrently with the base cloud services.

The approach under the proposed revenue standard

Similar to current US GAAP, cloud offerings will generally be accounted for using a services model under the proposed standard. However, there will be key differences. Under the proposed model, companies will need to determine if usage-based services will be uncertain consideration or options to purchase additional services. Though both alternatives are acceptable under the proposed standard, we believe more companies will conclude that usage-based services should be accounted for as options.

In a usage-based service arrangement, the customer is continuously making decisions to purchase incremental service units generally at contractually negotiated prices, which essentially means the customer is exercising its option to buy more service. The key factor in applying the option model is that each time the customer exercises its option, the vendor has an incremental performance obligation to provide incremental service. If a company concludes that its usage-based services are considered contingent consideration, the proposed model will require the company to include an estimate of the uncertain consideration when measuring the total arrangement consideration, assuming a reasonable estimate can be made.

The proposed model will require companies to make a determination of how their performance obligation is discharged, thereby establishing the recognition pattern. Similar to current US GAAP, most companies will need to determine whether the recognition is ratable over the term, as usage occurs, or some other pattern that best reflects the underlying economics of the transaction.

As noted previously, additional setup and consulting services often are sold along with the base cloud service. If the company can conclude that the additional services are separate performance obligations under the contract, then the proposed standard will require separation and allocation of the total arrangement consideration to those performance obligations based on estimates of their selling prices.

Key observations

In certain cases, specifically where the revenue pattern is ratable and the payment pattern is other than ratable and lags behind the revenue pattern, some companies recognized the lesser of the ratable amount or the amount received because they had a policy of not recognizing contingent fees before the contingency was resolved. The proposed standard does not provide for companies to modify the recognition pattern if payment is contingent. Instead, the risk of a contingent payment being realized would be addressed when the company measured the arrangement consideration.

Under the proposed standard, where additional services are sold with the base cloud services, separation should be more straightforward. We expect most companies will conclude that consulting services for best use of the cloud functionality will constitute a separate performance obligation. However, the greater judgment will be whether the upfront services for configuration, implementation, or just plain activation constitute separate performance obligations of the vendor and thus should be separated from the cloud services. We expect a framework to develop in practice over time as service companies begin to analyze which activities in the context of providing services constitute separate performance obligations and which activities should be combined with other activities to be considered a single performance obligation.

Companies should be mindful of the cost model used for their software that is sold exclusively through cloud offerings. Under current US GAAP, the amount of internally developed software costs capitalized changes depending on how the software is marketed. Capitalization is less for licensed software and greater for software used to provide a service. The current cost accounting is not expected to change as a result of the proposed revenue standard, but is something to be mindful of nevertheless.
What this means for your business

A number of areas impacting cloud providers will need focus from sales, finance, and accounting organizations. The sales organization will need to develop flexible pricing plans and offer a variety of options for customers. In addition, contracts will need to be customized for the offerings. The way customers place orders and how the company invoices its customers will likely need to change. The finance organization will need to reconsider reports and key performance indicators that management uses; the tools will need to be updated to better reflect the services being provided. From an accounting perspective, companies will need to reassess their policies and procedures for revenue recognition.

A number of these changes will impact the systems the provider uses — from order interfaces and billing systems to the revenue recognition in the ledger and subledgers. Providers will need to assess their control environment and develop new controls around consumption of services. And, given the increased judgment associated with usage-based billing versus a traditional product sale, customer service departments also will need to be evaluated to ensure they are equipped to handle the increased volume of billing inquiries and potential disputes. As cloud computing picks up momentum, providers will need to keep a number of considerations in mind.
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