VSOE Questions and Answers

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Question # 1:

What is a multiple-element arrangement?

Answer:

A multiple-element arrangement occurs when a vendor agrees to provide more than one product or a combination of products and services to a customer under *an agreement*. Multiple-element arrangements may include additional software products, rights to purchase additional software products at a significant incremental discount, specified upgrades or enhancements, hardware, post-contract customer support (commonly referred to as PCS) or other services.

Question # 2:

What makes multiple-element arrangements "interesting?"

Answer:

Multiple-element arrangements must be evaluated for separation to determine whether there are multiple units of accounting within the multiple-element arrangement.

Question #3:

Earlier, "an agreement" was italicized. Why?

Answer:

"An agreement" was italicized because two or more contracts can be so closely related that they are, in effect, parts of a single arrangement. If any of the following six questions can be answered yes, the presumption will be that the group of contracts should be viewed (for accounting purposes) as a single arrangement:

- Were the contracts negotiated or executed within a short period of each other?
- Are the different elements closely interrelated or interdependent in terms of design, technology or function?
- Are the fees in one contract contingent on meeting obligations in another contract?
- Are any of the elements in one contract essential to the functionality of any elements in another contract?
- Do payment terms under one contract coincide with performance criteria of another contract?
- Even if negotiations were conducted by different people on each side, is the outcome a single project or single solution?

However, this list of questions is not an "all inclusive" list of questions. Additional factors should be considered as well.

Question #4:

Okay…I've got a multiple-element arrangement. Now what?

Answer:

If an arrangement includes multiple elements, the contract fees will be allocated to the various elements based on vendor-specific objective evidence (VSOE) of fair value for each element – regardless of any separate prices stated in the contract(s) for each element.

Note: the contract pricing (inclusive of any discounts) is not how the vendor will recognize the revenue on its books; a proportionate amount of the discount will be applied to each element included in the arrangement based on the VSOE of fair value for each element (without regard to the contract pricing). However, no portion of the discount will be applied to any upgrade rights.

Example

Deal: Software license agreement for one year for $100,000 between Vendor and Customer:

Step One – list VSOE of fair value for each element

Product	Vendor's VSOE of FV
O2Cool 1.0	$60,000
Right to upgrade to O2Cool 1.1	$10,000
Way2Cool 1.5	$34,000
Post Contract Support for Way2Cool for one year	$6,000

Assumption by Vendor – 100% of users will upgrade to O2Cool 1.1. If the assumption were 90%, the upgrade amount would be reduced by 10%.

Step Two – remove VSOE of fair value for any upgrade rights

Total fees due under the contract	$100,000
Subtract the VSOE of FV associated with the upgrade right	($10,000)
Revenue remaining to allocate	$90,000

Step Three – Calculate the total VSOE of fair value for all of the remaining elements

	O2Cool 1.0	Way2Cool 1.5	PCS for Way2Cool	Total
VSOE of Fair Value	$60,000	$34,000	$6,000	$100,000

Step Four – determine each element’s proportion as a percentage of the total VSOE of fair value for the remaining elements (excluding upgrade rights)

	O2Cool 1.0	Way2Cool 1.5	PCS for Way2Cool	Total
VSOE of Fair Value	$60,000 (a)	$34,000 (b)	$6,000 (c)	$100,000 (d)
% of VSOE of FV	60% (d)/(a)	34% (d)/(b)	6% (d)/(c)	100%

Step Five – allocate the remaining fees (in this case the $90,000) based on the percentages calculated in Step Four

	O2Cool 1.0	Way2Cool 1.5	PCS for Way2Cool	Total
Allocation calculations for remaining elements	$54,000 60% x $90,000	$30,600 34% x $90,000	$5,400 6% x $90,000	$90,000

Summary – Allocation of Fees

O2Cool 1.0	$54,000
Way2Cool 1.5	$30,600
PCS for Way2Cool	$5,400
Right to upgrade to O2Cool 1.1	$10,000
Total	**$100,000**

Question #5:

How is VSOE of fair value calculated/determined?

Answer:

VSOE of fair value is:

- The price charged when the element is sold separately (which can get dicey based upon number of products, number of users, etc. – more on this later)

- If the element is not sold separately (but it will be shortly), management may establish a price

Question #6:

Why do vendors care some much about VSOE?

Answer:

If VSOE has not been established for each element in a multiple-element arrangement, all of the revenue must be deferred until VSOE has been established or until all of the elements have been delivered (assuming the other portions of SOP 97-2 have been met). There are some exceptions, some of which are described below:

- If the only undelivered element is post contract support, the entire fee should be recognized ratably.
- If the only undelivered element is services that do not involve significant production, modification, or customization of software (for example, training or installation), the entire fee should be recognized over the period during which the services are expected to be performed.
- If the arrangement is in substance a subscription, the entire fee should be recognized ratably.
- If there is VSOE of the fair values of *all* undelivered elements in an arrangement, but VSOE of fair value does not exist for one or more of the delivered elements in the arrangement, the fee generally should be recognized using the residual method.

Question #7:

What is the residual method?

Answer:

The short answer: another accounting method.

Under the residual method, any discount on the overall arrangement is allocated entirely to the delivered elements – no amount of the discount is deferred.

Example

Vendor and Customer sign a contract whereby Vendor will license O2Cool software and Way2Cool software to Customer. In addition, Vendor will provide post contract support, training on the software and installation services, all of which are not essential to the functionality of the software. The contract requires Customer to pay $1,000,000 for the software and services. Vendor has established VSOE of fair value for the services, but not the software packages:

Service	VSOE of Fair Value
PCS	$200,000
Training	$50,000
Installation	$350,000

By the end of the year, O2Cool and Way2Cool have been delivered, but the services have not been provided. As a result, Vendor has VSOE of fair value for all of the undelivered elements. Vendor applies the residual method to allocate the revenue as follows:

Contract Price	$1,000,000
PCS	(200,000)
Training	(50,000)
Installation	(350,000)
O2Cool and Way2Cool Software	$400,000

Vendor should recognize revenue of $400,000 upon delivery of O2Cool and Way2Cool, assuming all revenue recognition criteria in SOP 97-2 have been met. The amounts allocated to PCS, training services, and installation services would be deferred and recognized over the stated PCS term, as the training is performed, and as the installation services are performed, respectively, provided that the service elements otherwise qualify for separate accounting under SOP 97-2.

Question #8:

Once it has been established, can a vendor "lose" VSOE of fair value? If so, how?

Answer:

Previously, it was stated that VSOE of fair value is the price charged when the element is sold separately. Although this is a simple answer, there is some complex math behind it.

Vendors can create ranges of "prices charged when the element is sold separately." As explained more thoroughly in the next question, a vendor can lose VSOE of fair value by having too many sales of the element that fall outside the range's "safe area."

Question #9:

How do vendors establish VSOE of fair value if they sell elements separately at various prices?

Answer:

One way for vendors to establish VSOE of fair value in this instance is to create categories or groups of similarly situated customers. The categories or groups can be based upon many factors, including industry, sales volume, geography, etc. After analyzing sales data within each category or group, the vendor can determine whether the results fall within a reasonable range of prices that would represent VSOE of fair value. For example, some commentators believe VSOE of fair value can be established for a category or group of customers if 80% of the sales transactions for that group or category are within 15% of the median price. This, however, is just a guideline suggested by some accounting firms and is NOT a safe harbor. As a result, if the 80% threshold is lost over time, VSOE is no longer established.

Question #10:

Are the prices quoted in a multiple-element deal used to calculate VSOE?

Answer:

The pricing stated in a contract for multiple elements would not be used to establish VSOE of fair value when evaluating another contract since the elements are not being sold separately in this arrangement.

Question #11:

When a VSOE-of-fair-value range has been established by a vendor, how does the vendor account for the revenue from a multiple-element arrangement in which the stated contract price for one of the elements is higher or lower than the VSOE of fair value range for that element?

Answer:

In this instance, since VSOE of fair value is a range and not a specific amount, the vendor should allocate any discounts using either the midpoint of the range or the end of the range closest to the stated contract price. The vendor must be consistent in its approach for all transactions; it may not use the midpoint for some transactions and the end of the range for others.

Example 1

Vendor sells O2Cool and Way2Cool separately as well as bundled together and with other software packages. Vendor has agreed to license these products to Customer. When sold separately, Vendor's data show that substantially all of the sales for this class of customer for O2Cool fall in the range of $425,000 to $575,000 and for Way2Cool fall in the range of $595,000 to $805,000. Vendor considers any price stated in a multiple-element arrangement that falls within these ranges to represent VSOE of fair value for that software package.

Vendor executes a contract with Customer to license O2Cool and Way2Cool for $1,200,000. The contract states that O2Cool costs $450,000 and Way2Cool costs $750,000. Since the prices stated in the contract fall within the VSOE of fair value ranges established by Vendor for this class of customer, Vendor will recognize revenue of $450,000 upon delivery of O2Cool and revenue of $750,000 upon delivery of Way2Cool (assuming all of the other revenue recognition criteria have been met).

Example 2

Vendor sells O2Cool, Way2Cool and ReallyCool separately as well as bundled together. Vendor has agreed to license these products to Customer. When sold separately, Vendor's data show that substantially all of the sales for this class of customer for O2Cool fall in the range of $425,000 to $575,000, for Way2Cool fall in the range of $595,000 to $805,000 and for ReallyCool fall in the range of $510,000 to $690,000. Vendor considers any price stated in a multiple-element arrangement that falls within these ranges to represent VSOE of fair value for that software package.

Vendor executes a contract with Customer to license O2Cool, Way2Cool and ReallyCool for $1,700,000. The contract states that O2Cool costs $450,000, Way2Cool costs $500,000 and ReallyCool costs $750,000. For prices that don't fall within the ranges set out above, Vendor's policy is to use the midpoint of the range as VSOE of fair value. Since the prices stated in the contract for Way2Cool and ReallyCool do not fall within the VSOE of fair value ranges established by Vendor for this class of customer, Vendor should allocate revenue as follows (assuming all of the other revenue recognition criteria have been met):

Step 1) Assign VSOE of fair value to each product:

- O2Cool – contract price falls within the stated range – VSOE of fair value is the contract price =$450,000
- Way2Cool – contract price falls outside of the stated range – VSOE of fair value is the midpoint for the established range = $700,000
- ReallyCool – contract price falls outside of the stated range – VSOE of fair value is the midpoint for the established range = $600,000

Step 2) Calculate total VSOE of fair value for the three products:

- Total VSOE of fair value => [O2Cool $450,000 + Way2Cool $700,000 + ReallyCool $600,000] = $1,750,000

Step 3) Determine the discount percentage for each product:

- O2Cool => [$450,000 from Step 1 / $1,750,000 total VSOE of fair value from Step 2] = 26%
- Way2Cool => [$700,000 from Step 1 / $1,750,000 total VSOE of fair value from Step 2] = 40%
- ReallyCool => [$600,000 from Step 1 / $1,750,000 total VSOE of fair value from Step 2] = 34%

Step 4) Allocate revenue received across the products:

- O2Cool => [$1,700,000 revenue received x 26% from Step 3] = $442,000
- Way2Cool => [$1,700,000 revenue received x 40% from Step 3] = $680,000
- ReallyCool => [$1,700,000 revenue received x 34% from Step 3] = $578,000

Assuming that all other revenue recognition criteria have been met, Vendor should recognize revenue of $442,000 upon delivery of O2Cool, revenue of $680,000 upon delivery of Way2Cool and revenue of $578,000 upon delivery of ReallyCool.

Question #12:

What happens when software, software-related deliverables and hardware are sold together?

Answer:

Multiple-element arrangements often include a combination of software and a) software-related deliverables, such as upgrades/enhancements, PCS and services and/or b) non-software-related deliverables such as hardware, peripherals, workstations, etc.

If the software is more than incidental to the software-related deliverables, the software and software-related deliverables will fall under SOP 97-2 (accounting for software deals). If the software is essential to the functionality of the non-software-related deliverables, the software and non-software-related deliverables will fall under SOP 97-2. Otherwise, the software-related deliverables and the non-software-related deliverables will be excluded from the scope of SOP 97-2.

Determining whether the non-software-related deliverables are essential to the functionality of the software can be tricky. Some factors to consider include:

- Do the non-software-related deliverables have substantial functionality without the software?
- Would a customer purchase the non-software-related deliverables without purchasing the software?
- Are the software and the non-software-related deliverables always sold as a together?
- Is payment for the non-software-related deliverables contingent upon delivery of the software?

If there are deliverables that are not within the scope of SOP 97-2, the vendor will determine how to account for them through other generally accepted accounting principles.

Question #13:

Can a discount on future purchases turn an arrangement into a multiple element arrangement?

Answer:

Yes, depending upon the circumstances.

First – determine whether the amount of the discount on the future purchases is significant: If it is more than the discount provided on the other elements and it is greater than the range of discounts typically given in comparable transactions, it is significant.

Second – if it is significant, a proportionate amount of the discount should be allocated to each element covered by the arrangement based on each element's VSOE of fair value. The examples below help clarify how the vendor will allocate the discount based on whether the actual amount of the discount is quantifiable.

The following examples have been adapted from on AICPA Technical Practice Aid 5100.51. (For purposes of the examples, VSOE of fair value equals list price.):

Example 1

Vendor sells Customer O2Cool software for $4,000 along with a right to purchase Way2Cool software at a $3,000 discount. VSOE of fair value for O2Cool is $4,000 and VSOE of fair value for Way2Cool B is $6,000. The $3,000 discount on Way2Cool is a significant incremental discount that would not normally be given in comparable transactions.

Vendor should allocate the $3,000 discount across both software packages.

Step 1) calculate the overall discount percentage => [$3,000 discount] / [$4,000 VSOE of FV for O2Cool + $6,000 VSOE of FV for Way2Cool] => [$3,000/$10,000] = 30%.

Step 2) calculate the recognizable revenue from the sale of O2Cool => [(1 - 30%)[1] x $4,000 VSOE of FV for O2Cool] = $2,800.

Step 3) calculate the deferred revenue from the sale of O2Cool => [$4,000 proceeds from the sale of O2Cool - $2,800 from Step 2] = $1,200.

[1] (1 – the discount amount) yields the "nondiscounted" amount

Upon delivery of O2Cool (assuming the other criteria of SOP97-2 are met, which will be assumed throughout the examples), Vendor should recognize $2,800 of revenue and defer $1,200 of revenue. If Customer uses the discount and purchases Way2Cool, the vendor should recognize $4,200 in revenue upon delivery of Way2Cool ($3,000 for Way2Cool and $1,200 deferred revenue from the sale of O2Cool). If the discount expires unused, the $1,200 in deferred revenue would be recognized upon expiration of the discount.

<u>Example 2</u>

Vendor sells Customer O2Cool software for $4,000 along with a right to purchase any one of its other software products, S1 through S25, at a $2,000 discount. VSOE of fair value for O2Cool is $4,000 and VSOE of fair value for products S1 through S25 ranges from $3,000 to $10,000. The $2,000 discount is a significant incremental discount that would not normally be given in comparable transactions.

In this scenario, Vendor should assume that Customer will use the discount and apply it to the product with the lowest price – in this instance, it is S15, which costs $3,000 (which is also its VSOE of fair value). Vendor should allocate the $2,000 discount across O2Cool and the assumed purchase of S15.

Step 1) calculate the overall discount percentage => [$2,000 discount] / [$4,000 VSOE of FV for O2Cool + $3,000 VSOE of FV for S15] => [$2,000/$7,000] = 28.57%.

Step 2) calculate the recognizable revenue from the sale of O2Cool => [(1 – 28.57%) x $4,000 VSOE of FV for O2Cool] = $2,857.

Step 3) calculate the deferred revenue from the sale of O2Cool => [$4,000 proceeds from the sale of O2Cool - $2,857 from Step 2] = $1,143.

Upon delivery of O2Cool, Vendor should recognize revenue of $2,857 and defer revenue of $1,143. If Customer uses the discount and purchases S15, Vendor should recognize $2,143 of revenue upon delivery of S15 ($1,000 for S15 and $1,143 deferred revenue from the sale of O2Cool). If the discount expires unused, the $1,143 in deferred revenue would be recognized upon expiration of the discount.

<u>Example 3</u>

Vendor sells O2Cool software for $4,000 along with a right to a discount of 50% off list price on any future purchases of Vendor's other software products, S1 through S25, with a maximum cumulative discount of $10,000. VSOE of fair value for O2Cool is $4,000 and VSOE of fair value for products S1 through S25 ranges from $2,000 to $10,000. The 50% discount is a significant incremental discount that would not normally be given in comparable transactions.

Vendor should assume that Customer will use the maximum discount possible. As a result, Vendor should allocate the $10,000 discount across O2Cool and the assumed additional products to be purchased.

Step 1) figure out the price required to yield the maximum discount based on 50% discount => [$10,000 maximum discount / 50% discount] = $20,000 VSOE of FV for additional purchases.

Step 2) calculate the overall discount => ([$10,000 discount] / [$4,000 VSOE of FV for O2Cool software + $20,000 from Step 1] => [$10,000 / $24,000] = 41.67%.

Step 3) calculate the recognizable revenue from the sale of O2Cool => [(1 – 41.67%) x $4,000 VSOE of FV for O2Cool] = $2,333.

Step 4) calculate the deferred revenue from the sale of O2Cool => [$4,000 proceeds from the sale of O2Cool - $2,333 from Step 3] = $1,667.

Upon delivery of O2Cool, Vendor should recognize $2,333 of revenue and defer $1,677. If Customer uses the discount to purchase additional products with VSOE of fair value totaling $20,000, Vendor should recognize $11,667 of revenue upon delivery of those products ($10,000 for purchases of S1 through S25 plus the $1,667 of deferred revenue from the sale of O2Cool). If the discount expires unused, the $1,667 of deferred revenue should be recognized upon expiration of the discount. Note: Customer might not purchase $20,000 of additional software at one time and the deferred revenue of $1,667 from the sale of O2Cool will be recognized ratably with the sale of products S1 through S25.

Example 4

Vendor sells ReallyCool software for $6,000, which represents a 40% discount off its list price (VSOE of fair value) of $10,000. In the same transaction, Vendor also provides a discount of 60% off of the list price (VSOE of fair value) on any future purchases of WickedCool software for desktops/laptops for the next 6 months with a maximum discount of $20,000. The discount of 60% on future purchases of units of WickedCool is a discount not normally given in comparable transactions.

Because the discount offered on future purchases of WickedCool is not normally given in comparable transactions and is both significant and incremental in relation to the 40% discount, it must be accounted for as part of the original sale consistent with Example 3 above. Vendor should assume that the maximum discount will be utilized. As a result, Vendor should allocate the $24,000 discount ($4,000 on ReallyCool and $20,000 maximum on future purchases of WickedCool) across ReallyCool and the assumed additional purchases of WickedCool.

Step 1) figure out the price required to yield the maximum discount based on 60% discount => [$20,000 maximum discount / 60% discount] = $33,333 VSOE of FV for future purchases of WickedCool.

Step 2) calculate the overall discount => ([$4,000 discount off of ReallyCool + $20,000 discount off of WickedCool] / [$10,000 VSOE of FV for ReallyCool software + $33,333 from Step 1] => [$24,000 / $43,333] = 55.38%.

Step 3) calculate the recognizable revenue from the sale of ReallyCool => [(1 – 55.38%) x $10,000 VSOE of FV for ReallyCool] = $4,462.

Step 4) calculate the deferred revenue from the sale of ReallyCool => [$6,000 proceeds from the sale of ReallyCool - $4,462 from Step 3] = $1,538.

The vendor should recognize revenue of $4,462 and defer revenue of $1,538. If Customer uses the discount and purchases WickedCool with a fair value totaling $33,333, Vendor would recognize $14,871 in revenue upon delivery of WickedCool ($13,333 in cash received for WickedCool plus $1,538 deferred from the sale of ReallyCool). If the discount expires unused, $1,538 of deferred revenue would be recognized at that time.

Example 5

Vendor sells O2Cool to Customer for $4,000 along with a right to a discount of 50% off list price on any future purchases of Vendor's other software products, S1 through S25, with no maximum cumulative discount. VSOE of fair value for O2Cool is $4,000 and VSOE of fair value (which equals list price) of products S1 through S25 ranges from $2,000 to $10,000. The 50% discount is a significant incremental discount that would not normally be given in comparable transactions.

Step 1) calculate the overall discount => 50%.

Step 2) calculate the recognizable revenue from the sale of O2Cool => [(1 – 50%) x $4,000 VSOE of FV for O2Cool] = $2,000.

Step 3) calculate the deferred revenue from the sale of O2Cool => [$4,000 proceeds from the sale of O2Cool - $2,000 from Step 2] = $2,000.

Upon delivery of O2Cool, Vendor should recognize $2,000 of revenue and defer $2,000. If Customer purchases additional products using the discount, Vendor should recognize revenue equal to the cash received upon the delivery of those products. The previously deferred $2,000 should be accounted for as a subscription and recognized pro rata over the discount period; if no period is specified in the arrangement, Vendor should recognize the deferred revenue over the estimated period during which additional purchases will be made.

Example 6

Vendor sells O2Cool software to Customer for $3,000, which represents a 70% discount – VSOE of fair value is $10,000. In addition, Vendor gives Customer the right to purchase any of Vendor's other software, products S1 through S25, for the next six months at a discount of 70% off list price (VSOE of fair value under our assumptions) with no maximum cumulative discount.

Since the discount offered on future purchases over the next 6 months is equal to the discount offered on the current purchase (70%), there is no accounting necessary in the original sale for the discount offered on future purchases. Vendor will recognize $3,000 upon delivery of O2Cool – there is no revenue to defer.

Question #14:

What if Vendor gives Customer a discount on future purchases, but the Vendor applies the residual method because VSOE of fair value does not exist for all of the elements in the arrangement but does exist for all of the undelivered elements?

Answer:

A similar analysis to the analysis provided in TPA 5100.51 should be conducted; discounts should be allocated and revenue recognized and deferred in a similar fashion.

The following example is an adaptation of the example cited in TPA 5100.74:

Example

On December 31, 20X1, Vendor licenses O2Cool software (with a published list price of $10,000 but with no VSOE of fair value) on a perpetual basis, bundled with PCS for the first year, to Customer for $8,000. Customer has the option to renew the PCS after the first year for

$1,500. In conjunction with the licensing of O2Cool software, Vendor offers Customer a 55% discount off of its published list price on the purchase of all new products released by Vendor during the next three years, with no maximum cumulative discount.

	Published List Price	**Residual Value**	**Discount From Published List Price**
Product A	$10,000	$6,500	35%
Additional discount from published list priced			20%
Future Products	Unknown	Unknown	55%

Assuming that Vendor concludes that the additional discount (that is, 20% in this example) on future purchases is significant and incremental, Vendor should allocate the discount to O2Cool and defer revenue related to the PCS in the initial arrangement as follows:

(a)	**(b)**	**(a)*(b)= (c)**	**(d)**	**(c)+(d)=(e)**	**(f)**	**(f)-(e)**
Published List Price	Add'l Discount	Revenue Deferral for Additional Discount	Revenue Deferral for PCS	Total Revenue Deferral	Arrangement Fee	Up-front Revenue Product A
$10,000	20%	$2,000	$1,500	$3,500	$8,000	$4,500

Consistent with Example 5 in the previous set of examples, upon delivery of O2Cool, Vendor should recognize revenue of $4,500 and defer revenue of $3,500, provided all other requirements of revenue recognition in SOP 97-2 are met. The revenue related to PCS ($1,500) deferred pursuant to the residual method should be recognized over the initial year of the license in accordance with paragraph 57 of SOP 97-2. The deferred revenue related to the discount ($2,000) should be accounted for as a subscription in accordance with paragraphs 48 and 49 of SOP 97-2 and recognized pro rata over the three year discount period. If the customer purchases additional products using the discount, the vendor would recognize revenue equal to the fee attributable to those additional products, provided all other requirements of revenue recognition in SOP 97-2 are met.