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Technology Spotlight
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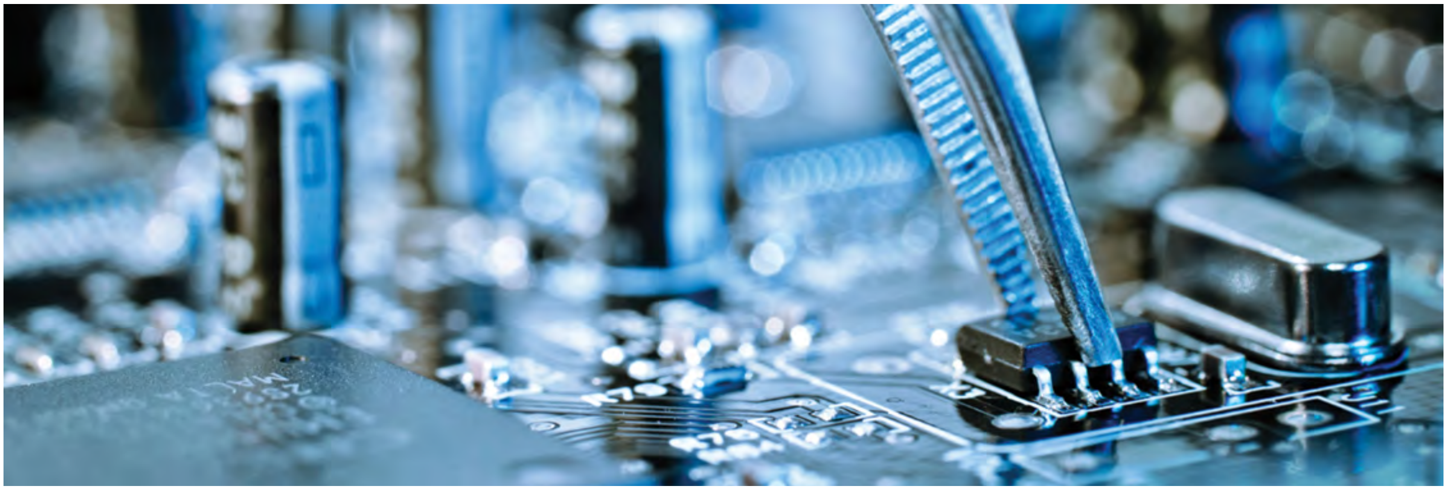

In This Issue

The Future of Revenue Recognition

The Bottom Line

- In 2014, the FASB and IASB issued their final standard on revenue from contracts with customers (ASU 2014-09[1] and IFRS 15,[2] respectively). The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance.[3] Despite issuing final guidance after nearly 12 years of development, there has been continued discussion and debate during the implementation effort, which has led the boards to amend some aspects of their "final" standard.
- Under the ASU, goods or services in a contract that are "highly dependent on, or highly interrelated with, other goods or services promised in the contract" or that "significantly modify or customize" each other are not considered distinct performance obligations.
- Revenue recognition in software arrangements will no longer be deferred if vendor-specific objective evidence (VSOE) of fair value is not established for undelivered goods or services, since revenue is allocated to all performance obligations on the basis of either an observable or an estimated stand-alone selling price.
- When contract consideration is variable, revenue should be recognized only to the extent that it is probable that a significant revenue reversal will not occur. In arrangements involving sales- or usage-based licenses of intellectual property, revenue is recognized only when it is determinable (i.e., when the sale or usage has occurred).
- As clarified in ASC 606-10-55-59[4] (as amended by ASU 2016-10[5]), entities that license software to customers may need to determine whether the intellectual property being sold to customers is functional or symbolic.
- Since the new revenue standard requires significantly more extensive disclosures, technology entities may need to modify their systems and processes to gather information about contracts with customers that is not otherwise readily available.

[1] FASB Accounting Standards Update No. 2014-09, *Revenue From Contracts With Customers (Topic 606)*.
[2] IFRS 15, *Revenue From Contracts With Customers*.
[3] The SEC has indicated that it does not currently plan to issue guidance supplementing ASU 2014-09. However, until an entity adopts the new revenue standard, SEC Staff Accounting Bulletin (SAB) Topic 13, "Revenue Recognition," will continue to apply.
[4] For titles of *FASB Accounting Standards Codification* (ASC) references, see Deloitte's "Titles of Topics and Subtopics in the *FASB Accounting Standards Codification*."
[5] FASB Accounting Standards Update No. 2016-10, *Revenue From Contracts With Customers (Topic 606): Identifying Performance Obligations and Licensing*.

Beyond the Bottom Line

This *Technology Spotlight* discusses the framework of the new revenue model and highlights key accounting issues and potential challenges for technology entities that account for revenue recognition under U.S. GAAP. For additional information about the new revenue standard, see Deloitte's *A Roadmap to Applying the New Revenue Recognition Standard*.

Background

The goals of ASU 2014-09 are to clarify and converge the revenue recognition principles under U.S. GAAP and IFRSs while (1) streamlining, and removing inconsistencies from, revenue recognition requirements; (2) providing "a more robust framework for addressing revenue issues"; (3) making revenue recognition practices more comparable; and (4) increasing the usefulness of disclosures. The ASU states that the core principle for revenue recognition is that an "entity shall recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services."

The ASU indicates that an entity should perform the following five steps in recognizing revenue:

- "Identify the contract(s) with a customer" (step 1).
- "Identify the performance obligations in the contract" (step 2).
- "Determine the transaction price" (step 3).
- "Allocate the transaction price to the performance obligations in the contract" (step 4).
- "Recognize revenue when (or as) the entity satisfies a performance obligation" (step 5).

Thinking It Through

As a result of the ASU, entities will need to comprehensively reassess their current revenue accounting and determine whether changes are necessary. In addition, among other things, the ASU requires significantly expanded disclosures about revenue recognition, including both quantitative and qualitative information about (1) the amount, timing, and uncertainty of revenue (and related cash flows) from contracts with customers; (2) the judgment, and changes in judgment, used in applying the revenue model; and (3) the assets recognized from costs to obtain or fulfill a contract with a customer.

Key Accounting Issues

Step 1 — Identifying the Contract With a Customer

A contract can be written, verbal, or implied; however, the ASU applies to a contract only if all the following criteria are met:

- "The parties to the contract have approved the contract (in writing, orally, or in accordance with other customary business practices) and are committed to perform their respective obligations."
- "The entity can identify each party's rights regarding the goods or services to be transferred."
- "The entity can identify the payment terms for the goods or services to be transferred."
- "The contract has commercial substance (that is, the risk, timing, or amount of the entity's future cash flows is expected to change as a result of the contract)."

- "It is probable that the entity will collect substantially all of the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer."[6]

If a contract does not meet these criteria at contract inception, an entity must continue to reassess the criteria to determine whether they are subsequently met.

Thinking It Through

Although technology entities may currently consider certain of these criteria when determining whether persuasive evidence of an arrangement exists under ASC 985-605-25 or SAB Topic 13.A (codified in ASC 605-10-S99-1), contracts that are currently accounted for under ASC 985-605 or ASC 605 may not be within the scope of the ASU unless all the requirements mentioned above are met. That is, until a contract with the customer exists, the arrangement cannot be accounted for in accordance with the ASU.

Collectibility

The ASU establishes (in ASC 606-10-25-1(e)) a collectibility threshold under which an entity must determine whether "[i]t is probable that the entity will collect substantially all of the consideration to which it will be entitled." If the threshold is not met, the entity is precluded from applying the remaining steps in the ASU and recognizing revenue until it is probable[7] that the consideration will be collected. Any amounts received before collectibility is considered probable would be recorded as revenue only if any of the following events, as outlined in ASC 606-10-25-7, have occurred:

- "The entity has no remaining obligations to transfer goods or services to the customer, and all, or substantially all, of the consideration promised by the customer has been received by the entity and is nonrefundable."
- "The contract has been terminated, and the consideration received from the customer is nonrefundable."
- "The entity has transferred control of the goods or services to which the consideration that has been received relates, the entity has stopped transferring goods or services to the customer (if applicable) and has no obligation under the contract to transfer additional goods or services, and the consideration received from the customer is nonrefundable."

For contracts that have a variable sales price (including price concessions), entities would first estimate the consideration due under the contract (see Step 3 — Determining the Transaction Price below) and would then apply the collectibility threshold to the estimated transaction price.

Thinking It Through

While the probability threshold is unchanged from current U.S. GAAP, this requirement may change current practice. Technology entities typically assess collectibility under SAB Topic 13.A or ASC 985-605 and defer revenue recognition until cash is received. The new revenue standard could potentially require further deferral even when nonrefundable cash has been received.

[6] In assessing whether it is probable that the entity will collect the consideration, an entity would consider only the customer's ability and intention to pay that amount of consideration when it is due. The amount of consideration evaluated may be less than the price stated in the contract if the consideration is variable because the entity may offer price concessions (see Step 3 — Determining the Transaction Price).

[7] Under U.S. GAAP, "probable" refers to a "future event or events [that] are likely to occur." This threshold is considered higher than "probable" as used in IFRSs, under which the term means "more likely than not."

In certain cases (e.g., when the contract is with a financially stressed customer), entities may be unable to assert that the collectibility of the total estimated transaction price is probable. In such situations, the contract would not be accounted for under the ASU's remaining steps until collectibility is probable. As mentioned above, any amounts that are received before the probability threshold is met would usually be recorded as a liability unless the events listed in the bullets above have occurred.

In other words, collectibility is assessed on the basis of the amount to which the entity will be entitled in exchange for the goods or services that will transfer to the customer (i.e., not goods or services that will not transfer if the customer fails to pay). In addition, a contract is considered terminated if the entity has stopped transferring additional goods or services to the customer with no further obligation to the customer. This is particularly relevant for software-as-a-service (SaaS) vendors that bill customers on a monthly basis and have a customary business practice to limit credit risk by not transferring further services upon payment delinquency.

Contract Combination

Although entities would most likely apply the ASU to a single contract, in certain circumstances they may be required to combine a group of contracts and evaluate them as if they were a single contract. Under the ASU, an entity must combine contracts entered into at or near the same time with the same customer (or related parties of the customer) if one or more of the following criteria are met:

- "The contracts are negotiated as a package with a single commercial objective."
- "The amount of consideration to be paid in one contract depends on the price or performance of the other contract."
- "The goods or services promised in the contracts (or some goods or services promised in each of the contracts) are a single performance obligation [as defined]."

Thinking It Through

Since technology entities commonly enter into multiple agreements with the same customer within a short period, they need to consider whether certain contracts should be combined for revenue recognition purposes. Although the contract combination requirements mentioned above are similar to certain aspects of existing guidance (such as the factors listed in ASC 985-605-55-4 for software arrangements), entities may need to reevaluate their conclusions under the ASU to determine whether changes in contract combinations may be necessary.

Contract Modifications

The ASU also provides guidance on accounting for "approved" modifications to contracts with customers. The approval of a contract modification can be in writing, by oral agreement, or implied by customary business practices, and a contract modification is considered approved when it creates new or changes existing enforceable rights or obligations. A contract modification must be accounted for as a separate contract when (1) it results in a change in contract scope because of additional promised "distinct" goods or services (see Step 2 — Identifying Separate Performance Obligations in a Contract below) and (2) the additional consideration reflects the entity's stand-alone selling price of those additional promised goods or services (including any appropriate adjustments to reflect the circumstances of the contract). If an entity determines that the modification is not a separate contract, the entity would, depending on the specific facts and circumstances of the modified contract (as defined in the ASU), apply one of the following methods:

- *Treatment as a termination of the existing contract and creation of a new contract (prospective method)* — If the remaining goods or services are distinct from the goods or services transferred on or before the date of the contract modification, the remaining transaction price[8] and any additional consideration promised as a result of the modification are allocated to the remaining performance obligations in the modified contract.

- *Cumulative catch-up adjustment (retrospective method)* — If the remaining goods or services are not distinct and are part of a single performance obligation that is partially satisfied as of the date of the contract modification, the performance obligation's measure of progress toward completion is updated, which may result in a cumulative catch-up of revenue.

- A combination of these two methods (if both of the above conditions exist).

Thinking It Through

Technology entities often enter into agreements that may amend, cancel, terminate or otherwise change the provisions of the master or original agreement (often referred to as side agreements). These entities may need to apply judgment in determining whether these agreements represent approved modifications and whether each modification should be accounted for as a separate contract or dealt with under the prospective or retrospective methods outlined above. In either case, accounting for modifications under the ASU may change the manner in which entities currently account for such amendments under existing U.S. GAAP.

Further, when additional goods or services are priced at a discount, a technology company should evaluate why the discount was given. If some or all of the discount is effectively a price concession for goods or services already delivered, such concession might need to be immediately recorded to revenue as an adjustment to the transaction price. Refer to Example 5, Case B,[9] of the ASU.

Step 2 — Identifying Separate Performance Obligations in a Contract

ASU 2014-09 provides guidance on evaluating the promised "goods or services"[10] in a contract to determine each performance obligation (i.e., the unit of account). Performance obligations represent each promise to transfer either of the following to a customer:

- "A good or service (or a bundle of goods or services) that is distinct."

- "A series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer."[11]

[8] Under the revenue model, the transaction price available for allocation would include the "consideration promised by the customer (including amounts already received from the customer) that was included in the estimate of the transaction price and that had not been recognized as revenue."

[9] ASC 606-10-55-114 through 55-116.

[10] Although the ASU does not define goods or services, it includes several examples, such as goods produced (purchased) for sale (resale), granting a license, and performing contractually agreed-upon tasks.

[11] A series of distinct goods or services has the same pattern of transfer if both of the following criteria are met: (1) each distinct good or service in the series would meet the criteria for recognition over time and (2) the same measure of progress would be used to depict performance in the contract.

A promised good or service is distinct (and therefore a performance obligation) if both of the following criteria are met:

- *Capable of being distinct* — "The customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer."
- *Distinct in the context of the contract* — "The entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract." The ASU (as amended by ASU 2016-10) provides the following indicators for evaluating whether a promised good or service is not separable from other promises in a contract:
  - "The entity provides a significant service of integrating goods or services with other goods or services promised in the contract . . . . In other words, the entity is using the goods or services as inputs to produce or deliver the combined output or outputs specified by the customer."
  - "One or more of the goods or services significantly modifies or customizes, or are significantly modified or customized by, one or more of the other goods or services promised in the contract."
  - "The goods or services are highly interdependent or highly interrelated. In other words, each of the goods or services is significantly affected by one or more of the other goods or services in the contract. For example, in some cases, two or more goods or services are significantly affected by each other because the entity would not be able to fulfill its promise by transferring each of the goods or services independently."

Stand-Alone Value Requirements Under ASC 605-25

Currently, multiple-element software arrangements that are not within the scope of ASC 985-605 or ASC 605-35[12] (e.g., certain types of hosted software and data arrangements) are typically accounted for under ASC 605-25. Under ASC 605-25-25-5, deliverables in multiple-element arrangements are treated as separate units of account if the delivered items have value to the customer on a stand-alone basis (a determination that involves an assessment of whether the deliverables are sold separately by any vendor or the customer could resell the delivered items on a stand-alone basis). Under the ASU, in evaluating whether a good or service is a separate performance obligation, entities need to consider whether the good or service is *capable of being distinct* and *distinct within the context of the contract*, as described above.

Thinking It Through

The ASU's guidance on determining whether a customer can benefit from a good or service on its own, or with other readily available resources, is generally consistent with the current guidance in ASC 605-25 on determining whether a good or service has stand-alone value. The ASU states that "the fact that the entity regularly sells a good or service separately would indicate that a customer can benefit from the good or service."

[12] Formerly AICPA Statement of Position 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*.

The requirement that the promise to transfer a good or service be "separately identifiable from other promises in the contract" is a new concept under which entities must further evaluate a good or service for separability. Entities may need to use significant judgment when determining whether the goods or services in a contract are "highly dependent on, or highly interrelated with, other goods or services promised in the contract" or whether they "significantly modify or customize" each other. In such circumstances, entities may need to account for a bundle of goods or services, which may qualify for separate accounting under current U.S. GAAP, as a single performance obligation (unit of account).

Example 11[13] of the ASU presents two cases that illustrate how technology entities would determine whether goods or services in a software arrangement are distinct. Each case depicts a typical software arrangement involving a license, an installation service, software updates, and technical support. In Case A, the installation service does not significantly modify or customize the software; in Case B, however, the installation service significantly modifies and customizes it. The ASU concludes that the license and installation service would be considered distinct from each other in Case A but not in Case B. Entities that provide these types of services will need to determine whether they are distinct from the software.

The assessment of whether goods or services in a contract are highly dependent on, or highly interrelated with, one another may be particularly challenging for entities with technology arrangements that are currently accounted for under ASC 605-25. For example, SaaS arrangements are often bundled together with additional products or services, such as implementation or consulting services, in a single arrangement (see SaaS Arrangements below for more information). Entities may find it challenging to determine whether the hosted software and other products or services offered are separately identifiable, depending on the nature of each item and how the items interact. Under the ASU, entities can no longer rely on the fact that another third party sells the service separately and will need to evaluate whether the services are distinct in the context of the contract.

Example 10, Case C,[14] of the ASU presents a case that illustrates how a technology entity may conclude that a license and software updates result in a single performance obligation on the basis of the customer's inability to maintain the utility of the software without the updates. Entities will need to carefully consider facts and circumstances to determine whether a similar conclusion should be reached for similar performance obligations.

However, if certain products or services offered under an arrangement have the same pattern of transfer, entities could effectively measure and recognize them as a single performance obligation under the ASU. This guidance may simplify the identification of all distinct performance obligations under certain contracts.

Elimination of the VSOE of Fair Value Requirement for Software Arrangements

Currently, ASC 985-605 provides industry-specific guidance on accounting for multiple-element software arrangements. Under this guidance, to separate a software arrangement that includes multiple elements, a vendor must establish VSOE of fair value for each identified element. Whether VSOE of fair value can be established for an element may dramatically affect how revenue is recognized in a multiple-element software arrangement. Variations in pricing from customer to customer, the unique and customer-specific nature of many software elements, and the lack of historical sales information about new software products

[13] ASC 606-10-55-141 through 55-150.
[14] ASC 606-10-55-140D through 55-140F.

or specified upgrade rights can often make it difficult or not possible to establish VSOE of fair value. When there is no VSOE of fair value for certain goods or services in a multiple-element arrangement, entities often must defer recognizing revenue related to delivered elements in an arrangement until the remaining goods or services are delivered or VSOE of fair value is established.

The ASU eliminates the VSOE requirement for software arrangements. As a result, a technology entity's accounting for each element of a multiple-element software arrangement may change, since the entity will now be required to determine whether each deliverable in the arrangement constitutes a "distinct" performance obligation for which to allocate consideration.

Thinking It Through

Elimination of the VSOE requirement could have a significant impact on software transactions. For example, many software companies develop roadmaps to articulate both short-term and long-term goals for the future development of software sold or licensed to a customer. Roadmaps can include upgrades or enhancements to the functionality of software to be delivered at a specific time in the future. Because such upgrades or enhancements typically have not been developed or sold separately at contract inception, there is often no VSOE of fair value for such elements. Under current guidance, if a roadmap implies or explicitly promises the delivery of specified upgrades and there is no VSOE of fair value for the upgrade rights, entities often must defer recognizing revenue related to other elements in the arrangement until delivery of the upgrades commences or VSOE of fair value is established. This may influence a software company's desire to include specificity in product roadmaps.

By replacing the requirement to determine VSOE of fair value with the concept of "distinct" goods or services, the ASU may give software companies more flexibility to include specified upgrade rights in their product roadmaps (i.e., the ability to separately allocate and recognize revenue for upgrade rights may accelerate revenue recognition under the ASU). However, to separately allocate and recognize revenue for specified upgrade rights, entities would need to conclude that an upgrade right is a distinct performance obligation under the ASU.

Further, software companies often sell term-based licenses as well as perpetual licenses. Although the term-based or perpetual nature of a license is considered to be an attribute of the license, vendors may have been unable to establish VSOE for the postcontract support (PCS) in term-based license arrangements under current U.S. GAAP. Thus, the elimination of the VSOE requirement could have a significant impact on entities that sell term-based licenses in circumstances in which the license is determined to be distinct. Entities should consider whether PCS renewals in perpetual license arrangements represent the best evidence of stand-alone selling prices for PCS renewals in term-based license arrangements.

Software entities may find it challenging to perform the analysis of whether specified upgrades or other services (e.g., customization, installation, hosting) are "highly dependent on, or highly interrelated with" or "significantly modify or customize" any of the goods or services provided under a software arrangement. Technology entities will need to consider the ASU's guidance, as well as the illustrations in Example 10[15] and Example 11[16] of the ASU (see Stand-Alone Value Requirements Under ASC 605-25 above), in determining whether the various performance obligations in their software arrangements are distinct.

Renewal Options

Under the ASU, an option given to a customer to acquire additional goods or services represents a performance obligation if it provides a "material right" to the customer that it otherwise would not have received without entering into the contract. If an option is deemed to be a performance obligation, an entity must allocate a portion of the transaction price to the option and recognize revenue when control of the goods or services underlying the option is transferred to the customer or when the option expires.

Thinking It Through

Contracts in the technology industry often offer customers the option to renew their contract with the entity at potentially favorable rates once the initial contract term expires. This is particularly prevalent in the SaaS industry when SaaS vendors offer various incentives to entice customers to renew their contracts. It is also common for software vendors to provide discounts on renewals of PCS. Under the ASU, if the renewal option provides the customer with a material right that the customer would not have received had it not entered into the contract, the option should be treated as a separate performance obligation. A material right may be represented by a discounted renewal rate that is incremental to the range of discounts offered to a customer in that geographical area or market. In these cases, a portion of the original contract consideration would need to be allocated to the renewal option. See Allocation of Consideration to Material Rights below for details on how to account for material rights.

Step 3 — Determining the Transaction Price

ASU 2014-09 requires an entity to determine the transaction price, which is the amount of consideration to which it expects to be entitled in exchange for the promised goods or services in the contract. The transaction price can be a fixed amount or can vary because of "discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties, or other similar items."

Variable Consideration

When the transaction price includes a variable amount, an entity is required to estimate the variable consideration by using either an "expected value" (probability-weighted) approach or a "most likely amount" approach, whichever is more predictive of the amount to which the entity will be entitled.

[15] ASC 606-10-55-137 through 55-140F.
[16] ASC 606-10-55-141 through 55-150.

Some or all of an estimate of variable consideration is only included in the transaction price to the extent that it is probable[17] that subsequent changes in the estimate would not result in a "significant reversal" of revenue (this concept is commonly referred to as the "constraint"). The ASU requires entities to perform a qualitative assessment that takes into account both the likelihood and magnitude of a potential revenue reversal and provides factors that could indicate that an estimate of variable consideration is subject to significant reversal (e.g., susceptibility to factors outside the entity's influence, a long period before uncertainty is resolved, limited experience with similar types of contracts, practices of providing concessions, or a broad range of possible consideration amounts). This estimate would be updated in each reporting period to reflect changes in facts and circumstances. If an entity updates the estimated transaction price for an arrangement, any amounts allocated to satisfied performance obligations would be recognized immediately.

Sales-Based or Usage-Based Royalties

The requirement to estimate variable consideration, subject to the constraint, does not apply to sales- or usage-based royalties derived from the licensing of intellectual property; rather, consideration from such royalties is only recognized as revenue at the later of when the performance obligation is satisfied or when the uncertainty is resolved (e.g., when subsequent sales or usage occurs). However, in circumstances with guaranteed minimums, the sales- or usage-based royalties exception would only apply to the variable consideration that exceeds the fixed portion. Sales- or usage-based fee structures are common in the technology industry, particularly for software licenses.

Thinking It Through

Under current U.S. GAAP, the amount of revenue recognized by most technology entities is generally limited to the amount that is not contingent on a future event (i.e., the price is no longer variable). Under the ASU, an entity must include some or all of an estimate of variable (or contingent) consideration in the transaction price (which is the amount to be allocated to each unit of account and recognized as revenue) when the entity concludes that it is probable that changes in its estimate of such consideration will not result in significant reversals of revenue in subsequent periods. It is likely that this less restrictive guidance will result in earlier recognition of revenue under the ASU than under current U.S. GAAP.

Price concessions are common in the technology industry and are often provided to customers as an incentive to renew or upgrade arrangements such as software licenses. Under current U.S. GAAP, such price concessions often lead to a deferral of revenue recognition; under the ASU, however, price concessions would be treated as variable consideration in the manner described above. Entities offering price concessions or other incentives that result in variable consideration may need to establish a robust set of controls and procedures for incorporating the impact of variable terms in estimating the transaction price and determining the probability of any future revenue reversals. These controls and procedures would also need to take into account the requirement to update these estimates as of each reporting period. See Accounting Processes and Internal Controls for additional control considerations upon adoption of the ASU.

[17] Like the term "probable" in step 1 regarding the collectibility threshold, "probable" in this context has the same meaning as in ASC 450-20-20: the "future event or events are likely to occur." In IFRS 15, the IASB uses the term "highly probable," which has the same meaning as the FASB's "probable."

Entities should note that there is a disclosure requirement for "out of period" adjustments attributable to changes in estimates. That is, if an estimate of variable consideration is adjusted (or a royalty is received after a right-to-use license has been transferred to the customer) and an adjustment to revenue is accordingly recognized in the period, the adjustment to revenue should be disclosed. See Disclosures for additional disclosure requirements under the ASU.

When determining the probability of a significant revenue reversal in the future, an entity may need to consider the price concessions it has historically offered to customers and the possibility that it will offer a concession larger than initially expected. This assessment may be particularly challenging when there are large volumes of contracts and a broad range of price concessions has been offered historically or is expected to be granted.

Significant Financing Component

Adjustments for the time value of money are required if the contract includes a "significant financing component" (as defined by the ASU). Generally, no adjustment is necessary if payment is expected to be received within one year of the goods or services being transferred to the customer. However, when an entity concludes that a significant financing component exists on the basis of the payment terms, the entity should adjust the sales price when recording revenue to present the amount that would have been attained had the buyer paid cash for the goods or services on the date of sale.

Thinking It Through

Payment terms in the technology industry often include up-front fees or extended payment terms, particularly for software and SaaS entities that have longer-term license contracts with customers. Under current guidance, arrangements that offer extended payment terms often result in the deferral of revenue recognition since the fees are typically not considered fixed or determinable unless the entity has a history of collecting fees under such payment terms without providing any concessions. In the absence of such a history, revenue is recognized when payments become due or when cash is received from the customer, whichever is earlier.

Under the ASU, if the financing term extends beyond one year and a significant financing component is identified, the entity would need to initially estimate the transaction price by incorporating the impact of any potential price concessions (see Variable Consideration above) and then adjust this amount to account for the time value of money. The amount would then be recognized as revenue when the entity transfers control of the good or service to the customer. When the entity is providing financing, interest income would be recognized as the discount on the receivable unwinds over the payment period. However, when the entity receives an up-front fee, the entity could be deemed to be receiving financing from the customer, in which case interest expense is recognized with a corresponding increase to revenue recognized. This recognition pattern may differ significantly from the pattern under current U.S. GAAP.

Elimination of Existing Guidance on Contingent Revenue

Under current U.S. GAAP (specifically, the SEC staff's guidance in SAB Topic 13), the amount of revenue recognized is generally limited to the amount that is not contingent on a future event (i.e., the sales price is "fixed or determinable" and no longer variable). Under step 3 of the new revenue standard, an entity must include some or all of an estimate of variable (or contingent) consideration in the transaction price (which is the amount to be allocated to each unit of account and recognized as revenue) when the entity concludes that it is probable that changes in its estimate of such consideration will not result in significant reversals of revenue in subsequent periods. This less restrictive guidance will most likely result in earlier recognition of revenue under the new guidance than under current U.S. GAAP. Further, entities will need to exercise significant judgment when performing this assessment and could therefore find it challenging to consistently apply the requirements throughout their organization.

Step 4 — Allocate the Transaction Price to the Separate Performance Obligations in the Contract

Under current U.S. GAAP, in a multiple-element software arrangement accounted for under ASC 985-605, entities allocate the fixed and determinable transaction price to each element by using VSOE of fair value for each element. Entities that account for multiple-element arrangements under ASC 605-25 allocate consideration to all deliverables that qualify for separation on the basis of each deliverable's "relative selling price," which is determined on the basis of a hierarchy of evidence. Entities are currently prohibited from using the residual method, which is a recognition exception, to allocate consideration in multiple-element arrangements that are within the scope of ASC 605-25; however, they can apply the residual method when allocating consideration to delivered (though not to undelivered) elements in software arrangements that are within the scope of ASC 985-605.

Under ASU 2014-09, when a contract contains more than one performance obligation, an entity would generally allocate the transaction price to each performance obligation on a relative stand-alone selling price basis. The ASU states that "[t]he best evidence of a standalone selling price is the observable price of a good or service when the entity sells that good or service separately in similar circumstances and to similar customers." If the good or service is not sold separately, an entity must estimate it by using an approach that maximizes the use of observable inputs. Acceptable estimation methods include, but are not limited to, adjusted market assessment, expected cost plus a margin, and a residual approach (when the stand-alone selling price is not directly observable and either highly variable or uncertain).

Thinking It Through

Revenue from certain software contracts accounted for under ASC 985-605 may no longer be deferred if VSOE of fair value is not established for some of the goods or services in the contract, since revenue is now required to be allocated to all performance obligations on the basis of an estimated stand-alone selling price and not VSOE of fair value. However, even though the ASU effectively eliminates the need for entities to determine VSOE of fair value for certain performance obligations, the assessment of existing factors used to determine VSOE of fair value for such obligations may still be relevant to entities in estimating their stand-alone selling price (e.g., the stated renewal rate approach may still be relevant when estimating a performance obligation's stand-alone selling price if the rate is substantive and fairly consistent transaction to transaction).

As a result, although entities may be required to implement revised processes for determining stand-alone selling prices, existing practices utilized in determining VSOE of fair value may continue to be relevant in estimating the stand-alone selling price of each performance obligation. However, careful consideration should be given on whether this historical approach would represent the best evidence of stand-alone selling prices. In particular, it was often interpreted that renewal rate-based pricing only needs to be substantive to satisfy the VSOE requirements of ASC 985-605. By itself, the notion of being substantive generally would not meet the stand-alone selling price objectives of the ASU.

For multiple-element arrangements accounted for under ASC 605-25, the elimination of the selling price hierarchy and the ability to use the residual approach in limited circumstances to determine the stand-alone selling price of certain goods or services may make it easier to allocate revenue to all performance obligations. However, entities that have historically applied ASC 605-25 and have established stand-alone selling prices for goods or services (through either separate sales or estimations) may not meet the ASU's criteria for using a residual approach.

The ASU allows entities to apply the residual approach to determine the stand-alone selling price of delivered or undelivered elements in an arrangement provided that the price of the elements under consideration is highly variable or uncertain. The use of this method to determine the stand-alone selling price of undelivered elements is known as the reverse residual method. The reverse residual method may benefit entities that account for multiple-element arrangements under ASC 605-25 as well as those that account for software arrangements under ASC 985-605, both of which are currently prohibited from applying this method when allocating the transaction price. However, when applying the residual or reverse residual method, entities still need to consider the ASU's overall allocation principle[18] to ensure that the residual amounts are a faithful depiction of stand-alone selling prices (see the ASU's Example 34, Case C[19]).

In other words, since a performance obligation, by definition, has value on a stand-alone basis, the stand-alone selling price of a performance obligation cannot be zero. Consequently, it is inappropriate for an entity to use the residual approach under the ASU if applying that approach would result in a stand-alone selling price of zero for the performance obligation. Under the ASU, an entity must demonstrate that (1) there are observable stand-alone selling prices for one or more of the performance obligations and (2) one of the two criteria in ASC 606-10-32-34(c)(1) and (c)(2) is met. Further, even when the criteria for using the residual approach are met, the resulting allocation would need to be consistent with the overall allocation objective. That is, if the residual approach results in either a stand-alone selling price that is not within a range of reasonable stand-alone selling prices or an outcome that is not aligned with the entity's observable evidence, use of the residual approach would not be appropriate even if the criteria in ASC 606-10-32-34(c) are met. An entity should use all available information to determine the stand-alone selling price, which may include an assessment of market conditions adjusted for entity-specific factors. When such an analysis results in a highly variable or broad range and the residual approach is used to estimate the stand-alone selling price, this observable information should still be used to support the reasonableness of the resulting residual amount. Demonstrating the existence of observable stand-alone selling prices for certain software elements (e.g., PCS) may require an analysis that differs from what would be used to demonstrate the existence of VSOE of fair value for undelivered PCS under current U.S. GAAP.

Further, consistent with current GAAP, it may be appropriate, depending on an entity's facts and circumstances, to use a range to estimate stand-alone selling prices for goods and services rather than a single point. In such situations, the vendor should consistently use a reasonable and systematic approach when allocating the transaction price between the distinct performance obligations in the contract. Examples of approaches that we believe would be reasonable if applied consistently would be midpoint, low-end, high-end, or the end closest to the contractual price.

[18] Under this principle, the amount allocated to a performance obligation represents the amount to which the entity expects to be entitled for satisfying the obligation.
[19] ASC 606-10-55-269.

Allocation of Consideration to Material Rights

If an entity determines that it has granted a customer a material right (see Renewal Options), the material right represents a performance obligation that must be allocated consideration. The ASU provides two potential ways to account for the option. An entity can value the option itself or apply the practical alternative offered under the ASU to "look through" the option and include future goods and services in the original transaction. The following is an example of how to apply either approach:

Example

ABC Company enters into 100 separate contracts with customers to provide a perpetual software license for $10,000 and one year of PCS for $1,000. The contracts include a customer option to renew PCS for an additional year for $500. ABC Company concluded that the renewal option represents a material right and the license and PCS are distinct performance obligations. ABC Company also determined that both the perpetual license and PCS were sold at stand-alone selling prices and estimated that the customer has a 75 percent probability of renewing at the end of year 1, 50 percent at the end of year 2, 25 percent at the end of year 3, and zero percent at the end of year 4.

Stand-Alone Selling Price Approach

Year 1 renewal = $375 ([$1,000 − $500] × 75%)

Year 2 renewal = $250 ([$1,000 − $500] × 50%)

Year 3 renewal = $125 ([$1,000 − $500] × 25%)

Performance Obligation	Stand-Alone Selling Price	Relative Allocation	Allocation of Contract Consideration
Perpetual license	$ 10,000	85.1%	$ 9,362
PCS	1,000	8.5%	936
Renewal option — year 1	375	3.2%	351
Renewal option — year 2	250	2.1%	234
Renewal option — year 3	125	1.1%	117
Total	**$ 11,750**	**100%**	**$ 11,000**

Example (continued)

"Look Through" Approach

If ABC Company chose to apply the practical alternative or "look through" approach, the company would estimate a hypothetical transaction price. This can be done one of two ways. The first approach is to determine the best estimate of the number of years that a customer would renew. Assume in this case that the company's best estimate is that the customer will exercise the renewal option for two years.

Performance Obligation	Stand-Alone Selling Price	Relative Allocation*	Allocation of Contract Consideration
Perpetual license	$ 10,000	76.9%	$ 9,231
PCS	1,000	7.7%	923
Renewal option — year 1	1,000	7.7%	923
Renewal option — year 2	1,000	7.7%	923
Total	**$ 13,000**	**100%**	**$ 12,000****

* Rounded for presentation purposes.

** $10,000 + $1,000 + ($500 × 2).

This would result in ABC Company recognizing $10,154 in revenue in year 1 ($9,231 + $923) and a deferral of $846 ($11,000 − $10,154) related to the material right.

However, consistent with the ASU's Example 51,[20] an entity could also use a portfolio approach for purposes of estimating the hypothetical transaction price in the "look through" model. Under this approach, the entity would use the same probabilities applied in the stand-alone selling price model to determine the hypothetical transaction price. The following table illustrates this approach:

Performance Obligation	Stand-Alone Selling Price	Relative Allocation*	Allocation of Contract Consideration
Perpetual license	$ 10,000	71.6%	$ 8,394*
PCS	1,000	7.1%	839
Renewal option — year 1	1,000	7.1%	839
Renewal option — year 1	1,000	7.1%	839
Renewal option — year 2	1,000	7.1%	839
Total	**$ 14,000**	**100%**	**$ 11,750****

* Rounded for presentation purposes.

** $10,000 + $1,000 + ($500 × 75%) + ($500 × 50%) + ($500 × 25%).

This would result in ABC Company recognizing $9,233 in revenue in year 1 ($8,394 + $839) and a deferral of $1,767 ($11,000 − $9,233) related to the material right.

Note, however, that when applying a portfolio approach, individual cancelations would not necessarily result in an immediate adjustment. This is because the overall estimates would incorporate a level of cancelations each period. It is only when the cancelation pattern of the overall portfolio changes that an entity would assess a potential change in estimate.

[20] ASC 606-10-55-343 through 55-352.

Step 5 — Recognize Revenue When (or as) the Entity Satisfies a Performance Obligation

Under the ASU, a performance obligation is satisfied (and the related revenue recognized) when "control" of the underlying goods or services (the "assets") related to the performance obligation is transferred to the customer. The ASU defines "control" as "the ability to direct the use of, and obtain substantially all of the remaining benefits from, the asset." An entity must first determine whether control of a good or service is transferred over time. If so, the related revenue is recognized over time as the good or service is transferred to the customer. If not, control of the good or service is transferred at a point in time.

Recognizing Revenue Over Time

Control of a good or service (and therefore satisfaction of the related performance obligation) is transferred over time when at least one of the following criteria is met:

- "The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs."
- "The entity's performance creates or enhances an asset . . . that the customer controls as the asset is created or enhanced."
- "The entity's performance does not create an asset with an alternative use to the entity . . . and the entity has an enforceable right to payment for performance completed to date."

If a performance obligation is satisfied over time, an entity recognizes revenue by measuring progress toward satisfying the performance obligation in a manner that best depicts the transfer of goods or services to the customer. The ASU provides specific guidance on measuring progress toward completion, including the use and application of output and input methods.

Thinking It Through

Software companies often enter into arrangements in which significant production, modification, or customization of software is required. Many of these entities currently account for such arrangements under ASC 605-35 by using the percentage-of-completion or completed-contract method. Under the ASU, it may be appropriate for entities to recognize revenue related to software development over time when (1) the developer's performance creates or enhances an asset that the customer controls as it is created (e.g., development of software in a customer's technology environment) or (2) the developer's performance does not create an asset with an alternative use to the developer and the developer has an enforceable right to payment for performance to date (e.g., the software developed is specific to a customer's needs and therefore has no alternative use to the developer).

Revenue from arrangements that satisfy these criteria may be recognized in a manner similar to how it is currently recognized by entities that use the percentage-of-completion method. Revenue from arrangements that fail to meet the requirements above should be recognized at a point in time instead of over time (i.e., in a manner similar to how revenue is currently recognized by entities that apply the completed-contract method).

Other Accounting Issues

Accounting for Licenses

A technology entity may transfer to its customer a license granting a right to the entity's intellectual property (e.g., software, patents, trademarks, or copyrights). The licensing implementation guidance is applicable to arrangements with customers that contain (1) a distinct license (see Step 2 — Identifying Separate Performance Obligations in a Contract) or (2) a license that is the predominant promised item in a performance obligation involving multiple goods or services. Because licenses are often included with other goods or services in a contract, entities may have to apply significant judgment if a particular arrangement is within the scope of the licensing guidance.

Under ASC 606-10-55-58, for licenses that are within the scope of the licensing implementation guidance, an entity must determine whether the license gives the customer a "right to use the entity's intellectual property as it exists at the point in time at which the license is granted" or a "right to access the entity's intellectual property throughout the license period (or its remaining economic life, if shorter)."

To help an entity determine whether a license is a "right to access" or "right to use" the entity's intellectual property, the new revenue standard provides guidance on assessing the nature of a license of intellectual property. An entity's ongoing activities, or lack of activities, may significantly affect the utility of the license (i.e., the functionality or value of the intellectual property to the customer). These activities may be explicitly or implicitly promised by the entity and may include supporting or maintaining its intellectual property for the duration of the customer's license period. Further, the obligation to maintain or support the intellectual property may need to be identified as a separate promise under the contract (insofar as the activities transfer additional goods or services to the customer). A common example in the technology industry is PCS.

To assist in the evaluation of whether the license provides the customer with a right to access or right to use the entity's intellectual property, the new revenue standard distinguishes between two types of intellectual property: (1) functional and (2) symbolic.

ASC 606-10-55-59(a) and (b) provide the following definitions of functional and symbolic intellectual property:

> a. Functional intellectual property. Intellectual property that has significant standalone functionality (for example, the ability to process a transaction, perform a function or task, or be played or aired). Functional intellectual property derives a substantial portion of its utility (that is, its ability to provide benefit or value) from its significant standalone functionality.
>
> b. Symbolic intellectual property. Intellectual property that is not functional intellectual property (that is, intellectual property that does not have significant standalone functionality). Because symbolic intellectual property does not have significant standalone functionality, substantially all of the utility of symbolic intellectual property is derived from its association with the entity's past or ongoing activities, including its ordinary business activities.

Generally, the nature of a license to functional intellectual property that is distinct will provide a customer with the right to use an entity's intellectual property (i.e., point-in-time revenue recognition) unless (1) the entity's ongoing activities that will not transfer promised goods to the customer (i.e., those not deemed to be additional promised goods to the customer) will significantly change the utility of the license and (2) the customer is contractually or practically required to use the updated intellectual property once available. If these criteria are met, the nature of the license is a right to access the entity's intellectual property (i.e., a license for which revenue is recognized over time). As discussed in paragraph BC58 of ASU 2016-10, the FASB expected that at the time of issuance of ASU 2016-10, the criteria in ASC 606-10-55-62 "will be met only infrequently, if at all."

Thinking It Through

Software in a hosting arrangement is excluded from the scope of the licensing guidance in the new revenue standard unless (1) "[t]he customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty" and (2) "[i]t is feasible for the customer to either run the software on its own hardware or contract with another party unrelated to the vendor to host the software."[21]

Many software hosting arrangements include a "license" to software but allow the customer to use the software only in the entity's hosted environment (because of contractual or practical limitations, or both). Although these arrangements may include a contractual license, since the customer is unable to take possession of the software subject to the license without significant penalty, the customer is required to make a separate buying decision before control of any software is truly transferred to the customer (the separate buying decision would be the customer's election to incur the penalty to take possession of the software). These transactions are accounted for as service transactions (rather than licensing transactions) since the entity is providing the functionality of the software through a hosting arrangement rather than through the actual software license.

For licensing arrangements that are not determined to be service transactions, it is important for technology entities to analyze the other promises in addition to the transfer of the software license, such as hosting services, PCS, or upgrade rights. To apply the license guidance outlined above, an entity will initially need to determine whether the license is distinct from the hosting services, PCS, and upgrade rights or whether it is the predominant promised item. This assessment may be challenging given the dependency and interrelationship between such items; however, entities will need to consider all facts and circumstances in making such a determination.

If the technology entity concludes that a license is within the scope of the licensing implementation guidance, it will need to determine whether the company is granting the customer a right to use or a right to access license. In most instances, identifying the nature of a license is straightforward and the outcome of whether the license provides the customer with a right to access or a right to use the entity's intellectual property is readily apparent. Generally, the nature of a software license will be functional intellectual property that will provide a customer with the right to use an entity's intellectual property (i.e., point-in-time revenue recognition). Thus, if the software license is determined to be distinct, revenue would be recognized when control is transferred to the customer.

As noted in Sales-Based or Usage-Based Royalties above, revenue from software licenses that have sales- or usage-based fee structures will only be recognized as the subsequent sales or usage occurs.

Additional Users Versus Additional Usage

An arrangement in which an entity provides an option to the customer to obtain rights for additional users effectively promises to provide additional licenses (i.e., additional performance obligations) for an incremental fee. Those optional additional purchases (i.e., options that would require an entity to transfer additional rights to the customer) would not initially be included in the contract; however, they should be evaluated for favorable terms that may give rise to a material right.

[21] ASC 985-605-55-121.

Alternatively, an arrangement in which an entity provides additional usage of a single license (i.e., usage of rights already controlled by the customer) would receive additional consideration as part of the transaction price for a single license. Because the additional potential consideration is based on usage of a single license, it would be subject to the sales- or usage-based royalty exception and be recognized when the subsequent usage occurs.

Thinking It Through

An entity in a right-to-use license arrangement will need to use judgment to determine whether the nature of the arrangement is one that provides an option to obtain additional rights (e.g., for additional users) or requires incremental fees to be paid for additional usage of rights already controlled by the customer. Companies should carefully consider the facts and circumstances; however, the outcome of the accounting analysis does not depend on whether adding users requires additional direct involvement by the vendor.

Sell-Through Arrangements

Technology entities often enter into arrangements with intermediaries (such as a dealer or distributor) for the sale of their products. Under existing guidance, revenue is often deferred until the intermediary has subsequently sold the goods to an end customer, typically because one or both of the following are true:

- The sales price may only be fixed or determinable at that point.
- Transfer of the risks and rewards of ownership of the goods (i.e., delivery) only occurs upon final sale.

The ASU precludes an entity from recognizing revenue related to a good physically transferred to a third party on consignment until control of that good is transferred to the third party. However, if the arrangement does not involve consignment, an analysis of the control indicators for determining at what point control is transferred is critical to determining when revenue may be recognized.

Thinking It Through

Entities will need to evaluate arrangements in which goods are sold through an intermediary to determine when control passes (i.e., the point in time at which control is transferred). In making this determination, they will have to assess all facts and circumstances by considering the indicators in ASU 2014-09 (i.e., right to payment, title, physical possession, risks and rewards, and customer acceptance). This assessment may require significant judgment and could result in a different revenue recognition pattern.

When control is deemed to pass to the intermediary, revenue may be recognized earlier than under current practice. In such situations, the sales price could be variable as a result of the arrangement with the intermediary (e.g., stock rotation rights, refunds). Accordingly, entities are required to estimate the transaction price to which they expect to be entitled and must consider the constraint guidance, specifically the probability of future revenue reversals (see Step 3 — Determining the Transaction Price above), before recognizing revenue.

In addition, when goods or services provided to an intermediary are transferred subject to a return provision, entities should assess whether to apply the ASU's guidance on rights of return. The ASU specifically requires entities that sell goods with a right of return to recognize (1) revenue in the amount to which they expect to be entitled (considering any refund provisions), (2) a liability for any refunds or credits to be provided, and (3) an asset for any right to recover the product from the customer.

Sale of Virtual Goods

Traditionally, online gaming companies have charged customers a monthly subscription fee or a fee for premium services to gain access to online content for a specified period. In addition, the "freemium" business model has become popular in the online industry. Under the freemium model, gamers are given access to a gaming entity's online game free of charge (or for a nominal fee) and revenue is largely generated through "microtransactions" involving the sale of virtual goods and services ("virtual goods"). Virtual goods are nonphysical objects that enhance the gamer's playing experience or ability to make progress in the game and may take various forms (e.g., items such as clothing, equipment, weapons, speed, power, or health).

Thinking It Through

Technology entities that are in the online gaming industry will have to carefully consider the nature of their promises to customers under the ASU. Generally, customers are not buying a virtual good but are, effectively, enhancing their gaming experience through optional purchases. Some of these purchases are consumed by customers immediately or shortly after they gain access to them, and others are consumed over time.

In an online gaming setting, entities typically recognize revenue for virtual goods on the basis of their best estimate of the life of (1) the virtual good, (2) the gamer (i.e., the period during which the gamer is expected to play the game), or (3) the game. Under the ASU, entities will need to revisit their policies regarding the pattern of revenue recognition for virtual goods to ensure that revenue is recognized consistent with the nature of the promise and how control is transferred to the customer.

Given the typical volume of transactions involving virtual goods, entities may find it challenging to individually account for each sale. While the ASU's guidance applies to "individual" contracts with customers, entities can use a portfolio approach to account for contracts with similar characteristics if management "reasonably expects" that the financial effects of applying the ASU to a portfolio of contracts would not materially differ from those of applying the guidance to individual contracts.

SaaS Arrangements

The ASU will change several aspects of accounting for hosting arrangements, including SaaS arrangements that offer customers the use of cloud-based application software. Access to hosted SaaS arrangements is frequently offered together with a bundle of additional services, such as implementation or customization and configuration services. Because the requirements for determining the stand-alone value of each element have been eliminated (see Stand-Alone Value Requirements Under ASC 605-25 above), SaaS vendors will need to determine instead whether each promised good or service is distinct under the ASU.

Thinking It Through

The elimination of the stand-alone value requirements is not the only change that may affect SaaS arrangements. For example, the ASU does not carry forward the existing guidance on deferring the recognition of contingent revenue in certain instances (see Elimination of Existing Guidance on Contingent Revenue above). Currently, this guidance applies to SaaS arrangements in which the realization of the revenue allocated to services provided in addition to a hosted software application depends on the future delivery of the hosted software application. Although the ASU eliminates this guidance, it does require entities to apply the constraint to the transaction price, and thus may change the recognition of revenue for certain contracts.

Many SaaS arrangements also involve set-up or "activation" fees, which typically are charged in addition to the subscription fee for the related hosting service. Activation fees generally do not involve the provision of a service other than simply "activating," or permitting a customer to access the hosted software application. Other set-up services may require incremental work before a customer can access the software application. However, vendors need to consider whether the set-up services involved are essential to the functionality of the hosted software application under current U.S. GAAP. Frequently, customers are unable to access or use the software until the set-up services have been completed. As a result, activation or set-up services are generally not considered to have stand-alone value under ASC 605-25. These services are generally expected to benefit customers for the period they use the services (including potential renewal periods); as a result, the revenue allocated to the services is recognized over the initial contract period or over the estimated customer relationship period if longer.

The ASU provides guidance on nonrefundable up-front fees that is generally consistent with current U.S. GAAP. Under this guidance, entities must assess whether a "fee relates to the transfer of a promised good or service." In applying the ASU, SaaS vendors would be required to recognize up-front fees over a period extending beyond the initial contract period only if the customer has the option to renew the SaaS contract and the renewal option provides the customer with a material right. The ASU's requirement to incorporate only renewal options that represent material rights into their estimation of a customer relationship period may not always be consistent with current U.S. GAAP, which may take into account renewal options that are not necessarily considered material rights. As noted in Renewal Options above, material rights would need to be accounted for as separate performance obligations under the ASU.

Further, revenue from SaaS arrangements that include a license of intellectual property and have usage-based fee structures are likely to be recognized only when subsequent usage occurs (see Sales-Based or Usage-Based Royalties above for more information).

Warranties

Technology companies often provide a range of warranties for their various products. The ASU allows entities to continue to use a cost accrual model to account for warranty obligations (in accordance with ASC 460), but only for warranties ensuring that the good or service complies with agreed-upon specifications. To the extent that a warranty provides a service beyond ensuring that the good or service complies with agreed-upon specifications, it would be accounted for as a performance obligation (consideration would be allocated to this obligation and recognized as it is satisfied). Further, if the customer has the option to purchase the warranty separately, it would also be accounted for as a performance obligation.

Product liabilities, such as compensation paid by an entity for harm or damage caused by its product, do not represent a performance obligation in the contract and would continue to be accounted for in accordance with the existing guidance on loss contingencies in ASC 450-20.

Thinking It Through

Although the ASU is unlikely to significantly change how technology entities account for most of their warranties, entities will need to verify that the warranties they offer do not provide services beyond ensuring that the good or service complies with the agreed-upon specifications. However, entities that currently apply ASC 605-20 for separately priced extended warranty and maintenance contracts will be required to allocate on the basis of stand-alone selling prices as opposed to using stated amounts. Further, although this guidance applies to hardware manufacturers, it may also be relevant to software entities.

Costs of Obtaining a Contract

The ASU requires entities to recognize an asset for incremental costs of obtaining a contract (e.g., sales commissions) when those costs are expected to be recovered (as a practical expedient, a recognized asset with an amortization period of less than a year can be expensed as incurred). Capitalized costs would be amortized in a manner consistent with the pattern of transfer of the goods or services to which the asset is related (which may extend beyond the original contract term in certain circumstances).

Thinking It Through

Technology companies may need to consider the impact of this guidance on their current policies on capitalizing costs of obtaining a contract. U.S. GAAP currently does not have detailed guidance on the capitalization of costs of obtaining a contract, and entities generally make an accounting policy choice to expense these costs or, in certain cases, to capitalize them by analogy to the guidance on deferred loan origination costs in ASC 310 and incremental direct acquisition costs in ASC 605-20. The ASU may require entities to change their policy when they had previously expensed these costs, capitalized certain costs that are no long eligible under the ASU, or amortized them in a manner that differs from the ASU's requirements. Further, the ASU does not differentiate between the title or function of employees that receive commissions. Under current U.S. GAAP, entities may have elected a policy to exclusively capitalize commissions for "direct" sales representatives; however, companies may need to reconsider these policies under the ASU.

Further, questions have arisen regarding the appropriate period to recognize incremental costs, particularly commissions. Because ASC 340-40 is conceptually consistent with the current guidance on estimating the useful lives of long-lived assets, entities will similarly need to use judgment in determining amortization periods. This estimation process can be more complicated in situations in which contracts are renewed multiple times over the life of a customer. In circumstances in which an entity determines, on the basis of past experience, that renewal is likely and the commission to be paid upon renewal is not "commensurate with" the sales commission paid on the initial contract, it may be appropriate to amortize the costs over a period that is longer than the contractual terms (e.g., customer life). The FASB has stated that the renewal commission would be "commensurate with" an initial commission if the two commissions are reasonably proportionate to the respective contract value (e.g., 5 percent of the contract value is paid for both the initial and the renewal contract). Entities may have to exercise significant judgment in determining when a renewal commission would be "commensurate with" an initial commission.

Fulfillment Costs

Costs of fulfilling a contract (that are not within the scope of other standards, such as the guidance on the costs of software sold, leased, or marketed in ASC 985-20, or the guidance on internal-use software in ASC 350-40) would be capitalized only when they (1) are directly related to a contract, (2) generate or enhance resources that will be used to satisfy performance obligations, and (3) are expected to be recovered. The ASU also requires entities to expense certain costs, such as those related to satisfied (or partially satisfied) performance obligations. Capitalized costs would be amortized in a manner consistent with the pattern of transfer of the goods or services to which the asset is related (which may extend beyond the original contract term in certain circumstances).

Thinking It Through

The ASU does change how certain fulfillment costs are recognized for arrangements that are not within the scope of other standards. Entities should reevaluate current policies on fulfilment costs upon adoption.

Further, stakeholders have questioned whether costs incurred for an anticipated contract (e.g., costs for design and development or nonrecurring engineering) (1) would be within the scope of ASC 340 and therefore could be capitalized or (2) should be expensed in accordance with ASC 730. However, the costs incurred for an anticipated contract would pertain to a contract that is not yet obtained and whose terms might not yet be known. Factors for an entity to consider in determining whether the costs should be capitalized include, but are not limited to, (1) the likelihood or certainty that the entity will obtain the contract, (2) the likelihood that the costs will be recovered under the specific anticipated contract, (3) whether the costs create or enhance an asset that will be transferred to the customer once the entity obtains the contract (such costs could be capitalizable under other guidance), and (4) whether the costs are considered to be costs associated with research and development and would therefore be within the scope of ASC 730 and expensed as incurred. An entity will need to carefully consider the facts and circumstances of the arrangement in determining the appropriate treatment of costs incurred before a contract was obtained.

Disclosures

The ASU requires entities to disclose both quantitative and qualitative information that enables "users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers." The ASU's disclosure requirements, which are significantly more comprehensive than those in existing revenue standards, include, but are not limited to, the following (with certain exceptions for nonpublic entities):

- Presentation or disclosure of revenue and any impairment losses recognized separately from other sources of revenue or impairment losses from other contracts.
- A disaggregation of revenue to "depict how the nature, amount, timing, and uncertainty of revenue and cash flows are affected by economic factors" (the ASU also provides implementation guidance).
- Information about contract assets and liabilities (including changes in those balances) and the amount of revenue recognized in the current period that was previously recognized as a contract liability.
- The amount of revenue recognized in the current period that is related to performance obligations satisfied in prior periods.

- Information about performance obligations (e.g., types of goods or services, significant payment terms, typical timing of satisfying obligations, and other provisions).
- Information about an entity's transaction price allocated to the remaining performance obligations, including (in certain circumstances) the "aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied)" and when the entity expects to recognize that amount as revenue (subject to an option exception for certain amounts of variable consideration).
- A description of the significant judgments, and changes in those judgments, that affect the amount and timing of revenue recognition (including information about the timing of satisfaction of performance obligations, the determination of the transaction price, and the allocation of the transaction price to performance obligations).
- Information about an entity's accounting for costs to obtain or fulfill a contract (including account balances and amortization methods).
- Information about the policy decisions (i.e., whether the entity used the practical expedients for significant financing components and contract costs allowed by the ASU).

On December 21, 2016, the FASB issued ASU 2016-20,[22] which amended certain aspects of ASU 2014-09, including optional exemptions from the disclosure requirement for remaining performance obligations for specific situations. In particular, this amendment provides relief to entities that receive sales- or usage-based royalties in exchange for a license of intellectual property. This optional exemption also applies to variable consideration that is allocated entirely to a wholly unsatisfied performance obligation. Entities can elect not to disclose the aggregate transaction price or the anticipated timing of revenue recognition for such performance obligations that are unsatisfied or partially unsatisfied. However, entities will be required to disclose certain qualitative and quantitative information, including the fixed consideration, related to the performance obligation(s) to which the exemption is applied.

The ASU requires entities, on an interim basis, to disclose information required under ASC 270 as well as to provide annual disclosures (described above) about (1) the disaggregation of revenue, (2) contract asset and liability balances and significant changes in those balances since the previous period-end, and (3) the transaction price allocated to the remaining performance obligations.

The ASU provides some practical expedients to nonpublic entities in comparison to disclosures required for public entities.

Although the new revenue standard specifies that certain disclosures are not required in interim financial statements, SEC registrants, in accordance with SEC rules and staff interpretations, will be required to provide both annual and interim disclosures in the first interim period after the adoption of new accounting standards and in each subsequent quarter in the year of adoption. Specifically, Section 1500 of the SEC's Division of Corporation Finance *Financial Reporting Manual* states:

> [Regulation] S-X Article 10 requires disclosures about material matters that were not disclosed in the most recent annual financial statements. Accordingly, when a registrant adopts a new accounting standard in an interim period, the registrant is expected to provide both the annual and the interim period financial statement disclosures prescribed by the new accounting standard, to the extent not duplicative. These disclosures should be included in each quarterly report in the year of adoption.

[22] FASB Accounting Standards Update No. 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue From Contracts With Customers.*

As a result, a calendar-year-end SEC registrant will need to comply with the new revenue standard's full suite of disclosure requirements in each quarter, beginning with its first quarter ended March 31, 2018, to the extent that the disclosures are material and do not duplicate information.

Thinking It Through

Some of the main criticisms of the prior revenue guidance from regulators and users of the financial statements were related to disclosure requirements. Many entities' disclosures contained boilerplate language that, broadly speaking, regulators and users found to be inadequate and lacking in cohesion with other disclosures; this made it difficult for users to understand entities' revenues, judgments related to revenue, and how revenue is related to an entity's overall financial position. The new revenue standard requires entities to disclose both quantitative and qualitative information that enables "users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers." The new revenue standard's disclosure requirements are significantly more comprehensive than those in existing revenue standards. Among the disclosures that may be the most challenging are those related to (1) remaining performance obligations (commonly referred to as the "backlog" disclosure), (2) contract assets and contract liabilities, and (3) disaggregation of revenue (including the relationship between disaggregated revenue and segment information). Even if the timing or amount of revenue recognized is not affected by the new revenue standard, the disclosure obligations will be affected. Further, the ASU requires more robust disclosures on the judgments involved in revenue recognition.

Also, while the disclosure relief provided by ASU 2016-20 may be beneficial for many technology companies, the assessment may be complicated for SaaS arrangements in which the entity charges a subscription fee in addition to a variable fee (such as a usage fee).

Effective Date and Transition

ASU 2014-09 is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2017, for public entities. Early application is permitted as of the ASU's original effective date (i.e., reporting periods beginning after December 15, 2016).

The effective date for nonpublic entities is annual reporting periods beginning after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019. Nonpublic entities may also elect to apply the ASU as of any of the following:

- "An annual reporting period beginning after December 15, 2016, including interim reporting periods within that reporting period."
- "An annual reporting period beginning after December 15, 2016, and interim reporting periods within annual reporting periods beginning one year after the annual reporting period in which an entity first applies the [guidance in the new revenue standard]."

Entities have the option of using either a full retrospective or a modified approach to adopt the guidance in the ASU.

- *Full retrospective application* — Retrospective application would take into account the requirements in ASC 250 (with certain practical expedients).
- *Modified retrospective application* — Under the modified retrospective method, an entity recognizes "the cumulative effect of initially applying [the ASU] as an adjustment to the opening balance of retained earnings . . . of the annual reporting period that includes the date of initial application" (revenue in periods presented in the financial statements before that date is reported under guidance in effect before the change). When using this method, an entity applies the guidance in the ASU (as amended by ASU 2016-12[23]) to either of the following:
    - Incomplete contracts (i.e., those contracts for which all (or substantially all) of the revenue has not been recognized in accordance with prior revenue guidance) as of the date of initial application.
    - All contracts as of, and new contracts after, the date of initial application.

Under the modified retrospective method, the ASU need not be applied to contracts that were completed before the effective date (i.e., contracts for which an entity has recognized all (or substantially all) of the revenue in accordance with legacy revenue guidance in effect before the date of initial application). Entities that elect the modified retrospective method must disclose an explanation of the impact of adopting the ASU, including the financial statement line items and respective amounts directly affected by the standard's application. The following chart illustrates the application of the ASU and legacy GAAP under the modified retrospective method for a public entity with a calendar year-end:

January 1, 2018	2018	2017	2016
Initial Application Year	**Current Year**	**Prior Year 1**	**Prior Year 2**
New contracts	New ASU		
Existing contracts	New ASU + cumulative catch-up	Legacy GAAP	Legacy GAAP
Completed contracts		Legacy GAAP	Legacy GAAP

Thinking It Through

The modified transition approach provides entities relief from having to restate and present comparable prior-year financial statement information; however, entities will still need to evaluate existing contracts as of the date of initial adoption under the ASU to determine whether a cumulative adjustment is necessary. Entities should consider the typical nature and duration of their contracts to understand the impact of applying the ASU and to determine the transition approach that is practical to apply and most beneficial to financial statement users.

It is also important to note that the disclosure requirements will effectively require an entity that adopts the modified retrospective method to maintain books and records under both the old and the new revenue guidance. In addition, these requirements are for both annual and interim periods; therefore, public entities would be required to make the disclosures beginning in the first quarter of the year of adoption (e.g., the period ending March 31, 2018, for a calendar-year-end entity that does not adopt early).

[23] FASB Accounting Standards Update No. 2016-12, *Revenue From Contracts With Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*.

Other Considerations and Challenges for Technology Entities

Income Taxes

Federal income tax law provides both general and specific rules for recognizing revenue on certain types of transactions (e.g., long-term contracts and arrangements that include advance payments for goods and services). These rules are often similar to the method a taxpayer uses for financial reporting purposes and, if so, the taxpayer uses the revenue recognition method it applies in maintaining its books and records (e.g., cash basis, U.S. GAAP, IFRSs). Although the Internal Revenue Code (IRC) does not require entities to use any particular underlying financial accounting method to determine their taxable income (such as U.S. GAAP), entities must make appropriate adjustments (on Schedule M) to their financial accounting pretax income to determine taxable income under the IRC.

The ASU may change the timing of revenue recognition and, in some cases, the amount of revenue recognized for entities that maintain their books and records under U.S. GAAP or IFRSs. These changes may also affect taxable income. Thus, it will be important for tax professionals to understand the detailed financial reporting implications of the new revenue standard so that they can analyze the tax ramifications and facilitate the selection of any alternative tax accounting methods that may be available.

If a change in a tax accounting method is advantageous or expedient (including circumstances in which the book method has historically been used), the taxpayer will most likely be required to obtain approval from the relevant tax authorities to use the method. Similar requirements may arise in foreign jurisdictions that maintain statutory accounting records under U.S. GAAP or IFRSs. Additional record keeping will also be required when entities are not permitted to use the ASU's revenue recognition method for tax purposes.

Thinking It Through

Many technology companies have significant deferred revenue balances often, in part, because of an inability to establish VSOE of fair value. As discussed in Elimination of the VSOE of Fair Value Requirement for Software Arrangements, these companies will likely experience an acceleration of revenue for GAAP purposes upon adoption of the ASU. In the absence of tax-planning strategies, this will concurrently trigger tax acceleration.

In addition, any change in the GAAP treatment of deferred revenue will result, in most instances, in a tax accounting method change for deferred revenue as well. Simply choosing to follow GAAP does not remove the need for a tax accounting method change with the Internal Revenue Service.

Further, the ASU requires an entity to estimate variable consideration and include the variable consideration in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Variable consideration may include discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties, or other similar items. The promised amount of consideration must also be adjusted for the effects of the time value of money if the contract contains a significant financing component.

In contrast, variable or contingent revenue is not recognized under general U.S. federal income tax principles until the amounts are fixed and determinable. Therefore, a book-to-tax adjustment is required.

Accounting Processes and Internal Controls

To comply with the ASU's new accounting and disclosure requirements, technology entities will have to gather and track information that they may not have previously monitored. The systems and processes associated with such information may need to be modified to support the capture of additional data elements that may not currently be supported by legacy systems. Further, to ensure the effectiveness of internal controls over financial reporting, management will want to assess whether it should revise existing, and implement additional, controls. In assessing the effect of applying the ASU on systems, processes, and internal controls, technology entities may need to critically analyze all of the effects of implementing the ASU's requirements by considering questions such as the following:

- What processes will companies need to implement to identify all goods and services in a contract with a customer?
- How will entities estimate the stand-alone selling price for contracts involving multiple goods or services?
- How will entities ensure consistency of judgments in identifying performance obligations, estimating stand-alone selling prices, and measuring progress toward completion?
- What systems, processes, and controls are necessary to reliably estimate variable consideration and determine whether the reversal of revenue in the future is probable?
- Will entities need new processes and controls to identify and capitalize contract costs that would be considered incremental?
- Will entities need to implement new processes and controls to periodically review contract costs and test capitalized amounts for recoverability or impairment?
- When should new policies and procedures be designed and implemented?

Increased Use of Judgment

Management will need to exercise significant judgment in applying certain aspects of the ASU's requirements, including those related to the identification of performance obligations, estimation of variable consideration, and allocation of revenue to each performance obligation. It is important for technology entities to consider how the new revenue standard specifically applies to them so that they can prepare for any changes in revenue recognition patterns.

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