Revenue Recognition for Cloud-Based Computing Arrangements

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In its June 2010 issue, *The CPA Journal* published an article by P. Paul Lin, "SaaS: What Accountants Need to Know," which discussed the benefits, pitfalls, controls, and audit considerations for Software as a Service (SaaS) computing models. This article will discuss the revenue recognition issues regarding cloud-based computing arrangements, including SaaS systems. It will examine existing practices, recent FASB guidance, and the latest developments. It will also provide several examples to illustrate the differences between pronouncements.

Overview

The common accounting issues in a cloud computing environment relate to the timing and amount of revenue that can be recognized in an ongoing customer relationship as well as how companies account for the costs associated with providing services. This article, however, deals only with revenue recognition issues. A typical cloud computing environment has multiple elements that vendors deliver to customers at different points during the contract. The accounting model is affected by the ability of the vendor to separate these elements into the "units of accounting." Generally, customer arrangements for cloud computing are within the scope of Accounting Standards Codification (ASC) 605-25, *Revenue Recognition—Multiple Elements Arrangements*; the SEC's Staff Accounting Bulletin (SAB) 104, which revises and rescinds a portion of the interpretation guidance included in Topic 13; and the recently issued Emergency Issues Task Force (EITF) Issue 08-01, *Revenue Arrangements with Multiple Deliverables*, which amends certain provisions of ASC 605-25 (Accounting Standard Update [ASU] 2009-13). This ASU is effective for arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, and early adoption is permitted.

Cloud computing services usually include a license for the use of software, but this feature does not put such an arrangement within the scope of ASC 985-605, *Revenue Recognition—Software*. ASC 605-55-121 states that a software arrangement is within the scope of ASC 985-605 if the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty to either run the software on its own hardware or contract with an unrelated third party to host the software. It is, however, uncommon in cloud computing arrangements for customers to have such a contractual right. Therefore, cloud computing services, including any software licenses within the arrangement, are usually accounted for as service contracts within the scope of SAB 104, which states:

> Provided all other revenue recognition criteria are met, service revenue should be recognized on a straight-line basis, unless evidence suggests that revenue is earned or obligations are fulfilled in a different pattern, over the contractual term of the arrangement or the expected period during which those specified services will be performed, whichever is longer. (www.sec.gov/interps/account/sab104rev.pdf)

Cloud services are generally provided consistently from period to period; therefore, revenue must generally be recognized on a straight-line basis over the term of the contract, provided all applicable criteria have been met. SAB 104 requires the following four conditions be present for revenue to be recognized: 1) there is a persuasive evidence of an arrangement; 2) the service has been

EXHIBIT 1
Revenue Recognition Guidance Prior to ASU 2009-13

Case 1: No Vendor-Specific Objective Evidence (VSOE)

	First-Month Revenues	Second-Month Revenues	Subsequent 10 Months' Revenues	Total
Subscription revenues	$ –	$ –	$12,000	$120,000

Case 2: With Vendor-Specific Objective Evidence (VSOE)

	First-Month Revenues	Second-Month Revenues	Subsequent 10 Months' Revenues	Total
Training services	$5,000	$ –	$ –	$ 5,000
Implementation services	3,500	3,500	–	7,000
Host services	–	–	10,800	108,000
Total	$8,500	$3,500	$10,800	$120,000

provided to the customer (delivery has occurred); 3) the collection of the fees is reasonably assured; and 4) the amount of the fees the customer is obligated to pay is fixed and determinable.

Before ASU 2009-13

As stated above, in addition to SAB 104, cloud computing arrangements fall within the scope of ASC 605-25, which states:

> In an arrangement with multiple deliverables, the delivered item or items shall be considered a separate unit of accounting if all of the following criteria are met:
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> a. The delivered item or items have value to the customer on a standalone basis. The item or items have value on a standalone basis if they are sold separately by any vendor or the customer could resell the delivered item(s) on a standalone basis. In the context of a customer's ability to resell the delivered item(s), this criterion does not require the existence of an observable market for the deliverable(s).
>
> b. There is objective and reliable evidence of the fair value of the undelivered item(s).
>
> c. If the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item or items is considered probable and substantially in the control of the vendor.

If multiple deliverables included in an arrangement are separable into different units of accounting, the multiple-element arrangement guidance in ASC 605-25-30 addresses how to allocate the consideration to those units of accounting. The guidance requires the allocation of revenue to elements of the arrangement using the residual method. Under the residual method, the undiscounted fair value of the undelivered elements is deferred and the residual amount of revenue is allocated to the delivered items. Applying the residual method in a cloud computing environment is not straightforward, because most or all the elements are service deliverables. A significant amount of judgment is required. Under the residual method, the amount of consideration allocated to the delivered items equals the total arrangement consideration less the aggregate value of the undelivered items. If an entity cannot determine the fair value of the undelivered items, then the delivered and undelivered elements will together constitute a single unit of accounting.

Salesforce.com, a provider of cloud computing applications, in its quarterly report for the period ended April 30, 2010, described its revenue recognition policy, based on ASC 605-25, as follows:

> Subscription and support revenues are recognized ratably over the contract terms beginning on the commencement date of each contract. … Professional services and other revenues, when sold with subscription and support offerings, are accounted for separately when these services have value to the customer on a standalone basis and there is objective and reliable evidence of fair value of each deliverable. When accounted for separately, revenues are recognized as the services are rendered for time and material contracts, and when the milestones are achieved and accepted by the customer for fixed price contracts. The majority of the Company's consulting contracts are on a time and materials basis. Training revenues are recognized after the services are performed. For revenue arrangements with multiple deliverables, such as an arrangement that includes subscription, premium support and consulting or training services, the Company allocates the total amount the customer will pay to the separate units of accounting based on their relative fair values, as determined by the price of the undelivered items when sold separately.
>
> In determining whether the consulting services can be accounted for separately from subscription and support revenues, the Company considers the following factors for each consulting agreement: availability of the consulting services from other vendors, whether objective and reliable evidence for fair value exists for the undelivered elements, the nature of the consulting services, the timing of when the consulting contract was signed in comparison to the subscription service start date, and the contractual dependence of the subscription service on the customer's satisfaction with the consulting work. If a consulting arrangement does not qualify as a separate accounting, the Company recognizes the consulting revenue ratably over the remaining term of the subscription contract. Additionally, in these situations, the Company defers only the direct costs of the consulting arrangement and amortizes those costs over the same time period as the consulting revenue is recognized. (www.salesforce.com/assets/pdf/investors/Q1FY11_Salesforce_FinancialResults.pdf)

Cloud computing revenue is composed of two elements: subscription services (software and hosting services) and professional services, including implementation and training. In cloud computing arrangements, even though customers use the software element, they generally do not have a contractual right to take possession of the software and run it in-house or through an unrelated vendor. Accordingly, cloud computing arrangements, including software licensing fees within the arrangement, are generally accounted for as a service contract in accordance with ASC 605-25 and SAB 104.

The cloud computing environment has a recurring revenue model, and the revenue is recognized ratably over the lifetime of the contract. In addition, revenue is not recognized before the service goes live, to ensure that revenue will match the use of services. So, if a company sells a cloud computing services contract today and bills the customer up front for one year with net 45 days and needs 60 days to implement the service for it to go live, it will not be able to recognize any of the revenue before the 61st day. Furthermore, it needs vendor-specific objective evidence (VSOE) based on ASC 650-25-30-8 to recognize the revenues associated with different elements separately. The VSOE of fair value based on ASC 605-25-30-8 is limited to the following scenarios:

> a. The price charged for a deliverable when it is sold separately;
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> b. For a deliverable not yet being sold separately, the price established by management having the relevant authority (it must be probable that the price, once established, will not change before the separate introduction of the deliverable into the marketplace).

As discussed above, based upon SAB 104, revenue for cloud-based services must be recognized on a straight-line basis over the contractual term. ASC 605-25-25-6 states:

> A delivered item or items that do not qualify as a separate unit of accounting within the arrangement shall be combined with the other applicable undelivered item(s) within the arrangement. The allocation

of the arrangement consideration and the recognition of revenue then shall be determined for those combined deliverables as a single unit of accounting.

The SEC staff also believes that recognizing revenue upon the delivery of items that have no stand-alone value is contrary to the principles in ASC 605-25. The presumption that delivery of the final deliverable should trigger revenue recognition is the general rule. There is, however, an exception that when one delivery is the predominant deliverable, then the revenue recognition may commence once the delivery of that item has occurred.

The following two case studies reflect the analysis of revenue recognition guidance for cloud-based arrangements prior to ASU 2009-13.

Case 1. Entity A signs a contract with a customer for cloud-based services for 12 months for $120,000, which is an up-front and nonrefundable fee. The contract states that the fee for subscription services, consisting of the use of software and related host services, is $104,000. Entity A also provides five days of training services for a cost of $4,000, to be completed before and during the first month of implementation. Furthermore, Entity A provides an additional seven days consulting for implementation services for $12,000 to be completed within the first two months of implementation. Entity A does not have VSOE for any elements of the arrangement. The customer starts full utilization of the system at the beginning of the third month.

Analysis of Case 1. Entity A does not have VSOE for different elements of the contract, and as a result, it must treat the whole contract as a single unit of accounting. The revenue recognition guidance for these types of arrangements requires that revenue be recognized ratably over the life of the contract after completion of the last or predominant deliverable item (i.e., $12,000 a month for 10 recurring months, beginning on the third month subsequent to complete delivery of professional services). Revenue is recognized as shown in *Exhibit 1*.

Case 2. Assume the same facts as Case 1, but this time, Entity A has VSOE for training and implementation services in the amount of $1,000 per day for both. Furthermore, implementation services are completed evenly during the first two months of installation.

Analysis of Case 2. Under this scenario, five days' training services for $5,000 occurs during the first month, and seven days' consulting services for implementation services for $7,000 occurs during the first two months ($3,500 during the first month and an additional $3,500 during the second month); the residual value of $108,000 for software and host services occurs during the next 10 months. Revenue is recognized for cloud-based services as shown in Exhibit 1.

EXHIBIT 2
Revenue Recognition Guidance Subsequent to ASU 2009-13

Case 3: Cannot Determine Either TPE or BESP

	First-Month Revenues	Second-Month Revenues	Subsequent 10 Months' Revenues	Total
Subscription revenues	$ –	$ –	$12,000	$120,000

Case 4: BESP and Allocation of Transaction Consideration

	BESP	BESP Percentage	Transaction Allocation
Training services	$ 15,000	10%	$ 12,000
Implementation revenues	45,000	30%	36,000
Host services	90,000	60%	72,000
Total	$150,000	100%	$120,000

Revenue Recognized in Each Period

	First-Month Revenues	Second-Month Revenues	Subsequent 10 Months' Revenues	Total
Training services	$12,000	$ –	$ –	$ 12,000
Implementation revenues	18,000	18,000	–	36,000
Host services	–	–	7,200	72,000
Total	$30,000	$18,000	$ 7,200	$120,000

After ASU 2009-13

ASU 2009-13 has made two significant changes to the existing guidance for multiple-element arrangements: first, the determination of the "unit of accounting," and second, the allocation of transaction consideration to identified units of accounting. This guidance allows companies to account for delivered items as separate accounting units if specific conditions are met:

- The delivered item has value to the customer on a stand-alone basis.
- If the arrangement includes a general right of return relative to the delivered item, delivery or performance for the undelivered item is considered probable and substantially in control of the vendor.

ASU 2009-13 amends ASC 605-25-30 and requires arrangement consideration to be allocated at the inception of the arrangement to the identified separate units of accounting based on the relative-selling-price method. The new guidance eliminates the residual method of allocating consideration and provides a hierarchy to use when determining the selling price for each unit of accounting. First, VSOE should be used if it exists. Second, third-party evidence (TPE) of a selling price (i.e., vendors selling similar goods to similarly situated customers on a stand-alone basis) should be used, if it exists. If neither VSOE nor TPE of a selling price exists for a unit of accounting, the entity must use its best estimate of the selling price (BESP) for that unit of accounting.

Estimating the selling prices of elements is a key aspect of applying ASU 2009-13. FASB believes that the new model results in a better reflection of the economics of the transaction, even though developing, documenting, and supporting BESP could potentially be challenging for many corporations. In determining BESP, cloud computing vendors should consider all reasonably available information, including both market data and conditions and entity-specific data. A detailed description and analysis of the techniques used to calculate

the BESP is beyond the scope of this article. The requirement to use the relative-selling-price method to allocate revenues in a multiple arrangement engagement represents a vital shift from the previous guidance. Under ASU 2009-13, any discounts are allocated across all deliverables in proportion to their relative selling prices, unlike previous guidance, under which embedded discounts are allocated to delivered items.

The following two case studies reflect the analysis of revenue recognition guidance for cloud-based arrangements subsequent to ASU 2009-13:

Case 3. Assume the same facts as Case 1. Entity A does not sell any of the elements of the multiple arrangements separately; therefore, it cannot determine either TPE or BESP, and the whole arrangement is considered a single unit of accounting under ASU 2009-13.

Analysis of Case 3. The revenue recognition for Case 3 under ASU 2009-13 is the same as Case 1. The revenue recognition guidance for these types of arrangements requires that revenue be recognized ratably over the life of the contract after completion of the last deliverable item (i.e., $12,000 a month for 10 recurring months, beginning on the third month subsequent to complete delivery of professional services). Revenue is recognized as shown in *Exhibit 2*.

Case 4. Assume the same facts as Case 2. Entity A sells some of the elements of the arrangements separately but does not have either VSOE or TPE for any elements of the arrangement, and as a result, in accordance with ASU 2009-13, must determine the BESP for all the different elements of the arrangement. Because software and computer services are always sold together, it is acceptable to determine BESP for both elements on a combined basis (i.e., cloud services). In this scenario, assume that there are multiple units of accounting under ASU 2009-13. Revenue is recognized as shown in Exhibit 2.

IFRS Revenue Recognition

The principles in International Accounting Standards (IAS) 18, *Revenue*, require that companies measure their revenues at fair value of consideration received or receivable for each separable component of a transaction. IFRS, being a principles-based set of standards, does not prescribe a specific method for allocating revenues to the components of transactions; as long as the method selected is the best method reflecting the substance of a particular transaction, the method would be acceptable.

In practice, however, the price charged for an item when sold separately is the best estimate of fair value under IFRS. If that evidence is not available, IFRS recommends other methods, such as cost plus a reasonable margin. Therefore, differences remain between the frameworks under ASU 2009-13 and IAS 18, but the new U.S. guidance, which uses BSEP if VSOE and TPE are not available, better aligns U.S. GAAP with IFRS.

Recent Developments

In June 2010, FASB and the International Accounting Standards Board (IASB) jointly issued an exposure draft to create a single, global revenue recognition model. The proposed model outlines the principles in determining the amount, timing, and uncertainty of revenue recognition for contracts that provide goods and services to customers. Many of the principles that the proposed model has outlined resemble today's U.S. GAAP; nevertheless, the exposure draft includes provisions that impact revenue recognition for cloud-based arrangements.

The proposed model includes the following steps for revenue recognition:

- Identification of the customer's contract,
- Identification of the separate performance obligations in the contract,
- Determining the transaction price,
- Allocating the transaction price to the separate performance obligations, and
- Recognition of revenue when each performance obligation is satisfied.

Upon adoption, companies should adopt the proposed guidance retrospectively for all periods presented.

The proposed requirement to identify performance obligations and allocate the transaction consideration to those performance obligations based on their relative selling prices is largely consistent with the guidance for multiple arrangements in ASU 2009-13. There are, however, certain aspects of the proposed model that will change current accounting practice.

The proposed model indicates that promised goods and services must be treated as separate performance obligations if the entity, or another entity, sells an identical or similar good or service separately. It appears that the proposed guidance will slightly change the rules for identifying units of accounting: Even if another entity markets an identical or similar product, the company must recognize it as a separate unit of accounting.

SAB 104 identifies collectibility as one of the four revenue recognition criteria. The proposed standard, however, views collectibility, as well as the time value of money, as part of the transaction price. For example, if there is a contract for $1,000 due in six months and the probability of collection is 90%, the company can recognize the present value of $900 as revenue if other revenue recognition criteria have been met.

There are also proposed changes for the treatment of contract costs and onerous performance obligations by the customer that are beyond the scope of this article.

Future of Revenue Recognition Standards

Cloud computing—the delivery of computing services through the Internet—is a fast-growing industry: It is estimated to reach $42 billion by 2012, or nearly over half of the entire software business. Recently issued and proposed accounting guidance will impact the revenue recognition for multiple elements arrangements and cloud-based computing significantly. In most instances, ASU 2009-13 accelerates the revenue recognition and reduces the amount of deferred revenue in early years for the service providers. Even though differences remain between the frameworks under ASU 2009-13 and IAS 18, the new U.S. guidance, which uses BESP if VSOE and TPE are not available, better aligns U.S. GAAP with IFRS. The latest exposure draft from FASB and the IASB represents additional potential changes to revenue recognition accounting for cloud-based arrangements. It is expected that FASB will issue a converged revenue recognition standard in 2011 with an effective date in 2014 or 2015. ❑

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