REVENUE RECOGNITION IN LICENSING AND SERVICES DEALS
INDEX

1. INTRODUCTION ......................................................................................................................... 4
  1.1 Context ...................................................................................................................................... 4
  1.2 Significance of revenue recognition policy ............................................................................... 4
  1.3 Impact of contract structure and terms ..................................................................................... 4
  1.4 Relevance of US GAAP to UK contracts .................................................................................. 5
2. THE IMPORTANCE OF GAAP AND WHERE TO FIND IT .................................................. 5
  2.1 Overview .................................................................................................................................. 5
  2.2 UK GAAP .................................................................................................................................. 5
  2.3 International Accounting Standards .......................................................................................... 6
  2.4 US GAAP .................................................................................................................................. 6
3. REVENUE RECOGNITION: DIFFERENCES AND SIMILARITIES BETWEEN GAAPs ........... 7
  3.1 Introduction ................................................................................................................................. 7
  3.2 UK GAAP guidance .................................................................................................................... 7
  3.3 IAS guidance .............................................................................................................................. 7
  3.4 Differences between UK GAAP and IAS ................................................................................... 7
  3.5 US GAAP guidance .................................................................................................................... 8
  3.6 Relevance of US GAAP to UK software companies ................................................................. 8
4. US SOFTWARE REVENUE RECOGNITION GUIDANCE – SOP 97-2 .............................. 8
  4.1 Introduction ................................................................................................................................. 9
  4.2 Services essential to the functionality of software ................................................................. 9
  4.3 Non- incidental software .......................................................................................................... 9
  4.4 Hosting arrangements .............................................................................................................. 10
5. OVERVIEW OF SOP 97-2 ........................................................................................................ 11
  5.1 Basic revenue recognition requirements .................................................................................. 11
  5.2 Multiple- element arrangements .............................................................................................. 11
  5.3 Supplier-specific objective evidence ....................................................................................... 12
6. PERSUASIVE EVIDENCE OF AN ARRANGEMENT EXISTS ........................................ 12
  6.1 Variation in approaches ............................................................................................................ 12
  6.2 Supplier’s business practice ...................................................................................................... 12
  6.3 Written policies ......................................................................................................................... 12
  6.4 Requirement for a signed contract ........................................................................................... 13
  6.5 Master agreements .................................................................................................................... 13
  6.6 Multiple purchase orders ......................................................................................................... 13
7. DELIVERY HAS OCCURRED ..................................................................................................... 13
  7.1 General ..................................................................................................................................... 13
  7.2 Physical delivery ....................................................................................................................... 14
  7.3 Electronic delivery .................................................................................................................... 14
  7.4 Customer acceptance provisions ............................................................................................. 14
  7.5 Delivery of beta versions .......................................................................................................... 18
  7.6 Reseller agreements .................................................................................................................. 19
8. FEES FIXED OR DETERMINABLE ......................................................................................... 19
  8.1 Introduction ................................................................................................................................. 19
  8.2 Impact on contract terms ........................................................................................................... 19
  8.3 Warranty obligations ............................................................................................................... 20
  8.4 Price protection clauses in reseller agreements ....................................................................... 21
  8.5 Most-favoured nation clauses ................................................................................................. 22
  8.6 Extended payment terms ........................................................................................................ 22
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>COLLECTABILITY IS PROBABLE</td>
<td>23</td>
</tr>
<tr>
<td>9.1</td>
<td>Overview</td>
<td>23</td>
</tr>
<tr>
<td>9.2</td>
<td>Liquidated damages provisions</td>
<td>23</td>
</tr>
<tr>
<td>10.</td>
<td>MULTIPLE-ELEMENT ARRANGEMENTS</td>
<td>24</td>
</tr>
<tr>
<td>10.1</td>
<td>Introduction</td>
<td>24</td>
</tr>
<tr>
<td>10.2</td>
<td>Need to establish VSOE</td>
<td>25</td>
</tr>
<tr>
<td>10.3</td>
<td>Use of separate contracts</td>
<td>25</td>
</tr>
<tr>
<td>10.4</td>
<td>Multiple-element arrangements and VSOE</td>
<td>26</td>
</tr>
<tr>
<td>10.5</td>
<td>Specified and unspecified upgrades</td>
<td>28</td>
</tr>
<tr>
<td>10.6</td>
<td>Changes in law etc</td>
<td>29</td>
</tr>
<tr>
<td>11.</td>
<td>POST-CONTRACT CUSTOMER SUPPORT AND OTHER SERVICES</td>
<td>29</td>
</tr>
<tr>
<td>11.1</td>
<td>General</td>
<td>29</td>
</tr>
<tr>
<td>11.2</td>
<td>Post-contract Customer Support</td>
<td>30</td>
</tr>
<tr>
<td>11.3</td>
<td>Other services</td>
<td>30</td>
</tr>
<tr>
<td>12.</td>
<td>CONTRACT ACCOUNTING</td>
<td>32</td>
</tr>
<tr>
<td>12.1</td>
<td>General</td>
<td>32</td>
</tr>
<tr>
<td>12.2</td>
<td>Percentage-of completion method or completed-contract method</td>
<td>33</td>
</tr>
<tr>
<td>12.3</td>
<td>Customer-acceptance clauses</td>
<td>33</td>
</tr>
<tr>
<td>12.4</td>
<td>Interim agreements</td>
<td>34</td>
</tr>
<tr>
<td>13.</td>
<td>APPLICATION SERVICE PROVISION AND OTHER HOSTING ARRANGEMENTS</td>
<td>34</td>
</tr>
<tr>
<td>13.1</td>
<td>General</td>
<td>34</td>
</tr>
<tr>
<td>13.2</td>
<td>Application of SOP 97-2</td>
<td>34</td>
</tr>
<tr>
<td>13.3</td>
<td>If SOP 97-2 does not apply</td>
<td>35</td>
</tr>
<tr>
<td>14.</td>
<td>IDENTIFICATION OF LIKELY ISSUES</td>
<td>35</td>
</tr>
<tr>
<td>14.1</td>
<td>General</td>
<td>35</td>
</tr>
<tr>
<td>14.2</td>
<td>Vague revenue recognition policy</td>
<td>35</td>
</tr>
<tr>
<td>14.3</td>
<td>No change in policy following changes to business model</td>
<td>35</td>
</tr>
<tr>
<td>14.4</td>
<td>Accrued income and trade receivables</td>
<td>36</td>
</tr>
<tr>
<td>14.5</td>
<td>High trade receivables</td>
<td>36</td>
</tr>
<tr>
<td>14.6</td>
<td>Low deferred revenue balances</td>
<td>36</td>
</tr>
<tr>
<td>14.7</td>
<td>Start-ups</td>
<td>36</td>
</tr>
</tbody>
</table>
1. **INTRODUCTION**

1.1 **Context:** Revenue earnings continue to be one of the key metrics for measuring the performance of software companies, and performance against quarterly and annual revenue targets can have a major impact on the valuation of a company, including, in the case of publicly traded companies, its share valuation. As a result, there is considerable pressure on software companies to meet market expectations for revenue and it is not unusual in the software industry for a large percentage of sales to occur in the last few days of a quarter. Being able to recognise the revenue from those transactions within that reporting period is likely to be of fundamental importance to those companies.

1.2 **Revenue recognition policy:** The revenue recognition policy adopted by a software company – and in particular the point at which it recognises revenue – is key to understanding the earnings reported by a company in its financial statements. For most software companies, and especially those at an early stage of growth, the objective will be to recognise revenue as early as possible. However, for more established companies, the objective may be to recognise revenue steadily over the course of the financial year.

1.3 **Contract structure and terms:** The contracting structure adopted by a software company, and the terms upon which it contracts with its customers (whether end-users or resellers) will play an important role in determining the point at which that company is able to recognise revenue from its software transactions. For the supplier’s legal representatives, therefore, understanding their client’s revenue recognition policy, and the impact that the contract structure and terms can have on their client’s ability to meet its revenue recognition objectives is crucial. Similarly, for the customer’s legal representatives, given the increasingly prominent role that revenue recognition

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1 In its October 2002 Report on Financial Statement Restatement, the US Government Accountability Office said that restatements for improper revenue recognition resulted in larger drops in market capitalisation than any other type of restatement. In fact, eight out of the top 10 market value losses in 2000 related to improper revenue recognition. Of these 10, the top three lost $20 billion in market value in just three days. Although its 2006 report showed a drop in restatements announced for revenue recognition reasons, revenue recognition remained the second most frequently identified reason for restatements. Actions classified under “revenue recognition” included a company recognising revenue sooner or later than would have been allowed under GAAP, or recognising questionable or invalid revenue.
considerations are playing in negotiations on software and services deals, an understanding of the revenue recognition rules to which the customer’s software suppliers are subject, can help level the playing field in those contract negotiations.

1.4 Relevance of US GAAP to UK contracts: As described in Section 3.5 below, US software revenue recognition rules tend to be much more extensive, and in many cases more prescriptive, than their UK and IAS counterparts, and in practice, therefore, it is typically when dealing with suppliers who report in accordance with US GAAP, that revenue recognition issues arise during the contract negotiations. Consequently, this article focuses on revenue recognition under US GAAP. However, Sections 2 and 3 below provide an overview of the other potentially applicable GAAPs, and the key differences between these and US GAAP.

2. THE IMPORTANCE OF GAAP AND WHERE TO FIND IT

2.1 Overview: Despite increasing international convergence in accounting standards in recent years, there are still significant differences between the generally accepted accounting principles (GAAP) applied in different countries. An understanding of which GAAP is being applied and how that might affect the point at which revenues are recognised is, therefore, important when interpreting financial information, evaluating the performance of a target company or understanding the accounting rules which might influence commercial decisions for a software company or the party negotiating a contract on the other side of the table.

Whilst numerous different GAAPs exist around the world (many of them driven by local tax-related considerations) there are three GAAPs commonly encountered in the UK marketplace – UK GAAP; International Accounting Standards (IAS) and US GAAP. The relevance of each is considered in turn below.

2.2 UK GAAP: UK GAAP is still the most common GAAP generally encountered in the UK. It is used by nearly all private companies (including many subsidiaries of listed UK companies and overseas companies) and by non-listed plcs. Companies applying UK GAAP follow the Statements of Standard Accounting Practice (SSAP) and Financial Reporting Standards (FRS) issued by the UK Accounting Standards Board, together with supplementary
statements issued in response to current issues by the Urgent Issues Task Force (UITF).

2.3 **International Accounting Standards:** For financial periods commencing on or after 1 January 2005, groups listed on the London Stock Exchange (and other regulated markets) have been required to prepare their consolidated accounts under IAS\(^2\). For periods commencing on or after 1 January 2007, the requirement to prepare consolidated financial statements under IAS was extended to groups listed on the Alternative Investment Market (AIM). Other UK companies may elect to produce IAS, rather than UK GAAP accounts. This has implications for tax and distributable profit and has not been widely adopted. However, some subsidiaries of UK listed companies (or overseas companies who produce IAS accounts) have chosen to produce accounts under IAS. With the increasing introduction of IAS overseas (most notably within the Japanese market), the number of companies making such an election is increasing.

Companies producing accounts under IAS are required to apply the provisions of IAS and International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and its predecessor body. They also need to follow additional guidance set out in interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) which provide timely guidance on issues not adequately covered by IAS or IFRS.

2.4 **US GAAP:** Although US GAAP is not permitted for statutory accounts within the UK, in practice, it is used in internal group reporting by UK subsidiaries of US companies, and is, therefore, the GAAP given most focus by such companies. It is thus very important in the technology sector, where many of the leading players are US-owned. UK companies with securities listed on US exchanges as well as UK markets have historically had to present a reconciliation from UK GAAP or IFRS to US GAAP. From 2008, this reconciliation is no longer required. Whilst the IASB and US Financial Accounting Standards Board (FASB) have both acknowledged a commitment to the convergence of US GAAP and IAS, there is still some way to go to a common set of standards.

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\(^2\) This requirement does not apply to listed companies which do not have subsidiaries, although some such companies do elect to produce IAS accounts. The great majority of “solo listed companies” are investment trusts, most of which continue to prepare UK GAAP accounts.
US GAAP is set out in Statements of Financial Accounting Standards (SFAS) issued by the FASB and bulletins issued by the Emerging Issues Task Force (EITF). In addition, Statements of Position (SOP) are issued by the Accounting Standards Executive Committee of the American Institute of Certified Public Accountants (AICPA).

3. REVENUE RECOGNITION: DIFFERENCES AND SIMILARITIES BETWEEN GAAPs

3.1 Overview: For such a crucial area of accounting policy, there is remarkably little guidance on revenue recognition within accounting standards other than for US GAAP. Both UK GAAP and IAS rely heavily on principles rather than detailed rules.

3.2 UK GAAP guidance: UK GAAP does not have a single standard dedicated to revenue recognition, but does set out guidance in Application Note G to FRS 5, and in UITF Abstract 40 which relates to service contracts. This guidance is consistent with IAS but gives more detail on what to do where a single contract involves multiple elements, a crucial issue in practice\(^3\). There is also guidance in SSAP9 on revenue recognition under long term contracts.

3.3 IAS guidance: IAS18 sets out the criteria for recognition of revenue under IAS. This is a relatively old standard (last revised in 1995), and does not deal explicitly with the more complex situations encountered in practice. It covers both the sale of goods and the rendering of services, but not revenue recognition in a number of more specialist areas, unlikely to be of relevance to technology companies. Whilst the standard may appear to be more extensive than UK GAAP, in practice it gives even less guidance on complex technology revenue recognition issues. The methodology in IAS11 on accounting for construction contracts is relevant for all service contracts and is very similar to the UK GAAP guidance in SSAP9.

3.4 Differences between UK GAAP and IAS: In practice, the revenue recognition differences which arise on conversions from UK GAAP to IAS are very few, and arise from UK practice, rather than real differences in the principles underlying the standards. Such differences as do arise generally relate to the

\(^{3}\) The particular issues associated with multiple-element arrangements are considered further in Section 10.
delivery of goods and the classification of various discounts and allowances. Under IAS, revenue is typically only recognised on delivery of the goods to the customer, whereas there is still some UK practice of recognising revenue on despatch. Hence, a conversion to IAS can delay revenue recognition in certain circumstances. In addition, conversions to IAS have focussed attention on the classification of certain discounts and marketing allowances made to customers which may, in practice, have been classified as cost of sales or even operating expenses by UK companies. The reclassification of such items will typically reduce reported revenue whilst making no overall difference to profit.

3.5 **US GAAP guidance:** US GAAP guidance is far more extensive than that for either UK GAAP or IAS. Of key relevance to technology companies is the extensive guidance for software revenue recognition in SOP 97-2 (and the related technical questions and answers (TPAs) issued by the AICPA) and the guidance on multiple-element arrangements set out in EITF 00-1. Both contain far more detailed and prescriptive guidance than under other GAAPs. The most common GAAP differences arise where there are software license arrangements with extended payment terms, multiple-element arrangements or contracts which involve both a set-up phase and an ongoing service. However, there are a number of other areas which can give rise to differences in practice.

3.6 **Relevance of US GAAP to UK software companies:** Because the US guidance is more directly applicable to technology companies than either UK GAAP or IFRS, and SOP 97-2 was available before FRS5 Application Note G, US GAAP has to some extent been adopted as best practice by UK software companies and other entities in the technology sector. As a result, a number of UK companies’ revenue recognition policies owe much to SOP 97-2 and EITF 00-1. This effect has been enhanced by UK subsidiaries of US parents anxious to make as few changes as possible between their internal US GAAP reporting and their statutory accounts. As a result, US GAAP differences on revenue recognition are far rarer in the technology sector than might be expected from a review of the relevant pronouncements. There are, however, some important differences, and the revenue which can be recognised under US GAAP is often more limited than that which could be recognised under IFRS or UK GAAP. Whilst differences can be minimised by selecting policies acceptable under both GAAPs, adjustments are necessary on occasion.

4. **US SOFTWARE REVENUE RECOGNITION GUIDANCE – SOP 97-2**
4.1 **Introduction:** The main area of guidance on software revenue recognition under US GAAP is contained in Statement of Position 97-2 (‘SOP 97-2’). This provides detailed guidance on when revenue should be recognised, and in what amounts, for “licensing, selling, leasing or otherwise marketing computer software”. Before looking at the key requirements of SOP 97-2, and the consequences of it applying, this Section 4 considers briefly the scope of SOP 97-2 and in, particular, the types of software transaction that it applies to.

4.2 **Services essential to the functionality of software:** Although SOP 97-2 applies to the majority of software licensing and services contracts, there are some exceptions to this. Most importantly, these exceptions include (i) transactions which involve “significant production, modification or customisation of software”, and (ii) transactions involving any other services which are ‘essential’ to the functionality of the software. Under US GAAP, the service fees for these types of deal cannot be accounted for separately to the licensing fee, and the entire arrangement must be accounted for using the **contract accounting** method. In broad terms (and as elaborated on in Section 12, this means that the entire fees relating to those transactions (including any licence fee) must be recognised either as the contract is performed or, in some cases, on completion of the services to be performed under the contract. Generally, therefore, software companies who wish to recognise revenue as early as possible, will try to avoid the application of the contract accounting method.

4.3 **Non-incidental software:** SOP 97-2 does not apply to products or services which contain software that is merely ‘incidental’ to the products or services as a whole. However, where a product contains, or a service is provided using,

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4 SOP 97-2 was introduced in 1997 to replace the previous US GAAP guidance on software revenue recognition, SOP 91-1. One of the major difficulties with SOP 91-1 was that key aspects of the guidance were highly subjective in nature, giving software companies considerable latitude in interpreting and applying the guidance. As a result, SOP 91-1 was applied inconsistently by software companies, making it difficult for comparisons to be made as to the financial performance of different software companies. SOP 97-2 was introduced to address this issue.

5 SOP 97-2, paragraph 7.

6 Revenue from contracts which are subject to the contract accounting method must be recognised in accordance with Accounting Research Bulletin No. 45 (Long-Term Construction-Type Contracts) and the related guidance in SOP 81-1 (Accounting for Performance of Construction-Type and Certain Production-Type Contracts).
software that is more than incidental, SOP 97-2 will apply to that software. Where a transaction includes software and non-software elements, then, if the software is essential to the functionality of the non-software elements, revenue relating to the non-software elements will also need to be accounted for in accordance with SOP 97-2. The continued advances in technology, and the increasingly important role that software is playing in the functionality and performance of non-software products, mean that more and more companies across a range of industries (and not just software companies), now recognise their revenue in accordance with SOP 97-2.

4.4 Hosting arrangements: Hosting arrangements, such as application service provision (ASP), and software as a service (SaaS), under which the supplier hosts the software on its own (or a third party’s) servers and provides access to the customer via the internet or a dedicated line, are now commonplace in the software industry. A key consideration for software companies who offer hosting solutions is whether those arrangements fall within SOP 97-2. This can have an important impact on the point at which revenue relating to those arrangements should be recognised, and is considered in more detail in Section 13 below. This particular issue was not addressed in SOP 97-2, but has been addressed by subsequent EITF guidance. According to this guidance, SOP 97-

7 SOP 97-27 provides a non-exhaustive list of factors to be taken into account in determining whether software is more than incidental to the products or services with which it is supplied. These include: (i) the extent to which the software is marketed; (ii) whether the software is sold separately; and (iii) whether post-contract customer support (‘PCS’) is provided in relation to the software. If a product is marketed or sold based on the functionality or performance of the software, or if the software is sold separately, these are indications that the software may more than incidental. Likewise, if PCS is provided in relation to the software element, this is an indication that the software is more than incidental.

8 Factors relevant to assessing whether software is considered ‘essential’ to the functionality of other non-software deliverables include whether: (i) the non-software deliverables have substantial functionality without the software (i.e. is a customer likely to purchase the non-software deliverable without the software); (ii) the software and non-software deliverables are always sold as a package; and (iii) payment for the software deliverables is contingent upon delivery/completion of the non-software deliverable.

9 Many companies in the computer hardware, telecommunications and consumer electronics industries, for example, now recognise revenue in accordance with SOP 97-2.

10In summary, if SOP 97-2 applies to a hosting arrangement, then it is generally possible for revenue relating to the licensing and set-up services to be recognised up front, with revenue from the hosting element being recognised on a straight-line basis over the hosting period. If SOP 97-2 does not apply, the hosting arrangement will have to be accounted for as a service contract, meaning that the revenue for the entire arrangement must generally be recognised on a straight line basis over the hosting period.

11EITF 00-3 (Application of SOP 97-2 to Arrangements That Include the Right to Use Software Stored on Another Entity’s Hardware).
2 will only apply to software hosting arrangements where (i) the customer has a contractual right to take possession of the software at any time during the hosting period “without significant penalty”,12 and (ii) it is feasible for the customer to do so (either by hosting the software itself or using a third party). If these criteria are not satisfied, the hosting arrangement falls outside the scope of SOP 97-2, and will be accounted for as a service contract.

5. OVERVIEW OF SOP 97-2

5.1 Basic revenue recognition requirements: SOP 97-2 establishes 4 basic requirements for revenue recognition in software arrangements to which the guidance applies13. These are that:

(1) persuasive evidence of an arrangement exists;
(2) delivery has occurred;
(3) the supplier’s fee is fixed or determinable; and
(4) collectability is probable.

Each of these basic requirements can have an impact on the contract structure adopted by software companies, and the terms which a software company is generally prepared to agree to in its customer contracts (including where the customer is a reseller). Each of these requirements, and the key contract terms most likely to be impacted by them, are considered in Sections 6 to 9 below.

5.2 Multiple-element arrangements: SOP 97-2 also contains detailed guidance on treatment of revenue for ‘multiple-element arrangements’. These are arrangements in which the supplier agrees to provide more than one product, or a combination of products and services to a customer. These arrangements are common in the software industry, as a customer will frequently purchase a combination of implementation, training, support and/or general consultancy services at the time it purchases a software licence. Each element within a multiple-element arrangement must meet the four basic criteria before revenue for that element can be recognised.

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12 See Section 13 for details on what amounts to a ‘significant penalty’ for these purposes.

13 As noted elsewhere in this article, SOP 97-2 does not apply where a software arrangement involves significant production, modification or customisation of the software, or any services which are essential to the functionality of the software – these arrangements must be accounted for in accordance with the accounting method described at Section 12.
5.3 **Vendor-specific objective evidence**: The guidance relating to multiple-element arrangements and, in particular, the need to establish *supplier-specific objective evidence* (‘VSOE’) of the fair value of each element, has proved to be one of the most controversial aspects of SOP 97-2. This is considered in more detail at Section 10 below.

### 6. PERSUASIVE EVIDENCE OF AN ARRANGEMENT EXISTS

6.1 **Variation in approaches**: Practices vary widely in the software industry on the use of written contracts for arrangements involving the licensing of software and the supply of software-related services. While written contracts are typically used for enterprise licences and turn-key solutions, many other types of software - shrink-wrapped consumer software for example - are often licensed without a written contract.

6.2 **Supplier’s business practice**: These variations in practice are recognised by SOP 97-2, and it is not essential, therefore, to have a signed contract in order to provide persuasive evidence of the arrangement. Instead, it is the supplier’s normal business practice that is key – if a supplier normally enters into signed contracts in relation to its software transactions, then evidence of the arrangement can only be provided by a contract signed by both parties to the transaction. If, on the other hand, the supplier’s standard practice is to rely on some other document or process as evidence of the transaction (a customer purchase order or online authorisation, for example), then that will normally be sufficient for the purposes of evidencing the transaction.

6.3 **Contract policy**: From the supplier’s perspective, therefore, it is critical to establish a clear and workable, written policy as to how its software arrangements are to be evidenced, and to ensure that that policy is understood and adhered to by all parts of the supplier’s organisation. Where a software company adopts different approaches for different customer groups, geographies and/or products (if, for example, the software company supplies mass market software and enterprise software), it is especially important that the relevant policies for each product, customer group or geography are properly documented, and that it is clear which policy applies to each type of transaction.

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14 There are no requirements in SOP 97-2 as to the form of written contract. It is therefore not necessary that the parties use the supplier’s form contract as the basis for the contract.
6.4 **Requirement for a signed contract:** Where the supplier’s standard practice is to require signed contracts, then for revenue on a transaction to be recognised in a particular reporting period, the contract must be signed *by both parties* before the end of the relevant reporting period. Even if the contract terms have been finalised, and delivery has occurred (so that signature is a formality), revenue will generally still need to be deferred until signature. Where written contracts are normally used by a supplier, then any other form is unlikely to satisfy this requirement – a signed letter of intent, for example, will not provide sufficient evidence of the arrangement where the supplier’s normal practice is to enter into a written contract. Similarly, making the contract effective from a date within the earlier reporting period, will not allow suppliers to recognise the revenue within the earlier period.

6.5 **Master agreements:** When using master or framework agreements (often used with large enterprise customers), consideration should be given as to the most appropriate contract structure and form, both from a legal and revenue recognition standpoint. For revenue recognition purposes, avoiding the need for the parties to negotiate, sign and execute a further document (in the form of a contract addendum or subsidiary agreement, for example) when future orders for products or services are raised will help avoid the risk that recognition of revenue in quarter-end deals has to be deferred to a later reporting period.

6.6 **Multiple purchase orders:** Where multiple purchase orders are raised by the customer under a master agreement, particularly those raised at or around the same time, the supplier will need to consider carefully whether those purchase orders represent separate standalone arrangements (which can be accounted for independently of each other), or whether, in reality, the purchase orders are closely related so that, for revenue recognition purposes, they are treated as a single ‘multiple-element’ arrangement. The revenue recognition treatment for multiple-element arrangements can be complicated, and is considered in more detail in Section 10 below (including the factors to be considered in assessing whether separate purchase orders should be treated as part of the same arrangement).

7. **DELIVERY HAS OCCURRED**

7.1 **General:** The second basic requirement to be satisfied for revenue to be recognised in a software arrangement, is that delivery has occurred. Whilst this requirement is normally straightforward for most non-software deliverables, the
issue can be more complicated in software transactions, particularly where (as is often the case) other products and services (implementation and customisation or configuration services for example) are purchased by the customer to make full use of the software.

7.2 Physical delivery: The basic position under SOP 97-2 is that, except for transactions in which the fee is based on the number of copies of software provided, delivery occurs upon ‘transfer’ of the first copy. In determining the point at which transfer occurs, the contract terms relating to delivery, and the transfer of risk, will be relevant. For this reason, many suppliers will include in their software licensing and supply contracts Incoterms which ensure that transfer of risk, and therefore delivery, occurs at the earliest possible time. Whilst the inclusion of these Incoterms might potentially affect the timing of revenue recognition for deals that are close to the end of a reporting period, in other cases, it is unlikely to have a material impact on the reporting period within which the revenue can be recognised, and revenue recognition issues should not be used as a basis for refusing the customer more balanced delivery and risk transfer terms.

7.3 Electronic delivery: Where, as is increasingly the case, software is delivered or made available to the customer for download electronically, for revenue recognition purposes, delivery occurs when the customer either downloads the software or has been provided with the access codes that allow it to download the software.

7.4 Customer acceptance provisions

(a) Where a customer is purchasing high-value, or business-critical software, it will normally want to have an ability to test that the software meets its requirements before formally accepting it. Typically, the customer will test the software against an agreed set of acceptance criteria. Where the software fails those tests, the supplier will normally be given one or more opportunities to correct the failure within a reasonable (pre-agreed) period. Ultimately, however, the customer will

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15 FOB (free-on-board) terms, for example, are commonplace in suppliers’ standard form contracts. FOB shipment means that risk in the software is transferred to the customer at the point of shipment; FOB destination means that risk transfers when the software reaches the customer destination.

16 SOP 97-2, paragraph 107.
want to have an ability to reject the software, and recover any fees it has paid, if the software continues to fail the acceptance tests. Customer acceptance provisions of this nature in a software arrangement can sometimes be an important factor in determining the point at which revenue can be recognised in a software arrangement.

(b) **Treatment of acceptance provisions under SOP 97-2**: From a supplier standpoint, the revenue recognition concerns with customer acceptance provisions arise from the statement in SOP 97-2\(^\text{17}\), that “*after delivery, if uncertainty exists about customer acceptance of the software, licence revenue should not be recognised until after acceptance occurs*”. This can raise difficulties for suppliers in relation to quarter- or year-end transactions, or where the customer requires a prolonged acceptance testing period.

(c) As a result, revenue recognition policy is sometimes used by suppliers as a reason for refusing to agree to acceptance test provisions. However, whilst under US GAAP, the presumption is that, where customer acceptance provisions exist, revenue should not be recognised until formal acceptance has occurred, in many cases, that presumption can be overcome, and it will be possible for the parties to agree acceptance testing provisions which offer the customer the protection it is seeking, whilst at the same time allowing the supplier to recognise most, if not all, the licence fee up front (assuming the other criteria have been met).

(d) Factors relevant to assessing whether revenue can be recognised before formal customer acceptance include: the supplier’s historical experience with similar types of arrangements or products (for example, has the supplier previously experienced any significant issues relating to acceptance of the software); whether the acceptance provisions are specific to the customer or are included in all arrangements; the length of the acceptance provisions; and the supplier’s historical evidence with the specific customer.

(e) **Form of acceptance provision is key**: The precise form of the customer acceptance provision will, therefore, play a key part in assessing whether revenue for a transaction can be recognised before formal customer acceptance.

\(^{17}\) Paragraph 20.
acceptance has occurred. US GAAP guidance\textsuperscript{18} identifies 4 broad categories of customer acceptance provisions:

1. \textbf{acceptance provisions in arrangements that purport to be for trial or evaluation purposes: }under these provisions, the customer has the right to return software within an evaluation or trial period. In reality, this type of acceptance provision amounts to a subjective right of return on the customer’s part, and revenue should normally not be recognised until acceptance occurs or the period for acceptance has expired. Acceptance provisions of this type should only ever be given where the software is genuinely provided for evaluation purposes;

2. \textbf{acceptance provisions that grant a right of return or exchange on the basis of subjective matters: }for example, a provision which allows the customer to return the software if it is dissatisfied for any reason. For revenue recognition purposes, these are likely to be considered general rights of return\textsuperscript{19}. Provided the supplier can reasonably estimate the number of customers likely to exercise their rights of return\textsuperscript{20} (normally based on historical data), the licensing revenue can be recognised on delivery (assuming all other criteria are met), with a reserve established for the estimated returns associated with customers who will return the products (or the estimated costs of securing acceptance).

3. \textbf{acceptance provisions based on seller-specified objective criteria: }these include provisions which give the customer the right to reject the software if it is defective or fails to meet its published specification (and the defect or failure has not been corrected within a reasonable period). In this scenario, provided the supplier has previously demonstrated that the software has met those criteria (which should be possible for most products), the licensing revenue can normally be accounted for as a warranty\textsuperscript{21}. This means that,

\textsuperscript{18} In particular, TPA 5100.67 and SAB 101.

\textsuperscript{19} To be accounted for in accordance with FASB Statement No.48, \textit{Revenue Recognition When a Right of Return Exists}.

\textsuperscript{20} This estimate must be based on a sufficiently large number of homogeneous transactions.

\textsuperscript{21} In accordance with FASB Statement No.5, \textit{Accounting for Contingencies}. 
where the costs of remedying the defect can be reasonably estimated, the revenue can be recognised on delivery (and assuming the other criteria are met), with a reserve established for the estimated costs of remedying any defects.\(^\text{22}\)

(4) **acceptance provisions based on customer-specified objective criteria:** Again, revenue can generally be recognised before acceptance, as per category (3) above, if the supplier can reliably demonstrate that the software has previously met those acceptance criteria. If the supplier is unable to do so, the revenue will generally need to be deferred until acceptance has occurred (or the supplier can objectively demonstrate that the software meets the criteria).

(f) Therefore, in the case of acceptance provisions falling within category (1), recognition of the revenue will need to be deferred until after acceptance has occurred (or the acceptance period has lapsed) and, as noted above, provisions of this nature should only be agreed to where the supplier intends to supply the software on a trial basis. For acceptance provisions falling within categories (2), (3) and (4), however, it should be possible to recognise much of the licensing revenue before acceptance has occurred, provided that the supplier has reliable historical evidence proving that the software meets the relevant acceptance criteria. From a supplier standpoint, therefore, (both from a general contract standpoint, and for revenue recognition purposes) where acceptance provisions are to be included, the contract should be clear that the software will only be tested against an agreed set of criteria which are based on, and consistent with, the published specification, if possible using criteria that the supplier can demonstrate the software has previously met.

(g) **Acceptance dependent on other services:** Where a software arrangement involves the delivery of software and services, the customer will sometimes seek to link acceptance of the software to the successful delivery of the services (installation, customisation or configuration services for example). In this case, the timing of recognition of the

\(^{22}\) In the unlikely event that the supplier cannot demonstrate that the software has previously met the published specification, revenue should be normally deferred until acceptance has occurred (or it can be objectively demonstrated that those specifications have been obtained).
licensing revenue will depend on whether the services are considered ‘essential’ to the functionality of the software\textsuperscript{23}. Where acceptance is dependent on delivery of services that are not essential to the functionality of the software, then normally the revenue should be accounted for as a general right of return\textsuperscript{24}. As noted above, this means that provided the supplier can reasonably estimate the number of customers likely to exercise their rights of return (normally based on historical data), the licensing revenue can be recognised on delivery (assuming all other criteria are met), with a reserve established for the estimated returns associated with customers who will return the products (or the estimated costs of securing acceptance). Suppliers should note, however, that, in reality, where acceptance of the software is linked to the delivery of services, this is likely to be considered a strong indication, for revenue recognition purposes, that the services are essential to the functionality of the software. If acceptance is dependent on services that are essential to the software functionality, revenue should not be recognised until the customer formally accepts the software and the relevant service element. This is considered further at Section 11.

(h) For these reasons, where the supplier does not consider the services to be essential to the software functionality, it should include a statement in the contract confirming acceptance of the software on delivery, and ensuring that software acceptance (and payment of the licence fee) is independent of successful delivery of the service element. Whilst not conclusive, such a statement will help substantiate the position that the services are not essential to the functionality of the software. For the customer, any such terms in the contract should be carefully reviewed, and where the customer considers delivery of the services to be essential to its ability to properly use the software as intended, provisions which imply or state otherwise should be resisted. Ultimately, this will be a matter for negotiation between the parties.

7.5 **Delivery of beta versions:** Suppliers also need to consider the revenue recognition implications of supplying customers with beta versions of its

\textsuperscript{23} As to the meaning of which see Section 11 below.

\textsuperscript{24} In accordance with FASB Statement No.48, *Revenue Recognition When a Right of Return Exists*. 

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18
software products. If there is an express obligation to deliver the final version, or if there is an implied commitment to do so (for example, because the supplier has a standard practice of doing so) then it is unlikely that delivery will occur, for revenue recognition purposes, until the final version has been provided (even if payment of the licence fee has occurred). Therefore, suppliers should ensure that the terms of any beta licences clearly address whether or not the customer is entitled to the final version when it is released. The supplier should also ensure that its standard business practices are consistent with the position stated in the licence – if, for example, the supplier normally supplies the final version of the software at no additional cost to its beta-version customers, it is likely that revenue will have to be deferred until delivery of the final version, despite any provisions stating otherwise in the contract.

7.6 **Reseller agreements:** Because many reseller arrangements give the reseller rights of return (e.g. the right to return unsold inventory) and stock rotation rights, it can be more difficult to establish when delivery has occurred, for revenue recognition purposes. Provisions requiring the supplier to accept returns from the reseller prior to their sale to end-users may mean that, for revenue recognition purposes, delivery does not occur until the software has been delivered to (and, where applicable, accepted by) the end-user. Therefore, the grant of any reseller rights of return should be carefully evaluated from a revenue recognition standpoint. Where such rights are offered, then to minimise the impact that this has on revenue recognition, suppliers should consider setting an overall cap on the number or value of returns that can be made in a particular reporting period, and imposing a longstop on the period within which any returns can be exercised.

8. **FEES FIXED OR DETERMINABLE**

8.1 **Introduction:** SOP 97-2 states that “fees from licences cancellable by customers are neither fixed nor determinable until the cancellation privileges lapse…” Further, SOP 97-2 defines a fixed fee as “a fee required to be paid at a set amount that is not subject to refund or adjustment”. Therefore, where a customer has a cancellation or refund right under a software contract, the fee is generally not considered to be fixed or determinable until after that cancellation or refund right has expired.

8.2 **Impact on contract terms:** As a result, a supplier’s ability to meet the ‘fixed or determinable’ and ‘collectability’ criteria can be affected by the contract
terms relating to warranty breach\textsuperscript{25}, acceptance test failures, and similar provisions giving the customer an express termination right. In addition, price protection clauses (in reseller agreements), and ‘most-favoured nation’ provisions (in end-user contracts) can affect the point at which a fee becomes fixed or determinable.

8.3 Warranty obligations

(a) The warranty commitments given by suppliers in software contracts can vary greatly. However, most contracts will include a warranty – for a limited period after delivery – that the software will meet its published specification. In many circumstances, the customer will negotiate to include an express termination and refund right if the software substantially fails to comply with its published specification, and the supplier fails to fix the failure within a reasonable time.

(b) Customer requests to include a termination or refund right for warranty breach are sometimes resisted by suppliers on the grounds that this would amount to a cancellation right, requiring the supplier to defer all revenue on the transaction until the end of the warranty period.

(c) In practice, the impact that the contract warranties, and the customer’s remedies for warranty breach, will have on the supplier’s revenue recognition position will largely depend on the nature of the warranty given. Warranties related to the performance or functionality of the software that are objective – a warranty against published specification for example – are typically accounted for in accordance with FASB Statement No.5, \textit{Accounting for Contingencies}\textsuperscript{26}. This means that, where the costs of remedying the warranty breach can be reasonably estimated (based on the supplier’s history of substantially similar transactions), the licence fee can be recognised before the end of the warranty period (assuming all other

\textsuperscript{25} It should be noted that, under English law, a warranty breach will normally sound in damages, and will not give the innocent party a right to terminate (or rescind) the agreement. However, in practice, many customers will seek to negotiate an express termination right for material, unremedied breaches of the software performance warranty.

\textsuperscript{26} According to SOP 97-2, “obligations related to warranties for defective software, including warranties that are routine, short-term, and relatively minor, should be accounted for in accordance with FASB Statement No. 5”.

20
criteria are met), with a reserve established for the estimated costs of remedying any defects.

(d) Similarly, a warranty that the software will meet the customer’s requirements should be capable of being accounted for in the same way, provided that (i) the customer’s requirements are clearly documented in the contract, and (ii) the supplier can demonstrate that the software has previously met those requirements. If the supplier is unable to do so, the revenue will normally need to be deferred until it can be objectively demonstrated that those requirements have been met.

(e) For warranties that are more subjective in nature – a warranty that the software will meet the customer’s requirements, where those requirements are not defined, for example - so that, in effect, they could amount to a unilateral cancellation right on the customer’s part, it is likely that the revenue will need to be deferred until the warranty period has expired. Therefore, in addition to the obvious commercial and legal reasons for doing so, the supplier should ensure, from a revenue recognition standpoint, that all implied warranties (including warranties as to fitness for purpose, satisfactory quality and other warranties implied by applicable law), and any other warranties that are subjective in nature are excluded from the contract.

8.4 **Price protection clauses in reseller agreements:**

(a) Because of the pace of change in the technology industry, and the fact that software products can quickly become obsolete, it is not uncommon in the technology industry for suppliers to agree to ‘price protection’ clauses in their reseller and distributor contracts. A price protection clause will typically entitle the reseller to a rebate or credit in respect of a portion of the original fee paid by the reseller on inventory held by it, if the supplier subsequently reduces its price for the product.

(b) SOP 97-2\(^{27}\) provides that, where price protection is granted, then if the supplier is unable to reasonably estimate future price changes, or if significant uncertainties exist about the supplier’s ability to maintain its price, the arrangement fee is not considered to be fixed or determinable, and revenue

\(^{27}\) Paragraph 30.
from the arrangement should be deferred until the supplier is able to reasonably estimate the effects of future price changes. If the supplier can reasonably estimate the amount of the fee that may be subject to rebate or credit as a result of the price protection, the supplier can normally recognise the revenue for the arrangement, with a reserve established for the estimated amount of the rebate or credit.

(c) Suppliers who offer price protection to their resellers should, therefore, carefully consider the scope and extent of the protection offered if it wishes to avoid deferring recognition of revenue under the reseller arrangement. Where price protection is granted (and whether or not future price changes can be estimated), the supplier should include a cap on the maximum amount of rebate or credit which can be claimed by a reseller under the price protection clause. This approach should enable the supplier to recognise revenue from the arrangement, with a reserve established for the maximum amount of the rebate or credit. Suppliers should also consider including a longstop date (e.g. 90 days from delivery to the reseller) after which inventory held by the reseller ceases to eligible for price protection.

8.5 **Most-favoured nation clauses:** MFN provisions generally provide a customer with a contractual commitment that, if the supplier offers other customers in similar situations better pricing terms, the price offered to the customer will be reduced accordingly. MFN provisions can be controversial for a variety of reasons, including difficulties in measurement and enforcement, and ensuring that the clause is only applied against genuine like-for-like comparisons. Aside from these general legal and commercial issues, suppliers need to carefully consider the possible revenue recognition implications of any such provisions. Where the commitment relates to future purchases made by the customer, this should not have any impact on the revenue for the current arrangement. However, if the MFN provision is stated to have retrospective effect, so that the supplier is required to provide the lower price in relation to any previous purchases by the customer, the fees are unlikely to be considered fixed or determinable, and the revenue from the arrangement will need to be deferred.

8.6 **Extended payment terms**

(a) The payment terms granted to the customer in a software contract can also have an impact on recognition of the revenue due under the contract. In
particular, where the customer is granted ‘extended’ payment terms, the fee is not considered fixed or determinable. This is on the presumption that, where a customer is granted extended payment terms, there is a greater likelihood that the supplier will grant concessions to the customer (in the form of a reduction in fees for example, and despite the customer’s contractual commitment to pay) particularly if the value of the software reduces over time as a result of technological obsolescence.

(b) The guidelines do not define when payment terms will be considered ‘extended’. Under SOP 97-2, there is a presumption that, if payment of a significant portion of the fee is due more than 12 months after delivery, the fees are not fixed or determinable. However, this is not a hard and fast rule, and it is possible that payment terms of less than 12 months after delivery would be considered ‘extended’. The key factor in assessing whether payment terms are ‘extended’ is the supplier’s normal business practice: where the supplier has a range of customary payment terms (say 30 to 90 days), any extension beyond that customary range may mean that the fees are not fixed or determinable, and recognition of those fees may need to be deferred until the payment is received28.

9. COLLECTABILITY IS PROBABLE

9.1 Overview: Paragraph 14 of SOP 97-2 states that no portion of a fee (including elements otherwise allocated to delivered elements) meets the collectability criterion if the portion of the fee allocable to delivered elements (is subject to “forfeiture, refund or other concession” if any of the undelivered elements are not delivered. For example, in a multiple element arrangement involving the licensing and implementation of software, where payment for the licence fee (or any part of it) is refundable if the implementation services are not delivered in accordance with the contract, the licence fee (or the part that is subject to refund) would not meet the criteria for collectability (even if payment has occurred). This is likely to be the case even if the supplier has a history of successfully delivering the implementation services.

9.2 Liquidated damages provisions

28 Where the supplier has a history of successfully collecting under the original payment terms without making concessions, the presumption that the fees are not fixed or determinable can be overcome.
(a) Liquidated damages provisions (namely, provisions triggering the payment of a pre-determined sum by the defaulting party in the event of a default) are often included in software contracts where the provision of services in accordance with an agreed timetable is important to the customer, and where failure to adhere to the timetable could give rise to material losses on the customer’s part.

(b) Where liquidated damages provisions are included in a contract, these will need to be carefully worded if the supplier wishes to minimise any deferral of revenue required as a result of such provisions. In particular, where a contract (or group of related contracts) includes multiple elements (e.g. a licensing and implementation services component), and liquidated damages are payable in respect of, say, the implementation services if there is material slippage in the timetable, then provided the liquidated damages potentially payable do not exceed the deferred revenue attributable to the implementation services, it should be possible to recognise the revenue attributable to the licensing component before implementation is complete (and assuming, of course, that all the other criteria have been satisfied).

(c) If, on the other hand, the liquidated damages potentially payable in respect of the installation services exceed the deferred revenue attributable to the installation services, it is likely that the supplier would have to defer that portion of the fee attributable to the licensing fee component that is subject to refund or forfeiture, until the undelivered elements have been delivered. For this reason, suppliers will want to ensure that, where possible (i) there is an overall cap on the liquidated damages that can be recovered under the contract (if an undelivered element is not delivered), and (ii) that cap does not exceed the revenue attributable to the undelivered element.

10. MULTIPLE-ELEMENT ARRANGEMENTS

10.1 Introduction: SOP 97-2 contains detailed guidance on the recognition of revenue for ‘multiple-element arrangements’. These are arrangements in which the supplier agrees to provide more than one product, or a combination of products and services, to the customer. These arrangements are common in the

29 Under English law, liquidated damages provisions are enforceable only if the liquidated amounts payable represent a genuine pre-estimate of the loss the innocent party is likely to suffer in the event of a default by the other party. The estimate does not need to be accurate, but does need to be genuine. If not, they are likely to amount to an unenforceable penalty under English law.
software industry, as customers will frequently purchase installation, training and/or maintenance and support services at the same time it purchases a software licence.

10.2 Need to establish VSOE: The guidance relating to multiple-element arrangements is complicated, and the requirement to establish “vendor-specific objective evidence” (‘VSOE’) of the fair value of each element of a multiple-element arrangement, in particular, has proved to be one of the most controversial aspects of SOP 97-2. Issues relating to VSOE are considered further below.

10.3 Use of separate contracts:

(a) To get around the complications associated with multiple-element arrangements, some suppliers have adopted a practice of including the licensing, maintenance, and professional services elements of a software arrangement in separate contracts. However, in determining whether products and services are, in fact, part of the same multiple-element arrangement, it is necessary to look at the substance, as well as the form, of the arrangements. If the various elements provided under each contract are so closely related that, in reality, they are part of the same arrangement, those elements will need to be accounted for as elements within a multiple-element arrangement in accordance with SOP 97-2, regardless of whether they are contained in the same contract or separate contracts.

(b) (needs to be indented) Factors relevant to assessing whether a group of contracts are part of the same arrangement include:
   • if negotiation or execution of the contracts occurs within a short time frame of each other;
   • making the fee for one or more contracts subject to a refund or other concession if another contract is not completed satisfactorily;
   • where one or more elements in one contract are essential to the functionality of an element in another contract;
   • where payment terms under one contract coincide with performance criteria of another contract.

(c) Therefore, while breaking the various elements out into separate contracts may be a factor in support of the supplier’s position that the elements within each contract are unrelated, if in reality, the contracts are negotiated at around the same time,
and/or the customer insists upon making payment of the licence fee conditional upon successful completion of the other elements (e.g. installation of the software on the customer’s platform or the performance of other professional services), it is likely that the various elements would be viewed as part of the same arrangement, and accounted for as a multiple element arrangement in accordance with SOP 97-2.

10.4 Multiple-element arrangements and VSOE

(a) If an arrangement includes multiple elements, the fee payable for the entire arrangement must be allocated to each of the various elements, based on VSOE of fair value for each element, and regardless of any separate prices stated within the contract for each element. The fee payable for each element must be recognised as revenue when all of the criteria for revenue recognition have been met with respect to that particular element.

(b) One of the key difficulties with VSOE is that it is narrowly defined, and can therefore be difficult to establish. Under SOP 97-2, VSOE is limited to either (i) the price charged when the same element is sold separately; or (ii) for an element not yet sold separately, the price established by the supplier’s management with the appropriate authority – it must be probable that the price, once established, will not change before introduction into the marketplace.

(c) It should be noted that evidence specific to the supplier is required – evidence of prices charged for similar products by competitors cannot be taken into account. Additionally, the prices stated in a contract (or group of related contracts) as being payable for each separate element, or the supplier’s list prices for each element, are not enough, in themselves, to establish fair value – the supplier must normally have historical evidence of selling each element at those prices.

(d) If fair value cannot be established for any particular element then, unless one of the exceptions described at Section 10.4(e) applies, recognition of the entire fee for all elements (including any deliverables or services to be provided under separate but related contracts) must be deferred until the earlier of the point at which (a) such evidence exists, (b) all elements of the arrangement have been delivered, or (c) evidence of fair value exists
for the undelivered elements in line with the ‘residual method’ referred to in Section 10.4(f).

(e) **Exceptions:** There are a limited number of exceptions to this general rule. The most important of these are that:

- if the only undelivered element is maintenance and support (‘post-contract customer support’ or ‘PCS’, in the language of SOP 97-2), the fees for the entire arrangement should be recognised on a straight-line basis over the contract term; and
- if the only undelivered element consists of services that do not involve significant production, modification or customisation of software, the deferred amount should be recognised over the period during which the services are expected to be performed;\(^{30}\)

(f) **SOP 89-9 and residual method:** There may be circumstances in which VSOE of fair value exists for each of the undelivered elements of an arrangement, but not for one or more of the delivered elements. A common example of this is where the arrangement involves the licensing of a supplier’s software product, together with the provision of PCS for the first year of the licence term. Many suppliers do not license their software without PCS for the first year. VSOE of fair value for PCS may exist, based on the price at which PCS in subsequent years is sold on its own. However, because software licences are never sold without the first year’s PCS, VSOE of fair value for the software licence cannot be established. Under SOP 97-2, the fee for the entire arrangement (including the fees for any elements for which VSOE existed) would have to be recognised over the term of the PCS arrangement.

(g) To address this issue, a further exception to the general deferment rule was introduced by SOP 98-9. This exception, referred to as the residual method, applies where fair value can be established for the undelivered element, but not the delivered elements. In these circumstances, the amount representing fair value for the undelivered elements is deferred and recognised in accordance with SOP 97-2, and the difference between that amount and the total fees payable – the residual element – is recognised as the revenue attributable to the delivered elements. In the above example,

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\(^{30}\) Paragraph 12 of SOP 97-2 sets out a full list of exceptions to the general deferment rule.
this would allow the customer to recognise the licence fee up front (provided the other revenue recognition criteria had been satisfied).

10.5 Specified and unspecified upgrades

(a) For revenue recognition purposes, an important distinction exists between rights in a customer contract to specified and unspecified software upgrades. As noted in Section 10.2, a commitment by the supplier to deliver specified upgrades at some point in the future will be treated as a separate element in a multiple-element arrangement for revenue recognition purposes, and should be accounted for as a separate element of the arrangement, meaning that VSOE of fair value would need to be established for that upgrade. This is the case, even if the supplier’s obligation is limited to providing the specified upgrade on an ‘if-and-when available’ basis. Unspecified upgrades, on the other hand, are considered to be part of PCS, to be accounted for in accordance with the rules described in Section 10 below. Because the accounting treatment for each is significantly different, suppliers should be clear prior to contract signature as to whether any commitments given in relation to the provision of upgrades or enhancements are for specified or unspecified upgrades.

(b) Meaning of specified upgrade: Generally, where any of the documentation in a contract includes a commitment by the supplier to deliver an upgrade containing certain specific features or functionality (even on an if-and-when available basis) it is likely to be considered a commitment to deliver a specified upgrade.

(c) Commitments given in RFPs: For the supplier, it is important to remember that statements and commitments regarding the provision of such upgrades can, and frequently are, contained in non-contractual documentation, such as the supplier’s formal response to the customer’s request for proposal (‘RFP’). Where the supplier’s formal response (or parts of it) are to be incorporated in the contract, the supplier should ensure that the response is carefully reviewed before contract signature, both from a general commercial and legal perspective, and to ensure that there are no references to future upgrades containing particular features or functionality, and which might affect the supplier’s ability to recognise revenue.
(d) **Marketing materials and product roadmaps**: The same point applies in relation to any marketing materials used by the supplier, and to the disclosure to customers, during the sales process, of any internal product roadmaps – where these are disclosed, they should contain disclaimers making clear that the supplier is giving no commitment that the products and upgrades referred to on the roadmap will be delivered.

10.6 **Changes in law etc**

(a) It is not uncommon for a customer to request in the contract a commitment from a supplier to provide upgrades to take account of any legal or regulatory changes that might affect the use of the software, and/or to provide upgrades to maintain interoperability with future versions third party applications. Any such commitments will, of course, need to be carefully reviewed from a commercial and legal standpoint to ensure that the scope of the commitment is clearly defined, and that any costs likely to be incurred by the supplier in developing and providing those upgrades are recoverable from the customer or have been factored into the original price. In addition, the supplier should ensure that any such commitment given does not give rise to revenue recognition difficulties.

(b) There is no hard and fast rule for determining whether the commitment relates to an unspecified upgrade (which can generally be accounted for as part of PCS) or a specified upgrade (which must be accounted for as a separate element of the arrangement), and each case needs to be analysed on its own facts. However, generally, where a commitment is given in relation to future, unknown changes in regulation or law, or in relation to future, unspecified changes to third party software, it is likely that these would be accounted for as unspecified upgrades; if on the other hand, a commitment is given in relation to changes in law which are known and/or are due to come into force in the near future, this may amount to a specified upgrade, to be accounted for as a separate element. This is the case even if the commitment is given as part of PCS.

11. **POST-CONTRACT CUSTOMER SUPPORT AND OTHER SERVICES**

11.1 **General**: Many software arrangements involve the provision of services, in addition to the licensing component. These services can include
implementation, software design and development, customisation, training and PCS.

11.2 Post-contract Customer Support:

(a) PCS typically includes the right to remote support and maintenance and/or the provision of unspecified upgrades if and when they are released by the supplier during the term of the PCS. Fees relating to PCS, whether sold separately or as part of a multiple-element arrangement, are generally accounted for on a straight-line basis over the PCS period.

(b) **PCS as part of a multiple-element arrangement:** Where PCS is part of a multiple-element arrangement, the fair value for the PCS element should be determined by reference to the price which the customer will be required to pay when it is sold separately (the renewal rate for example). In most cases, the portion of the fee allocable to PCS should be recognised on a straight-line basis over the term of the PCS arrangement 31.

(c) **If no VSOE:** If VSOE of fair value does not exist for the separate elements, and the only undelivered element in an arrangement is PCS, the entire fee should be recognised on a straight-line basis over the term of the PCS arrangement.

11.3 Other services

(a) For arrangements involving the provision of software and services (other than PCS, which is accounted for as set out above), the most important consideration for the supplier is whether the services can be accounted for separately from the licensing component.

(b) **Services accounting or contract accounting:** If the services cannot be accounted for separately, all elements – the software licence and the services – should be accounted for using the ‘contract accounting’ method referred to in Section 12 below, meaning that none of the revenue (including the licence fee) can be recognised up front. If, on the other

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31 In some circumstances, PCS revenue may be recognised up front, at the same time as the licence fee. For this to apply, the following criteria must be met: (i) the PCS fee must be included with the initial licence fee; (ii) the PCS included with the initial licence fee must not exceed 12 months; (iii) the estimated cost of providing the PCS must be insignificant; and (iv) upgrades provided in the past as part of PCS have been infrequent (and this is expected to continue).
hand, the services can be accounted for separately from the other elements of the arrangement, the revenue attributable to the services element should be recognised as and when the services are performed\(^{32}\). The revenue attributable to the licensing component should be recognised in accordance with SOP 97-2 (i.e. when each of the four criteria has been met for the software) meaning that the licence fee can potentially be recognised up front, and separately from the services elements of the arrangement.

(c) **Criteria to be met for separate services accounting:** In order for the supplier to be able to account separately for the services elements, three criteria must be met:

- VSOE of fair value for each of the elements must exist (as outlined in Section 10);
- the services must not be ‘essential’ to the functionality of any other element of the transaction; and
- the services must be described in the contract such that the total price of the arrangement would be expected to vary as a result of the inclusion or exclusion of the services (in other words, the services must be of value to the customer).

(d) **Services essential to software functionality etc:** In many cases, the key issue will be determining whether the services are ‘essential’ to the functionality of the software. Factors which might indicate that this is the case include:

- if the software is not off-the-shelf – broadly SOP 97-2 makes a distinction between core and off-the-shelf software: the former is not sold ‘as-is’, and requires significant customisation before it can be used by the customer; the latter can typically be used by the customer with little or no customisation;
- the services include significant changes to the features and functionality of off-the-shelf software;
- building complex interfaces is required for the supplier’s software to be functional in the customer’s environment;
- the timing of payments for the software coincides with performance of the services; and

\(^{32}\) Or, if no pattern of performance is discernible, on a straight-line basis over the period during which the services are performed
• milestones or customer-specific acceptance criteria affect the supplier’s ability to collect the licence fee\textsuperscript{33}.

(e) **Services not essential to software functionality:** The following factors are indicators that the services may not be essential to the functionality of the software, and that the services element can therefore be accounted for separately to the licensing fee:

- The services are available from other suppliers;
- The services do not carry a significant degree of risk or unique acceptance criteria;
- The supplier is primarily providing implementation services, such as implementation planning, loading of software, training of customer personnel, data conversion, building of simple interfaces, running test data, and assisting in the development and documentation of procedures.

(f) Because the timing of payments can affect whether a service is seen as essential to the software functionality (and can therefore affect whether the licence fee can be recognised up front on delivery), many suppliers are reluctant to link payment of any part of the licence fees to completion of services due under the contract (or group of related contracts). Ultimately, this will be a matter for negotiation between the parties, and is likely to be a key issue for the customer if it considers that delivery of the services are necessary to enable it to make proper use of the software.

12. **CONTRACT ACCOUNTING**

12.1 **General:** As noted above, if the arrangement to deliver software or a software system, either alone or with other products or services, requires significant production, modification or customisation of the software, or if the arrangement includes any services which are essential to the functionality of the software, the entire arrangement should be accounted for using the contract accounting method\textsuperscript{34}.

\textsuperscript{33} As noted earlier, services involving “significant production, customisation or modification” of the software will generally always considered essential to the functionality of the software provided, and the entire arrangement must therefore be accounted for using the contract accounting method.

\textsuperscript{34} In accordance with ARB No.45, *Long-Term Construction-Type Contracts*, and the guidance in SOP 81-1.
12.2 Percentage-of completion method or completed-contract method: In applying the contract accounting method, the supplier must use either the ‘percentage-of-completion’ method, or the ‘completed-contract’ method. Under SOP 81-1 (the relevant guidance for these types of contract), the percentage-of-completion method should normally be used when reliable estimates of the costs to complete the services, and the extent of progress toward completion, can be made. Where such estimates are not available, the completed-contract method should be used. With the percentage-of-completion method, revenue is recognised (and related costs expensed) as progress is made towards completion of the project, irrespective of when payment is made. Under the completed contract method, no revenue should be recognised until the contract is complete.

12.3 Customer-acceptance clauses

(a) SOP 81-1 states that, as a condition of using the percentage-of-completion method, it must be anticipated that both the supplier and the customer will satisfy their obligations under the agreement. Therefore, in addition to the ability to make reasonably dependable estimates when determining whether to apply the percentage-of-completion method or the completed contract method, the supplier should also consider the impact of any customer-acceptance provisions. If there is significant uncertainty around customer acceptance of the software, this may mean that the completed contract method must be used, with the result that no revenue can be recognised until customer acceptance has occurred.

(b) In addition to the factors referred to at Section 7.4, other factors to consider when evaluating the impact of customer acceptance provisions on revenue recognition for contract accounting arrangements include:

- payment terms, and whether a significant portion of the fees are payable on acceptance, or refundable if the acceptance tests are failed;
- the customer’s involvement in the project – generally, the greater the involvement of the customer’s personnel, the less likely it is that acceptance will not occur; and
- the supplier’s history – if the supplier has a history of successfully meeting acceptance criteria in similar contracts, then acceptance may be reasonably assured.
12.4 **Interim agreements:** Where (as is often the case for software transactions involving significant service components) it is the supplier’s standard practice to enter into written contracts then, as noted in Section 6 above, the requirement to provide persuasive evidence of an arrangement will not be satisfied until the contract has been signed by both parties. It is not uncommon however, for the customer to require the supplier to start work before the contract is finalised. In these circumstances, the supplier is typically paid on a time and materials basis for the work provided, and the parties will agree a short form interim agreement. Where this approach is taken, the interim agreement should provide sufficient evidence of the arrangement, until replaced by the signed contract.

13. **APPLICATION SERVICE PROVISION AND OTHER HOSTING ARRANGEMENTS**

13.1 **General:** Hosting arrangements, such as application service provision (ASP), and software as a service (SaaS), under which the supplier hosts the software on its own (or a third party’s) servers and provides access to the customer via the internet or a dedicated line, are now commonplace in the software industry. Most hosting arrangements will have two components to the revenue stream – an up-front payment to cover the licence and set-up fee, and an ongoing service fee to cover hosting.

13.2 **Application of SOP 97-2:** As noted in Section 4, SOP 97-2 will apply to hosting arrangements only if (i) the customer has the right to take possession of the software at any time during the hosting period, without “significant penalty”, and (ii) it is feasible for the customer to run the software on its own hardware (or that of a third party) without significant penalty. For these purposes the term ‘penalty’ refers to significant monetary costs and/or significant diminution in value or utility of the software, rather than the imposition in the contract of a compensation payment if the customer elects to take possession.

Where these criteria are met, so that SOP 97-2 applies, the supplier should be able to recognise that portion of the fee related to the licence and set-up on delivery, with the portion of the fee related to the hosting element being recognised on a straight-line basis as the service is provided (and assuming all other criteria are met).

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35 EITF 00-03, *Application of AICPA SOP 97-2 to arrangements that include the right to use the software stored on another entity’s hardware.*
13.3 If SOP 97-2 does not apply: If the supplier is unable to demonstrate that the criteria in Section 13.2 have been met, then the supplier would need to account for the hosting arrangement using a services accounting model. This will normally mean that none of the fee will be recognised up front, and instead the entire fee recognised as earned (probably on a daily basis).

Therefore, where the supplier wishes to be able to recognise revenue relating to the licence fee and set-up services, up front rather than on a straight line basis during the term of the hosting arrangement, it should consider (i) requiring the customer, where possible, to provide evidence that it will be able to run the software on its own or a third party’s hardware, without significant costs or reduction in use of the software, and (ii) including in its customer contracts a warranty or representation from its customers that it is able to do so.

14. IDENTIFICATION OF LIKELY ISSUES

14.1 General: In situations where you are looking at a potential target or assessing a competitor’s performance, there are certain indicators within a company’s financial statements which might indicate aggressive revenue recognition. Such indicators do not always indicate a problem but they are worth further investigation.

14.2 Vague revenue recognition policy: The first of these is a vague revenue recognition policy. Technology companies who have thought through all of the issues associated with revenue recognition tend to disclose reasonably detailed policies using many of the terms set out within SOP97-2. If the policy is bland or very general, it may indicate that the policy has not been carefully considered or recently updated.

14.3 No change in policy following changes to business model: If the company’s business model has changed so that it is selling either new products or services or through different channels, then you would expect some modification of the revenue recognition policy. An unchanged policy in such circumstances may indicate that the accounting has not kept up with business reality and that the revenue recognition policy adopted might be inappropriate. In an acquisition situation where you have access to management, this can be tested by ascertaining what level of knowledge accounting staff have regarding the company’s products, terms of business and customers. The less detailed the
knowledge, the more likely there are to be issues with the revenue recognition policy adopted.

14.4 **Accrued income and trade receivables:** High levels of accrued income within a company’s financial statements may well be indicative of aggressive revenue recognition as might abnormally high trade receivables. Delays in collecting cash often arise because the customer has not received everything they think they should and partial deliveries or quality issues have revenue recognition implications.

14.5 **High trade receivables:** High trade receivables may arise because of the phasing of revenues with larger than usual revenues in the last month (or even the last few days!) of the year. Whilst such patterns are not uncommon within high technology companies, reliance on last minute sales to meet revenue targets greatly enhances the likelihood that deals have been done and additional incentives offered. This increases considerably the complexity of revenue recognition and the likelihood that revenue should be deferred for returns, lack of formal acceptance or undelivered elements.

14.6 **Low deferred revenue balances:** For companies with significant revenue streams for maintenance or subscription arrangements, relatively high levels of deferred revenue would be expected. If the deferred revenue balances appear low or have decreased compared to the prior period, then this is worthy of further investigation.

14.7 **Start-ups:** Finally, companies which are either start-ups or relatively small compared to their customers are unlikely to able to impose their own standard terms of business and so face the additional complexity of having to assess the revenue recognition implications of every contract separately. Such companies also often lack the skills and resources to do this and may rely on external advisors or an over simplistic revenue recognition matrix. The policies of such companies should be subjected to careful scrutiny.

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