

Consultative Document
Issued by the
Info-communications Development Authority (iDA)
of Singapore

**Review of Accounting Separation for the Telecommunication
Sector in Singapore**

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Executive Summary

As a result of the full liberalisation of the telecommunications industry in Singapore in April 2000, the Infocommunications Development Authority (iDA) has undertaken a review of the existing Accounting Separation Guidelines (ASG), with the aim of enhancing accounting separation reporting in order to better meet the needs of a fully liberalised market.

This consultative document covers the issues iDA has considered and provides its rationale for a number of initial views it has adopted in order to foster this consultative process. In addition, the iDA has developed a draft ASG for the industry's consideration.

iDA is seeking feedback on its initial views and on the draft ASG.

The following paragraphs summarise the iDA's initial views on a number of issues related to the development of enhanced ASG for the Singapore telecommunication industry.

Costing Approach

iDA proposes that accounting separation should initially be based on historical cost accounting (HCA), but should move towards current cost accounting (CCA) over a 2-3 year time frame. The extended timeframe for implementation of CCA is intended to allow for the expected significant implementation process required.

Levels of Reporting

iDA proposes that accounting separation requirements will be applied at two levels in Singapore:

- **Detailed Segment Reporting** will apply to all Dominant Facilities-Based Operators (FBOs) and their controlled entities; and
- **Simplified Segment Reporting** will apply to all FBOs except Dominant FBOs.

In addition, iDA will reserve the right to require any other FBO or a Services-Based Operator (SBO) that is related (as defined in Section 2.2(b) of the ASG) to a Dominant FBO to report on a Detailed Segment Reporting basis should the need arise.

Segments Reported

For **Detailed Segment Reporting**, iDA proposes that accounting separation statements should be prepared for the key segments of:

- Access
- Domestic Network
- International Network
- Retail Services, which are further divided into key activities as follows:
 - Fixed Line Access;
 - Domestic Calls;
 - International Calls;
 - Domestic Leased Circuit Services;
 - International Leased Circuit Services;
 - Narrowband Internet Access;
 - Broadband Internet Access;
 - Mobile¹ Domestic Access and Calls; and
 - Other Activities.

For **Simplified Segment Reporting**, iDA proposes that a simplified set of accounting separation statements should be prepared by Licensees, with separate reports prepared for each of the following segments:

- Fixed Domestic Services;
- International Fixed and Mobile Services;
- Mobile Domestic Services;
- Narrowband Internet Access;
- Broadband Internet Access; and
- Other Activities.

Cost & Revenue Allocation Methodology

For **Detailed Segment Reporting**, costs and revenues should be allocated based on a *simplified cost driver attribution* methodology. This approach uses a conventional cost driver allocation methodology, which has been tested in other jurisdictions. However, detailed and prescriptive cost allocation methodologies will only apply to direct and directly attributable costs, while the allocation of indirect costs may be done through

¹ For the purposes of this consultative document, “mobile” services includes voice and data services provided over 2G cellular mobile, personal communication services and trunk radio networks.

simplified allocation methodology. This approach is expected to significantly reduce the administrative burden on Licensees.

For **Simplified Segment Reporting**, all attributable costs and revenues should be allocated based on cost driver relationships, while unattributable costs should be allocated in proportion to the contribution of each segment. Allocation methodologies may be determined by the Licensee and may vary depending on the Licensee's organisational structure and internal financial reporting systems. However, the bases and assumptions used for allocation of revenues and costs should be reasonable and consistently applied.

Report Types and Cycle

Detailed Segment Reporting will require the following accounting statements to be submitted:

- Income Statements for each reporting segment;
- Reconciliation of Consolidated Income Statement with the Licensee's audited Income Statement or Consolidated Income Statement (as the case may be);
- Statement of Mean Capital Employed for each reporting segment;
- Reconciliation of Consolidated Mean Capital Employed Statement with the Licensee's audited Balance Sheet or Consolidated Balance Sheet;
- Non-financial Information Report (see Section 5.7 of this report); and
- Annual Audit Report (see Section 7 of this report).

Simplified Segment Reporting will require the following accounting statements to be submitted for the each of the reporting segments.

- Income Statements for each reporting segment;
- Reconciliation of Consolidated Income Statement or Consolidated Income Statement with the Licensee's audited Income Statement;
- Non-financial Information Report (see Section 5.7 of this report); and
- Annual Audit Report (see Section 7 of this report).

iDA proposes that accounting separation **reporting cycle** should be submitted on a six monthly basis. Detailed Segment Reporting and Simplified Segment Reporting will be subject to different reporting formats, as set out in the ASG.

Development of Procedures and Cost Allocation Manual

The bases and assumptions used for allocating costs and revenues should be reasonable and consistently applied and should be documented in the Licensee's Procedure and Cost Allocation Manual (PCAM). iDA may require a Licensee to provide further details of its

cost allocation approaches and may require changes to methodologies in order to meet its information requirements. iDA reserves the right to require an independent review of the PCAM.

Auditing of AS Reports

iDA proposes that an audit be undertaken by an independent auditor appointed by the Licensee. The auditor is required to form an opinion as to whether the accounting separation statements comply with the Licensee's PCAM (which has been approved by iDA), and whether the Licensee has exercised consistency in applying the ASG and the PCAM.

iDA will retain a reserve power to appoint an auditor to re-audit the accounting separation reports if it is concerned that the audit undertaken by the Licensee's auditor in the initial audit requires further work to ensure regulatory certainty, or if the Auditor's Report does not, in iDA's view, give sufficient clearance of the Accounting Separation Statements for regulatory purposes. iDA may also request meetings with the Licensee's auditor to seek further information or clarification regarding the auditor's work.

The cost of all audits and associated meetings, as well as any re-audits required by iDA, will be borne by the Licensee.

Information and Report Confidentiality

iDA proposes that information submitted under the accounting separation requirements, including both financial data and detailed PCAMs, will remain confidential to iDA, its staff, legal advisers and consultants.

Implementation of New ASG Arrangements

iDA proposes that the revised accounting separation arrangements proposed in the draft ASG should be implemented:

- by 31 September 2002 for Licensees whose financial year commences on 1 April;
- by 31 December 2002 for Licensees whose financial year commences on 1 January or 1 July.

Consultative Timetable

Respondents are invited to comment on the issues covered in the consultative document, the draft ASG or any other issue that they think are relevant to this review. iDA will consider all inputs submitted in its final review of the ASG.

All views and comments should be submitted in writing and in both hard copy and soft copy (Microsoft Word 97 format), and should reach iDA **on or before 21 June 2001**. Respondents are required to include their personal/company particulars as well as the correspondence address in their submissions. Hard copies of comments and views should be addressed to:

Mr Andrew Haire
Senior Director (Regulation & Operations)
Info-comm Development Authority of Singapore
8 Temasek Boulevard
#14-00 Suntec Tower Three
Singapore 038988
Fax: 211-2116

and

soft copies should be emailed to soon wei_san@ida.gov.sg

iDA reserves the right to make public all or parts of any written submissions made in response to the consultative document and the draft Accounting Separation Guidelines and to disclose the identity of the source. Any part of the submission, which is considered commercially confidential, should be clearly marked and placed as an annex to the comments raised. iDA will take this into account when disclosing the information submitted.

1 Introduction

Following the full liberalisation of the telecommunication industry in Singapore in April 2000, the Info-communications Development Authority (iDA) has undertaken a review of the existing Accounting Separation Guidelines (ASG), with the aim of enhancing accounting separation reporting in order to better meet the needs of a fully liberalised market.

In developing the revised ASG, iDA has reviewed the current reporting arrangements in Singapore and considered other accounting separation regimes adopted overseas.

This consultative document is designed to assist in the development of the enhanced ASG. iDA is seeking comments on the draft framework from Licensees and other interested stakeholders to ensure that the interests and positions of all parties have been taken into consideration in developing an effective and workable accounting separation arrangement.

2 Background

This section provides an overview of the existing accounting separation arrangement in Singapore.

2.1 Legal Authority

The requirement to comply with accounting separation is a standard condition of all Facilities-Based Operator licences² and Services-Based Operator (Individual) licences,³ granted pursuant to s5 of the *Telecommunications Act* (Cap. 323) (the “Act”). However, to date, iDA has only required certain Licensees to undertake accounting separation. iDA may also issue directions to any Licensee to comply with accounting separation requirements pursuant to s27 of the Act.

2.2 Existing Accounting Separation Framework

The existing accounting separation arrangement in Singapore was established as part of a set of competitive safeguards designed to foster the development of effective competition in the Singapore telecommunication market. The primary objective of accounting separation in this framework is to assist in detecting and monitoring anti-competitive practices which might result from practices such as cross subsidies, bundling, predatory pricing and non-arm’s length transactions between related parties.

² See guidelines on *Licensing Requirements and Regulatory Frameworks Governing Operations/Service Provision for Facilities-Based Operators* at iDA’s website at www.ida.gov.sg.

³ See guidelines on *Licensing and Regulatory Frameworks for Operation and Provision of Services Under Services-Based Operator (Individual) Licence* on iDA’s website at www.ida.gov.sg.

2.2.1 Application of the existing arrangements

The accounting separation requirements have, to date, applied to Licensees which are integrated entities that offer a range of different telecommunication services (such as fixed and mobile services), and entities which hold more than one telecommunication licence. Table 1 provides an overview of the Licensees currently required to provide accounting separation reports.

Entity Group	SingTel	MobileOne	StarHub	Singapore Technologies	Singapore Cable Vision
Related Parties	Singapore Telecommunications Ltd	MobileOne (Asia) Pte Ltd	StarHub Pte Ltd	ST SunPage Pte Ltd	SCV Pte Ltd
	SingNet Pte Ltd		StarHub Mobile Pte Ltd	ST MobileData Pte Ltd	
	SingTel Mobile Pte Ltd			ST Teleport Pte Ltd	
	SingTel Paging Pte Ltd			DNA Communications Pte Ltd ⁴	

Table 1 Licensees Currently Subject to Accounting Separation

2.2.2 Accounting Separation Guidelines

iDA's current ASG provide the framework for accounting separation and set out the broad principles which the Licensees must follow in preparing its separated reports. Under the ASG, each Licensee is required to document the procedures it has taken to implement the ASG in a *Procedures Manual*. Similarly, the Licensees must also prepare and maintain a *Cost Allocation Manual*, which sets out the bases and assumptions used, to allocate costs and revenues to each service. A summary of the requirements under the existing ASG is provided in Table 2.

⁴ Formerly known as ST Advanced Radio Pte Ltd

ASG	Requirements/Principles
Basic requirements	<ul style="list-style-type: none"> • Compliance with relevant statutory financial reporting standards • Consistency of practices from year to year
Allocation principles	<ul style="list-style-type: none"> • Allocation to be based on causality • Fully distributed cost basis • Costs should be allocated directly to services as far as possible • Arbitrary allocation to be kept to a minimum • Cost allocation bases and assumptions should be reasonable and consistently applied and should be substantiated (e.g. by plant, organisational or time studies, historical data, usage patterns, etc)
Transfer pricing principles	<ul style="list-style-type: none"> • Licensed services to be charged at tariffed rates • Competitive services to be charged at prevailing market rates • Shared services to be valued at full cost of provision based on usage • Asset transfers valued at realisable value • Jointly used assets capitalised in accordance with Singapore Statements of Accounting Standard (SAS); allocation of the capitalised value to services utilising the asset should be based on usage
Non-financial information	<ul style="list-style-type: none"> • Licensee may be required to submit other financial and non-financial information such as usage and operational details
Information and reporting requirements	<ul style="list-style-type: none"> • Licensee must prepare and submit a Cost Allocation Manual (CAM) which clearly indicates the bases and assumptions used to allocate costs and revenues • Licensee must prepare and submit a Procedure and Cost Allocation Manual (PCAM) • Amendments to PCAM and CAM must be filed with iDA • Where amendments made, previous 2 years information must be revised to reflect the changes
Confidentiality	<ul style="list-style-type: none"> • No disclosure of information beyond iDA unless it is necessary to pursue the Government's telecommunication policy, its objectives, or resolve a dispute.
Audit requirements	<ul style="list-style-type: none"> • The Licensee must appoint an independent auditor who will provide an annual audit report to iDA. The aim of the audit is to ensure that the information is reliable and complies with the ASG. • iDA may also appoint its own independent auditor if it is not satisfied that the audit has been, or will be, conducted properly

Table 2 Summary of the Existing Accounting Separation Guidelines

2.2.3 Reporting architecture

Licenses are currently required to prepare and report separate accounts for each service, or group of services, for which a licence has been granted. Based on this requirement, the Licenses report on the service groupings shown in Table 3. Reporting is done on a fully distributed, historical cost basis, allocating costs from the General Ledger.

Group/Licensee	Reporting Disaggregation
<i>SingTel Group</i>	
SingTel	Basic network services Basic retail services Satellite uplink & downlink Broadband access wholesale services Broadband access retail services
SingNet	SingNet services
SingTel Mobile	Cellular mobile services
SingTel Paging	Public Radio Paging services Public mobile data services
<i>MobileOne (MI)</i>	Cellular mobile services Paging services
<i>StarHub Group</i>	
StarHub	Basic network services Basic retail services Broadband access wholesale services Broadband access retail services
StarHub Mobile	Cellular mobile services
<i>Singapore Technologies Group</i>	
ST SunPage	Paging services
ST MobileData	Wireless mobile data service
ST Teleport	Satellite uplink & downlink services
DNA Communications	Trunk radio service
<i>Singapore Cable Vision</i>	Broadband access wholesale services Broadband access retail services

Table 3 Existing Reporting Architecture

2.2.4 Reporting requirements

Licensees are currently required to submit on a bi-annual and annual basis the following statements for each licensed service:

- Income (P&L) statement;
- Statement of related entity (internal) transactions;
- Statement of fixed assets; and
- Balance sheet.

The Licensees must also provide, on an annual basis:

- reconciliation of all the service P&L statements to the audited company P&L statement;
- reconciliation of the service fixed asset statements to the Fixed Asset Note in the company's audited accounts;
- the audited company Balance Sheet (BS); and
- an annual audit report.

Licensees may also be requested to provide non-financial data, such as operational or usage data, on an *ad hoc* basis.

2.2.5 Disclosure of accounting separation information

Under the current framework, the Licensees are required to provide their Procedures Manuals, Cost Allocation Manuals and accounting separation compliance reports to iDA. Neither the Manuals nor the accounting separation information is publicly disclosed.

2.3 Industry Changes that Affect Accounting Separation

Market liberalisation has allowed many new players to enter the market, including Facilities-Based and Services-Based Operators. Some new entrants will compete with the incumbent in a range of markets and invest in their own network facilities while other Licensees will compete in niche market segments including new and innovative digital services. The liberalisation of the market has created new and more complex upstream-downstream market relationships, while differences in the degrees of vertical integration and ownership of key network assets have led to variations in the concentration of market power.

At the same time, digital convergence and rapid technological change are constantly changing the competitive landscape of the telecommunication industry globally. As a result of these factors, customer demand patterns are shifting and the ranges of services offered by Licensees are changing. These factors can also alter the concentrations of market power as sources of market power change.

Since the liberalisation of the industry, iDA has established various new regulatory arrangements to meet the changes in the market. Key developments impacting on accounting separation are the Code of Practice For Competition in the Provision of Telecommunication Services (COP) and the interconnect arrangements.

All of the above factors impact on the types of information that iDA needs and the most effective way that information can be provided.

3 Overseas Experience with Accounting Separation

iDA has considered the accounting separation regimes in several overseas jurisdictions in order to assess how the specific objectives of accounting separation in Singapore might best be met.

The experience in other jurisdictions is varied, and depends significantly on the objectives that accounting separation is intended to achieve and the broader regulatory regime in place. However, in general, the models vary mainly according to the method of dividing the operations of telecommunication operators, the level of disaggregation of the businesses that is required, and the cost basis.

4 The Objectives of Accounting Separation

To develop a useful accounting separation framework, it is necessary to look at the regulatory purpose of accounting separation and identify areas where it can assist iDA to carry out its functions. To isolate the main objectives, iDA considered the following:

- the regulatory objectives of accounting separation;
- the regulatory framework in Singapore;
- whether accounting separation is required; and
- how iDA's information needs may evolve over time.

These issues are discussed in the following sections.

4.1 The Regulatory Objectives of Accounting Separation

In general, accounting separation has been implemented with the intention of providing the regulator with information relevant to one or more of the following objectives:

- monitoring cross subsidisation between competitive and non-competitive markets, or between regulated and non-regulated markets;
- comparison between internal transfer prices and external wholesale service charges for vertically integrated operators;

- analysing potential anti-competitive pricing behaviour, such as predatory pricing;
- determination and monitoring of cost based interconnect charges; and
- monitoring industry and service trends in both a financial and operational sense.

4.2 The Regulatory Framework in Singapore

4.2.1 The role of iDA

iDA's functions and duties include the following:

- promoting the efficiency and international competitiveness of the information and communications industry;
- promoting and maintaining fair and efficient market conduct and effective competition;
- promoting the effective participation of all sectors of the Singapore information and communications industry in markets;
- encouraging, facilitating and promoting industry self-regulation; and
- encouraging, facilitating and promoting investment in, and the establishment, development and expansion of the information and communications industry in Singapore.

In order to fulfil its functions above, iDA requires information relating to both individual Licensees and the industry as a whole. The information required by iDA ranges from the prices, revenues and costs of specific services through to aggregate market data. In a rapidly changing market such as the Information, Communications and Technology (ICT) market, effective regulation depends on having an informed regulator, which can respond quickly and effectively to competitive and other issues.

4.2.2 Regulation of competition and interconnection

A summary of the regulatory arrangements for competition and interconnection and its impact on accounting separation requirements is set out in the following Table 4. In particular, the COP, issued by iDA in September 2000, provides detailed provisions relating to the regulation of competition and interconnection between Licensees in Singapore's telecommunication markets.

Regulatory Provision	Description	Impact on accounting separation requirements
Classification of Licensees	The COP distinguishes between Licensees that are subject to competitive market forces and Licensees whose conduct is not constrained by market forces. The latter category is categorised as Dominant Licensees.	<ul style="list-style-type: none"> ▪ This is an asymmetric regulatory approach under which Dominant Licensees are subject to more stringent regulatory requirements than non-Dominant Licensees. ▪ The COP provides that Dominant Licensees should comply with accounting separation arrangements in order to demonstrate that there is no cross subsidisation between services offered.
Interconnection arrangement	Charges for Interconnection Related Services (IRS) provided by Dominant Licensees must be based on Forward Looking Economic Cost (FLEC) using the Long Run Average Incremental Cost (LRAIC) standard. Charges for broadband access interconnection must be based on either FLEC or CRC.	<ul style="list-style-type: none"> ▪ A costing study was undertaken by iDA to establish the charges. However, this does not provide iDA with ongoing information on the Dominant Licensees' costs. ▪ Accounting separation information enables the <i>ex post</i> analysis of actual performance and costs in the provision of IRS enabling iDA to monitor the effectiveness of the <i>ex ante</i> regulatory provisions put in place.
Regulation of unfair methods of competition	Specific rules regarding prohibition of anti-competitive pricing, including predatory pricing, price squeezes, and anti-competitive discrimination.	<ul style="list-style-type: none"> ▪ Accounting separation can provide a starting point for individual case studies relating to potential anti-competitive pricing. Whilst the level of detail required in such studies is likely to be more detailed than that available through accounting separation, the ongoing financial reporting can provide a reference point for cross-checking specific information submitted.
Prohibition of anti-competitive cross subsidisation	A Dominant Licensee is not permitted to cross subsidise between competitive and non-competitive services.	<ul style="list-style-type: none"> ▪ Accounting separation provides the information necessary to monitor this provision.
iDA information gathering powers	iDA has powers to request and obtain information from industry participants.	<ul style="list-style-type: none"> ▪ These powers can be used in conjunction with the accounting separation information to enable iDA to obtain detailed and specific information relating to particular case studies. In general, these powers would be used in exceptional circumstances rather than for ongoing monitoring purposes.

Table 4 Accounting Separation in the Context of Other Regulatory Safeguards

4.3 Is Accounting Separation Required?

An important issue in reviewing the accounting separation framework is to consider whether accounting separation is in fact required. This is particularly important given the regulatory costs of implementing and maintaining accounting separation. Regulatory accounting requirements can require the creation of complex systems, which are costly to establish and maintain. In addition, the regulator will incur costs in monitoring the information delivered.

As shown in Table 4, there are a number of regulatory safeguards, which are designed to ensure fair competition in Singapore’s ICT markets. In addition, some Licensees have structural separation of certain major lines of business. Whilst structural separation reduces the opportunity for cross subsidisation between different lines of business, it does not rule out the potential for a Licensee to provide services to its related affiliates on more favorable terms than are offered to unrelated parties. Accounting separation allows monitoring of this.

In summary, accounting separation provides a *complementary tool* rather than a *substitute* for the various competitive safeguards in place under the competition code. It is intended to provide iDA with the information it requires to effectively administer the regulatory framework. Accounting separation itself also acts as a primary safeguard against potential anti-competitive cross subsidisation by ensuring there is transparency of Licensees’ financial costs and revenues to the regulator. In addition, it provides the industry with a general level of comfort that the regulator is able to monitor the conduct of Dominant Licensees.

4.4 Consideration of Anti-competitive Conduct

One of the key objectives of accounting separation in Singapore is the monitoring of potential anti-competitive conduct. In considering this issue, it is important to recognise that, whilst accounting separation can provide a useful reference point, it is unlikely to eliminate altogether the need for further information gathering in relation to specific complaints. There are two key reasons for this:

Firstly, in practice, anti-competitive pricing such as predatory price cutting typically occurs at the individual product or tariff level. In contrast, accounting separation occurs at a much higher level of service aggregation, such as “the international calls business”. As such, when investigating anti-competitive conduct, it is likely that iDA will need to request additional cost, revenue and operational information specific to the individual service or tariff in question. The exact nature of the information required by iDA will vary depending on the focus of each individual study.

Secondly, the assessment of market behaviour and pricing requires the analysis of *economic* costing standards, because it is these costing standards rather than financial accounting costs, which drive most market behaviour. In particular, forward looking economic costs (FLEC) are used as a proxy for competitive market pricing. However, financial accounting data used together with operational network usage data, can provide information to estimate proxies for various economic cost and revenue standards. Whilst not providing conclusive evidence, these financial cost tests provide a “first cut” indicator of potential anti-competitive pricing. It should be noted that it would usually be necessary for iDA to seek further information in order to confirm whether or not anti-competitive pricing has occurred.

Table 5 provides an indication of some of the financial cost tests that can be used to approximate various economic costing standards that are typically used in applying pricing tests.

Pricing Behaviour	Economic Cost Standard / Pricing Test	“First Cut” Financial Cost/Revenue Test
Predatory pricing	Marginal cost (COP Section 7.2.1.1)	Revenue for a service should not be less than the direct and directly attributable variable costs of providing the service.
Price squeezes	The price at which a Dominant Licensee provides an input used by downstream Licensees should not be so high that the Licensee’s own downstream affiliate could not profitably sell its product if it were required to pass on to its customers the full retail price of the output. (COP Section 7.2.1.2)	Average unit revenues for the input should not be greater than the internal transfer price that the Dominant Licensee charges itself for the input.
Cross subsidisation	LRAIC (plus reasonable share of unattributable joint and common costs)	For each service, revenue should not be less than the direct and directly attributable fixed and variable costs plus a reasonable share of unattributable joint and common costs.
Reasonableness of interconnect charges	LRAIC	Revenue for the service should not exceed the direct and directly attributable fixed and variable costs of providing the service.
Full cost recovery level	Fully Distributed Cost (FDC)	Revenue for the service should be equivalent to the total of direct and directly attributable fixed and variable costs plus indirectly attributable costs plus a reasonable share of unattributable joint and common costs.

Table 5 Use of Accounting Separation Information for Analysis of Anti-competitive Behaviour

4.5 Evolution of Information Needs Over Time

Overseas experience suggests that the accounting separation framework will change and evolve over time in response to changes in the focus of the regulatory framework as competition develops.

While the objectives identified in the section below are relevant to the current stage of the development of competition in Singapore, these objectives may change as the broader regulatory framework evolves to meet the changing needs of the market.

For example, in the UK, accounting separation was initially based on historical cost accounting (HCA) but was subsequently migrated to a current cost accounting (CCA)

basis, which is used to derive FLEC estimates. This reflected the objective of using accounting separation information to set and monitor FLEC based interconnection charges.

4.6 Summary of Objectives

In light of the broader regulatory framework in Singapore, the objectives of accounting separation is to assist iDA in regulation, including but not limited to the following:

- ensure that services that are provided by Dominant Licensees to their downstream operations or affiliated companies are provided on similar terms to equivalent services provided to other unrelated Licensees;
- monitor compliance with the cross-subsidisation provisions applying to Dominant Licensees under Section 7.2.1.3 of the COP;
- establish and maintain objective reference points for evaluating information provided by Licensees in relation to specific studies which may occur from time to time such as costing studies and investigation of potential predatory pricing, price squeezes, discrimination and other anti-competitive conduct;
- monitor the revenues and costs associated with the provision of IRS⁵ by Dominant Licensees, to ensure that such revenues and costs are clearly identified and separated from the revenues and costs of providing other services; and
- monitor general ICT market performance and trends.

5 Accounting Separation Approach

5.1 Key Issues

iDA has considered the following key issues in developing a new reporting framework:

- the scope of accounting separation obligations, i.e., which Licensees should be subject to accounting separation;
- the cost basis, i.e., whether reports should be based on historical or current cost;
- the method of dividing the organisation's operations, the degree of disaggregation that is necessary and the principles of cost allocation. In this regard, the separation can be by activity/service (such as access, local calls, international calls, etc) or by business function (such as network operation, retail services);
- the need for non-financial operational information (such as network usage).

These issues are discussed in detail in the following sections of this report.

⁵ It is also noted that, in the longer term, if the regulation of IRS is progressively loosened as the competitive market develops, accounting separation could provide a tool to assist the regulator in determining fair and reasonable interconnect charges in cases of disputes between operators regarding commercially negotiated IRS charges.

5.2 The Scope of Accounting Separation Obligations

Whilst a wide-reaching accounting separation regime can provide industry transparency, the benefits of this must be balanced against the compliance costs that are imposed on Licensees.

Initial View

iDA proposes that accounting separation requirements will be applied at two levels in Singapore:

In general:

- **Detailed Segment Reporting** will apply to Dominant FBOs and their controlled entities; and
- **Simplified Segment Reporting** will apply to all FBOs except Dominant FBOs.

In addition, iDA will reserve the right to require any other FBOs or SBOs that is related (as defined in Section 2.2(b) of the ASG) to a Dominant FBO to report on a Detailed Segment Reporting basis should the need arise.

5.2.1 Options for triggering accounting separation reporting

iDA has considered a number of options with respect to the application of accounting separation requirements, namely:

- Application only to Dominant Licensees. This approach is typically used in conjunction with asymmetric regulation, where more stringent pricing and/or interconnection rules are applied to the Dominant Licensee than to other market players, based on the notion that Dominant Licensees are able, by virtue of their market power, to engage in anti-competitive pricing and may also lack incentives to provide interconnect services at competitive prices. Examples of countries that use this approach include UK, Hong Kong, New Zealand and Japan.
- Application based on market share. Under this approach Licensees would be required to file accounting separation information once their market share levels for a particular services reached a certain threshold, based on minutes of use, numbers of calls, or revenue. The advantage of this approach is that it provides an objective decision criterion. However, the disadvantages are that the measurement of market shares may be subjective and, in rapidly changing markets, relative market shares may fluctuate from year to year leading to intermittent reporting by some entities.

- Application based on level of turnover. Under this option, only Licensees that meet a certain turnover threshold are required to undertake accounting separation. This approach is used in the EU where accounting separation obligations are applied to operators whose annual turnover is Euro \$50m or greater. Similarly, in the US, more stringent reporting requirements apply to operators whose annual turnover exceeds US\$100m. The advantages of this approach are that it provides an objective decision criterion. The disadvantage is that in rapidly growing and changing markets turnover may be volatile which could lead to intermittent reporting for some entities.
- Degree of diversity and/or vertical integration. Here, accounting separation obligations are imposed on those Licensees that offer a range of services across different market segments (e.g. local access, international calls, mobile services etc). The obligation can also be related to the degree of vertical integration, where a Licensee operates or controls networks, which are inputs to downstream competitive services.
- Application based on several criteria. Various combinations of different criteria can be used to determine the application of accounting separation. Relevant criteria include market power, ability to engage in anti-competitive pricing, degree of diversity and/or vertical integration, turnover, participation in key markets and relative size in particular markets. Under this option, the regulator would impose accounting separation obligations based on consideration of a balance of the various criteria. This approach has been suggested under the new accounting separation arrangements proposed in Australia.

5.2.2 Proposed reporting obligations

Given iDA's objectives for accounting separation which are discussed in Section 4 of this report and the existing characteristics of the ICT market in Singapore, a two level reporting approach is proposed, as described below.

5.2.2.1 Detailed Segment Reporting

iDA proposes that Detailed Segment Reporting will be required from all **Dominant FBOs and their controlled entities** which provide one or more of the following services as defined in Section 6.2 of the ASG:

- Access
- Domestic Network
- International Network
- Retail services, which must be further disaggregated into key service types

A Dominant Licensee must submit Detailed Segment Reporting Statements on its own operations, and the operations of its fully owned, or controlled entities. The inclusion of controlled entities is necessary due to the structural separation of some multi- service operators in Singapore.

For the purposes of the accounting separation requirements, a person *controls* another entity if, directly or indirectly, it holds or is beneficially entitled to 50 percent or more of the equity share capital in that other entity or possesses 50 percent or more of the voting power in that other entity or if it is otherwise reasonable to expect, having regard to the circumstances, that it will be able to achieve the result (by whatever means and whether directly or indirectly) that the affairs of that other entity are conducted in accordance with its wishes.

However, iDA will reserve the right to require any other FBO or SBO that is related to a Dominant FBO to report on a Detailed Segment Reporting basis should the need arise. Related entities which may be required to report on this basis include any FBO or SBO that:

- i) controls a Dominant FBO;
- ii) holds, is beneficially entitled to, or has a right to acquire or subscribe for more than 20 percent of a class of shares in a Dominant FBO;
- iii) has a right to acquire or subscribe for shares which, aggregated together with such shares which it holds or to which it is beneficially entitled, represent or would represent more than 20 percent of that class of shares in a Dominant FBO;
- iv) possesses voting power in respect of more than 20 percent of a class of shares of a Dominant FBO;
- v) has an indirect interest of more than 20 percent in the share capital of a Dominant FBO;
- vi) controls or is controlled by an entity falling within any of sub-paragraphs (i) to (v) above; and/or
- vii) is controlled by an entity who controls an entity falling within any sub-paragraphs (i) to (v) above.

The above additional reserve power is designed to enable iDA to require other related Licensees (which are not subsidiaries or controlled entities) of a Dominant FBO to provide detailed reporting, should iDA consider that it necessary to monitor the market activities of such related entities. Examples of where this additional reporting requirement may be required include:

- where a non-dominant FBO owns or controls a dominant FBO;
- merger situations, where a non-dominant Licensee takes over a dominant licensee;
- situations where a non-dominant Licensee has influence on the management of the dominant FBO; and/or

other circumstances where iDA believes such reporting would be prudent to ensure transparency and fair market conduct.

At the present time, Detailed Segment Reporting will apply to the following Licensees:

Dominant Licensee	Controlled Entities
Singapore Telecommunications Ltd	SingNet Pte Ltd SingTel Mobile Pte Ltd SingTel Paging Pte Ltd
SCV Pte Ltd	SCV Pte Ltd

Table 6 Licensees Subject to Detailed Segment Reporting

5.2.2.2 Simplified Segment Reporting

iDA proposes that **Simplified Segment Reporting** should be undertaken by **all FBOs** (except Dominant FBOs and their controlled and related entities that are required to report on a Detailed Segment Reporting basis) which provide one or more of the following services as defined in Section 7.2 of the ASG:

- Fixed domestic services
- International fixed and mobile services
- Mobile domestic services
- Narrowband Internet access
- Broadband Internet access

Simplified Segment Reporting is intended to minimise the administrative burden for Licensees while providing iDA with sufficient information to monitor market developments. Simplified Segment Reporting will not apply to controlled or related entities of the Licensee.

Comment is invited on the proposed two-level approach to accounting separation.

5.3 The Cost Basis

Initial View

iDA proposes that accounting separation should initially be based on historical cost accounting, but should move to current cost accounting over a 2-3 year time frame.

To change both the reporting structure and cost basis would require substantial changes to a Licensee's existing accounting separation procedures and systems. Moreover, iDA considers that the greater degree of detail provided in the revised reporting structures proposed here using a Historical Cost Accounting (HCA) based framework, will provide improvements which are immediately useful and can be implemented within a reasonable time period. The extended timeframe for implementation of Current Cost Accounting (CCA) is intended to allow for the expected significant implementation process required.

5.3.1 Historical cost accounting

Historical Cost Accounting (HCA) is the conventional accounting methodology where assets are valued and depreciated according to their cost at the time of purchase.

The advantage of using HCA is that the information is usually readily available from the accounting systems. There should be no further estimation of amounts required and it should be possible to reconcile the separated accounts with the audited financial statements relatively easily.

However, the disadvantage of using HCA is that the information is, by nature, out of date. For the purpose of analysing market conduct, competitive pricing and interconnect costs, iDA is most concerned with forward looking economic costs, rather than historical costs incurred. Costs reported on a historical basis may be very different from current or forward looking costs faced by the Licensee or its competitors in making market decisions. However, while there are limitations associated with using HCA reporting, it is noted that historical costs can be used to derive proxies for economic costs, if the costs are sufficiently disaggregated, as discussed in Section 4.4 of this report.

5.3.2 Current cost accounting

Current Cost Accounting (CCA) is devised as a method of accounting in times of rapidly changing prices, as it takes into account the changing costs and values. There are two

alternative approaches to CCA, namely financial capital maintenance and operating capital maintenance.

Under the *financial capital maintenance* convention, assets are restated to reflect their value to the business which is usually equivalent to their net current replacement cost. Provision is also made for the effects of specific and general price changes on the value of shareholders funds, although this would not be apportioned to the individual segments and activities. The historical cost profit/loss is adjusted to take account of the changes in asset values and the erosion of the purchasing power of shareholders equity due to general inflation to arrive at the current cost profit/loss for the year.

The *operating capital maintenance* method requires the company to have as much productive capacity at the beginning of the period as at the end. This method differs from financial capital maintenance in that it only takes into consideration specific price changes and does not therefore consider general inflation.

5.3.2.1 Valuation methods for CCA

There are several methods of asset valuation available for CCA. The choice of method will depend upon the asset's technology and expected useful life. Where the technology still currently exists, the value may be either the actual current valuation or an indexation of the original historical cost. However, where the technology is obsolete, the valuation of a modern equivalent asset (MEA) should be used, because the assets would not be replaced in an identical form. Finally, where an asset has a low value or its asset life is sufficiently short such that there is unlikely to be a significant difference between the original cost and the replacement value, then the historical cost should be used.

5.3.2.2 Use of CCA for accounting separation

The use of CCA for accounting separation is required in the UK, Germany, the Netherlands and Austria, while telecommunication regulators in several other countries, including Australia, Ireland, Italy, Belgium, Denmark, Greece and Spain have indicated their intention to implement CCA-based requirements. The EU framework for accounting separation recommends that a CCA basis be used.

5.3.2.3 Advantages and disadvantages of CCA

The key advantage of using a CCA methodology is that the resulting information is based on real-time prices for assets currently in use, and therefore provides a more realistic view of the Licensee's operations and of the economic and financial decisions that the Licensee faces.

The main disadvantages of a CCA methodology are the time taken to gather the required data and the cost involved in both building the system and collecting the data. Given the

different valuation methods available, it may be necessary to gather the data under a number of methods and compare the results in order to decide which method produced the most realistic result. It is also more difficult to reconcile the CCA accounts to the audited financial statements.

5.3.3 Actual versus economic costs

There is a distinction between the 'actual' costs incurred by a telecommunication Licensee and 'economic' costs which might be relevant for the analysis of retail prices or wholesale charges.

The costs output from HCA systems include all costs actually incurred by a business. Thus these costs may be related to older technology and may be considered to be inefficient in an economic sense. When seeking a cost base to use for the analysis of wholesale charges or interconnect charges, economic regulation typically requires the use of forward-looking efficient technology. While CCA-based charges are usually closer to economic costs, some adjustments may be required to reflect forward-looking decisions. Hence, the derivation of forward looking economic costs requires an additional analytical process to adjust CCA-based costs for various technological, economic and operational assumptions in order to properly simulate forward looking decisions. Such a process is currently a regulatory requirement in the UK.

5.3.4 Conclusion on cost basis

iDA considers that accounting separation reporting should eventually be based on CCA, as this will provide the most relevant basis for evaluation of market pricing, market trends, and monitoring of efficient asset costs and interconnect charges. A CCA basis is consistent with international regulatory trends in telecommunication sector regulation, as outlined in Section 5.3.2.2 above. However, iDA considers that accounting separation should remain based on HCA for a 2-3 year transitional period. The HCA based statements should be prepared in accordance with Singapore GAAP and the accounting policies used by Licensees for statutory reporting, subject to modifications which may be directed or allowed by iDA.⁶

iDA is of the view that it would not be practical to move directly from the existing HCA-based accounting separation arrangements to a new reporting framework based on CCA due to the substantial changes to Licensee's existing accounting separation reporting procedures that will be required. In addition, iDA considers that the greater degree of detail which will be provided in the revised reporting structures proposed in the draft ASG using an HCA-based accounting separation framework will provide significant

⁶As a general principle, iDA proposes to allow the Licensee's to maintain the same accounting policies as are used in their statutory financial reporting. However, in some cases, iDA may direct the Licensees to implement particular accounting policies or methodologies for preparation of accounting separation statements in order to ensure that the accounting separation reports provide meaningful information necessary for iDA to perform its regulatory functions, or to allow comparability between the Licensees.

improvements which will be immediately useful and should be able to be implemented within a reasonable time period.

iDA therefore proposes that the HCA-based framework should be migrated to a CCA-based approach over a 2-3 year period, after the initial implementation of revised reporting structures. At this stage, iDA proposes that CCA-based reporting would apply to all FBOs. iDA intends to undertake a further consultative process to determine the details of the CCA-based arrangements.

The proposed phased approach is expected to provide a more manageable implementation process for Licensees. The first phase will involve implementation of a new reporting structure and cost allocation approach, while a change in the cost basis will be implemented in the second phase.

Comment is invited on:

- *Should accounting separation be based on “pure” HCA, a modified form of HCA, or CCA?*
- *Should CCA be implemented now or later? If later, what would be an appropriate time of implementation?*

5.4 Reporting Architecture and Cost Allocation Principles

5.4.1 Overview

A summary of the reporting architecture and cost allocation principles for Detailed Segment Reporting and Simplified Segment Reporting is set out in Table 7. Details of each reporting method are provided in Sections 5.5 and 5.6 below.

Requirement	Detailed Segment Reporting	Simplified Segment Reporting	Key Differences
Level of disaggregation of Licensees’ businesses	<ul style="list-style-type: none"> ▪ Access ▪ Domestic Network ▪ International Network ▪ Retail Services: <ul style="list-style-type: none"> - Fixed line access - Domestic calls - International calls - Domestic leased circuit services - International leased circuit services - Mobile domestic access and calls - Narrowband Internet - Broadband Internet - Other activities 	<ul style="list-style-type: none"> ▪ Fixed domestic services ▪ International fixed and mobile services ▪ Mobile domestic services ▪ Narrowband Internet ▪ Broadband Internet ▪ Other activities 	<ul style="list-style-type: none"> ▪ Detailed Segment Reporting requires greater disaggregation of services than is required for Simplified Segment Reporting.

Requirement	Detailed Segment Reporting	Simplified Segment Reporting	Key Differences
Cost allocation methods	<ul style="list-style-type: none"> ▪ Allocation based on causation ▪ Full cost allocation required ▪ Must comply with defined allocation principles for key items ▪ Detailed allocation methods must be documented in Licensee's PCAM which is subject to iDA approval 	<ul style="list-style-type: none"> ▪ Allocation based on causation ▪ Full cost allocation required ▪ Allocation methods may be determined by the Licensee ▪ Detailed allocation methods must be documented in Licensee's PCAM which is subject to iDA approval 	<ul style="list-style-type: none"> ▪ Detailed segment reporting is subject to more rigorous cost allocation methodology than Simplified Segment Reporting.
Reporting requirements	<ul style="list-style-type: none"> ▪ Income Statement for each segment ▪ Reconciliation of Consolidated Income Statement to audited accounts ▪ Statement of Mean Capital Employed (MCE) for each segment ▪ Reconciliation of Consolidated MCE to audited balance sheet ▪ Annual Audit Report ▪ Non-financial information 	<ul style="list-style-type: none"> ▪ Income Statement for each segment ▪ Reconciliation of Consolidated Income Statement to audited accounts ▪ Annual Audit Report ▪ Non-financial information 	<ul style="list-style-type: none"> ▪ Detailed Segment Reporting requires reporting of Mean Capital Employed. This is not required under Simplified Segment Reporting.

Table 7 Summary of Accounting Separation Requirements

5.4.2 General principles for cost allocation

iDA proposes that, in general, detailed cost allocation rules will be determined by the Licensees. However some specific allocation methodologies will be prescribed for key cost items for Detailed Segment Reporting in order to assist comparability between Licensees. All Licensees subject to accounting separation requirements will be required to document detailed allocation rules in a Procedure and Cost Allocation Manual (PCAM) which will be subject to iDA's approval. iDA will also reserve the right to require a Licensee to alter its cost allocation methodologies should it consider that the Licensee's chosen approach does not adequately meet iDA's information requirements.

For both Detailed Segment Reporting and Simplified Segment Reporting, costs and revenues should be allocated to segments on the basis of *causation*. That is, costs and revenues should be allocated to those services or products which cause the cost or revenue to arise.

In practice, the allocation of costs and revenues on the basis of causation will involve the following process:

- review each cost or revenue item;
- identify the driver, i.e., the process that caused the cost to be incurred or the revenue to be earned;
- use the driver to attribute the cost to the relevant product or service, and accordingly, to the appropriate segment.

It is anticipated that Licensees will need to use some survey and sampling techniques to allocate costs to the appropriate segments. In general, a Licensee's operations will comprise the following costs and revenues:

- Direct revenues: Revenues which are solely generated by a particular service or product and are recorded in the accounts against the relevant product, service, asset or function.
- Directly attributable revenues: Revenues which are solely generated by a particular service or product, but are not recorded in the accounts against that product, service, asset or function.
- Indirectly attributable revenues: Revenues which is part of a pool of common revenues but which can be attributed to a particular service or product through a non-arbitrary and verifiable cause-and-effect relationship. There is no requirement for this to be a one-to-one relationship and it may be multi-step.
- Unattributable revenues: Revenues which are part of a pool of common revenues and cannot be identified to a particular service, product, asset or function through a non-arbitrary and verifiable cause and effect relationship.
- Direct costs: Costs which are solely generated by a particular service or product, and are recorded in the accounts against the relevant product, service, asset or function.
- Directly attributable costs: Costs which are solely generated by a particular service or product, but are not recorded in the accounts against the relevant product, service, asset or function.
- Indirectly attributable costs: Costs, which are part of a pool of common revenues but which, can be attributed to a particular service or product through a non-arbitrary and verifiable cause and effect relationship. There is no requirement for this to be a one-to-one relationship and it may be multi-step.

- Unattributable costs: Costs which are part of a pool of common costs and cannot be identified to a particular service, product, asset or function through a non-arbitrary and verifiable cause and effect relationship.

iDA considers that it is not necessary for Licensees to report direct, attributable and unattributable revenues separately. However, separate identification of direct and directly attributable, indirectly attributable and unattributable costs is required to enable economic cost proxies to be derived. The degree to which the above types of costs must be separately reported varies between Detailed Segment Reporting and Simplified Segment Reporting. Requirements are set out in Section 6 (Detailed Segment Reporting) and Section 7 (Simplified Segment Reporting) of the ASG.

5.5 Detailed Segment Reporting Architecture and Cost Allocation Principles

This section provides a discussion of the reporting architecture and the allocation of costs, revenues and capital employed required for Detailed Segment Reporting.

5.5.1 Which individual segments or services should be separately reported?

Initial View

For Detailed Segment Reporting, iDA proposes that accounting separation statements should be prepared for the key segments of:

- Access
- Domestic Network
- International Network
- Retail Services, which are further divided into key activities, services or products.

iDA recognises that the appropriate division of the organisation's operations for accounting separation must reflect the objectives for the use of the information produced.

For example, for iDA to assess whether a Licensee is cross subsidising between services, it would be necessary to produce separate statements for the services in question. Thus *horizontal* separation is required. In addition, to analyse whether an operator is providing wholesale inputs to other Licensees that it competes with in downstream markets on a non-discriminatory basis, *vertical* (i.e., wholesale/retail) separation would be required.

It would be impractical and costly to require separate reporting of every service provided by a Licensee. Therefore, iDA proposes the following:

- separation of activities that are subject to different competitive intensities;
- separation of the upstream and downstream activities of vertically integrated or related Licensees.

iDA’s proposed reporting architecture is set out in Table 8. More detailed descriptions of each segment are provided in Section 6.2 of the ASG and in Appendix A of this report.

Segment	Description
<p>Access (see Figure 1 & 2 below)</p>	<p>Provision of access services from the customer to the shared network. Includes assets associated with local loop provision, from the network termination point at the customer premises to the switch side of the line card in the local switch and any operational & maintenance and other support costs associated with this plant. This segment includes inside wiring in the case of HDB flats but excludes customer premises equipment.</p> <p>Call and data concentration and separation devices, such as Remote Integrated Multiplexers (RIMs) for voice services, and DSL Access Multiplexers (DSLAM) for voice and data, should be included in the Access segment based on the principle that they are have a fixed cost per customer access line.</p> <p>See section 6.2.2(c) for additional examples of assets included within the Access segment for narrowband voice and data, xDSL and HFC networks.</p>
<p>Domestic Network (see Figure 1 & 2 below)</p>	<p>Provision of a domestic wholesale network carriage service. Assets include all domestic local and trunk switches and transmission junctions and trunks, including all equipment to provide the functionality to ensure the carriage of network services on an end-to-end call basis. Includes all operational & maintenance and other support costs associated with this plant.</p>
<p>International Network (see Figure 2 below)</p>	<p>Provision of an international wholesale network service. Assets include all international gateway switches and half or full international transmission circuits, including all equipment to provide the functionality to ensure the carriage of network services on an end-to-end call basis. Would include all operational & maintenance and other support costs associated with this plant.</p>

Segment	Description
Retail Services (Further divided into key activities/services as follows: <ul style="list-style-type: none"> • Fixed Line Access • Domestic Calls • International Calls • Domestic Leased Circuits • International Leased Circuits • Narrowband Internet Access • Broadband Internet Access • Mobile⁷ Domestic Access and Calls • Other Activities 	<p>Provision of services to end users, including the costs associated with end user billing, complaints handling, advertising, sales / marketing and other retail activities.</p> <p>The key activities are major service segments which are selected based on relative competitive intensities, bottleneck characteristics and relative service importance.</p> <p>Detailed definitions of each retail service category are provided in Section 6.2.5 of the ASG.</p>

Table 8 Reporting Architecture for Detailed Segment Reporting

⁷ For the purposes of this consultative document, “mobile” services includes voice and data services provided over 2G cellular mobile, personal communication services and trunk radio networks.

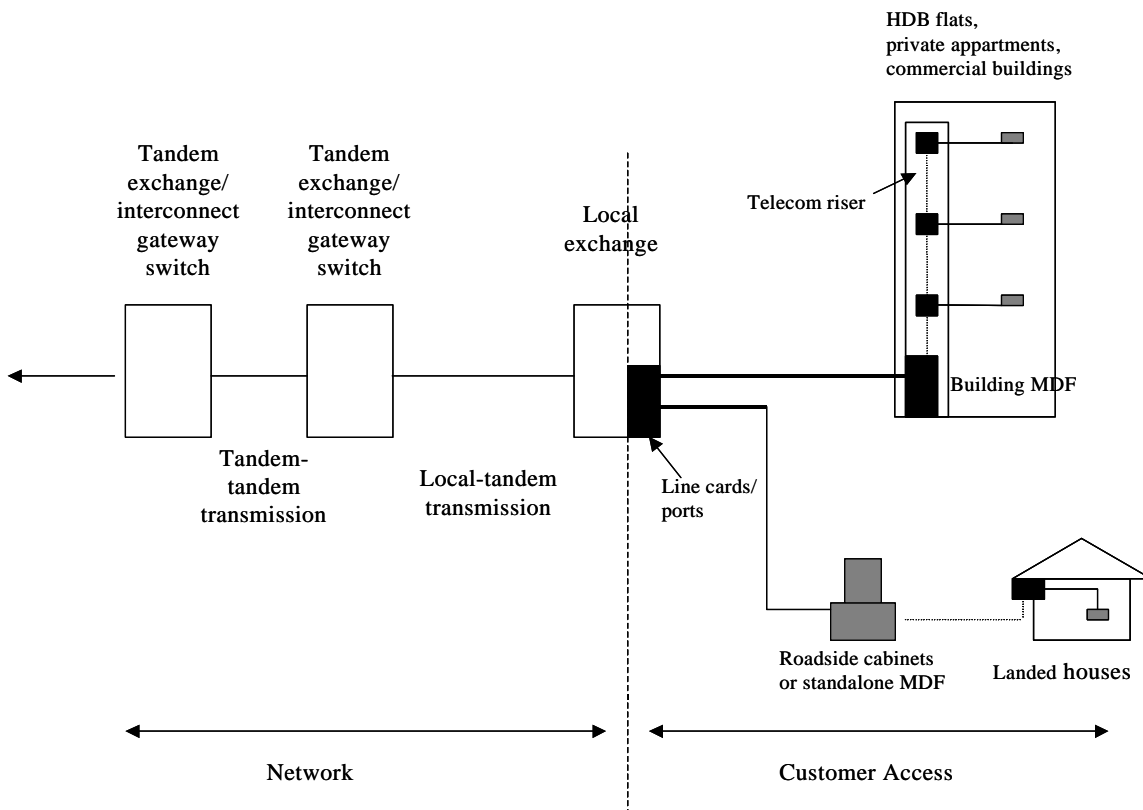


Figure 1 Proposed Delineation Between Access and Domestic Network

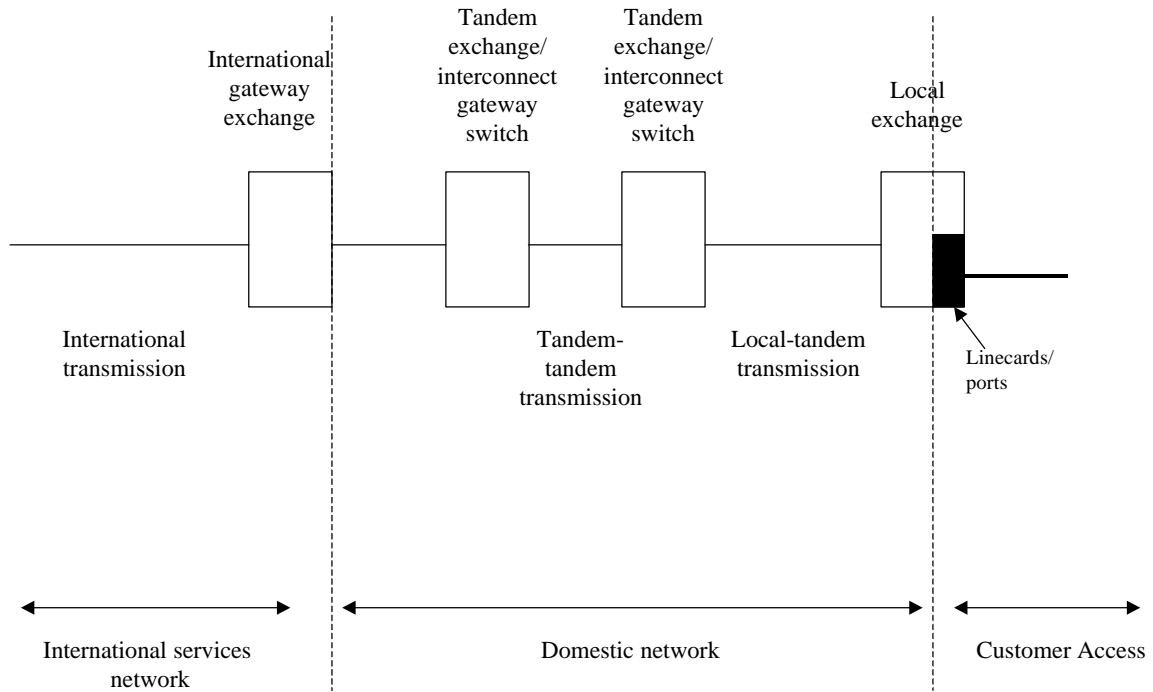


Figure 2 Proposed Delineation Between Domestic Network and International Network

5.5.2 Cost allocation methodology

It is recognised that most of the administrative complexities in accounting separation lies in the allocation of costs to each reporting segment. This is particularly important when a detailed level of business disaggregation is required.

Initial View

For Detailed Segment Reporting, costs and revenues should be allocated based on a *simplified cost driver attribution* methodology.⁸ This approach uses a conventional cost driver allocation methodology, which has been tested in other jurisdictions. However, detailed and prescriptive cost allocation methodologies will only apply to direct and directly attributable costs, while the allocation of indirect costs may be done through simplified allocation methodology. This approach is expected to significantly reduce the administrative burden on Licensees.

The bases and assumptions used for allocating costs and revenues should be reasonable and consistently applied and should be documented in the Licensee's Procedure and Cost Allocation Manual (PCAM). iDA may require a Licensee to provide further details of its cost allocation approaches and may require changes to methodologies in order to meet its information requirements.

In general, the apportionment of costs should be done on the basis of *causation*, and all of a Licensee's costs, including corporate overheads, should be apportioned among the services and products, i.e., fully distributed. While this is the basis for cost allocation under iDA's existing ASG, apportionment of costs and revenues becomes increasingly complex with greater segmentation of services. Hence, it is necessary to review the current mechanism.

The cost allocation methodology needs to be considered very carefully in light of the required output of the accounting separation process. The key question here is whether it is necessary to fully apportion all costs incurred in the business, including general overheads, or whether the apportionment of only those costs associated directly with the activity in question is required. It is also noted that, in economic terms, after direct incremental costs are assigned to services on the basis of direct cost causation, the assignment of the remaining shared and common costs to services on a cost basis is, to a large extent, arbitrary.

iDA has therefore considered three possible options for cost allocation as discussed in the sections that follow.

⁸ i.e., Option 2 below.

5.5.2.1 Option 1 – Detailed Cost Driver Allocation Methodology

The first cost allocation option considered by iDA involves a full allocation of revenues and costs based on cost driver relationships. This would require a study of the Licensee's operations to determine cost driver relationships for around 90% of a Licensee's costs.

The approach involves a tiered attribution process beginning with the identification of direct costs and progressively apportioning indirect costs on the basis of cost drivers, as illustrated in Figure 3 below. The steps involved are:

- (i) Direct and directly attributable costs are attributed to the following cost centre pools:
 - Retail Activities - services or products, such as domestic calls, international calls;
 - Primary Plant Groups - network infrastructure, such as switches, lines, multiplexers;
 - Support Plant Groups - other infrastructure and capital, such as power plant, network administration computers, plant testing equipment;
 - Support Functions - all other revenues and costs such as corporate overheads.
- (ii) Where specific cost driver relationships exist, support plant costs are indirectly attributed to primary plant and retail activities based on the most relevant cost driver available. During this step, costs that are unattributable (i.e., there is no link or causality to plant or activities) are passed through to the unattributable remainder account.
- (iii) Where specific cost driver relationships exists, support function costs are indirectly attributed to primary plant and retail activities using the most relevant cost driver available. For example, marketing costs may be attributable to individual services and engineering support functions may be attributable to particular plant. During this step, costs that are unattributable (i.e., there is no link or causality to plant or activities) are passed through to the unattributable remainder account.
- (iv) Primary plant costs are divided into Access, Domestic Network and International Network categories, based on the network definitions set out in Section 5.5.1 of this report.

- (v) Access, Domestic Network and International Network costs are directly attributed to the corresponding Retail Services which use these upstream inputs. For example, Domestic Network costs are apportioned between domestic calls and domestic leased lines. In most instances, this apportionment would be done on the basis of network usage, e.g. minutes of use, number of calls etc.
- (vi) The remaining unattributable costs, comprising joint and common costs which cannot be logically attributed to any particular service or product are then allocated to wholesale and retail segments on an arbitrary basis. These costs are allocated to segments in proportion to the contribution of each segment is preferred to ensure neutrality of the allocations and assist the comparability of reporting entities.

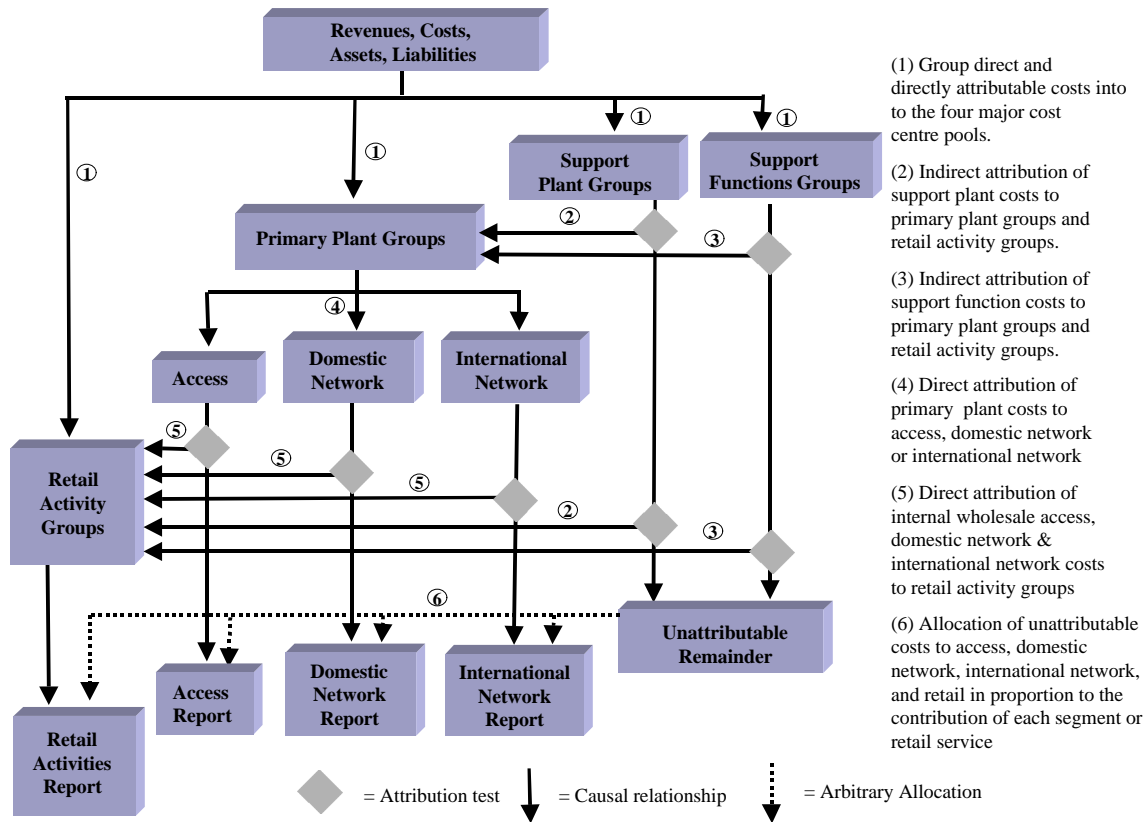


Figure 3 Detailed Cost Driver Attribution Model

5.5.2.2 Option 2 – Simplified Cost Driver Attribution Methodology

The second cost allocation option considered by iDA is a simplified version of the above Option 1 and is illustrated in Figure 4 below. The simplifications are as follows:

- Firstly, no attempt is made to determine cost driver relationships for support functions. Instead, all support functions are allocated on an arbitrary basis, such as by allocation in proportion to the contribution of each segment.
- Secondly, support plant costs which can be easily attributed to primary plant groups, are apportioned based on cost drivers. However, where it is difficult to identify cost drivers relating to support plant, these costs are also allocated on an arbitrary basis.

Hence under this method, the steps outlined for Option 1 are followed. However, steps 2, 3 and 6 are considerably simplified. Whilst cost driver studies still need to be performed, the cost allocation process is significantly simplified by eliminating the need to identify those more complex cost driver relationships for support plant and functions.

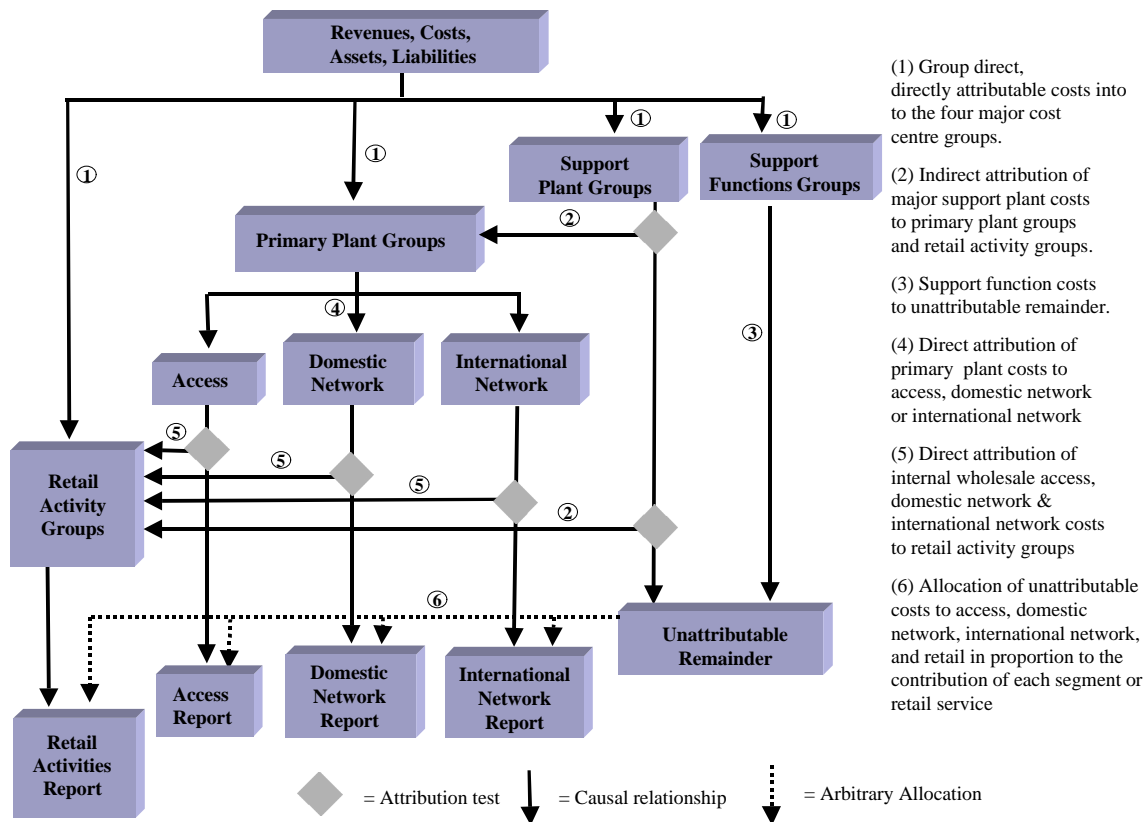


Figure 4 Simplified Cost Driver Attribution Model

5.5.2.3 Option 3 – Capacity Utilisation Methodology

The third cost allocation option considered by iDA uses simplified attribution and allocation rules based on *capacity utilisation* rather than the usage based approaches that are typically used in conventional cost driver based allocations. The approach is depicted by Figure 5 below.

The objective of this approach is to avoid allocations that have little relationship to underlying cost drivers, and therefore simplify the attribution processes. The methodology will lead to the derivation of *cost floors* for each of the reporting segments.

It should be noted that a capacity utilisation analysis would result in only about 50% of total costs being attributed. However, it produces results which approximate the underlying economic costs of supply.

A tiered allocation process, similar to that outlined for Option 1 is undertaken. However, steps 2, 3, 5 and 6 are considerably simplified. For example, while this method requires the measurement of capacity used (i.e., minutes of use, customer connections, bandwidth utilisation etc.) and available capacity, the advantage is that very few other cost drivers need to be identified.

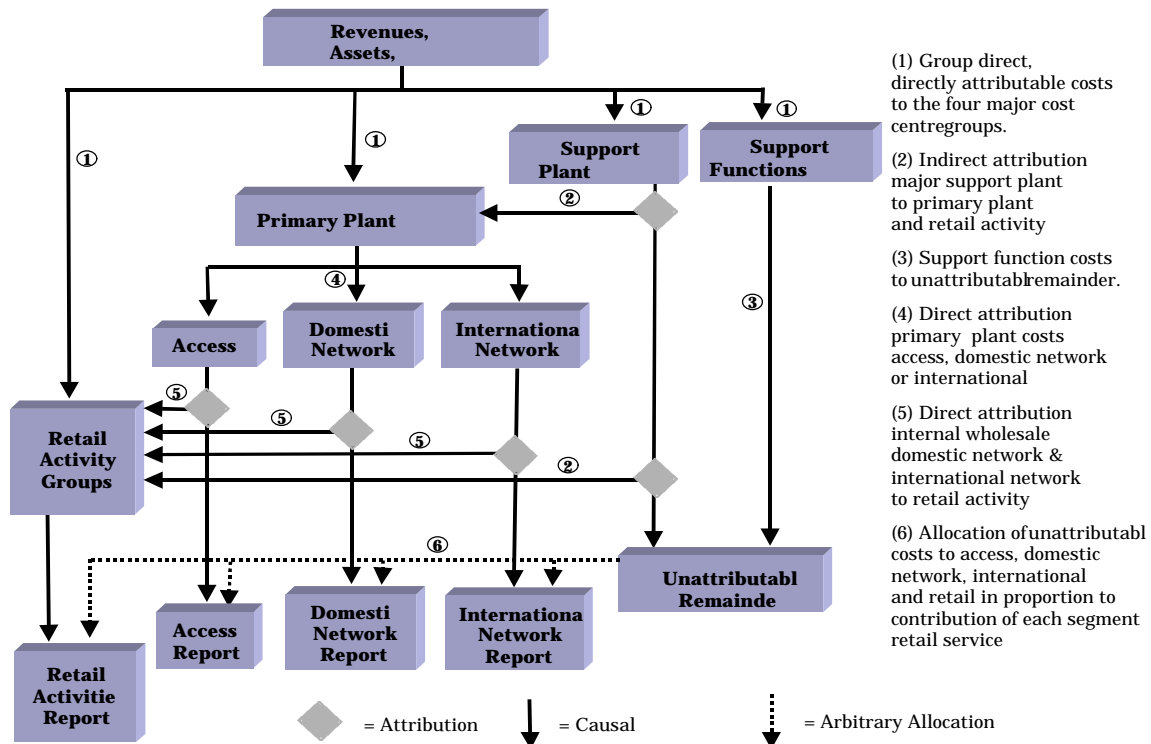


Figure 5 Capacity Utilisation Attribution Model

Figure 6 below illustrates the difference between attribution by capacity utilisation and attribution by usage. The service 'X' utilising capacity 'A' of the optimised asset should economically support, in its pricing structure, at least the fraction 'A/(A+B+C)' of the total asset cost. A usage allocation on service 'X' requires its pricing structure to support the fraction 'A/(A+B)' of the total asset cost which includes part of 'C' as well.

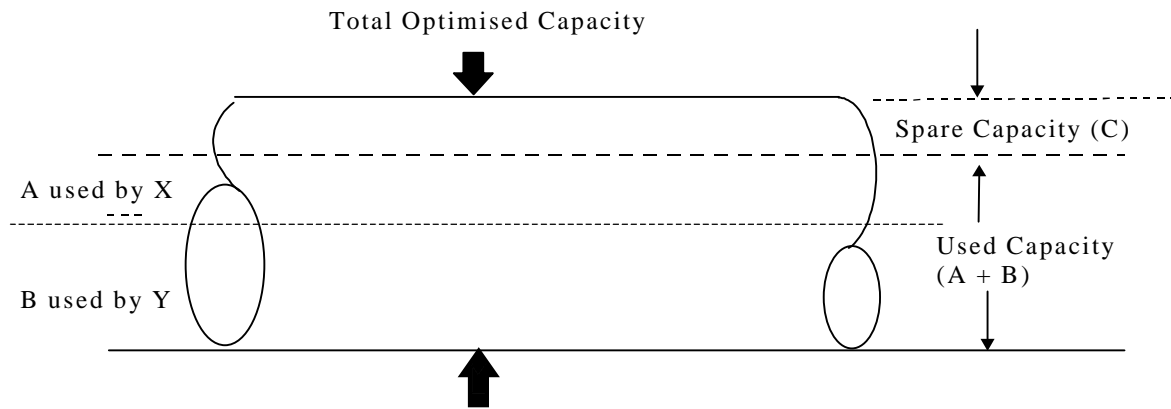


Figure 6 Attribution by Capacity Utilisation

5.5.3 Relative benefits of the different cost allocation options

Option 1 involves the most rigorous cost allocation methodology. Whilst this would produce the most accurate cost indicators, it would also involve a significant amount of effort in the establishment and maintenance of the cost driver rules and processes. In particular, considerable effort may be required to determine multi-step allocation rules for indirectly attributable support costs. This approach is therefore not preferred.

Option 2 reduces the need to establish empirical rules for the allocation of many common, joint and overhead costs and therefore would significantly reduce the administrative effort required to maintain the accounting separation system in comparison with Option 1. iDA therefore proposes to adopt this cost allocation methodology for accounting separation.

Option 3 is also less detailed than Option 1. In particular, while it would be necessary to identify capacity utilisation factors, few other cost drivers would need to be determined. However, iDA is not aware of any other jurisdictions where this methodology has been implemented and would therefore prefer to use the conventional usage based cost driver methodology which has been tried and tested in other jurisdictions.

It is noted the less rigorous attribution processes under Options 2 and 3 do expose the industry to some additional risk that the reports will not provide the detail necessary to limit the need for further information requests on any particular issue. However, given that most economic cost proxies for the purpose of monitoring competitive activities are

most concerned with direct and directly attributable costs, iDA notes that the attribution of overheads and support functions is somewhat less important. In addition, the cost driver relationships between support functions and plant and specific activities are often imprecise. Hence the loss of rigour under Options 2 and 3 must be evaluated against the benefits of the substantial reduction in administrative burden.

Comment is invited on:

- *The degree of disaggregation and the segment definitions proposed for Detailed Segment Reporting;*
- *The preferred method of cost allocation for Detailed Segment Reporting; and*
- *The degree of prescription in the ASG that should be specified for cost allocation methodologies for Detailed Segment Reporting.*

5.6 Simplified Segment Reporting Architecture and Cost Allocation Principles

This section sets out the reporting requirements for Simplified Segment Reporting. iDA's intention here is to establish a reporting format which provides it with sufficient information to monitor industry trends while at the same time minimising the administrative burden on Licensees. The segments for Simplified Segment Reporting do not necessarily align with statutory reporting entities.

Initial View

For Simplified Segment Reporting, iDA proposes that a simplified set of accounting separation statements should be prepared by Licensees, with separate reports prepared for each of the following segments:

- Fixed Domestic Services
- International Fixed and Mobile Services
- Mobile Domestic Services
- Narrowband Internet Access
- Broadband Internet Access
- Other Activities.

5.6.1 Which individual segments or services should be separately reported?

iDA's proposed reporting architecture for Simplified Segment Reporting is set out in Table 9 below.

Segment	Description
Fixed Domestic Services	Provision of wireline and wireless fixed customer access services, fixed domestic voice and data call services, domestic leased circuits, broadband access and transmission services that are provided to other Licensees or to end users.
International Fixed and Mobile Services	Provision of international voice and data call services, international leased circuits, and international transmission services that are provided to other Licensees or to end users, where customer access occurs over wireline and wireless fixed, cellular mobile, personal communication services and trunk radio customer access services.
Mobile Domestic Services	Provision of access and call services via cellular mobile, personal communication system and trunk radio telecommunication networks, including domestic mobile to fixed calls, and domestic mobile to mobile calls.
Narrowband Internet Access Services	Provision of Public Internet Access Services via PSTN and ISDN dial-up access, or through semi-permanent or leased circuit connections.
Broadband Internet Access Services	Provision of Public Internet Access Services via broadband wireline or wireless access media including xDSL, HCF cable, broadband wireless, or through semi-permanent or leased circuit connections not included in narrowband internet services.
Other Activities	Other activities includes all other telecommunication services or activities that the Licensee provides or undertakes.

Table 9 Reporting Architecture for Simplified Segment Reporting

5.6.2 Cost allocation methodology

Initial View

For Simplified Segment Reporting, all attributable costs and revenues should be allocated based on cost driver relationships, while unattributable costs should be allocated in proportion to the contribution of each segment. Allocation methodologies may be determined by the Licensee and may vary depending on the Licensee's organisational structure and internal financial reporting systems. However, the bases and assumptions used for allocation of revenues and costs should be reasonable and consistently applied.

Allocation methodologies should be documented in the Licensee's Procedure and Cost Allocation Manual (PCAM). iDA may require a Licensee to provide further details of its cost allocation approaches and may require changes to methodologies in order to meet its information requirements.

iDA proposes that, in general, cost allocation rules for Simplified Segment Reporting may be determined by the Licensees. Detailed allocation rules will be documented in the PCAM prepared by the Licensee and will be subject to approval by iDA. As for Detailed Segment Reporting, allocations should be based on *causation*, that is, costs and revenues should be allocated to those services or products which cause the cost or revenue to arise.

It is anticipated that Licensees will need to use some survey and sampling techniques, in order to allocate costs to the relevant segments. However, methodologies are likely to vary depending on the Licensee's organisational structure and internal financial reporting systems. Allocation methodologies and resulting allocations may be reviewed by iDA from time to time. iDA may request a Licensee to change an allocation methodology where it considers that the allocation does not meet its information requirements.

Comment is invited on:

- *The degree of disaggregation and segment definitions proposed for Simplified Segment Reporting;*
- *The preferred method of cost allocation for Simplified Segment Reporting; and*
- *The degree of prescription in the ASG that should be specified for cost allocation methodologies for Simplified Segment Reporting.*

5.7 Requirements for Non-financial Information Reporting

Initial View

iDA proposes that all reporting Licensees should provide information on key operational and service usage parameters as part of the standard reporting requirements for accounting separation.

Under the current ASG, iDA may require Licensees to provide service usage and operational data. However, to date, iDA has not required this. Licensees are currently providing a considerable amount of usage information to iDA for the *Statistics for Telecom Services* published on iDA's Internet web site. This information includes, *inter alia* total number of telephone lines, call minutes, mobile subscribers (split by network type), pre-paid SIM card subscribers, dial-up and leased line Internet subscribers.

Certain network usage parameters will enable iDA to estimate the unit costs and revenues of each reported service. Whilst iDA recognises that product pricing in the information communications industry is to a large degree driven by market factors rather than costs, unit cost and revenue information is necessary to analyse potential cross subsidies and predatory pricing.

As a minimum, iDA proposes the information listed in Table 10 be reported in the accounting separation reporting process (for each of the services that a Licensee provides). The information is necessary at both Detailed Segment and Simplified Segment levels of accounting separation reporting. Non-financial information is required for analysis of market trends (e.g., market size and growth, market shares, average unit costs), as well as calculation of average unit costs for the purposes of analysing particular pricing behaviour (such as potential cross subsidies). For illustration, the typical use of each item of information is also listed in Table 10.

Service/segment	Usage Parameters to be Reported to iDA	Typical Analytical Usage
Fixed Domestic Services	Number of residential direct exchange lines (DEL) Number of business DEL	Calculation of average access revenue and cost per DEL ⁹
Domestic calls	Total installed domestic call minutes capacity	Calculation of average supply cost per domestic call minute
	% or number of unsuccessful call attempts	Used to establish network usage profiles and revenue dilution for unsuccessful calls

⁹ As a minimum, iDA requires only the total number of DELs in order to calculate average unit costs and revenues. However, given that the number of DELs is reported separately for residential and business customers in the existing POI reporting requirements, no additional effort will be required to report number of DELs by residential and business customers.

Service/segment	Usage Parameters to be Reported to IDA	Typical Analytical Usage
Domestic calls (cont)	Number of connected calls	Calculation of average revenue and cost per domestic call
	Number of call minutes	Calculation of average revenue and cost per call minute and average duration per domestic call
International calls	Total installed international call minutes capacity	Calculation of average supply cost per international call minute
	% or number of unsuccessful call attempts	Used to establish network usage profiles and hence to calculate average cost per international call
	Number of connected calls	Calculation of average revenue and cost per international call
	Number of call minutes	Calculation of average revenue and cost per call minute and average duration per international call
Mobile services	Total installed switch call minutes capacity	Calculation of average supply cost per mobile call minute
	Number of subscribers	Calculation of average revenue and cost per mobile subscriber
	Number of calls	Calculation of average revenue and cost per mobile call
	Number of call minutes	Calculation of average revenue and cost per mobile call minute and average duration per mobile call
Narrowband Internet Access	Number of dial up Narrowband Internet Access subscribers	Calculation of average revenue and cost per dial-up Internet subscriber
	Number of leased circuit Narrowband Internet Access subscribers	Calculation of average revenue and cost per permanent connection Internet subscriber
	Average monthly hours of use per dial-up Narrowband Internet Access subscriber	Calculation of average revenue per hour for dial-up subscribers
Broadband Internet Access	Number of Broadband Internet Access subscribers	Calculation of average revenue and cost per broadband Internet subscriber
	Installed capacity for Broadband Internet Access	Calculation of average supply costs per unit of capacity (i.e., average cost per MBit) and average capacity utilisation

Table 10 Non- financial Information Reporting Requirements

Comment is invited on:

- *Should non-financial information be required as part of the standard reporting requirements?*
- *Should the same level of non-financial reporting be required under both Simplified Segment Reporting and Detailed Segment Reporting?*

6 Reporting Requirements

6.1 The Reporting Cycle

Initial View

iDA proposes that accounting separation reports should be submitted on a six monthly basis. Detailed Segment Reporting and Simplified Segment Reporting will be subject to different reporting formats, as set out in the ASG.

iDA proposes that the current 6 month reporting cycle be continued under the revised ASG. Table 11 provides the complete list of reports that should be produced.

Statement	Period and Frequency	Timing
Detailed Segment Reporting		
Income Statements	6 monthly (for the first six months and second six months of the Licensee's financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Reconciliation of Consolidated Income Statement	Annual (for the Licensee's full financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Statements of Mean Capital Employed	6 monthly (for the first six months and second six months of the Licensee's financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Reconciliation of Consolidated Mean Capital Employed Statement	Annual (for the Licensee's full financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Non-financial Report	6 monthly (for the first six months and second six months of the Licensee's financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period

Statement	Period and Frequency	Timing
Detailed Segment Reporting		
Audit Report	Annual (for the Licensee's full financial year)	To be submitted to iDA within 2 weeks of the audit completion date
Simplified Segment Reporting		
Income Statements	6 monthly (for the first six months and second six months of the Licensee's financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Reconciliation of Income Statement or Consolidated Income Statement (as the case may be)	Annual (for the Licensee's full financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Non-financial Report	6 monthly (for the first six months and second six months of the Licensee's financial year)	To be submitted to iDA 4 months after the end of the relevant reporting period
Audit Report	Annual (for the Licensee's full financial year)	To be submitted to iDA within 2 weeks of the audit completion date

Table 11 Recommended Reporting Cycle

Comment is invited on the proposed frequency and timing of the reporting.

6.2 Accounting Separation Statements

Initial View

Detailed Segment Reporting will require the following accounting statements to be submitted:

- Income Statements for each reporting segment
- Reconciliation of Consolidated Income Statement with the Licensee's audited Income Statement or Consolidated Income Statement (as the case may be)
- Statement of Mean Capital Employed for each reporting segment
- Reconciliation of Consolidated Mean Capital Employed Statement with the Licensee's audited Balance Sheet or Consolidated Balance Sheet
- Non-financial Information Report (see Section 5.7 of this report)
- Annual Audit Report (see Section 7 of this report).

Simplified Segment Reporting will require the following accounting statements to be submitted for each of the reporting segments.

- Income Statements for each reporting segment
- Reconciliation of Consolidated Income Statement with the Licensee's audited Income Statement or Consolidated Income Statement
- Non-financial Information Report (see Section 5.7 of this report)
- Annual Audit Report (see Section 7 of this report).

Proposed reporting formats are illustrated in Schedule 2 (Detailed Segment Reporting) and Schedule 3 (Simplified Segment Reporting) of the ASG.

6.2.1 Detailed Segment Reporting

6.2.1.1 *Income Statements*

iDA proposes that Income Statements should be submitted for each of the reporting segments described in Section 6.2 of the ASG. The Income Statement for each segment should identify the following:

- revenues for each segment, with separate identification of revenue from external sources, revenue from the Licensee's internal businesses and revenue from related entities;
- the costs for each segment, with separate identification of direct and directly attributable costs, indirectly attributable costs and allocated unattributable costs,

charges from internal businesses, charges from related entities and charges from other Licensees. Fixed and variable cost should also be separately reported.

- the calculated return for each segment.

In addition, in order to allow monitoring of market trends and comparisons between Licensees reporting on a Detailed Segment basis and those reporting on a Simplified Segment basis, Dominant FBOs should also prepare *Aggregated Segment Income Statements*. These statements will provide an aggregation of Detailed Segments into the Simplified Segments reported under Simplified Segment Reporting (i.e., the segments listed in Section 7.2 of the ASG).

The proposed Detailed Segment Income Statement format to be used for each of the above reports is illustrated in Schedule 2 – S2.1 of the ASG.

6.2.1.2 Reconciliation of Consolidated Income Statement

The Reconciliation of Consolidated Income Statement will provide a reconciliation of the consolidated Income Statements for all segments with the Licensee’s audited Income Statement or Consolidated Income Statement where a Licensee’s business is structurally separated.

The proposed Reconciliation of Consolidated Income Statement format to be used for Detailed Segment Reporting is illustrated in Schedule 2 – S2.2 of the ASG.

6.2.1.3 Statements of Mean Capital Employed

iDA proposes that Statements of Mean Capital Employed should be submitted for each segment listed in Section 7.2 of the ASG.

The “mean capital employed” is defined as total assets less current liabilities, excluding corporate taxes, dividends payable and long term liabilities. That is, it is the total written down value of non-current assets and working capital. The mean is computed as the average of the start and end values for the relevant period. The Statement of Mean Capital Employed has two main purposes:

- it allows for a calculation of return on capital employed for each separated segment and activity; and
- it allows for the more accurate allocation of capital charges to the Income Statement, e.g. depreciation.

iDA considers that the calculation of return on capital employed can be used as one indicator of potential anti-competitive behaviour and can help identify areas where further investigation may be required. For example, very low returns or substantial

variations from trends may indicate possible anti-competitive conduct such as predatory pricing or anti-competitive cross subsidisation. To assess rates of return, iDA will assess the trends in returns on individual segments from year to year, and will also consider the levels of returns against international benchmark levels.

The allocation of capital employed should follow the cost allocation process described in Section 5 of this report and the detailed cost allocation methodologies for key items that are set out in Schedule 1 of the ASG. The broad allocation for major types of assets is as follows:

Fixed assets

Fixed assets can be divided into those assets that can be directly allocated to plant or retail activity group, assets that can be allocated to plant groups based on an identifiable cost driver relationship and support assets that cannot be attributed to any particular segment, such as corporate computers. As far as possible, assets should be reported in the Statement of Mean Capital Employed against the network segments that they represent or support. For example, switching equipment associated with the domestic transmission network should be recorded against the Domestic Network segment.

Working capital

Current assets and liabilities should be directly attributed to activities wherever possible. For example, specific debtors, creditors, stocks and provisions should be directly allocated to the services to which they relate. Some of these assets, such as trade debtors and short-term investments will be more appropriately allocated on the basis of revenues than on the basis of costs.

Cash

Cash balances may relate to an operational requirement or may be surplus. An assessment of each cash account should be made in order to identify cash that is related to operations and surplus cash. Where cash relates to operations, it should be allocated to particular segments. For example, cash from recently paid debtors should be allocated on the same basis as trade debtors, and cash set aside to pay creditors should be allocated on the same basis as the corresponding creditors. Surplus cash balances are essentially a funding decision equivalent to negative debt and should not be allocated to particular segments. Surplus cash would typically be held in separate identifiable accounts. Interest earned on surplus cash balances should also be excluded from the telecommunication service segment Income Statements, and retained in the Other Activities statement.

Long term liabilities

The Statement of Mean Capital Employed should not include liabilities that relate to the business as a whole. For example, items that should be excluded include long term borrowings, dividends and tax related items. Long-term borrowings should normally be excluded because they are essentially an alternative to equity funding. That is, a business will fund its assets through a mixture of long term debt and equity. The Statement of Mean Capital Employed should reflect the value of net assets that are funded but should not include the funding itself.

The proposed Statement of Mean Capital Employed format to be used for Detailed Segment Reporting is illustrated in Schedule 2 – S2.3 of the ASG.

6.2.1.4 Reconciliation of Consolidated Mean Capital Employed Statement

The Reconciliation of Consolidated Mean Capital Employed Statement will provide a reconciliation of the Statements of Mean Capital Employed of individual segments with the Licensee's audited Balance Sheet or consolidated Balance Sheet where a Licensee's business is structurally separated.

The proposed Reconciliation of Consolidated Mean Capital Employed Statement format to be used for Detailed Segment Reporting is illustrated in Schedule 2 – S2.4 of the ASG.

6.2.2 Simplified Segment Reporting

6.2.2.1 Income Statements

iDA proposes that Income Statements should be submitted for each of the segments described in 7.2 of the ASG. The Income Statement for each segment should identify:

- revenues for each segment;
- costs for each segment, with separate identification of attributable costs (direct, directly attributable and indirectly attributable) and unattributable costs.

Unattributable costs should be allocated in proportion to the contribution of each segment.

The suggested format for the Simplified Segment Income Statements is illustrated in Schedule 3 - S3.1 of the ASG.

6.2.2.2 Income Reconciliation Statement

Each Licensee that is subject to Simplified Segment Reporting must prepare and submit a Reconciliation of Income Statement or Consolidated Income Statement which provides a

reconciliation of the Licensee's accounting separation reports with its audited Income Statement. In many cases, a Licensee will only provide services in one accounting separation reporting segment. However, where a Licensee provides services in more than one reporting segment, it must prepare and submit consolidated Reconciliation of Income Statement which will provide a reconciliation of the consolidated income statements for all segments with the Licensee's audited Income Statement.

The suggested format for the Reconciliation of Income Statement or Consolidated Income Statement for Simplified Segment Reporting is illustrated in Schedule 3 - S3.2 of the ASG.

Licensees that are subject to Simplified Segment Reporting are not required to prepare Mean Capital Employed Statements.

Comments are invited on the following:

- *The format and content of proposed accounting separation statements for each type of reporting;*
- *The level of detail that should be required in the Income Statements for each type of reporting; and*
- *The level of detail that should be required in the Statement of Mean Capital Employed for Detailed Segment Reporting.*

7 Administrative Requirements

This section sets out the administrative requirements for iDA and the Licensees for maintenance of the accounting separation arrangements, including the requirement for detailed Procedure and Cost Allocation Manuals (PCAM) to be maintained by the reporting Licensees, audit requirements and confidentiality principles. The administrative steps involved are summarised in Figure 7 below.

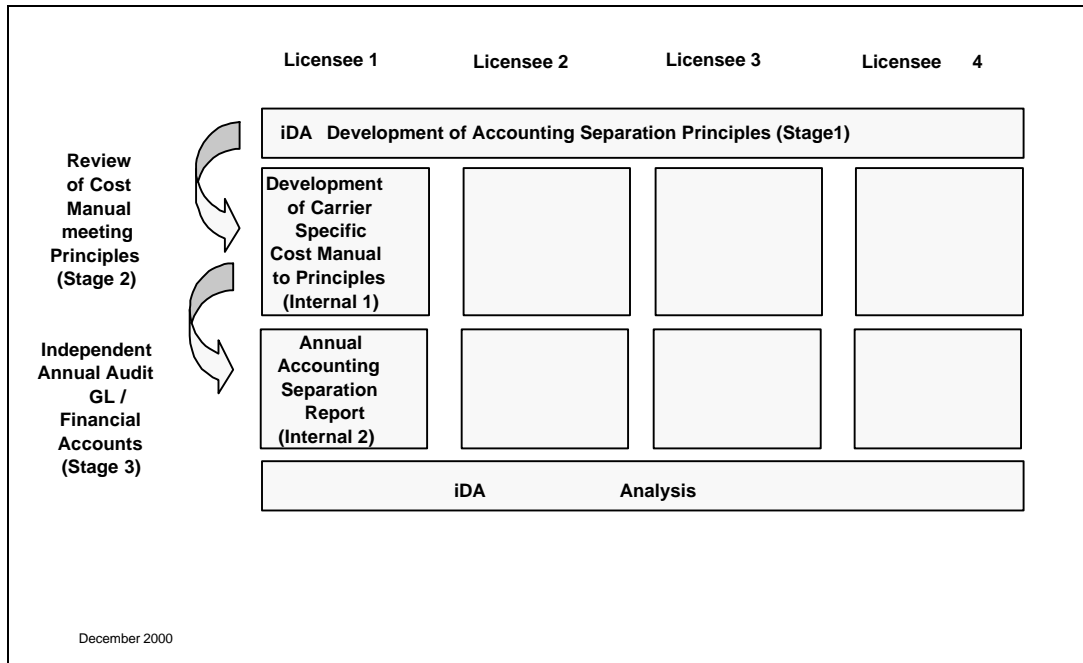


Figure 7 Staged Review & Audit Requirements

7.1 Procedure and Cost Allocation Manual – Preparation and Audit/Review

Initial View

iDA proposes that Licensees prepare/update their PCAM and submit it to iDA for approval. iDA reserves the right to require an independent review of the PCAM.

Some Licensees already have a PCAM in place for the existing accounting separation requirements. However, existing PCAMs will need to be updated to reflect the new accounting separation requirements, while those Licensees that have not previously been subject to accounting separation will need to prepare a PCAM. Whilst the content of the PCAM will vary from Licensee to Licensee depending on the nature of their operations,

iDA proposes that the PCAM will comply with broad structural requirements to assist comparisons between different operators and to ensure consistency. The PCAM should include the information in Table 12 below:

<i>Organisational Structure</i>	Background information on the structure of the organisation and its broad lines of business. This should include details of the business units within the organisation and the relationships between support units and the main business streams;
<i>Group Structure</i>	List of the entities covered by the reporting and the relationships between the entities, where the information relates to more than one entity;
<i>Accounting Systems</i>	Details of the financial, accounting and operational systems used by the reporting organisation for the capture and generation of the accounting separation information;
<i>Accounting policies</i>	Details of the accounting policies used by the Licensee in preparing the accounting separation reports;
<i>PCAM Maintenance Procedures</i>	Details of the procedures for maintenance and updating of the PCAM and associated internal controls;
<i>Reporting Requirements</i>	Description of each of the reports required, with formats included in an appendix;
<i>Segment Definitions</i>	Definitions of each of the product/segments and details of how the Licensee's services map to these products/segments;
<i>Allocation Principles</i>	As set out in the ASG but with the additional detail of those allocation principles, used but not necessarily specified in the ASG.
<i>Allocation Procedures</i>	Details of any studies, surveys or models that are used for allocation purposes. In this regard, the PCAM should provide worked examples of all of the allocation methods that are used;
<i>Detailed GL Mapping and Allocation</i>	For each General Ledger line used by the carrier, the following information should be provided: <ul style="list-style-type: none"> ▪ GL account number and description; ▪ Allocation principle (i.e., direct, attributable or unattributable); ▪ Allocation method (i.e., for all non-direct costs and revenues this would be a description of the model or survey used as the allocation basis) and the detail of the allocation technique, assumptions made and cross reference to the file/data for audit purposes; ▪ Allocation driver (for example floorspace, number of staff, minutes of usage, number of calls, etc.);
<i>Operational Data</i>	Description of required reports, sources of information and allocation or modeling procedures used to prepare the reports;
<i>Glossary</i>	Definition of terms used in the PCAM.

Table 12 Information Required in the PCAM

The PCAM should be a standalone document, as it is the PCAM which provides the basis for the audit of accounting separation reports. Hence, relevant parts of the ASG should be

included in the PCAM to the extent required to make the document standalone. For example, the PCAM should include the basic principles upon which the accounting separation reports are prepared, such as the cost basis, accounting principles and cost allocation principles. It is also important that the descriptions of cost allocation procedures in the PCAM are sufficiently detailed to allow an external party or an independent auditor to analyse the results and to identify the audit trails necessary for external independent auditing to occur efficiently.

7.1.1 PCAM approval requirements

A Licensee must submit its proposed PCAM to iDA for approval within 90 days of the effective date of the ASG. Subject to modifications which iDA may request, iDA will notify the Licensee of its approval within a further 90 days. The approval period may be extended by iDA if, for example, substantial modifications are required to the Licensee's initial proposed PCAM. Modifications that are requested by iDA must be incorporated in a revised PCAM and re-submitted to iDA within 30 days of the modification request.

In its approval notice, iDA will notify the Licensee of the date on which the Licensee must begin reporting in compliance with the ASG. For existing Licensees, the proposed dates for commencement of reporting are set out in Section 8 of this report.

Comments are invited on:

- *The required content of Licensees' PCAMs;*
- *The PCAM approval process.*

7.2 Accounting Separation Audit

The purpose of an audit of a Licensee's accounting separation compliance reporting is to provide assurance that:

- the accounting separation requirements are being applied consistently and appropriately;
- the accounting separation reports are consistent with the rules and principles set out in the Licensee's own PCAM which has been approved by iDA;
- the information provided in a Licensee's compliance reporting can be relied upon by iDA to meet its regulatory requirements.

iDA has considered various options for audit requirements as set out below.

Initial View

iDA proposes that an audit be undertaken by an independent auditor appointed by the Licensee. The auditor is required to form an opinion as to whether the accounting separation statements comply with the Licensee's PCAM (which has been approved by iDA), and whether the Licensee has exercised consistency in applying the ASG and the PCAM.

iDA will retain a reserve power to appoint an auditor to re-audit the accounting separation reports if it is concerned that the initial audit is inadequate. iDA may also request meetings with the Licensee's auditor to seek further information or clarification regarding the audit. All audit costs will be borne by the Licensee.

iDA intends that audit would confirm that the information submitted by the Licensee is reliable and complies with the Licensee's PCAM. It is noted that the audit opinion should confirm compliance of the Licensee's financial statements with the PCAM, rather than with the ASG itself. This is because the PCAM provides the detailed procedures for applying the iDA's ASG which have been approved by iDA. In contrast, the requirements of the ASG are likely to be too general to provide a basis for the audit. The auditor would therefore be required to form an opinion as to:

- whether the information which the Licensee submits to iDA is in accordance with the Licensee's PCAM; and
- whether the Licensee has exercised consistency in applying the PCAM.

iDA proposes that it will retain a reserve power to partially or fully re-audit the information submitted by a Licensee, as it has under the existing ASG, should it believe that the initial audit requires further work to ensure regulatory certainty, or if the Auditor's Report does not, in iDA's view, give sufficient clearance of the Accounting Separation Statements for regulatory purposes..

Comment is invited the proposed audit approach.

7.3 Confidentiality

Initial View

iDA proposes that information submitted under the accounting separation requirements, including both financial data and detailed PCAMs, will remain confidential to iDA, its staff, legal advisers and consultants.

iDA has considered potential information disclosure options including the public disclosure of the financial information reported by the Licensees at the level reported to iDA or at some consolidated level, and/or the publication of the Licensees' PCAMs.

iDA notes that the issue of confidentiality of accounting separation information has previously been canvassed with the industry.¹⁰ At that time, three out of the four Licensees that provided comments to iDA suggested that accounting separation information should not be disclosed publicly. The main reasons given for this position were:

- that the value of disclosing the information was questionable due to factors such as the high level of aggregation in the accounts, the fact that accounting separation information is based on historical cost and because of the wide variation in cost structure and costing methodologies between different Licensees; and
- that the disclosure of such information could potentially be commercially damaging to the disclosing Licensees.

One Licensee considered that public disclosure of such information would assist in preventing anti-competitive conduct. On the issue of disclosure of the accounting separation methodology, two operators supported this proposal in the interests of promoting transparency, whilst the other two operators opposed it. Reasons for operators' opposition included the commercial sensitivity of the information and also the administrative burden associated with maintaining detailed published manuals.

7.3.1 International experience

iDA has reviewed the requirements for disclosure of financial information in different countries throughout the world, and found that they differ considerably between different jurisdictions. Some of the main models considered by iDA were the UK, US, Hong Kong and New Zealand experiences:

¹⁰ Accounting Separation and Publication of Financial Information for Telecommunication Operators, iDA, 16 February 2000

7.3.1.1 UK

In the UK, there is full disclosure of BT's current cost accounting information. As discussed earlier, the primary focus of the UK accounting separation regime is on the development of interconnect rates. However, the information disclosed could also be expected to assist in detecting potential anti-competitive behaviour. This occurs in the context of a highly concentrated market with relatively high barriers to entry, where BT has retained a high degree of market power despite greater than 15 years of competition.

7.3.1.2 US

The financial information of telecommunication carriers is also disclosed in the US, but to a lesser extent than in the UK. Under the Automated Reporting Management Information System, total intra-state and inter-state revenues of operators are separately reported by entity and group. Internal procedure manuals and methodologies are not published. The information available in the ARMIS database could enable industry players to benchmark against others in the market in terms of turnover for the two broad segments (inter- and intra-state), but would not assist in detecting anti-competitive conduct or in evaluating interconnect charges.

7.3.1.3 New Zealand

In New Zealand, accounting separation disclosure requirements have been introduced with the intention of breaking down the market power of the incumbent and facilitating fair commercial negotiations on interconnect charges. This is in the context of substantial reliance on industry self-regulation and virtually full reliance on commercial negotiations for the determination of interconnect charges. However, despite the information disclosure, the interconnect agreement process has been subject to protracted negotiation and litigation. Current moves to re-regulate in the telecommunication sector may see the detail of accounting separation reporting change.

7.3.1.4 Hong Kong

In Hong Kong, information provided under the regulatory financial reporting requirements is generally retained as confidential by the regulator. This includes both financial information and detailed procedure manuals, as OFTA regards the information as commercially sensitive. However, OFTA reserves the right to disclose the information to other parties if it considers necessary to meet the Government's policy objectives.

7.3.2 Potential benefits of public disclosure

iDA considers that the potential benefits of disclosure of information to the industry are that it may:

- encourage and facilitate industry self-regulation, which is in line with the policy objective of a light-handed regulatory approach;
- enhance competition through reducing asymmetries of information that typically exist between the incumbent and new entrant Licensees in newly liberalised markets;
- provide some assurance to the industry that other Licensees are not engaging in anti-competitive conduct;
- provide greater transparency to the industry with regard to the regulatory processes and safeguards administered by iDA;
- enable market participants to benchmark their performance against other operators in the market.

In practice, iDA notes that disclosure of PCAMs and/or financial information could assist in promoting regulatory transparency. In addition, disclosure of aggregated revenue information by entity could allow benchmarking. However, iDA understands that the potential benefits of benchmarking to the overall development of the market may be limited and it is not a prerequisite for robust competition. Additionally, in practice, it is questionable as to the extent to which accounting separation information alone can assist in reducing information asymmetries and detecting anti-competitive conduct due to the need for more specific information to properly assess these factors (as discussed earlier). This also limits the extent to which the disclosure would facilitate industry self-regulation.

7.3.3 Potential disadvantages of public disclosure

iDA believes that the possible disadvantages of public disclosure of financial information are:

- the potential detriment to the competitive positioning of the disclosing entity through the disclosure of commercially sensitive data;
- the potential detriment to competition in the market if the information disclosed enables other market operators to simply follow the pricing of the dominant carrier;
- the potential detriment to the national interest if the disclosure disadvantages the competitive positioning of Licensees in the global market.

The potential disadvantages above could arise from disclosure of either financial information itself or of a Licensee's detailed PCAM. With regard to the latter, sensitive information could include detailed corporate structures and operational data used to derive cost allocation rules.

7.3.4 Consideration of issues

iDA has analysed the above factors and notes that the most substantial potential benefits from information disclosure depend on the disclosure of a high level of disaggregation and detail. In fact, the potential benefits of disclosure at a high level of disaggregation are at best questionable. On the other hand, the risks of damage to individual Licensees increase with the level of detail disclosed. Feedback received from both the Dominant and non-Dominant Licensees indicates that most do not support disclosure of accounting separation information.

Under the proposed framework, Licensees will have a comprehensive understanding of the reporting requirements, including the reporting hierarchy, level of disaggregation and cost allocation principles required under accounting separation. Furthermore, the information provided by reporting Licensees will be independently audited for compliance against their PCAM. The PCAMs will be reviewed against the ASG, as well as reviewed by iDA. In addition, iDA notes that general statutory reporting requirements under Singapore law require disclosure of sufficient information to enable relevant stakeholders to make decisions regarding public companies. As such, additional public disclosure of a detailed level does not appear to be warranted.

8 Implementation

Initial View

iDA proposes that the revised accounting separation arrangements proposed in the draft ASG should be implemented:

- by 31 September 2002 for Licensees whose financial year commences on 1 April;
- by 31 December 2002 for Licensees whose financial year commences on 1 January or 1 July.

The key issues of the implementation are as follows:

- Time required to implement the revised accounting separation arrangements.

In other countries where similar models have been implemented, the lead time taken to implement such a system has been quite long. This is due to the complexity of the model, and because it is necessary to have allowed sufficient time to ensure all appropriate costs and revenues are correctly captured and allocated.

- Availability of data

A second issue is the availability of the required data. In order to apportion costs on a reasonable basis, an activity based costing system needs to be established with cost drivers identified for all direct and directly attributable costs. While the identification of the cost drivers is not considered a difficult process, the data collection process may be quite complex. This is because in some instances, the information may not be readily available, and surveys may need to be undertaken or systems/programs built in order to obtain the information required.

- Auditing arrangements

Any accounting separation system in its first year of set-up and operation would be considered very difficult to audit, due to the complexity of the processes involved and the number of systems and methodologies required to be tested. This must be taken into account in the establishment of a revised accounting separation system.

iDA recognises that any accounting separation system which seeks to meet the objectives identified for Singapore will be reasonably resource intensive to implement.

Comments are invited on:

- *Implementation issues; and*
- *The proposed timeframe for implementation.*

APPENDIX A

DETAILED SEGMENT DESCRIPTIONS FOR DETAILED SEGMENT REPORTING

Segment	Definition	Relevant Costs and Revenues
Access	<p>Provision of customer access to the network (non-traffic sensitive services). Network components include the assets and support plant.</p> <p>Assets include the exchange MDF, call and data concentration and separation devices, the building MDF at the end user premises, roadside cabinets and standalone MDF, and inside wiring in the case of HDB flats. Examples of these assets for different technology types are as follows:</p> <ul style="list-style-type: none"> • Narrowband Voice and Data Access cable including fibre-optic, co-axial cables and copper pairs RIM and other multiplexing equipment Customer line card • xDSL DSLAM Customer side port to ATM switch or equivalent • HFC Network Customer line card Exchange site signal splitter Hub or cabinet housing power supply, fibre-optic to co-axial signal conversion etc. Amplifiers in co-axial cables Tap in co-axial cable for customer drop wire Drop wire between tap and customer site signal splitter Customer site signal splitter; and Other associated access assets. Support plant includes land, cable, ducts, man-holes, cabinets, trenches, power supplies, distribution points and other support plant associated with the components of the network listed above. 	<ul style="list-style-type: none"> • Revenues include transfer payments received from the Licensee's own or affiliated retail service segments, payments received from other Licensees for unbundled local loop access, internal transfer payments from retail customer access business. • Costs include asset costs associated with this portion of the network, O&M costs associated with this plant.

Segment	Definition	Relevant Costs and Revenues
Domestic Network	<p>Provision of inter-operator network conveyance services to the Licensee's retail businesses and/or to other Licensees i.e., interconnect origination, termination and transit charges (O/T/T charges) and inter-operator domestic transmission charges. Network components include, for example:</p> <ul style="list-style-type: none"> • Local exchange equipment from the trunk side of the line card • Tandem exchange equipment (including interconnect gateway switches) • Server nodes • Signalling equipment • Domestic transmission equipment (physical links that connect two or more exchanges). Includes trunk and junction line transmission, multiplex equipment, line terminal equipment, regenerators for coaxial and optical fibre links, radio and microwave towers, domestic submarine cables, all associated power plant wiring, transmission huts & shelters, man-holes, ducts & cables associated with the transmission network. 	<ul style="list-style-type: none"> • Revenues include transfer payments from the Licensee's own or affiliated retail service segments, revenue received from other Licensees for O/T/T interconnect related services and inter-operator domestic private circuits. • Costs include all asset and O&M costs associated with this portion of the network, plus cost of support functions such as inter-operator billing and collection.
International Network	<p>Provision of inter-operator international network carriage (conveyance) services to the operator's retail businesses and/or to other Licensees. Network components include, for example:</p> <ul style="list-style-type: none"> • International gateway switches and switch ports (switches providing connection between domestic and international telecommunication networks, digital cross connect system) • International transmission links either owned or leased half and/or full international transmission circuits (including submarine cable, satellite equipment, microwave, radio VHF, landline cable and equipment) • Associated support plant such as ducts, man-holes, power plant wiring etc. 	<ul style="list-style-type: none"> • Revenues include internal transfer payments received from the Licensee's own or affiliated retail segments, revenue received from other Licensees for international transmission services, including wholesale dark fibre and half and/or full international private circuits. • Costs include all asset and O&M costs associated with this portion of the network, plus cost of support functions such as inter-operator billing and collection.

Segment	Definition	Relevant Costs and Revenues
<i>Retail Services</i>		
Fixed Line Access	Provision of customer access to the network (non-traffic sensitivel services).	<ul style="list-style-type: none"> • Revenues include all non-traffic related charges associated with providing customers with access to the network, including connection charges, line rental, moves & changes, repairs & maintenance charges. • Costs include relevant inter-operator network charges paid to other Licensees, transfer payments to the Licensee’s own or affiliated Access segment, sales, marketing, billing & collection, complaints handling etc.
Domestic Calls	Provision of retail call services to end users via the fixed telecommunication network between end users located within Singapore.	<ul style="list-style-type: none"> • Revenues include all call charges associated with providing fixed local network calls between two customers in Singapore, including fixed to mobile calls. • Costs include transfer payments to the Licensee’s own or affiliated Domestic Network segment for wholesale inputs, inter-operator charges paid to other Licensees, sales, marketing, billing & collection, complaints handling etc.
International Calls	Provision of international calls originating either within or outside of Singapore	<ul style="list-style-type: none"> • Revenues include all call charges associated with providing calls to international destinations, including calls originated from fixed and mobile networks within Singapore and calls originated outside Singapore. • Costs include transfer payments to the Licensee’s own or affiliated International Network segment for wholesale inputs, network charges paid to other Licensees, sales, marketing, billing & collection, complaints handling etc.

Segment	Definition	Relevant Costs and Revenues
<i>Retail Services (cont)</i>		
Domestic Leased Circuit Services	Provision of domestic dedicated leased circuits to end users (i.e., between locations within Singapore).	<ul style="list-style-type: none"> • Revenues include revenues from retail private leased circuit services including basic transmission links (such as E1, multiples of E1, DS3, etc.), ATM, Frame Relay and other private circuit services. • Costs include transfer payments to the Licensee's own or affiliated Access and Domestic Network segments for the access and transmission components, inter-operator charges paid to other Licensees, sales, marketing, billing & collection, complaints handling etc.
International Leased Circuit Services	Provision of international dedicated leased circuits to end users (i.e., the Singapore side of half circuit or the complete full circuit for leased circuit services provided between locations within Singapore and overseas locations).	<ul style="list-style-type: none"> • Revenues include revenues from retail international private leased circuit services including basic transmission links (such as E1, multiples of E1, DS3, etc.), ATM, Frame Relay and other private circuit services. • Costs include transfer payments to the Licensee's own or affiliated Access and International Network segments for the access and transmission components, inter-operator charges paid to other Licensees, sales, marketing, billing & collection, complaints handling etc.
Narrowband Internet Access	Provision to end users of Public Internet Access Services provided via PSTN or ISDN dialup access, or through semi-permanent or leased circuits. Does not include domestic customer access network, transmission or call services for access to the Internet or carriage of Internet traffic (these are in the Access segment report).	<ul style="list-style-type: none"> • Revenues include connection fees, monthly/annual IASP access charges and other revenues from web hosting, etc. • Costs include transfer payments to the Licensee's own or affiliated Access segment, inter-operator charges paid to other Licensees, IP equipment costs (such as modem, server, router), customer service, helpdesk, marketing & sales costs.

Segment	Definition	Relevant Costs and Revenues
<i>Retail Services (cont)</i>		
Broadband Internet Access	Provision to end users of Public Internet Access Services provided via wireline or wireless broadband access media including xDSL, HFC cable, broadband wireless, or through semi-permanent and leased circuit connections not included in the Narrowband reporting.	<ul style="list-style-type: none"> • Revenues include connection fees, monthly/annual IASP access charges and other revenues from related services. • Costs include transfer payments to the Licensee's own or affiliated Access segment for broadband access services, inter-operator charges paid to other Licensees, customer service, helpdesk, marketing & sales costs.
Mobile Domestic Services	Provision of services, including access, on mobile networks (including, but not limited to GSM, CDMA, Personal Communication Services, Trunk radio networks)	<ul style="list-style-type: none"> • Revenues include mobile connection and access charges, all call charges associated with providing mobile originated and terminated calls to mobile customers, including domestic mobile to fixed calls, and domestic mobile to mobile calls. • Costs include asset costs associated with mobile networks, O&M costs associated with this plant, sales, marketing, billing & collection, complaints handling etc.
Other Activities	All other retail services not included in the above definitions.	<ul style="list-style-type: none"> • Revenues include all revenues that are generated from activities outside the segments defined above. • Costs include all assets, O&M and other costs that are generated from activities outside the segments defined above.

End of Appendix A.