Technical Guide on

Revenue Recognition for Software

Research Committee
THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
(Set up by an Act of Parliament)
NEW DELHI

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Foreword

The software sector plays a pivotal role in the overall economic development of the country. India is a country where the software industry has developed so rapidly that it has made India one of the world's most powerful software manufacturers and exporters. As a result, the size of the industry both in terms of number of players operating in the sector and the scale of revenue is increasing. In the changing scenario, a need was being felt for bringing out a pronouncement to address the industry-specific accounting issues relating to revenue recognition of software with a view to bring about establishment of sound accounting practices. It is heartening to note that the Research Committee has formulated this 'Technical Guide on Revenue Recognition for Software'. I would like to congratulate Shri Harinderjit Singh, Chairman, Research Committee, and other members of the Research Committee for formulating this Technical Guide.

I hope that this endeavour of the Research Committee will go a long way in establishing sound accounting practices and provide guidance to the members as well as to the others concerned.

New Delhi

Ved Jain
President

Preface

A variety of revenue recognition principles are being followed in the Software Industry. There is a need for establishing uniform and sound accounting principles for revenue recognition of various types of contracts entered into by the software companies. Therefore, the Research Committee of the Institute of Chartered Accountants of India has decided to bring out this Technical Guide.

The Technical Guide provides guidance on application of the principles of Revenue Recognition, to various types of revenue relating to the software industry including guidance on accounting of revenue for customised software, off-the-shelf software, multi-element contract, postcontract customer support (PCS), non-PCS service, arrangement with resellers and application service providers.

I would take this opportunity to place on record my sincere appreciation for the contribution made by CA. Gargi Ray, special invitee on the Research Committee, for preparing the basic draft of the Technical Guide and CA. Sunder Iyer, member of the Research Committee, for giving invaluable comments and suggestions on the draft of Technical Guide.

I firmly believe that this Technical Guide will go a long way in establishing the much needed software industry specific revenue recognition accounting principles.

New Delhi

CA. Harinderjit Singh
Chairman
Research Committee

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Introduction

1.1 Determination and reporting of revenue are the critical aspects of revenue recognition. The timing of revenue recognition (i.e. the accounting period in which the sale is recorded in the financial statements) is critical to determine net profit or loss for an accounting period. Many of today's revenue generating transactions are complex and involve considerable uncertainty. Accordingly, the implementation of the revenue recognition principles is no longer considered a routine matter. The area requires considerable judgment.

1.2 Recognising the need for establishing uniform and sound accounting practices for revenue recognition of various types of contracts entered into in the Software industry, Research Committee of the Institute of Chartered Accountants of India has decided to bring out this Technical Guide on Revenue Recognition of Software.

1.3 Accounting Standard (AS) 9, *Revenue Recognition*, inter-alia, states that, revenue recognition is the recording of the sales in the financial statements of an enterprise. Paragraph 4 of AS 9 defines, 'Revenue' as the gross inflow of cash, receivables, or other consideration arising in the course of the ordinary activities of an enterprise from the sale of goods, from the rendering of services, and from the use by others of enterprise resources yielding interest, royalties and dividends. Paragraph 7 of AS 9 inter-alia states also that revenue from service transactions is usually recognised as the services are performed.

SCOPE OF THE TECHNICAL GUIDE

1.4 The Technical Guide deals with the following aspects of revenue recognition

- General description of the type of contracts and their nature
- Evaluation of revenue recognition criteria
- Revenue recognition when right of return exists
- Customised software
- Multiple-Element arrangements
- Postcontract Customer Support (PCS)
- Non- PCS Services
- Arrangements with resellers
- Application Service Providers

1.5 This Technical Guide does not apply, however, to revenue earned on products or services containing software that is incidental to the products or services as a whole. Indicators of whether software is not incidental to a product or services, as a whole include, but are not limited to:

(a) Software being a significant focus of the marketing effort or is sold separately,

(b) Vendor providing postcontract customer support, and

(c) Vendor incurring significant costs on creating or developing the software.

A mobile has a software installed in it. This software is not updated with new versions of mobiles getting released. It is not marketed separately.

Software is incidental to the product. Hence, no portion of the revenue would be recognised for the software separately.

Training materials are developed and stored on a CD and marketed for an educational course. These contain interactive questions and adjust the level of questions according to the need of the user. The entire course is marketed as a product. The product focuses on the software-reliant interactive features and is marketable separately. Hence, this software is not incidental to the product and revenue could be recognised separately.

GENERAL DESCRIPTION OF CONTRACTS IN SOFTWARE INDUSTRY

1.6 Contracts entered into in the software industry are of a special nature and revenue recognition varies in each type. Broadly, contracts may be classified into the following categories:

Application Development and Maintenance Services

1.7 Companies often commit significant information technology (IT) resources (e.g. people, applications, facilities, technology, etc.) to develop, acquire and maintain application systems that are critical to the effective functioning of key business processes. These systems, in turn, often control critical information assets and should be considered an asset that needs to be effectively managed and controlled. IT processes for managing and controlling these IT resources, and other such activities are part of a life cycle process with defined phases applicable to business application development, deployment, maintenance and retirement. In this process, each step or phase in the life cycle is an incremental step that lays the foundation for the next phase for effective management control in building and operating business application systems.

1.8 An application is an integrated set of software programs that provide the functionalities to realise the key business expectations of a particular functional area or business process. The implementation process for business applications begins when an individual application is initiated as a result of one or more of the following situations:

- A new opportunity that relates to a new or existing business process.
- A problem that relates to an existing business process.
- A new opportunity that will enable the organisation to take advantage of technology.
- A problem with the current technology.

Application Development

1.9 Development is the service by which user requirements are elicited and software satisfying these requirements is designed, built, tested and delivered to the customer. Development service is used when a new application is being developed or a major enhancement is being done to an existing application. The stages in application development include feasibility requirements, design, selection (in case of packaged systems), development, configuration (in case of packaged systems), and implementation and post-implementation.

Application Maintenance

1.10 Application maintenance refers primarily to the process of managing change to application systems while maintaining the integrity of both the production source (original source code) and executable code. Once a system is moved into production, it seldom remains static. Change is an expected event in all systems regardless of whether they are vendor-supplied or internally developed and, hence, application maintenance is required.

1.11 Maintenance is the service of enhancing and optimising deployed software as well as correcting defects. Software maintenance phase involves changes to the software in order to correct defects and deficiencies found during field usage as well as the addition of new functionality to improve the software's usability and applicability to address the changed requirements. Scope of the maintenance could include one or more of the following:

- *Major enhancements* – They have impact on a large section of the system. These typically involve addition of new modules, interfaces, data tables and modification to existing system components for seamless integration. Typically, it will follow development life cycle stages apart from some addition like impact analysis or regression testing, etc.

- *Minor enhancements* – They have minor impacts on the system functionality. These result in modification of a program or a set of programs or new programs or simple database changes.

- *Bug-Fix* – They do not involve any functionality change and do not have any impact on the system. Many a times writing few lines of code or doing minor modifications to existing programs would suffice to fix the bug.

- *Level 3(L3) Production support* – It is the group of activities done to support existing application(s) in the production/QA environment, sometimes referred as production parallel environment. The objective of such a support is to ensure the availability of the existing application(s) for the users of the applications. A sub-set of these activities is also directed towards, providing application and user support (for L3 activities only), analysing problems and conducting user acceptance test (UAT), migration of new enhancements from development environment to the production/QA environment. It can also be of various kinds like batch support (data processing in batches), research, data migration, performance improvement, code clean up, etc.

1.12 Level 3 definition does not include Level 1 and Level 2 support activities which are the basic level support activities.

Business Process Management (BPM)

1.13 It is a systematic approach to improving an organisation's business processes. BPM activities seek to make business processes more effective, more efficient, and more capable of adapting to an ever-changing environment. BPM is a sub-set of infrastructure management, the administrative area of concern dealing with maintenance and optimisation of an organisation's equipment and core operations. A business process is a set of coordinated tasks and activities, conducted by both people and equipment that will lead to accomplishing a specific organisational goal.

Information Management (Business Intelligence)

1.14 It is a broad category of applications and technologies for gathering, storing, analysing, and providing access to data to help users make better business decisions. Information Management applications include the activities of decision support systems, query and reporting, online analytical processing (OLAP), statistical analysis, forecasting, and data mining.

1.15 Information Management applications can be:

- Mission-critical and integral to an enterprise's operations or occasional to meet a special requirement.
- Enterprise-wide or local to one division, department, or project.
- Centrally initiated or driven by user demand.

Consulting Services

1.16 Consulting Services comprise advisory services to help clients assess various options, redesign and rebuild their operations, enhance their business, or financial process or technology performance, impact their financial performance, address competitive needs, help them take informed decisions and enable them to meet their business objectives. Consulting services typically involve definition and design of solutions. The list of services may include

- Business or Management Consulting
- Business Strategy, including Transformation Strategy and
  - Operational Strategy
  - Change Management Strategy
  - IT Strategy
  - Sourcing Strategy
- Process Consulting
  - Process Evaluation and Process Outsourcing Approach
  - Process Reengineering and Process Design
  - Quality Consulting
- Technology Consulting
  - IT Architecture – Enterprise Architecture, SOA
  - Technology Evaluation
  - Package Evaluation
  - Infrastructure Consulting
  - Application and Infrastructure Portfolio Management

  - Business Intelligence (BI) Consulting including Corporate Performance Management

- Industry Specific Solutions

Engineering Services

1.17 Engineering services are offered to organisations that are primarily engaged in:

- Developing Products, Systems/Sub-systems and/or Platforms

- Providing Engineering Services including System design, Engineering and Integration

- Technology Programs, Missions and Activities

- Developing and Managing Engineering Assets and Infrastructure

1.18 The key activities include –

- *Strategic Planning for Technology Programs/Activities*. Services required under this involve the definition and interpretation of high-level organisational engineering performance requirements such as projects, systems, missions, products etc., and the objectives and approaches to their achievement. Typical associated tasks include, but are not limited to an analysis of mission, program goals and objectives, requirements analysis, organisational performance assessment, special studies and analysis, training, localisation/ internationalisation and outsourcing.

- *Research and Development Activities* including basic and advanced research covering typical areas such as materials, methods, processes and technologies.

- *Concept Development and Requirement Analysis*. Services required under this involve abstract or concept studies and analysis, requirements definition, preliminary planning, the evaluation of alternative technical approaches and associated costs for the development or enhancement of high level general performance specifications of a product, system, project, mission or activity. Typical associated tasks include, but are not limited to requirements analysis, cost/cost-performance trade-off analysis, feasibility analysis, regulatory compliance support, technology conceptual designs and architecture and training.

- *Product/System Design, Engineering, Integration, Prototyping and Support for Manufacturing*. Services required under this involve the translation of a system (product or subsystem, program, project, activity) concept into a preliminary and detailed design (engineering specifications, engineering design and embedded platform/software), performing risk identification /analysis /mitigation, traceability, and then integrating the various components including embedded software to produce a working prototype or model of the system. Typical associated tasks include, but are not limited to computer-aided design, embedded software development, design studies and analysis, high level detailed specification preparation, design data management/configuration management and document control, fabrication, assembly and simulation, modeling, training and outsourcing.

- *Test and Evaluation*. Services required under this involve the application of various techniques demonstrating that a prototype system (sub-system, program, project or activity) performs in accordance with the objectives outlined in the original design. Typical associated tasks include, but are not limited to testing of a prototype and first article(s) testing, environmental testing, independent verification and validation, reverse engineering, simulation and modeling (to test the feasibility of a concept), system safety, quality assurance, software functionality, physical testing of the product or system, training, internationalisation/ localisation and outsourcing.

- *Product/System Sustenance and Lifecycle Support.* Services required under this involves the analysis, planning and detailed design of all engineering specific logistics (example hardware and software requirements)/ production support including material goods, personnel, and operational maintenance and repair of systems throughout their life cycles. Typical associated tasks include, but are not limited to ergonomic/human performance analysis, feasibility analysis, logistics planning, requirements determination, policy standards/ procedures development, long-term reliability and maintainability, training, and outsourcing.

- *Acquisition and Lifecycle Management.* Services required under this involve managing product information and definition across the entire lifecycle right from ideation, requirements, design, manufacturing, to end of life including configuration/ change management. The services for *manufacturing* include process design, manufacturing execution and systems to monitor, track, control process and analyse data for decision support. The *asset management* activities comprise of planning, budgetary, contract and other systems/program management functions required to procure and/or produce, render operational and provide life cycle support (maintenance, repair, supplies, and engineering specific logistics) to technology-based systems, activities, sub-systems, projects, asset/ infrastructure etc. Typical associated tasks include, but are not limited to operation and maintenance, program/ project management, technology transfer/insertion, training, and outsourcing.

Infrastructure Management (IM)

1.19 IT Infrastructure ("the plumbing") is defined as the sum of an organisation's IT related hardware, software, data telecommunication facilities, procedures, policies and documentation. It refers to the equipment, networks, software, data centers, desktops, and accompanying applications, as well as the services people use to access, create, disseminate, and utilise digital information. It includes all IT assets used in storing, securing, processing, transmitting, and displaying all forms of information. The significant objectives of IM are to ensure availability, performance, compliance and security for the organisation's IT assets, so that the business applications and business processes run smoothly. Key functions of IM include design functions like sizing, capacity planning and Disaster Recovery and Business Continuity Plan (DR/BCP), consolidation strategies, as also supporting large global operations on a 24x7 basis across countries and continents.

1.20 Engagements usually involve design and operations management as well as process and technology transformation yielding order-of-magnitude benefits in costs and overall services to business. Key IM services include datacenter management (servers, hosting, storage, collaboration platforms), network management (design and operation of switches, router, firewall, VPN, voice equipment for both telecoms and enterprise networks) and application operations (24x7 support, Level 1/Level 2 support, middleware support, environment management, service desk, configuration management).

1.21 In addition, there are various specialised areas including Infrastructure Optimisation and Consolidation, Performance Engineering and Capacity Planning, Mission-critical Server and Network Configuration, Network Audit, Integration, Identity Management, Migration (Platforms, domains, databases), Security (operations setup, policy, advisory, implementation), Network Operations Centers (global command centers with plasma screens and round-the clock monitoring and management), Network Testing, Enterprise Operations Support (SAP Basis etc), Enterprise

Systems Management tools design and implementation, IT Service Management (Infrastructure operations) Process consulting, based on industry best-practices, IT Controls and Compliance Management Consulting, implementing solutions around Information Risk Management and Assure IT, IT Infrastructure Off-shoring Transition Management, Consolidation /Convergence consulting (data centers, networks, platforms, tools), and Virtualisation.

Package Implementation

1.22 This comprises a broad set of activities supported by multi-module application software that helps a manufacturer or other business manager to manage the important parts of its business, including product planning, parts purchasing, maintaining inventories, interacting with suppliers, providing customer service, and tracking orders. It can also include application modules for the finance and human resources aspects of a business. Typically, any package uses or is integrated with a relational database system. The deployment of a package can involve considerable business process analysis, employee retraining, and new work procedures.

Validation Services (Testing)

1.23 Validation is a process of exercising and evaluating the software system or its component under specified conditions to verify that it satisfies specified requirements and to detect defects. Usually, the requirements include such topics as functional correctness, completeness, security, availability, reliability, efficiency, portability, maintainability, compatibility, and usability.

2

Revenue Recognition Criteria

2.1 Software arrangements range from those that provide a license for a single software product to those that, in addition to the delivery of software or a software system, require significant production, modification, or customisation of software. The principles of AS 9, Revenue Recognition, are applicable to all types of software arrangements. Softwares are generally of two major types namely ‘off-the-shelf software’ and ‘customised software’. Off-the-shelf software is software marketed as a stock item that customers could use with little or no customisation. Software should be considered off-the-shelf software if it can be added to an arrangement with insignificant changes in the underlying code and it could be used by the customer simply upon installation. Software developed as per customer specification is referred to as customised software. This chapter deals with general criteria for recognition of revenue; specific situations for recognition of revenue have been dealt in the subsequent chapters.

2.2 Paragraph 5 of AS 9, states that the amount of revenue arising on a transaction is usually determined by agreement between the parties involved in the transaction. Generally, in software industry an agreement is considered to have come into existence when there is an evidence of an arrangement in this regard.

AGREEMENTS IN A SOFTWARE INDUSTRY

2.3 Generally, a written contract signed by two parties is considered as an evidence of an arrangement. However, practices vary in the software industry regarding the use of written contracts. Evidence of an arrangement should generally be consistent with the vendor's customary business practices.

2.4 Vendors ordinarily have formal written policies defining what constitutes an arrangement in their business. These policies should be applied consistently in determining what constitutes an evidence of an arrangement. The evidence of an arrangement should generally be the final form of the arrangement (i.e. drafts, letters of intent, etc., would not satisfy the requirement).

2.5 Customary business practice plays an important role in determining whether an evidence exists. Vendor's customary practice for documenting contracts may vary among the customer groups. In that case it may be necessary for the vendor to document each method as to what constitutes evidence of an arrangement for each customer group.

> If the vendor's practice is to ship its product after receiving an online authorisation from the customer, this may then constitute an acceptable evidence of an arrangement. If the vendor usually signs a written agreement then an online-authorisation or signing the purchase order may not suffice for revenue recognition purposes. Written contracts should generally be signed by both the parties before the Balance Sheet date prior to revenue recognition. Contracts that are signed after the balance sheet date and back-dated to "as of" or "effective as of" the balance sheet date may not constitute acceptable evidence of arrangement.

> The vendor's third quarter ends on December 31. The vendor customarily obtains signed contracts from its customers for each software order. The customer calls on December 29 to say that

it has just obtained 100 new computers and would like to order 100 copies of a software product from the vendor. As a result of the proximity of the order to quarter's end, a signed licensing contract is not entered into until after the end of the quarter, even though the vendor ships the software to the customer on December 30. In lieu of a signed contract, the vendor obtains a "non-cancelable letter of understanding" from the customer, which includes the significant terms and conditions of the licensing arrangement and states that the parties agree to finalise a mutually acceptable licensing contract within a certain period of time after the delivery of the software. The vendor's customary business practice is to obtain written contracts.

Does evidence of an arrangement exist on December 31?

If the vendor intends to obtain a signed licensing contract or has a business practice of obtaining a signed contract, the only acceptable evidence of an arrangement can be a contract signed by both the customer and the vendor. Distinguishing between terms that are significant and those that are insignificant may not be appropriate in an assessment of whether the evidence exists; therefore, in this case, the evidence does not exist as of December 31.

Master Agreements

2.6 Master agreements define all of the basic terms and conditions for transactions between the parties and will be signed by both parties. To obtain the products under the master agreement, the customer may need to issue a second communication in the form of a purchase order or send an electronic request that will specify the software products, quantities, and requested delivery date. In these cases, the master agreement and the additional communication would constitute the total arrangement. The vendor would have to determine what the customary business practice is for the second communication in order to establish whether a valid arrangement has been entered into.

> Assume that on June 30 the vendor receives a purchase order for Product X that exceeds the number of units covered by the master agreement. Does the evidence of arrangement exist on June 30?
>
> It is not likely that the evidence exists on June 30 for the units that exceed the authorised amount in the master agreement. If the vendor and the customer intend to enter into a new master agreement for future transactions and such an arrangement has yet to be finalised, for the portion of the shipment that exceeds the volume specified in the existing master agreement the evidence of arrangement may not be considered to have come into existence.

Side Agreements

2.7 Master agreements may be complemented with side agreements including cancellation, termination or other provisions that affect revenue recognition and, therefore, should also be carefully studied.

GENERAL CRITERIA FOR REVENUE RECOGNITION

2.8 Generally, revenue is recognised when all the following conditions are met:

(a) Significant risks and rewards of ownership have been transferred to the buyer, which in software industry are generally considered to be transferred when the delivery has occurred,

(b) The seller's price to the buyer is fixed or determinable, and

(c) Collection is reasonably assured.

DELIVERY HAS OCCURRED

2.9 One of the conditions is that revenue cannot be recognised until significant risks and rewards of ownership have been transferred to the buyer which may be considered to be transferred by occurrence of delivery. Delivery means a transfer of software accompanied by documentation to the customer. The transfer may occur in one of the following ways:

(a) A physical transfer of tape, disk, integrated circuit, or other medium.

(b) Electronic transmission.

(c) Making available to the customer software through facilities such as a computer service bureau.

2.10 If one or more undelivered elements are necessary for functionality of delivered product or element, then delivery may be considered to be complete after the delivery of such undelivered elements.

DELIVERY UNDER VARIOUS KINDS OF ARRANGEMENTS

Bill and Hold Arrangements

2.11 Delivery is delayed at buyer's request although buyer takes title and accepts billing. Assuming other revenue recognition conditions are satisfied, revenue is recognised if all the following indicative conditions are met:

- Risks have passed on to the buyer.
- Buyer has made a fixed commitment to purchase and buyer has requested for a bill and hold arrangement.
- Fixed schedule for delivery of the goods exists.

- Seller does not need to perform any specific performance obligation.

- Inventory on hand is identified and ready for delivery to the buyer.

Multiple Copies of Software

2.12 In these arrangements either the customer has the right to use multiple copies of a software product under a site license or the vendor sells multiple copies of a product to a reseller for a fixed fee.

2.13 In case of multiple copy arrangements, revenue is recognised upon delivery of the first copy or the product master, provided other conditions for revenue recognition are satisfied. The duplication of software is incidental to the delivery of the first copy. The estimated costs of duplication should be accrued at that time.

A vendor enters into an agreement with the customer whereby the customer pays a non-refundable fee of Rs.100,000 for 1,000 copies of Product D. On June 30, the vendor ships to the customer a fully functional version of Product D on a CD. Pursuant to the terms of the arrangement, the customer may request that the vendor duplicate Product D for branch offices.

Is it appropriate for the vendor to recognise the Rs.100,000 fee on June 30?

It is likely that duplication in this arrangement would be incidental and involve little effort by the vendor. The fee is non-refundable, even if additional duplication is not requested by the customer. The vendor should recognise the Rs.100,000 fees on June 30, provided other conditions for revenue recognition are also satisfied and accrue the estimated costs of duplication.

Multiple Licenses

2.14 Licensing fee is a function of the number of copies delivered to, made by, or deployed by the user or reseller. As duplication is not incidental, revenue is recognised as and when each copy of the single license is delivered provided other conditions for revenue recognition are also satisfied.

Delivery of Licensed Software

2.15 Delivery may be considered to be complete for revenue recognition purposes upon the commencement of the license term even if the license is delivered earlier and payment is also received. In situations where a customer extends/renews a pre-existing, currently active software license for the same product(s), the arrangement fee allocated to the extension/renewal should be recognised when all other revenue recognition criteria are met and not at the commencement of the extension/ renewal period. If the customer's existing license lapses then extension or renewal should be accounted as a new arrangement for the purpose of revenue recognition.

Electronic Delivery of Software Developed

2.16 Assuming that all other criteria are met, revenue recognition is appropriate under arrangements wherein the product will be delivered electronically at the point at which the customer has possession of or full access to the software (whichever comes earlier). Arrangements involving electronic delivery of software often include the use of permanent or temporary "keys" or authorisation codes.

2.17 Authorisation codes, also referred to as "access codes" or "keys", are often used by software vendors to prevent unauthorised access to software and to allow customers' access to otherwise restricted software. Permanent keys may be used to control access to the software, or duplicate the software. Temporary keys may be used for the same purposes and are generally used to enhance the vendor's ability to collect payment or to control the use of software for demonstration purposes.

2.18 Delivery of a key is not necessarily required to satisfy the vendor's delivery responsibility and, therefore, the software vendor may recognise revenue on delivery of the software if all the following indicative factors are satisfied including all other requirements for revenue recognition:

- Customer has licensed the software and the software is fully functional (excluding reproduction through permanent keys or additional keys).

- Payment is not contingent upon the delivery of the keys.

- Vendor has a history of successfully enforcing payments.

2.19 If a temporary key is used to enhance the vendor's ability to collect payment, the delivery of additional keys, whether temporary or permanent, is not required to satisfy the vendor's delivery responsibility if all the above indicative conditions are met and the use of a temporary key in such circumstances is a customary practice of the vendor. However, if the issuance of temporary keys indicate that the software is only for demonstration purposes, it is clear that the fees is not fixed or determinable on delivery and revenue recognition should be postponed.

A vendor enters into an arrangement with the customer for Product C on June 29. The vendor e-mails the customer a fully functional version of Product C on June 29. The customer does not open the e-mail to receive Product C until July 1.

Has the delivery criterion been met on June 29?

The delivery criterion has been met on June 29. The customer has full access to the software on June 29. Assuming that all other revenue recognition criteria have been met, revenue recognition would be appropriate at the point that the customer has full access. The fact that the customer did not utilise such access does not impact the timing of revenue recognition.

A vendor includes ten optional functions on a compact disc (CD-ROM) on which its software product is licensed. Access to those optional functions is not available without a permanent key. Users can order the optional functions and receive permanent keys to enable the full use of those functions.

Although the user has received a fully functional version (except for the keys) of the optional functions on the CD-ROM, the user has not agreed to license them. Because no evidence of an arrangement exists revenue for the optional functions may not be recognised when the CD-ROM is delivered. Revenue for each individual optional function should be recognised by the vendor when the user purchases it by placing an order, evidence of such order exists, and the key is delivered to the user.

Delivery other than at Customer's Location

2.20 This arises in cases where the software is to be physically delivered. Delivery is not deemed to be complete until the software is delivered to customer location or location specified by the customer. When delivery is made to agents, engaged by the vendor, revenue should be recognised only when the software is delivered to customer and not to his agent provided other conditions for revenue recognition are also satisfied.

Delivery when the Seller's Remaining Obligation is Inconsequential or Perfunctory

2.21 Provided other conditions for revenue recognition are also satisfied, revenue can be recognised in its entirety. The obligations are inconsequential provided the failure by seller does not give the buyer the right to reject the delivered products or gets right to refund and there is sufficient evidence that the seller performs these functions reliably and in timely manner.

Delivery Subject to Customer's Acceptance

2.22 Revenue should not be recognised until there is reasonable certainty about customer's acceptance of the software, provided all other revenue recognition criteria are met. In this regard, the following aspects may be noted:

- Revenue recognition may not be deferred for items sold as a standard model which are quality checked.
- If payment terms are tied to customer acceptance, revenue should not be recognised until the payment is made or becomes due.
- If vendor delivers the software for trial and evaluation purposes, the revenue should not be recognised until earlier of formal acceptance of the product or the lapsing of the acceptance time period occurs.
- Generally, formal sign off is obtained for evidencing customer acceptance. However, the same is not always necessary for revenue recognition provided the seller objectively demonstrates that the criteria for acceptance has already been tested and satisfied.

FIXED OR DETERMINABLE FEES AND COLLECTABILITY

2.23 Fixed fee means a fee required to be paid at a set amount that is not subject to refund or adjustment. A fixed fee includes amounts designated as minimum royalties. If a vendor cannot conclude that a fee is fixed or determinable at the outset of an arrangement, revenue should be recognised as the payments become due, assuming all other criteria for revenue recognition are met.

2.24 Fee is not fixed or determinable if amount is based on number of units distributed or copied or expected users of the product. A sales price or fee that is variable until the occurrence of future events (other than product returns) is not fixed or determinable until the future event occurs. Revenue from such transactions may not be recognised until the sales price or fee becomes fixed or determinable. Similarly, if there are refund privileges, revenue may not be recognised till the refund privileges expire. Till that time, the amount received may be credited to a liability account.

Determination of Fees under Rights in the Nature of Warranties

2.25 Such rights allow the customer a right of return or replacement if the product is defective or fails to meet the vendor's published performance criteria.

2.26 If the vendor has previously demonstrated that products meet the criteria, revenue may be recognised after giving due consideration to the cost of defective goods. Cost of defective goods could be estimated based on a demonstrated history of substantially similar transactions. If, however, the vendor has not previously demonstrated that the delivered product meets the specifications, recognition of revenue should be deferred until it can be shown that the specifications have been achieved.

A vendor and a customer enter into a software agreement pertaining to Product A. The vendor's standard license agreement contains the following provision: "The customer has 30 days from delivery to accept Product A. If the customer does not accept Product A due to a defect in Product A, the vendor has 15 days to cure the defect in Product A." The vendor is an established software company. Since the introduction of Product A three years ago, there have been an extremely small number of situations in which there has been a defect in Product A. In all of these limited situations, the defect

> was caused during shipment, and the vendor cured the defect by shipping a new Product A. No concessions have been granted in relation to the acceptance provisions. Also, there have been no cases in the vendor's history in which Product A was not ultimately accepted by a customer.
>
> Is the collection of fees probable upon the delivery of Product A?
>
> Although all the facts and circumstances would have to be evaluated, it is likely that the vendor would be able to mitigate the uncertainty surrounding the stated acceptance clause for fee collectability and the license fee would be considered to be fixed or determinable. Revenue may be recognised upon the delivery of Product A, assuming that all other revenue recognition criteria have been met.

2.27 If arrangement includes right to return or refund, then revenue may be recognised only if the conditions for future returns or refunds can be reasonably estimated. The existence of any extended payment terms may indicate that the fee is not fixed or determinable. If a software vendor does not have an established business practice of granting extended payment terms and collecting on such terms without forfeitures, refunds, or concessions, revenue from arrangements with extended payment terms may be recognised as the payments become due, assuming that all other revenue recognition criteria are met.

2.28 However, if a vendor has standard business practice of using extended payment terms and a history of successfully collecting under the original payment terms without making concessions, it may be concluded that extended payment terms are fixed or determinable and the vendor should recognise all of the revenue upon the delivery of the software, assuming that all other revenue recognition criteria have been met.

> Vendor V licenses software to customer Z with payment terms of "due in 180 days." V has been licensing this same software

(including upgraded versions as available) over the past two years. V's typical payment terms for this software are "due in thirty days." However, V has provided payment terms of "due in 180 days" in connection with the sale of this software to approximately 15 percent of its customers and has no history of providing refunds or other concessions to these customers. With the exception of the payment terms, the license agreement with Z is the same as V's standard license agreement.

Vendor V may consider the license fee to be fixed or determinable and record revenue when all other revenue recognition criteria have been met. Because V has established a past practice of providing extended payment terms and has no history of providing refunds or other concessions, the license fee could be considered fixed or determinable. Factors such as the volume of transactions (15 percent in this case) and the similarity between the transaction with Z and previous transactions provide sufficient evidence that the fee is fixed or determinable.

Determining whether Fee is Fixed or Determinable under Customer Cancellation Privileges

2.29 Fees from licenses cancelable by customers are neither fixed nor determinable until the cancellation privileges lapse. If such fees expire ratably over the license period then they may be considered to become determinable ratably over the license period as the cancellation privileges lapse. Cancellation privileges do not include warranty clauses or short term rights of return.

2.30 No portion of the fee (including amounts otherwise allocated to delivered elements) may be considered to meet the criterion of collectability if portion of the fee allocable to delivered elements is subject to forfeiture, refunds, or other concession if any of the undelivered elements are not delivered.

Collection is Reasonably Assured

2.31 Probability of collection is the other condition to be met for revenue recognition. To a large extent this condition depends on credit worthiness of the customer. The assessment of collectability is determined on the facts at the time of revenue recognition and should be preferably documented. In the event that the fee included within the arrangement is not considered to be collectible, recognition of revenue may have to be deferred until collection becomes reasonably assured.

2.32 It may be noted that determination as to whether fee is fixed or determinable is made only once at the inception of the transaction. In case collection is reasonably assured at the inception of the transaction then revenue may be recognised, provided the other revenue recognition criteria are met. However, if subsequent to the sale a potential risk arises of collection of debts based on current events surrounding customer or order, then a provision for such bad or doubtful debt may have to be created.

3

Revenue Recognition when Right of Return Exists

3.1 This section discusses the criteria for recognising revenue on a sale in which a product may be returned, whether as a matter of contract or as a matter of existing practice.

3.2 The product may be returned for a refund of the purchase price, or for a rebate to be given against future or other purchases, or in exchange of other products. The purchase price or rebate may include amounts related to incidental services, such as installation.

CRITERIA FOR REVENUE RECOGNITION

3.3 If an enterprise sells its product but gives the buyer the right to return the product, revenue from the sales transaction should preferably be recognised at time of sale if the following indicative conditions are met:

(a) The seller's price to the buyer is substantially fixed or determinable at the date of sale.

(b) The buyer has paid to the seller, or the buyer is obligated to pay to the seller and the obligation is not contingent on resale of the product.

(c) The buyer's obligation to the seller would not be changed in the event of theft or physical destruction or damage of the product.

(d) The buyer acquiring the product for resale has economic substance apart from that provided by the seller.

(e) The seller does not have significant obligations for future performance to directly bring about resale of the product by the buyer.

(f) The amount of future returns can be reasonably estimated.

3.4 If the above-mentioned indicative conditions are not fulfilled at the time of sale, the revenue and costs of sales should preferably be recognised either when the return privilege has substantially expired or if those conditions subsequently are met, whichever occurs first. Till that point, the recognition of the entire revenue should generally be deferred. This accounting is not required to be followed for like-kind exchanges.

3.5 Even though the ability to make a reasonable estimate of the amount of future returns depends on many factors and circumstances that will vary from one case to the other, the following are some of the major factors identified that may impair the ability to make a reasonable estimate:

(a) The susceptibility of the product to significant external factors, such as technological obsolescence or changes in demand.

(b) Relatively long periods in which a particular product may be returned.

(c) Absence of historical experience with similar types of sale of similar products, or inability to apply such experience because of changing circumstances, for example, changes in the selling enterprise's marketing policies or relationships with its customers.

(d) Absence of a large volume of relatively homogeneous transactions.

SPECIFIC RIGHT OF RETURN ARRANGEMENTS IN SOFTWARE INDUSTRY

3.6 As part of an arrangement, a software vendor may provide the customer with the right to return software or to exchange software for products with no more than minimal differences in price, functionality, or features.

3.7 The accounting for returns is significantly different from the accounting for exchanges.

3.8 Arrangements that provide users with the right to exchange software for other products should be evaluated to determine if the exchange right would be accounted for as a return, an exchange (i.e., like-kind exchange), or an additional software product as discussed below.

3.9 If the software is not returned physically and the customer contractually is entitled to continue to use the previously delivered software, the arrangement should be accounted for in the manner prescribed in the section hereinafter titled "Additional Software Products".

3.10 The determination of whether an exchange right would be accounted for as an additional software product would be based on factors such as whether the customer contractually is entitled to continue using the originally delivered software rather than returning the software physically to the vendor. If the arrangement contractually permits the customer to continue using the originally delivered software, the exchange right would be generally accounted for as an additional software product because the customer is entitled to use two products rather than one.

3.11 If the software is not returned physically and the customer contractually is not entitled to continue to use the previously delivered software, the transaction may be accounted for as a return or an exchange, as discussed in the following paragraphs.

3.12 Rights to exchange software for products with no more than minimal differences in price, functionality, or features are not returns and, thus, are accounted for as like-kind exchanges. That is, the exchange right has no effect on the revenue recognition related to the delivered product. That accounting applies only to exchange rights granted to end users of the software.

3.13 Conversely, exchanges by users of software products for dissimilar software products or for similar software products with more than minimal differences in price, functionality, or features are considered returns, and revenue related to arrangements that provide users with the rights to make such exchanges should be accounted as explained in the following paragraphs.

3.14 If an enterprise sells its product but gives the buyer the right to return the product, revenue from the sales transaction is recognised at the time of sale only if general revenue recognition criteria given in paragraph 3.4 are met provided a liability is created for the estimated amount of returns.

3.15 The determination of whether a product has more than minimal differences in price, functionality or features should be based on the relevant facts and circumstances on a case-by-case basis. Factors indicating that there may be more than minimal differences in price, functionality, and features may include the following:

(a) The product to be received has a different name than the product to be surrendered.

(b) Marketing materials for the product to be received promote significantly different functionality and features than the product to be surrendered.

(c) The product to be received operates outside the performance domain of the product to be surrendered.

(d) In independent transactions, the product to be received is sold for a significantly different price than the product to be surrendered.

ABC Corp. enters into an arrangement with a customer to deliver Product A, a basic word processing software product, for a non-refundable fee of Rs. 5000. In addition, ABC grants customer the right to exchange Product A for Product B. Product B is also a word processing software product and contains essentially the same basic features and functionality of Product A except that Product B also contains a grammar-check feature that permits the user to check the grammatical consistency of text. Product B is sold for Rs. 5200 in separate transactions. Customer is not entitled to continue using Product A if Product A is exchanged for Product B. Generally, Product B would not be considered to have more than minimal differences in price, functionality, and features from Product A. Accordingly, assuming all other revenue recognition criteria have been met, ABC could recognise revenue of Rs. 5000 upon delivery of Product A. If customer exercises the right to exchange Product A for Product B, it would not be required to account for such exchange.

3.16 In addition to the factors indicating that there may be more than minimal differences in price, functionality, and features, if the vendor expects to incur a significant amount of development costs related to the other products, the other products would be considered to have more than minimal differences in functionality.

Right of Exchange for Product not Available at the Time of Delivery of Initial Product

3.17 A software arrangement may provide a user with the right to exchange software for unspecified software products. Since the future products are unspecified, it is unlikely that the vendor will have evidence to conclude that the exchange right will qualify for like-kind exchange accounting where the products will have no more than minimal differences in price, features, and functionality from the initial product. Such rights should be generally be accounted for as rights of return.

ABC Corp. enters into an arrangement with a customer to deliver Product A, a basic word processing software product, for a non-refundable fee of Rs. 7500. In addition, ABC Corp. grants the customer the right to exchange Product A for Product B, which is expected to be released within the next 30 days. Product B, which also is a word processing software product, contains the same basic features and functionality of Product A except that Product B also contains features and functionality that permit the user to perform desktop publishing. ABC Corp. management with relevant authority has determined that Product B will be sold for Rs. 10,500, and it is probable that this price will not change before introduction.

ABC Corp. can reasonably estimate that 40% of customers will exercise the right to exchange Product A for Product B. The customer is not entitled to continue using Product A if Product A is exchanged for Product B.

Generally, Product B would be considered to have more than minimal differences in price, functionality, and features from Product A, and ABC Corp. would account for the right to exchange Product A for Product B as a right of return. Accordingly, assuming all other revenue recognition criteria have been met, ABC Corp. would recognise revenue of Rs. 7500 upon delivery of Product A to customer and establish a provision for returns of Rs. 3000 (Rs. 7500 x 40%) against revenue.

3.18 However, in situations where the (1) exchange right can be exercised multiple times, and (2) the period of the exchange right is potentially unlimited (e.g., the exchange right can be exercised as long as the customer is a Postcontract Customer Support (PCS) subscriber) or when the exchange right is significant in relation to the economic life of the software, the arrangement should generally be accounted for as a subscription. Under subscription accounting, the entire fee would be recognised ratably over the term of the arrangement beginning with the delivery of the first product.

ABC Corp. enters into an arrangement with a customer to deliver Product A and grants the customer the right to receive full credit for the license fee of Product A if the customer returns that product and licenses any product introduced by ABC Corp. in the Product A family over a two-year period. This return provision can be exercised only once and the estimated economic life of the Product A software is five years. If Product A is returned, the customer is no longer entitled to use that product.

Because the exchange right granted to the customer can be exercised only once and is exercisable for a period of two years, which is not considered significant in relation to the five-year estimated economic life of Product A. ABC Corp. would account for the right to exchange Product A for Product B as a right of return.

If ABC Corp. can estimate the amount of future returns and the remaining general criteria of revenue recognition when right of return exists are met (as given in Paragraph 3.4), ABC Corp. would recognise revenue upon delivery product A (provided that all other general revenue recognition criteria are met), after creating liability for estimated returns. If the general criteria, when right of return exists are not met (e.g., ABC Corp. is unable to estimate the amount of future returns), no revenue should generally be recognised until the exchange period expires in two years or the general criteria are met, whichever occurs first.

ABC Corp. enters into an arrangement with customer to deliver Product A and grants the customer the right to receive full credit for the license fee of Product A if the customer returns that product and licenses any product introduced by ABC Corp. in the Product A family over a four-year period. This right can be exercised an unlimited number of times during the four-year exchange period. The estimated economic life of the Product A software is five years. If Product A (or another product subsequently acquired under the exchange provision of this arrangement) is returned, the customer is no longer entitled to use that product.

Because the exchange right granted to the customer can be exercised multiple times and is exercisable for a period of four years, which is considered significant in relation to the five-year estimated economic life of Product A, ABC Corp. should be accounted for the arrangement as a subscription. Accordingly, the entire fee would be recognised ratably over the four-year period (assuming that all other general revenue recognition criteria are met) beginning with the delivery of Product A.

4

Customised Software

4.1 Software developed as per customer specification is referred to as customised software.

4.2 Certain arrangement to deliver software or software systems may include both software and service element. The services may include training or installation services. If an arrangement includes such services, a determination must be made as to whether the service element can be accounted for separately as the services are performed. Generally, for determining whether the service element may qualify for separate accounting as a service certain indicative factors may have to be established. These include determination of fair value of the service element, services not being essential to the functionality of any other element of the arrangement and the contract being described in such a manner such that the total price of the contract would be expected to vary as a result of the exclusion of such services.

4.3 If an arrangement includes services that may qualify for separate accounting based on the indicative factors given above then revenue should be allocated between the software and service element. Revenue allocated to the service element may be recognised as and when the services are performed or, if no pattern is discernable then on a straight line basis over the period during which the services are performed. If the nature of the service element does not qualify for separate accounting based on the above indicative factors then the entire arrangement would have to be accounted for as customised software.

4.4 The following are the illustrative factors which may indicate that the service element is essential to the functionality of the other elements of an arrangement:

- The software is not off-the-shelf software.
- The services include significant alterations to the features and functionality of the off-the-shelf software.
- Services are always provided along with the software and the software contains significant amount of new codes.
- Building complex interfaces is necessary for the vendor's software to be functional in the customer's environment.
- The timing of payments for the software is coincident with performance of the services.
- Milestones or customer-specific acceptance criteria affect the realisability of the software-license fee.
- Services of the vendor are considered as a key differentiating factor by the customer.

4.5 The two common methods used under AS 9 to measure revenue for customised software are the proportionate completion method and the completed service contract method.

PRINCIPLES FOR RECOGNISING REVENUE FROM CUSTOMISED SOFTWARE

4.6 **Classification of customised software-** Based on pricing, arrangements for customising software can be classified into:

(a) fixed-price or lump-sum contracts,
(b) cost-type (including cost-plus) contracts,
(c) time-and-material contracts, and
(d) unit-price contracts.

4.7 A fixed-price contract is a contract in which the party rendering the service agrees to a fixed contract price, or a fixed rate per unit of output, which in some cases is subject to cost escalation clauses.

4.8 A cost-plus contract is a contract in which the party rendering the service is reimbursed for allowable or otherwise defined costs, plus percentage of these costs or a fixed fee.

4.9 A time-and-material contract is a contract to perform all acts required under the contract for a price based on fixed hourly rates for some measure of the labour hours required.

4.10 A unit-price contract is a contract to perform all acts required under the contract for a specified price for each unit of output.

RECOGNITION OF REVENUE AND COSTS

4.11 As per Para 7 of AS 9, Revenue Recognition, revenue from service transactions is recognised as the services are performed. Revenue from customised software can be recognised based upon the principles of revenue recognition for a rendering of services by applying the proportionate completion method or the completed service contract method.

4.12 Revenue on contracts on time and material basis are usually recognised as the services are performed based on the fixed hourly rates and the labour hours expended as per the proportionate completion method.

4.13 The determination of appropriate methods of accounting i.e. proportionate completion or completed service contract methods should be made based on careful evaluation of circumstances. As per paragraph 7(ii) of AS 9, Revenue Recognition completed service contract method of accounting is applied when either the performance constitutes execution of a single act or when services are performed in more than a single act and the services yet to be performed are so significant in relation to the transaction taken as a whole that performance cannot be deemed to have been completed until execution of those acts.

4.14 As per paragraph 7(i) of AS 9, Revenue Recognition, proportionate completion method of accounting is followed when performance consists of the execution of more than one act. The application of proportionate completion method involves three key areas of estimates and uncertainties viz., determination of revenue, cost and the extent of progress towards completion.

Revenue

4.15 Determination of contract revenue requires a careful analysis of the contracts, particularly, if the contract includes guaranteed maximums or assigns mark ups to costs.

4.16 An important issue in cost-plus contracts is determination of amounts of chargeable expenses that should be reflected as revenue. These expenses often include, but are not limited to, expenses related to photocopies, telecommunications and facsimile charges. The contract may contain certain clauses which need to be evaluated to determine whether such chargeable expenses would be included as a part of revenue.

Generally, if the chargeable expenses are not included as a part of revenue than the vendors may have to reflect such recoveries as reduction of costs.

Costs

4.17 Contract costs should be identified, estimated, and accumulated with a reasonable degree of accuracy in determining income earned. At any time during the life of a contract, total estimated contract cost consists of two components: costs incurred to date and estimated cost to complete the contract. A company should be able to determine costs incurred on a customised software with a relatively high degree of precision, depending on the adequacy and effectiveness of its cost accounting system.

4.18 Contract costs would include:

- All direct costs and sub-contracting costs;
- Indirect costs identifiable with or allocable to the customised software.

4.19 Costs that cannot be attributed to a customised software or cannot be allocated to it are excluded from the costs of the software. Such costs include general and administration costs and selling costs.

Cost Adjustments Arising from Back Charges

4.20 Back charges are billings for work performed or costs incurred by one party that, in accordance with the contract, should have been performed or incurred by the party to whom it is billed. Back charges to others should be recorded as receivables and, to the extent considered collectible, should be applied to reduce contract costs. However, if the billed party disputes the charge then it should be treated as claim and recorded accordingly. Back charges from others should be recorded as payables and as additional contract costs to the extent that it is probable that the amounts will be paid.

Estimated Cost to Complete

4.21 This is another component of total estimated contract costs. Few points to be taken into consideration while making estimations are:

- There should be periodic comparison of actual and estimated costs.

- In estimating total contract costs, the quantities and prices of all significant elements of cost should be identified.

- The estimating procedures should provide that estimated cost to complete includes the same elements of cost that are included in actual accumulated costs; also, those elements should reflect expected price increases.

- Escalation provisions should be considered particularly when the contract is for long period.

- Estimates of cost to complete should be reviewed periodically and revised as appropriate to reflect new information.

4.22 Repeated estimations may indicate that the estimations are not accurate and not finalised with the customer, thus reducing the reliability.

Provisions for Anticipated Losses on Contracts

4.23 When the current estimates of total contract revenue and contract cost indicate a loss, a provision for the entire loss on the contract should be made in the period in which they become evident. The provision for loss should be recognised in the statement of profit and loss rather than as a reduction of revenue. If the provision is material it should be shown as a separate line item. In the Balance Sheet, it should be shown under the head 'Current Liabilities and Provisions'.

MEASURING PROGRESS TO COMPLETION UNDER PROPORTIONATE COMPLETION METHOD

4.24 Stage of completion of a contract can be determined based upon either proportion of contract costs incurred to total costs, surveys of work performed or based on completion of a physical proportion of the contract work.

4.25 For determining the proportion of completion, in a software industry, two approaches viz., input and output measures may be followed.

Input Measures

4.26 Input measures are made in terms of efforts devoted to a contract. They include the methods based on costs and on efforts expended. A significant drawback of input measures is that the relationship of the measures to productivity may not hold, as all the efforts expended may not be productive.

4.27 Labour hours often are chosen as the basis for measuring progress-to-completion, because they closely approximate the output of labour-intensive processes and often are established more easily than output measures. Under labour hours method extent of progress is measured by the ratio of hours performed to date to estimated total hours for completion. As software development involves labour intensive customisation, labour hours provide good measure of progress-to-completion on elements of software arrangements that involve the customisation of software.

4.28 If the measurement of progress-to-completion is based primarily on costs, the contribution to that progress of hardware and software that were produced specifically for the arrangement may be measurable and recognisable before delivery to the user's site. For example, efforts to install, configure, and customise the software may occur at the vendor's site. The costs of such activities are measurable and recognisable at the time the activities are performed.

Output Measures

4.29 Output measures are made in terms of results achieved. They include methods based on units produced, units delivered, contract milestones, and value added. Output is used to measure results directly and is generally considered the best method of progress toward completion in circumstances in which a reliable measure of output can be established. However, output measures often cannot be established, in such cases input measures are used.

4.30 As a general rule, when estimates of costs to complete and extent of progress toward completion of contract are reasonably dependable and outcome of the contract can be estimated reliably, the proportionate completion method is followed. When lack of dependable estimates or inherent hazards cause forecasts to be doubtful, then revenue should be recognised in the following manner:

- Revenue should be recognised only to the extent of contract costs incurred of which recovery is probable; and

- Contract costs should be recognised as an expense in the period in which they are incurred.

5

Multiple-Element Arrangements

5.1 Many entities offer multiple solutions to their customers' needs. Those solutions may involve the delivery or performance of multiple products, services, or rights to use assets, and performance may occur at different points in time or over different periods of time. In some cases, the arrangements include initial installation, initiation, or activation services and involve consideration in the form of a fixed fee or a fixed fee coupled with a continuing payment stream. The continuing payment stream generally corresponds to the continuing performance, and the amount of the payments may be fixed, variable based on future performance, or a combination of fixed and variable payment amounts.

5.2 A multiple-element software arrangement is any arrangement that provides the customer with the right to software along with any combination of additional software deliverables, services, post-contract customer support (PCS), and non-software deliverables. Non-software deliverables may include such things as hardware, peripherals, services unrelated to software deliverables, or other deliverables. The question is when to include non-software deliverables with other elements and when should they be accounted as separate units of accounting.

DETERMINATION OF MULTIPLE-ELEMENTS IN A CONTRACT

5.3 A vendor should evaluate all deliverables in an arrangement to determine whether they represent separate units of accounting. That evaluation must be performed at the inception of the arrangement and as each item in the arrangement is delivered.

5.4 In an arrangement with multiple-deliverables, the delivered item(s) may be considered as a separate unit of accounting if the following criteria are met:

- The delivered item(s) has value to the customer on a standalone basis. That item(s) has value on a standalone basis if it is sold separately by the vendor or the customer could resell the delivered item(s) on a standalone basis.

- Reliable fair values of the undelivered item(s) can be determined.

- If the arrangement includes a general right of return relative to the delivered item(s), and delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the vendor.

5.5 Separate contracts with the same entity or related parties that are entered into at or near the same time are presumed to have been negotiated as a package, and, therefore, may be evaluated as a single arrangement in considering whether there are one or more units of accounting. That presumption may be overcome if there is sufficient evidence to the contrary.

Sale of Computer License

Company B sells computer licenses. On March 20, a customer purchases a computer license from Company B for Rs. 1,000 together with implementation services and training charges for the license.

On March 31, Company B delivers the license to the customer. The implementation services are carried out from April 1 to

June 30. Training services are carried out for two months from July 1 to August 31. Company B also sells training services separately for Rs 200, but the license and implementation are always sold together. The arrangement does not include any general rights of return. Company B is evaluating whether delivery of the license represents a separate unit of accounting.

Evaluation:

- The separation criterion is not met for the license alone, as it is always sold together with implementation services.
- Further fair values of the undelivered implementation services need to be independently developed and in the absence of the same the license may not be considered as a separate element.
- There are no general rights of return.
- In the absence of fair value of implementation services separately, delivery of license cannot be considered as a separate element.

5.6 The following aspects of multiple-element arrangements have been dealt with in this chapter:

(i) General guidelines for revenue recognition for multiple-element arrangements

(ii) Measurement and allocation of arrangement consideration

(iii) Fair value determination

(iv) Specified upgrades, enhancements and platform transfer rights

(v) Additional products

(vi) Specified versus unspecified additional software products

GENERAL GUIDELINES FOR REVENUE RECOGNITION FOR MULTIPLE-ELEMENT ARRANGEMENTS

5.7 General guidelines for revenue recognition for multiple-element arrangements are as follows:

- Revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet the separate identification criteria specified in paragraph 5.4.

- Revenue recognition criteria should be applied to each separately identifiable component of a single transaction to reflect the transaction's substance. However, in applying those criteria, the delivery of an element is considered not to have occurred if there are undelivered elements that are essential to the functionality of the delivered element, because the customer would not have the full use of the delivered element. In software industry reliable determination of fair values for each of the separately identifiable elements is usually essential to reasonably determine the price for such elements, which is one of the conditions for revenue recognition.

- Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values or by application of the residual method.

MEASUREMENT AND ALLOCATION OF ARRANGEMENT CONSIDERATION

5.8 The consideration may be allocated to the elements of the arrangement based on Relative Fair Value Method or the Residual Method.

Relative Fair Value Method

5.9 If the fair value can be reliably determined for all units of accounting, the consideration should be allocated to separate units of accounting based on relative fair values. Contractually stated prices for individual products and/or services in an arrangement with multiple deliverables may not be presumed to be representative of fair value.

5.10 Fair value evidence often consists of specific objective evidence (SOE) of fair value obtained from entity's own sources (vendor specific) or from market place participants or fair value can be reliably determined by the entity in some other manner, e.g., by deriving an estimated selling price that would be expected to cover the costs of services under the agreement together with a reasonable profit on those services. Only in the absence of SOE, other ways of determining fair values should be used by the entity for allocation of consideration to each separately identifiable component. For revenue to be recorded for the delivered elements, the amount allocated to delivered elements may not be subject to a future adjustment. The portion of the fee that is allocated to an element should generally be recognised as revenue when all of the criteria for revenue recognition have been met with respect to that element. If reliable fair value of each of the element does not exist, all revenue from the arrangement should be deferred until the earlier of when:

(i) Such evidence does exist for each element, or

(ii) All elements have been delivered, or

(iii) The reliable fair values of the undelivered elements can be determined.

As stated earlier, fair value of an element can also be determined in some other manner, e.g., by considering an estimated selling price which would be expected to cover the costs of services under the agreement together with a reasonable profit on those services.

5.11 However, the following situations may be considered as exceptions:

- If the only undelivered element is Postcontract Customer Support (PCS), the deferred amount may be recognised ratably over the contract period;

- If the only undelivered element consists of services that do not involve significant production, modification, or customisation of software (for example training or installation), the deferred amount may be recognised over the period during which the services are expected to be performed;

- If the arrangement is for additional software products and provides for a specified price per copy and an allocation of the fee cannot be made at the outset, revenue may be recognised as copies are made by the customer (or furnished to the customer). If the vendor is duplicating the software, once the vendor has delivered the product master (or the first copy of all products covered by the arrangement), any licensing fees that were not previously recognised should be recognised.

- If in substance the arrangement is a subscription, the entire fee may be recognised ratably.

- If it appears that the portion of the fee allocated to an undelivered element may not be sufficient to cover the vendor's costs for delivering that element of the arrangement, a loss needs to be recognised immediately.

Specific Objective Evidence

5.12 Specific Objective Evidence may generally be established with;

- Price charged when the same element is sold separately by the entity (vendor specific); or

- Price charged by the vendor or any competitor's largely inter-changeable products or services in sales to similarly situated customers (market place participants); or

- Price established by management having the relevant authority for an element not yet being sold separately; it must be probable that the price, once determined, will not change before the separate introduction of the element into the marketplace.

5.13 If vendor specific evidence is available then the same should be considered, if not, then evidence from market place participants should be considered and the last priority should be given to price determined by management.

5.14 SOE may generally be limited to the above mentioned three conditions. If SOE of fair value for all elements becomes available prior to the date when all deliverables are provided under the contract, the revenue could be recognised for the delivered elements on the date when the SOE of fair value becomes known.

5.15 It should be noted that separate prices in contracts or list prices may not be indicative of the SOE of fair value of related elements. Hence, the fee from a software arrangement with multiple elements should be allocated to the various elements based on SOE of fair value of those separate elements, regardless of the separate prices for each element stated within the contract. When SOE of the fair value of the elements of a software arrangement is being determined, all of the factors that the vendor used in determining its pricing should be documented. The vendor may base its pricing on factors such as the number of products delivered, number of copies made or to be made, number of users, type of customer, etc.

5.16 In most instances, SOE of fair value will be an average price of several recent, actual transactions that are priced within a reasonable range. There could be more than one fair value for a given product because of the variety of considerations that impact the pricing in an arrangement for that element. The considerations may be, for instance, the fair value differs on type of vendors, type of customer, channel of distribution or different fair value for same product in different geographical territories.

5.17 SOE of fair value should be analysed on an annual basis, unless there is a significant change in a company's business that may necessitate a more timely analysis. If SOE of fair value is established after the balance sheet date but before the issuance of financial statements, then that SOE should not be considered to exist as on the balance sheet date.

5.18 Generally, vendors need to have a significant amount of sales for it to be proved that a class of customers has sufficient SOE of fair value.

Residual Method

5.19 In case of software arrangements in which the fair values for the undelivered elements have been reliably determined, but fair values do not exist for delivered elements, the amount of the arrangement fee allocated to the delivered elements is measured based on the difference between the arrangement fee and the fair value of the undelivered elements. When discounts are offered then these should be allocated to all elements in transaction.

A vendor provides one user-license covering a single copy of products A, B, C, and D for a non-refundable fixed fee of

Rs.800, with no stated price per product. Products A, B, and C are delivered. Product D is not delivered and is not essential to the functionality of products A, B, or C. Evidence exists that indicates that the revenue related to products A, B, or C is not subject to refund, forfeiture, other concessions if product D is not delivered. The vendor has a history of sales prices for products A, B, and C of Rs.250 each. The vendor's pricing committee has determined a price for product D of Rs.250. It is probable that the price determined by the pricing committee for product D will not change before introduction. Therefore, the vendor is able to derive its specific price for the undelivered software.

Revenue allocated to each product may be recognised upon the delivery of that product if all revenue recognition criteria have been met. The allocation of revenue to each product is based on the relative fair values of each product. The fair value of each product should be reliably determined to determine allocation. In this example, sufficient specific objective evidence exists to determine that the fair value of each product on a stand-alone basis is Rs.250. Therefore, the discount should be allocated evenly to each product, and revenue of Rs.200 per product should be recognised when each product is delivered.

A vendor offers an arrangement that includes a license for an accounting program and one year of PCS. The total fee for the arrangement is Rs.115,000. The vendor does not have SOE of the fair value of the accounting program, as it is always licensed with PCS. The vendor always sells renewal PCS for Rs.15,000 and has sufficient evidence to support that price as a fair value.

What amount of revenue would the vendor be able to recognise upon the delivery of the accounting program?

The vendor knows the SOE of the fair value of the undelivered element (Rs.15,000) and has a total contract fee of Rs.115,000. The revenue related to the accounting program (Rs.100,000) can be derived through the residual method (Rs.115,000 -

Rs.15,000 = Rs.100,000) and recorded upon the element's delivery, assuming that all other revenue recognition criteria have been met.

A vendor sells Product A separately, but always sells Product B with Product C. The vendor enters into a contract to sell Products A, B and C. Product A will be delivered immediately on 12/1/X2 and Products B and C will be delivered on 2/1/X3. SOE exists for Product A, but not for Products B and C separately. Fair values for products B and C have not been reliably determined. Can any revenue be recognised upon delivery of Product A?

Yes. Although the vendor never sells Product B and C separately and therefore SOE of fair value does not exist for each product, the vendor does have SOE of fair value for the combined B and C offering, as B and C are always sold together. In this case, the vendor can consider the B and C combination as one element instead of two. The vendor would allocate the entire arrangement fee based upon the relative SOE of fair value for Product A and the Product B and C combination and record the pro rata amount of revenue related to Product A upon delivery of Product A.

ACCOUNTING FOR FREE SOFTWARE

5.20 Some hardware and software vendors offer free software on their Web sites. This free software generally is downloaded from the vendor's Web site for use on the vendor's hardware or in conjunction with other software being sold by the vendor. This software may be developed by vendor, or vendor pays others to develop the software or vendor obtains the software without charge and offers it without charge.

5.21 The offer of free software by a vendor (specified software) constitutes an "element" that affects revenue recognition for other products, when an arrangement entered between a vendor and a customer specifies that free software products will be provided in the future even if they will be provided on a when-and-if-available basis.

5.22 However, if a vendor offers free software to both customers and non-customers then the free software would not be considered in evaluating the accounting for a specific arrangement since the customer would have the right to download the software regardless of its current arrangement with the vendor.

> Vendor V produces hardware consoles that are sold with software installed and the software is more than incidental to the product. V posts a software program on its Web site. The program works on multiple platforms and does not require the user to be a customer of V to access or use the software. Finally, there is no requirement to have purchased hardware from V prior to downloading the software from V's Web site. In this example, there would be no impact on revenue recognition since the software can be accessed and used independent of V's hardware console and is available to anyone who accesses the Web site.

> Vendor V produces hardware consoles that are sold with software installed and the software is more than incidental to the product. V has been approached by programmer P who wishes to place a new software product on V's Web site. P is giving the software away (i.e., free software) and V has not paid any amounts to P, nor is V requiring any payments from those who download the program. In this example there would be no impact on revenue recognition regardless of whether the program can be used on platforms other than V's. P is actually providing the software and is merely using V's Web site to distribute the program.

> Vendor V produces hardware consoles that are sold with software installed and the software is more than incidental to the product. V distributes programs to current V customers that are useable only on V's hardware platform.

In this example, it is likely there may be an impact on revenue recognition since the software cannot be used independent of V's hardware console, and is therefore, useable only by V's customers. Based on this fact, V has created an expectation in its customers that additional products will be delivered free of charge, and therefore, revenue recognition would be affected.

MAXIMUM NUMBER OF COPIES

5.23 There are certain arrangements wherein the customer is entitled to a maximum number of copies although there is no delivery at the inception of the arrangement. In this situation revenue should be allocated to delivered products when the first or master copy is delivered. A portion of fee should be allocated to undeliverable products assuming the customer will elect to receive the maximum number of copies of the undeliverable product. If, during the term of the arrangement, the customer reproduces or receives such number of copies of these delivered products so that revenue allocable to the delivered products exceeds the revenue previously recognised, such additional revenue should be recognised as the copies are reproduced or delivered. The revenue allocated to the undeliverable product(s) is reduced by a corresponding amount.

5.24 Intent on the part of the vendor not to develop new products during the term of the arrangement does not relieve the vendor of the requirement to recognise revenue ratably over the term of the arrangement or the economic life of product package if no term is stated, beginning with the delivery of the first product.

RIGHT OF RETURN IN A MULTIPLE-ELEMENT ARRANGEMENT WHEN FAIR VALUES CAN BE RELIABLY DETERMINED

5.25 A vendor may enter into a multiple-element arrangement that involves a right of return or exchange accounted for as a return. For example, the arrangement may include multiple software products, one of which is subject to a right of return, and PCS or other services. The multiple-element arrangement fee should be allocated to the elements based on fair values. A right of return is not considered to be a separate element of an arrangement for purposes of revenue allocation. However, the provisions relating to right to return would be applied to the revenue allocated to that element of the arrangement that is subject to the right of return.

> ABC Corp. enters into an arrangement with a customer to deliver Product A and Product B for a non-refundable fee of Rs. 1,000,000. In addition, the customer is granted the right to exchange Product B for Product C, which has more than a minimal difference in functionality. Fair values for Products A and B are Rs. 900,000 and Rs. 600,000, respectively. Accordingly, ABC Corp. allocates revenue of Rs. 600,000 to Product A (Rs. 900,000/Rs. 1,500,000 x Rs. 1,000,000) and Rs. 400,000 to Product B (Rs. 600,000/Rs. 1,500,000 x Rs. 1,000,000). Product A is delivered immediately, and Product B is delivered three months later. ABC can reasonably estimate that 10% of customers will exercise the right to exchange Product B for Product C.
>
> Assuming all other revenue recognition criteria are met, ABC Corp. would recognise revenue attributable to Product A (Rs. 600,000) upon delivery of Product A. The revenue attributable to Product B (Rs. 400,000) would be recognised upon delivery of Product B, and the related liability for returns (Rs. 40,000) would be established as a reduction of revenue when Product B is delivered.

RIGHT OF RETURN IN A MULTIPLE-ELEMENT ARRANGEMENT WHEN FAIR VALUES CANNOT BE RELIABLY DETERMINED

5.26 If a vendor enters into a multiple-element arrangement that includes multiple software products and an exchange right accounted for as a right of return related to only one of the products, and if reliable fair value cannot be determined, for the product subject to the exchange right, a question arises as to when revenue from the arrangement should be recognised because the vendor may be able to reasonably estimate the amount of returns and determine the monetary value attributable to those returns prior to recognising revenue for the arrangement.

5.27 In order to estimate the amount of returns related to only one product in a multiple-element arrangement and to quantify the monetary value of those returns, the vendor should be able to reasonably determine the amount of the arrangement fee attributable to the product subject to the right of return.

5.28 If a vendor can not reliably determine fair value for the product in the arrangement to which the right of return relates, the vendor will generally be unable to make a reasonable estimate of the amount of returns (i.e., in monetary terms), and thereby may have to defer revenue until the right of return lapses.

5.29 If the residual method is applied to the arrangement because fair value can be reliably determined for all undelivered elements and the product subject to the right of return is the only delivered element, then the amount allocated to that product under the residual method may be used to quantify the monetary value of the estimated returns.

5.30 However, if the vendor is able to reasonably estimate the amount of returns and if the arrangement specifies that cash refunds will be provided for the amount of the return, the amount provided for estimated returns should reasonably approximate the amount of cash that will be refunded or forfeited as a result of the return.

ABC Corp. enters into an arrangement with a customer to deliver Product A and Product B for a non-refundable fee of Rs. 1,000,000. In addition, the customer is granted the right to exchange Product B for Product C, which has more than a minimal difference in functionality from the functionality expected in Product B. ABC Corp., does not sell separately Products A and B, and, therefore, does not have SOE of fair values to allocate the arrangement fee to the individual products and is neither able to reliably determine the fair value for the individual products. However, the prices stated in the arrangement for Product A and Product B are Rs. 300,000 and Rs. 700,000, respectively. Product A is delivered immediately, and Product B is delivered three months later. Historically, approximately 20% of the Product B units sold with this exchange right have been returned.

As ABC Corp. can not reliably determine the fair value to allocate the arrangement fee to Product A and Product B, the entire arrangement fee should be deferred until the earlier of: (1) the date when both Products A and B have been delivered and the customer exercises the right to exchange Product B for Product C or the exchange right expires, whichever occurs first, or (2) fair value, is established for Product B.

SPECIFIED UPGRADES, ENHANCEMENTS AND PLATFORM TRANSFER RIGHTS

5.31 Upgrade is an improvement to an existing product that is intended to extend the life or improve significantly the marketability of the original product through added functionality, enhanced performance, or both. The terms upgrade and enhancement are used interchangeably to describe improvements to software products; however, in different segments of the software industry, these terms may connote different levels of packaging or improvements.

5.32 Upgrade right is the right to receive one or more specified upgrades or enhancements, even if it is offered on a when-and-if-available basis. If an upgrade right is offered on a when-and-if-available basis then it is considered as Postcontract Customer Support (PCS).

5.33 Rights to unspecified upgrades on a when-and-if-available basis are included within Postcontract Customer Support (PCS).

5.34 The upgrade right may be evidenced by a specific agreement, commitment, or the vendor's established practice. Specified upgrade rights should generally be accounted for as separate elements and, therefore, should be allocated a portion of the fee based on the fair value of the upgrade. When a vendor is allocating an arrangement fee based on the fair value of the elements that are covered by the arrangement, the value that is to be assigned to a specified upgrade right is usually the price that will be charged to existing users of the software upon it being upgraded.

5.35 License arrangements may include rights to specified upgrades or enhancements. Such rights may be evidenced by a specific agreement, commitment, or the vendor's established practice. Allocation of revenue to the specified upgrade or enhancement is required even if the customer will be entitled to receive the upgrade or enhancement under PCS, because the obligation is specified. However, the amount allocated may be reduced for the percentage of licenses that are not expected to be upgraded if sufficient evidence exists to support this expectation. If the vendor does not have sufficient evidence to estimate the percentage, then it may be presumed that all customers would exercise the upgrade right. The estimate of the number of customers who will take advantage of an upgrade needs to be periodically reviewed.

5.36 If an arrangement includes discounts, such discount should generally not be allocated to specified upgrade rights in the software industry.

A vendor offers a software package over the Internet for Rs.35. The customer is advised that an upgrade of the software package will be released in 60 days, and, as part of the licensing arrangement, the customer will receive the right to license the upgrade for Rs.10. The fair value of the software package is Rs.35 (without the upgrade). The vendor believes that minimal effort will be required to develop the upgrade, as the upgrade is being designed only to allow the program to take advantage of improved operating systems. The upgrade will be marketed to existing users for Rs.15, which represents the fair value of the upgrade. The vendor expects that the customer will exercise the upgrade right.

What amount of revenue would the vendor be able to recognise once all of the revenue recognition criteria for the original version have been met?

In this case, the vendor has determined the fair values of the original version and of the upgrade - Rs. 35 and Rs.15, respectively. However, the total fee from the arrangement is only Rs. 45, so there appears to be a Rs. 5 discount involved in the transaction. The entire Rs.15 is deferred until the delivery of the specified upgrade, with the remaining Rs.30 (Rs. 35 – Rs. 5) being recognised with the delivery of the original software. This effectively allocates the entire discount to the delivered element and not to the specified upgrade right.

Vendor A currently is in negotiation with a customer to sell customer B a license for Version 2.0 of A's software product. During the negotiations, the sales representative for A learns that B is looking for certain functionality in the product. The sales representative notifies B in writing that while the functionality currently is not available, it will be included in the next version of the product, which is expected to be available within the next three months and that B will be entitled to that version under its PCS arrangement.

B agrees to purchase Version 2.0 and an annual PCS agreement. The signed agreement does not discuss explicitly the additional functionality promised by the sales representative. However, in the absence of evidence to the contrary, A has implicitly granted a specified upgrade right to B based on the correspondence from the sales representative which created a reasonable expectation that the desired functionality would be available in the next version of the product. As such, the specified upgrade right would be treated as a separate element of the arrangement.

Revenue would need to be deferred until such time as A determines fair value of all undelivered elements or until such time as all the elements are delivered and all other requirements for revenue recognition have been met.

SPECIFIED UPGRADES THAT WILL BE INCLUDED AS PART OF PCS, WITH NO SEPARATE CHARGE

5.37 The method of recognising revenue for upgrade right on the basis of its fair value applies when upgrade rights are licensed separately. Many vendors make major upgrades available to customers without charging an upgrade fee, as the upgrades are included as part of PCS (described later). In this situation, no fair value can be determined for undelivered specified upgrade and hence no revenue from the arrangement can be recorded until the upgrade is delivered. It is not appropriate to allocate zero value to an upgrade right that is specified in the contract but that will be made available for free to customers paying for PCS. The upgrade right is specified and therefore cannot be accounted for as PCS.

A vendor licenses its payroll product along with a one-year PCS contract. The vendor also sells renewal-period PCS contracts. Under the PCS contracts, the vendor's business practice is to provide updates for changes in tax laws and other reporting requirements that may arise during the period that the payroll software is under a PCS contract. The vendor also specifically states in its PCS contracts that, as necessary, it will update the payroll software for changes in tax laws. The vendor specifically states it will update software for necessary changes.

Does the PCS contract involve a specified upgrade right?

Specified upgrade rights generally relate to upgrades and enhancements that are known or expected. In the above example, the potential updates for changes in tax laws are not known, because they are outside the control of the vendor.

Additionally, upgrade rights must be stated on a "when-and-if-available" basis in order to qualify as PCS. Although this is not explicitly stated in the above example, the upgrade or enhancement would not be delivered unless there were changes in tax laws, etc., that would result in the vendor's providing an update. Because possible changes in tax laws are outside the control of the vendor, the upgrade right is implicitly on a when-and-if-available basis. Further, the need to implement the change would be required with respect to the vendor's ongoing product offering, and it is not likely that the required efforts would be significant relative to the original development effort; therefore, the incremental cost should be minimal. Although specific facts need to be considered in each situation, the right in this example could be considered an unspecified upgrade right and accounted for as PCS.

A vendor may license a software product to a customer and, at no additional charge, promise the customer a specified upgrade on a when-and-if-available basis as long as the customer is current on PCS. The vendor has determined the fair values for the software license and for PCS. If the vendor is offering the specified upgrade for free to all of its customers that are current on PCS, can the vendor account for the specified upgrade as part of PCS?

No. The specified upgrade is a separate element. It is not PCS. If the vendor can not determine fair value for the specified upgrade, no revenue should be recognised until one of the following occurs: (a) the specified upgrade is delivered, (b) fair value for the specified upgrade can be reliably determined, (c) or the specified upgrade right expires; and all other requirements for revenue recognition have been met.

PLATFORM-TRANSFER RIGHTS

5.38 Platform-Transfer Right (PTR) is the right granted by a vendor to transfer software from one hardware platform or operating system to one or more other hardware platforms or operating systems. It can be treated as an exchange, a return or additional software product depending on the circumstances and revenue is recognised accordingly.

(i) PTR is treated as additional software product in case where customer is entitled by contract to continue to use originally delivered software in addition to software delivered because of PTR.

(ii) PTR is generally to be treated as exchange for a like-kind product, if

- PTR is for same product,
- Does not increase the copies of product or concurrent users available under license arrangement.
- The products involved must also be "marketed as the same product."

5.39 If the platform-transfer right does not qualify for like-kind exchange accounting, the platform-transfer right would be accounted for as a return.

ABC Corp. enters into an arrangement with a customer to deliver Software Product X on Platform A (Platform A software) and grants the customer the right to exchange the Platform A software for Software Product X on Platform B (Platform B software) when-and-if-available. The customer may continue to use the Platform A software if the platform-transfer right is exercised. The Platform B software has no more than minimal differences in price, features and functions from the Platform A software and the two products are marketed as the same product. Because the customer is entitled to continue to use the Platform A software in addition to the Platform B software, the Platform

B software would be accounted for as an additional software product. Accordingly, the arrangement would be treated as a multiple-element arrangement, and the license fee would be allocated to the Platform A software and the Platform B software based on their relative fair values.

Assume the same facts as in the example given above, except that the customer contractually is not entitled to continue to use the Platform A software if the customer exercises the platform-transfer right. Because the Platform B software would meet the criteria to be considered the same product as the Platform A software and the platform- transfer right does not increase the number of copies or concurrent users of the software, the platform-transfer right would be accounted for as a like-kind exchange. Accordingly, assuming all other general revenue recognition criteria are met, ABC Corp. would recognise revenue from the arrangement upon delivery of the Platform A software.

Platform-Transfer Right for Unspecified Platform Software Products

5.40 A software arrangement may provide a user with a platform-transfer right for an unspecified platform. If the criteria for exchange accounting (discussed in paragraph 5.38 above) are met, then PTR should be accounted as per the provisions related to exchange accounting. If PTR does not satisfy the criteria for exchange accounting, the entire fee would be recognised ratably over the term of the arrangement beginning with the delivery of the first product.

ABC Corp. enters into an arrangement with a customer to deliver Software Product X on Platform A (Platform A software) and grants the customer the right to exchange the Platform A software for Software Product X on a different operating system. The different operating system is not specified in the arrangement.

ABC has granted the customer an unspecified platform-transfer right that does not expire, so this arrangement would not qualify for exchange accounting. Given the unlimited time period, there is a high likelihood that the product received upon an exchange would contain more than minimal differences from Platform A software with respect to price, features, and functionalities. Accordingly, revenue should be recognised ratably over the estimated economic life of the products (as no term is specified), beginning with delivery of the first product assuming the remaining revenue recognition criteria are met.

Exchange and Platform-Transfer Rights for Specified Products Currently Available

5.41 If a right that is included in an arrangement meets the criteria for exchange accounting discussed in paragraph 5.38, recognising revenue upon the delivery of the initial product is appropriate, assuming that all other revenue recognition criteria have been met and the products and/or platforms eligible for exchange are currently available.

Exchange and Platform-Transfer Rights for Specified Products not Currently Available

5.42 If the other product(s) is/are not available at the time the initial product is delivered, there should be evidence that demonstrates there will be no more than minimal differences in price, features, or functionality among the products in order for the right to qualify as a right to exchange. Further, if the vendor expects to incur a significant amount of development costs related to the other product, the other product may be considered to have more than a minimal difference in functionality.

5.43 Exchanges by users of software products for dissimilar software products or for similar software products with more than minimal differences in price, functionality, or features should be accounted for as right to return.

Delivery of Unspecified Software including Unspecified Platform Transfer Rights

5.44 As part of multiple arrangement if a vendor agrees to deliver software currently and deliver unspecified software products in future including unspecified transfer rights, then software elements do not qualify for exchange accounting and hence should be accounted for as subscription accounting. In subscription accounting no allocation of revenue would be made among any of the software products, and all software product-related revenue from the arrangement would be recognised ratably over the term of the arrangement (if term is not stated, then revenue should be recognised over the economic life of the product) beginning with delivery of the first product.

> On September 30, X1, a vendor enters into a licensing arrangement with a customer for Product X, which is operating on Platform A (the platform that is currently being used by the customer), for Rs. 750,000. Pursuant to the terms of the arrangement, the vendor delivers Product X. The arrangement also contains a provision that the customer can exchange its current version of Product X for another version of Product X that operates on a different operating system. The different operating system is not specified in the arrangement.
>
> Would the arrangement qualify for exchange accounting? Can the vendor recognise the Rs.750,000 on September 30, X1?
>
> The customer has been granted an unspecified platform-transfer right that does not expire. Due to extended time lines, it may be difficult for the vendor to establish that the features, functionality and pricing of the new product will be the same as the original. This arrangement would not qualify for exchange accounting and consequently all software-related revenue from the arrangement would be recognised over the term of the arrangement beginning with the delivery of the first product. As the term of the arrangement is not stated, the revenue would be recognised ratably over the estimated economic life of the

products. Intent on the part of the vendor not to develop new products during the term of the arrangement does not relieve the vendor of the requirement to recognise revenue ratably.

Vendor X develops and distributes self-study information technology training courses. X enters into an arrangement with Customer Y under which Y can request any of the courses in X's library during the two-year term of the arrangement. Payment for the arrangement is due 30 days subsequent to the execution of the arrangement. How would revenue be recognised in this situation?

If all other requirements for revenue recognition have been met, X would recognise revenue, on the arrangement ratably over the term of the arrangement beginning with the delivery of the first course (i.e., subscription accounting).

ADDITIONAL PRODUCTS

5.45 In practice, software arrangements often include the right to obtain specified additional products that are often similar to specified upgrade rights. A great deal of judgment must be exercised in evaluating whether an undelivered element represents an upgrade or a new product, because their accounting is very different. In case the product is an upgrade no portion of the discount is allocated to such upgrade rights whereas discounts can be allocated to additional products.

- If the new features do not enhance the basic functionality of the software, but rather, can operate independently from the previously delivered software, this may indicate that the right relates to a product and not an upgrade.

- An additional software product generally does not supersede or replace the delivered element, whereas an upgrade frequently does.

5.46 The following indicative factors may help to determine whether the undelivered element is specified upgrade or new product:

(a) *Pricing:* New features and functionality that will substantially increase the price of the delivered product may indicate that the right to receive these new features and functionality relates to an additional software product. Conversely, if the new features and functionality would provide the vendor only with the ability to keep prices at a constant rate, the right to receive these would be considered an upgrade. The magnitude of the upgrade fee should also be considered. Upgrade rights are frequently priced at 10% to 20% of the original license fee when sold separately to existing users.

(b) *Development effort:* The more significant the development effort to create the undelivered element, the more likely it is that the element will be a product and not an upgrade.

(c) *Marketing:* New features and functionality offered in connection with the delivered product would indicate that the right to receive the features and functionality is an upgrade. Alternatively, marketing efforts that are focused solely or substantially on the new features and functionality would indicate that the right to receive these relates to a new product.

(d) *Performance domain:* If the undelivered element performs functions in areas outside the domain of the delivered version of a product, it is likely that the element provides a solution that the delivered product does not. This may suggest that the undelivered element is a product rather than an upgrade.

A vendor enters into an arrangement with a customer to license software package A for Rs.1,000,000. The arrangement also specifies that the vendor will provide software package B for no charge when it becomes available in a couple of months.

> Software package B will be licensed for Rs. 500,000 when it becomes available. The customer will install software package A. Fair value for both software package A (Rs.1,000,000) and software package B (Rs.500,000) can be reliably determined.
>
> Is software package B considered an additional product or a specified upgrade?
>
> It would appear that software package B might be an additional product rather than a specified upgrade, because both packages will be utilised independent of each other. If it is determined that software package B is an additional product, the vendor would recognise 66.66% of the Rs.1,000,000 license fee or Rs.666,666 upon the delivery of software package A (assuming that all other revenue recognition criteria have been met). The remaining Rs.333,334 would be deferred and recognised when all revenue recognition criteria have been met for software package B.

5.47 Some fixed fee license arrangements provide customers with the right to reproduce or obtain copies at a specified price per copy (rather than price per product) of two or more software products up to the total amount of the fixed fee. Although the price per copy is fixed at the inception of the arrangement, an allocation of the arrangement fee to the individual products generally cannot be made, because the total revenue allocable to each software product is unknown.

5.48 Revenue from this kind of arrangement should not be recognised fully until at least one of the following conditions is met:

- Delivery is complete for all products covered by the arrangement.

- The aggregate revenue attributable to all copies of the software products delivered is equal to the fixed fee, provided that the vendor is not obligated to deliver additional software products under the arrangement.

Specified Additional Software Products - Various Delivery Dates

A vendor enters into an arrangement with the customer to license several of its products for a total fee of Rs.150,000. None of the products is essential to the functionality of the other products. The vendor performs duplication (which has a minimal cost), and once the customer has accepted delivery of a product, the related fees are not subject to adjustment, nor can the delivered product be returned or exchanged. The products will be licensed at stated prices per copy, all of which represent SOE of the fair value, as follows:

Software	Price
Product A	Rs.2500 per copy
Product B	Rs.4000 per copy
Product C	Rs.7500 per copy

The fee is fixed and non-refundable regardless of whether the customer accepts the delivery of any or all of the products. The customer has six months to accept the delivery of all of the products available under the arrangement. The arrangement commences on July 1, X1 and ends on December 31, X1. On July 31, the customer accepts a delivery of fifteen copies of Product A. On September 15, X1, the customer accepts a delivery of five copies of Product C and five copies of Product A. On October 20, X1, the customer accepts a delivery of ten copies of Product B.

How should revenue be recognised under the arrangement?

Revenue should be recognised based on the number of copies delivered of Product A and Product C until October 20, at which time all of the remaining fees should be recognised as follows:

Date	Copies Delivered	Price per copy	Revenue
July 31	15	Rs.2500	Rs.37,500
September 15	5 5	Rs.7500 Rs.2500	Rs.50,000
October 20	10	Rs.4000 Rs. 62,500* (40,000+22,500)	Rs.150,000

*Since Product B was the only product that was not delivered before October 20, when Product B is delivered, all of the remaining fees should be recognised because all of the criteria for revenue recognition will have been met, including the delivery criterion (as the fee is fixed and non-refundable regardless of whether the delivery of any or all of the products is accepted).

SPECIFIED VERSUS UNSPECIFIED ADDITIONAL SOFTWARE PRODUCTS

5.49 Specified additional software products, including those offered on a when-and-if-available basis, should be accounted for separately, so that a portion of the fee is allocated to the additional software products based on fair value. If fair value can be reliably determined, revenue allocated to the additional software products should be recognised when an additional element is delivered and all of the other criteria for revenue recognition have been met. As with other elements, if fair value of the additional software products cannot be reliably determined, all revenue from the arrangement should be deferred until:

(1) such fair value can be reliably determined or

(2) all elements of the arrangement have been delivered, whichever occurs earlier.

5.50 Unspecified additional software products are sometimes included in software arrangements. These arrangements are similar to PCS arrangements. However, the rights relate to unspecified products instead of unspecified upgrades or enhancements.

5.51 All software-product-related revenue under this arrangement should be recognised ratably over the term of the arrangement or over the economic life of the products if no term is stated, beginning with the delivery of the first product (assuming that all other revenue recognition criteria have been met).

6

Postcontract Customer Support (PCS)

6.1 PCS or maintenance as it is usually called, means right to receive services (other than services separately accounted for) or unspecified product upgrades/enhancements (these unspecified arrangements are PCS only if they are offered on 'when-and-if-available' basis) or both offered to customers after the software license period begins or other time provided for by PCS arrangement.

6.2 PCS may be a separate element, bundled with other products and services or implicitly included in an arrangement. Regardless of whether PCS is separately stated in a contract, every software arrangement should be evaluated for the potential impact of PCS and, if it proves to be part of an arrangement, it should be considered a separate element in determining revenue recognition.

6.3 PCS does not include the following:

- Installation or other services directly related to the initial license of the software;

- Specified upgrade rights;

- Rights to additional software products;

- Bug fixes to maintain compliance with product specifications. Such costs are generally accounted as warranty costs and

- Intellectual property infringement indemnifications.

6.4 Typical arrangements of PCS include services, such as telephone support and unspecified upgrades/enhancements when and if developed by the vendor during the period in which the PCS is provided. PCS arrangements include patterns of providing services or unspecified upgrades/enhancements to users or resellers, although the arrangements may not be explicitly evidenced by a written contract signed by the vendor and the customer. In the case of unspecified upgrades and enhancements, the qualifier 'when-and-if-available', serves to emphasise that the upgrade or enhancement would not have been known or expected to be delivered at the time the right was granted to the customer.

GENERAL GUIDELINES FOR REVENUE RECOGNITION OF PCS FOR PERPETUAL LICENSES

6.5 Fees related to PCS, whether sold separately (e.g., renewal-period PCS) or as an element of a multiple-element arrangement, should generally be recognised as revenue ratably (i.e., on straight line basis), over the term of the PCS arrangement. If the use of the straight-line basis does not approximate the timing of when the software vendor actually incurs the costs, then revenue could be recognised on pro rata basis based on when the amounts are expected to be charged to expense.

6.6 The PCS obligation is met: (1) By the vendor's delivery of the services, upgrades, and enhancements or by its fulfilling other obligations under the arrangement, or (2) by the mere passage of time.

PCS CONSIDERATIONS FOR TERM LICENSES

6.7 The guidance given above contemplates to PCS arrangements involving perpetual licenses. However, term licenses are becoming common practice in the arrangements. Term licenses involve a license to use the software for a specific period, generally one to five years. Generally, PCS for all or part of the license term will be bundled together with the term license. In this regard, the following aspects may be considered:

(a) Fair value of PCS in a short-term time-based license (ordinarily less than one year) and software revenue recognition.

The duration of the time-based software license is so short that a renewal rate or fee for the PCS services does not generally represent the fair value of the bundled PCS. In arrangements of this kind, the total arrangement fee should be recognised ratably over the PCS period.

Time-based or perpetual software arrangements sometimes contain contractually stated annual PCS renewal rates and a requirement that the licensee be current with PCS in order to maintain its rights to use the software. This language essentially transforms a perpetual or multi-year time-based license into an annual license. As a result, such a clause dramatically impacts how revenue is recognised. In this arrangement the customer is not making the decision to only renew PCS, but is in fact making a decision to renew both PCS and the software license. Hence, the renewal is not considered a PCS renewal (that is, PCS being sold separately). Accordingly, fair value of PCS is not established by reference to that renewal rate and hence, the fee should be recognised ratably over the PCS period.

(b) Fair value of PCS in a multi-year time-based license and software revenue recognition.

If the arrangements for multi-year time-based software licenses include:

- initial (bundled) postcontract customer support (PCS) services for only a portion of the software license's term (for example, a five-year time-based software license that includes initial PCS services for one year) and

- a renewal rate for PCS for an additional year(s) within the time-based license period the renewal rate may constitutes the fair value of the PCS provided that the renewal rate is substantive.

6.8 It may be noted that it would not be appropriate to use the fair value of PCS sold with perpetual licenses as a "surrogate" for the fair value for PCS in a term license. However, in following type of indicative situations such values may be considered:

(a) The PCS renewal terms in a perpetual license provide the fair value of the PCS services element included (bundled) in the multi-year time-based software arrangement when the term of the multi-year time-based software arrangement is substantially the same as the estimated economic life of the software product and enhancements during that term.

(b) The fees charged for the perpetual (including fees from the assumed renewal of PCS for the estimated economic life of the software) and multi-year time-based licenses are substantially the same.

6.9 In case PCS is the only undelivered element and the fair value cannot be reliably determined, the entire fee under the arrangement is generally recognised ratably over:

- The contractual PCS period (for those arrangements with explicit rights to PCS); or

- The period during which PCS is expected to be provided (for those arrangements with implicit rights to PCS).

6.10 PCS revenue may be recognised simultaneously with the initial license fee when software is delivered in the following indicative situations provided all of the estimated costs of providing the services, including upgrades and enhancements, must be accrued at the time when the software is delivered.

- The PCS fee is included with the initial licensing fee.

- The PCS included with the initial license is for one year or less.

- The estimated cost of providing PCS during the arrangement is insignificant.

- Unspecified upgrades/enhancements offered during PCS arrangements historically have been and are expected to continue to be minimal and infrequent.

Implied PCS and Warranties

6.11 A software vendor may have developed a historical pattern of regularly providing all customers, or certain classes of customers, with services or unspecified upgrades and enhancements that are normally associated with PCS, even though the vendor is under no written contractual obligation to provide these additional features.

6.12 Any implied PCS is considered an additional element of the software arrangement, to which a portion of the total fees needs to be allocated.

6.13 Even though implied PCS may be termed as warranty, it should be noted that terms of implied PCS go beyond warranty in the sense that these involve much more than a representation that the product will perform up to certain specifications or that the vendor will replace or fix the product if it ceases to work properly.

6.14 An example of an implied PCS arrangement is one in which a vendor offers a "warranty" period, during which the customer would have the right to both phone support and to unspecified upgrades and enhancements that significantly enhance the functionality of the delivered software. "Bug fixes" that are offered pursuant to a warranty do not represent an implied PCS arrangement and can therefore be accounted for as a warranty cost.

> A vendor licenses its software products with a 90-day warranty. The customer may also purchase an annual PCS arrangement that commences upon expiration of the warranty period. The warranty provides for standard limited warranties (merchantability, performance specification, bug fixes, etc.). Additionally, the customer will have the right to receive customer support and unspecified upgrades and enhancements, if any, during the 90-day period.
>
> Does the right to customer support and unspecified upgrades and enhancements during the warranty period represent an implied PCS arrangement?
>
> Yes. The warranty constitutes an implied PCS arrangement. Fair value of the implied PCS arrangement would be necessary for the fee to be allocated among the multiple elements. Any fees allocated to the implied PCS would be recognised ratably over the warranty period.

DETERMINING FAIR VALUE FOR PCS ARRANGEMENTS

6.15 The fair value of PCS may generally be determined by reference to the price the customer will be required to pay when it is sold separately (that is, the renewal rate). Accordingly, fair value of PCS is generally based on renewal rates for PCS, which are to be charged once the initial PCS period contained in the original licensing arrangement expires. However, fair values can be established otherwise also by the methods described earlier. If a vendor offers PCS rates that are lower than the fully deployed PCS renewal rates, a discount is embedded in the transaction.

PCS Arrangements involving a Maximum Charge

6.16 Companies implement “enterprise-wide software wherein software” is licensed based on the number of users. PCS frequently is part of such multiple-element arrangements and is also sold based on the number of users.

6.17 A customary business practice that has evolved due to the size of the fees involved in these arrangements has come to be known as “capped maintenance” or “capped PCS”. Customers have required vendors to limit the amount of additional PCS fees charged as more users are added, under the theory that each additional user does not actually add incremental costs to the vendor’s expenses.

6.18 The following two examples provide guidance on determination of fair value:

1. Capped PCS arrangement with a maximum number of seats-

A vendor licenses an enterprise-wide software package to a customer. The arrangement calls for the vendor to install 1,000 seats for a fee of Rs.1,000,000 (or Rs.1,000 per seat). The arrangement also calls for the vendor to provide PCS services for a fee of 15% of the per-seat license fee, per year, for two years. Both the per-seat license fee and the PCS fee stated above are the established fair values.

Assume that the arrangement also allows the customer to purchase up to 1,000 additional seats for Rs.1,000 per seat. The fee for PCS services related to the additional seats remains at 15% of the per-seat license fee, unless the additional 1,000 seats are licensed by the end of the first year, in which case the PCS fee for the subsequent year will be fixed at Rs.200,000 for all 2,000 seats.

How should revenue be recognised under the arrangement?

This arrangement has a potential discount of Rs.100,000 (2,000 seats x Rs.150 [15% of Rs.1,000 per- seat price] - Rs.200,000 maximum PCS fee) that needs to be allocated to all elements of the arrangement (licenses and PCS). The potential discount related to the licenses would be allocated as follows:

	Maximum Contract Price	Fair Value	Percent-age of Total Fair Value	Allocation of Potential Discount	Allocated Fees
	Rs.	Rs.		Rs.	Rs.
License fee	2,000,000	2,000,000	87.0%	87,000	1,913,000
PCS	200,000	300,000	13.0%	13,000	287,000
	2,200,000	2,300,000	100%	100,000	2,200,000

Assume that the maximum 2,000 seats are licensed. Upon the delivery of the first 1,000 seats, the vendor would record Rs.956,500 (Rs.956.50 per seat x 1,000 seats) of license revenue and defer Rs.43,500 of revenue related to the discount. For each subsequent seat delivered, the vendor would record Rs.956.50 of license revenue and defer Rs.43.50 related to the discount. If at the end of the first year, the customer has not licensed 2,000 seats, the vendor would record all deferred revenue as income. If all 2,000 seats are licensed, the deferred revenue of Rs.287,000 would be recognised over the remaining 12 months of the PCS arrangement.

2. Capped PCS arrangement with no maximum number of seats.

Assume that the arrangement does not provide for a maximum number of seats, but still contains the clause that allows the

PCS fees for the second year to be capped at Rs.200,000, if at least 2,000 seats are licensed by the end of the first year. How should revenue be recognised?

The vendor does not know the potential discount because the number of seats has not been fixed. Therefore, the vendor would have to defer all revenue under the agreement until the end of the first year, which is when the number of seats subject to the second-year PCS coverage would be known. At that point, the discount could be determined and the appropriate allocation of license fees and PCS fees made (allocated license fees would be recognised immediately, whereas the PCS fees would be recognised over the remaining 12 months of the PCS arrangement).

However, if the vendor could reliably estimate the maximum number of seats based on the number of employees the customer has or the customer's hardware configuration, the maximum discount may be calculable and an allocation of license and PCS fees could be made.

PCS Offered in Arrangements involving Significant Customisation or Modification

6.19 In an arrangement which involves services involving significant customisation or modification and PCS, these have to be considered as separately identifiable component provided the fair value for PCS can be reliably determined. If the fair value of the PCS cannot be reliably determined, then the entire arrangement, including PCS, would have to be accounted for based upon the principles of proportionate completion method or completed contract service method.

PCS Renewals based on Users Deployed

6.20 Arrangements may include a perpetual license with a fixed PCS fee for a specified period, say a three-year unlimited deployment period but optional PCS for a subsequent period, say year four and thereafter based on the ultimate number of copies of software deployed. In this case, it may be difficult to determine fair values reliably and the entire fee would have to be recognised ratably over the three-year deployment period.

Fair Value of PCS with Usage-Based Fees

6.21 Usage-based fees are generally fees in excess of any upfront license fee based on the frequency that the licensee uses the software. If usage-based fees are not paid timely, the licensee's perpetual license to use the software is generally vacated and there is no continuing obligation to provide PCS.

6.22 In arrangements where fair value for PCS is determinable, the addition of usage-based fees will not impact the accounting for the license or the PCS. The usage-based fees would then be recognised when reliable estimates can be made of the actual usage. In arrangements where fair value of PCS is not determinable (or when PCS is included in the usage-based fee), the initial license fee would be recognised ratably over the period the vendor expects to provide PCS since there is no contractual PCS period.

6.23 In arrangements where the usage-based fee represents payment for both the perpetual license and PCS, revenue would be recognised when reliable estimates can be made of the actual usage.

7

Non-PCS Services

7.1 Services other than PCS-related services generally include training, installation, and consulting. Consulting services often include implementation support, data conversion, software design or development, and customisation of the licensed software. Service element may be accounted for separately when the following indicative conditions are satisfied (assuming all other revenue recognition criteria are met):

- Fair value can be determined reliably for revenue to be allocated to the various elements;
- The services are not essential to the functionality of any other element of the transaction; and
- The services are 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.

7.2 If the preceding criteria are met, revenue may be allocated to the various elements based on their fair values. Services need not be priced separately in order for them to be accounted for separately. Revenue allocated to the services should be recognised as the services are performed, or, if no pattern of performance is discernible, on a straight-line basis over the period during which the services are performed.

A enters into an arrangement with B to provide both software and training for Rs.100,000. The arrangement states that the value of the training is Rs.1,000 and the value of the software is Rs. 99,000. However, A licenses the software separately for Rs.90,000 and offers the training separately for Rs.10,000. In addition, B could purchase the training from another vendor for Rs.10,000.

Even though the arrangement explicitly states that the price of the software is Rs.99,000, A would record revenue of Rs.90,000 when the software is delivered (provided all other requirements for revenue recognition have been met) and Rs.10,000 as the training is provided.

7.3 If the services do not qualify for separate accounting, then Proportionate Completion Method of accounting is followed. This method is also used if software included in the arrangement is not off-the-shelf software or significant modifications are necessary for off-the-shelf software.

8

Arrangements with Resellers

8.1 Reseller is an entity licensed by a software vendor to market the vendor's software to users or other resellers. Licensing agreements with resellers typically include arrangements to sublicense, reproduce, or distribute software.

8.2 Resellers may be distributors of software, hardware, or turnkey systems, or they may be other entities that include software with the products or services they sell. Entities that commonly act as intermediary channels (and should therefore be considered resellers) include distributors, value-added resellers (VARs), original equipment manufacturers (OEMs) and system integrators.

8.3 Several arrangements may be made with resellers which may lead to complexities in revenue recognition. The following key types of arrangements have been addressed in this Technical Guide:

(a) Form of an Arrangement

(b) Delivery

(c) Fixed or Determinable Fees and Collectability

(d) Rights of Return or Exchange and Price Protection

(e) Unspecified Additional Products in Software Arrangements

(f) Reseller's PCS Arrangements

(g) Prepaid Royalties

FORM OF AN ARRANGEMENT

8.4 Complexities arise in case the terms and conditions of the vendor's contract with the reseller incorporates or attaches to the arrangement provisions of the contract between the reseller and the end user. A legal opinion may be required to determine the vendor's obligation to the end-user customer.

DELIVERY

8.5 Delivery issues arise from the facts as to whether the reseller has actually taken responsibility for the product such that the vendor will not be required to accept returns, provide price protection, conduct exchanges, or agree to payment terms that are subject to the reseller's receiving payment from its customer, which may or may not be the end-user. Each arrangement would require evaluation to establish that all the delivery obligations have already been met by the vendor.

FIXED OR DETERMINABLE FEES AND COLLECTABILITY

8.6 In arrangements with resellers, in addition to the general factors that are considered in evaluating whether fixed or determinable fee and collectability criteria are met, the following factors may also be considered:

- If the business practices, reseller's operating history, competitive pressures, informal communications, or other factors indicate that payment is substantially contingent on the reseller's success in distributing individual units of the product if contractual arrangements are such that the reseller is obligated to pay only if sales are made to end-users, such arrangements should be accounted for as a consignment.

- If resellers are new, undercapitalised, or in financial difficulty and may not demonstrate an ability to honour a commitment to make fixed or determinable payments until they collect cash from their customers, then fee is not fixed or determinable and collectability criteria is not met.

- If there are uncertainties about the potential number of copies to be sold by the reseller, it may indicate that the amount of future returns cannot be reasonably estimated on delivery. Examples of such factors include the newness of the product or marketing channel, competitive products, or dependence on the market potential of another product offered (or anticipated to be offered) by the reseller.

- If the distribution arrangements with resellers require the vendor to give rebate for a portion of the original fee consequent to any reduction in the price of its product by the vendor and the reseller has rights with respect to that product (sometimes referred to as price protection) then the fee may not be fixed or determinable.

- If a vendor is unable to reasonably estimate future price changes in the light of competitive conditions, or if significant uncertainties exist about the vendor's ability to maintain its price, the arrangement fee may not be fixed or determinable. In such circumstances, revenue from the arrangement may have to be deferred until the vendor is able to reasonably estimate the effects of future price changes and the other conditions pertaining to revenue recognition have been satisfied.

- If the vendor can reasonably estimate the amount of the fee that may be subject to rebate or forfeiture only arising as a result of the vendor reducing its price for a product, the vendor generally would recognise revenue for the arrangement after a provision for discount is created for the estimated amount of the price concessions that would be granted to resellers as a result of the price reduction by the vendor, assuming all other revenue recognition criteria are met.

- If the amount of price concessions to be granted to resellers is estimated to be unusually large, the vendor would have to evaluate whether revenue recognition is appropriate even if the vendor can reasonably estimate the amount of the price concession because an unusually large amount of price protection may be indicative of an arrangement granting the use of software for evaluation or demonstration purposes rather than an arrangement involving a valid sale.

- Arrangements with distributors, particularly those at international locations, that may not require a substantial portion of the fee to be paid upon the delivery of a product which may lead to concerns on collectability.

ABC Limited enters into an arrangement to deliver various software products to a reseller for a non-refundable fee of Rs.300,000. ABC Ltd. obtains a copy of reseller's most recent unaudited financial statements and notes that reseller has suffered operating losses in the past two years and is thinly capitalised. Reseller represents to ABC Ltd. that it expects the addition of ABC Ltd.'s products to its inventory to improve its operating performance immensely.

Due to the uncertainty about Reseller's ability to pay ABC Ltd. and absence of reseller's success in distributing ABC Ltd.'s products, ABC Ltd. would not consider the arrangement fee to be fixed or determinable.

A vendor licenses its imaging product strictly through a reseller channel and has no end-user sales force. The vendor has licensed its imaging products for three years and has a history of collecting all amounts due from resellers without granting concessions, refunds or forfeitures. All licensing arrangements to date have been through domestic resellers. During the current year, the vendor begins licensing its products to new international resellers on a limited basis. The vendor has not been able to obtain reliable credit information regarding these international resellers, some of whom operate in troubled economic environments. Some of these new resellers are granted extended payment terms.

Should the vendor continue to record revenues from these new distributors upon the delivery of the product to the reseller (i.e., on a sell-in basis)?

The fact that the vendor has never licensed the imaging product through these new international distributors indicates that it does not have a history of collections with this type of resellers. This raises a concern that some of the fees may not be fixed or determinable and/or collectible. This is exacerbated by the fact that (1) no credit reviews or financial analysis is available to substantiate recording revenues upon the delivery of the product, and (2) some distributors are operating in troubled economic environments. In many of these cases, the vendor should not recognise the license revenue from these types of distributors unless the product is delivered to the end-users, particularly when extended payment terms are granted.

RIGHTS OF RETURN OR EXCHANGE AND PRICE PROTECTION

8.7 Software vendors may grant resellers the right to exchange unsold software for other software (including software that runs on a different hardware platform or operating system) or the right to simply return the software altogether.

8.8 Vendors may induce resellers to license a product by promising to provide rebates for any future decreases in the pricing of affected products, which is sometimes referred to as price protection.

8.9 All of above rights, including exchange rights, return rights, platform-transfer rights and price protection, should be accounted for as right to return, regardless of whether these rights relate to software products among which there are no more than minimal differences in price, functionality, and features. Hence, exchange rights granted to resellers are generally accounted for as returns even if the reseller is required to purchase additional software to exercise the exchange right.

Reseller arrangement involving price protection clause

Vikas Limited enters into a distribution agreement with a reseller. The distribution agreement contains a clause that stipulates that in the event Vikas Limited reduces the price of any product, it will provide the reseller with a credit equal to the difference between the original purchase price and the new purchase price of the product for any units in reseller's inventory at the time of the price reduction, as well as any units of the product purchased by the reseller within 30 days of the price reduction.

On April 1, 20X8, Vikas Limited made its first delivery to reseller. Vikas Limited delivered 1,000 units of Product A for a non-refundable fee of Rs.100,000. At the time of delivery, the pricing committee of Vikas Limited is contemplating a price reduction for Product A from Rs.100 to Rs.90 per unit within the next 30 days. They can reasonably estimate that the amount of the credit that will be granted to the reseller as a result of the price reduction will be Rs.10,000 [(Rs.100-Rs.90) x 1,000].

Accordingly, assuming that all other revenue recognition criteria have been met, Vikas Limited would recognise Rs.100,000 of revenue from the arrangement upon delivery of the units of

Product A and also establish a provision of Rs.10,000 for the estimated amount of discount for price protection.

XYZ Limited enters into an arrangement to deliver 100 copies of Product A to a reseller. XYZ Limited also grants reseller the right to exchange copies of Product A for an equivalent number of copies of Product B. Product B has no more than minimal differences in price, functionality, or features from Product A.

Since reseller is not the end-user, the right to exchange copies of Product A for copies of Product B would be accounted for as a right of return. Accordingly, assuming all other revenue recognition criteria have been met and that XYZ Limited can reasonably estimate the amount of returns for Product A, XYZ Limited would recognise revenue from the arrangement upon delivery of the copies of Product A to Reseller and establish a provision for the estimated amount of the returns.

UNSPECIFIED ADDITIONAL PRODUCTS IN SOFTWARE ARRANGEMENTS

8.10 A reseller may be entitled to receive unspecified additional software products from the vendor. Facts and circumstances of each arrangement may lead the arrangement to be accounted for in the following manner:

- **Return**: Resellers may grant the right of return to end-users, with respect to delivered products, in the form of the right to receive unspecified future products; in turn, the reseller has the right to return such products to the vendor. In this case, the revenue is recognised when the right to return granted to the end-user is exercised or expired.

- **Subscription**: If the arrangement involves a specified time period to deliver unspecified additional software products in the future, then revenue can be recognised ratably over the term of the arrangement beginning with the delivery of first product.

- **Consignment**: If arrangements include terms whereby the right to return or exchange a product would expire only upon the reseller's having licensed the product to end-users, then revenue would not be recognised untill the product is licensed to the end-user.

ABC Ltd. enters into an arrangement with a reseller. Under the terms of the arrangement, ABC Ltd. grants reseller the right to duplicate and sublicense in territory XYZ an unlimited number of copies of Products A and B, which currently are deliverable, and any other products introduced by ABC Ltd. in the Product A family over the next two years. The non-refundable arrangement fee of Rs.3,000,000 is due within 90 days of delivery of Products A and B. ABC Ltd. would account for the arrangement with the reseller as a subscription. Assuming that all other revenue recognition criteria have been met, ABC Ltd. would recognise the fee of Rs.3,000,000 ratably over the two-year term of the arrangement beginning with the delivery of Products A and B (Rs.125,000 per month after Products A and B have been delivered).

RESELLER'S PCS ARRANGEMENTS

8.11 A vendor may sell PCS directly to resellers either separately or on an implied basis.

8.12 If a vendor sells PCS separately to resellers its fair value can be determined based on the prices charged in those separate sales. In those circumstances, it may not be appropriate to use prices of PCS sold to end-users as a surrogate and disregard the actual prices charged in separate transactions with resellers. However, it may be appropriate to use prices for PCS sold to end-users to establish fair value for PCS in reseller arrangements if PCS is not sold separately to resellers.

8.13 In some reseller arrangements, the software vendor provides upgrades/enhancements to the reseller on a when-and-if-available basis for no additional charge, which are then provided to the reseller's customers. This is a situation of implied PCS arrangement. If fair value does not exist to allocate the fee to the software and the PCS, revenue from both the licensing arrangement and the PCS would be recognised ratably over the period during which PCS is expected to be provided.

PREPAID ROYALTIES

8.14 In certain cases, the reseller licenses the software to its customers. The agreement between the software vendor and the reseller may stipulate that the prepayment of the license fee is to be based on minimum royalties. Additional fees would then be payable if the minimum royalty fee were exceeded as a result of the reseller's sales.

8.15 License fees for software should be evaluated based on the general revenue recognition criteria, regardless of whether they are based on minimum royalty amounts. If all of the requirements for revenue recognition are met, including the determination that the fees in the arrangement are fixed or determinable, then the royalty prepayment fee should be recognised upon the delivery of the software (with deferral of an appropriate portion for PCS, if applicable).

8.16 The additional fees that will be payable if the minimum is exceeded are generally based on a price per copy and, therefore, do not impact the revenue recognition of the minimum fee. The requirements as regards revenue recognition criteria should be evaluated at the time that the minimum royalties are exceeded, based on the facts and circumstances that exist at that time.

A vendor enters into an arrangement to license an unlimited number of copies of Product X to the reseller on June 28. Product X was delivered to the reseller on June 28, and the reseller will reproduce all necessary copies. Under the arrangement, the reseller will pay the vendor Rs.100,000, which is the value of the license fee. No future deliverables are due under the arrangement. After the reseller licenses 10,000 copies of Product X to end-users, royalties will be due to the vendor at a rate of Rs.15 per copy of Product X.

When is it appropriate to recognise revenue for Rs.100,000?

License fees for software should be evaluated based on the general revenue recognition criteria, regardless of whether they are based on minimum royalty amounts. Assuming that all other revenue recognition criteria have been met, Rs.100,000 of revenue would be recognised upon the delivery of Product X on June 28. If the reseller has licensed over 10,000 copies of Product X to end users, the vendor would record the additional royalty revenues when the reseller notifies it of sales.

9

Application Service Providers (ASPs)

9.1 In connection with the licensing of software products, some vendors are offering arrangements in which end-users of the software do not take possession of the software. Rather, the software application resides on the vendor's or a third party's hardware, and the customer accesses and uses the software on an as-needed basis over the Internet or via a dedicated line ("hosting"). Such vendors are referred to as Application Service Providers (ASPs).

9.2 Structurally, the form of those arrangements may be split into two elements — (a) The right to use software and (b) The hosting service. The arrangements may or may not include a license right to the software and the customer may or may not have an option to take delivery of the software.

9.3 If an arrangement includes multiple elements, the fee should be allocated to the various elements based on their fair values and recognised when certain criteria are met. In addition, if a multiple-element arrangement includes both software and services, the portion of the fee allocable to the services is recognised separately as the services are performed, provided certain criteria are met.

9.4 Software element in a software arrangement is generally said to be present when

- The customer has the contractual right to take possession of the software at any time during the hosting period without incurring significant penalty; and

- It is feasible for the customer to either run the software on its own hardware or contract with another party unrelated to the vendor to host the software without incurring significant penalty.

This would allow the vendor the ability to recognise that portion of the fee attributable to the license on delivery, as transfer of significant risks and rewards is considered to have taken place, ordinarily when the delivery has occurred. The portion of the fee related to the hosting element would be recognised ratably as the service is provided, assuming all other revenue recognition criteria have been met.

To satisfy 'without incurring significant Penalty', the conditions mentioned below have to be ordinarily met:

- The user can take delivery of the software without incurring significant monetary cost; and

- The end-user would be able to use the software separately without a significant diminution in utility or value.

9.5 It should be noted that all of the requirements for recognising revenue, including fair value of the various elements in the contract and the requirement that the fee allocated to the software element is not subject to forfeiture, refund, or other concession, should be met in order to recognise revenue upon delivery for the portion of the fee allocated to the software element.

9.6 Arrangements that do not give the customer an option to take delivery of the software are service contracts.

9.7 In hosting arrangements wherein the customer has the option to take possession of the software, delivery of the software occurs when the customer has the ability to take immediate possession of the software.

> A vendor enters into a contractual arrangement that grants a perpetual software license to an end-user for an initial non-refundable payment of Rs.100,000. Although the end-user has the ability to take delivery of the software without incurring significant cost and could use it separately without impairing its utility or value, it initially chooses to have the vendor host the software. No separate fee is charged for the hosting services for the first year and the agreement allows for the hosting arrangement to be renewed for a second year at a rate of Rs. 20,000. The Rs.100,000 fee is considered to be fixed, there is a contract signed by both parties and collectability is considered reasonably assured.
>
> How should the vendor recognise revenue for this contract?
>
> The arrangement contains two elements - the perpetual license and the first year hosting service. Assuming the renewal rate on the hosting services is substantive (i.e., the fair value is reliably determinable), Rs. 20,000 of the initial Rs.100,000 fee would be allocated to the hosting services and the residual amount (Rs.80,000) could be assigned to the perpetual license. Thus, the vendor would be able to recognise Rs. 80,000 of license revenue at the time the customer has the ability to take immediate possession of the software and would recognise the remaining Rs. 20,000 as hosting service revenue ratably over the twelve months for which hosting services are provided.

9.8 If the conditions mentioned above for recognising the hosting arrangement as a software element are not met then generally the software in hosting arrangement is not be treated as separate element and would be considered as a service contract (not within the scope of this Technical Guide).

UPFRONT FEES

9.9 Unless the up-front fee is in exchange for products delivered or services performed that represent the culmination of a separate earnings process, the deferral of revenue is more appropriate. The deferred revenue would then be recognised ratably over the term of the arrangement or the expected period of performance (the 'customer relationship period').

9.10 The following may not normally be considered as a separate earning process:

- The up-front payments are negotiated in conjunction with the pricing of the other elements;
- The customer would ascribe a lower value, or no value, to the up-front activity in the absence of the performance of the other elements in the arrangement; and
- The vendor often does not sell the initial right or activities separately.

9.11 Since all of the above points would apply to a hosted software solution, a separate earnings process is not considered to have occurred, and therefore the fair value allocated to the up-front fees would need to be deferred and recognised ratably. Use of a straight-line method is appropriate for amortising revenues unless evidence suggests that the revenue is earned or obligations are fulfilled in a different pattern. The vendor may not assume that the life of the initial contract is the appropriate period for revenue recognition for an up-front fee. If the relationship with the customer is expected to extend beyond the initial term (anticipated renewals) and the customer continues to benefit from the payment of the up-front fee, the revenue attributed to that element of the contract should be recognised over a longer period.

Straight-line Revenue Recognition

An end-user enters into a license agreement with a software vendor for its product. It is not possible for the end-user to take delivery of the software. The license has a term of five years and the end-user signs a one-year hosting agreement. It would have been possible for the end-user to enter into a shorter-term license at a lower cost. Based on vendor's established fair values, the revenue attributable to the license and the hosting arrangement is Rs. 20,000 and Rs. 6,000, respectively.

How much revenue should the vendor recognise in the first year of the arrangement?

Although the end-user has only entered into a one-year hosting contract, it has paid the software vendor for a five-year license. This would suggest that it has an intention of continuing to use the software after the expiration of the initial hosting agreement. Thus, the up-front fee should be recognised ratably over the license term of five years, resulting in license revenue of Rs. 4,000 (Rs. 20,000 ÷ 5 years) and hosting revenue of Rs. 6,000 for the first year.

Non-straight-line revenue recognition

An ASP providing training solutions enters into a license agreement with a customer to make its software available for up to ten separate training sessions in a twelve-month period. The customer is required to pay an up-front configuration fee of Rs. 8,000 and a monthly support fee of Rs. 1,000. The training material will be out-of-date at the end of the twelve-month period and there will be no benefit of the set-up work in future years.

How should revenue be recognised in this scenario?

The provision of the configuration service and the monthly management fee do not represent separate earnings events (i.e., no one would pay for the set-up without receiving the ongoing training) and, hence, cannot be bifurcated. The total revenue to be earned from the contract is Rs.20,000 (Rs.8,000 configuration fee plus twelve monthly support fee payments). As the software will be used for only ten distinct training sessions, Rs.2,000 of revenue should be recognised on the date of each training session. Only at the end of the twelve-month period would the ASP be able to recognise the balance of the deferred revenue for any unused training sessions and only then as long as there is no future obligation to the customer. In this situation, the vendor may also need to have a history of not providing the service after the contract's expiration.

9.12 A hosted software arrangement may, in addition to the up-front fee and hosting, and/or consulting services. Such services should be accounted as multiple-element arrangement (discussed earlier).

CONTINGENT REVENUES

9.13 There are occasions where an ASP will enter into an arrangement to make software available to a customer for a stated period of time. The monthly fee that the ASP receives for providing these services is calculated as a fixed percentage of the value of the transactions that the customer processes using the software. Thus, each month's fee is contingent upon the outcome of events occurring within that month, and such events are:

- Not within the control of the ASP; and
- Not directly tied to the ASP's provision of service.

9.14 The contingent revenue is recognised in the financial statements of the period when the contingency is resolved as per the terms of the arrangement.

9.15 The implementation/customisation services are not unique to the ASP and could be performed by other service providers and the ASP has determined fair value for the ongoing hosting services.

Assuming all other revenue recognition criteria are met, the vendor would recognise the implementation/customisation fee upon completion and acceptance, if applicable, of the service. The other aspects relating to hosting arrangements is similar to that of regular arrangements and hence are not dealt with in this section.

Appendix 1

GLOSSARY

Application System

A group of related applications programs designed to perform a specific function.

Business Application

Business application refers to any application that is important to running your business. Business applications can range from large line-of-business systems to specialised tools. Applications that run on either client computers or servers, including commercial off-the-shelf products, customised third-party systems, and internally developed systems represent Business Application Systems.

Business Process

An action taken in the course of conducting business is termed as business process. Whether manual or automated, all processes require input and generate output. Depending on the level of viewing and modeling, a process can be a single task or a complicated task such as building a product.

Business Continuity Planning

Business Continuity Planning (BCP) is an interdisciplinary concept used to create and validate a practiced logistical plan for how an organisation will recover and restore partially or completely interrupted critical function(s) within a predetermined time after a disaster or extended disruption. The logistical plan is called a Business Continuity Plan. In simple language, BCP is working out how to stay in business in the event of disaster. Incidents include local incidents like building fires, regional incidents like earthquakes, or national incidents like pandemic illnesses.

Disaster Recovery

Disaster Recovery (DR) is the process, policies and procedures of restoring operations critical to the resumption of business, including regaining access to data (records, hardware, software, etc.), communications (incoming, outgoing, toll-free, fax, etc.), workspace, and other business processes after a natural or human-induced disaster.

Enterprise Service Oriented Architecture

Service Oriented Architecture (SOA) is a computer systems architectural style for creating and using business processes, packaged as services, throughout their lifecycle. SOA also defines and provisions the IT infrastructure to allow different applications to exchange data and participate in business processes. These functions are loosely coupled with the operating systems and programming languages underlying the applications. SOA separates functions into distinct units (services), which can be distributed over a network and can be combined and reused to create business applications. These services communicate with each other by passing data from one service to another, or by coordinating an activity between two or more services. SOA concepts are often seen as built upon, and evolving from older concepts of distributed computing and modular programming.

Executable Code

Software in a form that can be run in the computer. It typically refers to machine language, which is comprised of native instructions the computer carries out in hardware. Executable files in the DOS/Windows world use .EXE and .COM file extensions, while executable files in Unix and Mac do not require specific extensions.

Interface

An interface defines the communication boundary between two entities, such as a piece of software, a hardware device, or a user. Software interfaces which exist between separate software components and provide a programmatic mechanism by which these components can communicate.

Information Asset

An Information Asset is a definable piece of information, stored in any manner which is recognised as 'valuable' to the organisation. The information which comprises an Information Asset, may be little more than a prospect name and address file; or it may be the plans for the release of the latest range of products to compete with competitors.

Irrespective of the nature of the information assets themselves, they all have one or more of the following characteristics:-

- They are recognised to be of value to the organisation.
- They are not easily replaceable without cost, skill, time, resources or a combination.
- They form a part of the organisation's corporate identity, without which, the organisation may be threatened.
- Their Data Classification would normally be Proprietary or Highly Confidential.

It is the purpose of Information Security to identify the threats against the risks associated to potential damage to Information Asset.

Level 1 & Level 2 Support

Level 1 - Initial

The characteristic of processes at this level are (typically) undocumented and in a state of dynamic change, tending to be driven in an *ad hoc*, uncontrolled and reactive manner by users or events. This provides a chaotic or unstable environment for the processes.

Level 2 - Repeatable

The characteristic of processes at this level include processes that are repeatable, possibly with consistent results. The processes may not repeat for all the projects in the organisation. The organisation may use some basic project management to track cost and schedule.

Process discipline is unlikely to be rigorous, but where it exists it may help to ensure that existing practices are retained during times of stress. When these practices are in place, projects are performed and managed according to their documented plans.

Multi-module Application

A Module is a self-contained component of a system, which has a well-defined interface to the other components; something is modular if it includes or uses modules which can be interchanged as units without disassembly of the module. Design, manufacture, repair, etc. of the modules may be complex, but this is not relevant; once the module exists, it can easily be connected to or disconnected from the system.

Middleware

Middleware is a computer software that connects software components or applications. The software consists of a set of enabling services that allow multiple processes running on one or more machines to interact across a network. It includes web servers, application servers, and similar tools that support application development and delivery. Middleware is especially integral to modern information technology based on XML, SOAP, Web services, and service-oriented architecture.

Platforms

A software system that connects different data domains and analysis applications under one graphical user interface.

System

System is a set of interacting or interdependent entities, real or abstract, forming an integrated whole. The concept of an ‘integrated whole’ can also be stated in terms of a system embodying a set of relationships which are differentiated from relationships of the set to other elements, and from relationships between an element of the set and elements not a part of the relational regime.

Software Development Life Cycle

Software Development Life Cycle (SDLC) or sometimes just (SLC) is a software development process used by a systems analyst to develop an information system, including requirements, validation, training, and user ownership through investigation, analysis, design, implementation, and maintenance. SDLC is also known as information systems development or application development.

SDLC is a systematic approach to problem solving and is composed of several phases, each comprised of multiple steps:

1. Implementation	2. Testing	3. Evaluation					or
1. Feasibility Study	2. Analysis	3. Design	4. Development	5. Implementation	6. Maintenance		or
1. Feasibility Study	2. Analysis	3. Design	4. Implementation	5. Maintenance			or
1. Feasibility Study	2. Analysis	3. Design	4. Development	5. Testing	6. Implementation	7. Maintenance	or
1. Analysis	2. Design	3. Development	4. Implementation	5. Evaluation			or
1. Feasibility Study	2. Analysis	3. Design	4. Implementation	5. Testing	6. Evaluation	7. Maintenance	

Quality Assurance (QA)

Quality Assurance environment is created for performing interactive quality assurance testing of User Language request.

User Support

Technical assistance from a hardware manufacturer, software publisher, internal help desk, educational institution or third-party support company.

Virtual Private Network (VPN)

A virtual private network (VPN) is a computer network in which some of the links between nodes are carried by open connections or virtual circuits in some larger network (e.g., the Internet) instead of physical wires. The link-layer protocols of the virtual network are said to be tunneled through the larger network when this is the case. One common application is to secure communications through the public Internet, but a VPN need not have explicit security features, such as authentication or content encryption. VPNs, for example, can be used to separate the traffic of different user communities over an underlying network with strong security features.